[M.C. Lourenço, 2005. *Between two worlds: the distinct nature and contemporary significance of university museums and collections in Europe*. PhD dissertation, Conservatoire National des Arts et Métiers, Paris]

2. Objectives and Methods

2.1 Objectives, object of study and scope

The present research programme aims at reviewing past and present knowledge of university collections[11], as well as contributing to our understanding of their significance for universities and for contemporary society in general.

The research focused on museums and collections in European public universities, although relevant literature from outside Europe was also taken into account. Throughout this dissertation, Europe should be understood as geographical Europe, as it was the classical model of the public European university, rather than political borders, that determined the scope of this research.

Although I have referred to museums *and* collections, the collection was considered the inclusive unit of this research. This was done for conceptual convenience as well as for other reasons, which will be discussed in chapter 3. When applicable, I will address museums separately, because a) universities have museums too and b) the museum is more than a mere physical location of collections and raises different issues by itself.

The study did not *a priori* exclude any disciplines represented in university collections, as similar issues appear to affect collections from all disciplines (although some more severely than others) – from natural history to archaeology, from medicine and art to the history of physics and anthropology. A multidisciplinary perspective seemed the most adequate to a field that is vast and diverse, but barely studied with regard to fundamental issues. By adopting such a perspective, it was hoped that key issues, as well as main conceptual, terminological and methodological problems, could be identified. A second important reason for adopting a multidisciplinary perspective was to examine if the significance of university collections could be derived from an eventual distinct nature (a disciplinary approach would limit the possibilities to discuss this aspect).

2.2 Limits and approach

Clearly, a price as to detail has to be paid for obtaining a general overview and it will go without saying that this research does not cover *all* aspects possibly related to university collections and museums.

What makes a collection significant? Typically, university collections are said to have importance for research, teaching, public interpretation or a combination of the three. It has also been said that objects are selected for being sources of information rather than for aesthetical or other reasons. This is often true, but what does it precisely mean? Is it possible to deepen our understanding of the relationships and connections between and amongst objects, collections and the different disciplines in the university context? The significance of collections has been the subject of extensive museological and material culture research (e.g. Lubar & Kingery 1993, Mayer 1994, Pearce 1994, 1998, Belk 1995, Kingery 1996), but none of these studies addressed university collections in particular or, for example, the role of objects in formal teaching. The issue is complex by its very nature, as it depends on how one defines

[11] In this dissertation, the term 'university' is taken in its broadest sense and to mean all European higher education institutions, including for example the *Fachhochschulen*, the polytechnics and the *grandes écoles*.

'significance' in the first place. Generally speaking, the significance of a collection is a function of the individual objects or specimens included in that collection. A collection can also be significant because of the role each object plays within the system of that collection. As time passes, significance tends to grow and become multifaceted as both objects and collection acquire a new meaning and role.

Based on this simple assumption, five key parameters were selected to facilitate an initial exploration of these levels. These parameters were: a) role of the objects; b) origin and purpose of collections; c) organisation of the collection (e.g. taxonomic, chronological, etc.); d) use of collections and objects; and e) users of collections and objects. These served as a point of departure both while searching the literature and during study visits. Matters such as public access, exhibitions, interpretation, ethics and conservation were taken into consideration when relevant to collections, but did not constitute core objectives for study *per se*[12].

The general approach in this research is historical and comparative. University collections were examined in relation to the history of universities, as well as the development of science and higher education, while the five key parameters served as a platform for comparative analysis across the different disciplines. A preliminary assessment of the origin and purpose of university collections is presented in chapter 4, while the remaining parameters are examined in chapters 5 and 6.

2.3 Theoretical framework

Any study of museums is necessarily interdisciplinary. Encompassing multiple disciplines, this research was not easy to frame theoretically. Additionally, university museums and collections are positioned at the intersection of two spheres: that of museums and that of academia. This research approaches university museums and collections from a historical and comparative perspective. Each of the above factors brought about its own layers of theoretical complexity.

Because research focused on the role of university museums and collections, it resorts under the general umbrella of museology. The nature of museology, its object of study and methodology, have been extensively discussed among museum professionals (e.g. Washburn 1967, Neustupn 1970, Teather 1984, Mensch 1992, Cameron 1995). Museology has entered the lexicon of museum professionals, even in the Anglo-Saxon world (e.g. AAM/ICOM Bylaws, last version amended 1996; Centre for Museology at the University of Manchester, MacManus 2000), and since 1976 there is an international committee of ICOM devoted to museology (ICOFOM), which defines museology as "the theoretical approach to the functions, the activities and the role in society of the museum as a repository of collective memory"[13]. Although not mentioned specifically, it is taken that this should be understood to include collections. It can be argued that the history and role of the majority of university collections have been driven by research policies and pedagogical methods and strategies rather than by the evolution and role of museums per se. Therefore, a second parallel major source of the theoretical background is derived from the way knowledge is constructed and transmitted in the different disciplines, i.e. history, epistemology and philosophy of science (science here understood in its broadest sense).

[12] During study visits, I have purposefully collected information regarding exhibitions, interpretation and public access. The data will be used for future research.
[13] Definition established by ICOFOM (ICOM's International Committee for Museology).

2.4 Methods

Although extensive due to the geographical and disciplinary inclusiveness adopted, the methodology of this research has not been particularly complicated. The research programme revolved around two main methodological axes: a) one aimed at compiling a comprehensive bibliography, and b) another aimed at gathering qualitative data from the field through study visits and interviews. These two axes were mutually disseminating as the literature initially helped identifying issues to address in the field, as well as bringing up new questions and providing feedback, while in turn study visits brought to light additional literature. Therefore, data came from two major sources: a) bibliographical, including archival documents and legislation, and b) field study, including correspondence, interviews and visits.

2.4.1 Bibliographical Sources

The multidisciplinary approach defined the diversity of bibliographical sources, which can be grouped into two major categories: a) specific sources, and b) reference sources. These were in turn subdivided as shown in fig. 2.1.

Although the literature on university museums is substantial, it is also much dispersed. Given the traditional role of research by staff, of which publishing is a major component, university museum curators have been and still are prolific authors – they do, however, mostly publish in specialised journals related to the disciplines represented in the collections. There are also a considerable number of publications that pertain to the so-called 'grey literature'[14], which are often harder to access. As university collections and museums are at the intersection of the worlds of academia and museums, papers are published in both realms. However, the majority of bibliographic sources basic to this research are fundamental texts, which have contributed to our understanding of the role and significance of university museums and collections (e.g. Black 1984, Ferriot 2003). These were mostly published in the professional museum literature – journals such as *Curator*, *Lettre de l'OCIM*, *Museums Journal*, *Journal of the History of Collections*, as well as museum manuals and books. To establish the state of past research, a number of theses on university collections was also consulted (e.g. Peikert 1956, Hurst 1991).

Fig. 2.1 – Overview of bibliographical sources

[14] 'Grey literature' is usually understood as publications issued by organisations and institutions whose primary business is not publishing. Scientific grey literature comprises newsletters, reports, working papers, theses, government documents, bulletins, fact sheets, conference proceedings and other publications distributed free, through subscription or sale, in both printed and electronic formats (Weintraub 2000). The term is often used in a depreciative manner, but the importance of grey literature in science has been highlighted before (e.g. Subramanyan 1981, Auger 1989).

Professional museum literature did not exist before the 1900s (Hudson 1987). Among the older and more widely distributed museum journals, *Museums Journal* (UK) began publishing in 1902, *Museumskunde* (Germany) in 1905, *Museum Work* (USA) in 1919, *Museum News* (USA) in 1952, and *Curator* (USA) in 1957. A systematic and organised exchange of ideas at the international level did not exist before the establishment of ICOM in 1946 (Hudson 1987): *ICOM News* was first published in 1946 and *Museum International* in 1948. Only in 2000 did *Museum International* publish the first article – in fact a series of 16 articles, organised in two issues (Nos. 206, 207) – on university museums as a group in their own right. Texts on university museums of an international dimension – well-nigh non-existent before the late 1990s – are mostly the result of the creation of the *Universeum* network and particularly the establishment of UMAC within ICOM. In fact, and excluding descriptive papers of a particular university collection or museum, probably more than 90% of the literature on university museums and collections was published since the 1980s. National and international associations of university museums contributed substantially to the post-1980s boom in professional literature, which greatly benefited this research by means of abundant published and unpublished materials.

Papers published in specialised journals, such as *Paleobiology*, *Nature*, *International Review of Education*, and specialised catalogues (e.g. Cittert 1954, Brenni 2000), were considered relevant for this research if they included data on the history and significance of university collections (e.g. Cristofolini *et al.* 1993), the history of science and research (e.g. Pihlman 1995, Bennett 1997), or the role of objects in research and teaching (e.g. Zusi 1969, Ortner 1978, Rudwick 1985, Allmon 2005). Specialised subject-matter literature was also considered if dealing with particular social, economic or scientific aspects directly impacting university collections, such as the alleged 'crisis' in natural history (e.g. Dalton 2003, Wheeler 2004). Finally, papers addressing universities and higher education were also found relevant (e.g. Fehrman & Westling 1995, Verger 1999, Field 2003).

In short, bibliographic sources were taken from a) the professional museum literature (the majority); b) specialised scientific literature; c) journals, books, newsletters and catalogues published by university museums and universities, and d) other types of publications, such as theses, surveys, reports, policy and governmental documents, newspaper articles, and so on. At the start of the research, literature considered covered English, French and Portuguese sources only. As the work progressed, publications in German, Dutch, Italian, Finnish, Swedish, Spanish and Danish were also collected, both as hard copies and in electronic format (CD and DVD).

2.4.2 Field Sources

The majority of study visits took place between November 2002 and November 2004 and included 195 university museums and collections in Belgium, Estonia, Finland, France, Germany, Italy, the Netherlands, Sweden, and the UK. Portuguese university collections were visited during 2001 and the University of Naples was visited in late 2000 (fig 2.2).

The aim of the study visits was to collect first-hand information. Lack of knowledge from the field, in combination with the seemingly rapid pace of change, prompted the use of an inquiry type of field research, sustained by flexible qualitative research tools under constant examination and reformulation. The following steps were taken, some necessarily overlapping in time:

Preliminary surveying (November 2000-July 2002)

At the outset of this study, only few published lists and directories of university museums and collections in Europe existed. Apart from lists resulting from the British (Bass 1984a,b,

Arnold-Foster 1989, 1993, 1999, Arnold-Foster & La Rue 1993, Arnold-Foster & Weeks 1999, 2000, 2001) and Dutch surveys (e.g. LOCUC 1985, Anonymous 1997, Stoop 1999, Galen & Stoop 2000, Adviesgroep Rijksdienst Beeldende Kunst 1996) and one report from France (Héritier-Augé 1991), existing lists remained unpublished. University museums could only be traced through a plethora of museum yearbooks, surveys and compilations (e.g. Ruppli 1991, 1996, Wijgergangs & Kati 1996, Spronsen 1998, Davoigneau & Tully 1999). There were two international online databases of university museums and collections – one developed at Macquarie University, Australia[15], the other at the University of Witwatersrand, South Africa[16]. For this reason, and although this study did not aim at carrying out a census, at least some preliminary surveying was deemed necessary. This was mostly done through these published and online sources, as well as relevant governmental and non-governmental bodies and personal contacts. Although it might seem the obvious choice, sending emails or faxes to universities, inquiring about the existence of museums and collections, proved to produce only minimal results. In November 2001, precisely such inquires were sent to the general email address of 22 French universities, which yielded only five replies (see appendix A2, table A2.3).

Exploratory interviews (November & December 2000)

In parallel with the preliminary surveying, short questionnaires were sent by email and fax to 54 members of staff responsible for university museums and collections in Belgium, Denmark, Finland, Italy and UK. Email addresses were taken from the publications and databases mentioned above. The objective of this round of queries was to refine issues and methods. The number of replies received was 37 (see appendix A2, table A2.1). These preliminary interviews were important as they suggested that: a) the number of teaching collections was probably larger than foreseen, b) terminology was important, and c) the field was much vaster than initially thought. Some of the replies received in this stage are used in this dissertation when considered relevant.

Study visits and interviews in Portugal (February-June 2001)

Between February and June 2001, 23 study visits to Portuguese university collections and museums were made and 19 in-depth interviews were conducted (see appendix A2, table A2.2). Several contacts were made for visits to other collections, which did however not materialize due to circumstances beyond my control.

Interviews were also conducted with representatives from Portuguese universities, e.g. the Rector of the University of Lisbon and the Pro-Rectors in charge of museums of the universities of Lisbon and Coimbra. The Portuguese Conference of Rectors was also contacted (for a full account of additional contacts, see appendix A6).

Collecting initial information from relevant bodies and selected individuals (November 2000-July 2002):

Pertinent bodies such as the Portuguese Ministry of Education and the French Ministère de la Recherche et de l'enseignement supérieur were contacted, both for collecting specific advice and obtaining documentation. Among other organizations contacted were the Portuguese Institute of Museums and the Portuguese Network of Museums (both residing under the Ministry of Culture), ICOM/UMAC, the Italian and Portuguese Councils of Rectors, and the European Association of Universities *EUA*. Because of the lack of published information on existing collections and museums, several specialists were also contacted. These provided important advice on topics to be covered during study visits and interviews. Specialised internet discussion-lists, such as Museum-L (museums), Vertpaleo (vertebrate

[15] This database has been expanded and is now UMAC's Database, accessible at http://publicus.culture.hu-berlin.de/collections/

[16] See http://sunsite.wits.ac.za/mus/, accessed 27 July 2005.

palaeontology), Taxacom (taxonomy and systematics), and AABGCOL (Botanical Gardens, Arboreta and Herbaria), also provided an important source of initial information.

Pilot questionnaire (April-May 2002)

The exploratory nature of the research required a preliminary pilot stage, during which conceptual, terminological and methodological problems were further identified. The Web was initially thought to be a privileged means of gathering information. An online pilot questionnaire was therefore designed and circulated among a selected group of respondents[17].

The field study greatly benefited from this pilot questionnaire, particularly the interview script and the general guidelines for study visits. Apart from the questions, respondents were also asked to comment on the general objectives of the research and the pertinence of issues. The diversity of university museums and collections throughout Europe was further confirmed and so was the similarity of problems and challenges they were facing. During this preliminary stage it became clear that highly structured, standardised techniques of quantitative research would not be the appropriate approach to fulfil the aims of the present research project.

Selecting universities and preparing study visits (summer 2002)

A number of universities were selected as targets for study visits. Although the sample was not aimed at being statistically representative, geographical and disciplinary coverage were important selection criteria. The selection included universities in northern and southern Europe and different higher education models (e.g. Anglo-Saxon, French, Humboldtian). Because of temporal and financial restrictions, the proximity of multiple collections was also taken into account. The most important criterion, however, was the existence of a personal contact who could guide me through the particular institutional labyrinths of a place, thus enabling me to interview relevant staff. Through my participation in conferences and workshops, additional study visits were possible, including a few outside Europe (see appendix 6, table 6.4). More than 50 universities in 10 European countries were visited.

Each study visit was preceded by an exchange of correspondence and thorough preparation and it is probably fair to say that interviews often started weeks before the actual visit. Staff in charge of collections or museums often sent documentation in advance, either by ordinary mail or by email. Particular attention was given to the origins and history of collections and museums. When existent, websites of collections and museums to be visited, as well as the hosting university, were scrutinized, allowing for a customized interview script that would include issues specific to each institution.

Study visits to university collections and museums (November 2002 to November 2004)

Interviews (oral and by email) and direct observations were the preferred methods. The main guidelines for the field research were the five key parameters outlined above, i.e. role of objects, origin and purpose of collections, organisation of collection, use of collections and objects (see appendix A3).

i) Interviews

Interviews were not pre-structured, but based on open conversation topics designed to assemble maximum response. Basically, a respondent was encouraged to talk about the collection or museum and describe his or her experiences and motivations, rather than answering 'yes' or 'no'. As a result, some interviews lasted four hours while others lasted 30

[17] See questionnaire and respondents in appendix A2.

minutes. This rule was followed even in the case of email interviews, which rarely consisted of one set of questions. Typically, a single email interview was an iterative process amounting to five or six emails, often more.

Oral interviews were initially recorded on tape for later transcription and analysis. However, the use of a tape recorder was abandoned as the conversations often covered sensitive topics (such as policies, assessment of the work of others) and interviewees felt inhibited by its presence. As an alternative, only handwritten notes were taken. Even so, part of the data was obtained under the condition of anonymity.

Fig. 2.2 – Map of Europe showing universities visited (2000-2004).

ii) Respondents

Without exception, respondents were helpful and demonstrated great interest in participating in this research. As a rule, directors, curators and staff persons responsible for collections or museums were prime targets. This proved to be a very heterogeneous group, ranging from professors and professional curators to technicians and from retired professors to PhD students and researchers (see appendix A5, tables A5.1 and A5.2).

Visits to universities also provided opportunities for meetings with university administrators, whose job titles could vary from 'responsible for public relations' to 'pro-rector', 'vice-rector' and 'rector'. Duration of these meetings varied from brief encounters to lengthy interviews. These included university administrators from the universities of Lisbon, Porto, Coimbra, Leipzig, Halle-Wittenberg, Bologna, Tartu, the Technical University of Lisbon, Montpellier 2 and the Université Libre de Bruxelles (see appendix A6, table A6.1).

Whenever possible, interviews were also conducted with representatives of ministries of higher education and culture and other relevant bodies (appendix A6, table A6.2) and with experts from various fields, such as history of science and technology, history of art, and history of museums (appendix A6, table A6.3). Finally, a fifth category of respondents were

curators from museums non-affiliated with universities – for example national or local museums – particularly when these held substantial collections previously transferred from universities (appendix A5, table A5.4).

iii) Types of collections and museums studied

At the outset of this research, operational definitions of museum and collection were adopted, with the collection as the main inclusive unit. Apart from this, no strict demarcations were enforced and an open, inclusive and pragmatic approach was followed. No differentiation was made between small and big collections, small and large museums, complying with ICOM standards or not complying with ICOM standards, in current use or purely 'historical', catalogued or not catalogued, well kept or neglected, well-known or obscure, kept in storages, in warehouses, in laboratories or in classrooms. The approach taken was to allow the designations and concepts to dictate the topics rather than try to force an analysis into a predetermined scheme. Observing, listening to the interviewees and, more generally, exploring in an inclusive way was considered more important than fitting designations into pre-established drawers.

The time frame of study visits is shown in appendix A4 (table A4.1). Appendix A5 presents the bulk of the field work and it is organised as following:

- collections, museums and projects visited, as well as date, staff interviewed and job titles at the time of interview (table A5.1);
- interviews conducted without study visit (by email, phone, fax or in person but off site), including interviews conducted during the preliminary stage (table A5.2);
- summary-table (table A5.3);
- non-university affiliated museums visited, as well as date, staff interviewed and job titles at the time of interview (table A5.4).

In total, 236 university collections and museums were studied, either by study visit, interview or both (table 2.1). A total of 293 museums and collections were initially contacted, representing 20% of non-replies or first contact without appropriate follow-up. Although all 236 collections and museums were included in the final discussion, with quotes from interviews used throughout this dissertation, more detailed attention was paid to the 165 collections and museums visited with interviews.

Country	Study Visits		Interview without visit	Total
	With Interview	Without Interview		
Belgium	1	--	15	**16**
Estonia	6	--	--	**6**
Finland	7	3	--	**10**
France	34	3	4	**41**
Germany	25	5	--	**30**
Italy	28	7	--	**35**
Netherlands	16	2	--	**18**
Portugal	19	4	2	**25**
Sweden	9	1	--	**10**
United Kingdom	20	4	20	**44**
Sub-Total	165	30	41	**236**
Total	**195**		**41**	**236**

Table 2.1 – University museums and collections included in field research: total numbers per country.

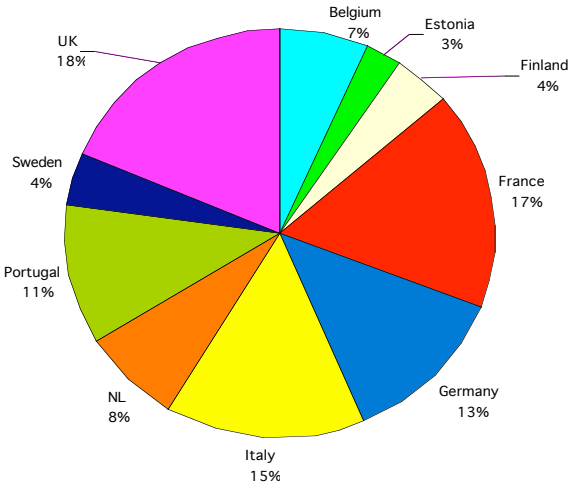

Fig. 2.3 – University museums and collections included in field research: percentage per country.

The museums and collections studied were diverse in terms of disciplines and types. It remains difficult to establish clearly defined disciplinary compartments –anthropology, for example, is sometimes taken as resorting under natural history, while in other situations it is seen as a category of its own. Nevertheless, the majority of museums and collections visited were clearly related to natural history and natural sciences (c. 37%), followed by arts and humanities (c. 21%) and history of science and medicine (c. 18%) (fig. 2.4) [18]. As far as types are concerned, and if designations provided by universities are accepted, then the entities visited included 43% of museums, 41% of collections and 8% of botanical gardens (fig. 2.5). The category 'science centre/research centre/public understanding of research', includes four institutions that are hard to classify – i.e. the Ahhaa Science Centre (University of Tartu, Estonia), the Helmholtz Zentrum (Humboldt University Berlin), the permanent interactive exhibition of Mathematics at the University of Milan and the Experimentarium at the University of Bourgogne (Dijon).

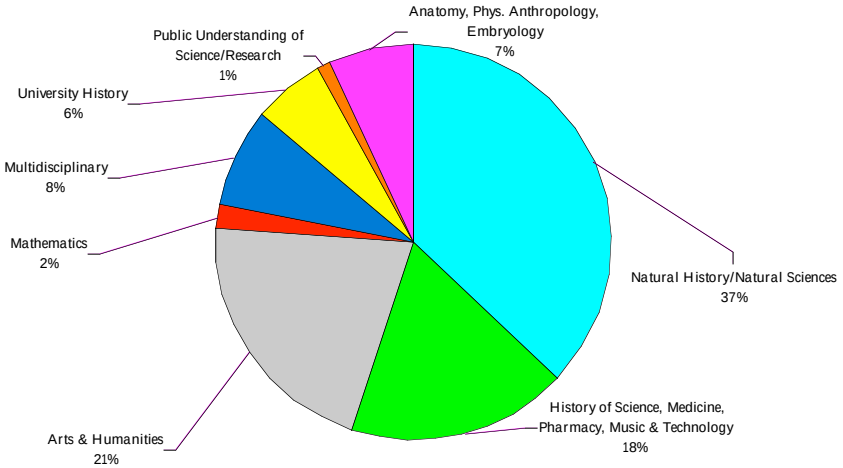

Fig. 2.4 – University museums and collections included in field research: percentage per discipline.

[18] Including history of technology, history of medical instruments, history of musical instruments, and history of pharmacy. Humanities includes archaeology, anthropology/ethnography.

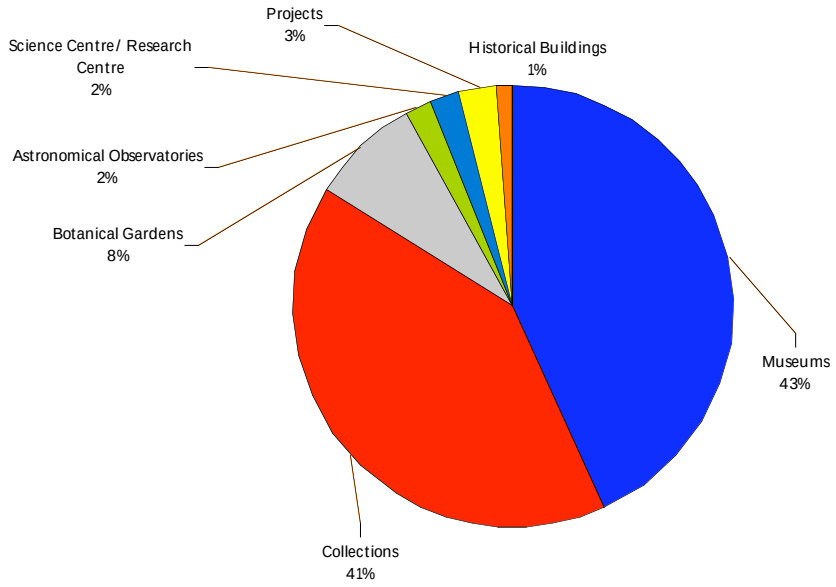

Fig. 2.5 – University museums and collections included in field research: percentage per type.

Follow-up correspondence

Follow-up correspondence was conducted between the dates of each visit until March 2005. This included further clarification of topics addressed during the study visit, exchange of further documentation and updates on the situation of the collection or museum.

2.5 Summary

This research aimed at reviewing past and present knowledge of university collections, as well as improving our understanding of their significance for universities and for contemporary society in general. To this aim, bibliographical sources were studied and exploratory study visits were undertaken. The approach was historical and comparative.

It is important to emphasize the exploratory nature of the present study. This is not a quantitative survey of European university museums and collections. The diversity of the field, the sources consulted and the methodology used do not allow for more than the identification and discussion of main trends and issues. This research aimed at gathering impressions rather than testing hypotheses, at probing more than counting.

Results of the study visits and interviews are applied throughout this thesis whenever considered appropriate, although the bulk of the results are presented in chapter 6. All transcriptions from respondents were made from notes therefore do not necessarily represent precise quotes.