

*JOSJE CALFF*

Leiden University Library, The Netherlands

*MENNO POLAK*

University of Amsterdam, The Netherlands

*Beyond university museums: The scope of academic heritage  
and the record of science*

Apparently, university museums exist in all shapes and forms, in The Netherlands and elsewhere. The scope of their activities varies widely. Some of them deal exclusively with the history of their parent university, others manage one or more historical buildings or large collections of objects of international relevance for a specific discipline. This contribution does not aim to prescribe what university museums should or should not do. The management of academic heritage or the record of science may be organised in many different ways, and the preferred form of management will often depend on local or national circumstances, based on history or tradition. What is preferable often depends on how this management may be funded. At the same time we believe it is probably useful to think in terms of functional needs. What tasks are to be discharged? Some of these tasks are better suited to be discharged locally, others nationally or internationally. In some cases the tasks are best performed in the context of the discipline concerned.

The issue of academic or university heritage in The Netherlands was probably first raised as a result of the problems encountered when the Department of Geology of the University of Amsterdam was discontinued in the course of the 1980s. The Department had few students, but large collections of (samples of) rocks. How should these collections be disposed of in a responsible way? In the end a well organised, careful selection was made of those parts of the collections that were to be preserved for different reasons and in different places. The implication was that not everything was worthy of preservation. Some were deposited in a natural history museum, *Naturalis* in Leiden, others were 'returned' to Indonesia and handed over to the Geological Service there<sup>1</sup>.

The issue of the geological collections pointed to a broader problem. In the past many university departments had amassed collections that were rapidly becoming obsolete for current research. For centuries collection building had been an essential part of academic

---

<sup>1</sup> S.W.G. de Clercq, *Bewaren om te gebruiken. Het "materiële archief" van onderzoekscollecties* [in:] *Gewina*, cfr. note 2, p. 91–106.

practice. But the context of continued collecting, as well as that of existing collections, was now very different. For one thing, both easy and cheap travel and increased access to materials held elsewhere changed the function of these collections. This development still continues: worldwide travel is growing easier every year and access is greatly helped by digitisation. Secondly, no less important were changes in scientific methods or even in shifts in the fields of interest. Put crudely, biologists for instance were no longer interested in specific plants or animals, but devoted themselves to the molecular level.

All this, of course, does not imply that the existing collections might as well be done away with. They will still have a role in teaching and research, but they are now primarily relevant to the history of science. In this broader context, the collections are a part, but only one part, of the record of science, as we will discuss below. Each of these parts in one way or another reflects the results of research and the growth of knowledge in the past.

## The Record of Science

### *Collections*

There is an important distinction to be made within the collections mentioned before. Some of the (collections of) objects have been studied and described in the academic literature. As such they represent the physical evidence of accumulated knowledge. Validated by research, they are a part of the academic record, the record of science. These objects or collections have a role as ‘reference collections’, in the sense that they can be referred to in new research. These collections will usually also include objects that have not (yet) been studied, but are the result of the drive to build collections for future use. Their acquisition took place in a period when the legitimacy of building collections as an academic activity was unchallenged.

As interest in university collections developed in The Netherlands, very soon university libraries became involved as well. Their collections, old books and manuscripts usually held in their special collections departments, are not so different from the collections of botanists, zoologists, geologists, astronomers etc. They differ insofar as they are *written* or printed documents, usually on paper, and are a part of the record of scholarly work in different fields. But here too some of the documents form the evidence for accumulated knowledge laid down in academic books and papers, whereas others have been collected in the expectation of future academic use.

Simultaneously, these documents, manuscripts or rare books, often merit preservation as unique representations of human intellectual or artistic activity. In this sense, they are unlike objects e.g. in collections of natural objects. On the one hand these natural objects are preserved as samples of what is to be found, often in abundance, in nature. On the other hand the presence of these unique documents in a *university* library is mainly justified by their potential use in research and, subsequently, in teaching. At the same time, we find many objects that are neither academic in origin nor unique among the special collections in university libraries. The special collections department of Leiden University, which has a long tradition of collecting oriental materials, continues to collect books and periodicals from the present Arab world. Abundantly present there, these

texts are rare in Western Europe, but essential as objects of research into the development of this region by Leiden's specialists in this field. Also, the preservation of these materials in Arab countries is far from assured<sup>2</sup>.

### *Literature*

The 'true' record of science, of course, is laid down in books and articles. Over time, university libraries have acquired enormous numbers of books and journals because, at the time of their acquisition, they represented the current knowledge in a particular discipline. Libraries still acquire books, journals and, more and more often, information on digital carriers, but the current state of affairs in all academic disciplines is obviously subject to change. As science progresses and knowledge grows, the older literature becomes obsolete, at least as a source of *current* knowledge. The fact that the speed at which this change occurs is vastly different between academic disciplines does not alter the fact that new empirical evidence in all disciplines will in the end render the existing literature outdated<sup>3</sup>.

The fact that university libraries have collected this material over decades, and in the case of the older universities over several centuries, implies that they hold large collections of printed material which are no longer relevant as representations of *current* knowledge. Their value derives from their role as sources for the history of science. This value is not just 'academic', in the derogatory sense of the word, i.e. irrelevant to the real world. 'Standing on the shoulders of giants' means that current knowledge has its basis in earlier research. The works of these giants may still become crucially important as research continues, not only because of their contributions, but possibly also because of their flaws. Earlier we mentioned the shift of emphasis in biology, but interest may shift backwards: with the growing concern for biodiversity the interest in particular plant or animal species that had faded earlier, may make a triumphant comeback. Finally, the growth of scientific and technological knowledge is such an essential part of our civilisation, that we cannot disregard its history with impunity.

Among collections, books have always had a privileged position. Access to the literature through catalogues, in large measure internationally standardised, has been unsurpassed for a long time. As a matter of course, the literature is now universally accessible through the internet. Nowadays large scale digital availability through digitisation of older 'paper born' books and journals, digital journals and the entry of new books and articles in digital repositories guarantee the continued and ever improving access to these sources.

### *Archival material*

Next to the kinds of collections and publications treated until now, universities (as well as other academic institutions outside the university) produce records or archives in the formal, limited, sense of the word: the papers (and digital files) that reflect the

---

<sup>2</sup> J.S. Calf, *Voor onderwijs en onderzoek. Bijzondere documenten en documentaire verzamelingen van de Leidse universiteitsbibliotheek* [in:] *Gewina*, cfr. note 2, p. 127–137.

<sup>3</sup> Calf, *loc. cit.*

activities of the university administration. These records mainly deal with administrative and organisational matters, but their preservation is equally crucial for the history of academic pursuits. Academic work has never been done in a void; institutional arrangements have always been important. Which chairs were created and who was appointed to a chair in any field? This has always been subject to ‘academic politics’. And this is increasingly the case. Over time, the institutional environment has only grown in importance. As the scale at which academic work is done increases and the level of required funding rises, the way the essential questions are decided has become crucial – what research is given priority, what research is funded, what cooperation is sought? Institutional university archives will often bridge the gap between the history of the university itself and the history of academic disciplines.

What happens to university records in various countries is very different. In The Netherlands the law requires public universities to deposit their records in public repositories. Only recently have universities begun to comply with this legislation. In other countries universities will sometimes have a more private character and their records will not always be subject to public law. In either case, these records must be considered part of the academic heritage<sup>4</sup>.

### *Private papers*

Until forty years ago, the individual professor was the central figure in the university in The Netherlands – in teaching, in research and in the running of the university as an institution. His files reflect the independence of his position. There we find his correspondence with individual students, with fellow researchers, with colleagues within and outside his department with regard to the university administration. But we also find letters to the municipal authorities to secure the renovation of the faculty buildings or the employment of personnel, as well as matters of a private nature.

Only a thin line divides *these* university records from the private papers of professors found elsewhere. At least in The Netherlands, it appears to have depended on the whims of the individual professor, or on coincidence, whether his correspondence and other archival material became part of the university records, was kept at home and deposited elsewhere in the end, or was simply lost. We may wonder at this but, certainly for a researcher, what is work and what is private *may* be divided by a thin line even today, and it certainly was in those days<sup>5</sup>.

### *Research data*

When these records, whether privately held or publicly preserved, contain research material they belong even more clearly to the academic record. The research material can consist of notes, manuscripts, test results, or even of documents or objects privately collected. Here the early stages and foundations of research results may be traced.

---

<sup>4</sup> M.S. Polak, *Universiteitsarchieven, onderzoeksarchieven en onderzoeksdata* [in:] *Gewina*, cfr. note 2, p. 138–152.

<sup>5</sup> Polak, *loc.cit.*

Presently, research data are usually digital born, or become digital at a very early stage in their lives. Their digital nature makes their survival extremely precarious, for it makes them liable to loss: the data themselves or their physical carrier may be lost, the software needed to process them may become obsolete, or the crucial metadata, without which the data prove to be useless figures, may not be available in the long run. Since the data have often been collected painstakingly and at great cost, this may be very painful. Initially, research data should always be preserved, because only the availability of empirical data allows other researchers to check the conclusions and results. Ideally, a set of research data remains linked to the published text. At a later stage the data may be useful for new research. In the long run they remain a part of the record of science. *These* are the data that specific conclusions were based on. The interest in the preservation of research data may be relatively recent, but is unmistakably growing<sup>6</sup>.

Since data produced by publicly funded research should be in the public domain, their preservation is also a political issue; in principle this has always been the case, but modern technology has made it so much easier, according at least to the ministers of OECD. Where the data will be deposited is not clear and so far depends on the discipline involved. It could be in digital repositories, as annexes to the digital publication, or it could be with separate organisations geared specifically to the preservation of research data organised by discipline. Other forms of data management may develop. The relative novelty of large sets of data distinguishes them from other collections of objects, books, papers etc.<sup>7</sup>

## University museums

So far we have dealt only with material linked directly to the record of science. But academic heritage – and the activities of university museums – usually covers more. For all the differences among them, the role of a university museum is very often not, or not entirely, limited to the sphere of the record of science. In many cases they are explicitly involved in the university's public relations. They will be concerned with the history of the parent institution and with the role of the university in its home town, or in the history of academia in a broad sense, including local university traditions and, disrespectfully put, the local lore. This is often reflected in their holdings of collections of photographs, painted portraits of professors, gowns, insignia and other paraphernalia, and a variety of material concerning student organisations.

Where they are concerned with public relations, as the showcase of their university, their interest may well infringe on the record of science, insofar as representatives of the university have made significant or even outstanding contributions to science. One or several disciplines may be iconic for the history of the university and for that reason play

---

<sup>6</sup> P. Doorn, H. Tjalsma, *Introduction: archiving research data*, „Archival Science” 2007, vol. 7, p. 1–20; for an interesting example of what can go wrong, see J.M. Wicherts et al., *The Poor Availability of Psychological Research Data for Reanalysis*, „American Psychologist” 2006, 61, Oct., p. 726–728.

<sup>7</sup> *Ibidem*.

an important role in the activities of the museum as a showcase for the university. In The Netherlands veterinary medicine has always been taught exclusively in Utrecht. In the University Museum there the history of veterinary medicine is bound to be important, not only because of their collections regarding this discipline, but equally so because of its public relations value for the university<sup>8</sup>.

## Concluding Remarks

The university museum has a characteristic role in providing the showcase of the university, in preserving local history of academia and in showing the collections and research results to the public. Although ‘academic heritage’ in The Netherlands was first used as a synonym for university collections, its meaning extends far beyond the sphere of the university museum. Still, the concept of academic heritage is useful as it covers the entire range of the record of science and the history of the university. It would be unrealistic to expect university museums to take on all the tasks referred to here. That would also be unnecessary because other organisations already make their own contributions to preserving and making accessible and available various parts of academic heritage. Public archival repositories may do so for archival material, libraries certainly do so for books and for collections in the field of the humanities, and digital repositories will more and more often cover digital data. When this is the case, the traditional university museums and the collections of objects or instruments they often preserve, find themselves in a *relatively* vulnerable position. Ironically, in saying this we come back to where we started: the endangered university collections.

Academic heritage is a fruitful concept insofar as it points to the comprehensive nature of the very different types of material we must deal with. Collections of objects and instruments, of books, documents, data etc. all belong to the sphere of the record of science, and are closely linked to the history of universities. Specialisation among archivists, librarians, museum curators, data managers, historians of science and others, has its obvious uses. But this specialisation is based on the *nature* of the documents or objects concerned. Even though the special, professional knowledge is crucially important in the background, there is much that these specialists have in common. A *functional* analysis of the material would probably point in a very different direction. Not the nature of the materials we preserve, but their *use* and the way we present them should be paramount. Preservation, storage, selection, showcasing, (digital) access are tasks that depend in varying degrees on these traditional specialisations. A greater awareness of the common purpose of everyone active in the field of academic heritage is needed.

It would seem to be unproductive to spend a lot of effort on organising or reorganising the management of academic heritage material. Three universities in The Netherlands, those of Amsterdam, Leiden and Utrecht, all public universities, all covered by the same

---

<sup>8</sup> P. Koolmees, *Over koetjes en kalfjes. De collectie diergeneeskunde van het Universiteitsmuseum Utrecht* [in:] *Gewina*, cfr. note 2, p. 162–174.

legislation, all within a radius of 40 kilometres, have adopted three completely different models for the management of their academic heritage. History, local tradition or possibly coincidence may have influenced this outcome. The same will be true elsewhere. Collections are important to research, but what is crucial is not their *possession*, but the fact that they are accessible and available.

Some tasks in the field of the record of science and of academic heritage are better performed at the level of one university, others at the national or international level, some need to be taken care of by the academic disciplines themselves. No doubt, we should try to prevent the unintended loss of material through sheer neglect or lack of funds. But beyond that we should apply ourselves to stimulating the integrated digital access of all parts of academic heritage.

Especially from the point of view of the user, achieving integrated digital access to the different kinds of materials provides unprecedented opportunities. A prerequisite for this is the acceptance and use of common standards, for instance a standard for the creation of metadata describing collections and their constituent parts and items. The most promising initiative appears to be a XML-based data type definition, such as EAD,<sup>9</sup> that is rapidly gaining international acceptance. In this way integrated search and retrieval of material of all kinds and all provenances could be provided, as opposed to a set of links to a large number of separate websites, each with their own underlying structures and software. At the same time this approach allows for the creation of different views of the material, thus giving every participating organisation the opportunity to present and show its own collections in its own context and with its own branding.

## STRESZCZENIE

### *Wykraczając poza muzea uniwersyteckie: zakres akademickiego dziedzictwa a zapis historii nauki*

Od połowy lat dziewięćdziesiątych w Holandii zyskała popularność nowa koncepcja dziedzictwa akademickiego<sup>10</sup>. Wydaje się, że w tym znaczeniu jest ona używana głównie w Holandii i czasem eksportowana z niej. W tym przyczynku pragniemy naświetlić, jakie jest znaczenie pojęcia „dziedzictwo akademickie”. Zrobimy to, przedstawiając materialne, wirtualne i niematerialne, o ile to możliwe, pozostałości, mogące należeć do tego dziedzictwa. W jakim zakresie to pojęcie jest synonimem „historii nauki”? Używamy słowa „nauka”

---

<sup>9</sup> Encoded Archival Description was first developed for archival material, but is now used in libraries and museums as well.

<sup>10</sup> M. Lourenco, *Między dwoma światami. Odrębna natura i współczesne znaczenie uniwersyteckich muzeów i kolekcji w Europie* (<http://webpages.fc.ul.pt/mclourenco/>) str.97: porównaj [www.academischerfgoed.nl](http://www.academischerfgoed.nl) –

w znaczeniu szerokim, obejmującym wszelkie badania, nie tylko nauki przyrodnicze. Czy pojęcie „dziedzictwa akademickiego” jest twórczym konceptem? Postaramy się objąć całe spektrum znaczenia, przy całej skromności, jesteśmy specjalistami wywodzącymi się z bibliotek i archiwów i nie mamy pełnej kompetencji w dziedzinie muzeów uniwersyteckich. Faktycznie, można czytać ten artykuł jako poszukiwanie zrozumienia przez dwóch ludzi spoza branży. Proponujemy schematyczny przegląd tej dziedziny<sup>11</sup>.

---

<sup>11</sup> Obecny stan badań nad dziedzictwem akademickim w Holandii – patrz: M. Polak, S. de Clercq, P. de Haan (eds), *Bewaren om te gebruiken. De betekenis van het wetenschappelijk erfgoed* [Preserving for Use. The Significance of Academic Heritage], *Gewina. Tijdschrift voor de Geschiedenis der Geneeskunde, Natuurwetenschappen, Wiskunde en Techniek*, 2007, vol. 30, 3. „Zachować dla zastosowania. Znaczenie akademickiego dziedzictwa”.