

UMAC UPPSALA PROCEEDINGS CLERCQ

Keeping for the future

Steven W.G. de Clercq

Abstract

While research collections are used, keeping them is not a matter of particular concern. The size of the collections was generally regarded - and accepted - as measure for its quality and consequently as a reason for its funding. The mid 19th century was the start of the hey-day of object-based research and the institutionalisation of research collections. There was a close relationship between the field of research and the composition of collections. As research moved on to new fields, utilised new techniques, posed new questions, the former collections developed an archival function. Research collections were then transferred to a museum, or disposed. Throughout the history of university museums and collections, we see an increased public interest in scientific matters and museums. From the mid 19th century onwards, some became 'Museum Castles' with two distinct departments: research & collections and exhibitions & public programs. As this trend continues the gap between these two functions increasingly widens; leading in practice to their split into two autonomous organisations, focussing on either an archival or public function with a distinct set of required skills for their professional staff.

The aim of this paper is to explore and discuss the way university museums can respond to these developments, with special emphasis on the question, who should, be responsible for the material scientific archive, how and where it should be kept and made accessible for future use, and for what reason. I will briefly outline the history of object use in academic research and teaching. Based on an analysis of the current situation, the probable development of university museums and the effects on collections, I will argue that without any proper and balanced decision making, large proportions of the material evidence of scientific research and teaching are being lost, without any idea of content, importance, value, potential future use, or even the whereabouts. An action plan is needed to avoid irreversible and disastrous cumulative effects of the systematic dismantling of these collections.

A brief history of university museums

From the late 16th century, with the development of object-based research and teaching, universities across the world established their museums and collections. This "1st generation" university museum – as defined by Marta Lourenço¹ – with its triple mission: research, teaching and public display – found its zenith between 1850-1950. These first generation university museums were specialised and closely linked to a department within a faculty. Well-established universities could own up to twenty, sometimes more of such specialised museums and collections, covering the natural sciences, but also the arts and the humanities. Content and organisation was directly linked to research programmes or the curriculum.

The development of "2nd generation" university museums - with historic collections - started somewhere around the 1930-ies, with the more or less simultaneous establishment of a number of now well known history of science museums, e.g. the Museum of the History of Science, University of Oxford (1924). Some, like the Museum Boerhaave, Leiden (1929), later became a national museum. Most commonly had their origin in the obsolescence of instruments. They were established to protect the obsolete eighteenth and nineteenth century teaching and research apparatus and models.

¹ Marta C. Lourenço, 2005, *Between two worlds; the distinct nature and contemporary significance of university museums and collections in Europe*. Unpublished PhD thesis, Conservatoire national des arts et metiers; Paris.

Since the 1980s a “3rd generation” university museum has developed, involving integrating collections and management structures. These 3rd generation university museums act as a ‘showcase’ for their universities and have a stronger public commitment.

The current situation: university museums at a crossroad

Lourenço (2005) attributes many factors to today’s situation. This ‘crisis’ is part of wider, intellectual, sociological, political and economic changes, initiated by institutional transformations of the university and general museum sectors since the 1960s. Changes in research, new techniques, and the cost of collection maintenance alone have not made University museums and collections ‘endangered species’. Universities are suffering an identity crisis with traditional discipline boundaries vanishing, the integration of ICT, drastic financial cuts and commercial international competitiveness. This changes what universities expect from their museums and collections. Universities expect them to play an active role on the interface between the university and its community, and to address both general and academic audiences.

These developments inevitably change the public expectations. We have witnessed a change from small numbers of specialised users (students, scholars) of the 1st generation museums to a wider, non-specialist public with a general interest in the broader subject matter. The fact that these museums primarily focus on the public has significant consequences for the composition and skills of staff, the role of the object in the collections and their capacity to select and collect for the future

The 3rd generation u-museum & what about the collections?

The majority of the 3rd generation u-museums are no longer based in the faculty or department, but have become one of the central service units of the university. The relationship between these more public-oriented museums towards the still actively used research and teaching museums and collections in the faculty is unclear. It is also unclear which collections will eventually be subsumed within these 3rd generation museums, once they are abandoned by their faculty. The question of what should be kept for the future, and for what purpose has yet to be addressed. Hardly any university or research institute has a clear position on this issue. This is the general picture worldwide, and that this has already led to the disposal and dispersion of many collections meaning the loss of significant parts of our scientific heritage². Only a limited number of collections are given a second life in another university, research institution or museum, and that disposal and dispersal frequently the case³. The fact that it is very difficult to make a well-considered selection and that it is even inevitable to make ‘mistakes’, does not discharge us from the obligation to develop a policy what to keep. This can no longer be left entirely to museums curators.

“Silent disposals”

Over the last quarter century, a great many collections have been disposed of. It is my guess that only a small percentage of these disposals has become wider known, and that even less have been published in either the formal, or the grey literature. My personal engagement with university museums and collections was triggered in the mid 1970s by one of those ‘silent disposals’. Historical teaching collections dating back to the origin of the Geological Institute (1879) and a substantial number of research collections were abandoned because the storage of a new building had to be sized down due to budget cuts⁴. This was probably the first major

² For the fate of the Dutch geological collections, see my paper Clercq, S.W.G de, 2003a. The ‘Dutch approach’, or how to achieve a second life for abandoned geological collections. *Museologia*, 3: 27-36. See also Lourenço, M.C. 2005, “Between two worlds”, <http://correio.fc.ul.pt/~martal/>

³ Efforts to give collections a second life proved relatively unsuccessful, see Clercq, S.W.G de, 2003a, p 33,34

⁴ see Clercq, S.W.G de, 2003a, p 29,30

Dutch example of (attempts of) disposal of research and teaching collections of an entire faculty⁵. It did raise awareness and stimulated pressure on the senior university management and the government and subsequent inventories⁶ on the situation regarding university collections on the national level.

In retrospect, it is interesting to notice that costs of maintaining collections – in combination with the space they occupy and the fact that many are not frequently used – were the reasons to justify disposal, whereas the fact that these collections were amassed and studied with public money and continue to represent a cultural, scientific and economic importance was never taken into serious account. It is only recent, that the considerable economic value of research collections has been calculated. The Dutch Geological Survey has estimated the accumulated value of the geodata they keep at least at 20 billion Euro (Speelman, 2004)⁷.

The readiness of disposal reflects that those that take these decisions are not primarily concerned with the intrinsic importance and possibly even economic value of these collections, but with the day-to-day running of their institute. This is understandable from their point of view, as is their argument that the disposal of one collection is not dramatic, because there are many more around the world.

However, the accumulative effect of this process, results in loss of a considerable proportion of the global scientific heritage without any vision, or idea of its importance and potential value of the collection as such. This act of collaborative neglect is unacceptable in terms of professional museum management, violates ICOM's Code of Ethics⁸, and is scientifically, culturally and economically irresponsible. In an overwhelming majority of countries, the massive and uncontrolled dispersal of scientific heritage takes place against the background of absence of an integrated overview of the composition, content, scale and importance of their national scientific archive, based on a survey of what exists at the national level⁹. On the European scale we do not even know how many universities we have, let alone the number of museums and collections. Lourenço (2005) estimated 13.000 European university museums and collection.

The question what should be kept, should be seen in the broader context of the accumulated value and relevance of the information contained in the collections, and as part of the global archive of human knowledge. In my view, the material archive of our scientific endeavours should be regarded, used, staffed and financed in the same way as we regard our 'paper' archives. Selection, de-accessioning, keeping and making accessible, are genuine archival functions, for which the recently published guidelines by the Council of Europe¹⁰ can serve as example. We can however not treat all research collections the same way. The nature of objects varies between disciplines, as does their associated information. In some fields – like scientific instruments and medicine – the information is scarce, scattered and lacks

⁵ for the general situation in Europe, see: Lourenço, M.C. 2005, "Between two worlds", <http://correio.fc.ul.pt/~martal/>

⁶ LOCUC, 1985. Rapport landelijke inventarisatie universitaire collecties, 1985. Landelijk Overleg Contactfunctionarissen Universitaire Collecties & Ministerie van Onderwijs en Wetenschappen, Den Haag. "Advies betreffende de bedreigde universitaire collecties" (1986), Rijkscommissie voor de Musea en Commissie van Advies voor de Natuurhistorische Musea.

⁷ Speelman, H. 2004. Bericht van de Instituutsdirecteur. In: Jaarverslag 2003, Nederlands Instituut voor Toegepaste Geowetenschappen TNO. Pp. 24 – 28.

⁸ For ICOM's Code of Ethics for Museums, see: <http://icom.museum/ethics.html>

⁹ Australia and the Netherlands are the only countries with a reasonably complete overview of their collections

¹⁰ Kecskeméti, C. & Székely, I.; Access to archives - A handbook of guidelines for implementation of Recommendation No R(2000)13 on a European policy on access to archives (2005), pp 103; ISBN 92-871-5782-0

standardisation. Other fields - notably natural history – use a worldwide, standardised nomenclature and several independent projects of accessibility¹¹.

Dispersions and disposals will continue unless we develop a coordinated strategy of academic archive preservation. Close collaboration with potential future users, including scientists, historians of science, cultural heritage specialists, archivists, is required to validate reasons for archiving collections. Collaboration does not ensure these initiatives will have global coverage. While most of the bigger collections may be represented, many smaller collections cannot afford to participate. The same will probably be the case for interdisciplinary collections. A standardised survey is required to develop a useful overview. It should build on pre-existing knowledge. This can only be tackled through collaborative action, on an international level of sufficient scale (like Europe).

We must establish

- the whereabouts and potential quality of the collections (survey) as well as
- the kind of questions that future users may pose.

And we need to

- set up an organizational structure that is easily accessible for future users
- and has a sound financial structure.

Let me briefly discuss each of these 4 points.

The whereabouts and potential quality of the collections

A discipline-specific approach has been followed (and discussed) in the “Dutch Approach”. A global approach is taken by *UMAC's Worldwide Database of University Museums & Collections* - with currently some 2.000 published records. This shows that collaboration and a modest budget can provide a valuable tool. It provides a global Directory of University Museums and Collections for UMAC, researchers, students, and the general public. To date non-university research collections have deliberately been excluded, the database could serve as a model for further development, including international agreement on classification and assessment of quality, composition and size of the (sub-) collections. The development could be tackled by setting up discipline-based international projects and/or use the experience of comparable projects on the national level (UK, Germany, the Netherlands). UNIVERSEUM, the European Network Academic Heritage and access, could well serve as an umbrella organisation.

Questions future users may pose

Here again, the situation is very different per discipline. Thomson (2002)¹² pointed to the often-unexpected problems that can be solved by re-using old collections¹³. We see renewed interest for different reasons in different disciplines. In zoology, modern techniques allow using organic material to reconstruct environmental conditions at the time the organism lived, triggering a revaluation of historic collections. The field of the history of science is turning to the object as material evidence, with a number of conferences and workshops¹⁴. Following the

¹¹ BioCASE, is a transnational network of biological collections of all kinds (<http://www.biocase.org/>).

¹² Thomson, K.S. 2002. Treasures on Earth: museums, collections and paradoxes. Faber & Faber, London: 114 pp.

¹³ A recent example is the essential contribution to the reconstruction of the 1918 influenza virus based samples of lung tissue kept for almost 80 years as described by Taubenberger, J.K. et al., 2005. Characterization of the 1918 influenza virus polymerase genes; *Nature* **437**, 889-893 (6 October 2005)

¹⁴ The Curating 20th Century Science Workshop at the Universiteitsmuseum in Utrecht, the Netherlands; 17-18 October 2005, with the Scientific Instruments Commission.

success¹⁵ of the European Science Foundation Network “New perspectives on the enhancement of the European scientific heritage” a follow-up ESF-programme entitled: “European Scientific Heritage and Public Engagement with Research” (ESHPER) has been prepared. These initiatives bridge the traditional gaps between museums, archives and libraries and stress the importance to establish Scientific Heritage Studies as a new and independent discipline and will definitively contribute considerably to the development of a better understanding and of a potential future use of the collections as sources in the history of science.

Organizational structure

Collaborative action is needed to halt the loss of scientific heritage as noted above. Existing structures are not sufficient to guarantee keeping a representative, useful and accessible archive of scientific research. Most, particularly the smaller 3rd generation u-museums are neither equipped nor inclined to take on the task. Their commitment to the general public requires just as much a professional specialisation as is required to take care of the material scientific archive. Although not impossible, it is unlikely that these two increasingly different roles can be performed by one museum. It is unlikely that universities will give their 3rd generation museum the archival task covering all collections, which should include a whole range of discipline specific collection management and accessibility issues. It does not make sense that each museum keeps a bit of everything. But without criteria on object retention it will be difficult to develop a structure for a ‘material archive’. That should be a permanent structure with acknowledged professional standards, well rooted in the academic community. It will be a mix of traditional museum and archive. It will have specific characteristics that identify it as a structure on its own, in addition to museums, archives, monuments and libraries; it could have the characteristics of the “collection centre” as described by Spalding (2002)¹⁶.

This “collection centre” should

* encompasses all aspects of heritage:

- core tasks research and teaching; by discipline, international context
- collecting, selection, disposal, preservation, conservation, etc
- digitisation, access & use of all research data (incl. laboratory notes, etc)

* for the use of:

- research & teaching
- presentation to academic & general public
- public accountability, participation in public debate

* and should be

- firmly based within the university
- be part of a national and international network.

Financial structure

Setting up a “collection centre” as an independent heritage system, keeping it running successfully is, doubtless, an expensive exercise. In order to guarantee, stimulate and optimise the re-use of available data, it would be unwise to charge future users the full costs. That would also deny the responsibility of those who did the research and produced the collections, as well as the general public interest of keeping the material available for future and the economics of unforeseen uses.

Costs can be divided in three components:

¹⁵ Beretta, M., ed., 2005, From Private to Public; natural collections and museums. Science History Publications/USA. 272 pp. Watson Publishing International (ISBN 0-88135-360-4).

¹⁶ Spalding, J. 2002. The Poetic Museum, Reviving Historic Collections, Prestel, Munich-London-New York, 184 pp.

- a) selecting the material, bringing it in good shape and digitisation
- b) keeping the material available for future use
- c) allowing the use and providing research facilities.

To be shared by three categories: those that make it, the general public interest, and those that use it in the following way:

- a) selection: this would be the responsibility of the researcher, and can be easily financed according to the “the polluter pays”-principle by putting a fixed percentage on each research project, which can be compared with the “removal contribution” on each newly purchased car or washing machine.
- b) keeping: taking into account the accumulated value of the collections as illustrated with the geological collections and the fact that the future user is unknown, this would be a public responsibility;
- c) actual use: these costs should be part of the cost of the research programme.

Awareness and Action

The installation in 2001 of UMAC during ICOM’s triennial conference in Barcelona marked the recognition by the professional museums world of university museums. One of the goals set by UMAC was to reach a comparable recognition by from the academic world. UMAC’s Working Group Recognition was set up to raise awareness of university museums among politicians, university administrators and similar stakeholders. Its established mission states that the working group “works towards increasing the profile of university museums and collections in academic and political spheres.”

In order to achieve such recognition, it is not sufficient to sit back and complain about the lack of support and funding. There are a number of lines to follow. First of all it is important to show and communicate success. The fact that Bird flu could be linked to the 1918 pandemic was breaking news; however that this was only possible because because of samples kept in a museum, went largely unnoticed. In preparing this paper, I found it difficult to find well-documented evidence of such success stories, whereas I am sure there must be many.

An important step may prove the adoption by the Council of Europe¹⁷ the “Recommendation on Governance and Management of University Heritage”, with specific recommendations on policies, legislation, governance and management, finance, access, professional training, research, awareness raising, relations with local communities, and international cooperation. Although issued by a European institution, the recommendation is a powerful tool. It provides arguments and political legitimacy for university museums and collections worldwide. The recommendation asks university administrations “to consider all parts of the heritage of a higher education institution as falling under their ultimate legal, administrative and moral responsibility” and calls for dedicated funding of university heritage in the budget of higher education institutions.

It is now up to us to see to it that our governing bodies act accordingly!

Acknowledgements

During UMAC’s first conference, Barcelona-2001, Marta C. Lourenço presented the first draft of her PhD research, and asked me to act as one of her coaches. That has been a very stimulating and enlightening experience, which has contributed considerably to my own better understanding of both the problems and the opportunities of university museums and collections! The topic I address in this paper was one of many points we discussed. So in a way, Marta should be regarded as – virtual – co-author, not least because of her rigorous

¹⁷ On December 7, 2005. The full text is available at:
<https://wcd.coe.int/ViewDoc.jsp?id=946661&BackColorInternet=9999t=FFBB55&BackColorLogged=FFAC75>

efforts to structure my thoughts. I likewise thank Andrew Simpson for the healthy critical review I could expect from a fellow-geologist

About the author

Steven de Clercq is former director of Utrecht University Museum (1982-1998) and advisor of the Dutch universities on their academic heritage. He is also vice-chair of UMAC.