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The role of university museums in documenting contemporary research

Introduction

Ever since Vesalius' and Bacon's methods for research, enquiry and teaching were introduced into academic learning, university museums emerged for the purposes of caring and preserving specimens, objects, instruments and apparatuses. Specimens and objects that served as primary sources of information; instruments for observation and apparatuses for experimentation. As we would say today, the 'core business' of these university museums was to act as custodians of collections for academic research and teaching. Travels of discovery and exploration brought in numerous hitherto unknown objects, specimens and plants from remote areas all over the globe, leading to huge collections and museums, botanical gardens, chemical laboratories, anatomical theatres and astronomical observatories.

This role, fully embedded within the very heart of the department, has changed dramatically, particularly during the second half of the twentieth century. As they ceased to play their once pivotal role and gradually became 'obsolete', collections were abandoned or even de-accessed and the number of university museums dropped significantly. Meanwhile, a new type of university museum emerged, usually linked to the central university administration. These university museums primarily focussed on centralised care of abandoned collections. Although documenting the history of research and teaching was an important factor in their collection policy, the question whether they should have a role and responsibility in documenting contemporary research received little or no attention. This question remained largely unaddressed both at the institutional level and also in the wider context of the workshops and conferences organised by organisations like UMAC[1], Universeum[2] and their fellow regional and national organisations. It

[1] UMAC is the International Committee on University Museums and Collections of ICOM (International Council of Museums). It was created in 2001.

[2] Universeum is the European network for university and academic heritage. It was created in 2000.

was therefore appropriate that this topic was finally raised at the Universeum-workshop in Krakow 16–18 October 2008.

University museums and their relation to objects

This apparent lack of attention finds its roots in the development of university museums over the years, particularly the shift in the object's *raison d'être*, which is in turn closely related to the transition of the museum from the very heart of the academic community, to a position close to the central administration and to the expectations of the museum's governing body (Lourenço, 2005).

1st generation

As long as university museums were what they were meant to be ever since the Ashmolean was created in 1683 as the first (university) museum at the University of Oxford, their collection policies were directly linked to the teaching and research agendas of their academic departments. These museums, their collections, laboratories, and lecture rooms – and together with their libraries – acted as 'mini academies', intricately interwoven into the life of the departments. Their collections reflected the scholarly questions that were relevant at that point in time and the way that particular department addressed them. Such research collections reflect the inquisitiveness of staff and their ambition to explore new – scientific – hunting grounds. Collection policies linked to that forward-looking mindset resulted in huge collections of specimens that had served their original purpose: to provide the material evidence for the scientific questions the staff had decided to tackle – or for that matter, the subject to be taught. As time passes, these collections get an additional meaning, reflecting the spirit of that time: an expression of the world-view of contemporary, western society; after all, universities with their experiment-focussed and object-based research and teaching are a European 'invention' (Taub, 2001).

Object-based research and teaching had its heyday in the late nineteenth and early twentieth century. Over the years, this process of topic-driven accumulation of objects resulted in the great collections, particularly in natural sciences, medicine, anthropology and archaeology, of the classical universities around the world. The fame of these collections could be such that, until roughly speaking the middle of the last century, they would attract the best professors, visiting scholars and students. This way of object-based 'cataloguing the world' did not continue forever, as illustrated by the wave of post-war universities embarking on education and research programmes that did not require collections; a trend that gradually spread over to the older universities and finally lead to the well-known decline of university collections and by consequence, the decline of the first generation of university museums.

2nd generation

The second generation of university museums emerged somewhere around the nineteen thirties, originally focussing on collecting objects related to the history of a particular discipline - first antique scientific instruments and apparatus of astronomy and physics, followed by medicine (Lourenço, 2005; de Clercq, 2005). Although often initiated from within departments, these museums gradually ceased to be an integral part of the faculty and moved to a position closer to the central university management. During the nineteen seventies and eighties, object-based research and teaching was already considered old-fashion, leading to disregard, orphaned collections, disposal and to the dissolution of many department-based 1st generation university museums. Second generation museums were consequently triggered to save whatever they could; usually without a clear vision on the question for what reason and purpose those collections should be kept at all. Their collection policies would cease to focus on one particular subject matter and would include virtually any objects and collections relevant for the history of their university – including student life. From the outset, the main focus of these museums was to prevent rare and valuable obsolete objects and collections from being discarded and to keep them for the study and display of the history of science. Due to the practice in research laboratories, where scientific instruments are often cannibalised and stripped to pieces for re-use, but also because some objects are more 'collectable' then others, serendipity played an important role in the practice of collecting. Due to the definite arbitrary character of these collection policies, these collections hardly ever provide a balanced picture of the equipment, apparatus and specimen one would find in laboratories at a particular moment. Nevertheless, they are the best there is and they are regarded as the university's treasures, often in combination with other possessions, like the university's mace and its seal, or portraits of distinguished professors.

3rd generation

The post WW-2 decline in object-based research and teaching coincided with the worldwide boom of general museums and the science centre movement, both with a strong focus on museum education; the latter using props instead of real objects for the demonstration of scientific principles. Until that date, most 2nd generation university museum remained primarily focussed on their own university, attracting mostly an internal audience, alumni and special interest groups. In an effort to demonstrate their relevance, 3rd generation university museums sought a new profile and role by looking for new and wider audiences and by bridging the gap between university and its surrounding communities. Acting as the university's showcase, they started mounting temporary exhibitions explaining research projects of their university. Quite a few university museums also introduced hands-on activities, stimulated by the obvious success of the science centre movement and their slogan: *science is fun*. A closer look at their collection policies reveals that at best they concentrate on objects that might be of historic interest or as an icon that may contribute to raising their university's public profile. Ultimately, 3rd generation university museums may be characterized by a varied and hybrid approach, reconciling the role of keeper of the university's obsolete historic record and an instrument in the university's identity marketing by acting as its showcase displaying contemporary research to a wider community. Again, these university museums were usually placed close to the central administration. In order to survive – and to be able to fulfil their tasks of keeping the historic collections and displaying contemporary research – they also maintained close contacts with the departments and their academic staff.

Despite the fact that they call themselves 'museums' and, as Lyndel King (King, 2001) wrote, '... are becoming less university museums and more like museums at universities', university museums were not generally regarded and recognised as such by their fellow non-university museums, until finally, in 2001, ICOM opened its doors by establishing UMAC, ICOM's International Committee on University Museums and Collections.

University museums in transition

Today, university museums find themselves in a world in transition. Although some collections remain in use for research and teaching, most university museums – once the guardians of the material evidence of academic research and teaching, closely integrated within their disciplinary departments – find themselves detached from their scholarly roots. In a process of re-orientation, they adjust to new demands and circumstances and explore new opportunities (de Clercq, 2006, 2008). They increasingly function on the triple point between the academic world, the museum world and society at large. As each of these worlds is confronted with what might be called an identity crisis, this is the appropriate moment for university museums to redefine their role and mission and to explore new grounds. The obvious choice is either to enhance the role to act as two-way bridge between the academic world and the local and regional communities; another option is to focus on the historic collections, including the special collections kept by the university library and archives.

Interestingly, both of these options have recently been chosen in the Netherlands, as Utrecht University has recently decided to install a single central unit as its 'cultural interface' with its surrounding communities. This new unit will co-ordinate all cultural activities, including those of the University Museum, Observatory Sonnenborgh, the Botanical Gardens, *Studium Generale* (Public Lectures), facilities for music and dance and the universities main ceremonial building. Heralding a new phase of the University's active and co-ordinated participation in the community's cultural life, the new unit reports directly to the Board of the University. At the other side of the spectrum, the University of Amsterdam has recently chosen to concentrate all collections into one unit: the Heritage Division, part of the University Library. Heritage Division is in charge of all collections of the University, including those from the Special Collections of rare books and maps, the Archives, the Allard Pierson Museum for Classical Archaeology, the University History collections (including student life) and the university's art collections. On the other hand, the extensive and important collections from the Zoological Museum Amsterdam will in due time be transferred to Leiden and integrated in Naturalis, the National Museum of Natural History. The merge of the two museums will result in a new entity, the National Centre for Biodiversity Research. Again, a different approach was chosen by Delft University of Technology. *Techniek Museum Delft* will be discontinued as a museum in the traditional sense and will be transformed into a modern Science Centre, housed in the former building of Technical Earth Sciences, adjacent to and together with the Delft Botanical Gardens. Meanwhile, the responsibility for academic heritage and historic collections will be transferred to the University Library, leading to – like in Amsterdam – one all inclusive heritage-collection.

World in transition

It is important to underline that the documentation of contemporary research is not addressed in any of these models. In order to understand how this relates to what universities expect from their museum, we must draw a brief picture of the changing worlds to which university museums belong: the academic world, the museum world and society at large. Each of these ‘worlds’ is in transition, if not in a state of crisis, and recent developments are having direct consequences on what is expected from the museum, each in its particular way, and as a response to local or national culture and to political circumstances (de Clercq, 2007, 2008).

First, **universities** find themselves in transition and in an identity crisis, as they have lost their once undisputed position in society. Century-old academic traditions and values are under pressure due to disappearance of borders between disciplines, drastic budget cuts and aggressive market-oriented international competition. Universities are experiencing probably the most important educational reform since the early nineteenth century Humboldt reform, together with life-long learning demands and a drastic change in the composition and age of the student population, with different expectations. Many universities find themselves in a process of re-orientating their position in society.

Society itself is also very much in transition, not least due to the effects of internationalisation and related demographic developments, particularly effects on composition, behaviour and expectations of the population. These developments have a remarkable impact on the traditional European culture and identity, which in turn triggered a variety of reactions. Among them, the notion that universities can no longer remain quiet in their ivory tower, but are expected to play an active role in society.

Finally, **museums** are also in transition. Although they maintain their three core tasks: care for the collections, scholarly research and exhibitions, they are no longer the holistic places they used to be. We witness an increasing split between ‘collections’, on one hand, and ‘public’ on the other, as illustrated by the success of the Darwin Centre at London’s Natural History Museum and the acceptance of the *Kunsthalle* and Science Centre as full members of the museum family. The public itself, however, embodies the most remarkable change. Whereas in the early days of the museum, the public belonged to the elite, museums of today cater for the largest and broadest possible representation of the public, whilst many of tomorrow’s visitors will belong to the global virtual audience as they come through the Internet.

Documenting contemporary research

What is true for the museum world at large is also true for university museums: the split between 'collections' and 'public' is a fact. However, this split is not very relevant to the question of what should be kept to document contemporary research. The crucial question is why anything should be kept at all. In other words: what is the relevant material evidence of contemporary research and for what purpose should we document and keep it? The answer differs largely per academic discipline and depends on the type of research (office, laboratory, fieldwork) and the nature (computer data, nanotechnology, DNA-samples, bacteria, chemicals, human tissue, minerals, fossils, anthropological artefacts, up to CERN's particle accelerator) and also the availability of material evidence.

Which part – if any – of the material evidence should be kept for the future is a question that has different answers for different academic disciplines and is largely determined by the mix user/purpose (see scheme 1):

– the purpose: why should anything be kept; closely linked to

– the potential future user: who will make use of it and for what purpose

The outcome may determine:

– who makes the selection

But not until we know

– who is prepared to pay

Can we make the final decisions on

– who will keep and make accessible

which the role the university museum should play in this process.

Scheme 1. The complex relation between the purpose for keeping, the potential user, decision-making and the role therein for the university museum

Why / Who	Control	Future research	Historical	Identity marketing
who will Use?				
who makes Selection?				
who Pays?				
who Keeps?				
which role U-museum?				

Involvement of the university museum

Scheme 1 illustrates two fundamentally different approaches for keeping material evidence of contemporary research: either closely related to the original research, or in a derivative way, for historical reasons or as an instrument in the marketing of the university's identity. Theoretically, reasons for documenting and keeping material linked to the original subject matter – be it the reproducibility of research, or reference-collections with type-material, and material that may be deemed interesting for further research – should be posed and answered from within the research community itself. That is the best place with regard to the required knowledge of the subject matter. However, reflecting on what should be kept of one's own research is, as we have seen, mentally not in line the inquisitive minds of researchers – unless they wish to mount a shrine for their own fame.

Keeping for the future is no popular subject, as the general perception is that there is no good reason to do so, since there is no use for such material in the foreseeable future; and by consequence, it is just a waste of time, space and money (Thomson, 2002). This is understandable from the point of view of a department that has just completed a research project. However, bringing these collections together and making them available to the larger scientific community has proven to be successful, as illustrated by the Darwin Centre at London's Natural History Museum.

When it comes to judging and selecting the historical relevance of the material evidence of current research, the role of university museums is evident. They should also be capable to identify material that can serve university marketing purposes. Markedly less evident is the role university museums can play in judging the relevance of the material archive for future scientific research, as their staff – being selected and trained to run a modern 3rd generation museum – obviously lacks the knowledge, skills and even inclination required to understand what is going on in contemporary research. On the other hand, as they are close to the central management and also maintain good contacts with the faculties, university museums find themselves in the right position to raise awareness about the topic.

It is therefore important to be able to point at successful examples of projects coping with renewed use of academic scientific collections, like the above mentioned Darwin Centre and the Dutch initiative to concentrate and merge all major academic natural history collections – including those from Naturalis, National Museum of Natural History, the Amsterdam Zoological Museum and the herbaria from Utrecht and Wageningen into the National Centre for Biodiversity Research.

In conclusion, university museums can play an active role in documenting and keeping material evidence documenting contemporary research. Generally speaking, they do not seem to be able to transform their museum into a 'collection centre', taking care of the scientific collections that maintain their scientific relevance, but are no longer in use within their own university. Not only because this is better organised at a larger scale, nor because they lack the required expertise and have other duties more relevant to their university, but also because the size, scope and burden of most university museums is already such that they simply cannot imagine how they could possibly cope with the sheer complexity and scale of the problem. On the other hand, due to their position in the heart of the university, and with an extended network both in their university and in the museum world at large, they are in the position to raise awareness about the meaning of scientific heritage, its relevance for future research and successful ways of keeping this material and making it accessible for future generations.

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STRESZCZENIE

Rola muzeów uniwersyteckich w dokumentacji badań naukowych

Uniwersytety, ich muzea oraz świat muzealny dotyka obecnie kryzys tożsamości. Celem niniejszego artykułu jest określenie kluczowych problemów tego kryzysu. Zauważa się, że kolekcje uniwersyteckie z powodu rozwoju badań naukowych i ewolucji metod nauczania nie spełniają już swej niegdysiejszej, zasadniczej roli. Muzea stoją więc obecnie przed problemem, jak przystosować się do nowych wyzwań i wymagań współczesności. Muszą rozstrzygnąć, czy ich przyszłość leży li tylko w zakresie gromadzenia eksponatów związanych z badaniami naukowymi i dydaktyką, a w przeszłości używanych w ich macierzystych uniwersytetach, czy też raczej działając na styku dwóch płaszczyzn – uniwersytetu i społeczeństwa – ich zadania będą ukierunkowane na publiczność, wnosząc tym samym swój udział do publicznej debaty na temat nauki i jej wpływu na szerokie warstwy społeczne.