

# UNIVERSITY MUSEUMS AND COLLECTIONS OF NATURAL HISTORY

Karl L. Hutterer, Executive Director, Santa Barbara Museum of Natural History, Santa Barbara, California, U.S.A.

## Abstract

Natural history museums and collections at American universities have been in decline for the past 30 years, due in part to increasing constraints on the financial support framework and the perception that natural history museums may be no longer central to the mission of universities. This paper disputes the validity of this assumption and suggests strategies for strengthening the position of natural history museums within the academic structure.

## Introduction

Over the last two years, great concerns have arisen again over the future of natural history museums and collections<sup>1</sup> at a number of American universities.<sup>2</sup> Investigation has shown that the situation is not uniform, but varies from case to case. In some instances, museums and collections have faced, and continue to face, threats of outright closure; in other cases, they are affected by severe budgetary cutbacks by their parent organization, causing the elimination of all public programs or the termination of curatorial positions, entailing drastically reduced collections care and curtailment of access to the collections; in yet other instances, budgetary reductions of operating funds are relatively minor, without serious overall impact.

Several factors affect the relative well-being of individual institutions. These factors do not include the size or quality of a given museum, but rather the museum's structural position within the university organization, and the degree to which a museum derives a significant portion of its operating funds from dedicated endowments. On the whole, there is no doubt that an increasing number of university-based natural history museums and collections are currently at risk to such an extent that many members of the natural history community speak of a crisis.

The pressures university-based natural history museums find themselves under are not new. The position of natural history museums at universities has been in steady decline over the past 30 years, punctuated by the closure of some museums and divestiture of significant collections during times of budgetary difficulties, particularly budgetary problems caused by cyclical recessionary economies. American universities, even those generally classified as "second-tier" and "third-tier" institutions, are large corporate structures. Within these large enterprises, the internal allocation of relatively scarce resources is always a highly politically charged issue, even during good times. The internal competition for resources increases dramatically during tough times, and it is at those times that politically weak units are particularly at risk. Such weak units are those viewed as being less central to the university's

"core mission" of teaching and research, those regarded as being not at the cutting edge of current scientific research, or those seen as less likely to generate high levels of external grant support. Rightly or wrongly, university administrators often judge natural history collections and museums as programs falling into these three categories.

Unfortunately, regardless of whether times are good or bad, the cost of operating our vast university systems, as well as the cost of maintaining our inexorably growing collections, continues to go up. Thus, while the competitive climate may relax somewhat in the short-term, if and when the overall economic climate improves again, the general long-term trend is likely to be a continuing increase in the competition for allocation of support in operating budgets, capital programs and personnel resources within universities. In other words, the long-term forecast is that the erosion of university-based natural history museums will continue and may eventually make these institutions an endangered species, unless concerted strategic actions are taken to address the problems underlying their perceived or real weaknesses within university structures. It would be a grave mistake simply to blame the secular trend on the ill will of poorly informed university administrators, while failing to recognize and address the deeper causes of the issue.

This is a complex situation, but there are, in essence, three basic challenges. The first is the continuously increasing cost of the human and material resources needed to care for our collections and the research associated with them. This continuous cost increase is caused, in part, by the fact that the collections continue to grow, as they should, if the institution is healthy, active and dynamic. However, even if the size of collections were to be kept constant, costs would continue to increase, because of the growing demands for better conservation measures, innovations in scientific technology and general inflationary pressures in the economies in which our institutions are embedded.

A second challenge results from the fact that university systems also face ever-increasing economic challenges. Expectations about what universities deliver

in the form of education, research and public services have expanded greatly in recent decades, while public funding, as measured as a percentage contribution to overall operating budgets, has declined continuously. This has led publicly-funded universities to look increasingly to earned revenues (by raising tuition and other fees) and to compete aggressively for private support. The battle for the dollar is fierce, within and between institutions, and the spoils are likely to go to those university departments that have the strongest alumni support, can gain attention through spectacular research, generate the largest enrollments and have strong linkages to business and industry. Natural history museums are not always well situated in this battle.

The situation is made worse by the third challenge: taxonomy and systematics, fields that have long been the foundation of scientific research in natural history museums (as well as material culture studies in anthropology), long ago lost the interest of the academic departments related to the museums. With this, museums have not simply lost their most important allies within the university structures, but these one-time allies have turned into fierce competitors for scarce resources, and their appeal is strong because of the student credit hours they deliver and the cutting-edge research they produce.

Given this background, three interrelated questions arise: (1) How can we ensure continued support for the maintenance of university-based natural history museums, their collections and research associated with these collections? (2) How can we create opportunities for future growth and long-term vitality? (3) How can we overcome the see-saw cycles of crippling budget cuts followed by arduous rebuilding?

These questions assume, of course, that university-based natural history museums, and natural history museums in general, continue to be of intrinsic intellectual value and continue to be of value to society. Without examining this issue further, it is obvious that there is no compelling need for any university to have a natural history museum (indeed, many universities do not), nor for any particular museum to be part of a university. I am convinced, however, that the university context has the potential to make a unique, and highly valuable, contribution to the natural history museum enterprise (far more so than is generally realized), and that the museum, in turn, has the potential of making great contributions to the academic enterprise and the public service mission of universities (again, far more so than is generally realized).

It would be naïve to think that the difficulties university-based natural history museums are facing solely result from uninformed and uncaring, or perhaps even hostile, university administrators, and that they could be resolved simply by increasing political pressure on university decision makers. I believe that five broad sets of actions are necessary.<sup>3</sup>

## 1. Communication

For far too long, the value, and in some cases even the very existence, of vast natural history collections on university campuses has been a well-kept secret, known only to museum staff and a few chosen students who elected a curator as an academic advisor, and who were consequently led into collections-based research for their undergraduate honors thesis or their graduate work. While many university deans, vice-presidents and provosts were certainly dimly aware of the existence of these collections, they often did not enter the strategic radar screen of such administrators until the emergence of a crisis situation.

Once a crisis situation arises, it is not uncommon that academic administrators are accused of being ill-informed about the museological units under their control. All too easily, it is forgotten that the primary responsibility for educating the incessantly changing inhabitants of administrative offices about the value of museums to the larger academic enterprise lies with the museum community itself. It is absolutely critical that natural history museums, their leaders and their staffs communicate the existence, nature, scope, importance and use of their collections to the whole university community, particularly its leaders and decision makers. This communication has to be effective, continuous and consistent.

Fortunately, this communication is relatively easy. As experience has shown over and over again, the objects contained in the collections have the power to inspire endless fascination in not only unschooled laypersons, but also sophisticated academics. Each object is capable of telling dozens of captivating stories that link together the most diverse aspects of the human experience, each of which has potential academic interest. Because the objects in the collections are so powerful, the best communication by far is not only to talk about them but to make them visible and physically accessible.

## 2. Research

While far from the only goal of research in natural history museums, taxonomy and systematics traditionally have been the staple and foundation of collections-based research. Given how little we know about the physical world we live in—with only 10–15 percent of all living organisms taxonomically assessed—and global concerns over rapid losses of biodiversity, the pursuit of taxonomy and systematics continues to be of undiminished importance. Indeed, it is more important and urgent today than ever before. The importance of this component of the mission of natural history museums is stressed further by the fact that these institutions are currently essentially alone in pressing forward with this neglected, yet vitally essential, enterprise. Natural history museums bear a heavy responsibility that has been abandoned by others.

Recognizing this fact should impart a newfound sense of value to the scientific work we carry out in museums that is unaffected by the disinterest in taxonomy amongst our academic colleagues.

Recognizing the value and importance of taxonomic work does not mean that we can carry on business as usual. It has taken the scientific community 250 years to classify and describe only 10-15 percent of living things; we do not have 1000 years or more to classify the rest. We must retool the taxonomic enterprise and fully engage new methods, techniques and technologies to speed up the process vastly and disseminate information. Several international organizations have formed to promote and support these goals. Our museums need to become part of this emerging global effort and position themselves in it as key players.<sup>4</sup>

It is also clear that the gigantic amount of both manifest and latent information contained in our collections is relevant and pertinent to a vast range of interests in both basic and applied research, often topics and fields of great societal interest. To name just a few, our collections and the information they contain are of immense—though all too often unrealized—value for evolutionary studies, biodiversity assessments, conservation and restoration biology, pharmacological research, urban and regional planning, research on cultural and ethnic identity and the cultivation of ethnic heritage in our diverse society and many more. Stressing the importance of taxonomy (and, in anthropology, of material culture research) should not limit our research; on the contrary, we need to continue to connect taxonomy, as well as the vast range of data that can be extracted from our collections, with the full domain of contemporary science.

### 3. Collections Management

The vast collections held by natural history museums constitute at once a precious patrimony, a huge resource, a great obligation and an enormous burden. Unfortunately, policies, techniques and technologies to manage the ever-growing collections effectively and efficiently have been slow to evolve. For much of their history, our museums have considered collections the sole responsibility of individual curators who have established and exercised a culture of exclusive institutional territorial rights. This is no longer defensible. We must stop treating collections as sacred cows under the control of individuals and institutions and approach them as the public resources they are.

The first and most obvious step must be to provide much wider information access to the collections by electronically cataloging the holdings and linking the catalogues together into global data networks accessible through the World-Wide Web. Many institutions already have taken important steps in that direction, but much remains to be done.

Beyond information access lies a wide domain of collections management policies that needs to be reformed, but has, so far, barely been touched. We need to develop defensible and broadly-shared rationales for what we collect and why, and for what we do and do not need to keep. Too many specimens and lots in our collections take up valuable space and other resources only because we simply hate to dispose of them or because they increase the counts of our holdings, creating an inflated sense of the importance and rank of the collection. We also need to eliminate unnecessary duplication and competition between institutions and consolidate collecting activities as well as collections holdings within collaborative networks, giving institutions the opportunity to focus on particular biological groups or geographic areas. Such coordination alone has the potential to decrease costs significantly while strategically building on existing strengths, fostering networks and increasing the quality and efficiency of collections care and research.

### 4. Collections Use

The traditional tendency has been to restrict access to, and use of, collections in the interest of conservation (as well as the convenience of curators and collections managers). This conservative attitude has been detrimental to the interest of our institutions and, indirectly, to the well-being of the collections themselves. Rather than restricting access, curators and collection managers should seize every realistic opportunity to promote the use of collections in research, collegiate teaching, K-12 education, exhibits and public programs.

This does not mean that the demand for expanded access to collections must cause the abandoning of reasonable conservation concerns and sound conservation practice. Expanded use can be achieved while safeguarding the well-being of collections and individual objects, albeit probably at the cost of some additional effort and cost. Such effort and cost will be more than repaid, however, through the goodwill and support generated for the collections and the institution as a whole.

### 5. Building Constituencies

Despite much-vaunted ideals of academic collegiality, universities are deeply fractured organizations, divided by competing interests between academic units, polarized between principles of hierarchy and democracy in leadership and saddled with ever-increasing bureaucracies. University museums must build constituencies that reach across these and other fracture lines; they must engage administrators, faculty, students and staff. Fortunately, natural history museums are uniquely positioned to do so, because they potentially have something to offer to any campus group or constituency.

Equally important as internal constituencies, however, are constituencies outside the campus boundaries. Of all the things on a university campus, the natural history museum has the largest potential for popular appeal, with the possible exception of the football program. Because of this popular appeal, natural history museums can be the most effective portals between academic communities and the communities on which their support depends. In the fierce competition with K-12 education, social services, health care, internal and external security and other critically important causes for support from both the public and private sector, the academic enterprise is increasingly challenged to present a convincing case to the public. Natural history museums must seize this opportunity to prove themselves as vital assets to the university's efforts to explain the essence and importance of their work to society at large and, by doing so, build public support.

### Conclusion

There are many signs that natural history museums in general are entering a period of great renewal and newfound vitality. Among them are the vast numbers of visitors attracted to newly opened museums, museum renovations and new natural history exhibits, the growing role our museums play in the educational process of K-12 students and the outstanding research in a wide range of fields and on a wide range of topics that is being done in our institutions. This reinvigoration goes hand-in-hand with an expanding public sense of a global threat to the biological and cultural infrastructure of our world and a growing interest in the conservation of both biological and cultural diversity, and an increasing disposition toward personal involvement in finding and creating a sustainable future. It is my belief that natural history museums are emerging as central resources and actors in this broad field of endeavor to mold the future through their collections, their research, their educational programs and their public services.

It would be most unfortunate if natural history museums were to start disappearing from universities at this critical moment. However, in the long term, the survival of natural history museums on university campuses and as integral parts of university systems can be assured only if universities can be convinced that natural history museums are not simply just useful and worthy institutions, but that they are making a vital contribution to the mission of the university. Ultimately, such value has to be demonstrated rather than asserted.

### Contact

Karl L. Hutterer  
 Executive Director  
 Santa Barbara Museum of Natural History  
 2559 puesta del Sol Rd.  
 Santa Barbara, CA 93105  
 Tel: 805-682-4711  
 Fax: 805-569-3170  
 Email: khutterer@sbnature2.org

### Notes

<sup>1</sup> Consistent with general American usage, I include in the category of "natural history" museums and collections that cover the biological sciences, the earth sciences and anthropology/archaeology. Any one museum or collection may, of course, cover only a small portion of this broad scope.

<sup>2</sup> Reflecting my personal experience, I am addressing myself in this paper specifically to the situation of natural history museums and collections in universities and colleges in the United States of America. I suspect that a number of the trends and issues I identify also hold true for universities elsewhere in the world, particularly Canada and Europe, though I have to leave it to readers in those countries to judge whether, and to what degree, issues noted here apply to situations outside the U.S.

<sup>3</sup> The suggestions below are in broad agreement with proposals made recently by Leonard Krishtalka in the journal *Museum News* (Krishtalka 2003).

<sup>4</sup> See also Wheeler et al.

### Works Cited

- Krishtalka, L. 2003. At natural history museums, the ox is gored. *Museum News* 37 (July/August): 64-65.  
 Wheeler, Q.D., P.H. Raven, E.O. Wilson. 2004. Taxonomy: impediment or expedient? *Science* 303: 285.