Conserving ancient knowledge for the modern world

Carlos Fiolhais[1]

General Library of the University of Coimbra, University of Coimbra, Portugal

Introduction

Old academic libraries have an obligation to conserve ancient knowledge not only for the modern world but also for the future. Today, new technologies (specifically the digitalization of books and documents, internet publishing of the resulting images or texts for public and free access and adequate indexing for easy retrieval) are available in order to accomplish this task. These procedures provide wider access, to researchers as well as to the general public, and also mean that the original books and documents suffer less from frequent handling. Of course the question remains how to guarantee the best preservation of the originals and of the digital versions. This problem is currently the object of research. Paper has resisted the erosion of time for many centuries and we must ensure that this will also be the case with the much more recent digital records. Furthermore, it is also necessary to provide a good and permanent interface to the contents.

The difficulties faced by old university libraries in undertaking this enterprise, and their achievements, may be well illustrated by the case of the General Library of the University of Coimbra (*Biblioteca Geral da Universidade de Coimbra*), Portugal. This library, which is more than five centuries old, possesses invaluable collections in Latin, Portuguese and other ancient and modern languages. One of its premises is a splendid historical building, the Baroque 'Joanina' Library (*Biblioteca Joanina*), which contains numerous old books and documents. In recent years, the General Library, in close partnership with other libraries of the University of Coimbra, has made a great effort to digitalize and post on the Web as many books and documents as possible, thus enlarging the presence of the Portuguese language and culture in the cyberspace.

In the present chapter, we will briefly describe the University of Coimbra, its General Library and the digital projects it is undertaking.

University of Coimbra

The history of the University of Coimbra goes back to the 13th Century (the Portuguese Kingdom had been created in 1143). In 1288, a supplication, signed by the abbots of the Monasteries of Alcobaça, Santa Cruz of Coimbra and São Vicente of Lisbon, and by the superiors of two dozen other churches and convents,

[1]Email: tcarlos@teor.fis.uc.pt

was made to Pope Nicholas IV. This document requested the foundation of a 'General Study' (in Latin, *Studium Generale*) and stated that its running would be the responsibility of those religious institutions. Two years later, the Portuguese General Study was created by the document *Scientiae thesaurus mirabilis* signed by King Dinis (1261–1325) and confirmed by the bull *De statu regni Portugaliae* issued by Pope Nicholas IV. The old university included the Faculties of Arts, Medicine, Civil Law (Laws) and, of course, Canon Law (Canons).

The University began its activity in Lisbon, the capital of the Kingdom, but, in 1308, the General Study was transferred to Coimbra. It moved back and forth between Coimbra and Lisbon until 1537, when it was definitively established in Coimbra (the present University of Lisbon was only founded in 1911, shortly after Portugal became a republic).

The University of Coimbra is thus one of the oldest in the Western world (the oldest is the University of Bologna, Italy, which is conventionally dated back to 1088). It is significant that an association of historical and prestigious European Universities chose the name 'Coimbra Group', after its first meeting in Coimbra in 1985. Formally constituted by Charter in 1987, the Coimbra Group, which includes Bologna, brings together long-established European universities of a high international standard. According to the information on its website, the Group:

"*is committed to creating special academic and cultural ties in order to promote, for the benefit of its members, internationalisation, academic collaboration, excellence in learning and research, and service to society.*" [1]

General Library of the University of Coimbra

The University of Coimbra General Library is the central library of the University. As early as 1513, even before the University was definitively transferred to Coimbra, a library was in operation in the city, under the name *Livraria de Estudo* (Study Library), so that in 2013 this library is going to celebrate its 500th anniversary. On the basis of the inventories of 1513 and 1532, we can say that more than 120 manuscript volumes were stored in the library at that time. After the University was definitively installed in Coimbra, this *Livraria* was opened to students and teachers for four hours a day. The University statutes of 1559 determined that the library should be open six hours a day, and the statutes of 1571 and 1597 described it as:

"*a public library for lecturers, students and everybody else.*"

The Joanina Library (*Biblioteca Joanina*) was constructed from 1717 to 1728. In 1901, at a time of another university reform, it was renamed *Biblioteca Central* ('University Central Library') since by then a number of other libraries were operating in the various faculties. The current designation of the library, *Biblioteca Geral da Universidade de Coimbra*, was coined in 1924. Since 1932 the General Library has been a national depository, receiving all books and periodicals published in Portugal and functioning as a back-up to the national library in Lisbon. Its present main building, in the 'New State' style, was inaugurated in

1962 at the time when António de Oliveira Salazar, a Coimbra Professor of Law, was Prime-Minister.

The Joanina Library (Figure 1) is so named because it was built during the reign of King João V (1689–1750). A masterpiece of the 'Enlightenment' architecture, it is located on the top of a hill, very close to the University tower, in the historic centre of both the university and the city. Over the main door, the library exhibits the coat of arms of Portugal, indicating the national character of the institution. Inside, one finds three great rooms divided by decorated arches, entirely executed by Portuguese artists. The walls are completely covered by two-storeyed shelves, in gilded or painted exotic woods. The omnipresent *chinoiserie* indicates the cosmopolitan character of the library, which was built at a time when Portugal ruled a large Empire, including parts of today's Brazil and China. The painted ceilings, with *trompe-l'oeils*, blend harmoniously with the rest of the Baroque decoration. This library, built on the top of a medieval prison, which later served as university prison, contains more than seventy thousand old volumes (i.e. books published before 1830), on various subjects: medicine, geography, history, humanities, science, civil law, philosophy and, mainly, canon law and theology. The building, now a national monument, is the main tourist attraction of the whole University (the university prison in the basement, which shows small exhibitions, is a popular curiosity). A modern French historian of art, Germain Bazin, called it:

"*la bibliothèque la plus fastueuse que j'ai jamais vue.*" [2]

The library is featured in book form by the famous German photographer Candida Hoefer [3] and also by the Turkish photographer Ahmet Ertug [4] (the latter is the result of an exhibition, held in 2009, at the Bibliothèque Nationale de France, in Paris, on the most beautiful libraries of the world). It is also nicely
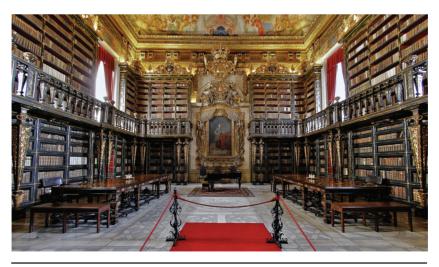

Figure 1

Perspective of the Baroque Joanina Library, with the portrait of King João V in the background

Photography, Paulo Mendes. This image has been reproduced with permission from the Baroque Joanina Library.

represented in the recent book *Tesouros da Biblioteca Geral da Universidade de Coimbra* [5]. One can also make a virtual visit to the Joanina [6].

The following examples are given in order to afford a glimpse of the old and rare books belonging to the University of Coimbra's remarkable collections:

• *Bíblia* (manuscript), 1401–1450, known as the *Bíblia de Abravanel* ('Abravanel Bible')

This is a manuscript on parchment attributed to the Lisbon school of calligraphers of the 15th Century. As most of the Hebrew Bibles in the Iberian Peninsula were confiscated and burned by the Inquisition it is very rare. Only around 20 copies are known in the world, others are located in Parma, Oxford and Cincinnati. The beginning of the Book of Genesis is written in micrography in the Mudejar style. As it has notes and other indications associating it with the Abravanel family, who lived in Lisbon and Seville, it is known as the Abravanel Bible (the philosopher Isaac Ben Abravanel, or Yitzchak ben Yehuda Abravanel, 1437–1508, a notable member of this Jewish family, was probably one of the owners).

• *Bíblia Latina* ('Latin Bible'), Mainz: Iohez Fust et Petru Schoiffher de Gernsheym, 14 August 1462, called the 48 line bible, in two volumes

This is the first printed Bible to contain the date, the location and also the name of the printers Johann Fust (circa 1400–1466) and Peter or Petrus Schoeffer (circa 1425–1503), partners of Johannes Gutenberg (circa 1430–1468) of Mainz. It is also the first book in the history of the Western press to bear a printer label; indeed below the colophon, Fust and Schoeffer added a picture of their coats of arms. Although it is somewhat more recent, complete copies of this Bible are rarer than the '42 lines' Bible of Gutenberg, which was the first printed book.

• *Tabuas dos Roteiros da Índia de D. João de Castro* ('Tables of India Routes of João de Castro'; the original manuscript is entitled *Tavoas dos lugares da costa da India*)

This is the only known manuscript that includes illustrated maps of the voyages to Diu and Goa (1538–1539) in India, and to the Red Sea (1540), in the great age of maritime discoveries, by the Portuguese viceroy of India João de Castro (1540–1548), who the English physicist William Gilbert, author of *De Magnete*, referred to as a precursor of the study of magnetism. Few other copies of these manuscripts are known (the originals are believed to be lost) and those do not have all the illustrations: one, at the Portuguese National Library, describes the Indian coast, and the other, at the British Library, describes the Red Sea coast. The *Tabuas* are in large format paper, with watercolours showing harbours and shoals, with picturesque notes on indigenous people and exotic animals. A facsimile edition has been published [7], but sold out quickly.

The obvious questions to be asked about historical libraries like that of Coimbra are how we modernize them; how do we make widely available the

information, the knowledge and the wisdom contained in these old books and documents?

Digital projects

Most libraries around the world have developed electronic catalogues with Web access, or Web OPACs (online public access catalogues), and have digitalized and posted on the internet the contents of selected old books and documents. They also provide open access to current books and documents in digital format, whenever copyright laws allow it. Although today's libraries, through their virtual components, are ubiquitous, they also try to be pleasant spaces to spend time in, places of inspiration, discovery and, sometimes (as is certainly the case of the Joanina Library), wonder.

At the General Library of the University of Coimbra, the online catalogue, based on the *Millennium* system from Innovative Interfaces (which uses the MARC 21 format) [8], currently contains over 1 100 000 records, not only from the General Library but also from 80 other libraries of the University as a whole. Work is under way to convert old card catalogues (for instance, those referring to special collections) to the modern computer system; the total number of volumes still missing from the Web OPAC is estimated to be more than one million.

Regarding digitalization, a project called *Digital Library of the University of Coimbra* is also under way. It includes today about 3500 books, corresponding to 500 000 images (not only from the General Library but also from the Libraries of the Faculties of Law, Arts, and Science and Technology) [9]. For instance, both the *Bíblia Latina* and the *Tabuas dos Roteiros* are accessible online. Furthermore, all books (around 600) published by the General Library in the 20th Century, some of them facsimiles of old books from the library, were digitized by Google and their full text placed on the Google Book search site.

Like many similar institutions, the University of Coimbra has signed the Open Access Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, which was issued in a conference in Berlin in 2003 [10]. The digital institutional repository of scientific works, using the *DSpace* software, was given the suggestive name *Estudo Geral* [11] in line with the original name of the university. It started in June 2008 and currently has more than 7000 records, most of them full texts. Its content is harvested by a Portuguese meta-repository located in Lisbon, which aggregates all Portuguese university digital repositories.

Both the digital library and the digital repository are managed by the Common Service of the University of Coimbra Libraries (SIBUC; *Serviço Integrado de Bibliotecas da Universidade de Coimbra*). This service also helps the academic community by providing the interface with the Online Knowledge Library (*b-on*), co-ordinated by the National Foundation for Scientific Computing and by the Agency for Information and Knowledge, in Lisbon. Moreover, it maintains the University Libraries' Portal, which provides connection to internal and external bibliographic resources, displays statistical data and offers other professional information. Our motto is: integrate libraries, make libraries work together for the sake of comfort of the user.

The SIBUC also has, among its goals, the preservation of old books and documents (for which a specialized laboratory is planned), and of digital contents. It is with respect to this latter goal, research and development in the area is carefully followed so that we may make advances in the future.

Paper kept in old libraries has survived for more than five centuries. We must, as we said at the beginning, ensure that the new digital media, which are totally or partially replacing paper, have a similar longevity. However, whatever the future of books and periodicals, in paper or digital formats, might be, university libraries, in the tradition of old libraries such as the University of Coimbra General Library, should provide the information, the knowledge and, hopefully, the wisdom, which are needed by students, professors, researchers and society at large.

References

1. http://www.coimbra-group.eu/01_about_us.php
2. Bazin, G. (1960) La bibliothèque la plus fastueuse que j'ai jamais vue. *Connaissance des Arts* 100, 66–71
3. Hoefer, C. (2007) *Em Portugal. In Portugal* (J. Saramago, foreword), Shirmer/Mosel Verlag, Muenchen
4. Ertug, A. (photographer) (2009) *Temples of Knowledge: Historical Libraries of the Western World* (B. Racine, foreword and R.S. Nelson, introduction), Ertug and Kocabiyik Publications, Istanbul
5. do Amaral, A.E. Maia (2009) *Tesouros da Biblioteca Geral da Universidade de Coimbra,* Imprensa da Universidade, Coimbra
6. http://bibliotecajoanina.uc.pt/, a DVD with the contents in English and four other languages is available, e.g. http://www.almedina.net/catalog/product_info.php?products_id=7284
7. Tábuas (1988) *Tábuas dos roteiros da India de D. João de Castro. Fac-símile do códice 33 do Cofre da Biblioteca Geral da Universidade de Coimbra* (L. de Albuquerque, introduction), Inapa, Lisbon.
8. http://web.pac.sib.uc.pt
9. http://web.bg.uc.pt:8080/. *Bíblia de Abrabanel*, http://bdigital.sib.uc.pt/bg2/UCBG-Cofre-1/UCBG-Cofre-1_item1/index.html; *Bíblia Latina*, http://bdigital.sib.uc.pt/bg1/UCBG-Cofre-24_2/UCBG-Cofre-24_2_master/UCBG-Cofre-24–1/UCBG-Cofre-24–1_item1/index.html and *Tábuas dos Roteiros*, http://bdigital.sib.uc.pt/bg1/UCBG-Cofre-33/UCBG-Cofre-33_item1/index.html
10. http://oa.mpg.de/openaccess-berlin/berlindeclaration.html
11. https://estudogeral.sib.uc.pt/