

# *Re-Humanizing a Sleeping Beauty*

## *A Historian's Vision of Natural History Collections*



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**M**y task is to comment on the numerous ideas presented in this volume. Because the authors have opened up a whole range of research agendas, it is impossible for me to summarize their thoughts with a few sweeping sentences. What I offer, instead, are comments, personal reflections, remarks intended to be somewhat comprehensive though certainly not conclusive.

When I was a child, I loved going to natural history museums, to stroll through great halls packed with glittering minerals and stuffed animals. I pressed my nose to the glass of dioramas showing a tropical forest or Jurassic scenery. I remember having been particularly moved by the mysterious glass eyes of those stuffed animals staring at the child staring at them. I enjoyed those objects as signs of a world to be discovered, and thinking of these early experiences I can still smell the typical whiff of naphthalene.

Later, I realized that the marvels of my childhood were but exemplifications of a rigid scientific system unknown to me at the time, and everything but emergency exits through which my fantasy could escape to other worlds. At that moment, the glass eyes of the stuffed animals lost their mystery, and the natural history museums turned into dead collections of dull stuff. In a way, I experienced part of how the general perception of natural history museums has changed during the past two centuries.

With the discovery of time in the late 18th century, the static metaphors of the collection, or stock of knowledge, gave way to the new idea of development.

Collections aimed at proving the concept of order and system, or at displaying the diversity of God's creation, turned into popular proofs for economic, colonial, societal, or human progress. The formation of the modern system of scientific disciplines, but likewise specialization and institutionalization, deprived natural history museums of an all-encompassing ideological message. The general trend toward abstract, formal, and quantitative reasoning worked against the phenomenological and qualitative approach implicit in natural history. So, why should students, for instance, lose time with thousands of individual items kept in musty museum halls, if scientific knowledge can be obtained in a much more concise and fundamental way, preferably on a molecular basis nowadays. And what shall we do with those Cathedrals of Nature such as the Natural History Museum in South Kensington, the Naturhistorisches Museum in Vienna, or the Národní Muzeum in Prague? And how could we, as historians of science, contribute to revitalizing these archives of our cultural heritage?

Usually, an alliance of community treasurers and museum pedagogues urges us to transform these places into science centres devoted to hands-on-, press-the-button-, or touch-the-screen- experiments. If there is space for real objects at all in their increasingly virtual presentation, these objects are often reduced to mere teaching devices or textbook illustrations. Except for the specialist, traditional natural history museums attract only those few who have retained the sense of the marvel and who still feel the thrill if looked at by the eyes of a trilobite from the abyss of time.

I am not going to argue for a re-enchantment of nature. This process is irreversible. I am going to argue, however, for a re-historization, and this means: a re-humanization of nature that could lead to an entirely new way ancient collections and natural history museums are perceived by the public. In this, the history of science has something to tell.

For a long time, historians felt uneasy if dealing with the material heritage of science. They simply didn't know how to relate it to truly historical questions. Historians were happy to work with texts. The material objects of science were often considered as mere footsteps on the path to textual knowledge, ancient collections as mere materializations of past systems. They were nice to look at and could be exploited to catch the eye on the dust jacket of a book, but the meagre explanations usually given to textbook illustrations show that historians usually don't know how to interpret objects and pictures with the same sophistication as they interpret written sources.

During the past two decades, the study of collecting has become a thriving field in the humanities. Art History, Intellectual History, and the History of Science have all discovered the history of collecting and the history of collections as an approach to cultural attitudes and practices of the past. As a result, collections are no longer used as mere storage rooms for individual items to be studied under aesthetic, intellectual, or scientific aspects, but as complex creations that can be analyzed according to the political, economic, social, and intellectual preconditions and

consequences. Similar to the shift of attention in Art History from analyzing the form and meaning of the way a work of art was actually used, the History of Science has discovered the various uses of instruments and experiments, and our discipline is just beginning to discover the uses of collections and museums—beyond their being used for the production and justification of scientific knowledge. By “uses” I mean the way collections and museums are part of much wider social, economic, or political practice. The conference that led to the publication of this volume is an important step toward this goal.

The papers in this volume cover a wide range of case studies. Chronologically they span from Alexandria and Rome in late Antiquity to the late 19th century. As one would expect, the majority of papers focus on the 18th and 19th centuries, the “classical” period of natural history museums and, at the same time, a period marked by two transitions relevant to our topic. Transition is in fact the key concept in the title of this volume. Thus let me first say a few words about the two interrelated transitions: First, the transition from the natural history approach to the scientific, or, in other words: the transition from system thinking to analytical thinking and from a static to a dynamic view of nature. Marco Beretta depicted the way Lavoisier used his collection of minerals as exactly half way through this double transition: In his approach, minerals were not collected with regard to the idea of order in a static display, but as part of a research program in chemical analysis. Yet, his approach was still based in a Newtonian or Laplacian world governed by eternal laws; the temporal dimension of nature’s objects and the idea of evolution did not occur to the French chemist.

Second, our core period is marked by the transition from a stratigraphic society to a new type of society that is functionally divided. This process reached its watershed around 1800 and goes hand in hand with the emergence of a new type of public. The formation of this predominantly—though not necessarily—bourgeois public, which shared a common set of intellectual and aesthetic values, is one of the preconditions for the transition “from private to public,” referred to in the title of this volume. Sam Alberti’s research on owners and collectors of natural objects in 19th-century Britain underlines the importance of the cultural value system of this social group, and likewise points to the towns and the forms and rituals of civic life as the social context out of which voluntary and, later on, municipal museums have emerged.

This general public is a new phenomenon in the history of science. Its impact on the development of science is ambiguous. It creates a new audience and hence a new demand for scientific knowledge, but since scientific results and objects are open to various interpretations, including misunderstandings, the path and the impact of science becomes more dependent on its ability to appeal to a general public. Anna Maerker’s paper on the Vienna collection of anatomical models, its association with non-middle-class entertainment, and the process of discipline formation shows this dilemma in a very convincing way.

Similarly, the shared set of values implicit in collecting as an exercise of manners and good taste changed over time. Jonathan Simon has described the difficult task an 18th-century Paris mineral collector had to face in his attempt to keep a balance between the valorization of aesthetic appeal that would raise the status of his collection among his bourgeois circles, and the demands of the system as required by an increasingly professionalized science. A shift in values toward education and an institutionalized solution for the collection was one way out of the competing claims of science and the public. Another, equally linked to education, was the role of collections in the increase and display of national pride and prestige, as Jenny Beckman has told us about the debate on public ownership, opening hours, and entrance fees in the first century of the Swedish Museum of Natural History, which was primarily meant as a means of educating the nation. And although the notions of a public and of a nation were alien to Antiquity, even Giovanni di Pasquale's paper on Pliny's project of creating an inventory of the marvels of Rome to mark Roman power and greatness testifies to a similar agenda.

The economic aspect and the idea of ownership, so close to the bourgeois value system, is another feature of the history of collecting. E. C. Spary has studied the relation between commerce and natural history in the case of the Parisian grocer Pierre Pomet; and I wish we had another paper on the emergence of the flourishing trade of collectibles, predominantly in mineralogy, during the 19th century. As in Pomet's case, most of these middle-class collections have disappeared and have left little trace in the archives. Goethe was an outstanding collector—some 50,000 objects are said to have been collected in his house in Weimar, 17,800 of which were minerals—but Goethe was by no means an exception. Collecting, exchanging of specimens, and visits to private collections were ritualized forms of communication. Communication by means of objects and in front of a collection had one key advantage: It enabled communication across social, religious, and status barriers. If an unknown gentleman from a provincial town wanted to have an audience with Goethe, all he had to do was to let him know that he wanted to show him a rare mineral, and the famous German poet would have immediately invited the visitor to his house—and would have probably kept the mineral for his own collection.

Ownership is a means of enhancing status (among the public) and credibility (in the world of science). Collections can thus be used to generate professional reputation and scientific credibility—very similar to the way a scientific apparatus can. For ownership means not just material possession. In her case studies, Janet Browne has convincingly shown that material ownership of objects implies not only privileged access, but also privileged knowledge, including the tacit knowledge associated with those objects.

Access raises the question of space. Collections are spatial arrangements of (mostly) three-dimensional objects, and these arrangements often represent ideas about the systematic order of knowledge. This is a traditional topic in the intellectual history of collections and was not dealt with specifically in the conference that led to the publication of this volume. However, there are other spatial relationships

involved in study collections with regard to social and scientific practice. How does the space of the collection relate to other spaces of science: to the laboratory, to the botanical garden (which of course is a special type of collection), to the herbarium, to the library, to the studio, to the open field? And how are these various spaces linked by verbal, written, and material communication? Chemistry and mineralogy would not have achieved a consistent body of knowledge, were not materials exchanged between collections and laboratories as part of the usual learned correspondence in letters and by means of travel. And the same is true for the exchange of seeds and living plants in botany. Ana Carneiro's paper gives an example of how difficult it is to communicate three-dimensional objects by visual and textual representations alone. Collections are just junctions in a complex commerce of objects, texts, and people.

The new approach to the history of collecting, the history of collections and museums, has a consequence for how to deal with historical collections, collections that are not just contingent containers for individual objects of nature, but that are themselves, as collections, historical documents that stand for a wide variety of human practices and attitudes. Therefore, it is not so much science that is on display in historical collections, but the various ways human beings have interacted with their world and their society, and have given meaning to these interactions. Thus, if we take our students to such collections, prepared to learn about nature, they will learn even more about culture and society and about the role the knowledge of nature has played in contributing to the practices and symbolic forms by which cultures are organized. As historians of science, we can help to arouse the Sleeping Beauty of many a natural history museum by historicizing, and this means: by re-humanizing it.

Three recent examples may suffice to prove that this is indeed a feasible and successful task: In Bologna, the collections of the former Istituto delle Scienze, scattered into various specialized university collections after the closing of the Academy in 1802, were re-assembled four years ago to form the unique complex of the Museums of Palazzo Poggi. In Berlin, a similar attempt at re-uniting scattered holdings was made with the rich collections of the Humboldt Universität to form the monumental exhibition *Theatrum Naturae et Artis* in 2000/2001. In 1995, the 18th-century *Kunst- und Naturalienkammer* of the Franckesche Stiftungen in Halle, Germany, was restored as much as possible to its original state. All three examples have one thing in common: They do not aim at teaching basic or advanced scientific knowledge; instead, they put the collections in their historical context of collecting and use, of practice and meaning, of ambition and prestige.

I have seen all three collections. Vague memories came back of my childhood visits to natural history museums. I strolled along shining minerals and strange animals, and I believe I even smelled a whiff of naphthalene. But it was different. When I looked at the glass eyes of the stuffed animals, I was thinking of the collectors, of their intentions, of the meaning they wanted to confer, and of the

whole framework of social, economic, political, and institutional structures in the background. Looking at an object of nature, I noticed, as in a distant mirror, that nature is but part of our human history.

This is one of the lessons to be learned from studying the history of museums and collections.