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SHARING ANCIENT CULTURAL HERITAGE IN THE DIGITAL ERA: THE EXPERIENCE OF THE LIBRARY OF THE ITALIAN NATIONAL INSTITUTE OF HEALTH

Abstract

A typical feature of certain Italian special libraries is the holding, often unexpected, of ancient book collections. This is the case of the Library of the Istituto Superiore di Sanità (ISS), the Italian *National Institute of Health*, which, despite its role as the main library for public health and biomedical research in Italy, holds a small but valuable special collection of ancient books. Known as the *Rare Book (RB) Collection*, this fund consists of over 1,000 scientific printed volumes published between the XVIth and the XIXth century.

The purpose of this paper is to illustrate the challenges and the process undertaken by the Library to share and digitize this Collection between 2007 and 2017.

For several years it has been one of the many small collections held by Italian special libraries but unknown to the public. Hence it was decided to take the opportunity of getting the collection valuated and shared. The chance arose in 2007 when a specific project, developed by the Library, was funded. This project (2008–2010) allowed the release and diffusion of the RB Collection through the online cataloguing of the whole collection; the digitization of all title-pages and some selected images; a monographic volume specifically dedicated to this collection. Throughout the years, the interest generated by this initiative has led to the collaboration with several Italian cultural institutions, such as the constituting interactive *Museum of History of Medicine (MuSME)* in Padua in 2015.

From the beginning of this process the Library had set itself the goal to complete the digitization of the whole collection, but, due to budget restrictions, this was delayed over time. In 2016 the Library finally achieved this goal thanks to an agreement with the *Sapienza University of Rome* aimed at digitalizing the full-text of this Collection through the *Google Books Project*.

Keywords: digitization, special collections, rare books, ancient books, cultural heritage, Italy

INTRODUCTION

The Library of the Italian National Institute of Health – *Istituto Superiore di Sanità* (ISS) – is the main library for public health and biomedical research in Italy.

It was founded in 1934 together with the ISS¹, which is the technical-scientific body of the Italian National Health Service and the leading research institute in the field of biomedicine and public health.²

The Library's mission is to support the Institute's activities and to make its intellectual scientific heritage accessible to the research community. It specialises in scientific documentation and holds approximately 200,000 monographs; about 9,000 print serial titles; over 21,000 e-journal titles (about 10,000 in current subscription).

Library's holdings include also two notable special collections: the World Health Organization publications consisting of over 7,000 documents and the *Rare Book (RB) Collection* which is the subject of the present paper (fig. 1).



Claudius Galenus, *Opera ex septima Iuntarum editione ...* - Venetijs: apud Iuntas, 1597 (ISS Library – RB Collection)

- 1 *Creazione e funzionamento dell'Istituto di Sanità Pubblica*, Regio Decreto Legge 11 gennaio 1934 no. 27, *Gazzetta Ufficiale del Regno d'Italia* no. 22 (1934); Giorgio Bignami, "Origins and subsequent development of Istituto Superiore di Sanità in Rome (Italy)", *Annali d'Igiene* 14, Suppl. 1 (2002): 68-9.
- 2 *Approvazione dello Statuto dell'Istituto Superiore di Sanità...* Decreto 24 Ottobre 2014, *Gazzetta Ufficiale della Repubblica Italiana* no. 268 (2014): 19-24.

The ancient books collection, known as the *Rare Book Collection*, has been built up over a period of about eighty years and consists of over one thousand ancient printed books (XVIth–XIXth centuries)³ including three manuscripts dating back to after the introduction of printing, as well as the Italian *Mineral Waters Collection* which constitutes of about one hundred volumes⁴

The seventeen anatomical sketches drawn by the famous Italian sculptor *Antonio Canova* (1757–1822) deserve a special mention (fig. 2).



Antonio Canova, Plate XIV: Upper left limb muscles, side view

Canova's myologies, probably dating back to his youth, can be roughly placed between 1776 and 1779. Realized on stiff paper, they give an understanding of the young Canova's grasp of anatomy, especially with reference to muscles. The artist used black carbon to draw the tendons and the adjoining anatomical parts, while sanguine (hematite, red ochre) is used for the muscles. The paper has two different sizes: small (approx. 30 x 48 cm) and large (approx. 48 x 61 cm). In 1943, the ISS bought these drawings from Olschki, an antique bookshop in Rome.

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- 3 Graziella Borgia and Maria Valenti, eds. *Catalogo dei Libri Antichi*. Cataloghi e Monografie della Biblioteca dell'Istituto Superiore di Sanità, edited by Istituto Superiore di Sanità, Biblioteca. Vol. 4 (Roma: Istituto Superiore di Sanità, 1979).
 - 4 Maria Teresa Berruti, ed. *Catalogo delle pubblicazioni sulle Acque Minerali d'Italia*. Cataloghi e Monografie della Biblioteca dell'Istituto Superiore di Sanità, edited by Istituto Superiore di Sanità, Biblioteca. Vol. 1 (Roma: Istituto Superiore di Sanità, 1972).

The 17 sketches are complemented by a manuscript, *Descrizione de muscoli esteriori del corpo humano* (*Description of the external muscles of the human body*), written by Canova.

The last page of this booklet contains a declaration, written in Rome in March 1850 and signed by the Knight Giuseppe D'Este, certifying the authenticity of both the sketches and the manuscript.

D'Este was a member of the Roman circle of artists and art connoisseurs of the first half part of the XIXth century.⁵

Canova is an exponent of the Neoclassical age; he is the only Italian neoclassical sculptor to become famous in Europe. His artistic education certainly comprised anatomical studies of which these sketches are the proof. The sketches have a considerable artistic and historical significance and without doubt are the most precious part of the Library's special collection.⁶

The RB Collection amounts as a whole to 1,153 volumes amongst which there are editions printed in the following centuries: XVIth (9%); XVIIth (14%); XVIIIth (71%), XIXth (6%) (tab.1). As for the language span, most of the books are in Italian (45%) and in Latin (44%), a small part is in French (10%) and only 1% in other languages (English, German etc.).⁷ (tab. 2)

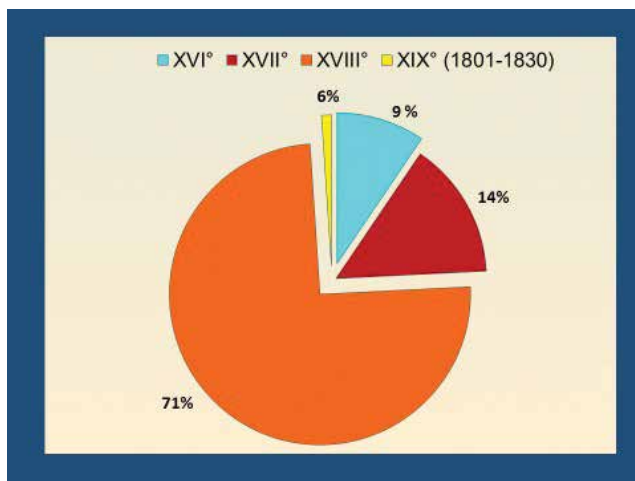


Table 1 – RB Collection: Coverage dates

- 5 Massimo Pantaleoni, *Disegni anatomici di Antonio Canova* (Roma: Istituto Superiore di Sanità –Fondazione Emanuele Paternò, 1949), 5–8.
- 6 Paola Salvi, “Canova’s anatomical drawings,” *Research for Public Health: 1934–2004* (Roma: Istituto Superiore di Sanità, 2004), 38–9.
- 7 Rosalia Ferrara, “New opportunities for rare book collections: an experience of digitization at the National Institute of Health in Italy,” *Journal of the European Association for Health Information and Libraries* 6, no. 2 (2010): 10.

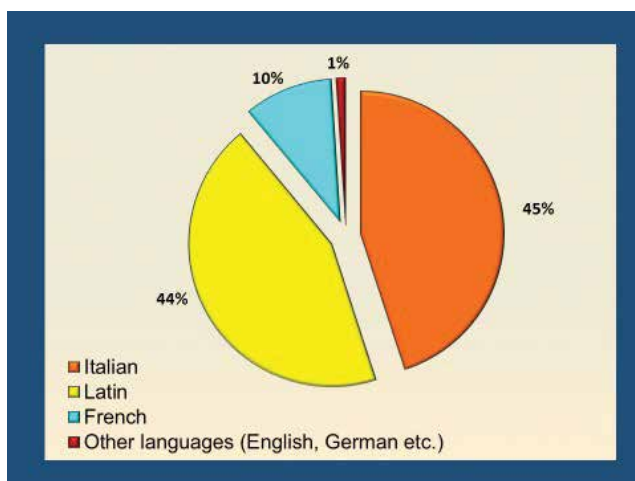


Table 2 – RB Collection: Language coverage

Most of the volumes were acquired by the Library between the 40s and 50s; a significant part comes from the Fondazione Paternò – established with the Legislative Decree n. 426 dated 10 May 1945 – located at the ISS⁸; private donations contributed only to a small portion of the collection.

The RB Collection has been built to testify the evolution of science through the centuries. It mainly covers medical and health-related subjects such as medicine, anatomy, general pathology, hygiene, pharmacy, pharmacology, medical botany, veterinary etc. It also includes books on physics, natural and applied sciences as well as a few volumes on literary and historical topics. Many works are by eminent scientists among which Hippocrates, Galen, Avicenna, Mattioli, Mercurial, Vesalius, Morgagni, Redi, Vallisneri, Lancisi etc. Several editions are noteworthy for their beautiful engravings and the relevance of their printers: Gryphius, Froben, Valgrisi, Blado, Giunta, Giolito, Albrizzi, Pasquali etc.⁹

THE SHARING PROCESS

The Rare Book Collection for years has been one of the many “hidden” historical collections held by the Italian special libraries with the risk that such an important and unique resource remained unknown to the scholarly audience.

8 Giuseppe Penso, *L'Istituto Superiore di Sanità dalle sue origini ad oggi* (Roma: Tipografia Regionale, 1964), 60-1.

9 Vilma Alberani and Ofelia Masciotta, “La Biblioteca dell’Istituto Superiore di Sanità” *Biblioteche Biomediche di Roma*, ed. Vilma Alberani and Ofelia Masciotta (Milano: Editrice Bibliografica, 1986), 35.

The right opportunity for sharing this notable heritage arose in 2007 when a specific project, developed by the Library, was funded by the ISS itself and partly by the Italian Ministry of Education, Universities and Research – *Ministero dell'Istruzione, dell'Università e della Ricerca* (MIUR).

The Project

The project, started in 2008 with the title *The medical-health collection of Rare Books of the Library of the Istituto Superiore di Sanità (XVIth-XIXth centuries) from print to online*, had the purpose of providing access to this important cultural Italian resource.

In 2009 the *Working Group for the Preservation of the Rare Book Collection of the ISS Library*, composed of seven librarians from the ISS Library, was set up with the aim of creating an *ad hoc* “task-force” for the study, cataloguing, preserving and enhancing of this collection.

Set up in different stages and completed in 2010, this project was aimed at the achievement of the following goals:

- online cataloguing of the whole collection according to International Standard Bibliographic Description for older monographic publications-Antiquarian (ISBD/A);
- digitization of the most significant parts of the ancient books: all title-pages and selected pages;
- publication, in print and digital format, of a monographic volume devoted to the illustrated botanical books of the collection.¹⁰

A catalogue of the whole collection, consisting of two volumes in print and digital format, was also published.¹¹

The project was conceived in order to fill a gap in the ISS Library OPAC, which at that time did not contain this collection, bringing it to the attention of people using Internet for the retrieval of bibliographic information.¹² In addition to this the initiative would also have allowed to protect rare and inaccessible documentary resources from any future damages.

10 Rosalia Ferrara, ed. *Immagini botaniche dalla raccolta del Fondo Rari della Biblioteca dell'Istituto Superiore di Sanità* (Roma: Istituto Superiore di Sanità, 2010).

11 Gruppo di Lavoro per la Valorizzazione e la Conservazione del Fondo Rari della Biblioteca dell'Istituto Superiore di Sanità. *Catalogo del Fondo Rari della Biblioteca. Vol. 1: edizioni dei secoli XVI-XVII; Vol. 2: edizioni dei secoli XVIII-XIX. I beni storico-scientifici dell'Istituto Superiore di Sanità, Quaderni 6-7* (Roma: Istituto Superiore di Sanità, 2010).

12 Rosalia Ferrara, M. Alessandra Falcone, Ornella Ferrari, Paola Ferrari, Donatella Gentili, M. Salvatorina Graziani, and M. Letizia Putti, “Il Fondo dei Libri Rari della Biblioteca dell'Istituto Superiore di Sanità: realizzazione di un progetto,” *Notiziario dell'Istituto Superiore di Sanità* 24, no. 12 (2011): 11–15.

At present not only all the expected goals have been achieved, but new initiatives were started as a consequence of the launch of this important activity.

Library events and new services

At the end of the project the Library started organising a series of events (conferences, exhibitions, guided tours etc.) aimed at promoting and making the RB Collection known to the public.¹³

The following new services were also launched in order to make the collection more “accessible” to users:

- *Website* (www.iss.it/rari) specifically devoted to this collection, available in Italian and English language;
- *Local consultation* under the permission of the Library Director;
- *BooksOnExhibition* organized by the Library upon request on occasion of special events as conferences, courses, seminars, workshops, visits by guests etc.;
- *Guided tours* organized by the Library upon request;
- *PhotOnDemand*, images from the RB Collection supplied by the Library upon request in high resolution digital format.

Cooperation with Museums

Museums and libraries are close relatives and rather different entities at the same time: both institutions share the same mission of preserving cultural heritage and the same responsibility in producing, storing and disseminating information.

Between 2014–2017 the ISS Library took the opportunity to start a collaboration with two newborn Italian interactive multimedia museums:

- the *Museum of the History of Medicine and Health* (MuSME) in Padua, inaugurated in 2015;
- the *Museum of the Italian National Institute of Health* (Museo ISS) in Rome, inaugurated in 2017.

Both these museums are interactive and use the latest technologies to guide the visitors through a stimulating educational path. The Library cooperated with them for the production of the *White Book*, a multimedia product in browsable format composed by stunning digital video images taken from selected ancient volumes of the RB Collection.

13 Rosalia Ferrara, M. Alessandra Falcone, Ornella Ferrari, Paola Ferrari, Donatella Gentili, M. Salvatorina Graziani, and M. Letizia Putti, “Il Fondo dei libri antichi dell’Istituto Superiore di Sanità”, *Biblioteche Oggi* 31, no. 4 (2013): 48–49.

The content of each book is different and has been designed by the Library based on the subject covered by each museum:

- the *MuSME White Book* contains about 150 images selected among the most significant pages of medicine and officinal botany between the centuries XVIth and XIXth;¹⁴
- the *Museo ISS White Book* consists of 300 digital images taken from some of the most beautiful and significant volumes of the collection covering the following thematic areas: Ancient and modern medicine; Mineral waters; Botany and zoology; Chemistry, physics and mathematics.¹⁵ (fig. 3)

The cooperation between the Library and these two museums has been a stimulating and challenging experience that could offer further occasions in the future to work with such different, though complementary, cultural institutions.



De Balneis omnia ... In quo aquarum ac thermarum omnium, ... - Venetijs: apud Iuntas, 1553
(ISS Library – RB Collection)

14 Gruppo di Lavoro per la Valorizzazione e la Conservazione del Fondo Rari della Biblioteca dell'Istituto Superiore di Sanità, "La Biblioteca dell'Istituto Superiore di Sanità collabora con il Museo di Storia della Medicina e della Salute di Padova," *Notiziario dell'Istituto Superiore di Sanità* 28, no. 7–8 (2015): 17.

15 Walter Ricciardi, "L'ISS ha compiuto 83 anni... Inaugurazione del Museo ISS per conoscere le radici della sanità pubblica italiana," *Notiziario dell'Istituto Superiore di Sanità* 30, no. 5 (2017): 11.

Full text digitalization through Google Books

From the beginning of this process the Library had set itself the goal to digitize the full text of the whole RB Collection in order to improve the sharing process and the outlook for heritage preservation in the future, but - due to budget restrictions - this was delayed over time.

In 2016 the Library finally achieved this goal thanks to an agreement with the *Sapienza University of Rome* aimed at scanning the full text of the RB Collection through Google Books,¹⁶ which is one of the largest portals dedicated to the digitization of cultural heritage and has been designed to offer free access to what may become the largest virtual library in the Net.

Through Google Books users can freely consult the full text of books that Google had scanned, converted to text using an optical character recognition tool (OCR) and stored in its digital database. Thanks to this agreement, the digitised volumes are now searchable via Google's search engine and the full text of the materials is available for viewing and downloading. In addition to this the ISS Library has received its own digital copy of each volume.¹⁷

The Library has been very excited about engaging in this partnership with Google through the *Sapienza University* for several reasons. First of all, the Library would have never been able to do this on its own because of the lack of funds (the digitization programme would have been only possible through partnership such as this one). Furthermore, this agreement has offered the chance:

- to create a digital archive of antiquarian materials that can be preserved for the future;
- to allow users to access the RB Collection through Google Books;
- to link to the Google full text from the Library OPAC.

ACCESS TO THE RARE BOOK COLLECTION

The RB Collection is kept in a special room (fig. 4) with strict security and temperature and humidity controls. Locally it can be consulted only by authorized scholars, while online free access to the digital edition is possible for any users through the Library catalogue.

16 Adriana Magarotto, Maura Quaquarelli, and Mattia Vallania, "Il progetto di digitalizzazione Google Books presso le biblioteche della Sapienza, Università di Roma," *Digitalia Web* 2, (2013): 117-118.

17 Gruppo di Lavoro per la Valorizzazione e la Conservazione del Fondo Rari della Biblioteca dell'Istituto Superiore di Sanità, "Il Fondo Rari della Biblioteca ISS su Google Books: volumi a testo completo ora disponibili in rete," *Notiziario dell'Istituto Superiore di Sanità* 30, no. 1 (2017): 17.



ISS Library: Sala Rari

Since 2010 the collection has been included in the Library's Sebina OPAC where each document is linked to the image of its title-page and, in many cases, to some selected pages particularly interesting from a bibliographical and/or iconographic point of view such as tables, frontispieces, indexes, ex libris, loose leaves etc.

In 2012 the subject indexing of the collection was completed to give users new search keys in order to facilitate the access to the information.

The OPAC contains, in alphabetical order, both the Library's ancient and modern collections. To search the RB Collection users have to select *Ancient book* in the query box.

The Library realized an original (descriptive and semantic) cataloguing of medium-high level so that each document can be searched through the following fields: author, title, subject, classification, publisher, publication place, language, publication dates, imprint, typographical mark, possessor/provenience/author's dedication. (fig. 5)

The icon *Digital file* in any bibliographic record indicates that one or more digital images are available: to date there are about 3,000 images watermarked with the ISS logo.

Furthermore since 2017 the full text of each document is also available the link to through Google Books.

Testo a stampa [articolo]
Monography

Description **Andreae Vesalii Bruxellensis, ... "Chirurgia Magna in septem libros digesta. In qua nihil desiderari potest, quod ad perfectam, atque integram de curandis humani corporis malis, methodum pertineat. ... Prospero Borgharucio, recognita, emendata, ac in luce edita. ... Cum amplissimis indicibus ... Venetis : ex officina Valgrisiana, 1569 (Venetis : ex officina Valgrisiana, 1569)**
[28], 475, [1] c. : ill. ; 8o

Note Cons. : rom

Marca (U17) sul front. ed in fine
Segn.: a4 c-e8 A-318 304
Omesso nella segnatura il fasc. b
Bianca la c. e8
Ill. e iniziali xilogr.

Author **Vesalius, Andreas <1514-1564>**
Notes and Bibliography

Coauthor **Borgharucio, Prospero <n. 1540>**
Notes and Bibliography

Publisher **Valgrisi, Vincenzo**
Notes and Bibliography

Soggettario **ISS Chirurgia (Fondo Rari)**

Libri antichi e di pregio (Fondo Rari)

Classificazione **Fondo Rari 1500**

Imprint **i-n- 161, la- fca (3) 1569 (R)**

Marki Serpente attorcigliato a bastone a forma di tau sostenuto da mani uscenti da volute.

OPAC: Bibliographic record

CONSERVATION TREATMENTS

The restoration of ancient books is an essential activity to preserve and protect any cultural heritage of historical and scientific value. Over the years, the RB Collection has undergone several conservation treatments (cleaning, restoration, disinfection) aimed at preserving this valuable heritage.

A special conservative intervention was devoted to the precious Canova's drawings. Between 1999 and 2000 the Italian *Istituto Centrale per il Restauro e la Conservazione del Patrimonio Archivistico e Librario* (ICRCPAL) was tasked with the study and the execution of this project. Canova's drawings in the past were piled one on top of the other in a closed binder. This overlaying caused severe loss of colour, particularly of the sanguine, which settled on the reverse of the drawing positioned above. To avoid irreparable damage ICRCPAL decided to place each drawing in a separate folder made of non-acid paperboard, structured in such a manner as to prevent any form of contact. The last conservative intervention in chronological order dates back to the year of 2016 when, in occasion of the digitization process through Google Books, the Library decided to restore some volumes of this collection. The conservation treatments were handcrafted by a private firm specialized in ancient materials.

CONCLUSIONS

Nowadays the new technologies applied to the digitization process enable a wider public to access and explore historical and cultural heritage, which is the ultimate goal of organizations such as libraries and museums established to share knowl-

edge. As a matter of fact the digitization of rare and ancient objects, undertaken by many institutions across the world, has facilitated wide access and availability of these materials from users across the world.

The experience reported in this paper points out that the sharing process of an unknown cultural heritage is long, but has brought expected results. The Library started the digitalization programme of the RB Collection ten years ago, achieving in 2016 its final goal of giving free public online access to the RB's full text through Google Books. The path towards the full text digitization was made of several different stages. Although a number of critical issues were faced, this activity has always been supported by the enthusiasm of the Working Group's members and by the high number of positive feedbacks received during these ten years.

Furthermore, this experience for the ISS Library, whose main task – in its role of scientific research library – is to support the Italian researchers in their job, has been not only a challenge but also a great opportunity for undertaking a new activity, involving ancient books, traditionally prerogative of storage libraries.

Now that these rare documents are available to the public through the Internet, their accessibility and visibility have increased exponentially and users have gained access to a collection of great value for the history of science.

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