Georg Christoph Lichtenberg, "About Göttingen's Academic Museum" (1779)

Abstract

The following account begins with a description of natural history collections in Europe from ancient times to the Renaissance. The unnamed author, Georg Christoph Lichtenberg (1742–1799), criticizes some of those collections for displaying natural and man-made curiosities together in a single collection. Lichtenberg then turns to the new Academic Museum in Göttingen, which he introduces as a modern collection. The objects displayed there, he argues, are not merely for representation but rather for studying nature and advancing science. The basis for the Academic Museum was the vast collection of Göttingen professor Christian Wilhelm Büttner (1716–1801), who bequeathed it to the museum. Over time, the museum was gradually enlarged by other collections.

Source

The study of natural history is a science that contributes much to the alleviation of human misery and satisfies thousands of needs. It quells superstition and stimulates continuous discussion. Having been practiced since ancient times, and far earlier than most other aspects of human knowledge, natural history has also survived in periods when nearly all other sciences were suppressed by barbarians. Therefore, it is difficult to understand why it took so long to think of studying nature through natural history collections, the creation of natural archives, and the gathering the appropriate documentation. The collections of the Greeks and Romans are not worth mentioning. One gathers from Pausanias and others that they were only interested in the miraculous and did nothing more than deposit the alleged bones of giants, great sea animals, snake skins, and similar objects in temples. Indeed, it was precisely such purely fantastical items that were later rejected by the Byzantine emperors in the Orient, and during the Middle Ages by churches and monasteries in the West. It was not until the sixteenth century that some German physicians began to create collections of natural objects for the express purpose of advancing the study of natural history. During the Reformation, the first to create a mineral collection was Georg Agricola, who lived in Joachimsthal, Zwickau, and Chemnitz. He was followed by Johann Kentmann, a medical doctor from Torgau. Of special note was Zurich's famous polyhistorian Conrad Gesner, who, through an extensive and, for those times, incredibly laborious correspondence, brought together a large assortment of natural objects. He was followed in Italy by Julius Caesar Arantius and Ulysses Aldrovandus; then much later, in England by John Tradescant the Elder, court gardener to King Charles I. Gradually, in the rest of Europe, others created private and public collections with financial backing from prominent men. These older collections almost always made the mistake of gathering objects that were simply oddities rather than true curiosities of nature. In addition, they also mixed in art objects, weapons, household objects from foreign lands, and similarly unusual items, which made the entire collection appear inconsistent and tasteless and diminished its usefulness to institutions. Recently, however, this shortcoming has been mitigated by keeping art collections and natural history collections separate.

In general, the value of a collection is determined by its usability, which rests in part on its completeness and in part on the manner in which it is to be utilized. Regarding this last consideration, high-quality academic collections become important when their sole purpose is for investigation and teaching and not for pomp and circumstance. And yet, it is peculiar that this most useful kind of collection has received the least attention.

Göttingen is the first university in Germany, perhaps in Europe, to have been equipped with a truly academic museum, and we feel obliged to report on it, if only as an epoch-making phenomenon.

The basis of the Göttingen Museum is the esteemed Prof. Büttner's well-known collection of natural objects and coins. It is a collection that was begun many years ago by the professor's forefathers, but was greatly enhanced by Prof. Büttner himself. A few years ago, with unceasing consideration for that which is useful and instructive, he very patriotically bestowed the collection upon the academy for public use.

Incidentally, we might add that the collection of coins from antiquity, especially the Roman collection from the time of the Consuls until much later, is in a state of completeness that is quite rare. The modern coins are very beneficial from a statistical point of view and there is an ongoing effort to collect them from all the modern states and from various periods, etc.

The strength of the natural history collection is in the animal and mineral fields, with the latter being quite excellent. It encompasses, among other things, a collection of precious stones that is as unusual as it is valuable. This is due to the natural crystalline forms (forma determinata), mostly together with the mother crystals from which they were extracted; as well as their color, fire and water content; also, the variety of countries of origin; and finally, their different treatments, cuttings and settings. The level of completeness sought is the same as in all the other branches of the two main collections. All kinds of stone and ore, etc. can be found in their various states, shapes and levels of development, as they are connected to or removed from one another, assembled, dissociated and modified, etc.

In the animal collection alone, there are hundreds of larger specimens that are preserved in alcohol. However, the professor has also created a superb collection of both embryos and animal skeletons that are all the more valuable, since they often reveal information that is difficult to obtain from a complete animal, whether stuffed or preserved. Thus, the condition of the claws and toes of premature animals can be discerned more clearly than those with hairy feet; the same goes for the teeth in a skeleton compared to a specimen still covered with flesh. For those animals that undergo metamorphosis, specimens from the entire transformation history are collected wherever possible. With regard to common background specimens—empty snail shells and mussel shells—the stock is certainly respectable, but in the case of conchylians, the preference is to preserve them in spirits with their inhabitants intact. There is also no shortage of so-called *praeternaturalia* and miscarriages etc. The collection of stones taken from the human body is very considerable as well as instructive, and it is much stronger than the one in Daubenton's inventory from the Royal Collection in Paris.

Büttner's portion of the museum has been considerably expanded with support from the Royal Government.

Soon, the library will contribute Dr. von Hugo's large collection of herbaceous plants consisting of 79 volumes. The collection is exceptional both for the quantity of exotic plants that the great botanist Vaillant collected for Mr. von Hugo and for the complete collection of Swiss plants from Mr. von Haller; moreover, it is also remarkable for the twelve volumes of plants from Malabar, whose labels are written in the Malabar language on palm leaves.

In 1777, upon His Majesty's order, the collection of minerals that had hitherto been located at the Hannover library was added to the academic collection. This is especially fortuitous because of the numerous gold and silver specimens, and because of the many rare and extraordinarily large spar geodes. Amidst the silver ore specimens, among others, there is a piece of solid silver containing some red gold, which is worth at least 1,700 thaler. Included in the limestone, gypsum and river spars, there are specimens of every kind that have been mined in the Harz region for the last hundred years. Some of this collection comes from the great mineralogist Schluter, and

some from von Leibnitz, who described and illustrated many of the fossils in his *Protogäis*.

What's more, the museum has continued to grow through the generosity of Her Serene Highness, the widowed Princess of Waldeck, as well as both, Mr. de Luc and Baron von Hüpsch and other well-known individuals. It also goes without saying that with the government's blessings there will be more and more improvements.

At this point, we will close out our notes with a few fitting observations about that which we have had the opportunity to accomplish at the Museum.

There have been arguments as to whether or not Moors are already black when in their mother's womb. This has been settled in the negative by several specimens in our inventory. A Hottentot embryo is indeed flesh-colored, while the gray coloring of a Negro fetus from Curaçao can clearly be attributed to the rum in which it was shipped. One can observe the same effect on an offspring of German descent that has been in the same container for some time.

Some anthropologists have ventured to write that the individual shapes of the skull among various peoples can be attributed to climate. Winkelmann has deduced that the beautiful oval formation of Turkish heads is due to the influence of pleasant Greek skies. Our collection of skulls from different nations refutes this assumption. Even Turkish skulls have a variety of shapes and they simply appear as lovely ovals to our eyes.

The flat formation of the human face is immanently caused by the lack of a special bone, into which the upper incisors of other mammals are set. Indeed, this can be found in orangutans, and also in six monkey skulls from our collection. On the other hand, this is belied by a very peculiar monkey skeleton with a rounded head, and a flat, rather human-like face, which was donated to the collection by Princess von Waldeck.

Parrots, hornbills, and toucans have overly large and very lightweight beaks in proportion to their bodies. Some anatomists have recently come to believe that they developed in these animals to reinforce the sense of smell; something akin to extended nasal bones. This is erroneous. Our anatomical specimens of these birds prove that these are merely air-filled cavities, like other hollows containing air in a bird's wing bones or abdomen, etc. These are used to facilitate flying, for holding long birdcall tones, and in part for discharging waste.

The essential difference between the American caiman and the true Nile crocodile, which Linné himself regarded as a single species, can be seen here in a collection of crocodiles of different ages and from both regions. The Nile crocodile has scales with sharp projections, while the caiman's are flat and much more rounded, etc.

It had been doubted that the pipa, a Surinamese toad that hatches its young on its hump, experiences the same metamorphosis as our local frogs, and initially bypasses it. However, a gradual transformation of the young is clearly confirmed by viewing a series of six of these animals.

Newer trends have worked to negate the difference between the organized animal and plant realms by referring to different species of corals (gorgonians), whose stems are very woody and plant-like on the inside. The collection of animal-plants reveals how misguided this is. One can clearly see that the interior of such coralline stems contains true plants (fucus) upon which the coral polyps have merely cultivated. They have as little to do with the nature of the actual animals as a tree does with the bird that nests in it.

Some have questioned whether the base metals: copper, iron, and tin, can be found in their pure native state. There are several such specimens of these ores in the museum that leave little room for doubt. They are, of course, rare and will become increasingly so, since the mineralization of these metals is always ongoing. There is,

however, no reason to deny their existence altogether. One can conclude the following a priori, that they must have been much more common in earlier times—indeed very common—since the earliest primitive peoples had weapons made of such metals. It is difficult to believe that they would have had enough metallurgical knowledge to process the mineralized ores.

It seems that the ancients were able to artfully copy some forms of composite or igneous stone, such as granite or porphyry. In the museum there are various manufactured objects, especially battle axes and the like, that were clearly produced in this way, which makes this presumption more than just probable.

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Source: Georg Christoph Lichtenberg, "Etwas vom Akademischen Museum in Göttingen," *Taschenbuch zum Nutzen und Vergnügen*, edited by Georg Christoph Lichtenberg. Göttingen, 1779, pp. 45–57.

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