

PROVENANCE RESEARCH AND THE CONSORTIUM OF EUROPEAN RESEARCH LIBRARIES

Abstract: The Consortium of European Research Libraries (CERL) is a membership organization which started in 1994 after the initiative of research libraries in many European countries. It is formed primarily by Library and Information professionals, which work to provide relevant data and offer meaning and context from their distributed collections. The focus of CERL is on manuscripts and printed books produced before the middle of the 19th century; it is committed on curating data sustainably, creating connections where possible and providing convenient access to data. Among its main resources are The Heritage of the Printed Book Database, the CERL Thesaurus, the Incunabula Short Title Catalogue, Material Evidence in Incunabula, the CERL Provenance Digital Archive, and much more. CERL creates digital resources of its own and offers a structured framework within which member institutions can deliver digital services, which they may not be able to deliver or sustain themselves. All these digital databases provide methods which can help the provenance research flourish, by bringing together collections, institutions, and other trivial information concerning early printed books and documents. Throughout this shared experience and collaboration, CERL can establish how collections reflect an illustration on how European history is inextricably interconnected intellectually, commercially, and politically.

Keywords: CERL. Provenance. Research. Information. Library. Collections.

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PESQUISA DE PROVENIÊNCIA E O CONSORTIUM OF EUROPEAN RESEARCH LIBRARIES

Resumo: O Consortium of European Research Libraries (CERL) é uma organização iniciada em 1994 após a iniciativa de bibliotecas de pesquisa em vários países europeus. É formado principalmente por profissionais da Ciência da Informação, que trabalham para fornecer dados relevantes e oferecer significado e contexto sobre suas coleções. O foco do CERL são manuscritos e livros impressos produzidos antes de meados do século 19. O CERL está empenhado em curar dados de forma sustentável, fornecendo acesso e criando conexões quando possível. Entre seus principais recursos online estão: The Heritage of the Printed Book Database, CERL Thesaurus, Incunabula Short Title Catalogue, Material Evidence in Incunabula, CERL Provenance Digital Archive e outros. O CERL cria recursos digitais próprios e fornece uma estrutura dentro da qual as instituições membros podem oferecer serviços digitais. Os recursos mencionados viabilizam meios para que a pesquisa de proveniência floresça, ao reunir coleções, instituições e outras informações triviais para este campo. Com esta experiência colaborativa, o CERL visa estabelecer como as coleções podem refletir a maneira como a história europeia está interligada intelectualmente, comercialmente e politicamente.

Palavras-chave: CERL. Proveniência. Pesquisa. Informação. Biblioteca. Coleções.

1 INTRODUCTION

The Consortium of European Research Libraries (CERL) is a flexible membership organisation which works to benefit our members - in Europe and world-wide – as well as their users. We are the international focal point for the engagement with the historic printed books and manuscripts as the representation of the written heritage of Europe held in the collections of our members and beyond. In this, we focus on manuscripts and printed books produced before the middle of the nineteenth century. Library and information professionals work together in CERL to offer people full, connected meaning from our distributed collections. Put together, our collections reflect a shared experience and are a prime illustration how European history in our regions and nations is inextricably interconnected - on an intellectual level, but also commercially and politically. The organisation was formed in 1992 on the initiative of research libraries in many European countries and legally came into being in June 1994.

Through CERL, leaders of our member institutions have access to a pool of shared expertise for the development of strategy, policy and tools for their implementation in an increasingly international field. Networks of experts in specialist fields converge in CERL,¹ which allows staff in member libraries to access training, to develop awareness of current developments, opportunities, and issues (relating to digital as well as to material expertise). It may also assist members with succession management and capability building in disciplines where small staff numbers in individual member institutions can make this a challenge.

Complementary, CERL creates digital resources of its own and offers a structured framework within which member institutions can deliver digital services, jointly or separately, which they may not be able to deliver or sustain themselves. We are committed to curating data sustainably, creating connections where possible and providing convenient access to data, with the aid of up-to-date standards and technologies. Among its core resources are The Heritage of the Printed Book Database, the CERL Thesaurus, the Incunabula Short Title Catalogue (which CERL hosts on behalf of the British Library), Material Evidence in Incunabula, the CERL Provenance Digital Archive, and much more.

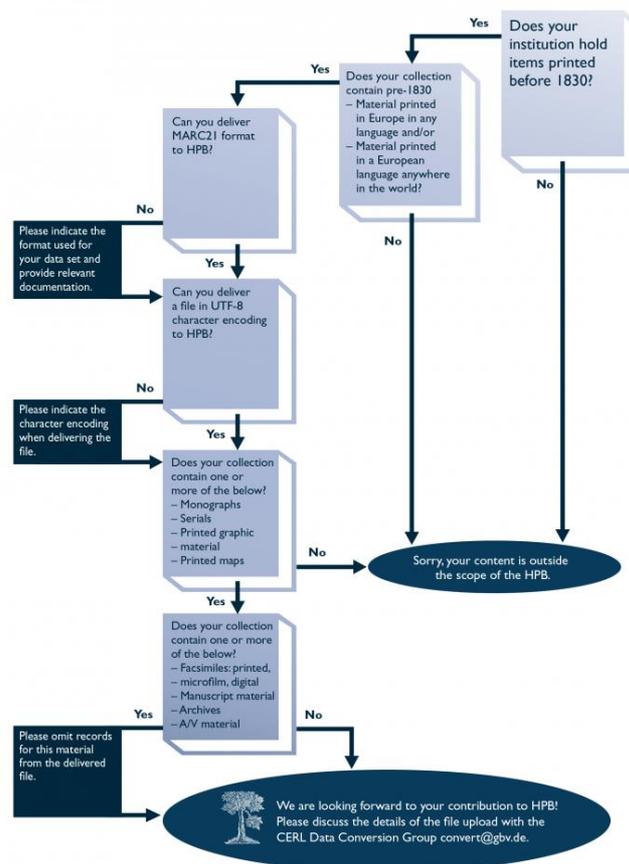
¹ We encourage members of the community to exchange knowledge on all aspects related to the curation of manuscript and early printed collections, ranging from cataloguing, storage, access, and collection security, via national bibliographies, book history, and provenance, to digitisation, IIF, Linked Open Data, and Digital Humanities, to diversity, education and advocacy.

2 PROVENANCE IN THE HPB

The Heritage of the Printed Book (HPB) database is freely available and currently contains around 8 million high-level bibliographical records for items of European printing of the hand-press period (c. 1455–c. 1830) held at major European and North American research libraries in some 24 countries. The database is continually enriched with new and updated records.

We would be happy to hear from you if your library wanted to contribute records; this flow chart gives an indication of what we would like to receive:

Preparing a file contribution for the HPB

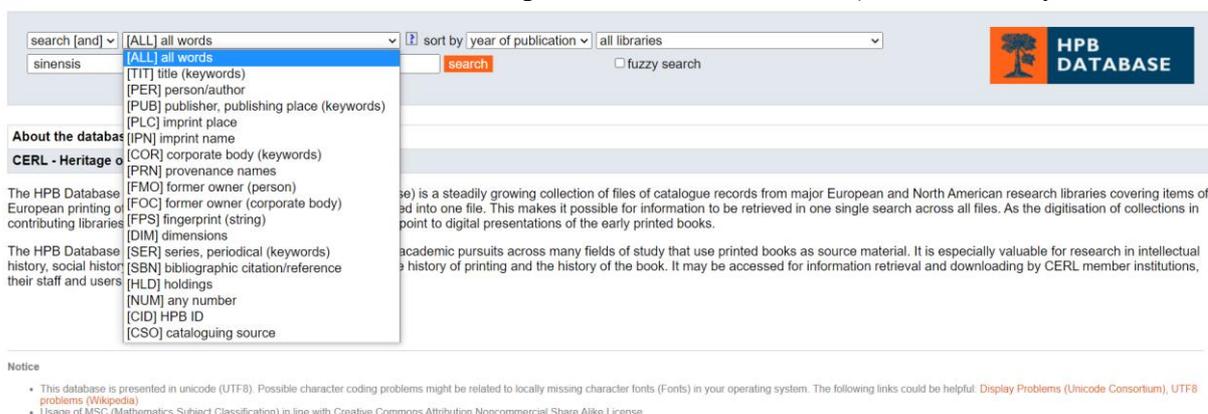


Detailed indexing of the HPB data does justice to the expert cataloguing of our rare book librarians. In addition to commonly occurring indexes, such as author, title and date, the

HPB offers specialist indexes e.g. bibliographical format, provenance information, imprint names, fingerprints and bibliographic citations. We ensure that all records indicate the source of cataloguing, and records are not merged. We do, however, plan to group records so that users will be presented with a set of records for the same or a similar imprint. Records are provided with persistent identifiers for use in citations. Increasingly records contain links to digitised copies and/or provenance information.

We have created distinct indexes for provenance information in the HPB: [FMO] Former Owner and [FOC] Former Owner (Corporate Body). These are subsets of the standard person and corporate body indexes ([PER] and [COR] respectively), with the same indexing (so persons are searched by ‘Surname, First name’). They are however limited to persons and corporate bodies identified to have a provenance role to the described work. Only entities catalogued in access point form will be found. The HPB’s Provenance Names index [PRN] index is a keyword index, combining the provenance related free text note elements and the access point name forms with relevant relator codes. Proximity operators are applicable.

Figure 1 - Examples: foc bayerische staatsbibliothek ; fmo Magyary-Kossa, Sámuel ; prn motto nisi dominus frustra ; prn (exlibris or “ex libris”) and Esterhazy



As the HPB is made up from records created in different cataloguing traditions in many European languages, there are large numbers of variant forms of names of printers, authors, and place names. To improve search and retrieval, the CERL Thesaurus (see below) is connected to the HPB search interface (when you use the [PER] Person/Author, [PLC] Place Name, or [IPN] Imprint Name indexes). A search using one variant form can be

repeated to include all variant forms recorded in the CERL Thesaurus, thereby greatly enhancing the results set as well as the quality and completeness of the research.

3 PROVENANCE IN THE CERL THESAURUS

The CERL Thesaurus combines local and national authority files to bring together forms of imprint places, imprint names, personal names and corporate names as found in material printed before the middle of the nineteenth century - including variant spellings, forms in Latin and other languages, and fictitious names. The database is continually enriched with new and updated records, and the addition of new links. A small team of volunteer editors works hard to deduplicate records. The record display makes clear which data element was contributed by which organisation. The CERL Thesaurus records are published as linked open data.

Data in the CERL Thesaurus enriched by providing linking. In the CERL Thesaurus we link data elements, such as for example printing places and persons who worked in that particular place, or between members of the same family that ran a printing press over a longer period of time. In addition, the CERL Thesaurus links out to a variety of datasets created and hosted outside CERL, such as for example Wiki Data, the German *Typenrepertorium*, Bookbinders names from the British Library's Database of Bookbindings, information about the production of paper, databases with images of printer's devices and, of course, provenance information.



The CERL Thesaurus includes over 27,000 provenance records for persons and institutions, brought together from a wide range of authority files contributed by CERL members and others. This number of records increases as further provenance indexes and authority files are integrated into the CT.

Currently the CERL Thesaurus contains provenance information contributed by several libraries in Germany e.g. the Universitätsbibliothek Basel, as well as the Index of Provenance of BSB-Ink (the Bayerische Staatsbibliothek Inkunabel Katalog, 1988-), provenances from the Biblioteca Histórica Marqués de Valdecilla at the Universidad Complutense, Madrid, the Spanish Exlibris project, Biblioteca de Reserva of the University of Barcelona, Margret Lane Ford's Early Book Owners in Britain, provenances from the Law Society's Mendham Collection in Canterbury, provenances from the Middle Temple library in London, provenance from the universities of Aberdeen, Glasgow and Warsaw, the Casanatense in Rome, the Archivio dei possessori at the Biblioteca Nazionale Marciana in Venice, and the provenance authority Index of the National Central Library of Rome. Furthermore, all provenance evidence gathered in the Material Evidence in Incunabula (MEI) and the Provenance Digital Archive (PDA) databases is fed into the CT, in this way contributing in real time to the reconstruction of dispersed collections which is one of the main goals of the CT database.

While it is clear that this is just the tip of the iceberg in terms of the reconstruction of dispersed collections, we believe that the CT is the perfect environment in which to bring together provenance records, and to link out to wherever the surviving books, once part to that provenance, are today. As such, it is an essential research tool for scholars and researchers in this field.

4 MATERIAL EVIDENCE IN INCUNABULA

The world of incunabula research and scholarship is highly international, collaborative, and digitally connected. The Incunabula Short Title Catalogue (ISTC)² provides short bibliographical information of every known edition, currently around 28,000, and a list of the surviving copies in the world mostly in public libraries, currently around half a million copies, thanks to the contributions from institutions worldwide. The Gesamtkatalog der Wiegendrucke (GW)³ provides detailed typographical information about each edition, supported by the Typenrepertorium der Wiegendrucke.⁴ The detailed textual content of editions can be searched in TEXT-inc,⁵ while their illustration can be found in 15cILLUSTRATION.⁶

Finally then, the history of each copy over the 500 years, from the time a book was printed to when it enters the current holding institution, is brought together and can be explored in the database Material Evidence in Incunabula (MEI),⁷ a digital resource specifically designed to record and search the material evidence (or copy specific, post-production evidence, or provenance information) of 15th-century printed books: ownership, decoration, binding, manuscript annotations, stamps, prices, etc.

MEI is linked to the ISTC, from which it derives the bibliographical records, and it allows the user to combine searches of bibliographical records (extracted from ISTC) with copy specific records. Its first creation was funded by the British Academy back in 2009, and further development was funded by a five-year ERC grant awarded to Cristina Dondi in 2013

² https://data.cerl.org/istc/_search.

³ <https://www.gesamtkatalogderwiegendrucke.de/>.

⁴ <https://tw.staatsbibliothek-berlin.de/>.

⁵ <http://textinc.bodleian.ox.ac.uk/> the systematic listing and identification of the texts and paratexts in 8343 editions.

⁶ <http://zeus.robots.ox.ac.uk/15cillustration/>. An upgraded version of this database, which includes also illustration from the 16th century, is 1516 <https://www.robots.ox.ac.uk/~vgg/research/1516/>.

⁷ http://data.cerl.org/mei/_search.

(part of the 15cBOOKTRADE project).⁸ MEI is hosted by CERL, and freely available on its website. Almost 500 libraries, from 23 different countries in the world (mainly in Europe and the United States) are contributing data, mostly from book in hand examination, though we are also reversing data from printed catalogues, and uploading records from electronic catalogues. One of the strengths of the database is that it brings together data from very large institutions, such as the British Library, the National Library of Rome, Harvard or Padua University Libraries, to very small ones, such as the parish church of San Martino in Capo di Monte (province of Brescia) with its two incunables. An up to date list of contributing libraries, of the editors who created the records, funding received, training provided, papers and articles delivered and published, can be found on the MEI pages of the CERL website.⁹

As of June 2021, 15,476 editions are present in MEI in multiple copies, precisely 58,983 of them. Some 24,654 former owners have been identified, whether private or corporate. Information about them is stored in a satellite database to MEI, *Owners of Incunabula*.¹⁰ This database is helping us to virtually bring together collections which have been dispersed over time due to a multiplicity of reasons, not just personal but often political, economical, and religious.

MEI introduced an innovative approach to the recording of provenance: the application of geographical (using GeoNames) and temporal indicators applied to every element of provenance, to track the movement of books over space and time during their 500 years of life. Now we are in the position to visualise the movement of thousands books, and to understand patterns and trends in the use and survival of early printed books.¹¹

This innovative approach was devised by Cristina Dondi and developed by Alex Jahnke back in 2009 to answer the need to use not only conventional provenance (such as former owners' various marks) to retrace the history of books, but physical evidence too: a German binding of the 16th century, a French illumination, or Italian manuscript annotations of the 15th century, an English purchase note recording price in the 19th century. They may not

⁸ <http://15cbooktrade.ox.ac.uk>.

⁹ <https://www.cerl.org/resources/mei/main>.

¹⁰ https://data.cerl.org/owners/_search.

¹¹ Professor Min Chen and Doctor Simon Walton of the Oxford e-Research Centre applied scientific visualisation techniques to our MEI provenance data, as part of the 15cBOOKTRADE project. The visualization suite is sadly no longer available.

tell us who used the book, but can certainly direct us to where and when it was used, that is, to certain areas and certain periods of time.¹²

In MEI we have dozens of fields pertaining to provenance. We can single out distinctive copy features: complete, incomplete, made up copy,¹³ composite volume,¹⁴ variant, cancellans/cancellandum, parts of text in facsimile, parts of text in manuscript, manuscript signatures, no evidence of use, no rubrication, reuse of manuscript leaves, chain-hole, fallen type, bound with manuscript, binding waste, later decoration. The type of provenance evidence is classified according to inscriptions, coat of arms, genealogical tables, supralibros, exlibris, mottos, emblems, stamps, fire stamps, binding, decoration, manuscript notes, bibliographical evidence, shelfmark, accession mark, deaccession mark, seller's mark/note, and documentary evidence.

The method of acquisition can be distinguished among purchase, donation, bequest, exchange, institutional transfer, dedication copy, consignment, requisition, theft, restitution, deposit.

Each former owner is further defined by his/her gender, status (lay, religious), and profession. Decoration can be searched according to illustration coloured in by hand, illumination, ornamental letters, coat of arms, rubrication, partial rubrication, pen trials, and illustration stamped in. Manuscript annotations can be studied according to their typology and frequency.¹⁵

Because our goal is to describe the life of the book, from the time it was printed to the time it entered its current holding institution, every piece of provenance evidence is recorded in a separate block of provenance, which is tagged geographically and chronologically. The movement of a book over its 500 years is therefore visually represented in MEI records as a sequence of blocks of provenance, whereby the last provenance block is always the same as the holding institution field.

¹² Alex Jahnke of Data Conversion Group (DCG) of the University of Göttingen. DCG created and supports many of CERL's digital resources. Information on MEI in the wider context of the European printing revolution and incunabula studies can be found in Cristina Dondi, 'The 15cBOOKTRADE Project and the Study of Incunabula as Historical Sources', in *Printing R-Evolution and Society 1450-1500. Fifty Years that Changed Europe*, ed. C. Dondi, Studi di Storia 13 (Venice: Edizioni Ca' Foscari, 2020), pp. 21-54. DOI 10.30687/978-88-6969-332-8.

¹³ A volume made up of parts taken from different editions.

¹⁴ A volume made up of more editions, or even manuscripts, bound together.

¹⁵ An illustrated list of all these fields can be found here <http://15cbooktrade.ox.ac.uk/distribution-use/mei-fields/>.

For example, a copy of Cicero's orations printed in Venice in 1471 and today in the Bodleian Library, was sold by an anonymous bookseller in Milan already in 1472, purchased there by Renobertus de Campo of Dole for over three ducats and taken to France. After the sack of Dole by Charles d'Amboise in 1479 the book was purchased by the Carmelite of Chalon-sur-Saône Jacobus Benedictus, professor of theology, in that same year, and in 1483 gifted by him to the Carmelite Laurentius Burellus, confessor to the kings of France Charles VIII and Louis XII. After Burellus' death the book remained probably with the Carmelites of Dijon until it was acquired by the Duc de la Vallière; at the sale of his collection in 1783 it was purchased by Pietro Antonio Bolongaro-Crevenna, a snuff merchant based in Amsterdam, and finally, at his sale in 1789, purchased by the Bodleian and brought to the UK. The MEI record is therefore made of seven blocks of provenance: Milan, Dole, Chalon-sur-Saône, Dijon, Paris, Amsterdam, Oxford.¹⁶

By clicking instead on any single former owner of this record, for example Bolongaro-Crevenna, we can immediately access information on his book collection, now dispersed: MEI at present holds descriptions of his books not only in Oxford (116), but also in The Hague (135), Cambridge University Library (6), London British Library (5), Princeton (3), Athens Aikaterini Laskaridis Foundation (1), Milan Biblioteca Trivulziana (1), Venice Fondazione Cini (1), Liverpool University Library (1), Genoa Biblioteca Durazzo (1). The more libraries that contribute to MEI, the better we can virtually reconstruct dispersed collections. It is that simple, if we contribute to the collaborative framework.

Whilst it is understandable that a library or library system wants to keep together all sorts of data pertaining to the collections in their custody, whether in manuscript, print or digital format, and that there is an attempt at offering more and more analytical ways to access that data, it has to be accepted that specialist databases which integrate data from many different libraries, when designed properly and intelligently, can address historical queries that a library catalogue alone is not in a position to support. Databases should be seen as complementing and supplementing the information that a library catalogue can hold.

Each of the MEI fields has been devised with clear historical questions in mind, questions which we were unable to answer, but can now begin to address. Just to offer one example: scholars of books and libraries are aware of the tremendous impact that the

¹⁶ Cicero, Marcus Tullius, *Orationes*. Ed: Ludovicus Carbo. Venice: Christophorus Valdarfer, [not after 9 Nov.] 1471. Folio. GW 6765; ISTC ic00542000; MEI 00203715; Oxford, Bodleian Library, Auct. L 3.1.

secularization of religious institutions had on the dispersal of old, and formation of new, libraries. Historical collections in France, Great Britain and the United States would not be what they are today without the vast mobility of books triggered by national policies towards religious institutions and their libraries. In MEI we are finally capturing the extent of the phenomenon: to date, some 7,043 copies in MEI have been recorded with the descriptor “institutional transfer”.¹⁷

In MEI we also devised a simple and effective way to capture “historical copies”, that is copies which we know, from library catalogues or inventories, existed until a certain time in a certain place, but are now lost, either destroyed, or more likely in some library where they have not been identified as belonging to that former ownership yet. In the lucky event of the identification of a “historical copy” with a physical copy, all we have to do is replace “historical copy” in the “library holding” field, with the name of the library now holding that copy, and its shelfmark. At present “historical copies” from the libraries of Prospero Podiani of Perugia, of the Benedictines of San Giorgio Maggiore in Venice, and of Francesco Maria della Rovere, 2nd Duke of Urbino, are being gathered in MEI.

Equally, MEI can accommodate copies in private collections, whenever their owners are happy to join in our research efforts; it is pleasing to notice that this category is also growing, with private collections in the United States, Germany, the United Kingdom, and Italy being represented in MEI.¹⁸

Many of the books described in MEI bear evidence of reading practices. Manuscript notes, vital for understanding the readership of the early editions, are classified, and can be searched, according to their frequency (occasional, a few, several, extensive), position within the book (first few pages, first half, throughout, parts only), and their type: corrections, completions, supplements, extraction of keywords, collation,¹⁹ translation, structuring the

¹⁷ Searching “data.provenance.acquisitionMethod:e” of 7 July 2021. Advanced queries to the database can be found in MEI Searching Guidelines on the 15cBOOKTRADE website <http://15cbooktrade.ox.ac.uk/distribution-use/mei-searching-guidelines/> or by clicking the Help button in MEI. See the forthcoming *How the Secularization of Religious Houses Transformed the Libraries of Europe, 16th–19th Centuries*, Proceedings of the Conference held in Oxford 22–24 March 2012, ed. C. Dondi, D. Raines, and R. Sharpe (Turnhout, Brepols, 2021), and specifically C. Dondi, L. Prosdocimi, and D. Raines, ‘The incunabula collection of the Benedictine library of S. Giorgio Maggiore in Venice – formation, use and dispersal according to documentary and material evidence (from MEI)’ and C. Dondi, ‘Material Evidence in Incunabula (MEI) and other tools for searching the provenance of early printed books’.

¹⁸ A few private owners read about the project in the national papers and got in touch; one example can stand for all: Mr Günter Elo, from Mackenheim <https://data.cerl.org/mei/02128902>.

¹⁹ In its philological sense of comparison with other texts. An illustrated list of the different types of manuscript annotations can be found here <http://15cbooktrade.ox.ac.uk/reading-practices/>.

text, comments, censorship, reading marks (underlining and pointing hands), drawings, corrections by the printer, lecture notes, later rubrication, autograph, pen trials, personal notes.

Since the creation of CERL's *Provenance Digital Archive* (PDA), about which you will read more below, MEI editors are now able to upload images of provenance to the PDA and link to them from MEI. MEI records are even more effective, informative, and self-evident now. The latest example I can offer is the illustrated census of the edition of Dante's *Commedia* printed in Florence in 1481 with engravings designed by Botticelli, of which 175 copies survive around the world. During a project funded by the Polonsky Foundation in 2021 to celebrate the 700th year since the death of the great poet, each copy has been described in MEI and images have been uploaded onto the PDA.²⁰ This **collaborative project, which involved 130 libraries worldwide**, enhanced the understanding of an iconic work of literature in their collections by setting it in its historical context with the support of a clear and effective narrative and compelling digital resources. The objective is the creation of a webpage, within the Printing Revolution website,²¹ with text, images, videos and maps to illustrate the edition and set the history of the copies in the wider context of the reception of Dante's works, to explain how this seminal work was actually read and commented on by its contemporaries, and by later generations. For CERL, this new way of bringing together our collections around a theme, whether an edition, or an author, work, or printing place or printer, with the support of our digital resources, is setting the blueprint for future collaborations: the knowledgeable examination of the books in our collections, the recording of the copy-specific data and uploading of the images in collaborative databases, the creation of effective outreach material and communication.

Large quantities of data in provenance research are only as effective as the quality of the data themselves. The work necessary to reach this level of historical detail is, in fact, huge. It requires the specialist skills of book cataloguers with the palaeographical knowledge to be able to read ownership inscriptions in Latin, Greek, and any European vernacular language, who can date and locate a binding or a decoration style to 15th-century Italy, or 16th-century Germany or 17th-century England, who can identify a coat of arms, who can distinguish different types of marginal annotations, from corrections, comments, to

²⁰ <https://www.printingrevolution.eu/the-polonsky-dante-project/>. You can find a list of all these copies described in MEI by searching 'Dante 1481' in the free search window. It includes a copy in Brazil, at the Casa de Rui Barbosa Foundation in Rio de Janeiro, which was notified to us by our colleague Fabiano Cataldo.

²¹ <https://www.printingrevolution.eu/>.

copyright, who know how to trace back the history of a book using booksellers and auctioneers catalogues and library acquisition registers. Further, it requires the development of an appropriate database system to not only record but retrieve intelligently the valuable data. Finally, it necessarily relies on extensive collaboration, and a vast logistical plan which coordinates the integration of data produced by hundreds of different libraries into one searchable database.

The 15cBOOKTRADE has been coordinating the work of very many people, over several years. It was the largest project to date totally centred on incunabula and it built on and brought together decades of specialist cataloguing and research on incunabula, as well as making available completely new data and an innovative way to use these data for historical research. My role as Secretary of CERL has been, of course, essential. After the completion of the ERC project the work continues, and it is now much supported by the Incunabula Working Group within CERL.²² Moreover, as the Dante project has proven, it is possible to help libraries contributing to MEI remotely: they can send images of their copies to us and we can help with the identification and reading of unfamiliar marginal annotations.

If we want to understand how newly printed books impacted the lives of different segments of 15th-century population, spreading knowledge, information, increasing literacy levels, supporting the growth of universities, creating a new business, contributing to the international trade, well, we better have a good look at the books themselves. This is the only sensible way: shared knowledge, technology and international collaboration.

All libraries with incunabula holdings are encouraged to integrate their copy-specific information in MEI. For more information please contact Dr Cristina Dondi, Secretary of CERL, at c.dondi@cerl.org.

5 THE CERL PROVENANCE DIGITAL ARCHIVE

Provenance research has long been one of the priorities of CERL. Seventeen years ago, in 2004, the Consortium organised a conference on the subject.²³ Since then, it has

²² <https://www.cerl.org/collaboration/work/mei/main>.

²³ David Shaw (ed.), *Books and their owners. Provenance information and the European cultural heritage. Papers presented on 12 November 2004 at the CERL conference hosted by the National Library of Scotland, Edinburgh* (London: CERL, 2005); online: <http://documents.cerl.org/publications/cerl_papers_v.pdf> (last accessed June 2021). See on CERL and provenance research also: Marieke van Delft, 'Researching Provenance

always been a very important topic within CERL. In 2012 the CERL Provenance Working Group (PWG) was set up to develop plans to address provenance matters in the CERL environment. First of all, the CERL website offers an overview of online provenance resources worldwide, from Austria, Belgium, Brazil, Denmark, France, Germany, Italy, Mexico, the Netherlands, Poland, Russia, Scotland, Spain, Sweden, Switzerland, the United Kingdom, and the United States.²⁴ You have read already about provenance in the *Heritage of the Printed Book Database* and in the CERL Thesaurus. These two tools can be searched from CERL's page for provenance information.²⁵ At this page, two other tools can be accessed as well. The first is the *Index Possessorum Incunabulorum* (IPI) a reference tool created by Paul Needham, which contains 32,000 entries of personal names, institutional names, monograms, and arms pertaining to the ownership of incunabula; data have been extracted from hundreds of published catalogues. And besides that, one can also search for British provenance from 1450 to 1550 in *Early Bookowners in Britain* (EBOB), a database created by Margaret Lane Ford in the context of her work for *The Cambridge History of the Book in Britain*, with evidences taken from over 4,300 printed works. These two tools were created by researchers that handed their data to CERL in order to make them available for a wider audience. With the creation of the *Material Evidence in Incunabula* database (MEI), CERL welcomed a project that is focused on provenance research and was developed and expanded in the context of CERL. Through this project many instances of former book owners and book uses, such as bookplates, inscriptions, notes, decorations, prices, book bindings, stamps, bookseller's labels and so on, are described in the MEI database. And what is more, all these are photographed.

with two new tools developed by the Consortium of European Research Libraries (CERL)', in: *Quaerendo*, 50 (2020), p. 194-206.

²⁴ www.cerl.org/resources/provenance/geographical (last accessed June 2020).

²⁵ www.cerl.org/resources/provenance/main (last accessed June 2021).

Image 1: CERL resources with provenance information

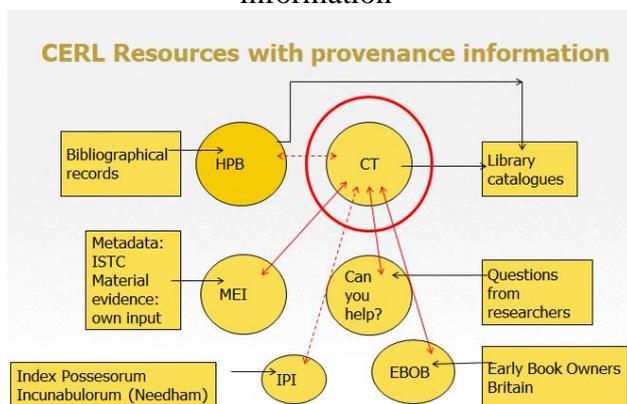
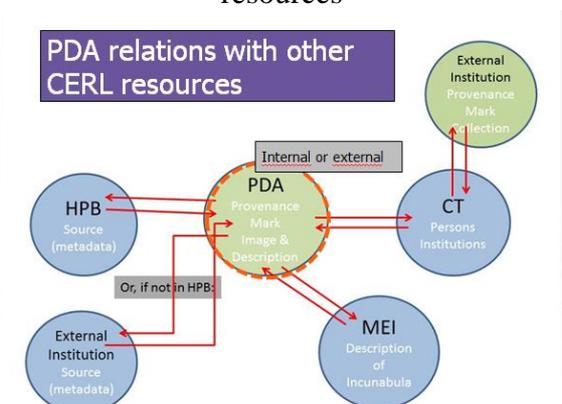


Image 2: PDA relations with other CERL resources



6 A PICTURE IS WORTH A THOUSAND WORDS

All the CERL databases discussed until now are textual, but as the well-known adage says: “A picture is worth a thousand words”. Therefore it is important to gather images of provenance marks as was done in the MEI project and by others. But how to store these images and connect those to the textual CERL environment and other databases? The development of such an environment was a challenge that was commissioned to CERL’s Provenance Working Group (PWG). The group started with developing a metadata scheme to describe provenance marks (see Appendix). This scheme was tested by members of the group and external provenance researchers. This led to the following recommendations:

1. The metadata should be non-redundant;
2. The metadata should be basic and clear;
3. Guidelines are needed that define the fields and its contents;
4. The CERL PDA should be linked to other databases, for example HPB or MEI, to retrieve author, title, imprint, publishing date;
5. The metadata should be linked to internal CERL-databases;
6. The number of obligatory fields must be limited so that people will not be discouraged to participate.

Until now, I discussed only one side of the double-sided work on provenance. After all, provenance research is not only concerned with *describing* the provenance instances, it is also important for *determining* former owners i.e. that the marks that are collected and described, can be used to connect former owners to anonymous marks. These can be a bookplate, a stamp, an armorial image or tooled bookbinding with decoration that does not hold a name. This was a service that CERL offered a few years ago through its *Can You Help* section, managed by David Shaw, CERL's former secretary and researcher on provenance.²⁶ One could send him an image of an unidentified mark. He would post the question on the website and invite researchers to help to identify these. The answers were posted on the website and in the beginning this system functioned very well. But this was not a database and the collection grew too large to handle.²⁷ For this tool, the CERL also sought a solution.

Based on all these considerations, Use Cases were drafted that would cover all desires mentioned until now. From this a list of requirements for the newly to develop environment was defined:

1. possibility of uploading single images with basic metadata provided by the uploader;
2. possibility of batch uploading of images with basic metadata provided by the uploader;
3. editing facilities for registered users; they have access for editing their own records and can comment on records of other users within the new CERL provenance environment; dialogue visible to all;
4. support for Iconclass cataloguing terms;
5. integrate current Can You Help facilities in Arkyves;
6. download of images; CERL will insist images provided should be CC0;
7. possibility to replace inadequate images by better ones;
8. link button from other CERL services with provenance data to relevant images in Arkyves meaning that the new environment will be open for machine searching;
9. possibility of adding more than one image for one provenance; linking different provenances of one source;

²⁶ Information on him and on his research, see: <http://djshaw.uk/> (last accessed June 2021).

²⁷ During its existence, more than 400 provenance questions were handled via David Shaw's *Can You Help*.

10. facility to export/flag newly added names for integration in CERL Thesaurus;
11. RSS feed alerting new questions in the Can You Help section;
12. adding an extra source (i.e. an item evidence in a specific provenance) to an existing record;

Once the metadata and requirements were defined, the search for an image environment was started. After considering various possibilities, it was decided that the Leiden-based, Brill-related initiative *Arkyves* would be able to fulfil most of the wishes.²⁸ So this firm was invited to build and host the database. Before going further into this, first some information on *Arkyves*. This is a gathering of image collections, from museums, libraries and research institutes worldwide, among them the Rijksmuseum in Amsterdam, the Netherlands Institute for Art History (RKD) in The Hague, the Herzog August Bibliothek in Wolfenbüttel and many more. Emblems, book illustrations, printed initials, bookplates and so forth are brought together in one very large database sharing one feature: they all use the same standard classification for their subject access *Iconclass*. This is a detailed, hierarchical classification system that can be used to describe the contents of images. There are nine main divisions, further specified through subdivisions. For example, the main division ‘Nature’ (2) is further divided into ‘earth’ (25), which contains the subdivision ‘animals’ (25F), in turn containing the subdivision ‘mammals’ (25F2), etc. Being alphanumeric, *Iconclass* is language independent, which offers great possibilities for international searching.²⁹ There was one argument against *Arkyves*. Brill is a commercial publisher. But CERL is a Consortium paid by libraries that wants to offer its services for free. Happily CERL succeeded in negotiating a dedicated CERL section which is free to consult once a user is logged in with Google or Orcid.

Arkyves (and specifically Etienne Posthumus) developed the *CERL Provenance Digital Archive* (CERL PDA) in the years 2018–2019 as a separate, yet integrated, section in *Arkyves*. In this section only provenance marks of the CERL PDA can be consulted. All the other image collections within *Arkyves* that can add more information on the provenance images, will only be available if *Arkyves* is consulted via an institution that has a subscription.

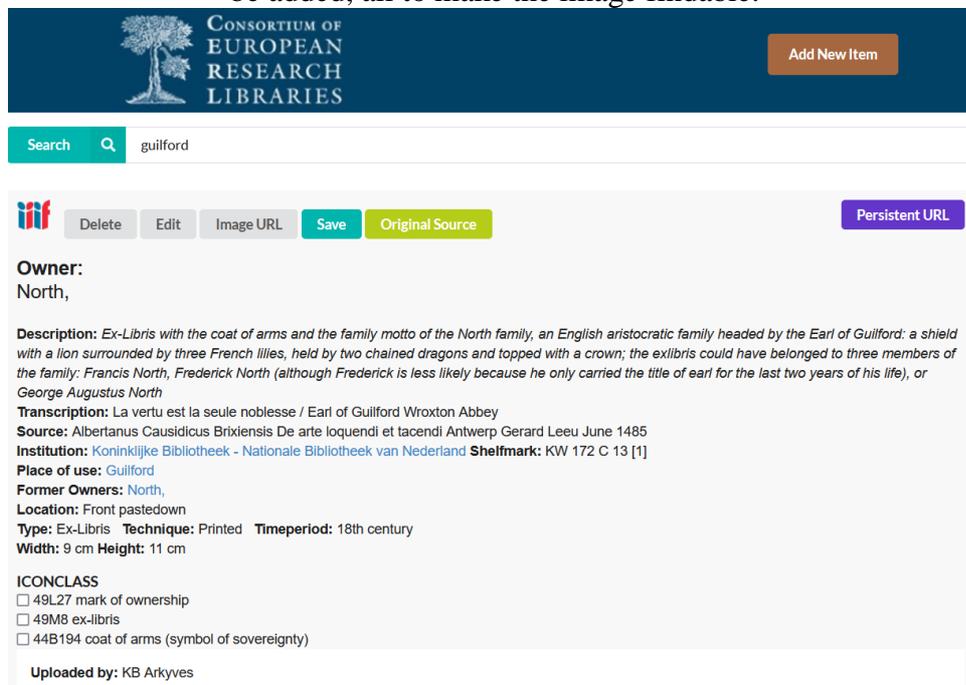
²⁸ <https://www.arkyves.org/> (accessed June 2021).

²⁹ <http://www.iconclass.org/help/outline> (last accessed June 2021).

The CERL PDA was launched at the *Printing R-Evolution and Society* conference in Venice in September 2018 and *Guidelines for uploading and describing images* were written.³⁰ The metadata scheme that the PWG defined underlies the design of the online database. A description starts with reference to the book from which the image is derived; this field can be filled automatically from related CERL resources such as ISTC, MEI and HPB. If the source is not catalogued in any of these systems, the metadata can be added by hand. Furthermore, the following elements are given: a short description, a transcription of text if present, the technique, date and size. The elements seen on the image are described by keywords and through *Iconclass* codes that translate its contents in numbers. If known, the name of the user of the mark is added.

³⁰ arkyves.org/r/section/him_CERLPDA (last accessed June 2021); On the CERL PDA: Marieke van Delft, 'CERL's work and vision for provenance research II: The Provenance Digital Archive in CERL', *La Bibliofila*, 117 (2015) pp. 321–324; Idem, 'A new tool for describing provenance images. CERL's Provenance Digital Archive', in: *Printing R-Evolution and Society*, as note 12, pp. 911- 922. The recordings of the conference are available online at <https://www.printingrevolution.eu/printing-revolution-society-conference/>. or the *guidelines* see: www.cerl.org/resources/provenance/pdaguidelines (last accessed June 2020).

Image 3: Example of the description of a provenance mark in the CERL PDA. The description should be extended so the image can be found. And more Iconclass codes should be added, all to make the image findable.



Arkyves generates a persistent URL for every separate entry. This means that, once an image is inserted, linking to this image is possible from systems outside Arkyves—for example from MEI, a library catalogue, or from one's personal research environment. Furthermore, all images are IIIF-compliant. Provenance marks such as a printed bookplate, a name inscription or a tooled binding, can occur in multiple books. These are described once; other books with the same mark can be noted in an annotations field and it is planned that in the future this field will be replaced with links to other CERL resources or library catalogues. Then the CERL PDA will offer another opportunity to bring together the books that once were owned by a certain collector.

The CERL PDA aims to become an international system and invites scholars, librarians and others to contribute *and* to use the database for their research. It is now gradually filled. In 2019, a CERL intern, Lucrezia Signorello, worked on the images that were collected from KB-incunabula during the research for MEI. But now, other researchers and librarians are contributing to the system as well and the number of entries is growing very fast. In March 2021 the CERL PDA held 851 images, in June 2021 this number almost

doubled to 1631. Most of the marks now present were in use in early modern times, but the CERL PDA aims at becoming a system for all periods. So the hope is that also provenance marks from later books will be inserted in the system over time.

Provenance research is flourishing and the CERL PDA is not the only resource on the web. As mentioned above, an overview of other online provenance resources can be found at CERL's website.³¹ Some of these are comparable with the CERL PDA and include images and descriptions, such as the Bibliothèque municipale in Lyon, while others are only text documents or text-based databases.³² Moreover, most resources are associated with a specific collection and only include the provenance marks found therein. And no other provenance database currently uses *Iconclass*. Each of these resources can be very helpful when searching for a specific provenance mark, but a cataloguer or researcher has to consult them all, one by one. And they do not offer the possibility to researchers to add provenance marks. In that sense, the CERL PDA is unique: it is a collaborative project that is open to all. It aims at becoming the central place for provenance research, opening up the system to every individual researcher who wants to contribute. CERL hopes in the near future to be able to welcome bulk uploads such as the images collected over the years by MEI editors or from other provenance databases. Hopefully also more descriptions will be added by collaborating libraries and scholars so that it will develop into an international, open, frequently-used online tool that can be used to discover former owners and helps us to understand how ideas reached readers, how books travelled over time, and how libraries were put together and disseminated throughout Europe.

7 CONCLUSION

We warmly welcome you to join CERL if your library, archive, museum or similar has a collection of manuscripts and/or early printed books which are part of the European cultural heritage. If your research takes you to these materials we look forward to providing you with relevant data presented in a meaningful context and an expert community always happy to liaise with you on the interpretation of this information.

³¹ www.cerl.org/resources/provenance/geographical (last accessed June 2020).

³² https://numelyo.bm-lyon.fr/collection/BML:BML_06PRV01000COL0001 (last accessed June 2020).

The CERL Grant programme aims to support early career librarians or scholars to spend time at a CERL member institution, to work on CERL projects and to be trained on CERL databases. The scheme is popular with our members, also in the United States. Colleagues enthusiastically put forward projects for consideration and libraries are frequently able to offer matching funding. The scheme attracts excellent candidates, many of whom report that the internship boosted their career

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