Between Life and Death: Early Twentieth-Century Representations of Nature at the American Museum of Natural History and Bronx Zoological Park

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Introduction

This thesis will explore the histories of two cultural and scientific institutions: the American Museum of Natural History (AMNH) and the Bronx Zoo (then the New York Zoological Park). Both were founded in the aftermath of the Civil War, at a time when fears of moral, social, and environmental degeneration were high, and science had no clear definition. I will contend that the missions of AMNH and the New York Zoological Society (NYZS) were aligned, to an extent. That is, they both sought to preserve nature. Advancing this mission, I will argue, rested on their ability to represent animals in a convincing and compelling way. I will examine how AMNH and the NYZS approached issues of preservation during the early 1900s, underscoring points at which their missions and means of representation overlapped. I will trace the history of zoos, natural history museums, and research universities before concentrating my attention on Henry Fairfield Osborn and his work at the American Museum.[1] Then, I will spend a chapter examining William T. Hornaday, director of the NYZS, and his creation of a museum at the Bronx Zoo.[2] Finally, I will examine the meanings and methods of the American Museum and the Bronx Zoological Park, and the extent to which they overlap.

Henry Fairfield Osborn headed the museum from 1908 to 1933. These years will be my chief temporal focus, although I will begin by looking at the late nineteenth century. Osborn, whom I will discuss at great length in the second chapter, was also president of the New York Zoological Society from 1909 to 1925. I plan to use Henry Fairfield Osborn's participation in

[1] From now on, when I write "the American Museum," I will be referring to the American Museum of Natural History.

[2] In a 1911 letter from Henry Fairfield Osborn, President of the New York Zoological Society from 1909 to 1925, to Charles Miller of the *New York Times*, Osborn requests that Miller uses the term "Zoological Park" rather than "Bronx Zoo." From conversations I have had with the Wildlife Conservation Society's archivist Brett Dion, executive administrators loathed the term "zoo" and discouraged its application to their institution. I will use the terms "Bronx Zoological Park," "Bronx Park," and "Bronx Zoo" somewhat interchangeably.

and tenure at both organizations as a springboard for thinking critically about their respective missions and exhibits.

This thesis owes much to Donna Haraway's essay "Teddy Bear Patriarchy," in which she discusses the history of taxidermy from 1908 to 1936 at the American Museum of Natural History. My interest in the history of zoos and museums of natural history comes from my own experience visiting them. I grew up in New York state, and the trips I took to AMNH and the Bronx Zoo were among my favorite as a child. It is out of a deep love and fascination for these institutions that I write this paper.

I. Zoos, Natural History Museums, and the Birth of the Research University

Zoos and museums of natural history

Writing in his book *Savages and Beasts: The Birth of the Modern Zoo*, animal historian Nigel Rothfels writes that gorillas are "entities inextricably bound by particular human contexts and human interpretations."[3] In my estimation, this characterization applies to all animals, dead or alive. We attach "a constellation," as he puts it, of meanings to different species and specimens, which are then remade by subsequent generations.[4] How we understand animals has changed throughout time, as have the institutions through which we attempt to understand them. This section will briefly examine the history of zoos and museums of natural history. As I have hinted at earlier, I see these institutions are interconnected and often complementary in their function. I will attempt to showcase the points at which their forms converge.

The history of zoos stretches back to the ancient world. Collections of exotic animals existed in ancient China, Greece, and Babylon.[5] Large collections were often owned by monarchs and high-ranking statesmen, but throughout history, individuals from a wide range of backgrounds were known to have kept smaller collections of non-domestic animals.[6] The dominant narrative surrounding zoo history is as follows: whereas older zoos were concerned with prestige, zoos today conduct important research and educate the public on issues of biology and conservation.[7] Rothfels contests this narrative, as do other writers on the subject. In their book *Zoo Culture*, Bob Mullan and Garry Marvin argue that zoos now and then have existed for purposes of human pleasure.[8] In this way, they suggest more continuity between the oft-derided

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[3] Nigel Rothfels, *Savages and Beasts: The Birth of the Modern Zoo*, Paperback (Baltimore: The Johns Hopkins University Press, 2002), 5.
[4] Rothfels, *Savages and Beasts*, 5.
[5] Rothfels, *Savages and Beasts*, 13.
[6] Rothfels, *Savages and Beasts*, 14.
[7] Rothfels, *Savages and Beasts*, 20-21.
[8] Bob Mullan and Garry Marvin, *Zoo Culture* (London: Weidenfeld & Nicolson, 1987), 159.

"menageries" of pre-nineteenth-century fame and institutions like the Bronx Zoo. Moreover, Rothfels suggests that pre-modern animal collections often functioned on at least two levels. He cites the Belvedere Gardens of Prince Eugene of Savoy as an example of a collection (containing exotic plants and animals) existing as an expression of the prince's power and as a wealth of natural knowledge for the prince to investigate.[9] Both *Savages and Beasts* and *Zoo Culture* also point out that modern zoos still concern themselves with questions of prestige, power, and foreign diplomacy.[10]

While the functions of zoos—study and amusement—have remained relatively stable, a trend towards more naturalistic structures, in which the manmade is made increasingly invisible, has pervaded their form since the late nineteenth century. Most credit the German Carl Hagenbeck[11] (1844-1913) with creating the zoo that we know today. A wild animal merchant-turned-zoo entrepreneur, Hagenbeck was not the first to experiment with new ways of exhibiting animals, but he was arguably the most successful.[12] While it is outside of the scope of this paper, it should also be noted that between 1874 and 1913, Carl Hagenbeck, Jr. systematically exhibited 'exotic' humans, becoming one of the most significant ethnographic showmen of the nineteenth century.[13] Hagenbeck created theatrical exhibitions and insisted that the people inside of them were acting "naturally," despite his clear record of intervention. His experience constructing exhibits for indigenous people would directly inform his animal exhibits.[14]

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[9] Rothfels, *Savages and Beasts*, 30.
[10] Rothfels, *Savages and Beasts*, 39.
[11] There are, in fact, two Carl Hagenbecks: Carl Hagenbeck, Sr. and Carl Hagenbeck, Jr. Here, I am referring to Hagenbeck, Jr. His father, Hagenbeck, Sr., was also in the exotic animal business. He developed the family business of catching, transporting, and selling wild animals to Europeans, thereby laying the groundwork for the Tierpark Hagenbeck.
[12] Rothfels, *Savages and Beasts*, 199.
[13] John E. Fa, Stephan M. Funk, and Donnamarie O'Connell, *Zoo Conservation Biology* (New York: Cambridge University Press, 2011), 55.
[14] Rothfels, *Savages and Beasts*, 141.

The Tierpark (animal park) Hagenbeck, located on the outskirts of Hamburg, opened in 1907.[15] Hagenbeck wanted to recreate how animals lived in the wild, "with no bars to obstruct the view and serve as a reminder of captivity."[16] He developed animal enclosures that resembled open-air panoramas (Figure 1).[17] Concealed moats separated animals from their human spectators, giving the impression that the space between them could be traversed.[18] Hagenbeck's zoo architecture blurred the edges of human and animal territory, and he was recognized for this achievement then as he is today. Writing in the early 1910s, author Ellen Velvin details in *From Jungle to Zoo* what she sees as the most impressive features of Hagenbeck's Animal Park:

> This new departure in practical zoology contains no cages. Picturesque hills, mountains, crags that stand out against the sky and against a background of green, reaching from wide bases at the bottom to a height of forty, fifty, and in some cases even a hundred feet or more. Hidden cunningly in the sides of the hills and mountains are caves, caverns, and enclosures of all sorts. And in all these places live lions and tigers, bears of all kinds, camels, mountain goats, antelopes, and deer. […] The fierce Bengal tigers leap and walk about, and nothing is between the public and these wild animals but the fresh air—and deep moats. These moats have been carefully measured over which it is quite impossible for the animals to spring; […] They have learnt they cannot cross the chasm, and so let it go. But they look across at the people and at the stretch of green grass and trees and brilliant flower-beds, and simply live in luxury.[19]

Fig. 1. An early photograph of the Tierpark Hagenbeck from around 1920. Different species are grouped together. The barriers between enclosures are minimized. The mountains are artificial, and the grounds attempt to resemble the animals' "native haunts."[20] (Photo Courtesy of Getty Images)[21]

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[15] Mullan and Marvin, *Zoo Culture*, 50.
[16] Carl Hagenbeck, *Beasts And Men: Being Carl Hagenbeck's Experiences For Half A Century Among Wild Animals*, trans. Hugh S. R. Elliot and A. G. Thacker (London: London, New York [etc.] : Longmans, Green, and Co., 1912), http://archive.org/details/beastsmenbeingca00hage, 40.
[17] Mullan and Marvin, *Zoo Culture*, 51.
[18] Mullan and Marvin, *Zoo Culture*, 51.
[19] Ellen Velvin, *From Jungle to Zoo* (London: Stanley Paul & Co., 1914), 183.
[20] Hagenbeck, *Beasts and Men*, 40-41.
[21] *Hamburg, Tierpark Carl Hagenbeck.* 1920. Photo. https://www.gettyimages.com/photos/carl-hagenbeck.

The longevity and widespread use of Hagenbeck's designs attest to their success. Rothfels argues in *Savages and Beasts* that the natural-looking exhibits were not revolutionary in their form alone. Rather, they were revolutionary in their construction of "narratives of freedom and happiness," which helped "convince the public that it was not so bad to be an animal at the zoo."[22] So convincing were Hagenbeck's invisible barriers that a 1908 *New York Times* article described the zoo's animals as "unconfined" and "as free as in nature."[23] These new enclosures assuaged human guilt over animal captivity by making the means of captivity increasingly invisible. Still, the spatial limitations of enclosures have been and are still clear to animals themselves.[24] That which appears natural in zoos is a product of human efforts. In his autobiography *Beasts and Men*, Hagenbeck explains that he wants to situate his animals in "as natural an environment as possible."[25] On the same page, he writes, "The work of transforming this virgin land into a pleasure park was immense," before describing the transformations in detail.[26] The devotion of time and effort in an attempt to recreate the "natural" appears in the walls of natural history museums, as well.

Narratives of progress are mapped onto both zoos and museums of natural history by their supporters. Modern zoos attempt to distance themselves from the decadent, self-aggrandizing menageries of yesteryear.[27] They define themselves in opposition to these collections. "In the olden days," Velvin writes in her book on the twenty-first-century zoo, "the small travelling menageries were terrible affairs."[28] Velvin, like other zoo proponents, suggests that progress has taken place between then and now. In the same way, museums of natural

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[22] Rothfels, *Savages and Beasts*, 199.
[23] "DEDICATED TO THE KAISER.," *The New York Times*, October 25, 1908.
[24] Mullan and Marvin, *Zoo Culture*, 51.
[25] Hagenbeck, *Beasts and Men*, 41.
[26] Hagenbeck, *Beasts and Men*, 41.
[27] Rothfels, *Savages and Beasts*, 31.
[28] Velvin, *From Jungle to Zoo*, 173.

history, now and then, have often defined themselves in opposition to seventeenth- and eighteenth-century cabinets of curiosity, or *Wunderkammern*.[29] While historian Carla Yanni suggests that these sites were not quite precursors to museums of natural history, the phenomenon of collecting specimens and artifacts connects both.[30] Wunderkammern, like early museums of natural history, were encyclopedic in nature.[31] They attempted to capture nature in all its bizarre forms and reproduce it before visitors' eyes. They also hoped to recapture the excitement and theater of the natural world and to provoke wonder.[32]

Wunderkammern, like many menageries, were privately owned and inaccessible to most members of society.[33] Rachel Poliquin suggests in *The Breathless Zoo* that amassing "wondrous" objects and curating one's own cabinet of curiosity was a means of climbing the social ladder.[34] Social theorist Jean Baudrillard, whose theories I will discuss more later, indeed sees collecting as an exertion of power.[35] In this sense, by owning something, one can accrue a level of dominance or mastery over it. Here I see a clear throughline between the missions of Wunderkammern and early museums of natural history: ownership as knowing. As Albert Eide Parr (AMNH director from 1942 to 1959) articulated in a speech in 1943, pre-twentieth-century museums concerned themselves with creating an inventory of the natural world.[36] Natural history museums functioned as "cornucopia-like displays of God's ingenuity and fecundity," as scholar

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[29] Wunderkammer is a German word literally meaning "wonder room" or "wonder chamber." The singular form is Wunderkammer, and the plural form is Wunderkammern.
[30] Carla Yanni, *Nature's Museums: Victorian Science and the Architecture of Display* (London: Athlone, 1999), 16.
[31] Yanni, *Nature's Museums*, 16.
[32] Yanni, *Nature's Museums*, 17; Rachel Poliquin, *The Breathless Zoo: Taxidermy and the Cultures of Longing* (University Park: The Pennsylvania State University Press, 2012), 16.
[33] Yanni, *Nature's Museums*, 17.
[34] Poliquin, *The Breathless Zoo*, 18.
[35] Referenced in Stephen T. Asma, *Stuffed Animals and Pickled Heads: The Culture and Evolution of Natural History Museums* (New York: Oxford University Press, 2001), 11.
[36] Asma, *Stuffed Animals and Pickled Heads*, 43.

Stephen T. Asma puts it.[37] And like their eighteenth-century predecessors, nineteenth-century nature museums believed in the "unique capacity" of visual objects to teach and to communicate absolute truths.[38] The centrality of museum objects—what Henry Fairfield Osborn termed "naked-eye science"—to the production of scientific knowledge eventually waned over the twentieth century.[39] This is not to say that museum collections are sparser today. The American Museum of Natural History, in fact, today boasts a collection of 34 million specimens and cultural artifacts.[40]

Public natural history museums arose in the nineteenth century as a result of the professionalization of science and a push for public education.[41] They endeavored to shed associations with cabinets of curiosities and instead offer an objective record of the natural world. Throughout their relatively short history, these museums have struggled to navigate their status as legitimate research institutions and sites that educate and entertain visitors. Poliquin submits that scientific inquiry and aesthetic appreciation were interrelated concepts until at least the mid-eighteenth century.[42] From the late eighteenth century onward, however, a "fundamental rupture" took place between the research of natural history and its display.[43] Taxidermy and other visual media were increasingly recognized as outdated research tools.[44] Tension between trustees, scientists, and exhibit-makers over the museum's primary orientation (research or

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[37] Asma, *Stuffed Animals and Pickled Heads*, 43-44.
[38] Barbara Maria Stafford, *Good Looking: Essays on the Virtue of Images* (Cambridge: MIT Press, 1996), 40, cited in Yanni, *Nature's Museums*, 17; Jordan Kistler and Will Tattersdill, "What's Your Dinosaur? Or, Imaginative Reconstruction and Absolute Truth in the Museum Space," *Museum & Society* 17, no. 3 (November 2019).
[39] Steven Conn, "Do Museums Still Need Objects?," in *Do Museums Still Need Objects?* (Philadelphia: University of Pennsylvania Press, 2010), 50.
[40] "The Value of Scientific Collections | AMNH," American Museum of Natural History, accessed April 2, 2023, https://www.amnh.org/research/scientific-collections.
[41] Poliquin, *The Breathless Zoo*, 115.
[42] Poliquin, *The Breathless Zoo*, 57.
[43] Poliquin, *The Breathless Zoo*, 115.
[44] Poliquin, *The Breathless Zoo*, 115.

display) would characterize the late nineteenth and early twentieth centuries at the American Museum of Natural History.[45] And as the meaning of science itself was shifting, the actions of the American Museum, as one of the preeminent cultural institutions and producers of natural knowledge, would take on heightened significance.

The advent of the research university

In the nineteenth century, science and the institutions that cultivated it were in a state of flux. Post-Civil War America had become increasingly urban and industrial, and science transformed accordingly. Biographer and historian Ronald Rainger characterizes pre-1870 American science as an academic pursuit rooted in "both a religious tradition and an educational philosophy based on training the mental faculties."[46] After the Civil War, science education shifted towards providing standardized training and equipping students with the competencies and certifications necessary for an industrial economy.[47] However, we should not mistake this shift towards the "professionalization" and "modernization" of science as a linear process, as author Douglas Sloan suggests in "Science in New York City, 1867-1907." At a time of increasing emphasis on professional credentials, New York, for instance, saw the rise and fall of scientific societies in the 1870s and 1880s.[48] These societies stemmed from a popular scientific movement in New York City and drew upon public interest and participation.[49] Whereas the local orientation of these groups allowed community members to voice their concerns and

[45] Douglas Sloan, "Science in New York City, 1867-1907," *Isis* 71, no. 1 (1980), 60; Victoria Cain, "The Art of Authority: Exhibits, Exhibit-Makers, and the Contest for Scientific Status in the American Museum of Natural History, 1920–1940," *Science in Context* 24, no. 2 (2011): 215–38, https://doi.org/10.1017/S026988971100007X.
[46] Ronald Rainger, *An Agenda for Antiquity: Henry Fairfield Osborn and Vertebrate Paleontology at the American Museum of Natural History, 1890-1935* (Tuscaloosa: University of Alabama Press, 1991), 8.
[47] Rainger, *An Agenda for Antiquity*, 8.
[48] Sloan, "Science in New York City," 36.
[49] Sloan, "Science in New York City," 36.

attracted local philanthropic support, it occurred to later society leadership that more national visibility could benefit their scientific and career aspirations.[50] In this section, I will discuss the changes taking place in New York City science and academia more broadly in the post-Civil War era. It is at this crossroads that the American Museum of Natural History (1869) and the New York Zoological Society (1895) were founded, and European-style research universities proliferated in the United States. In most institutions, academics began edging out lay scientists, and New York City science and its popularization were forever transformed.[51]

A new understanding of science was emerging at the end of the nineteenth century by way of research universities. Historian of science Owen Hannaway writes that Johns Hopkins was the first American research university.[52] At a time when the mission of most American schools centered on inculcating mental discipline, Hopkins followed a German approach.[53] It focused on research and graduate training and formation, emphasizing the German freedoms of *Lehrfreiheit* and *Lernfreitheit*: freedom to teach and freedom to study.[54] Still, Johns Hopkins University was only one example of the progressive reforms taking place in American higher education after the Civil War. Harvard started letting students choose their own classes and modernized its course directory by introducing subjects such as German, American history, and the natural sciences.[55] Furthermore, democratic vocational education was taking place at land grant colleges nation-wide.[56] While Johns Hopkins did not pursue either of these reforms, its successful adaptation of the European research university modelled to other American schools

[50] Sloan, "Science in New York City," 51.
[51] Sloan, "Science in New York City," 51.
[52] Owen Hannaway, "The German Model of Chemical Education in America: Ira Remsen at Johns Hopkins," *Ambix* 23, no. 3 (November 1, 1976), 145.
[53] Hannaway, "The German Model of Chemical Education in America," 151.
[54] Hannaway, "The German Model of Chemical Education in America," 145 & 151.
[55] Hannaway, "The German Model of Chemical Education in America," 151.
[56] Hannaway, "The German Model of Chemical Education in America," 151.

what higher education could and perhaps should look like. The consequences were immeasurable with respect to the natural sciences alone. Chemistry, physics, and the biological sciences gained recognition as formal disciplines and their instruction—particularly graduate instruction—was becoming increasingly standardized.[57]

The separation of the natural sciences into distinct departments was a key part of the late-nineteenth-century shift in higher education.[58] Specialization became increasingly associated with a more serious approach to science.[59] The career of John Strong Newberry, a professor at Columbia's School of Mines and president of the New York Academy of Sciences, exemplifies the "older" conception of science. As a professor and president, Newberry championed community-oriented science and the interrelatedness of disciplines and institutions.[60] As a result, his detractors labelled him a "generalist" and a "dabbler" who was interested with too many scientific fields to be great in any.[61] While Newberry contributed to his fields of interest in important ways, the complaints of his critics highlight the perceived illegitimacy of unspecialized "naturalists." In this vein, we see institutions at the time, like Columbia, attempting to create a more systematic organization of scientific disciplines. In 1892, Columbia created the School of Pure Science with ten departments: math, physics, mechanics, astronomy, geology, mineralogy, chemistry, botany, biology, and physiology.[62]

New work in the biological and geological sciences relied increasingly on experimental biology.[63] Experimental biology can be understood as that biology which occurs in laboratories

[57] Hannaway, "The German Model of Chemical Education in America," 158.
[58] Rainger, *An Agenda for Antiquity*, 8.
[59] Sloan, "Science in New York City," 42.
[60] Sloan, "Science in New York City," 39.
[61] Sloan, "Science in New York City," 42.
[62] Sloan, "Science in New York City," 54.
[63] Rainger, *An Agenda for Antiquity*, 7.

and concerns subjects such as genetics, biochemistry, and physiology.[64] Henry Fairfield Osborn would resist this type of research, advocating instead for fieldwork and the study of large specimen collections ("naked-eye science").[65] As President of the American Museum of Natural History, he attached much value to the physical specimens and displays that the museum had to offer. For him, they were visible facts, testifying to the greatness of nature, science, and God.[66] He advocated for the educational and transformational power of seeing objects and insisted on fieldwork as the basis of scientific knowledge. He was what one might have called a "dabbler," taking interest in various scientific disciplines. Still, Osborn was instrumental in reinvigorating and keeping alive what Rainger terms the then "peripheral" field of vertebrate paleontology, creating breathtaking displays and transforming dinosaurs into the iconic fixtures they are at museums of natural history.[67] In the following section, I will explore Osborn and the beliefs that shaped him in greater detail.

[64] Rainger, *An Agenda for Antiquity*, 7.
[65] Rainger, *An Agenda for Antiquity*, 8.
[66] Rainger, *An Agenda for Antiquity*, 23.
[67] Rainger, *An Agenda for Antiquity*, 19.

II. Henry Fairfield Osborn

Visions of disappearing wildlife joined forces with fears of a declining racial stock to produce the mindset that would govern Henry Fairfield Osborn's tenure at the American Museum of Natural History. Born to the president of the Illinois Central Railroad Company in 1857, an early, pre-mortem biography describes young Osborn as slated for a career in finance.[68] However, after being sent to Princeton for an education, he fell in love with the natural sciences: first embryology, and then paleontology.[69] Reluctantly, his father, William Osborn, allowed him to study for a year longer in England and—after some heavy foot-dragging on the younger Osborn's part—released him from obligations to pursue a career in business.[70] And while he may have harbored skepticism for his son's scientific abilities, William never wavered in his support—even paying Henry Fairfield's Princeton salary when the school could not afford to.[71] At a time when there was no public funding for science, wealth was a prerequisite to becoming a scientist. It was through the financial help of his father that Osborn was able to accept an assistant professorship at Princeton in 1881 and begin to make a name for himself.[72]

Osborn sought to transform biology, a fledgling discipline, at his alma mater. He worked with the school's president James McCosh to make the natural sciences a cornerstone of the curriculum[73] and later with his former schoolmate William "Wick" Scott to develop the department of vertebrate paleontology.[74] In a letter dated May 13, 1881, Osborn wrote to a

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[68] Robert N. Fuller, *Henry Fairfield Osborn, the Man and His Books; a Biographical Sketch and a Survey of His Published Work* (New York: C. Scribner, 193-), https://catalog.hathitrust.org/Record/012323208.
[69] Fuller, *Henry Fairfield Osborn, the Man and His Books; a Biographical Sketch and a Survey of His Published Work*.
[70] Brian Regal, *Henry Fairfield Osborn: Race and the Search for the Origins of Man* (Burlington: Ashgate, 2002), 44-45.
[71] Regal, *Henry Fairfield Osborn*, 46.
[72] Regal, *Henry Fairfield Osborn*, 53.
[73] Regal, *Henry Fairfield Osborn*, 48.
[74] Rainger, *An Agenda for Antiquity*, 37.

colleague requesting lecture and laboratory space at the School of Science for a proposed science course.[75] "The President is fully alive to the importance of the proposed Laboratory," he explains, "and it is indeed high time that Princeton should adopt a course which has been so successfully inaugurated at Harvard and the Johns Hopkins."[76] His work definitively pivoted from embryology to paleontology in 1885, and he would spend the late 1880s collaborating with Wick Scott on questions of fossil mammals and evolution.[77]

Despite his interventions, Princeton never became the powerhouse Osborn dreamed it could be. In 1891, he was offered positions at both Columbia College and the American Museum of Natural History—a scheme devised by Seth Low, then president of Columbia College.[78] Low had been in contact with Osborn about a job at Columbia since early 1890.[79] The school wanted to establish itself as a research university on par with Johns Hopkins and Harvard, but it had no biology department.[80] The biological sciences were becoming extremely important in the second half of the nineteenth century, thanks to the doctrine of evolution, and Columbia's lack of advanced instruction meant it was lagging behind.[81] Low reached out to Osborn, and also to AMNH president Morris K. Jesup, about developing a biology department at Columbia.[82] Hoping to foster closer ties with AMNH, Low proposed that they offer Osborn a joint

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[75] Henry Fairfield Osborn, "Letter to Caleb Green from H. F. Osborn," May 13, 1981, Osborn Papers, 1832-1936., New-York Historical Society.
[76] Osborn, "Letter to Caleb Green from H. F. Osborn," May 13, 1981.
[77] Regal, *Henry Fairfield Osborn*, 49.
[78] This was before Columbia attained university status. During the 1880s, faculty debated whether the school should remain a college with loose attachments to different professional schools or become a university focusing on graduate-level research and teaching. President Low wanted Columbia to become a university. In 1893, after some hefty reorganizing, Columbia University was born.
[79] Sloan, "Science in New York City," 55.
[80] Sloan, "Science in New York City," 55.
[81] Sloan, "Science in New York City," 54.
[82] Sloan, "Science in New York City."

appointment as chair of the department and curator of mammalian paleontology at the museum.[83] Jesup was on board, and Osborn readily accepted.

Osborn's pedigree and political connections made him quite the catch. Osborn biographer Brian Regal contends that the "tribal elders of New York society" were happy to see someone in charge with "higher ideals."[84] They imagined he would teach the people of New York moral lessons, in addition to scientific ones, and promote social order and stability. But the pull of Osborn's scientific acumen should not be discounted. Fossils were all the rage, and the museum was eager to put its newly expanded Department of Mammalian Paleontology to use.[85] Columbia, in turn, got a first-rate biology department, in no small part due to their partnership with AMNH. The alliance between AMNH and Columbia would prove fruitful to both institutions. And for Osborn, it meant the backing power and resources of both. It was at this point in his career that Osborn was able to ensconce himself in the political and academic circles of New York and emerge as a force to be reckoned with.

Osborn quickly settled into New York City life. He wrote to his longtime friend Edward Poulton in 1896 that his work at the museum was progressing well. "The great Hall in the Museum will be opened before long," he boasted, "and by the time you get here I hope all the various innovations which I have introduced to the exhibition of the paleontological collection will be completed so that you can see what the fossils are, biologically considered."[86] He appears equally satisfied, albeit stressed, with his work at Columbia, writing to Poulton about the classes he was teaching on comparative vertebrate zoology, organ development, and mammalian

[83] Sloan, "Science in New York City."
[84] Regal, *Henry Fairfield Osborn*, 71.
[85] Sloan, "Science in New York City."
[86] Henry Fairfield Osborn, "Letter to Edward Poulton from H. F. Osborn," April 3, 1896, Osborn Papers, 1832-1936., New-York Historical Society.

paleontology. "[M]y brain is a whirl," he writes, "and the only way to straighten out the tangles and snarls is a good long run on a bicycle, and New York affords most wonderful opportunities for this sport…"[87]

In 1908, Osborn was elected president of the American Museum of Natural History by the museum's board of trustees. In its news section, the *American Museum Journal* counts his development of the museum's Department of Vertebrate Paleontology among his chief accomplishments as a staff member.[88] In *An Agenda for Antiquity*, Rainger considers Osborn's presidency a rather foregone conclusion. Jesup, the outgoing president, had brought him into the museum administration in the first place, recognizing his talent as a curator.[89] Osborn shined in this administrative role, instilling confidence in Jesup of his capacity to lead the museum. Osborn's role as president would magnify his power in both social and academic spheres, allowing him to further shape museum priorities, channeling time, energy, and resources towards specimens and their exhibition.

Fig. 2. (left) Marble bust of Henry Fairfield Osborn previously located in the Teddy Roosevelt Memorial Hall, 2008. (Photo Courtesy of Wally Gobetz)[90]

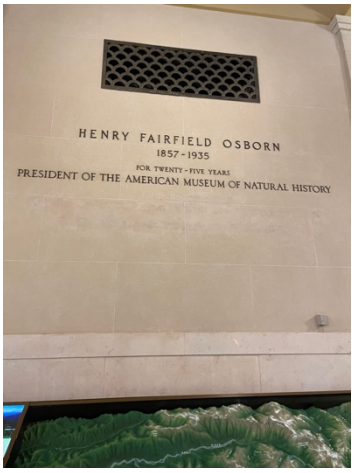

Fig. 3. (right) Former site of HFO bust, as seen on 3/24/23. The bust and some text has been removed.

[87] Osborn, "Letter to Edward Poulton from H. F. Osborn," April 3, 1896.
[88] "Museum News Notes," *American Museum Journal* 8 (1908): 61–62.
[89] Rainger, *An Agenda for Antiquity*, 64.
[90] Wally Gobetz, *NYC - AMNH: Henry Fairfield Osborn Bust*, December 6, 2008, photo, December 6, 2008, https://www.flickr.com/photos/wallyg/3097038814/.

Osborn's legacy as an innovative and successful museum president cannot be separated from his identity as an anti-immigrant eugenicist (Figures 2 and 3). In a 1934 autobiographical essay, Osborn described himself as having "a double heritage of self-made New Englanders."[91] He drew upon his family's purported hardworking identity and long-term residence in the U.S. to fashion himself as an authority on immigration and a champion of American values. "Since 1637 my family has been working for the public welfare," he wrote to New York senator Royal S. Copeland in 1935.[92] "[M]y immediate ancestors, one and all, have been helping the great city of New York, its hospitals, its museums, its churches, its universities and its schools."[93] It should be acknowledged that Osborn's stance towards immigrants and the working poor was not always as vitriolic as attitudes of thinkers like Madison Grant.[94] Regal asserts that Osborn had a more "paternalistic" view towards the downtrodden and, at times, appeared somewhat sympathetic to their struggle.[95] For instance, in a 1912 letter to Jacob H. Schiff,[96] Osborn cited concern for the working class as justification for his anti-immigrant views. "I have myself become a restrictionist," he wrote, "because I believe nothing would so greatly help our working class as to decrease the competition of labor for awhile."[97]

Osborn's restrictionist views went hand-in-hand with his commitment to eugenics. Patriotism, to Osborn, meant "the conservation and multiplication for our country of the best

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[91] Henry Fairfield Osborn, "Fairfield Connecticut Tercentenary Committee Publicity," 1934, Osborn Papers, 1832-1936., New-York Historical Society.
[92] Henry Fairfield Osborn, "Letter to Senator Copeland from H. F. Osborn," July 24, 1935, Osborn Papers, 1832-1936., New-York Historical Society.
[93] Osborn, "Letter to Senator Copeland from H. F. Osborn," July 24, 1935.
[94] Madison Grant was the long-serving secretary of the New York Zoological Society and author of *The Passing of the Great Race*, for which Osborn penned a preface.
[95] Regal, *Henry Fairfield Osborn*, 129.
[96] Jacob H. Schiff was a prominent Jewish philanthropist. NYZS records at the New-York Historical Society indicate that he was a prominent donor; Naomi Wiener Cohen, *Jacob H. Schiff: A Study in American Jewish Leadership* (UPNE, 1999).
[97] Henry Fairfield Osborn, "Letter to Jacob H. Schiff from H. F. Osborn," March 11, 1912, Osborn Papers, 1832-1936., New-York Historical Society.

spiritual, moral, intellectual and physical forces of heredity…"[98] He feared the replacement of "that race which has given us the true spirit of Americanism" (meaning the 'Nordic race') and saw their replacement (by immigration or outbreeding) as "the greatest danger which threatens the American republic to-day…"[99] The Osborn Papers at the New-York Historical Society contain memorabilia attesting to his active membership and leadership in such organizations as the Aryan Society,[100] the Galton Society (which he co-founded),[101] and the Eugenics Society.[102] In 1921, he hosted the Second International Congress of Eugenics at the American Museum, calling it "[p]erhaps the most important scientific meeting ever held in the Museum."[103] His scientific racism colored many of his contributions to the museum, including the infamous Hall of the Age of Man which presented racial hierarchy as fact (Figure 4). In this way, Donna Haraway argues in "Teddy Bear Patriarchy" that Osborn was one of the leading figures to so effectively link eugenics and conservation at the museum.[104] His scientific background, powerful political connections, and position as museum president helped legitimize and advance eugenics.

We should not take for granted that so many prominent AMNH (and NYZS[105]) personnel were directly involved in the eugenics movement. While Osborn was raving about 'race plasm' and the dangers of miscegenation, anthropologist Franz Boas was pioneering his relativist

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[98] Henry Fairfield Osborn, "Preface," in *The Passing of the Great Race*, 4th ed. (New York: Charles Scribner's Sons, 1916), viii.
[99] Osborn, "Preface," ix.
[100] "The Aryan Society Invitation," November 10, 1926, Osborn Papers, 1832-1936., New-York Historical Society; "Prof. Lanman to Lecture On 'Our Aryan Heritage,'" *New York Sun*, April 5, 1927, Osborn Papers, 1832-1936., New-York Historical Society.
[101] "The Galton Society Notes" (The Galton Society, n.d.), Osborn Papers, 1832-1936., New-York Historical Society.
[102] D. Ward Cutler, "The Eugenics Society Invitation," June 18, 1930, Osborn Papers, 1832-1936., New-York Historical Society.
[103] "Announcement--The Second International Congress of Eugenics," n.d., Osborn Papers, 1832-1936., New-York Historical Society. Also cited in Donna Haraway, "Teddy Bear Patriarchy: Taxidermy in the Garden of Eden, New York City, 1908-1936," in *The Haraway Reader* (New York: Routledge, 1989), 190.
[104] Haraway, "Teddy Bear Patriarchy," 190.
[105] I am referencing Madison Grant, NYZS Secretary, here.

approach to the study of human culture.[106] He butted heads with Osborn from 1895 until 1905, when he left for Columbia.[107] William K. Gregory, a student and later associate of Osborn's, is another prominent museum figure who condemned Osborn's social and political views—largely because he saw them as foregrounding his theory of evolution.[108] He quit Osborn's Galton Society in 1935 due to its overtly political and racial agenda.[109]

Fig. 4. The Ancestry of Man display in the Hall of the Age of Man, 1929. The human skulls on the left are meant to suggest that different races are different species, with 'Nordic Whites' occupying the most evolved position.[110] *(Photo Courtesy of AMNH)*[111]

Osborn's desire to combat forces of decadence and social and, thereby, preserve the 'great race' accompanied his desire to preserve nature. He saw the perceived degeneration of race, class, and nature as interlinked and fashioned his concern into an ideology, which he in turn promoted at the American Museum and the Bronx Zoological Park.[112] Rainger asserts that Osborn saw both of these sites as "loci for educational opportunity and social and spiritual regeneration."[113] The goal of museum education, per Osborn, was "to restore to the human mind

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[106] Regal, *Henry Fairfield Osborn*, 122.
[107] Regal, *Henry Fairfield Osborn*, 125.
[108] Rainger, *An Agenda for Antiquity*, 231.
[109] Rainger, *An Agenda for Antiquity*, 231.
[110] Regal, *Henry Fairfield Osborn*, 153.
[111] Julius Kirschner, *The Ancestry of Man, Age of Man Hall, 1929*, June 1929, photo, June 1929, AMNH Digital Collections, https://digitalcollections.amnh.org/CS.aspx?VP3=DamView&VBID=2URMLBEDPCLB&SMLS=1&RW=1104&RH=822#/DamView&VBID=2URMLBEDPRUO&PN=1&WS=SearchResults.
[112] Rainger, *An Agenda for Antiquity*, 4.
[113] Rainger, *An Agenda for Antiquity*, 119.

the direct vision and inspiration of nature as it exists in all parts of the world…"[114] The exhibits Osborn promoted sought to both preserve and to communicate the importance of that preservation. To do so, they relied on taxidermied specimens and the creation of hyperreal settings in which to place them. Similarly, the New York Zoological Society's Bronx Zoological Park would distinguish itself from zoological gardens by preserving animals in enclosures that evoked their natural habitats.[115] It was hoped that these exhibits would generate appreciation and concern for the natural world and teach individuals more than they could learn from books alone. Before discussing taxidermy and the Bronx Zoo in greater detail, I will focus on an interesting moment at which these two ideas converged.

[114] Osborn cited in Rainger, *An Agenda for Antiquity*, 120.
[115] Rainger, *An Agenda for Antiquity*, 117.

III. The Museum of Heads and Horns

In his book *Practical Taxidermy*, John W. Moyer defines taxidermy as "the art of preserving the skin together with the features, fur, and scales of birds, animals, fish, and reptiles.[116] Authors Bryant and Shoemaker argue that taxidermy exists at two functional levels: instrumental and expressive.[117] At the instrumental level, taxidermy seeks to accomplish an educational goal; it seeks to acquaint viewers with the animal that they are looking at.[118] At the expressive level, taxidermy aims to elicit an emotional response from the viewer.[119] I will distinguish between 'trophy taxidermy' and what I see as 'educational taxidermy.' These two forms of taxidermy differ primarily in their function. Whereas the value of educational specimens lies in their representativeness and deindividualized nature, trophies, as human-animal scholar Garry Marvin (of *Zoo Culture*) writes, are "primarily markers of what developed between the hunter and the hunted."[120] Because the hunting trophy embodies a specific relationship between two specific individuals, it is less generalizable, and the specimen retains a greater level of individuality. Moreover, trophies explicitly harken back to the moment of confrontation and death in a way that most taxidermists explicitly or implicitly avoid.[121] Finally, trophy taxidermy is typically housed in private spaces, whereas educational taxidermy can be

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[116] John W. Moyer, *Practical Taxidermy*, 2nd ed. (Malabar, FL: Krieger Publishing Company, 1953), https://archive.org/details/practicaltaxider0000moye_ot4a8/page/n7/mode/2up?view=theater, 1.
[117] Clifton D. Bryant and Donald J. Shoemaker, "Dead Zoo Chic: Some Conceptual Notes on Taxidermy in American Social Life," ed. Clifton D. Bryant, *Handbook of Death and Dying* 2 (2003), https://omnilogos.com/dead-zoo-chic-conceptual-notes-on-taxidermy-in-american-social-life/.
[118] Bryant and Shoemaker, "Dead Zoo Chic."
[119] Bryant and Shoemaker, "Dead Zoo Chic."
[120] Garry Marvin, "Enlivened Through Memory: Hunters and Hunting Trophies," in *The Afterlives of Animals: A Museum Menagerie*, ed. Samuel J. M. M. Alberti (Charlottesville: University of Virginia Press, 2011), 203.
[121] Jane Desmond, "Displaying Death, Animating Life: Changing Fictions of 'Liveness' from Taxidermy to Animatronics," in *Representing Animals*, ed. Nigel Rothfels (Bloomington: Indiana University Press, 2002), 160.

found in public ones.[122] This section will look at a curious case of public trophy taxidermy at the Bronx Zoo.

The New York Zoological Society was established in 1893 with the goal of bringing a zoo to New York City.[123] Osborn joined the society early on and helped select its first director, William Temple Hornaday.[124] Hornaday would serve as Director of the New York Zoological Society from 1896 to 1926, working to shape the Bronx Zoo into what it is today. He established one of the world's most extensive collections of wild animals and insisted on high standards for exhibits and their labelling. In addition to exhibiting living specimens at the NYZS's Bronx Park, Hornaday was also interested in displaying taxidermy. Like many conservationists at this time, he feared that the natural world was disappearing before our eyes. As both General Curator and Curator of Mammals of the society, Hornaday felt compelled to catalog as much of the world's animals as he could—especially those from North America. However, in 1906, it wasn't live animals he sought for his collection. It was dead ones.

It may be difficult today to understand why the director of the U.S.'s preeminent zoological society was interested in taxidermied specimens for his zoo, but Hornaday had extensive experience with taxidermy. In the 1880s, he began what Asma terms a "quiet revolution in museum philosophy" with his construction of some of the first lifelike museum exhibits.[125] These exhibits displayed taxidermied animals seemingly in action. In this way, Hornaday tried to break away from earlier, drier exhibits arranged for a scholarly audience.[126] Asma writes that Hornaday was attempting to communicate more than factual information; he

[122] Marvin, "Enlivened Through Memory," 203.
[123] Rainger, *An Agenda for Antiquity*, 54.
[124] Rainger, *An Agenda for Antiquity*, 54.
[125] Asma, *Stuffed Animals and Pickled Heads*, 42.
[126] Asma, *Stuffed Animals and Pickled Heads*, 42.

wanted to communicate emotion, as well.[127] In addition to creating ostensibly educational dioramas for the National Museum, Hornaday also had his own collection of trophy taxidermy before the project started. An early newspaper article reported that his collection had 132 specimens, including 109 species, and was to serve as a base upon which the museum could build.[128]

The museum was to be called the Museum of Heads and Horns. Unlike his previous diorama work, Hornaday was not interested in showing the entire bodies of specimens. Rather, he was looking for their eponymous heads and horns. He called upon world travelers and trophy hunters to contribute to the collection he hoped would soon rival those of Europe.[129] Many answered the call. But Hornaday only wanted the best of the best, and he didn't want the animals' bodies. In one letter written by NYZS Secretary Madison Grant, it is expressly stated that the committee on admissions is only accepting heads.[130] In another, Grant writes to Hornaday that they should only be looking for "exceptional" heads, at that.[131] "I do not think the collection wants merely average heads," he explains.[132] This constitutes another break from the model of educational taxidermy. Grant and Hornaday's writing reflects a desire to collect specimens at the extremes, rather than 'typical'[133] ones.

While many prominent conservationists feared the disappearance of wildlife, Hornaday sincerely believed that many big game species would soon be extinct. His response was to create

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[127] Asma, *Stuffed Animals and Pickled Heads*, 42.
[128] "Heads and Horns: National Collection Now Assured, Thanks to Dr. Hornaday," n.d., Heads and Horns collections, Wildlife Conservation Society Archives.
[129] "Heads and Horns."
[130] Madison Grant, "Letter to W. T. Hornaday from M. Grant, 6/21/09," June 21, 1909, Heads and Horns collections, Wildlife Conservation Society Archives.
[131] Madison Grant, "Letter to W. T. Hornaday from M. Grant, 7/18/09," July 18, 1909, Heads and Horns collections, Wildlife Conservation Society Archives.
[132] Grant, "Letter to W. T. Hornaday from M. Grant, 7/18/09," July 18, 1909.
[133] While 'typical' is admittedly a loaded statement, I mean to suggest specimens whose measurements/proportions are closer to established species averages.

a zoological museum in which to display their taxidermied forms. In his address at the dedication of the Museum of Heads and Horns on May 25, 1922, he laments the "period of slaughter of the world's finest animals" that the dawn of the nineteenth century ushered in.[134] "The greedy and merciless character of it knew few limitations," he adds.[135] Hornaday appears to condemn the overhunting that led to the animal decline of which he speaks. However, in the same breath, he explains that it is clear to him that "those whose moral duty it was to create zoological museums must be up and doing while animal specimens remained with which to fill them."[136] The extermination of these animals was an inevitability to Hornaday. So, he suggested that, rather than sit around and do nothing, zoologists intervene and collect some of these specimens themselves. They are on their way out anyway, according to Hornaday, and he has no qualms encouraging hunters to engage in the process, so long as their efforts remain rooted in conservation. In one of the letters referenced earlier, Grant writes to Hornaday about arranging hunting permits for a Mr. Potter and discusses the animals he thinks Potter should shoot for the collection.[137]

There was no shortage of hunters willing to answer Hornaday's call to action. Leafing through his letters in the archives of the Wildlife Conservation Society (today's New York Zoological Society), it becomes clear that a large part of his job was simply turning people away. Many hunters, taxidermists, and naturalists approved of the Heads and Horns collection was a great idea, and they wanted to be a part of it. In a letter to William Hornaday, one collector wrote that the museum was a "splendid idea," and that, "Anything to keep our game animals in

[134] William T. Hornaday, "An Address at the Dedication of the Museum of Heads and Horns, New York Zoological Park."
[135] Hornaday, "An Address."
[136] Hornaday, "An Address."
[137] Grant, "Letter to W. T. Hornaday from M. Grant, 7/18/09," July 18, 1909.

America 'dead or alive'—is well worth the doing."[138] Most of the letters that come to Hornaday early on in the project were from people who have learned about it through the newspaper.[139] Hornaday was in constant communication with various magazines and newspapers in an attempt to spread the word. When he needed American elk heads, he drew up a call to action to be transmitted to charitable collectors. "[W]e need from two to four extra fine specimens, such as will do credit to a national collection for the next 200 years."[140] In his later address, Hornaday's confidence in the collection's longevity has increased. "Unless this Museum is destroyed by a tidal wave of Bolshevik vandalism," he says, "it should preserve its priceless contents for at least three hundred years."[141]

Part of his confidence stemmed from the quality of the collected specimens. Much of his correspondence with Secretary Madison Grant centers around the quality of various taxidermists' work. Names that come up again and again are famed British taxidermist Rowland Ward, "Taxidermist-Naturalist"[142] Potter, and Henry August Ward of Ward's Natural Science Establishment. Carl Akeley of later AMNH fame is even mentioned. Donations came from all over. The American Museum of Natural History contributed several specimens. U.S. President Teddy Roosevelt gifted a white rhino.[143] The Ringling Brothers even gave a Masai Giraffe."[144] Still, just because a specimen came from a famous institution like AMNH, for instance, didn't

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[138] R. A. Brown, "Letter to W. T. Hornaday from R. A. Brown," May 27, 19??, Heads and Horns collections, Wildlife Conservation Society Archives.
[139] M. S. (?) Chamberlin, "Letter to W. T. Hornaday from M. S. (?) Chamberlin," February 12, 1908, Heads and Horns collections, Wildlife Conservation Society Archives.
[140] William T. Hornaday, "Two Fine Elk Heads Wanted" (New York Zoological Society, 19??), William T. Hornaday Outgoing Correspondence, Wildlife Conservation Society Archives.
[141] Hornaday, "An Address."
[142] Percy Madeira, "Letter to W. T. Hornaday from Percy Madeira," September 17, 1908, Heads and Horns collections, Wildlife Conservation Society Archives.
[143] William T. Hornaday, "Memorandum for the Press: New Museum of the National Collection of Heads and Horns" (New York Zoological Society, May 26, 1922), Heads and Horns collections, Wildlife Conservation Society Archives.
[144] "Gifts of 1921" (New York Zoological Society, 1922), Heads and Horns collections, Wildlife Conservation Society Archives.

necessarily guarantee that it was up to Hornaday's standards. In one letter written to Mr. Z. Marshall Crane, Hornaday points out that a narwhal tusk received from the American Museum of Natural History has a mutilation that he finds "unfortunate in a specimen that is needed for exhibition" and wonders "whether this is the one that was ~~really~~ intended for us" (strikethrough in original).[145] In another letter, Madison Grant expresses his opinion that the Head and Horns Museum should not exhibit just any species. With regard to a crocodile head available for purchase, Grant writes that "such an object […] would be to make it a mere collection of curios instead of an invaluable collection of heads and horns."[146]

Young animals were of no interest to Hornaday. In one letter, he explains to Madison Grant that the head of a "young bull" would be "of no earthly use" to them.[147] To an extent, similar criteria dominated AMNH's hunt for African wildlife at the beginning of the twentieth century. This is to say that some animals were more useful than others. Donna Haraway writes in "Teddy Bear Patriarchy" that taxidermist Carl Akeley sought perfection in the age, size, and sex of his specimens.[148] But while Akeley sought to create a family unit out of the animals that he shot, Hornaday only had interest in "record" specimens. That is, the largest, most impressive examples of a species that nature could produce. In this way, female and young animals did not factor into his exhibit. Still, he applied similar standards of perfection to the creatures he did exhibit. Hornaday complains in one letter that the buffalo at the zoo never seem to die at a convenient time for him. "We have lost buffaloes enough; but they have always died in late winter, spring or summer, and hardly ever in October, November or December," he explains.

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[145] William T. Hornaday, "Letter to Z. Marshall Crane from W. T. Hornaday," February 2, 1908, William T. Hornaday Outgoing Correspondence, Wildlife Conservation Society Archives.
[146] Madison Grant, "Letter to W. T. Hornaday from M. Grant 5/21/09," May 21, 1909, Heads and Horns collections, Wildlife Conservation Society Archives.
[147] William T. Hornaday, "Letter to M. Grant from W. T. Hornaday 6/10/11," June 10, 1911, William T. Hornaday Outgoing Correspondence, Wildlife Conservation Society Archives.
[148] Haraway, "Teddy Bear Patriarchy," 169.

"There is, therefore, little hope that we could ever supply anyone with a really good head. (underlining in original)"[149]

Emphasis is placed on the idea of "record" heads in the letters between Hornaday and Grant. Specimens from private individuals are rejected on the basis of their being average. Hornaday consistently asks individuals who write him to provide measurements so that he can judge their value. When the Museum finally came together in 1922, Hornaday drew up a memorandum for the press that includes a section boasting the collection's "High Records Specimens."[150] The subheading reads, "Highest record for world so far as known on May 1, 1922," and the rest of the document details the precise measurements of over a dozen specimens.[151] Below the high records, Hornaday includes a list of "Specimens of very high record, or of particular rarity and interest."[152] He differentiates, however, between specimens of "particular rarity and interest" and "freak" specimens. One exchange of letters between Hornaday and [first name] Hallock reveals a dispute over what constitutes "freak"-ness. Hallock writes to Hornaday, "I do not call locked horns 'freak' horns. The latter are monstrosities, not of the natural order and patterns."[153] Hornaday does not elucidate his criteria for what does and does not constitute a freak specimen, but it is clear that he uses it as a term of derision. Inasmuch as he and Grant strive for the Museum of Heads and Horns to not be a "collection of curios," he also does not want its specimens to be freaks of nature. In a letter to Frederic Lucas, then director of the American Museum of Natural History, Hornaday derides a collection that was available

[149] William T. Hornaday, "Letter to Percy Madeira from W. T. Hornaday," May 15, 1912, William T. Hornaday Outgoing Correspondence, Wildlife Conservation Society Archives.
[150] Hornaday, "Memorandum for the Press."
[151] Hornaday, "Memorandum for the Press."
[152] Hornaday, "Memorandum for the Press."
[153] Ph. S. Henry, "Letter to W. T. Hornaday from Ph. S. Henry," 19??, Heads and Horns collections, Wildlife Conservation Society Archives.

for him to purchase. “The collection is chiefly of freaks,” he explains. “It is hardly worth considering seriously.”[154]

The Museum of Heads and Horns opened on May 25, 1922. Fifty-six years later, its contents were transferred to the NRA’s Firearms Museum in Washington, D.C.[155] A letter written by NYZS General Director William G. Conway in 1974 explains that the collection’s time had come and gone and that the building that housed these heads and horns should be put to better use. “Redevelopment to show wildlife films of vanishing species and for offices and classrooms where children may be taught more about their fast disappearing wildlife heritage seems a 1974 idea responsive to the 1922 intent of Hornaday and the other founders and contributors of the trophy collection,” Conway wrote.[156] The collection was passed around a few more times and was ultimately laid to rest at Johnny Morris’ Wonders of Wildlife National Museum and Aquarium in Springfield, Missouri.[157]

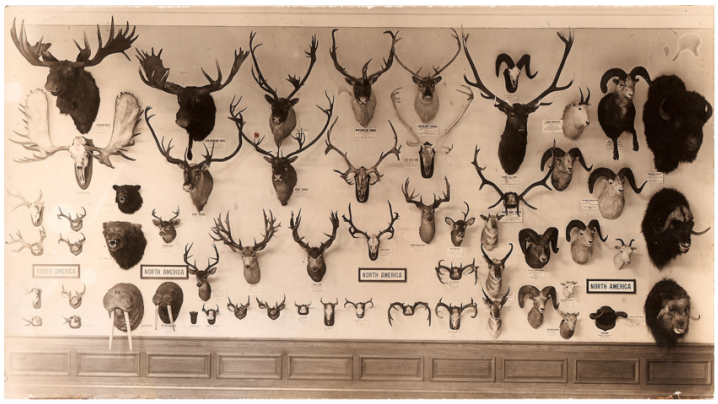

Fig. 5. The Museum of Heads and Horns, opened in 1922. (Photo Courtesy of Boone & Crockett Club)[158]

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[154] William T. Hornaday, “Letter to F. A. Lucas from W. T. Hornaday,” November 2, 1911, William T. Hornaday Outgoing Correspondence, Wildlife Conservation Society Archives.
[155] William H. Nesbitt, “Letter to Richard L. Lattis from W. H. Nesbitt,” June 29, 1978, Heads and Horns collections, Wildlife Conservation Society Archives.
[156] William G. Conway, “Letter to Frederick Pullman from W. G. Conway,” December 11, 1974, Heads and Horns collections, Wildlife Conservation Society Archives.
[157] “National Collection of Heads and Horns,” Boone and Crockett Club, October 25, 2016, https://www.boone-crockett.org/national-collection-heads-and-horns.
[158] *The North American Big-Game Exhibit*, ca 1922, photo, ca 1922, Boone and Crockett Club, https://www.boone-crockett.org/national-collection-heads-and-horns.

The effort to create a national collection of heads and horns emerged out of a specific moment in American conservation history. Forecasts of big game extinction motivated Hornaday and his compatriots to compile as many "record" specimens as possible and house them at the Bronx Zoological Park. While the species which Hornaday sought to commemorate were not yet gone, the Museum of Heads and Horns acted as a monument to their disappearance. It would close under the leadership of Henry Fairfield Osborn's son, Fairfield Osborn, who served as museum president from 1940 to 1968.[159] I submit that the taxidermy of this museum failed where AMNH's succeeded because of the disarticulated nature of the animal specimens and the lack of environmental staging. While all animals in zoo and museum settings are, in one way or another, denaturalized, the display of animal heads and horns, attached to the wall of a museum (Figure 5), evokes precisely that which naturalistic enclosures and dioramas aim to hide: human intervention. It harkens back to hunting, death, and the taxidermical process. Despite their taxidermied nature, I will argue that the nature dioramas at AMNH had (and have) more in common with the naturalistic enclosures of the Bronx Zoo than they did with the taxidermy of the Museum of Heads and Horns in that both sought to recreate nature in a convincing way. Furthermore, I will posit that animals in zoos and natural history museums both exist in a state of either premortem or postmortem "afterlife." In the afterlife, the agency of these animals is destroyed, and they are transformed from biological creatures into cultural objects whose meaning is determined by humans.

[159] Conway, "Letter to Frederick Pullman from W. G. Conway," December 11, 1974.

IV. Re-Creating Nature at the American Museum and Bronx Zoo

In "Why Look at Animals?" John Berger argues that animals have become marginalized as a result of industrial innovation. It is this marginalization—or, as he sometimes writes, the disappearance of animals—that allows us to look at them in the first place. Berger asserts, "The zoo to which people go to meet animals, to observe them, to see them, is, in fact, a monument to the impossibility of such an encounter."[160] Henry Fairfield Osborn would probably agree with this statement, although he might add that while the zoo (and natural history museum) testify to the disappearance of nature, they simultaneously seek to restore it. Speaking at the opening of the Bronx Zoological Park in 1899, Osborn said:

> The Ice Sheet left behind the famous "Rocking Stone," as a memorial of its visit, and there followed the forest of oak and beech, whose noble offspring are the glory of the Park. Then wandered the Mastodon, Buffalo, the Elk, Moose, Deer, and Beaver, the Indian and finally our Dutch and English ancestors as the enemies and exterminators of all. We have to thank the former owners of this tract that the forest was preserved. The Mastodon is beyond recall, but before long his collateral descendant, the elephant, will be here; and this afternoon, as you wander through the ranges, you will see restored to their old haunts all the other noble aborigines of Manhattan. Later we shall find a place upon the Buffalo Range for the Indian and his tepee.
>
> Yes, Nature has given the City this Park and has given us the motive for its treatment. Every natural beauty has been carefully protected and preserved, hardly a tree has been cut down. And when our general scheme of planting and enclosure is completed, all the animals of North America and many of the Old World will be seen just as they live in the woods—happier perhaps because safe from the rifle of the hunter, free from the keen struggle for existence, generously quartered and fed.[161]

In this address, Osborn slanders New York's "Dutch and English ancestors" as "the enemies and exterminators of all." In the natural history timeline that he lays out, their actions constitute a negative shift which the Bronx Zoological Park seeks, in part, to undo. He sees the nascent zoo as an opportunity to halt the "extermination" of nature that is sweeping the United States and restore once-teeming wildlife to its "old haunts."

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[160] John Berger, "Why Look at Animals?," in *About Looking* (London: Bloomsbury, 1980), 3–28, http://artsites.ucsc.edu/faculty/gustafson/FILM%20161.F08/readings/berger.animals%202.pdf.

[161] Henry Fairfield Osborn, "Address of Welcome at the Opening of the New York Zoological Park," *Fourth Annual Report of the New York Zoological Society*, 1900, 77, cited in Rainger, *An Agenda for Antiquity*, 118.

Osborn sought to recapture the "natural" in the exhibits of the Bronx Zoo. In an 1899 letter to William T. Hornaday, he expressed frustration over an enclosure that wasn't up to his standards. "I am much disappointed in the Prairie Dog enclosure," he wrote; "the fence is so high and shuts off so much of the view, that the *natural* effect is entirely lost. The next plan of this kind must be an improvement and give less of the suggestion of a prison."[162] Osborn's concern for the appearance of the park and its exhibits was made manifest in his countless letters to Hornaday. William Bridges, author of *Gathering of Animals: An Unconventional History of the New York Zoological Society*, asserts that "[n]o detail was too small to escape the professor's scrutiny."[163] It must be said that while the Bronx Zoological Park paid close attention to invoking the natural habitats of animals, the heyday of its immersive exhibits would come in the mid-twentieth century, under the leadership of Osborn's son, Fairfield Osborn.

In Osborn's estimation, New York City offered few opportunities to experience nature up close. He linked the degradation and disappearance of nature from New Yorkers' lives with the social and spiritual degeneration of the city at large and saw the Bronx Zoo and the American Museum of Natural History as antidotes. People from all walks of life could come, observe, and leave transformed. In his book *Creative Education in School, College, University, and the Museum*, Osborn writes that the function of the American Museum is to "restore the vision and inspiration of nature."[164] To "restore the vision" of nature, Osborn would invest heavily in visual display. He and the museum's new director, Frederic A. Lucas, hired an increasing number of artists and taxidermists in the early 1910s.[165] New taxidermical techniques allowed for more

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[162] Henry Fairfield Osborn cited in William Bridges, *Gathering of Animals; An Unconventional History of the New York Zoological Society* (New York: Harper & Row, 1974), http://archive.org/details/gatheringofanima00brid, 80.
[163] Bridges, *Gathering of Animals; An Unconventional History of the New York Zoological Society*, 80.
[164] Henry Fairfield Osborn, *Creative Education in School, College, University, and Museum: Personal Observation and Experience of the Half-Century 1877-1927* (New York: Scribners, 1927), 260, cited in Rainger, *An Agenda for Antiquity*, 120.
[165] Cain, "The Art of Authority."

detailed sculpting of specimens. At the same time, murals and background paintings were becoming increasingly central to museum exhibits. The museum's attention to visual detail paid off, as AMNH's annual income increased from $446,000 in 1910, to $946,000 in 1920, and finally to $1,827,000 in 1930.[166]

Fig. 6. Example of the manikin process. A lightweight "manikin" is constructed onto which the preserved skin of an animal is then laid. (Photo Courtesy of AMNH)[167]

Carl Akeley, famed taxidermist and chief subject of "Teddy Bear Patriarchy," refined the practice of taxidermy by creating the "manikin" method, in which a lightweight body, or manikin, is constructed out of inorganic material (Figure 6).[168] The taxidermist then fits the animal skin over the cast, rather than stuffing it. This technique resulted in far more creative, dynamic, and realistic poses that held up better long-term. In "Teddy Bear Patriarchy," Haraway posits that Akeley was successful in both reproducing nature as he saw it *and* communicating an emotional, quasi-religious message to the viewer.[169] Through his reproductions, Akeley emulated *and* elevated the experience of nature. In re-presenting animals through taxidermy, in reconstructing nature, up close, to be gaped at from behind a glass pane, the exhibit outstrips nature, offering us something that nature never could (Figure 7). "The animals in the dioramas

[166] Cain, "The Art of Authority."
[167] Meredith D. Burch, *Completed Indian Lion Mannequin for the Hall of Asian Mammals*, 1930, 1930, AMNH Digital Collections, https://digitalcollections.amnh.org/CS.aspx?VP3=DamView&VBID=2URMLBEDPRUO&PN=1&WS=SearchResults&RW=1104&RH=822#/DamView&VBID=2URMLBED0FWX&PN=1&WS=SearchResults.
[168] Haraway, "Teddy Bear Patriarchy," 167.
[169] Haraway, "Teddy Bear Patriarchy."

have transcended mortal life, and hold their pose forever, with muscles tensed, noses aquiver, veins in the face and delicate ankles and folds in the supple skin all prominent," Haraway writes. "No visitor to a merely physical Africa could see these animals. This is a spiritual vision made possible only by their death and literal re-presentation."[170]

Fig. 7. Leopards in the Akeley Hall of African Mammals, 1940. (Photo Courtesy of AMNH)[171]

The American Museum of Natural History and the Bronx Zoological Park differed (and continue to differ) in obvious ways. Namely, AMNH housed dead animals and the Bronx Zoo housed live ones. I have demonstrated the convergence of their missions, but I hope to also demonstrate the convergence of their methods. I hold that the animals and exhibits of both institutions mirror one another in crucial ways. First, I will discuss the state of "afterlife" to which I referred earlier. Then, I will turn my attention to what I consider the production of hyperreality within zoo and museum exhibits. That the most compelling zoo and museum

[170] Haraway, "Teddy Bear Patriarchy," 157.
[171] Charles H. Coles, *Female (above) and Male (below) Leopards, Leopard and Bush Pig Group, Akeley Memorial Hall of African Mammals, 1940*, September 1940, photo, September 1940, AMNH Digital Collections, https://digitalcollections.amnh.org/CS.aspx?VP3=DamView&VBID=2URMLBED0FWX&PN=1&WS=SearchResults&RW=1728&RH=901#/DamView&VBID=2URMLBEJE17V&PN=3&WS=SearchResults.

exhibits attempt to offer a recreated nature is no coincidence. It is in this attempt that hyperreality is born.

In *The Afterlives of Animals*, myriad authors discuss the lives—pre- and post-mortem—of taxidermied animals. Towards the end of the book, author Geoffrey N. Swinney sums up the idea of afterlife nicely, writing, "In the museum, it is the visitor who breathes new life into objects, and, in the case of representations of once-living organisms, that 'new life' is what we have classed as its afterlife."[172] The afterlife constitutes the new identity of and new meanings attached to a specimen after entering a museum. In most cases of taxidermy, we know little to nothing about a specimen's former life, and it doesn't factor into our understanding of the specimen as a cultural object. Garry Marvin explains in his essay in *The Afterlives of Animals* that it is only through death that an animal becomes a "significant individual."[173] By significant, Marvin means significant to humans. In this way, I see zoo animals as existing in a similar state of "afterlife." In the zoo, animals are stripped of agency. Their identities and the narratives surrounding them are imposed by and in service of humans. As social theorist Jean Baudrillard writes in "The Animals," "Nowhere do they [animals] really speak, because they only furnish the responses one asks for."[174]

To an extent, then, all animals are human constructions, as Mullan and Marvin suggest in *Zoo Culture*.[175] All animals are cultural objects—even those that we have not rendered "biologically inert."[176] While this may be true, I would nevertheless like to single out the particular case of zoo animals, whom I regard as existing in a pre-mortem afterlife. In zoos, they

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[172] Geoffrey N. Swinney, "An Afterword on Afterlife," in *The Afterlives of Animals: A Museum Menagerie*, ed. Samuel J. M. M. Alberti (Charlottesville: University of Virginia Press, 2011), 219.
[173] Marvin, "Enlivened Through Memory," 203.
[174] Jean Baudrillard, *Simulacra and Simulation*, trans. Sheila Faria Glaser (Ann Arbor: The University of Michigan Press, 1994), 138.
[175] Mullan and Marvin, *Zoo Culture*, 3.
[176] Marvin, "Enlivened Through Memory," 211.

lose their bodily autonomy; their biological function of reproduction is negated. Like the taxidermied specimens, disaggregated heads and horns, etc., their meaning is entirely determined by the human visitor. Finally, both the post-mortem museum specimen and the pre-mortem zoo animal are genetically immortal. Valuable biological information is embedded in both the specimens of natural history museums and the genetic cryobanks of zoos.[177] Zoo animals exist in the afterlife insofar as they the meanings that they carry more closely resemble those of museum specimens than those of wild animals. In this respect, the animals of museums of natural history and zoos are aligned.

Turning my attention to the production of hyperreality, I draw upon the work of Jean Baudrillard once again. In his seminal work *Simulacra and Simulation*, Baudrillard defines hyperreality as a process in which what is understood as real and what is understood as fake seamlessly blend together to the point of indistinguishability.[178] This framework is useful for understanding both nature dioramas and zoo exhibits in which "real" nature (i.e., a zoo animal or the skin of a former animal) is set against a backdrop of "artificial" nature (i.e., landscape paintings evoking an animal's natural habitat) (Figure 8). As part of the early twentieth century's ever-intensifying thirst for realism, reality had to be manufactured. Writing in the 1980s, *Travels in Hyperreality* author Umberto Eco asserted that the American imagination demands "the real thing."[179] This demand is so potent that in instances where it is unattainable, the "absolute fake" must be fabricated.[180] It is in this vein that I see the reconstructed, faux-natural environments of the American Museum of Natural History and the Bronx Zoo. We cannot have the real thing; we cannot have the *real* antelope on the *real* savannah in the *real* Africa. Therefore, we must create

[177] Conn, "Do Museums Still Need Objects?" 51.
[178] Baudrillard, *Simulacra and Simulation*, 3.
[179] Umberto Eco, *Travels in Hyperreality*, trans. William Weaver (New York: Harcourt, 1986), 8.
[180] Eco, *Travels in Hyperreality*, 8.

an absolute fake. As Eco says, "in America, a country obsessed with realism, […] if a reconstruction is to be credible, it must be absolutely iconic, a perfect likeness, a 'real' copy of the reality being represented."[181] It is these large-scale reproductions, or fabrications, of nature that made both the American Museum and Bronx Zoological Park so successful in attracting visitors. The Museum of Heads and Horns failed to captivate because it failed to commit to the absolute fake.

Fig. 8. Painting the background for the Giant Sable Antelope diorama, 1933. (Photo Courtesy of AMNH)[182]

[181] Eco, *Travels in Hyperreality*, 4.
[182] Hugh Smith, *Painting the Background for the Giant Sable Group, Akeley Hall of African Mammals*, July 1933, photo, July 1933, AMNH Digital Collections, https://digitalcollections.amnh.org/CS.aspx?VP3=DamView&VBID=2URMLBEJE17V&PN=3&WS=SearchResults&RW=970&RH=844#/DamView&VBID=2URMLBEJE17V&PN=2&WS=SearchResults.

In zoo exhibits and nature dioramas, nature which cannot be conjured is manufactured. In successfully hyperreal exhibits, that which is manufactured is indistinguishable from that which is real; the manmade is made invisible. We have seen in the longevity of these museum exhibits and modes of representation that they are successful. However, Baudrillard questions the extent to which they truly satisfy. In creating a duplicate of nature, in creating the absolute fake, Baudrillard asserts that both the duplicate and the original are rendered artificial.[183] Moreover, in creating an increasingly lifelike copy, he claims that we are no closer to the real thing.[184] A three-dimensional diorama, for instance, is no more real than a two-dimensional painting. In fact, Baudrillard contends that is has the opposite effect; it "render[s] us sensitive to the fourth dimension as a hidden truth, a secret dimension of everything, which suddenly takes on all the force of evidence."[185]

But perhaps therein lies the success of both zoos and museums of natural history. By attempting to reproduce nature and invariably falling short, they stimulate our desire for the real thing and force us to grapple with our detachment from it. As taxidermy improves, as the barriers of zoo enclosures become increasingly difficult to make out, we are more unfulfilled than ever. As we seemingly get closer to nature, we only become more aware of our distance from it. In this way, by evoking nature in an unsatisfying way, zoos and museums of natural history invite us to examine our relationship with the natural world—albeit from a safe distance. Perhaps this is why we keep coming back.

[183] Baudrillard, *Simulacra and Simulation*, 9.
[184] Baudrillard, *Simulacra and Simulation*, 107.
[185] Baudrillard, *Simulacra and Simulation*, 107.

Conclusion

To understand the history of the American Museum of Natural History and the Bronx Zoo is to understand a number of interrelated ideologies and fears associated with post-Civil War urban America, best embodied by Henry Fairfield Osborn. A "first-rate science administrator and a third-rate scientist," Osborn represented a specific breed of scientist that would soon go extinct.[186] Devoted to "naked-eye science" and the transformative power of seeing, he invested time and energy into creating the American Museum of Natural History we know today. He concurrently worked to make the Bronx Zoo into a site with similar regenerative abilities and similar messaging about the power and fragility of nature. At the same time, Osborn injected his troubling thinking into various aspects of the two institutions, implicitly and explicitly using his platforms as president to advance scientific racism, eugenics, and anti-immigrant legislation, ideals espoused by a fair share of his naturalist contemporaries.

The attitudes and efforts of the early twentieth-century movement for nature preservation and the societies that it proliferated may seem outdated. For instance, the disappearance of America's big game species, as Hornaday prophesized, never came to pass. Others argue that it was largely through the establishment of exhibits like AMNH's Hall of North American Mammals and the NYZS's Head and Horns Collections that nature preservation entered the public consciousness. Regardless, when examining the representations of nature that proliferated at the American Museum and Bronx Zoo in the early twentieth century, it is interesting to consider what has remained. Hyperreal nature dioramas and zoo exhibits at the beginning of the century drew upon similar techniques to capture public attention—techniques that we can still find in zoos and natural history museums today. In this way, early twentieth-century

[186] Rainger, *An Agenda for Antiquity*.

constructions of nature, far from being outdated, continue to inform our understanding of the natural world today.

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