

# White Paper Report

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***German Sales 1930-1945: Art Works, Art Markets, and Cultural Policy***

**National Endowment for the Humanities (NEH)**  
in collaboration with  
**Deutsche Forschungsgemeinschaft (DFG-German Research Foundation)**

Project White Paper

**COVER PAGE**

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# ***German Sales 1930-1945: Art Works, Art Markets, and Cultural Policy***

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## **PROJECT WHITE PAPER**

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### **A. PROJECT ACTIVITIES**

The primary goal of the NEH-supported bilateral digitization project “German Sales 1930-1945: Art Works, Art Markets, and Cultural Policy,” initiated by the Getty Research Institute (GRI), was to provide online access to all auction catalogs preserved in Germany, Austria, and Switzerland for the period 1930-1945. Almost 70 years after the end of WW2, it remains a great challenge to provenance researchers and museum curators that crucial source material for their work is scattered in libraries around the world, rarely digitized, and often not even inventoried. This innovative project addressed this problem through what was an ambitious collaborative partnership between the formal NEH/DFG project partners: the Getty Research Institute, the Heidelberg University Library, and the Kunstbibliothek of the Berlin State Museums. This project funded by the National Endowment for the Humanities (NEH), in collaboration with the Deutsche Forschungsgemeinschaft (DFG-German Research Foundation), was also supported by a leveraged project collaborator, the Volkswagen Foundation, which provided significant financial resources to the Kunstbibliothek in support of the NEH/DFG project objectives.

Auction catalogs are important source documents for establishing an artwork’s chain of ownership. As a consequence of the Nazi’s organized looting on an unprecedented scale, there are thousands of auctions for which information seems sparse because it is difficult to access. This project responded to this void in provenance information by implementing this experimental project that was intended to identify and capture into a single access point sales records from auction catalogs previously scattered in numerous libraries in Europe, particularly in Germany, Austria, and Switzerland. As part of the effort to identify source auction catalogs, through the partnership the project researcher in Berlin visited approximately 36 libraries and archives spread throughout the targeted European countries.

Though this project was not originally funded as a “Demonstration” project, as a consequence of its experimental nature and extraordinary success in establishing new protocols and digital tools for both identifying difficult to trace provenance resources, a model prototype was indeed established. As a “demonstration” project a guiding principal is to answer at each phase of the project the question “What has been learned?” The following sections of this performance report provides answers to this question, while summarizing significant project accomplishments, and the ways in which the NEH investment in this international partnership project will benefit the national and worldwide public regarding individual and institutional provenance research well into the future.

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### **Status: Work Plan Performance Objectives**

#### **Performance Objective 1: Project Coordination**

The project, *German Sales: 1930-1945* was implemented in January 2011 as an active collaboration between GRI and two institutional German partners: the Heidelberg University Library, and the Kunstbibliothek of the Berlin State Museums. Forming collaborations with various domestic and international institutions that could contribute to the project vision was a GRI priority, exemplified by the collaborative relationship initiated by GRI with the Volkswagen Foundation. As a result of a number of resource support discussions, the Volkswagen Foundation became a primary project collaborator providing direct funding support to the Kunstbibliothek in their effort to identify auction catalogs relevant to this project. As a result of support from the Volkswagen Foundation, a researcher based at the Kunstbibliothek was able to make site visits to 36 libraries and archives in Germany, Austria, and Switzerland to collect information on all auction catalogs for which a copy survived, and then enter the information into a bibliographic database.

**For a listing of the 36 libraries and archives visited link to:**

<http://www.arthistoricum.net/en/subjects/thematic-portals/german-sales/partner/>

The Kunstbibliothek identified 3,000 unique catalogs from 175 auction houses. Catalog location and type of annotation was entered for an additional 2,000 copies, which contained important handwritten annotations on prices and buyers. The actual number of unique catalogs exceeds the estimated 2,200 catalogs projected in the original proposal by 27%. In early October 2012, the bibliographic data from Berlin was transferred to the GRI. The bibliographic data was then imported into the Getty Provenance Index, where the records became part of the "Sale Descriptions" database. As a next step, the new information was edited to adhere to the standards of the existing 12,000 bibliographic records in the Provenance Index on sales catalogs from other countries and periods.

The bibliographic research funded by the Volkswagen Foundation was a prerequisite for the subsequent digitization project. The Heidelberg University Library, funded by the German Research Foundation (DFG), agreed to assume responsibility for digitizing one copy of each auction catalog. The identified catalogs were shipped by the project in large batches from Berlin, Cologne, Munich, Vienna, etc., to Heidelberg, beginning with the most extensive holdings in Germany and towards the end a few catalogs that were ordered from smaller libraries. By December 31, 2012, the project completed the scanning of nearly 200,000 pages from more than 2,800 catalogs, and converting the scans into searchable text-files, using Optical Character Recognition (OCR). All digitized catalogs were made immediately accessible online through the Heidelberg University Library Website.

**For detail link to:** <http://digi.ub.uni-heidelberg.de/en/sammlungen/artsales.html>

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### **Performance Objective 2: OCR Parsing—Automated Read-in of OCR Data**

The second step in the GRI work plan entailed software processing. The raw or “dirty OCR” received as text files from Heidelberg, was parsed into Excel-files by applying Perl-Code. The code was written by a consultant programmer and run with the support of GRI research assistants. By December 31, 2012, GRI completed processing 1,600 catalogs. From these catalogs the team generated approximately 1,000,000 database records. Although it is generally assumed that the structure of auction catalogs is relatively consistent, through this project GRI found that there can be major deviations within both the same auction house and even the same catalog. Overall the project scope for processing at the GRI totaled approximately 1,800 catalogs, which was less than the 2,800 catalogs previously scanned by the German partner. This difference resulted from sifting the NEH/DFG relevant catalogs from the total number of catalogs received. As an example, Berlin and Heidelberg decided in the course of the project to also include some Dutch and French catalogs, which were not part of the initial proposal submitted to DFG and NEH. Another point of sifting was in response to Getty Provenance Index protocol, which limits work on catalogs exclusively to “high art” such as paintings, sculptures, and drawings. In other words, while auctions covering medals, books, furniture, etc. were included as bibliographic metadata in the “Sale Descriptions” and linked with digitized catalogs on the Heidelberg University Library website, the content of these catalogs was not parsed by GRI on the item-level.

It became evident during the parsing process that resource support had been underestimated in the proposal. In response GRI increased staff assigned to this part of the project. Specifically, the NEH proposal included only one consultant programmer at 20 hours per week, for 6 months. To move the project forward without compromising the project vision, GRI contributed additional resources to supplement the project by: (1) extending the original programmer position to a maximum of two years; (2) converting the extended programming position to a consultancy resource, which provided the flexibility to hire consultant staff on an “as needed” basis for specialized focus; and, (3) maintaining two full-time research assistant positions that provided support in running the code. As a result of this staff augmentation implemented in December 2011, the project was able to maintain an increased production rate of more than 100 catalogs per month, and reposition project actions to conform to the project timeline. In an ideal world the three project phases—bibliographic research, digitization, and database editing—would have been completed in consecutive order. However, in this project it was necessary to execute the three work plan phases essentially on parallel tracks.

### **Performance Objective 3: Database Editing**

The third step in the GRI work plan required editing the Excel spreadsheets generated by the automated parsing. Lots relevant to the project, e.g. paintings, sculptures, and drawings, were marked for “on Web,” OCR and parsing mistakes corrected. While all 1,000,000 records were loaded into the STAR production database, only the ones marked for “on Web” were later edited, enhanced, and published. The project grant originally approved two on-site staff editors for this work. However, in consultation with NEH, GRI was approved to hire only one on-site staff editor, and reorganize the second position to support two consulting editors located in

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Germany and Austria—these positions were paid from GRI cost share. A factor that impacted project progress as originally planned was the departure of the on-site staff editor at the end of six months, and the resulting length of time it took to identify and hire an appropriately skilled replacement. In spite of this staffing set back, the project was able to complete timely editing of more than 230,000 records from 1,600 catalogs. This meant that by the end of December 2012, fewer than 200 catalogs required editing during the approved no-cost extension period ending June 30, 2013.

The final task of this project phase was entry of record annotations that included: *artist authority, buyer name and prices, owner authority, subject classification, and references*. The purpose of this standardization and classification process was to enrich the record content and enhance searching functions. *Subject classifications* for each of the 230,000 records were entered by the editors working in the spreadsheets. The *artist authority* work, which entailed connecting a variant name found in the catalog with an authority file in the Provenance Index databases, was completed in batches in-house. By the end of December 2013, 80 percent of *artist authority* work was complete, and 90 percent of the records prepared for online release included *subject classifications*. In approximately 80,000 records, *estimate and starting prices* were parsed out from the printed catalogs when provided. *Selling prices* were entered manually to 20,000 records from contemporary art journals such as *Internationale Sammler-Zeitung, Weltkunst, and Pantheon* by the end of December 2013. During the three month no-cost extension period additional *prices* and *buyer names* were transcribed from handwritten annotations in copies identified by the Berlin bibliography, and entry of *owner authority* was able to disambiguate buyer names by establishing a single point of reference.

### **No-Cost Extension Objective**

As a final action, GRI received approval from NEH for a no-cost project extension of six months, through June 30, 2013, to fully consider the project's annotations, further consult with the German project partners on envisioned project outcomes, and to identify an appropriate person to assign for the remaining project work. The additional six project months made it possible to successfully realize the following augmented project objectives: (1) completion of the remaining 200 relevant catalogs for online publication; (2) entry of important *price* and *buyer* information from handwritten annotations (adding selling prices for another 30,000 records); and, (3) in a number of cases entry of *owner authority* that established a single point of reference to disambiguate buyer names.

In summary, though the project started slowly as a result of implementing a new and experimental methodology, with careful project monitoring GRI was able to identify actual and potential challenges in the planned procedures, and devise workable solutions. A primary solution was the design of a completely new workflow, which was developed and implemented to mediate challenges inherent in an innovative project with highly experimental program components. Ultimately, the project objectives timeline was able to remain on track during the project life though periodic adjustments were required. One strategic decision that notably influenced the successful outcome of this project was shifting a significant portion of the budget

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to the project's second year. This shift provided necessary time for GRI project management to reassess every step in the process and to clarify editorial standards and procedures before phasing in further project support. It is also important to note that the considerable impact of this strategic decision on accomplishing the project vision would not have been realized without the additional supplementary cost-share that GRI was able to contribute to redress the underestimated resource support needed for coding.

### **B. ACCOMPLISHMENTS**

#### **GRI Accomplishments**

The most significant project accomplishment was meeting the German Sales publication goal. In January 2013, GRI released 230,000 database records from 1,600 auction catalogs through the Getty Provenance Index® Databases, which were made freely accessible to the public nationally and worldwide. By the end of the no-cost extension period, June 30, 2013, more than 250,000 records from 1,800 catalogs were available to user. The German Sales project successfully accomplished its strategic objective to bring the Provenance Index into the 20<sup>th</sup> century, by starting with the unique period in 1930-1945 as the project's focus that represents one of the most intensive periods of large-scale dispossession and displacement of art. As a result, individual and institutional researchers worldwide now have a single point source to access provenance information and to analyze large data aggregates previously unavailable.

***For more detail on project results link to:***

[http://www.getty.edu/research/tools/provenance/german\\_sales.html](http://www.getty.edu/research/tools/provenance/german_sales.html).

The German Sales Catalogs (1930-1945) database is strategically placed within the Getty Provenance Index®, which contains information on approximately one million such transactions transcribed from an estimated 15,000 catalogs. Auction catalogs are just one type of source document ingested into the Provenance Index databases. Over the last thirty years, the Provenance Index has also processed inventories of private collections in Europe, mostly from the 17<sup>th</sup> and 18<sup>th</sup> centuries, as well as dealer stock books of the 19<sup>th</sup> and 20<sup>th</sup> centuries, such as those from the Goupil & Cie and Boussod, Valadon & Co. Records (1846-1919) and M. Knoedler & Co. Records (1948-1971), held by the Getty Research Library. Overall the Getty Provenance Index® Databases contain 1.5 million records. Due to the new collaborative workflow, it was also possible to link every record in the searchable German Sales database to a scanned catalog page on the Heidelberg University Library website, so that researchers can check the source document with one mouse-click. For the 1,200 catalogs which do not contain "high art" objects, only the "Sale Descriptions" in the Getty Provenance Index® are linked to the scans in Heidelberg University Library.

Another exemplary project accomplishment of the "German Sales" project is its innovation in creating new methodology and digital tools that identify and make available data supportive to provenance research. This project is now a successful prototype for converting large data aggregates from variant sources into structured data using optical character recognition

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software, interfaced with customized software for automated parsing. As a result, the German Sales project is now positioned as a successful case study and prototype for developing and implementing new collaborative strategies for similar databases in the Provenance Index. In summary, instead of entering the information from all catalogs manually, the project experimented with state-of-the-art data acquisition technology to accelerate the growth rate of the Provenance Index, with a successful outcome. Without the use of optical character recognition software and a program developed in-house for automated parsing, it would be impossible to deal with more than one million database records in the Provenance Index generated from the catalogs during the project period. As a result, within a two-year time span the German Sales project was able to successfully populate the database with an amount of information that previously would have required decades – or at least many years.

### **Partnership Accomplishment**

The first step in the project to locate all relevant catalog copies was the responsibility of this project's partner in Berlin, the Kunstbibliothek, which used an affiliate researcher to visit 36 libraries and archives located in Germany, Austria, Switzerland, and the Netherlands to collect information on all auction catalogs of the period for which a copy has survived. In contrast to the GRI and other large American art libraries, auction catalogs in the target European countries often have not been registered electronically. The only information they sometimes provide, is on the feet of shelf space catalogs occupy. Provenance researchers frequently complained about being sent to molded cellars for their work, particularly in museum libraries with very limited resources.

Digitization of the catalogs was done exclusively at the Heidelberg University Library. The purpose was to keep this work package entirely in Germany to minimize transportation costs by minimizing distances. Starting with the largest holdings, catalog copies were shipped in batches from the various libraries to Heidelberg where more than 200,000 pages were scanned. The digitized catalogs were then immediately placed online.

In the end, the Kunstbibliothek was able to identify almost 3,000 unique catalogs published by 175 auction houses. All of the bibliographic information was entered into a database. The researcher also registered the location of duplicate catalog copies containing handwritten annotations, which are extremely valuable to scholarship. Once complete the Kunstbibliothek released this part of the project also as an online book of 850 pages, and transferred the database to the GRI where it was loaded into the Getty Provenance Index.

***For more detail on project results link to:*** <http://archiv.ub.uni-heidelberg.de/artdok/2251/>

### **GRI Project Innovation**

While the use of OCR is a relatively standard procedure in most digitization projects today, the experimental part of this collaborative project actually began at the GRI after the download of OCR text files from the Heidelberg University Library server. First, the so-called "dirty" text files were parsed into Excel files. The GRI custom-built software then analyzed the structure of each block of text, determined what data elements were present, and where data elements began and



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ended. The output spreadsheet provided such data as the artist names, descriptions, object types, dimensions, and other elements recognized and separated by the program. Once the data elements were structured into a spreadsheet, the data was then easily be imported into the Provenance Index Databases for further editing and enhancement. Although this process generally worked well, the variation in the structure of the selected auction catalogs presented a major challenge. Major deviations were discovered within the same auction house and even within the same catalog. In response, the custom software was constantly adjusted to handle the often subtle differences between all of the various formats.

Software for optical character recognition and automated parsing is able to substantially accelerate production, but it also makes mistakes. The available software was able to get up to 95 percent of the characters right, though misreads were distributed throughout the documents. This was a significant problem because it impacted the searching function and led to a major data clean-up effort that included mandatory proofing and editing of the records on a scale that was not anticipated. This complication in the of scale of work required for data clean-up could not be predicted in advance and meant an additional investment of "blood, sweat, and tears" in order to remain on the project time line. Of the 1 million records generated, the project was able to process, edit and release online the first quarter of a million (250,000) "high art" records such as paintings, sculptures, and drawings during the project period.

### **C. AUDIENCE**

Researchers and scholars at the Getty, nationally and worldwide have now access to the German Sales database. As documented by quarterly user tracking statistics, the German Sales database is being actively used to address what Stuart Eizenstadt, the organizer of the 1998 Washington Conference on Nazi-Confiscated Art, termed "the unfinished business of World War II." Immediately after the launch of the German Sales database in January 2013, the number of searches in the Getty Provenance Index doubled from 36,111 searches in the 2<sup>nd</sup> quarter, October – December 2012, to 74,542 in the 3<sup>rd</sup> quarter, January – March 2013. This increase in the number of users remains relatively consistent, as demonstrated by the number of searches in the 4<sup>th</sup> quarter of FY13, April – June 2013, of 72,715. The quarterly number of users is expected to grow as scholars, researchers and the general public, nationally and internationally become more aware of this resource.

One of the most important features of the database an invaluable resource is that it is freely available to scholars and independent researchers from any location in the world. For institutional and private provenance researchers, and particularly the sensitive user audience of individuals attempting to track down art looted from their families, the value of this one-point-access resource is immeasurable, and is projected to increase in importance with each passing year.

The benefit of this database to educators at all levels has yet to be calculated. However, what is known is that as technology increasingly becomes the normalized instructional platform, a

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database such as German Sales will become a critical cross-disciplinary resource and teaching tool to inform and inspire new scholarship at all academic levels. Finally, among the important user audiences is the interested public—the curious, the “armchair art historians,” artists across genres, etc. It is this audience that will continue to help publicize and communicate the existence of this resource to their friends, family, and colleagues who represent the potential for future generations of research and scholarship inspired by this resource.

To foster new innovative research based on the data now available as a result of this project the GRI hosted a five-day workshop “The Business of Art in the ‘Third Reich’” at the Getty Center in Los Angeles, September 23-27, 2013. This workshop convened group thirteen emerging experts from Austria, Germany, France, Netherlands, Great Britain, and the United States to discuss their research topics with senior scholars in the field. One of the senior experts included the Lynn H. Nicholas, the celebrated author of “The Rape of Europa.” A second workshop is scheduled to convene in 2014, at Hamburg University, Germany. The results of this two phased workshop, funded by the Volkswagen Foundation, will be published as a book in the Series “Schriften der Forschungsstelle ‘Entartete Kunst’.”

### **D. EVALUATION**

As acknowledged in previous NEH program reports and in earlier sections of this report, the German Sales project was conceived as experimental, and can be described as a “demonstration project” with the primary intention of answering the question: What was learned? By definition, demonstration projects use the project as a laboratory to experiment with theories, methodologies, and in this case, technology applications to accomplish specific project objectives. One of the guiding principles of demonstration projects applied to the German Sales project was the continual assessment of the project’s strengths and weaknesses that emerge as the project progressed, which served to either confirm project theories, or to identify areas that required revision. As a result of this continual evaluation process the project was not only able to identify challenges and affirmations related to the work-plan as proposed but as well to document them, and at the end of the project translate them as lessons learned.

Primary lessons learned as a result of this project were documented in a recent Getty IRIS blog article, published April 17, 2013, written by GRI affiliates Ruth Cuadra and Suzanne Michels.<sup>1</sup> The following responses to the question “What has been learned?” as a result of this NEH project investment are largely excerpted or paraphrased from the Getty IRIS article:

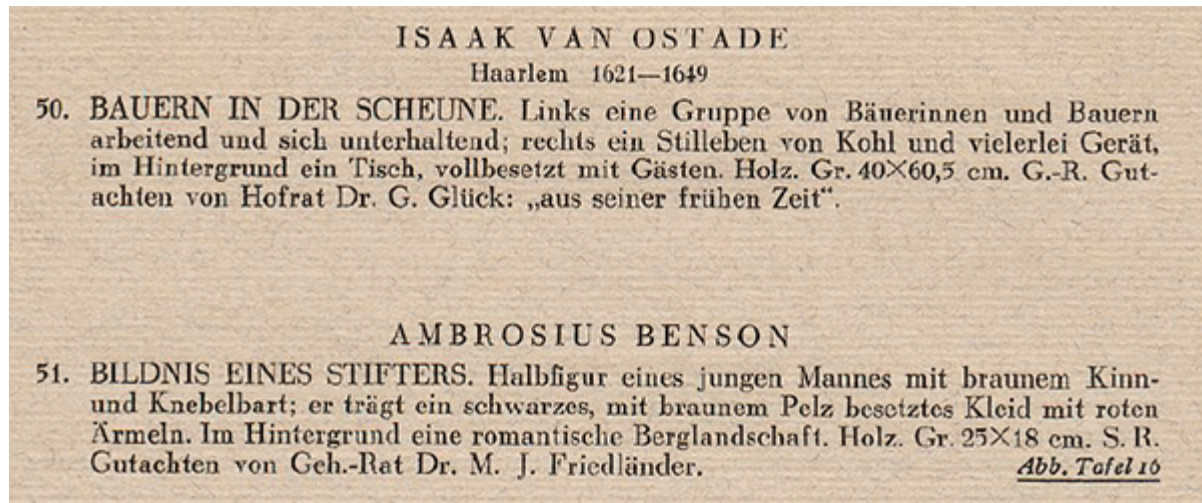
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<sup>1</sup> For the complete Getty IRIS blog article *Parsing German Sales Catalog Data via Computer Program* link to: <http://blogs.getty.edu/iris/publishing-german-sales-a-look-under-the-hood-of-the-getty-provenance-index/>.

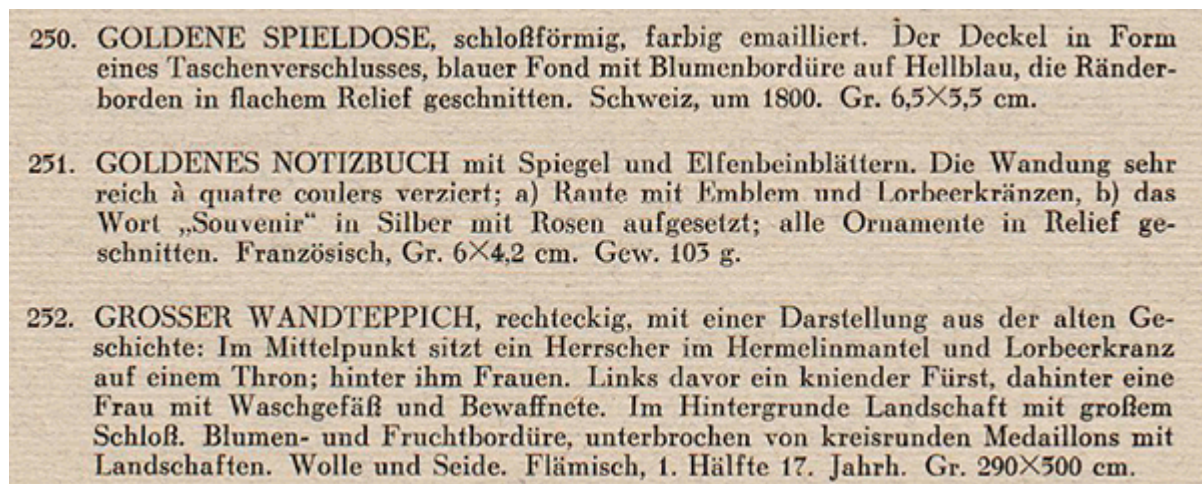
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### **Lessons Learned: Challenges, Affirmations and Responses**

- As the project progressed, it was learned that for organizational and conceptual reasons it was not possible to pursue the original idea—as stated in the proposal—of digitizing only the best annotated copy of each catalog. On the one hand, this would have meant that digitization could have not been done in parallel, but could only start after completion of the bibliographic research, which would have led to a considerable extension of the project timeline. On the other hand, only an elaborate investigation of all annotated copies would have allowed the project to decide which one was the “best” annotated copy—a decision extremely hard to make given the broad variety of criteria such as completeness, importance of annotating person, or significance of annotated auction goods. The response was to defer to the bibliography as a primary reference, which provides important information on the physical location of annotated catalog copies and the nature of the annotations, e.g., whether they contain prices or buyer names and how comprehensive the annotations are.
- The most difficult—and actually the most unusual—part of the entire project was figuring out how to parse the OCR text. Rather than transcribing and parsing it all by hand, which would have been impossible given the volume of information and the time constraints of the project, GRI Information Services developed custom software to do the job. These programs analyzed the structure of each block of OCR text, determined what data elements were present and where they began and ended, then parsed these out and placed them into Excel spreadsheets for review and further enhancement by PSCP editors.
- At the beginning of the project there were no firm requirements in anticipation of the wide variety of formats that would eventually be encountered. As an initial response the project created a semi-automated system to download scanned catalogs from Heidelberg and to avoid repeat downloads of previously received catalogs. This system used UNIX [shell scripting](#) and the [Perl](#) programming language. Ultimately, *Perl* was chosen for parsing because of its flexible language that allows modularized, easily extensible code, and particularly for its superior text-processing ability.
- An initial processing algorithm was developed based on the first in-hand format, a [1937 catalog from the Lepke Auction House](#), which was used to continue to develop this algorithm throughout the project. As a result, it was learned that there were two basic formats that the project scripts had to accommodate. The first format, illustrated below, lists the artist’s name in all capital letters, followed occasionally by additional artist information, such as location and life dates, and a description of the artwork:



The second format illustrated below shows a description of the artwork only with no artist's name or maker description:



- To accommodate the fact that the data formats varied widely within these two basic forms, preprocessing scripts were created to transform the data before feeding it to the main program. Ultimately, several dozen of these preprocessors were developed to handle often subtle differences between formats. The challenge became selection of the correct preprocessor for the data. It was learned that sometimes the project needed to run multiple preprocessors: for example, one to normalize the numbering and spacing of data, followed by a second to apply additional reformatting.
- The numbering of auction lots varied from catalog to catalog, and sometimes within sections of a single catalog. Numbers were combined with letters (31a, etc.), appeared as ranges (129–134, etc.), or had unexpected separators such as slashes (12/13, etc.). In

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response the project continually enhanced the code to recognize and accommodate these variations.

- In some catalogs, there was no way to distinguish text that might be an artist's name from other text without comparing it to known artists' names. In response a Microsoft Access database was created of artists' names, populating and continually updating it as catalogs were processed. Somewhat paradoxically it was determined necessary to add misspelled names to the database since the OCR repeatedly misread names. Later, in the editing process misspellings were corrected.
- It was learned that handling the large volume of data would require a detailed tracking system for processing, editing, and loading data in order to stay on top of the weekly influx of catalogs. The response at this stage was to prepare spreadsheets for the relevant catalogs that could be easily reviewed and enhanced by editors, and that contained as much data as possible, including dimensions, media type, materials, category, etc., extracted automatically.
- As a result of substantial variances in the data structure that emerged, the project learned that while its theories regarding the use of the selected technologies were correct, in order to move forward the project needed to insert a meticulous process of hand-editing spreadsheets in Excel. This involved process included spell-checking, making marked lots available on the web, and performing lot-by-lot reviews against the PDFs for omissions and other errors. Beyond clean-up it was necessary for editors to enhance the catalog data by adding classifications such as genre and subject, transcribing handwritten annotations from the catalog margins, and incorporating published sale prices from primary sources such as the periodicals. Significant effort was also made to validate artist names against the Getty Provenance Index's® own authority database of names, and to add artists' nationalities.

In the final assessment, the question regarding how to mediate the need for hand-editing in the future remains open. As such, for institutions/organizations considering replication of the German Sales database model it is recommended that programs build in plans and funding for substantial editorial support.

### **E. PROJECT CONTINUATION**

This project represents the beginning of an ongoing process to expand and enhance the records in the German Sales Catalog database. While the project feeds provenance researchers, museum curators, and scholars worldwide with core information for their work, results of this ongoing research should feed back to the database. Many buyers and sellers have been and will be identified by the scholarly community. This knowledge needs to be integrated in the form of "owner authority", to give just one example. There are also 750,000 unedited records from this

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project on decorative arts, prints, and other objects which should be considered and prepared for online release. Additionally a priority is placed on expanding the capacity of the German Sales database to interact with records in other databases of the Getty Provenance Index. As a result of both the experimental intensity of this project and the fact that the successful results of the project have already begun to fill a substantial void in the accessibility of provenance on German art displaced during WWII, the project partnership between the Getty Research Institute, Heidelberg University Library, and the Kunstbibliothek of the Berlin State Museums is likely forever linked in collective support of the related institution-based project components.

Since the public launch of the German Sales database in January 2013, the project has received extensive coverage in the international press establishing high national and international visibility for this new and important resource. Moving forward, the GRI intention for this project is to continue both expanding its content and user functionality. As a result of the innovative work on this project, the GRI has also been invited to join the International Research Portal for Nazi-Era Cultural Property, an international collaboration between eleven major archival institutions that are working together to extend public access to widely-dispersed records through a single internet portal. At the moment this platform is not really a portal but rather a list of links to individual institutions. In the future, however, all of the new digital resources will need to be better connected so that searching across all these institutional repositories is possible.

**For more detail link to:** <http://www.archives.gov/research/holocaust/international-resources/navigate.html>

The project will continue to live on in the Getty Provenance Index® that is maintained as part of the GRI's continuing commitment to provenance research. As Thomas W. Gaehtgens, Director of GRI, noted in the press release, *Provenance research is at the core of the Getty Research Institute's mission to further art historical study. These records are essential to the important study of art markets and their artistic, cultural, and historical mechanisms and may be very valuable for potential restitution claims.* Additionally over the course of the project, GRI staff and project editors worked diligently to refine and standardize the data. It is GRI's intention to have these editors continue to work on this material, ultimately adding records for wartime catalogs held in American libraries, and transcribing additional handwritten annotations. With the recent acquisition of the Knoedler gallery archive by the GRI, the stock books of a crucial importer of art works from Europe to the U.S. will be included in the Provenance Index covering also the WWII period.

As a next step, it is planned to also ingest the content of all French and Dutch catalogs during the Nazi occupation. The circulation of art works during the Nazi era was hardly restricted by national boundaries. The tested collaborative model should lead to new strategic partnerships, in this case most likely with the INHA (Institut national d'histoire de l'art) in Paris and RKD (Rijksbureau voor Kunsthistorische Documentatie) in The Hague. In order to understand the art market of the 1930s and 1940s even better, we hope to find project support for inclusion of the early decades of the 20<sup>th</sup>-century.

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### **F. LONG TERM IMPACT**

The Getty Research Institute is a leader in the field of art market and art collecting research. In addition to the German Sales database, the GRI holds important art dealer archives, including collections from Goupil & Cie, Boussod, Valadon & Cie, and Duveen Brothers that have, or will have in the near future, searchable databases of acquisitions and sales records in the Getty Provenance Index® Databases. The interaction of data between these various database now and in the future will make it possible to engage in new research and scholarship in the field of provenance research. As a result of successfully achieving the project goal, development of a searchable online database on German Sales between 1930 and 1945, made freely accessible nationally and internationally, this collaborative project has become a game-changer in the field of provenance research, which will have both long term and rippling effects in the art world.

This project has already created spinoff programs such as the recent workshop, *The Business of Art in the 'Third Reich*, held at the Getty Research Institute in Los Angeles, September 23-26, 2013. The very successful workshop convened subject experts from Europe and the U.S. to address a number of fundamental questions on the confluence of art history, economics, and the law. One of the participants, Kim Oosterlinck, presented a paper in which he made the somewhat counterintuitive argument that art was a pretty good investment option in France during the Nazi-Occupation. He used data from a number of sources to graph how art in the early 1940s, clearly outperformed equity, bonds, foreign currencies, and even gold. Although this data source was limited to one Paris auction house, it is now possible to use larger aggregates of data from the German Sales project for comparable economic analysis. This workshop will be followed by a second workshop, which is scheduled to be held October 6-9, 2014, in Hamburg, Germany.

The German Sales project has also become a case study for how to gather and translate provenance data related to dislocated art during WWII into usable formats that are available for new research and new scholarship through open access worldwide. Additional projects anticipated to emerge and spin-off from the German Sales project cannot be readily identified at this point. However, it is confirmed through the level of public and institutional interest demonstrated by the continuing international press coverage of the German Sales database, number of searches, and emerging conferences and workshops that this project will prove to be one of the most important modern contributions to provenance research nationally and internationally.

As a result of seed funding from the NEH, the GRI was able to attract the Volkswagen Foundation as a primary collaborator and source of funding support for the German Sales project. Specifically, the Volkswagen Foundation provided significant financial resources to the Kunstbibliothek to support the overall NEH/DFG project objectives. GRI has also been able to leverage the successful results of the German Sales database as a strong leverage point in

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proposals that are currently pending to support development of similar databases of stock books from important dealer archives held by the Getty Research Library, such as the Duveen Brothers archive, and the recently acquired M. Knoedler and Co. records.

### **G. GRANT PRODUCTS**

The primary product of this grant was the publication and launch of the German Sales (1930-1945) Database by the GRI, which is made freely available as part of the Getty Provenance Index® Databases, to scholars, researchers, and the interested public worldwide.

**For access link to:** [http://www.getty.edu/research/tools/provenance/german\\_sales.html](http://www.getty.edu/research/tools/provenance/german_sales.html), and <http://piprod.getty.edu/starweb/pi/servlet.starweb?path=pi/pi.link3.web&search1=gsc>

### **APPENDICES**

- **List of Press Articles with URL Links**



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### **Press Reports:**

- Martin Bailey, “Getty Institute publishes Nazi auction data,” *The Art Newspaper* 244 (March 2013), p. 4.
- “German Database,” *Weltkunst* 70 (Feb. 2013), p. 85.
- Silvia Anna Barrilà, “Dal Getty una banca dati per il recupero dell’arte depredate dai nazisti,” [www.arteconomy24.ilsole24ore.com](http://www.arteconomy24.ilsole24ore.com) (Jan. 30, 2013).
- Shane Ferro, “Nazi-Era Plunder Now Publicly Searchable Thanks to the Getty Research Institute,” <http://blogs.artinfo.com/artintheair/2013/01/27/nazi-era-plunder-now-publicly-searchable-thanks-to-the-getty-research-institute/> (Jan. 27, 2013).
- “Holocauste – mise en ligne de deux banques de données sur les oeuvres d’art volées par les nazis,” [http://www.rtbf.be/culture/exposition/detail\\_holocauste-mise-en-ligne-de-deux-banques-de-donnees-sur-les-oeuvres-d-art-voles-par-les-nazis?id=7915852](http://www.rtbf.be/culture/exposition/detail_holocauste-mise-en-ligne-de-deux-banques-de-donnees-sur-les-oeuvres-d-art-voles-par-les-nazis?id=7915852) (Jan. 27, 2013).
- “Nazi Era Art Auction and Dealer Records Go Public,” <http://www.artlyst.com/articles/nazi-era-art-auction-and-dealers-records-go-public> (Jan. 25, 2013).
- “Getty Research Institute launches database of German art sales records from 1930-1945,” [http://artdaily.com/news/60349/Getty-Research-Institute-launches-database-of-German-art-sales-records-from-1930-1945#.UjeLfH\\_hdgc](http://artdaily.com/news/60349/Getty-Research-Institute-launches-database-of-German-art-sales-records-from-1930-1945#.UjeLfH_hdgc) (Jan. 25, 2013).
- Annelisa Stephan, “New Online Resource to Reveal Stories about Nazi-Looted Art: Wartime Art Market,” <http://blogs.getty.edu/iris/new-online-resource-to-reveal-stories-about-nazi-looted-art-wartime-art-market/> (Jan. 24, 2013).
- Press release: “Getty Research Institute Launches Database of German Art Sales,” [http://news.getty.edu/press\\_materials.cfm#2-3-5769](http://news.getty.edu/press_materials.cfm#2-3-5769) (Jan. 24, 2013).
- “Online-Datenbank zu NS-Kunsthandel,” [www.science.orf.at](http://www.science.orf.at) (Jan. 23, 2013).
- “Online-Datenbank zu NS-Kunsthandel als Wegweiser,” [www.zukunftwissen.apa.net](http://www.zukunftwissen.apa.net) (Jan. 23, 2013).
- Nina Schedlmayer, “Netzwerktechnik,” *Profil* 4/44 (21.01.2013), p. 95
- Annika Wind, “Letzte Spuren einer Sammlung,” *Mannheimer Morgen* (June 28, 2012).
- Simona Hurst, “Dissertationsthemen für die nächsten Jahre,” <http://www.artefakt-sz.net/kunsthistoriker-im-gespraech/dissertationsthemen-fur-die-nachsten-jahrzehnte> (June 7, 2012).
- Volker Oesterreich, “Der Raubkunst auf der Spur,” *Rhein-Neckar-Zeitung* (May 12, 2012).
- Press release: “New Sources for Research on Art Trade in National Socialist Era,” <http://www.arthistoricum.net/en/subjects/thematic-portals/german-sales/vortraege/press-release-11052012/> (May 5, 2012).
- Tom Tugend, “Getty traces ownership of Nazi-era looted art,” [http://www.jewishjournal.com/arts/article/getty\\_traces\\_ownership\\_of\\_nazi-era\\_looted\\_art\\_20100928/](http://www.jewishjournal.com/arts/article/getty_traces_ownership_of_nazi-era_looted_art_20100928/) (Sept. 28, 2010).

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- David Ng, “Getty receives grant money for digital German art initiative,” <http://latimesblogs.latimes.com/culturemonster/2010/07/getty-receives-grant-money-for-german-art-project.html> (July 20, 2010).

### **Public Presentations:**

- Presentation of the project at the meeting of the [International Research Portal for Records Related to Nazi-Era Cultural Property](#) in The National Archives, Kew, England on Aug. 5, 2013 (Alexandra Büttner, Christian Huemer)
- Presentation of the project at the Institut nationale d'histoire de l'art in Paris, “Le Getty Provenance Index®: état des lieux, intérêt scientifique, perspectives,” Jan. 2, 2013 (Christian Huemer).
- Lecture “German Sales 1930-1945: Eine neue Quellenbasis für die Provenienzforschung” at the VI. Heidelberger Kunstrechtstag (Diebstahl – Beute – Raub: Von der antiken Statue zur digitalen Datei), Sept. 28, 2012 (Veit Probst).
- Lecture “Creative Initiatives in the Provenance Research Community,” May 2, 2012, American Association of Museums Annual Meeting & MuseumExpo, Minneapolis, MN (Ruth Cuadra).
- Presentation of the project at the opening of the “Kulturerbe im Netz - Judaica Europeana und Digitale Sammlungen” exhibition in the Kunstbibliothek - Städelbibliothek, Frankfurt on Nov. 15, 2011 (Maria Effinger).
- Presentation of the project at the EVA Congress “Elektronische Medien und Kunst - Kultur - Historie” in Berlin on Nov. 10, 2011 (Astrid Bähr, Joachim Brand).
- Presentation of the project at the prometheus Anniversary Congress “Die digitale Perspektive - eine schöne Aussicht?” on November 4-5, 2011 (Maria Effinger).
- Presentation of the project at the meeting of the study group on provenance research, 06-07.07.2011, Halle (Astrid Bähr).
- [08.06.2011, 100th German Librarians' Congress, Berlin](#) (Maria Effinger)
- A New Era of Collaboration and Digitized Resources, 06-07.05.2011, United States National Archives, Washington, D.C. (Christian Huemer), see also: [World War II Provenance Research Seminar](#)
- Presentation of the project at the meeting of the Arbeitskreis für Provenienzforschung, 23. 4. 2009, Kassel (Christian Huemer).
- [Nazi-Era Provenance Research: Archival Sources and Electronic Access](#), 30-31.10.2008, Getty Research Institute