A Natural Curiosity: Evolution in the display of natural history museums

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Abstract

Natural history museums have the unique capacity to provide a forum for contemporary issues such as climate change, genomics, or natural disasters. These modern museums act as institutions from which new and important advances can emerge. Within this role, natural history is involved not only with a scientific narrative, but a social narrative as well.

Developing from cabinets of curiosity to what is recognizable today as the modern museum, collections of natural history have undergone significant developments. This article will briefly look at the driving forces behind these historical developments focusing on an aesthetic of curiosity and display. Using three London-based museums as a case study the article examines the evolution of specimen-rich displays within natural history spaces, particularly in regard to their historical context, characteristics, and purpose. Following the historical background and relevant findings from the case studies, the article will consider how natural history institutions may evolve in the future. Current developments within institutions of natural science indicate that despite various historical transformations and modifications within displays, the future of contemporary natural history museums exists in adopting and acknowledging the historical value of an aesthetic of curiosity while embracing innovative and engaging ways of reuniting natural science with a participatory public.

Keywords: Natural history museums; Displays; Collections; Curiosity; Participatory public; Museology

Introduction

As museums evolve, they inherit traditions of meaning from the past and form new ways of projecting meaning through new and updated displays. This museological heritage within museums such as those with natural history, zoology, or ethnography, tends to work within established parameters of classifications and frameworks. These frameworks are continually influenced not only by museological traditions, but also by historical paradigms of contemporary science (Pearce, 1992).

Early amalgamations of specimen-rich collections, now known as cabinets of curiosities, form the first collections for many museums. In such collections often little was known of the objects that made up these cabinets and an aesthetic of curious fascination was fueled by intrigue in what was unfamiliar (Mauries, 2002). Developing from historical cabinets of curiosity to what is recognizable as the modern museum, collections of natural history have undergone significant changes. Today, the combination of curiosity and the physical display of objects in museums still has potential to form the roots of exploration, encouraging the continued development of science and technology.

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This article will address curiosity as a property within the context of informal education settings of natural history museums. As such, it will consider the role of curiosity throughout the historical evolution of displays in natural history museums. The aim of this article is to examine the evolution of the display of specimen-rich collections within natural history spaces, particularly focusing on their historical context, characteristics, and purpose. This will be accomplished through examining displayed collections of natural history museums and the consideration of museological theory as it relates to how museums have developed their institutional role.

A comparative approach was taken using natural history collections at three museums in London: the University College London (UCL) Grant Museum of Zoology and Comparative Anatomy, the Horniman Museum and Gardens, and the Natural History Museum, London (NHM). London museums were chosen due to accessibility of materials and as a control variable from which to asses the data. Additionally these museums have been chosen for their diversity in size as well as historical development. As these museums only represent a localized fraction of displayed natural history collections, worldwide examples will also be considered where relevant. It is important to consider how specimen-rich displays of natural history collections have evolved in the context of historical paradigms, particularly the relevance of an aesthetic of curiosity, scientific advancement, and museology. Despite various transformations within displays, the future of museums of natural science exists in adopting an aesthetic of curiosity while embracing innovative and engaging ways of reuniting natural science with an integrated and participatory public.

Curiouser and curiouser: cabinets of curiosities

Dating to 1599, illustrative catalogues of cabinets of curiosities are some of the earliest representations of displays (Mauries, 2002). Illustrations of crowded, overflowing cases depict numerous specimens of the natural world and artifacts of man as well as the social interaction integral to such collections (Mauries, 2002). As little was known of these objects at the time, unfamiliar pieces encouraged discussion and inspired a fascination stemming from human curiosity. While chaotic in appearance, materials were organized as they were thought to relate to one another. Early collections, although variably organized due to individual collecting preference, were often displayed in categories aimed to tangibly illustrate chains of being that existed within art and nature.

Within the early days of collection forming the activity was a recreational diversion for all levels of society where individuals set out to collect, define, and classify objects. The formalization of collections into displays transformed the activity of collecting from a pastime of the common man to a more specialized and often pedantic pursuit. After collecting specimens, individuals understood them by identifying (taxonomy), sorting (classification), and determining relationships (systematics) between specimens. This process formed the foundations of the modern biological sciences (Freedman, *et al.,* 2010). Organization of displays by individual preference was beginning to be replaced by utilizing scientific systems designed by figures such as Linnaeus and Buffon (Mauries, 2002). Linneaus organised organisms into hierarchies, placing like organisms closer together in the hierarchy. Likewise, Buffon's research served as precursor to the scientific work of Lamarck and Cuvier (Freedman, *et al.,* 2010). Emerging developments in scientific fields contributed to a more objective understanding of relationships within the natural world and the processes by which these relationships were determined. Consequently, scientific systems of the 18th and 19th centuries created more distinct differences between disciplines and promoted more specialized research, resulting in objects redisplayed to reflect this. Within natural history museums, the application of emerging scientific theories provided for a more didactic understanding of relationships between specimens. Thus, the purpose of scientific understanding to instruct the public began to overshadow the presence of the marvel and curiosity within collections (Mauries, 2002).

Eighteenth and nineteenth century

Like cabinets of curiosity, Victorian displays also favored crowded cabinets. The aim of such displays was often to showcase power and progress (Gould, 1994). Faith in progress was fueled by a continuously growing body of knowledge and the first true natural history museums established themselves as places for expanding knowledge (Henning, 2006). The Museum d'Histoire Naturalle and its Jardin Des Plantes, established in 1793, was organized as an institute of research and study for the natural sciences and enterprise in Parisian science became the world measure for naturalist study. In addition to fueling research and study, museums also functioned to disseminate of information. Figures such as British naturalists Richard Owen and Adam Sedgwick viewed museum spaces as places for applied science, which provided visual instruction about the natural world. (Yanni, 1999). Labels identifying objects and specimens provided a means of mass communication to the public and objects-based display opened up the world. The expansion of knowledge about the natural world and the branching of disciplines such as biology, chemistry, and geology resulted from scientific advances. William Flower, curator of the NHM in the nineteenth century, describes some of these scientific developments as being due to (Flower, 1898):

- Discovery of enormous numbers of forms of life and their varieties
- Increasing knowledge of the structure of organic bodies, through techniques such as microscopic examination, and dissection
- The study of the geographical distribution of living things
- Establishment of paleontology as a science
- Zoological classification

One notable hallmark of development in the natural sciences during this time is Charles Darwin's theory of natural selection as published in On the Origin of Species by Natural Selection in 1859. The concept of natural selection gave rise to many Victorian political debates concerning evolution and its bearing on social development. Due to their positioning, museums served as a perfect stage for these dialogues. Thomas Huxley, English biologist, actively participated in political debate, strongly advocating natural selection and evolution. Understanding the role of museums in both retaining and shaping social traditions and environment, Huxley and his allies ensured that "their followers were appointed to key positions in the new museums of ethnology and natural history" (Bennet, 2001). The Pitt Rivers Museum, which used a typological method to stuff objects into display, initially intended to communicate the progression of society through evolutionary sequences.

Prior to the division of the disciplined study of natural history subjects, there were no professional naturalists (Barber, 1980). However, in efforts to expand collections, leading to the sponsorship of scientific expeditions and field research, it quite quickly became recognized (Norris, 2012). Due to the rate at which museums were collecting, storage and documentation were overlooked, but to be able to effectively utilize, interpret, and communicate knowledge, detailed information about the objects was essential (Norris, 2012). These changes in the way science was conducted transformed naturalist study from something that was done by the public to something that was passed down and disseminated to the public by an occupational authority (Henning, 2006). Due to revisions in scientific knowledge, Victorians questioned how to present scientific displays; whether to display exhibits as completed bodies of facts or to show the process of scientific work, leading to concerns of engaging the public (Yanni, 1999).

Gradually, the notion of a museum's civic duty to educate contributed to the conflict of interest between science education and spectacle entertainment, also known as edutainment (Asma, 2001). For example, taxidermy in the eighteenth and nineteenth centuries served two primary purposes: aesthetic enjoyment and scientific scrutiny (Yanni, 1999). Diorama painters were trained in "illusionistic devices" for creating realism and depth (Henning, 2006). The American Natural History Museum, founded in 1868, used panoramas and dioramas portraying realistic natural scenes to engage visitors which transformed visitors to spectators. Due to the combination of both available techniques for display and public expectations for recreation, museums faced an increasing pressure to act in accordance with popular appeal, often at the expense of museums as research institutions (Henning, 2006). Both an educational approach to scientific knowledge and appealing to visitor expectations have influenced the displaying of natural history collections.

Of natural history and museology: modern context

Having developed out of cabinets of curiosities, museums inherit existing systems and nomenclature for developing their displays (Pearce, 1992). Collections used for scientific advancement utilize systems derived from the revision of scientific standards, so standards within the natural sciences such as taxonomy, systematics, and evolution have historically formed an inherent basis for the construction of natural history displays. A consequence of this is the historical collection may not be seen as relevant for contemporary taxonomy and systematics (Suarez and Tsutsui, 2004). Natural history museums today inherit historical difficulties such as:

- Whether to present scientific facts as a completed body of knowledge, or to show the process by which scientists work and
- The disparity between education and entertainment

The future of natural history displays in both exhibition and interpretation contend to fit in with a combination of new scientific knowledge and mutable visitor expectations (Frost, 2010). Simply displaying objects does not necessarily make possible an understanding of science or the natural world (Dorfman, 2012). Natural history exhibitions which go beyond the basic identification of traditional displays are more demonstrative of natural science concepts, driven by the organization of naturally occurring phenomena. However, displays which solely rely on explanation can fail to engage the public, disconnecting visitors from the physical subject matter of the natural world. Displays of a more thematic nature consider concepts surrounding the natural world and place primary importance in public education through narrative. Such displays have the potential to emphasize entertainment and often become out of date with scientific advancement, which inhibits their ability to educate and limits their potential to engage current information.

Museological considerations

Peter Vergo's *The New Museology* (1989), asserts museology as a distinctive discipline and defines the concept of the New Museology as a dissatisfaction with the 'old' museology, which he views as "too much about museum methods, and too little about the purposes of museums". The New Museology pays particular attention to the relationship of a museum to its social, economic, and political environment. The concern that Vergo wishes to address is the possibility of museums becoming "living fossils," unable to connect with contemporary audiences (1989). *The Intangible Roots of Our Tangible Heritage* (Norris, 2012) has similar concerns, but believes that in some ways, museological practice has stripped objects of their intangible aspects, such as an object's status as a curiosity. Removing an intangible aspect from an object has the potential

to decrease its perceived value and lessen its impact upon audience engagement. The aim in exploring the New Museology and its critiques within the context of a natural history setting is to consider the applicability and influence of developments as they interact with natural history institutions.

Results

The main objective in analyzing the three museums and their displays is to illustrate the evolution of displays through their context, characteristics, and purpose, paying particular attention to the role of curiosity as an aesthetic concept. This attention to curiosity's role intends to acknowledge the historical value of curiosity while illustrating it's continued relevance and suitability to participatory engagement and education.

The three museums used as case studies for this research are:

1. Grant Museum of Zoology and Comparative Anatomy UCL – small museum of natural history established within academia and developed through its purpose as a teaching collection and as a implement of public education.

2. Horniman Museum and Gardens - medium museum of natural history established as a private, individual collection and developed through its purpose to the public education and engagement.

3. Natural History Museum, London (NHM) - national museum of natural history established as a branch of the British Museum and developed through its involvement in scientific research, attention to public engagement, and understanding of global influence.

Grant Museum of Zoology and Comparative Anatomy UCL

University College London's Grant Museum of Zoology and Comparative Anatomy in Bloomsbury began as a teaching collection and was associated with labs, accessible for academic research and other educational purposes by UCL staff, namely anatomy and biology students (Fig. 1). The collection was first created by Robert Edmond Grant (1793-1874), a mentor to Charles Darwin, who left nearly 10,000 specimens to UCL at his death (Carnall & McEnroe, 2011).

The Grant Museum has gradually transformed from a teaching collection into a museum and has only recently moved into a new museum space facing many transitional issues such as content and display. During the move, the museum's Victorian display was noted for being an attractive and important aesthetic to maintain for the museum's public, the new museum space aims to preserve this aesthetic while improving the museum's contemporary relevance and ability for public education and engagement (Fig. 2).

To compensate for a lack of space, the Grant Museum crams it display cases with specimens as well as uses supplemental materials such as Factfile, and QRator, an iPad-based application.

Fig. 1. Image of the teaching collection from the Grant Museum of Zoology being used in a classroom in 1887.
(Image copyright UCL, The Grant Museum of Zoology)

Fig. 2. Image of the redisplay of the Grant Museum of Zoology in 2013. (Image copyright UCL, The Grant Museum of Zoology)

Horniman Museum and Gardens

While the Horniman Museum originates from a private collection, it was established as a publicly oriented museum since 1891 and has inherited a tradition of Victorian aesthetic in display. Although galleries have undergone minor renovations, evaluations reveal that although aesthetically engaging, the outdated displays present a disconnect between content and audience (Hatton, 2013). In July of 2006, the Natural History department of the Horniman Museum, in consultation with the Susi Fisher Group, conducted an evaluation of local audiences with the objective of informing a refurbishment of the gallery (Fisher, 2006). As a community based space, the Horniman Museum has acted as a mixture of both investing in the future and preserving nostalgia. The evaluation uncovered that the natural history gallery is perceived as the "heart of the old museum," making it symbolic of its history (Fisher, 2006). Horniman Museum visitors seem to desire a greater interaction with the displays, they are however, unimpressed with modern materials and methods of display. According to the evaluation, visitors wanted to "preserve the feel of nature itself," allowing the aesthetic of the display to feel in tune with nature, presenting guests with an inherent unity of purpose (Fisher, 2006). Consideration of refurbishment and the desire for innovation reveal a need for more engaging displays, but there are difficulties of keeping the historically established space while introducing innovative means of engagement. Throughout its history, the museum's primary purpose remains public education and engagement and the possibility of renovation presents exciting challenges for proponents of innovative redisplay.

Natural History Museum, London

Originating from the collection of Sir Hans Sloane, the collections of the Natural History Museum, London (NHM) began as a donation to the British government. These collections of natural history were first exhibited for the public in 1753 and were subsequently housed in the building of the British Museum in Bloomsbury circa 1820 (Yanni, 1999). While originally an establishment of scientific pursuit, the NHM has evolved to also consider a relationship to the public and to the role of display in public education. Throughout the development of the NHM, certain displays have undergone radical change while others have remained relatively untouched. The following sections provide examples of the museum's evolution in display including: opposition to the redisplay of traditional collections, the development of updated displays for popular education, and a modern display diverging from past conventions. Three examples of this evolution in display can be seen in the Mineral Gallery, the New Exhibition Scheme, and the Darwin Centre Cocoon. Each will briefly be discussed.

The mineral gallery of the NHM has changed very little since it was originally erected as working display (Figs. 3 and 4). The specimens are arranged systematically and cases were planned according to their relationship to other specimens within the galleries. While the exhibition has remained relatively the same since it's inception, it has not been maintained without controversy. During the 1990s, the Natural History Museum conducted visitor research on the mineral gallery, which resulted in the conclusion that it was seen as "dull and irrelevant" by a majority of visitors (Clarke, 1990). Making a decision to build a better exhibition, the NHM sent out a letter asking for support and explaining the rationale for the gallery's development and aims.

Fig. 3. NHM Mineral Gallery, original installation. (Courtesy of Natural History Museum, London)

Fig. 4. NHM Mineral Gallery, present (Courtesy of Natural History Museum, London)

Immediately after these letters were posted, the NHM received letters from all corners of the world opposing any change to the mineral gallery. These letters, coming from sources such as the Rijksmuseum, the Museum of Victoria, and the British Jeweler's Association, identified the hall as a “mecca” for curators, specialists, students, and collectors (Birch, 1990). The Dresden Museum of Mineralogy even stated that “to remove it means to remove one gemstone of the crown jewels in the Tower!” (Quelmalz, 1990). Unlike the UCL Grant Museum or the Horniman Museum, the NHM and its galleries hold international influence and are accountable to international scrutiny. Such opposition to changing the mineral gallery, not only speaks of the timelessness of historical display, but also asserts purposed and practical applications of the display to contemporary times.

Beginning in the 1970s the Natural History Museum put in motion the New Exhibition Scheme (NES), the largest and most complex undertaking in display and exhibition since the museum’s inception. The NES exhibitions followed a visitor focused approach, forming objectives for three levels of visitors: all visitors and children, adults and older children, and adults and older children with interest or previous knowledge. Through utilizing visitor information from these groups, teams from the NES aimed to develop exhibitions with appeal to a wide range of target audiences.

The most recently developed gallery of the NHM is the Darwin Centre Cocoon, opened in September of 2009 (NHM, 2009). The centre endeavors to present a realistic display of science by putting the process of science at the center of the exhibition and showing what is science rather than showcasing scientific objects. This approach exhibits scientific research conducted at the NHM.

Despite its emphasis on showing the science at the NHM, few specimens of natural history are on display within the Darwin Centre. While the exhibition encourages participation, it lacks a sense of curiosity due to its pedagogical approach. Visitor reactions to the Cocoon have been both positive and negative. Many visitors enjoy the interactivity provided by the narrative, however others feel disconnected from the museum and its collection (Cunnyngham, 2013).

Each of these museums have evolved out of original institutions with differing purposes. Although each have different backgrounds, they show similar developments in regard to their context and characteristics. As modern museums, each one strives to engage public curiosity and embrace innovation.

Discussion

Modern natural history museums are institutions with collections and resources to enable advancement and have the capacity to act as a forum for relevant issues such as climate change, genomics, or natural disasters.In this way, natural history become involved not only with science, but with society, creating access to public engagement and education.

This paper has focused on the display of specimen-rich collections, taking into account the relevance of an aesthetic of curiosity, scientific advancement, and museology in an effort to examine how displays of natural history have evolved. Developments within science and society inform transformations and modifications in the way objects are

displayed. Historically, the following factors influence change in museums of natural science: contemporary context of science and society, external audience expectation, administration and management.

Generally throughout natural history museums, traditional exhibits show diversity through vast specimen-rich displays without much interpretation, with the purpose of showcasing for curiosity rather than educating. Displays which aim to be more demonstrative are generated by the purposes of public responsibility; more thematic displays consider concepts surrounding the natural world. Although such display engages, it also places concern in expectations of the entertainment sector.

Science is not just a method of allaying uncertainties and ordering the world, but a means of furthering advancing technologies and unearthing new uncertainties to resolve. This realisation has generated discussion among science communities and changes dialogue within natural history museums. So by simply displaying objects and providing a didactic flow of information within exhibitions is not sufficient for some modern museums. Ian Brunswick, Exhibition and Events Manager at the Science Gallery in Dublin, believes that traditional collections and archives are not dead, but are changing to match their context. He states that "the ability of a science centre to be extremely modern and changing all the time and involve visitors heavily even in the production of what's going on, that's a new thing that I think we are going to see innovation within big museums, but especially in small science centers" (Science Friday, 2013). While small, newer spaces have an advantage as they do not have traditional histories to contend with, larger institutions often have the advantage of research and a well of resources. Promoting innovation in both established and new museums involves bringing what is historically behind the scenes into view for the public and to be successful, this innovation relies on an aesthetic of curiosity and a participatory means of display that attempts to involve the visitors.

What do hedgehogs eat? Space for curiosity

The Horniman Museum's evaluation of the North Hall, discovered that despite the need for updating natural science displays, the traditional aesthetic still provoked curiosity and thus engaged public learning (Hatton 2013). Visitors, particularly children, were able to come face to face with taxidermy displays, wonder "What do hedgehogs eat?" and examine the possibilities (Fisher, 2006).

Spaces like the Horniman's North Hall and the NHM's mineral gallery and the Grant Museum are examples of places which retain their value because of their timelessness in curiosity. Displays of endless variety can attract many students to study the beauty of the natural world. This impact of aesthetic is not only applicable to the natural sciences, but also to the social sciences. An example of this is the Pitt Rivers Museum which also retains Victorian ambience as a display aesthetic (Fig. 5). Thus in both the natural and social sciences, the aesthetic of curiosity acts as historical value influencing and engaging with the public.

The Grant Museum's cluttered displays is another example of a return to this aesthetic of curiosity or of a museum that never left it, but continues to be popular in modern society. The interpretation devices within the new museum space assist in engaging interaction, yet the aesthetic of the space has even greater impact in inspiring an attraction to its natural history collection. Such structuring of meaning through display also endows objects of natural heritage with an intrinsic association of value within the contemporary world.

Fig. 5. The wonderfully packed and busy displays at the Pitt Rivers Museum in Oxford. (Photo by author in 2013)

Within the 21st century there has been a revival of interest in curiosity which can be seen in the rehabilitation of the cabinet of curiosity as a mode of display (Bann, 2006). Stottop (2012) examines certain exhibitions which present innovations in natural history display. The exhibition *Terra Cognita* (2012), a permanent geological exhibition at the Ruhr Museum, Germany, displays a wealth of material in the cabinet of curiosity aesthetic, evoking beauty, fascination, and mystery in order to attract visitors (Stottop, 2012). The exhibition displays geologic specimens along with additional collaboration with artists, scientists, and art curators. The innovation of a cross-disciplinary display structured as curiosity allows these materials to be presented as invaluable pieces of natural heritage.

The return of a participatory display

Although the cabinet of curiosity approach is perceived as struggling, at least one of the traditional functions is being revitalised: interactive participation. This social factor of participation invites involvement allowing for direct exploratory learning. The NHM's Darwin Centre Cocoon, although different from the cabinet of curiosity aesthetic, is an example of exploring the process of science rather than its objects. Despite the intent for visitor inclusion in the process of science, the Cocoon, falls short in its implementation. Inclusion within exhibitions ideally leaves visitors feeling empowered and connected rather than alienated from the process. In recognition of this museums today are making these places of natural science into non-exclusive social spaces, integrating a relationship between the study of science, the public, and other disciplines.

Participatory exhibitions are also becoming more cross-disciplinary. A "bioart" exhibition at the Science Gallery in Dublin, called *Bloodwars* (2013), invites audience participation through the use of their own blood. This is exploring the relationship between art and living systems, is set up like a tournament and pits immune systems against each other to determine which immune system is stronger. While the Science Gallery does not support a traditional display, it invites curiosity through participation, encouraging dialogue between scientists, contestants, and spectators. The project takes an active interest in the science behind the installation and encourages scientists to answer public questions such as what they are doing and to what purpose. There is not much precedence for collaborative displays which encourage this type of intimate visitor participation and stimulate cross-disciplinary discussion. Following the installation, the museum invited the public to discuss with curators and geneticists what should be done about the bio-waste to dispose of it ethically. Such considerations generate new conversations within contemporary science. In regard to modern understandings of the purpose of natural science museums, the purpose is to generate curiosity, leaving visitors with questions to explore.

Participatory displays engage and challenge science in a new way, inviting the public to either accept or reject the result of the scientific method. In this way, participatory displays open up considerations for new dimensions of understanding. In traditional displays, which intertwine disciplines, there is an understanding of both uncertainty (in the sense of curiosity) and participation (in the sense of interaction) in regard to the ability of materials of natural science to serve multiple purposes (Asma 2001). Examples today suggest that science and natural history institutions are working toward a more integrated relationship and changing the role of museums in regard to public endeavor.

Limitations and future research

The museums chosen for research were chosen for their specimen-rich displays and to demonstrate differences and similarities between natural history displays looking at historical context, characteristics, and purpose. However, all three museums are London-based and thus only represent a localised fraction of natural history collections, geographically limiting the results. In researching these museums, further limitations arose from the difficulty of determining the original ideas behind changing and modifying displays with poor documentation. Historical documentation did show that changes in museum displays occurred due to the influence of factors such as: contemporary context of science and society, external audience expectation, and the powers of administration and management.

As this research was constructed from a curatorial perspective rather than a visitor-based perspective, visitor evaluation and feedback were mostly excluded, with the exception of reference to one evaluation. Due to the participatory direction of natural history museums, future research should consider understanding the visitor's perspective. Another consideration is further research on an exhibition based perspective discussing how the realities of constructing display in a natural history setting reflect the theories explored in this article. In addition, while other types of museums were considered within the discussion section of this paper, research was only conducted on museums with historical, specimen-rich collections. Further research focused on the development of recently established museums and their displays would open up consideration for more modern structures within contemporary paradigms.

Conclusion

Natural history museums are intrinsically involved with not only scientific, but social narratives and have the unique capacity to act as a forum for contemporary issues within these contexts. Accordingly, scientific advances have the ability to emerge from these institutions. In order to allow for advances within institutional bounds, museums must ensure the availability of their information, collections, and resources. As stated throughout this paper the focus of the research is on the display of

specimen-rich collections, accounting for the relevance of an aesthetic of curiosity, scientific advancement, and museology. Despite various transformations within displays, the future of museums of natural science exists in adopting an aesthetic of curiosity while embracing innovative and engaging ways of reuniting natural science with an integrated and participatory public.

Historical context, particularly in regard to paradigms of scientific advancement and social change, is continually reflected in displayed material and what these displays convey to the public. Consciousness of historical context and consideration of museology assists in understanding the exchange of influence between museums and their environments. Both enable museums to develop visitor engagement and education concerning both contemporary issues and institutional research. The evolution of displays of natural history have shown recent developments That understand the link between the value of the traditional aesthetic of curiosity and involving visitors within display. Thus, the traditional concept of the natural history museum is not dead, but rather evolving along with its natural curiosity. Promoting innovation in both established and new museums involves bringing what is historically behind the scenes into view for the public. To be successful, this innovation relies on maintaining an aesthetic of curiosity and stimulating innovative, participatory displays.

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