

Kinship and Connection: Exploring Historical Nonhuman Exhibition within Zoos to Form New Relationships

Senior Project Submitted to  
The Division of Social Studies  
of Bard College

by  
Alexandra Colon

Annandale-on-Hudson, New York  
May 2023



*Dedicated to those that wish to think with the world around them...*

## *Acknowledgements*

---

Thank you to my board for all help and support throughout this process. I cannot express enough how invaluable your support and encouragement were throughout the project, it has been so lovely to work with all of you. To my advisor, Krista Caballero, thank you so much for all that you have done for me throughout this process and for all the ways you've pushed me to think bigger. To Yuka Suzuki, thank you for inspiring me and for allowing me the pleasure to be your student these last few years. To Elias Dueker, thank you for all the advice and work you've done for me. To my friends and family whose support and encouragement have been invaluable to me throughout this process and for whom I would not be where I am today without all the love that has been bestowed upon me, thank you all so very much.

# Table of Contents

---

● Abstract	1
● Colonial Subjects	7
○ Early Collections	7
○ Exploitative Entertainment	11
○ The First Public Zoos	17
● Twentieth Century Transformation	20
○ Regaining Social Legitimacy	21
○ Misha	24
● On Nature-Making	29
○ Simulation of Nature	30
○ Spatial Control	35
○ Shifting Technologies	39
● Becoming Kin: A Pathway Forward	43
○ Living Together	46
○ (Re)Imaging Future Realities	50
■ Base Changes	51
■ Future Realities	54
● Towards New Futures	59
● Appendix	62
● References	68



## Abstract

---

When I was a child going to the zoo seemed almost mystical. With memories featuring giant underwater passageways, sea lion shows, and a vague sense of awe and astonishment these times-though brief-remain locked in my memory almost lost. It's been many years since I had visited a zoo, mostly because I forgot they existed if I'm honest. Living in NYC these spaces seemed so distant to my everyday life, to me zoos were spaces I went on vacation or maybe a class trip but were not really part of my world beyond those few instances. For many, zoos are spaces where they look back on fondly as adults and look forward to one day bringing their own families to see the spectacle of captive animals. Zoos and aquariums represent a sense of childlike wonder with the unknown, the grand, and the almost impossible; they are spaces that exist completely separate from their urbanized surroundings. Now, as an adult, I haven't been to a zoo in years nor really thought about them all that much unless to feel a brief sense of pity for the animals held within their walls and yet when deciding what to pursue for my thesis, nearly 15 years since I had visited a zoo, I found myself inexplicably drawn to the topic of animal captivity. I pose questions related to conservation, cultural values, human/nonhuman animal relations, and much more in order to explore the nuances of these spaces and attempt to unravel how we as a society can live *with* zoos and zoo animals instead of forcing them to live *for* us.

This paper explores the relationship between humans and nonhuman animals exemplified through a historical and social analysis of the 'modern zoo'. My research plan is multi-disciplinary and experimental drawing on a vast array of scholars, thinkers, and artists I pull on differing interpretations of zoo spaces, animal captivity, and human-nonhuman animal relationships in order to gain a broad understanding of how these relationships have been

formed, why they have been formed, and in what ways can/should they be altered. In total, I conducted 3 interviews with various individuals connected to zoo spaces, watched six hours of zoo camera footage, conducted a historical literature review, had one site visit at the Queens Zoo and three at the Bronx Zoo, and conducted months of historical research and interpretation in relation to nonhuman exhibition and attitudes. While I am drawing on various traditional modes of research I am additionally using an indigenous studies framework to guide my theoretical approach as well as my proposal. Drawing on these various research tactics I present an experimental model to pull individual animal welfare and the building of bonds between human(animals) and nonhuman(animals) to the forefront of zoo agendas. My central questions are as follows, ‘What can zoos tell us about the changing relationship between human-animals and nonhuman animals in the modern world? How can we move forward towards a new pathway of zookeeping that allows us to be in conversation with the individualized animals? And, how can we localize zoo spaces to be more about communal responsibility?’ Using a combination of historical research, spatial analysis, ethnographic research, and the use of experimental artists I ask these questions of myself and others in order to develop deeper relationships and understandings of the world around me.

My first chapter, *Colonial Subjects*, discusses the origins of zoos and menageries during the colonial period, focusing on how ~~‘exotic’~~ exoticized animals were displayed alongside ~~‘exotic’~~ exoticized peoples in order to showcase the reach, domination, and subjection of foreign lands by colonial powers. This chapter also discusses the different branches of animal showcasing and collections within the Renaissance, the Age of Enlightenment, and the Colonial Period to give a brief background to how animal exhibition has evolved throughout the ages.



Exploring the tensions between power, colonization, animal conservation, and the human/nonhuman relationship, I am attempting to trace these relationships and ideologies in order to anchor my paper in historical legacies. The second chapter, *Twentieth-Century Transformations*, discusses the changes that many zoos underwent in the 20th century in response to growing social pressures which resulted in a platform shift from entertainment to species conservation. Here, I use the tale of Misha, a polar bear held at the Bristol Zoo in the late 20th century to highlight the social attitudes that were directed at zoos and the individual changes made at Bristol in response to these challenges. Focussing on the tensions between the past and the present I examine how these changes took place, what changes were made, and the effect they had on public understanding, acceptance, and interaction with zoo spaces. In conjunction with shifts in social attitudes I discuss the larger legislative changes that were made in the 20th century as well as the organization of national and global institutional governing bodies. *On Nature-Making*, my third chapter, discusses the themes of nonhuman exhibition focusing on the social interpretation these exhibits lend to within the human imagination. I focus on the ‘natural-artificial’ or the ‘artificial-natural’ and the ways in which exhibition spaces are made to conjure ideas of an animal’s ~~‘exotic’~~ exoticized origins and ~~‘apparent’~~ mythicized ‘wild’ nature. This chapter seeks to understand how popular ways of exhibiting nonhumans (re)produce conceptions of nature, the wild, and of foreign lands. Additionally, I take into account the architecture and spatial configuration of zoos and the ways in which they contribute to the social and cultural conception of ~~‘exotic’~~ exoticized lands, humans, and nonhuman animals. My fourth chapter, *Becoming Kin: A Pathway Forward*, examines concepts of kinship between humans(animals) and non-humans(animals). Drawing on scholars such as Donna Haraway, Vine

Deloria Jr, John Berger, Thom Von Berger, & Kim Tallbear I define kinship and work through methods to help establish kinship with nonhumans both within zoo spaces and more broadly. This chapter is especially guided by indigenous epistemologies as well as experimental thinkers who foreground my arguments in understanding the nonhuman world, confronting historical realities, and future realities that can be made possible through deliberate and guided change. I then propose various institutional changes and cultural transformations that can occur both short-term and long-term in an effort to reform zoo spaces. Attempting to tackle institutional change to shift cultural ideology concerning nonhumans, I focus primarily on individualized animal care, localized animal captivity, conservation, and a re-thinking of the relationships between human-animals and non-human animals through signage, education programs, and more. This chapter presents a new way of thinking *with* animals instead of thinking *about or for* them through a redesign of enclosures, zoo signage, programming and community engagement. In the spirit of being kin, I aim to localize zoos in their regions and focus on engagement with the everyday environment to bridge cultural ties from an inconceivable global environment to that of the knowable local. My final chapter, *Towards New Futures*, closes out my argument by pushing readers to recognize their response-ability to the world around them.

My proposals for zoo reformation will be presented in three ways, firstly I propose changes that can be effectively made within six months that introduce ideas of kinship, indigenous ontologies, and community outreach strategies as a preamble to larger changes. Then I propose larger changes that would take years to implement into zoo programs and agendas but which I feel would be valuable in terms of cultural shifts and institutional changes. These changes include larger conservation goals, exhibition redesign, multiple community outreach

days, educational visits, and collaborations with local artists. Lastly, within the appendix section, there will be mock-ups of signage, invitations, programs, and more that will act as examples of realistic changes that could be done. Suggested changes are *imagined futures* that pull on a variety of artworks focussed on themes of enclosures, the human/nonhuman binary, colonization, and the breaking of social and cultural boundaries. Some artists who are framing my work include Fred Wilson, Coco Fusco, Guillermo Gómez-Peña, and Carol Rashawna Williams among others and I draw on these artists in order to help me re-image these spaces and push against cultural norms in the ways in which they do through their artwork.

Understanding the nuances of zoo spaces and examining their historical and cultural context in order to propose a method towards more caring methods of nonhuman exhibition and conservation is my main purpose throughout this paper. Through it, I hope to better illuminate the relationships present between humans(animals) and nonhumans(animals) in order to improve social and cultural understanding of this ~~‘other’~~ otherized world. A world portrayed as entirely separate from our own yet one in which we are so deeply entangled within, connected through, and formed by our relationship *with*. I aim to break down these relationships and form new pathways towards being ‘kin’ with the world around us based upon indigenous epistemologies. Within binary cultural and historical conceptions of the human(animal)/non-human(animal), the situated ‘us’ versus the unknowable but exoticized ‘other’ lies a space in which human culture can be questioned, examined, and revolutionized to create a relationship between human-nonhuman(animals) that is deeply personal, localized, and built upon mutual respect, reciprocity, and care.

*“Human beings are not above nature or above the rest of the world. Human beings are incomplete without the rest of the world. Every species needs to give to every other species in order to make up a universe.”- Vine Deloria Jr., Kinship With the World*

## ***Colonial Subjects***

### ***Chapter One***

---

Animal collections are as old as the first empires, tales of massive beasts held in submission by rulers, the trade of unknown animals, gardens overflowing with the fantastic, the impossible, the other-worldly these spaces have been crafted by the human imagination for thousands of years. Since human beings have looked out at the world and felt the need to own a piece of it for themselves, collections of curious findings have been a part of our history. Tales formed from seeing unknown beasts who roam dark woods and faraway lands lead to the incentive to capture and own them, simply for the sake of *seeing* the impossible. Animal displays have been used by the rich and powerful as overt ways to display their wealth, intelligence, and power to those who get to witness their collections: “These menageries, along with gold plate, architecture, orchestras, players, furnishings, dwarfs, acrobats, uniforms, horses, art and food, had been demonstrations of an emperor or king’s power and wealth” (Berger 1991, 21). These early collections did not differentiate between nonhuman and human in such overt ways as zoos do now, in fact the seemingly only requirement to find oneself within these spaces on display seems to be the ability to entertain, wow, or otherwise astonish a viewer. Deeply embedded in the structures of power, these spaces functioned as symbols of cultural status, financial prosperity as testaments to one's reach and domination; they provide entertainment in good times and distractions in bad ones. Displays of nonhumans are everywhere throughout history, and if one could afford the cost the possibility for what one could see was endless.

### ***Early Collections***

---

Accounts from as early as 2500 B.C.E in Egypt and 880 B.C.E in Mesopotamia detail vast gardens filled with fauna, nonhuman(animals), and human(animals). These grand menageries were used as mechanisms to display a ruler's power showcased by the often dangerous, foreign, and otherwise otherworldly creatures kept within these spaces. Various records remain that detail accounts of expeditions undertaken to acquire new animals and seeds from distant areas, gifts from powerful figures, and spoils from conquered groups (Foster 1999, 64). To the right is a fragment that displays one of the oldest pieces of pictorial evidence which details the collection and display of animals within the ancient middle east. The fragment is part of a longer tale featured on the walls of a pyramid in Abusir which tells the story of a voyage in which bears were brought back to be displayed for King Sahre. It is uncertain whether these early zoos were public or private collections, but they regardless illuminate the deep history of nonhuman and human exhibition and its intrinsic ties to institutional power and control.



*Image 1: Story Fragment*

Later examples of these early Mesopotamian menageries are private collections held by some aristocracy during the colonial period in Europe. These menageries were fueled by colonial expeditions which were paid for by wealthy individuals hoping to stake a claim on the ‘new world’. The interest Europeans had with ~~‘newly discovered’~~ colonized lands erupted into an eroticized fascination with both its native peoples and nonhumans. With the ‘discovery’ of new lands, “menageries and aviaries became a fundamental part of the imaging of Renaissance courts...Exotic pets colored daily life, fêtes and

entertainments, playing a fundamental role in the creation of Habsburg collections *kunstkammern* [cabinets of curiosities] after the mid-sixteenth century”(Perez and Gschwend 2007, 445). Nonhumans and humans were brought over to Europe and became part of an ‘exotic’ trade network that wealthy Europeans fueled by assigning a certain prestige and class to the ownership of exotic animals and people: “In the Renaissance, theorists believed wild animals tamed by monarchs revealed their royal power and magnificence...for reasons of image, prestige, and representation, the queen[Catherine of Austria] went to great trouble and expense to procure animals few rulers had access to”(Perez and Gschwend 2007, 425). This trade aided in the establishment of political alliances, close friendships, and familial connections, and oftentimes individuals would attempt to maintain good relations with those who had greater access to a wide range of exotic animals simply for the sake of future opportunities. Catherine of Austria was one such individual, she had a seemingly global network of animal traders and was a source for the Harbberg family fueling many political and financial alliances. In these spaces of colonial power, animals became crucial figures in the building and strengthening of human relationships became-in part- conditional to an individual's display of power. Habsburg-located in Portugal-became famed during the Renaissance for its abundance of the rare and unownable: “Exotic animals, and slaves, from strategic, geographic points of the Portuguese empire, became an integral part of the spectacle and imagery at her[the] court”(Perez and Gschwend 2007, 423). This sort of spectacle, the grandeur that was available at Catherine's palace, was the sort that monarchs wished to achieve-the sort that is only possible through the brutal conquest and removal of animals and people from their homes. The animal trade-costly and dangerous-led to the deaths of many of the acquired beings, both human and nonhuman, as during this period few regulations were in place to manage the buying and selling of exotic species and so the power of monarchs and the privileged few was left widely unchecked.Fueled by conquests

and trailed by death the zoo was beginning to take form even as private and inaccessible as it was during this time these spaces will eventually become the zoos we are familiar with today.

Animal collections also took the form of curiosity cabinets which came into fashion during the early colonial period as well, unlike royal and private menageries curiosity cabinets were for the moderately wealthy man. Just as well though, these cabinets were a showcase of the domination Europeans were undertaking in foreign lands, and the bringing together of so many wondrous and new sights in a singular location just fueled those anthropocentric and colonial conceptions: "Exotic animals brought to Europe and North America served as living, visual, kinetic proof of Western hegemony over distant lands" (Putnam 2015, 31). Nonhumans became more than their physical bodies but were transformed through exhibition into metaphors of control and colonization of other lands. These cabinets were widely popular in Europe and rooms could be found filled with animal bodies, seashells, figure studies, blood, artwork, scientific illustrations, or even small drawers that could function as curiosity cabinets. Virtually any space could be transformed and so these became animal exhibition spaces that were vastly more accessible than the private collections spoken of earlier. The cabinets represent a critical junction in the formation of the modern zoo, collections of the natural world become widespread-estimates of their numbers in the 16th century reached thousands as they were an achievable status symbol for many-they were not just owned by monarchs and rulers but also by doctors, lawyers, professors-those who had a bit of disposable income could usually afford a small cabinet (Kenseth 1992, 82). Many of these collectors began to devote their collections to scientific study and illustrative uses for the makings of diagrams, encyclopedic texts, and paintings by scientists and researchers. One of the most impressive collections of this period was



the collection of Rudolf II which included thousands of items both man-made and natural. Thomas DaCosta Kaufmann was quoted as saying, “Rudolf’s possessions of the world in microcosm...[was]...an expression of his symbolic mastery of the greater world” (Kenseth 1992, 85). These collections were direct ways individuals could showcase their wealth, knowledge, and power through a public display that was not simply socially acceptable but quite popular and relatively cheap. In other ways, the collections were also to advance scientific knowledge through illustration, observation, and often dissection. These objects were used to study the natural world and improve on the knowledge Europeans had of other lands and peoples and eventually went out of fashion as modern zoo spaces, natural history museums, and art museums took their place.

### ***Exploitative Entertainment***

---

The use of an ‘other’ as a means of entertainment can be traced back centuries from the trade of ‘exotic’ animals in Europe to the enslavement and exhibition of Africans in zoos beginning during the 15th century all the way up until the early 20th century. The cultural ‘other’ has always been fascinating to Western audiences, the creation of myths like the wild man, legends like bigfoot, and folklore detailing witches in the woods, describe and subsequently villainized societies’ most marginalized communities. Those with ‘defects’ or ‘less than’ in the eyes of society instilled fear, curiosity, and an eroticism of the ‘unnatural’ so much so that these individuals were put on display for the enjoyment of others in private and public collections throughout recorded history. These individuals led difficult lives in some communities and were valued as good luck and entertainment in others. These individuals were put on display against

their will and were often regulated to the state of an animal and treated as such by those around them. In other cases, like that of Pedro Gonzales and his children, these individuals were taken in by individuals of wealth and access and provided with an education and a place in society.

Though these individuals were better off than their counterparts in zoos and menageries they were still treated as pets of a sort and paraded around for the enjoyment of others. It is incredibly important to understand that the origins of the modern zoo lie in these exploitative practices and historical realities, these are the stories that the zoo is built upon and they are knotted into the infrastructure of the institution itself.

One of the earliest examples recorded of a structured menagerie was that of the Aztec emperor Montezuma, his palace included a blooming garden space as well as both humans and nonhumans on display of interest who were seen as having unique conditions, characteristics, or some other such reason. In these early zoos, it was not uncommon for humans to be displayed and kept alongside nonhumans as they were seen as just as enticing and exotic as the nonhumans themselves, sometimes even more so. Accounts range but there is speculation that some families would actively work to disable their children in order for them to be taken into Montezuma's menagerie in other cases children born with 'defects' would be taken in, it is said that he had "a room in which were kept men, women, and children who had, from birth, white faces and bodies and white hair, eyebrows and eyelashes" (Belozerskaya 2006, 149). Individuals who were disabled were seen as wondrous because of the rarity of their conditions and were treated as prized possessions by the emperor, but possessions nonetheless. Montezuma kept them as entertainment and curiosities which he had been able to collect through the power and scoop of his empire. Based on the accounts of colonizers, each exhibited specimen(both human and

nonhuman) received individualized care and attention provided by Montezuma's endless wealth and access. Political representatives from different parts of the emperor's work travel daily to bring the Emperor animals, plants, food, and other resources from all across the peninsula in an effort to provide for the beings within the menagerie their natural diet as well as being a showcase to the reverence and power of the emperor himself. Cortes, in letters sent to Charles V, spent extensive time describing the encyclopedic menagerie held by the Aztecs, "lanners, hawk, kites, vultures... a staff of three hundred men cared for these birds, making sure that each species received the same kind of food it ate in the wild" (Belozerskaya 2006, 148). Menageries of old were often credited with providing the best care possible for the human(animals) and nonhuman(animals) because they could only be afforded by the wealthiest individuals in a given area. These spaces were inaccessible to the common man for thousands of years and to this day modern zoos require vast amounts of funding in order to continue to operate and oftentimes do so under strict financial constraints. Montezuma's collection seemingly treasured the nonhuman and human-animals in their care, this level of dedication could have only been provided by individuals of affluent backgrounds with the time, space, and ability these animals often necessitated and also depended on the nature of the individual who owned and acquired them. The act of exhibiting humans within these spaces was not limited to these ancient menageries but continued forth all the way until the early 20th century wherein a man named Ota Benga was displayed for twenty days at the Bronx Zoo.

On September 9th, 1906 the Primate House in the Bronx Zoo opened a new exhibit featuring a man, Ota Benga, in an iron cage with a chimpanzee and various bones scattered about. Benga was originally purchased by Samuel Verner for the St. Louis World Fair of 1904

where he was a major success due to his dancing performance. After his display in 1904, he was returned to the Congo before returning with Verner years later to be displayed at the Bronx Zoo. Ota became a major attraction almost overnight, with thousands venturing to the Bronx Zoo to see him on display during his short stint. Audience reactions ranged from angry to astonished and on September 13th, 1906 the New York Times published a brief commentary on his exhibit in response to the numerous voices of ascent that had arisen in the few days Ota had been presented to the public. The section read as follows:

“The clergyman’s error arises from the unreflected use of a word—the word ‘cage.’ The pigmy is in a cage! This so-called cage is a vast room, a sort of balcony in the open air, where the numerous visitors may observe the African guest while breathing the fresh air. Dressed like a New Yorker, he is there...all the time good-humored, cheerful, happy, manifesting not the slighted consciousness of being in an undesirable situation.”(Gabriel 1906)

The Times commentary displayed the viewpoint of those who argued against those that called his exhibition inhuman and voiced for his freedom. Many rumors circulated about Ota Benga, and the public speculated on whether he was a captive prisoner or a willing participant. At the time many news outlets including the New York Times vouched for his supposed happiness and his supposed consent to be displayed as he was. Verner even stated that Mr. Benga had been excited and happy to accompany the man to New York to be displayed. Now, more than a century later, we look back on his exhibition with keener eyes and renounce his so-called agreement to be exhibited by the Zoo. Archives, letters, and accounts of Benga’s time at the Zoo included reports of him fighting back visitors attempting to touch him and of his general dejected appearance.

These accounts are in addition to letters that detail plans to buy Ota Benga and proof of his sale. Enough resistance was voiced that only 20 days after he premiered he was quietly removed from the public, his plaque was taken down, and he was effectively forgotten. Few records remain the give voice to Ota Benga, and history still denies his captivity and display at the Bronx Zoo as



unwilling. In 2005, artist Fred Wilson discovered a life-size plaster bust by the artist Casper Mayer dating from 1904 in the Hood Museum at Dartmouth College. Wilson, upon finding the bust, cast a bronze bust of Ota and used a white scarf to cover up the ethnic label that was printed on the original mold. Wilson is an artist primarily focused on bringing forth the truth of silenced history oftentimes through the incorporation of discarded

*Image 2: Ota Benga Bust, Fred Wilson<sup>1</sup>* or unused museum pieces. His use of Ota Benga's bust and his re-imagining of the bust with a new inscription, "I'm the one who left and didn't come back"(Barson 2011). Wilson uses his work to force audiences to confront the disservice that was done to Ota Benga, through the recognition, education, and acknowledgment of colonial legacies within these institutions are pathways forward through reparative actions, conscious future-making, and responsibility. By finding and re-animating Ota Benga's bust and story Wilson gives space to the (intentionally)silenced voices of the past and offers a pathway towards applying these sorts of confrontations into zoo spaces.

---

<sup>1</sup> Barson 2011

In 1993 a traveling performance by artists Guillermo Gómez-Peña and Coco Fusco featured themselves dressed up as an imagined Amerindian couple. They created a falsified story of an imaginary island off the Gulf of Mexico where the indigenous population of Amerindians apparently lived. While the performance was intended to be a commentary on the representation and ‘discovery’ of America as well as a critique on the exhibition of people of color, many who engaged with the piece believed them to be actual Amerindians. Fusco and Peña traveled to various spaces and performed this piece including Madrid, London, Washington D.C., Irvine, California, Minneapolis, and Minnesota. The piece is accompanied by a 30-minute video<sup>2</sup> in which many reactions from visitors are recorded displaying their wonder, disgust, curiosity, and lust for the couple. The performance was a global success and mirrored many similar situations in which



*Image 3: Newspaper Cover<sup>3</sup>*

the ‘performances’ of those caged and displayed were real and coerced. While the exhibit itself was false, the performance as well as what audience reactions reveal about the nonhuman exhibition were very much real. Many audience members showed a fascination with the couple, some reactions verging on erotic while others strayed towards enraged at the display but all were fascinated and seemingly couldn’t look away. The use of performance brings light to these realities and is incredibly fascinating when considering the future of zoos and ways to re-image the space and engage with viewers in a new light. Perhaps the use of performance and artistic

<sup>2</sup> Darancou 2015

<sup>3</sup> Fusco, 1993.

interpretation can be used in future engagement tactics as methods to reach an otherwise unreachable audience. Those so disengaged with the exhibition of nonhumans that only a ‘shock-value’ performance can crack their exteriors and lead to new discussions and broader ways of thinking.

The unfortunate history of zoos using people of color, individuals who are disabled, and cultural others as exhibits is deep-set and often covered up for the sake of reputation. These displays often rendered individuals less-than-human, linking their identities through the exhibition to the nonhuman world forcing them into states of partial humanity and partial animality. Humans(animals) and nonhumans(animals) were displayed side-by-side for the entertainment and scientific study of those more powerful than them. Their identities were reduced, their stories erased and through the work of artists and educators, these stories have been brought to the light and have been used to confront and re-examine these intentionally forgotten histories. Exploitative exhibition is deeply rooted in the infrastructure and histories of many zoos still in operation today. Understanding these histories allows us to confront the mistakes institutions and individuals have made, allowing us the opportunity to learn from these stories and recognize the individuals we’ve wronged can give us a glimpse into how we can move forward towards reformation.

### ***The First Public Zoos***

---

The first public zoos mark a transformation in the process of animal exhibitions which up until the late 18th century had taken the form of private gardens for the wealthy and influential into public spaces for both scientific advancements as well as familial entertainment. During the

Age of Enlightenment, many were beginning to question the human place in the natural order of the world and these collections became increasingly interesting to the cultural imagination as representations of the human place in the world. The differences and similarities between human(animals) and nonhuman(animals) were seemingly more and more integral to establish than ever before. Questions and theorists arose to explain the human place in the natural order, some like Descartes had already embedded society with conceptions of mechanized animals-non-feeling things for human use and consumption, some like Rousseau believed the only difference between man and animals was man's ability to change and some chose to believe in the biblical conceptions of world order and pointed towards stories of Adam and Eve to prove humans 'natural' and 'god-given' domination over the rest of the nonhuman world. Regardless of the beliefs that were popular, all were interested in the viewing and study of animals to better understand their own positionality.

The London Zoo which boasts itself as the world's oldest scientific zoo opened its doors in 1828 beginning as a zoological garden for men of high society who had an interest in animals. Admittance to the zoo was difficult, necessitating a certain status in its early days, members paid to become a part of the zoological park and join the exclusive club it marketed itself as. Here, the vast collection of nonhuman animals wasn't simply about the aristocracy wanting to showcase their power-here the zoo had an interest in collection for the sake of knowledge. Because collecting wasn't simply about showcasing power and domination anymore the various species that the London Zoo displayed differed vastly from early private collections. Species of all kinds were accounted for, from massive bears to tiny birds anything and everything that the park could acquire it did in the name of scientific study. Similar to cabinets of curiosities the goal of the



London Zoological Park was educational in nature featuring spaces to create scientific illustration and advance the field of research. However, due to the upkeep of the park in combination with the low attendance rates-there were in fact very few men of wealth and power who could even access the park-the London Zoo began to fall into disarray and feared that they would have to shut down. In an attempt to save the park, the Zoo changed its strict entrance policy so that the more common man and woman could now take part in the exclusive park. The park was made completely public, for an admission fee of course, forming one of the first public zoos in the Western world. The example of the London Zoo is simply one of many on how zoological parks eventually became public spaces for entertainment and education through the viewing of nonhumans. These early zoos had many issues including the involvement in illegal animal trading, improper enclosures, improper health care, and poor financing, and absolutely decrepit conditions. Eventually, many of these spaces began to fall under larger organizations, facing either change or shutdown, many zoos chose the later option and began to transform themselves into the zoos we are most familiar with. Understanding these later transformations allows us to venture into future ways to instill change into current zoological spaces.

## *Twentieth Century Transformation*

### *Chapter Two*

---

The 20th century marked a gradual shift in audience expectations surrounding both zoo exhibitions and infrastructure forcing operating zoos to re-examine their programs, conditions, and marketing among various other variables. A multitude of causes contributed to the growing outrage against zoological institutions within the 20th century, some of which include animal cruelty campaigns, the growth of environmental concerns, public campaigns focused on conservation, and anti-culture movements in the 60s and 70s. The combination of these growing social concerns collided in an interesting way in relation to zoological parks resulting in an outraged public, poor press within media outlets, and the attention of lawmakers. Zoological parks found themselves needing to justify their existence, benefits, and futures in contrast to the past centuries wherein these spaces were received by Western audiences positively as spectacles of foreign worlds. To regain their social legitimacy zoos had to shift away from their historical role as animal spectacles and exhibits towards more 'moral' causes such as species preservation and habitat conservation. This shift required not only a fundamental change in the exhibits themselves but also a reshaping of the encounters within these spaces. The creation of associations such as the Zoological Society of London(ZSL) and the World Association of Zoos and Aquariums(WAZA) formed during this period of uncertainty led to a public and privately sanctioned group of zoological networks that work in collaboration with each other both to protect themselves but also to avoid direct governance from the countries in which they inhabit. Through the establishment of professional organizations, collaborations with scientists and conservationists, and the adoption of new policies and regulations, zoos were able to evolve into

institutions focused on conservation efforts and scientific research. The need to justify the continued existence of zoos led to the carving out of these foundational goals, regulations, and systems which many zoos continue to use to this day and cemented themselves as an institution holding both cultural weight and significance. Through the tracing of these changes insight can be gained into the current function of zoos to understand how they shape relationships between human(visitors) and (captive)nonhumans, the communities they inhabit/the environments they are situated within, and lastly broader perspectives on their necessity and legitimacy. The modern infrastructure of zoos was not created overnight but was the result of a gradual evolution over several decades and through examining these early shifts we can gain insight into the shifts that can be made possible in future years.

### ***Regaining Social Legitimacy***

---

The Association of Zoos and Aquariums(AZA), once the American Association of Zoos and Aquariums, is the leading body of zoological institutions in the United States connecting 216 institutions within the US alone and 238 globally as of 2023. Founded in 1924 it boasts itself as “[envisioning] a world where all people respect, value and conserve wildlife and wild places” (“Strategic Plan”, AZA), and acts as a leading body in maintaining an operating standard within individual institutions. AZA holds strict criteria to receive an accredited status including examination of animal living conditions, social welfare, physical and mental health, nutrition, and more. Additionally, AZA requires forms of enrichment to be accessible to the animals and conducts yearly check-ups. AZA also evaluates at the institutional level giving attention to veterinary programs, zoo finances, facilities, programs, research, and support organizations,

education, and conservation goals. AZA sets the standards by which the largest and most well-known US-based zoos operate. Ratified in 1976 and re-approved in 2017, AZA mandates that all members must follow a strict code of ethics based upon respect between caretakers and the nonhumans which they handle. The code of ethics outlines the ways in which its members should conduct themselves within their professional roles. Below is a list of the requirements as dictated by the code of ethics<sup>4</sup>:

- Recognize the moral responsibilities of the individual and the institution not only to our professional associates, fellow employees and volunteers, and the public, but also to the animals under our care.
- Display the highest integrity, the best judgment or ethics possible, and use of professional skills to the best interests of all.
- Deal fairly with members in the dissemination of professional information and advice.
- Use only legal and ethical means when seeking to influence governmental legislation or regulations.
- Promote the interests of wildlife conservation, biodiversity, and animal welfare to the public and to colleagues.
- Maintain high standards of personal, professional, and business conduct and behavior.
- Promote the interests of AZA and fully share in the work in support of the concepts and ideals of AZA.
- Cooperate with qualified zoos/aquariums and other qualified persons/organizations in breeding programs of endangered and other species.
- Aid the professional development of those who enter the zoological park and aquarium profession by assisting them to understand the functions, duties, and responsibilities of the profession.
- Seek opportunities to be of constructive service in civic affairs and advance the understanding of all nature to the community.
- Encourage publication of significant achievements in breeding husbandry, medical technology, architecture, etc., in the appropriate publications generally familiar to members.
- Endeavor at all times to improve zoos and aquariums.

---

<sup>4</sup> (AZA, Code Of Ethics)

This list is incredibly general but showcases the differing ways in which zoos were attempting to gain back the respect and trust of the public through institutionalized standards. Terms such as ‘highest integrity’, ‘constructive service in civic affairs’, ‘recognize the moral responsibility’, etc. point towards the institutional attempt to reconfigure the damaged relationships between zoos and visitors and to regain some of that lost trust. By giving the disconnected organizations an overseeing body with an official set of standards concerning animal welfare, institutional goals, practices and ethical codes of conduct the public outrage could be quelled with broad reform and promises to maintain rigorous standards. The formation of which was the institutions’ “attempting to preserve a degree of autonomy for the industry, AAZPA presented the public and legislators with badges of institutional legitimacy, including accreditation standards, a code of professional ethics, conservation-themed educational programs, and a proclaimed expertise in breeding endangered species” (Bayma 2016, 126). By forming their own internal organization zoo institutions were able to maintain a degree of autonomy by sacrificing a marginal amount of their independence.

Along with institutional organization, lawmakers took note of the animal welfare movement and passed several laws regulating the actions that zoos must operate within. The Animal Welfare Act (AWA) passed in 1966 and amended in 2018 federally regulates the treatment of animals in research, exhibition, transport, and by dealers. Zoos are required to comply with the AWA, which sets standards for the care and handling of animals in captivity. Following the AWA the Endangered Species Act (ESA) was ratified in 1973 which provided federal protection for endangered and threatened species in addition to their habitats. The ESA requires that any zoos that hold populations of endangered/threatened species are required to

participate in breeding and conservation initiatives. Lastly, in 2003 the Captive Wildlife Safety Act or CWSA was passed as a federal law regulating the trade of exotic animals within the United States. Zoos must comply with CWSA guidelines in the transportation of classified ‘exotic ‘animals along with restrictions on trading certain species or special permits for others. In tandem with the formation of overseeing institutional bodies such as WAZA, AZA, and ZAA among others as well as the ratification of several federal regulations in addition to numerous state laws and restrictions the public was placated on at least the legality and regulations that zoos were now subject to. By embracing these new goals, zoos were able to reposition themselves as important conservation organizations that play a crucial role in preserving biodiversity and protecting endangered species but the zoos themselves still had to appeal to the morality of the public and rationalize their existence through other means.

### ***Misha***

---

Shifting cultural sentiments and social understanding of zoo spaces in the 20th century were the root cause of many of the infrastructural transformations that took place, by examining the case of Misha the polar Bear the ways in which these sentiments reshaped zoo worlds came into focus in interesting ways. In 1987 the Bristol, Clifton, and West of England Zoological Society opened a letter from a member of the public, a portion of the letter read, “please send that poor polar bear back to freedom in the Arctic, will right you with hot coals on your head ... What MORONS you are” (Flack 2016, 630). This letter marked the beginning of an increasingly agitated public response towards the behaviors and conditions Misha exhibited. Over the next several years Misha became widely known, finding a central position in the public imagination

as images of him pacing and swaying amid a falsified version of his natural habitat took over the public imagination: “He endlessly paced back and forth in his enclosure, swaying his head repetitively from side to side. This behavior was exhibited alongside another of the Society's polar bears, Nina (who had arrived at the Zoo in 1959) who

*Image 4: Misha from BBC/PA Wire*



clicked her tongue over and over again”(Flack 2016, 630). The story of Misha is a grounding point to showcase the cultural pushback that many zoos were facing in the 20th century, the ways in which they responded to these pressures, and sadly the eventual outcome which was Misha’s quiet euthanization in 1992 after thirteen years of captivity within Bristol following the death of Nina. During his life and after, Misha became a symbol for the outraged public, transformed from an individual animal in need of care into a symbol for the necessary change that needed to occur within zoological spaces: “Misha's behavior - both on its own and, by extension, in collaboration with his conspecifics in captivity elsewhere - came to poignantly exemplify the plight of most large animals in the late twentieth and early twenty-first-century world”(Flack 2016, 632). The plight of Misha drew attention to the ongoing disintegration of his natural habitat which was ironically, represented by the unnatural-natural enclosure in which he resided. His condition, public image, and environment result in a swarm of letters being sent to Bristol Zoo from across the globe. All the letters were different, some angry, some pleading, some distraught for Misha but all urged for the zoo to take action to improve Misha’s condition. Some

suggested he be released into the south pole, a space which he had either long been removed from or was never able to experience (the facts are unclear), but one of which it was clear he would not survive if returned. Others advocated for his immediate euthanization, stating that he would be better dead and free than alive and captive. Misha was never sent back to his imagined home, nor was he euthanized due to public demands. Instead, he was quietly taken off of the exhibition with signage marking his existence removed from public sight, though he was not forgotten by any means. Bristol Zoo also made a pledge that following the eventual deaths of the current population of captive polar bears, the zoo would make no effort to acquire any more. Eventually, in 1992 Misha's long-time companion and enclosure mate Nina died and he was euthanized soon after with the zoo fearing that he would regress back into the disturbing behaviors he exhibited previously without her company.

Misha's case is incredibly interesting when considering the nuances of how the situation unfolded and the ways in which the zoo and the public dealt with his condition. This public outrage wouldn't have been possible if not for the social and cultural anxieties that were beginning to form in the 20th century. Following both world wars, the cold war, and the Vietnam War anxieties concerning human innovation and the possibility of environmental destruction were looming in the backs of the public consciousness. Many still remember the fear of atomic destruction and the horror of chemical warfare and genocide that have pervaded the century and anxieties surrounding death and destruction were high. Additionally, Rachel Carson's novel *Silent Spring* sold millions of copies during the later half of the 20th century bringing the destruction of our natural habitat into the enfold of everyday life and conversation. In tandem with these fears, the 60s and 70s featured social and cultural movements denying current



institutional modes of thought and ways of living, pushing people to break the boundaries of everyday life and to live differently. Many of these movements pushed for environmental protection and care, conscious living, and a regression from the violence and control the previous decades had been riddled with. Lastly, the transformation of media consumption through television and movies flooded the market with stories of friendships between children and animals and overall positive media concerning nonhumans. These separate movements, cultural shifts, and social fears all fed into the frenzy to which Bristol was subjected because of Misha's visible position which opened the doors for zoo reform during this time. Misha's case was not singular, many captive animals display symptoms of stress and agitation from being confined, however, at that moment the public *cared*. They saw something in his eyes that crossed the threshold between spectator and spectacle, they *looked with* Misha, read his body language, put themselves into his position, and knew that he needed care. These sentiments are at the heart of this paper. I want people to *look with* nonhumans, to know them as individuals who deserve to be well and free. Misha's life, death, and legacy mark a moment in time that was both singular and not which forced zoological institutions globally to transform into legit institutions with moral causes guiding their existence.

Misha's case displays the ways in which negative public attention disrupted the activities at Bristol Zoo and the ways in which Bristol attempted to regain public trust, but more broadly zoos were being questioned as an institution and found themselves needing a new reason to exist. In the 1970's the concept of captive breeding emerged at the forefront of this new moral mission that zoos were undertaking. Solidified by the 1981 ratification of the Species Survival Plan by the AZA, known at the time as the AAZPA, which solidified efforts to breed captive populations

within the linked institutions. Bayma calls this the legitimization of a rationalized myth, the myth being captive breeding which was “both pragmatic, in helping to guarantee the future of zoos, and altruistic, in serving the cause of species preservation” (Bayma 2016, 117). The introduction of captive breeding as a new foundational goal of zoological institutions worked to moralize their existence to a public who were actively witnessing the destruction and demise of the natural world around them. In addition to captive breeding, zoos also started to implement conservation-focused initiatives that aimed to protect endangered species and their habitats. These initiatives ranged from habitat restoration and conservation research to advocacy and fundraising efforts. By actively engaging in these conservation activities, zoos were able to demonstrate their commitment to protecting wildlife beyond their own institutional boundaries allowing them to gain further legitimacy by actively working towards protecting the environments in which they operate and beyond. Furthermore, zoos also launched educational programs that aimed to create public awareness concerning the importance of conservation and animal welfare. This educational component helped to further enhance the legitimacy of zoos as institutions that were not only entertaining but also served an important educational purpose making them now justifiable class trips for thousands of schools around the country. The depth through which zoos began to root themselves into the cultural consciousness as valuable, good, and just was done through these slight changes over decades.

## ***On Nature-Making***

### ***Chapter Three***

---

Zoos are one of the many institutions that use what I term the ‘natural-unnatural’ to bridge their often urban environments to the ‘natural’ environment of the nonhumans they exhibit. These ‘natural-unnatural’ spaces are highly curated by horticulturalists, animal specialists, and zoo directors partially in an attempt to aid in the comfort of the animals themselves but mostly for the viewing pleasure of the audience. David Grazian labels the process of exhibit design as ‘nature-making’ and those that make the exhibit as ‘nature-makers’. The three pillars of nature-making that Grazian identifies are as follows: spatial control, the ‘simulation of nature through plant simulators, synthetics, and live animal handling’, and the censorship of natural behaviors and husbandry practices. To Grazian, these three interlinked practices produce and cultivate the exhibits that are most common in North America. I argue that nature-making is performed by human handlers in order to embody a romanticized vision of the animals' natural environments cultivating a performative ‘natural-unnatural’ experience that zoo visitors are seeking. Understanding how these spaces are formed and what they say about the human relationship with the nonhuman world is necessary in order to later discuss the ways in which zoos can be reshaped to create relationships built upon individualized care and a shared community between human animals and nonhuman animals.

Due to a variety of reasons, including a reduction in natural "wild" environments globally, social movements against animal cruelty and captivity, and a need for zoos to bring in more clientele, the romanticization of a lost connection to the natural world began to shape the process of exhibit making. No longer did individuals wish to just *see* the animals themselves but

they wanted to *envision* the animals within their natural habitat. The shift towards immersive and naturalistic zoo exhibits- which began in the 20th century-was driven by cultural and societal changes, including a growing concern for animal welfare and a desire for a deeper connection to the natural world. These same shifts affected policy and organizational tactics by zoos as discussed previously. In terms of exhibit-making this shift forced zoos to prioritize the well-being and presentation of their animals which led to the development of more spacious and scientifically accurate habitats, improved animal conditions, and the use of simulated natural environments to enhance the visitor experience. The aestheticization of cultural identities as well as the architectural choices that are made in nonhuman exhibits raise questions concerning the purpose and message that is formed by the viewers. Additionally, we may ask what viewers actually gain from *seeing* nonhumans in these manners and how these exhibits can be changed in the future.

### ***Simulation of Nature***

---

The emergence of the ‘new naturalism’ in zoo exhibits, which aims to situate the viewer within simulated habitats, is a product of cultural and societal changes that forced zoos to re-imagine traditional zoo spaces. These cultural shifts forced zoos to move past small bare metal cages towards open fields, simulated mountains, and man-made pools. The exhibits themselves started to become about much more than the individual animal or species but rather about the environments, peoples, and geographies of their origins. The subtle shift in consumer wants opened the doors for a reimagining of traditional exhibit spaces in which as many animals as possible were crammed into as little space as possible. The move towards larger exhibits, focused habitats, and scientific accuracy allowed for zoos to re-examine animal enclosures in

terms of not just profit but well-being, education, and aesthetics. Grazian citing John Charles Coe states that “recent decades have seen the increased popularity of landscape immersion and what has been called the “new naturalism” in zoos, in which exhibits ensconce the viewer within simulated habitats largely through plantings, soundscapes, props, and other dramaturgical tools, and provide realism based on actual scientific field research on wild animal environments” (Grazian 2016, 548). This ‘new naturalism’ that Grazian and Coe speak about forced zoos to create a new ‘more authentic’ environmental blueprint for exhibits that forged a compromise between expectation and reality. These new exhibits are often more immersive, featuring simulated and/or authentic plant life, man-made waterfalls, and fake carcasses. In my visits to the zoos during my research, I was quite keen on observing these practices in order to better understand how they unfold in exhibits themselves. The Bronx Zoo, despite being a space situated in the middle of the Bronx, feels like it is an oasis in the country. Large trees and ferns block the sites of the New York City streets and only parts of the surrounding skyline are even visible within the park itself. The Bronx Zoo Congo-Gorilla Forest for example is an immersive experience featuring imagined roads constructed from cement and lined with what appears to be trees and various waterfalls, and completed with a soundtrack featuring birds chirping, ethnic music, and the sounds of daily animal life. While extremely entertaining and visually stunning I question the aestheticization of cultural identities, symbolisms, and music. What purpose do these identity markers fulfill in these spaces and what message is received by the audiences that experience them? The immersive experience provided by the Bronx Zoo encompasses the pillars of nature-making wherein the zoo was able to negotiate between “the cultural expectations of audiences, the educational mission of zoos, and the practicalities of managing live animal

species” (Grazian 2016, 548). Audiences no longer simply want to see the animals but they want to feel as though they are seeing them ‘unseen’ and ‘unscripted’. By that I mean the audience wants to feel like the interactions they are seeing within the exhibits-as well as the exhibits themselves-are natural when they are all but. Here I want to share two stories:

---

During my first visit to the Bronx Zoo, I was amazed at how far removed I felt from New York City. It seemed almost impossible that this massive space of wildlife and nature could be in the heart of the Bronx only a ten-minute walk from the train station and yet there it was. This visit was at the beginning of winter in late November,

I remember driving down to the city a week before and noting that all the leaves had fallen off the trees and most of the greenery had fled the Hudson Valley, and once I reached the city it seemed like winter was in full effect and the cities greenery-what little there was-was all in differing states of death. However, one of the first things I noticed about the greenery within the Bronx Zoo was how vibrant everything was. Bushes were green and lush, seemingly alive bamboo trees littered the walking paths, and small ferns could be seen thriving on the ground.



*Image 5: Plants at the Bronx Zoo*

Before I had even entered or seen any exhibit I felt immersed in nature, but as I passed a small

bush on the path towards my destination I-out of habit-pulled a small leaf off of its stem. The leaf was brightly colored green and firm and out of curiosity I brought the plant to my lips and took a bite I found-both to my surprise and not-that the leaf I had chosen was fake. While not surprising this is an example of the ways in which simulated nature is almost impossible to distinguish from reality. While not all plant life within the park is synthetic a vast majority of it is. And it is not just the plant life.

---

On my visit to the Queens Zoo, I got to see their puma exhibit. A massive space that can be viewed from two separate platforms through a large glass window. The exhibit has a large rock



*Image 6: Fake Ribs within Puma Exhibit, Queens Zoo*

formation in the center and some optimally placed resting areas so that visitors can see the three enclosed animals at an optimal location. The second viewing space had a set of animal ribs situated directly in front of the glass. Later, when speaking to an employee from the zoo I enquired about the ribs and was told that

they were a model for what the

animals would eat in their natural environments. What was interesting is that there used to be signage denoting this but during my visit, they were strangely absent. The animals, never having

eaten the meat that fell off those sculptured bones, live in correlation with the ribs. They are markers of the puma hunting abilities, their natural habitat, and the realities of life cycles in nature.

---

These examples of simulated environments feed into what Grazian calls a ‘culture of enchantment’ that the Western consciousness has become enamored with and which is now expected to be provided within these spaces. The fake greenery, the modeled bones, and the ‘cultural’ music, all these markers entangle to form an imagined ‘other’, something, someone, someplace that is wild and untamed and untouched which feeds into what western audiences envision the zoo and the world beyond the walls to be life. Ironically, while the exhibits themselves present themselves as representations of ‘wild’ and geographically distant lands it does so while being carefully curated, designed, and molded by humans hands: “designers ideally attempt to hide all visible signs of artificiality, man-made technology, and human domination over animal species” (Grazian 2016, 549). The use of synthetic plants and modeled environments ultimately is another compromise that nature-makers must make when crafting exhibits as oftentimes foreign flora and fauna would not survive in the climate of the North-East, additionally, Grazian makes a point that importing and using real plants may lead to dangerous health and environmental effects from the possible introduction of foreign pests and diseases by imported plants. So while it seems the use of artificial nature to be the only available course of action I ask why must we-the viewers-be provided with this artificial reality when there is countless native wildlife that can be showcased instead? As we move further into the 21st century, it is important for zoos to continue to evolve and adapt to changing cultural and societal



expectations, while maintaining a commitment to animal welfare and conservation efforts. By doing so, zoos can continue to educate and inspire visitors to appreciate and protect the natural world. Now, I ask how can zoo exhibits move forward in a commitment to the use of the ‘natural’ in exhibit making, and what would an ‘all-natural exhibit’ look like in future years.

### ***Spatial Control***

---

Sight politics play a major role in the making and understanding of exhibits within zoo spaces which control both the viewers’ understanding of the exhibits as well as animal behaviors within. Within the institution of the zoo, these animals are commodified for the viewing pleasure of the audience, thus capitalizing off the want to *see* the animals themselves; exhibits are designed for the wants of the viewer rather than the needs of the displayed. Foregrounding the discussion on the understanding that zoo exhibits commodify nonhumans for human viewing pleasure is crucial to understanding how this relationship is represented through exhibit-making. Spatial control is a crucial aspect of zoo design, as it determines how exhibits are presented to viewers and intentionally influences the behavior of the animals within them. Using a variety of techniques, such as angled viewing platforms, mirrors, and centralized areas, Zoos ensure that exhibits are aesthetically pleasing and profitable for the facility while maintaining code and safety standards for the animals. These measures work to create a physical and mental separation between viewers and nonhumans, allowing visitors to observe them without the sense of fear they may feel if they were to actually see these animals in their native habitats. Timothy Pachirat, in his ethnographic novel ‘Every Twelve Seconds’ discusses the use of what he terms the ‘politics of sight’ which he describes “as organized, concerted attempts to make visible what is

hidden and to breach, literally or figuratively, zones of confinement in order to bring about social and political transformation” (Pachirat 2011, 15). Through exposing practices by institutions that are hidden, Pachirat believes that transformations can take place. I believe that much of what Pachirat uncovers through his work with slaughterhouses can be applied to nonhuman animal exhibition. Pachirat observes that the act of killing seemed far removed from the daily monotonous work of the slaughterhouse where the animal was disassembled and de-animalized rather quickly through the physical and mental separation of the work. Pachirat later goes on to explain how sight is directed away from unseemly situations to more digestible ones through control, power, and sight lines. Using spatial control techniques such as sight lines and natural landscapes allows Zoos to cater to audiences that seek an ‘unknowable’ or ‘unreachable’ wild while attempting to create a balance between ‘authentic’ animal exhibits and visitor experience. These spaces use visibility and concealment hand-in-hand to cater to audiences and render the exhibits aesthetically and morally digestible allowing viewers to maintain both a physical and mental separation from what they are viewing while simultaneously mirroring the traditional Western relationship humans hold with their own environment. So I ask here how do we see nonhumans within these spaces? And more broadly, is the way we see them here true sight?

The control of sight is a crucial element in creating an authentic and enjoyable zoo experience, as it not only allows visitors to observe and connect with animals but also enhances the illusion of vastness and animal freedom through the use of surrounding elements. These measures are taken to ensure audience enjoyment, as an animal that cannot be seen is less interesting to the public and therefore less profitable but mostly to legitimize the inner practices of zoo exhibition. This all makes sense as the premise of the zoo is to showcase interesting

animals to the public eye but with the push towards more ‘authentic’ exhibits curators and nature-makers had to find ways to create an authentic and healthy space for the animals while also still allowing visitors the ability to observe and connect with them. This control of sight is not limited to the exhibits themselves but also the surrounding area. As I noted, early entering the Bronx Zoo felt as though I was no longer in the center of a major metropolitan area, this is done intentionally using horticulture and speakers to block out the sight of urban buildings and the sounds of cars zooming past or trains rumbling through. Grazian states that, “this illusion of vastness and perception of animal freedom is heightened in zoos that cleverly employ sight lines to appropriate surrounding elements of the nearby natural landscape (such as trees, hills, and mountain ranges) as theatrical backdrops for animal displays" (Grazian 2016, 556). The use of the natural landscape is extremely clever in that it allows for total immersion into the space in essence suspending reality for a few short hours so as to feed on the cultural expectations of visitors. While not every exhibit can incorporate such elaborate design elements due to budget and space constraints, many still use centralized viewing spaces to give visitors the best possible visibility of the animals. For instance, the giraffe exhibit at the Bronx Zoo is famed for its striking imagery of massive giraffes enclosed in a small viewing area with a backdrop of their native safari. This is possibly the most jarring departure



*Image 7: Giraffes at the Bronx Zoo, 2023*

from the exhibits that I have been focusing on, here, the viewer is keenly aware of the falsity of the background to the point where all essence of wildness is completely erased from the audience's mind. However, despite this portion not tracking with the manner in which other exhibits are designed the Giraffe exhibit still follows similar guidelines in terms of sight control. With the viewing area being a wide space filled only by hay and the animals themselves, audiences have an unobstructed view of the giant mammals that tower over the audience. Many exhibits will have a centralized viewing space that gives them the best possible visibility of the entire exhibit as well as the animals that inhabit it.

The control of space in zoos mirrors the ways in which humans seek to control both the environments they inhabit as well as foreign environments that they seek to dominate. The act of designing and controlling the environment of a zoo exhibit is not only about creating a profitable and aesthetically pleasing space for visitors but also about exerting control over the animals and their surroundings. The design of a zoo exhibit can be seen as a reflection of the human desire to control and dominate nature, which is often driven by a desire for profit and entertainment. This theme is not unique to zoos; it can be seen in many areas of human society, from the construction of cities and towns to the exploitation of natural resources. Just as humans have sought to reshape and control their environments for their own purposes, zoos seek to control and shape the worlds and lives of the animals they exhibit. This is evident in the use of natural landscapes as backdrops for animal displays, which creates a sense of wilderness and freedom that is both attractive and comforting to visitors as well as the various ways signage describes the nonhumans themselves and their mythicized origins. Through these actions zoos perpetuate a harmful and exploitative relationship with nonhumans, which is driven by human desire for

entertainment and profit. By exerting control over animals and their surroundings, zoos reinforce the idea that humans are superior to animals and have the right to dominate them in all ways they choose to. It is important to consider the ethical implications of this control over space in zoos and to question whether it is necessary or appropriate to confine nonhumans for the sake of human entertainment. But I wonder how we can reshape these spaces to consider what the animal wants as opposed to what the viewers want. As we continue to reshape and dominate the natural world, it is crucial that we consider the impact of our actions on the environment and on other living beings.

### ***Shifting Technologies***

---

The incorporation of modern technologies in animal exhibits can provide a more immersive and educational experience for visitors, but it also poses challenges in terms of balancing technological advancements and man-made nature with the need for genuine and respectful interaction with nonhuman species and may contribute to a sense of disconnection from the natural world. There are a variety of modern technologies that zoos use in their process of exhibit-making some of which include virtual reality, zoo cams, interactive displays, environmental control, animal tracking, and audio-visual displays. While these technologies have the potential to enhance the visitor experience and provide valuable spaces for engagement they also raise important ethical questions about the use of man-made nature in relation to human-nonhuman relationships and visitor understanding about those environments. Artificial habitats for example, while engaging for the viewer and aesthetically pleasing, may not always be to the benefit of the animal. Perhaps consider an animal in an enclosure with steel trees, man-made leaves, and fake flowers. While in their natural environment said animals might have

learned that the tree this structure replicates is edible and beneficial for its health in zoos that experience and essential knowledge is stripped from it. Similarly, while zoo cams are incredibly fascinating and accessible, the constant monitoring of animals can be invasive and/or stressful for them. This isn't to say that I disagree completely with man-made technologies within zoo spaces as some aid in greater education and engagement from visitors, we must be aware of the limitations of these technologies and not allow them to detract from the individual animals' well-being. Take for instance the recent case where a storm resulted in the failure of a tiger pen allowing for both animals in the enclosure to escape. While the story has a happy ending-both animals were recovered unharmed-another outcome could have resulted in a situation where the animals were both hurt and/or an individual was injured as a result of their escape. With unsteady climate conditions being predicted in future years we must consider technological failure in enclosure design and create spaces that are not only engaging but that ensure the safety and well-being of the animal that they hold. Moreover, the use of technology in zoos can contribute to a sense of disconnection from the natural world, as visitors may become more focused on the technological elements of the exhibit rather than the animals themselves. This could have negative impacts on visitors' attitudes towards conservation and environmental stewardship, as it may reinforce the notion that humans are separate from and superior to the natural world. It is important for zoos and other institutions to carefully consider the implications of incorporating technology in their exhibits, maintaining the well-being of the animals, and of the conservation of their natural habitats should be at the forefront of these decisions. Balancing these technologies with the realities of zoo management is incredibly tricky but doing so would open space for meaningful relationships built upon respect and a sense of connectedness with the

natural world. When considering how to engage with and showcase zoo animals we must also consider their agency and sense of self-how do we engage without sacrificing respect?

The zoo serves as a microcosm of human society's relationship with nature and the ways we attempt to control nature, aestheticize it, and use it to our own advantage. The zoo experience is designed to create an illusion of wildness and authenticity while simultaneously catering to human desires for entertainment and profit. The use of natural landscapes and spatial control techniques allows zoos to present animals in a way that is aesthetically pleasing and digestible for audiences, while also exerting control over the animals and their surroundings. The combination of natural landscapes with artificial technologies results in the creation of these 'natural-unnatural' landscapes that entangle human technologies with the natural habitats of these engaged nonhumans. This control over nature raises ethical questions about the exploitation of nonhumans for human entertainment and the perpetuation of the idea that humans have the right to dominate and reshape the natural world. The push towards more "authentic" exhibits and conservation efforts in modern zoos highlights a growing awareness of these issues, but it is important to continue questioning the necessity and ethics of confining animals for human pleasure as well as the methods that are used in order to create these spaces. This relationship with nature is not unique to zoos; it can be seen in many areas of human society, from the construction of cities and towns to the exploitation of natural resources. Our cultural desire to dominate and use nature for our own pleasure is deeply ingrained within and has had devastating effects on the human relationship with our environment as well as other living beings. As we continue to reshape and dominate the natural world, it is crucial that we consider the impact of our actions on the environment and on other living beings. We must find a way to

coexist with nature in a sustainable and ethical manner, rather than seeking to dominate and exploit it for our own pleasure. Only then can we hope to create a world in which both humans and animals can thrive.



## ***Being Kin: A Pathway Forward***

### ***Chapter 4***

---

While I may disagree with the foundational premises of animal exhibition, I have come to accept the reality of the institution's power, cultural significance, and historical roots. So I ask, how can the exhibition of nonhuman beings move forward in a manner that is rooted in individualized animal care, human-animal relationships of reciprocity, education, and conservation? Here, I'd like to use the concepts of 'kin', 'kinship ties', and 'care ethics' as our pathway forward. Kin or kinship ties are conceptions founded upon indigenous ontologies and work towards a way of understanding human relationships *with* the natural world which differs from Western conceptions. The concept of kin as discussed by various indigenous scholars such as Vine Deloria Jr., Jonaki Bhattacharyya, and Kim TallBear challenges Western conceptions of genetic kinship and pushes us to consider living in relation to the more-than-human world as "a relationship of specific responsibilities, specific insights, specific knowledge, and a specific task in the world" (Deloria 1999, 228). In indigenous epistemology, the concept of kinship is deeply rooted in ways of understanding and relating to the more-than-human world that centers on shared convection and reciprocity. Deloria Jr. has argued that this perspective offers a valuable alternative to the Western emphasis on individualism and human domination over the natural world and instead asks us to consider all *things on earth as sentient* beings through which relationships of kinship are present. Understanding the world in this manner allows for the facilitation of relationships that are built upon respect, agency, and individualized relationships founded upon an appreciation of the other beings within our world. In conversation with Deloria Jr., Donna Haraway pushes individuals to move beyond traditional notions of genetic kinship and

instead considers all things that we hold similar interests and values to as kin. In an interview with LARB (Los Angeles Review of Books), Haraway defines her understanding of kin stating, “by kin I mean those who have an enduring mutual, obligatory, non-optional, you-can’t-just-cast-that-away-when-it-gets-inconvenient, enduring relatedness that carries consequences. I have a cousin, the cousin has me; I have a dog, a dog has me” (Paulson 2019). Haraway unravels what it means to be *kin*, to be responsible for and responsive to the non-human world, to form long-lasting relationships through generations of individual relationships, and to acknowledge and work to mend failed social contracts. Understanding, forming, and caring for kinship ties between the human world and the more-than-human world is the preamble to improving zoo infrastructure and architecture. Reconfiguring zoo spaces on the premise of building these ties can lead to improved cultural conceptions of the natural world, and individualized care for captive animals, and eventually may lead to the eradication of traditional zoo spaces in favor of wildlife sanctuaries, pollinator gardens, and community protected areas.

Care ethics, as spoken of by Thomas Van Dooren, refers to the idea that individuals are interdependent and that relationships of care are essential to our well-being as well as those of the non-human animals whom we interact with in the name of species conservation. Within the context of captive animals, care ethics emphasizes the importance of understanding and acting in the context of the specific needs and interests of individual animals. Van Dooren argues that current practices of captive animal care often violate the ‘tenets of care ethics’, as entertainment, aesthetics, and species survival are prioritized over the needs and well-being of the individual animal. Dooren reminds the reader that the “ultimate care for some feathered bodies, some species, sits alongside the domination, coercion, and abandonment of others” (Dooren 2016, 92).

Meaning that in our act of caring we are intentionally allowing for harm to come to others for the sake of another being/species. When we apply the concept of kinship and care ethics to our relationship with the 'more-than-human' world, our focus shifts from exploitation and domination over the environment to the creation of meaningful connections and individual relationships with the animal in our environment and the greater more-than-human world. This shift in perspective requires individuals to challenge cultural assumptions about the human 'place' within the world and our relationship with other beings. While I foresee this being incredibly challenging I want to point out that there has been a growing interest in indigenous epistemologies in tandem with movements that seek out more traditional and conscious methods of interacting with the more-than-human world. These shifts can be seen in the rise of indigenous studies programs, calls for a reduction in industry, and a growing awareness of the consequences of environmental destruction and degradation. Other examples include growing movements of interdisciplinary study and artistry that incorporate themes of interconnectivity and the more-than-human world into daily life and expression. We must first challenge and push towards cultural shifts to facilitate larger institutional changes, by recognizing our kinship ties with the natural world, we can begin to develop a sense of responsibility and care for the environment and its inhabitants and address seemingly impossible issues: "everything in the natural world has a relationship with every other thing and the total set of relationships makes up the natural world as we experience it" (Deloria 1999, 34). Kinship and care ethics offer a pathway towards creating meaningful and long-lasting relationships with the 'more-than-human' world. By recognizing our interdependence and interconnectedness with the natural world, we can begin to shift the relationships we hold within our local communities. By offering a valuable framework for

improving animal exhibition within zoos we can begin rebuilding connections and relationships across species boundaries; centering animal welfare, human-animal relationships, education, and conservation, zoos can move towards a new pathway of animal exhibition that prioritizes well-being while fostering a deeper sense of kinship and connection with the natural world.

### *Living Together*

---

Forming kinship ties with non-human animals requires a fundamental shift in our understanding of relatability, the challenges of these relationships allow for spaces of growth and care to take shape. The improvement of these ties benefits the long-term livability and survival of both the human world and the more-than-human world, a survival which has been put into question in recent years due to changing climates, polluted environments, and shirking habitats. The first step in building kinship with the more-than-human world requires individuals to take responsibility for the damage that has been done through colonization, displacement, and conceptions of human ascendancy and exceptionalism. Haraway states that "the question of kinship is about how to make oneself vulnerable to others without becoming a victim, about how to take risks with others without sacrificing oneself, about how to become capable of responding to others without losing oneself in the process" (Haraway 2008, 294). Highlighting the delicate balance between vulnerability and self-preservation when it comes to building connections with others, Haraway pushes us to further understand the separation, fear, and actions that we have been featured at the forefront of the decisions human society has made in relation to the more-than-human world. To do so requires us to be vulnerable, to acknowledge our collective shame, guilt, and failure, and to make the individual commitment to building a relationship of

care with the natural world; unraveling these deep-rooted sentiments will allow for relationships to form from empathy. When considering the relationship between human visitors and zoo animals we must engage with these beings with empathy, respect, and a willingness to learn from and about them rather than one fueled by a need to consume and be entertained. In essence, we must create spaces of vulnerability that allow us to actively engage, appreciate, and form ties with animals that are exhibited. To create these meaningful connections visitors themselves must be willing to be made vulnerable by stepping out of their comfort zones and engaging in experiences that challenge their preconceived notions of the natural world, their place within it, and their role as an individual.

By recognizing non-human animals as kin, we can begin to appreciate and respect their agency which in doing so would only lead to deeper connections and a better understanding of their needs and wants within captive care. Deloria states, "Knowledge was derived from individual and communal experiences in daily life, in keen observation of the environment and in interpretive messages....everything had to be included" (Deloria 1999, 44). Emphasizing the importance of reciprocity in kinship relationships, zoo animals are shifted from the perspective of that of an object for human entertainment or study to that of a living being with its own unique personalities, needs, and perspectives that deserve respect and consideration. Deloria also states that, "in order to maintain relationships, you do certain things to show respect among beings...It is not a relationship of conquest or of imperialism. It is a relationship in which both basic divisions of the world look back to a time when they had to find some means of allocating responsibilities in the world" (Deloria, 1999, 227). This idea of reciprocity when applied to human relationships with zoo animals, forces us to consider what value these spaces hold for the

animals themselves. Are they there for medical treatment? Genetic species banks? A body to be bred? All the underlying nuances of these relationships are brought to the forefront when we look at captive animals as more than simply an idealized spectacle. Ultimately, Deloria's perspective on kinship with the nonhuman encourages us to view them as valuable members of our shared community and to approach our interactions with them with respect, empathy, and a willingness to learn. Similarly, John Berger emphasizes the importance of recognizing the interdependence between humans and animals and pushes us to look at non-human animals as mirrors of our own identities. This idea suggests that humans and animals share a connection that often goes unrecognized or rather intentionally ignored, despite this, the relationship can be seen in instances between pet and owner, bee and beekeeper, beached whale, and eager to help bystanders among many others. Recognizing these ties we can begin to approach animals with a sense of empathy and respect which will in turn allow humans to shift their societal mindset away from that of separation, exploration, and entertainment. In our act of recognition, *of seeing*, the actions we take become more thoughtful and more caring in understanding that these actions affect not only the individual but our greater kin. Understanding our interconnectedness allows for kinship ties to come forth and bloom in the spaces where hierarchy and *sightless* actions once stood, doing so promotes the health and well-being of all. I want to share a story from an interview I had with a zoo director of a local North-Eastern Zoo. I was asking my interlocutor about the conservation work down with local wildlife and what follows is the story he told me:

“So with our one example here on grounds, about three years ago, we started up our pollinator pathway work in earnest and our butterfly conservation work, we actually had been working with endangered butterflies in the Northeast for the Karner Blue project. But we decided we wanted to work with a butterfly species right here in *[redacted]*, so

we could get families excited about what we're doing, and really tell the story of the monarch. And you probably know, Alex, that the monarch is the most common butterfly in terms of sort of iconically, but people yet their numbers have plummeted in recent years, both Western and Eastern populations. Now, the monarch, believe it or not, isn't listed as federally endangered. Pretty scary. But it also provides us with a real wake up chimp when it comes to pollinator conservation, right. And so what we did was we began our work with Monarch Watch, and maybe maybe familiar with it. But we actually have trained our staff and then we train volunteers, citizen scientists, families, young kids, Scout groups, we train them in how to tag monarch butterflies in the wild. So we capture the butterfly in a butterfly net harmlessly and we capture them live. We tag them right here in *[redacted]* in our pollinator garden, and then we release them right on the spot. And that release we've already heard from our, from conservation scientists, as part of a program for the Monarch Watch in north central Mexico and mountains in Mexico and they recovered. I think, today, a couple of these butterflies, I'm not sure. It was recovered in El Rosario, Mexico, within 2700 miles away as the butterfly flies from *[redacted]*, so the tangible measure that that was that was tagged by one of our-one of our volunteers who has since become a staff member here. And *[redacted]* had this butterfly and she was...doing it in conjunction with a training session. And when they recovered it, they sent us the photo of the tag on...the wing. And our hosting community was floored, we're saying, "oh my gosh, this one butterfly tag right here on grounds, made it alive and well, all the way down to Mexico to continue the cycle for this endangered creature." But what is very, very powerful emotionally."

The involvement of community members of differing age groups, backgrounds, and various connections in addition to the work being done in a localized environment for the nonhumans that inhabit said environments is to me a great demonstration of the ways that kinship can lead to more prosperous communities. This particular zoo recognized the need in their local environment for more pollinator pathways and filled that need through the involvement and

education of the local community, these individuals were able to understand their responsibility to the world around them and act in ways that engage with those connections and relationships. The result being tangible proof of life and a successful migration on the part of some of the butterflies tagged showcases the ways that people can be made to care *for* and *with* nonhuman beings in unexpected ways.

What is challenging about zoo reform is that these mindsets are not in a vacuum, they are reinforced daily through media and interpersonal interactions and historical realities. There will be and has been, resistance to these notions of kinship and relatedness but shifts in cultural perceptions surrounding the natural world and animal care have already begun. With movements centering on nonhuman care, the dismantling of aquariums and zoos, awareness and education concerning indigenous concepts and practices, and a push against further demolition of natural spaces, these changes are already taking place in individual instances of resistance. Ultimately, building kinship ties requires a willingness to re-examine conceptions concerning the greater world and the self in addition to a commitment to care ethics and the building of kinship relationships with the natural world.

### ***(Re)Imagining Future Realities***

---

Restructuring zoo spaces to account for future possibilities begins with institutional changes. Without foundational reform, zoos will continue to be spaces of exploitation, entertainment, and aestheticized versions of ‘wild’ environments, animals, and people. Initiatives should be designed to help visitors understand the unique characteristics and needs of each animal species and to foster empathy and respect for their individuality based on the premise of



kinship and care. While I would like to offer architectural reforms that could be implemented immediately, these reforms would be lackluster without a shift in the social and cultural understanding of non-human animals and the moral obligations we have towards captive animals. First, I will tackle and explain my propositions for broader institutional changes that could be implemented within the current infrastructure that most modern American zoos follow. Following this discussion, I will propose alternative methods of animal captivity, exhibition, and conservation that push the bounds of modern zoo infrastructure and would only be achievable through the aforementioned institutional and cultural changes.

### *Base Changes*

---

1. Kinship: Promote conceptions of kinship and obligation through reworked newsletters, signage, pamphlets, and larger institutional goals. While building kinship ties is up to the individual, bringing awareness to an alternative perspective can initiate small-scale changes that have the ability to become larger changes. By emphasizing the ideals of kinship visitors will grow more conscious of their interactions with exhibited animals as well as those they may encounter outside of zoo spaces. These relationships are already present in everyday interactions between people and their everyday environment and by drawing on these daily interactions cultural shifts and understanding can take form. I believe that including various indigenous scholars and artists in the redesign of educational material, classroom discussion, signage, and more can work to incorporate the concept of kin and kinship into the already present infrastructure. \*(see Appendix A)
2. Inclusive Signage: In acknowledgment of a multitude of languages, identities, and disabilities I advocate for inclusive signage. Signage should be created by individual teams that take into account the prevalent languages used in the areas in which the zoos are located geographically. On my visit to the Queens Zoo, I noticed that signs were printed in both English and Spanish in acknowledgment of the community in which the zoo resides,

Flushing, being a mostly Hispanic population whose primary language is Spanish. While I understand that not all languages in a given area can be included in a singular sign, I believe that through the use of technology, QR codes can be posted that provide translations of posted signs in various languages as well as auditorily. Additionally, care should be taken when considering the content of signage, I advise consulting with local indigenous scholars, anthropologies, and artists to create more engaging and insightful signage.\*(see Appendix B)

3. Visitor Interaction: To provide improved visitor interaction, I propose that at least one specialized animal caretaker be present in each exhibit to answer questions, lead discussion, and interfere with negative behaviors from the viewers that may impact the viewed animals, etc. These individuals will be integral to shifting attitudes surrounding human(animal)/nonhuman(animal) relationships. Thus these individuals will have to be knowledgeable about individual animals' needs and personalities, conceptions of kinship and human obligations to the nonhuman world, and dedicated to maintaining the agency and identity of captive animals.
4. Community Outreach: Community outreach is already a foundational component of most modern zoos. The Bronx Zoo has various outreach programs including a theater program, an early childhood program, hosts GirlScouts to learn about conservation and animals, does school visits, has summer camp, and more. Many zoos have similar programs unfortunately these programs are often limited by costs and a care-takers ability to transport the child to a zoo. I would like to put forth the idea of 'outreach days', in which zoos allow community residents of the surrounding area free admission to the zoo multiple days a year. These days should serve as an educational engagement opportunity wherein individuals are able to give talks surrounding animal welfare, human(animal)/nonhuman(animal) relationships, broader conservation goals, and more. These days should be centered around getting the community engaged with and concerned about their environment. Some ways to provide tangle engagement is by providing native seed packs to incentivize visitors to plant their own pollinator gardens, teams that venture into the surrounding space to clean up residual trash and debris and merchandise whose funds are re-feed back into improving the communities

environment. Additionally, care should be taken when considering individuals that will lead discussions, I propose that we center indigenous voices from the regions in which individual zoos operate and beyond to help lead discussions and activities. The inclusion of community voices and the voices of marginalized peoples in setting up, hosting, and educating these days is where my proposition differs from programs that are currently available in many zoos. Lastly, transportation should be arranged for the pick-up and drop-off of individuals at various locations throughout the surrounding neighborhoods. Lastly, zoos should form partnerships with local botanical gardens in order to create broader outreach programs and build partnerships between these spaces since they work in similar ways. \*(see Appendix C)

5. Re-introduction: I propose that the individual animals that have the ability to survive within their native environments should be relocated to said spaces post-haste. While I understand that some animals provide visitor appeal for a variety of reasons I believe that unless an animal needs to be in captivity for its own well-being it should be allowed to be re-introduced to its environment. If re-introduction is not possible, which could be the case for a variety of reasons, then providing an enriched environment, medical care, safe cross-species interaction, and an accurate enclosure should be the main goals of its captivity. Additionally, these animals should not be forcefully bred in order to maintain captive species.
6. 'Wild' Species Spaces: Creating spaces for the 'wild' animals that are prevalent in zoos-often called visitor animals-will allow for a blurring of lines between exhibit and viewer. The blurring of these lines allows for the forming of relationships and kinship ties through daily interactions. Pollinator gardens, bat homes, bird feeders, and watering centers are all ways in which local wildlife could be provided for and taken care of by the communities to which they are in relation with. If zoo spaces were to make ample efforts to acknowledge, care for, and understand these visiting animals the lines between simulated nature and unsimulated nature will blur and blend. I advise that zoos work with community centers to create these 'wild species spaces' for the animals that already inhabit the local community. \*(see Appendix D & E)

7. **Transparency:** Zoos should make all their conservation efforts, and exhibit design processes, choices, and actions completely transparent to the public eye. Oftentimes, sight politics is used in order to conceal actions by an institutional body that may otherwise negatively impact the communities in which they operate. By proposing the idea of full transparency zoo spaces will be held accountable by the communities in which they are located and in doing so the community will be accountable for the nonhuman animals that are held within these spaces. Making communities accountable shifts the conservation of conservation and engagement from a broader ‘we’ perspective to the individualized ‘I’ perspective.
8. **Individual Animal Care:** Perhaps one of my most crucial wants for zoo spaces is for them to be focused on the individual animals rather than the individuals as stand in for their species. Very rarely do captive nonhumans gain status as individual identities within these spaces, bears like Misha or gorillas like Harambe take center stage. To combat the grouping of nonhumans and reduction of individual agency in zoo spaces I propose that zoos work to provide every/or almost every individual animal with a primary caretaker. These PCs would be responsible for only that singular animal and I hope through this system relationships of kinship and connection take form. I will concede that this would be incredibly difficult with the sheer quantity of nonhumans within zoos. I feel that in the context of my other proposed changes, this adaptation would only seem natural within the due course of time.

### *Future Realities*

---

1. **Localized Zoos:** In relation to ‘accurate enclosures’ I propose that zoo spaces should gradually shift the populations of captive animals to those that are native to the regions in which said zoos operate and should work more as rehabilitation centers rather than animal captivity and exhibition centers. Doing so will allow communities to engage with and understand local wildlife, habitats, and histories while aiding in the rehabilitation of individual animals to the localized environment. Additionally, zoo infrastructure can more accurately represent animal habitats as native plant and animal populations will thrive better within their native geographical locations. While I understand that this may be less exciting

than viewing animals from exoticized locations, I would like you to consider what value seeing non-native species in zoo exhibits does for the individual. I would also like to ask if we are truly *seeing* these non-native animals when we view them in ‘natural-artificial’ enclosures. I believe that zoo spaces can be just as interesting if they were to showcase local populations of nonhuman animals and can use alternative means of showcasing those attention-grabbing exotic species.

2. Immersive exhibits: In acknowledgment of future technological possibilities I propose Virtual Reality(VR) as a mode of visitor engagement with those nonhuman animals who are not native to the localized geographies. VR can provide endless possibilities for safe engagement for both the visitor and the animal, allowing for interactions to take place in a simulated reality where one can become immersed in scenes of native habitats and foreign environments that they may not be able to access otherwise. This proposition works in tandem with my push towards localized zoo spaces, as VR could allow zoos to continue to provide the ‘wild’ nature of foreign lands while not directly harming nor interfering with said environments. Additionally, the use of VR would arguably provide a richer experience than seeing these animals in enclosures and behind glass walls.
3. Breeding: It is my belief that unless an individual animal is part of an endangered population, efforts should be made on the part of zoo directors to limit unnecessary breeding. By this I mean, zoo animals should not be bred simply for the sake of keeping certain species within zoological institutions for exhibition. We should aim to maintain wild populations rather than continue unnecessary breeding for the sake of an entertaining exhibit. However, the breeding of endangered animals should be limited to those species whose populations will/can be re-introduced within their native habitats. While this may seem controversial, the breeding of endangered populations that have no feasible chance to be reintroduced into their environment is simply prolonging the extinction because of human remorse. I ask, what is the purpose of breeding animals that can never return back to their natural environments without human interference or support? We should shift our efforts towards conserving as much of the natural world as possible and maintaining healthy populations of nonhuman animals with

a feasible chance of reintroduction and population stabilization. Conservationists must consider when a population is beyond interference and make a decision about when enough is enough.

4. Genetic Banks: It is my belief that rather than forcing almost-extinct species to reproduce at the expense of their own personal autonomy and agency. If it is deemed that a population could no longer survive outside of a zoo or conservation area then the individual animals of that species should be given the best possible care for the remainder of their lives and their genetic material should be stored in a facility to be used in future research as well as a genetic archive. While radical in nature, the continuation of ‘non-viable’ species only prolongs the individualized suffering of the animals and presupposed human ability to stop the extinction and death of other species. While species extinction is unfortunate, it is a process that is innate on Earth, a natural process within the world, and extinction cannot be stopped in many cases only delayed through conservation efforts. The issue lies in that conservation efforts often bring harm to the surviving individuals of a species, such as the forceful fertilization of Whooping Cranes or the violent breeding act facilitated in Orangutan conservation efforts(Parreñas, 2018). Here I ask, how much are we willing to harm individual beings for the possibility of thwarting species extinction? While I acknowledge that the rate of extinction currently is abnormally high and so in recognition of that we should push for habitat conservation. In essence, we should focus our attention on species that we can provide help for now rather than saving those that may never be able to truly be ‘wild’ again.
5. Architecture: The ways in which zoo exhibits are constructed often facilitate a moment of ‘looking down’ upon the nonhuman animals which we observe. This moment of seeing from above orients the understanding of the relationship between zoo animals and zoo visitors as one that is unequal, domineering, and pervasive. I push towards the altering of sight lines to reorient the way in which visitors view that animal. Enclosure and viewing platforms should be leveled so that the animal may view the visitor in the same manner that the visitor views the animal. Additionally, I propose that zoos invite local indigenous artists to partake in enclosure redesign in addition to environmental architects, animal specialists, and the head

caretaker of whichever individual animal(s) will be within the enclosure. The inclusion of indigenous voices from whichever regions individual zoos operate would allow for the ideologies of kinship, connection, and reciprocity to be brought into the fold. Additionally, including local artists in general in enclosure design teams would introduce new perspectives to the institution fostering possibly a greater sense of community and cooperation. \*(see Appendix E)

The changes I proposed both long-term and short can provide a framework for zoo reformation in future years but is not a fully comprehensive list and can most certainly be improved upon. However, beginning with base changes such as signage reform, transparency, and community outreach programming are small steps in a larger plan to restructure these institutions. By fostering a deeper sense of kinship with zoo animals, visitors can develop a greater appreciation for the complex web of life on our planet and become more motivated to take action to protect it, and doing so will benefit nonhuman animals, human animals, and our local communities.. I hope that these suggestions can allow for a more collaborative community that seeks to be *in conversation with* the local environment and the nonhuman beings that inhabit it. I feel that zoos can be leaders in these cultural shifts should they choose to take on the responsibility and enact changes to infrastructure that may seem daunting or counter-intuitive. By broadening our understanding of what it means to live *within* and *interact meaningfully with* our environment, a more respectful and reciprocal relationship can be formed between the human and the more-than-human world. Ultimately, the well-being of other species and the natural world is intimately connected with our own, and working to improve our environment will only benefit us in the long term. Donna Haraway states that "kinship can make us responsible for the world's well-being, not just our own as if the two could be separated" (2008, p. 303). By

fostering a sense of kinship with the environment through zoo reformation, we can begin to approach conservation and sustainability not as isolated goals, but as interconnected aspects of a broader project of caring for the world and all its inhabitants.



## *Towards New Futures*

### *Final Remarks*

---

Throughout this project I have explored the historical and cultural nuances surrounding nonhuman exhibition and the ways in which it has mirrored the human relationship with the nonhuman. Within this examination, I have used interdisciplinary methods to explore possible future realities of nonhuman exhibitions and the ways in which we may be able to form new relationships with the world around us. We have seen that kinship extends beyond biological ties and is also influenced by cultural, social, geographic, and ecological factors and the building of these relationships can offer future pathways towards transformation. By recognizing our kinship with the nonhuman world, we can begin to shift our attitudes and behaviors towards more sustainable and equitable relationships which will only lead to a more conscious and caring cultural attitude. As suggested by Donna Haraway and Vine Deloria Jr., understanding our kinship with the nonhuman world requires us to move beyond the binary conceptions of human/animal and recognize the interconnectedness of all living beings.

Haraway's concept of response-ability is crucial to understanding this work and in answering the questions I proposed in my abstract, so I ask again, how can we engage in response-ability and care ethics with the nonhuman world and in what ways are we willing to challenge and change our cultural behaviors in recognition of these relationships. Haraway states that "response-ability is about both absence and presence, killing and nurturing, living and dying—and remembering of who lives and who dies" (Haraway, 2016, p. 28). Meaning that response-ability comes down to being present and engaged with the world around us in order to respond. To strengthen our kinship with the nonhuman world, we must make changes in our

attitudes and behaviors as well as within our institutions and social imaginations. This can include a shift towards more sustainable practices, such as reducing our carbon footprint and supporting conservation efforts or something larger like educational reform and policy change. It can also include an effort to listen to and learn from indigenous knowledge systems that have long recognized the importance of kinship with the nonhuman world. The recognition of kinship with the nonhuman world has important implications for how we live and interact with our environment and through understanding and adopting these ways of living we can work towards a more equitable and sustainable future for ourselves and for future generations.

After carefully considering the current state of zoos and their impact on the environment, animals, and society, I have proposed a series of changes that could greatly improve the experience and impact of modern zoos. By promoting the concepts of kinship and obligation, inclusive signage, visitor interaction, community outreach, re-introduction, 'wild' species spaces, and transparency, zoos can transform themselves into an institution whose actions mirror their statements on the importance of conservation and nonhuman animal care. Through these changes, zoos can build stronger relationships with the surrounding communities, foster greater empathy and understanding between humans and animals, and work towards a more sustainable and interconnected future for all. It is my belief that zoos have the potential to be transformative institutions, promoting not only the conservation of endangered species but also the conservation of our shared environment and cultural heritage. The pathway to reforming nonhuman animal exhibitions is most certainly a challenging one. It requires a shift in our cultural mindset and a willingness to believe in the long-term benefits that building kin relationships with the nonhuman world would create. While I understand that some may be resistant to these changes,

either because of ideological concerns or financial constraints, if we look at similar spaces such as wildlife parks and safaris I believe we can rest assured that the human incentive to view and engage with the nonhuman world will not change and these spaces were interactions have the potential to become more meaningful may even bring in new climate and curious visitors. In essence, it is my belief that by showing respect and care to the nonhuman world and its inhabitants, we can build a better future for all beings. It's a daunting task, but one that I am willing to commit to, and I hope others will join me in this endeavor as they will require a concerted effort from zoos, their staff, and their visitors to embrace new ways of thinking about the natural world and our place within it. However, by working together, we can create a future in which zoos are not simply places to view animals, but are active agents of positive change in the world. I urge all those involved in the operation and management of zoos to consider these proposals carefully and to take action to implement them. By doing so, we can create a future in which zoos are not simply places to view animals, but are centers of conservation, education, and cultural exchange, promoting a more sustainable and interconnected world for all.

## Appendix A

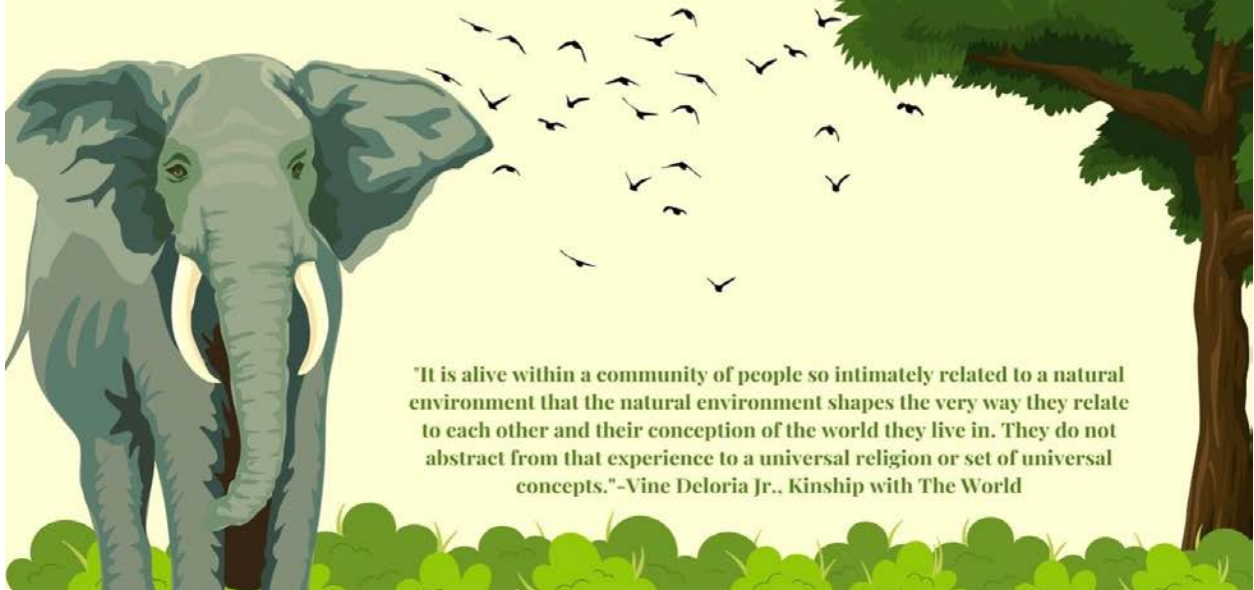
### Example of Signage introducing the Concept of Kinship

# Kinship! We are all Kin!

Kinship is the feeling of being connected to someone or something in a special way. Just like you feel a special bond with your family and friends, we can also feel a connection with nonhuman animals at the zoo. Even though they might look different from us, they have families and friends too, and they need love and care just like we do. So when we show kindness to the animals at the zoo, we are showing them that we care about them and that we feel a special kinship with them.

#### How to be Kin:

- Treat nonhumans with respect
- Understand that we are all living together in our environments
- Try to understand the needs and wants of the animals around you
- Know your local environment
- Try and remain more connected to the world around you
- Ground yourself in your everyday life and interactions



"It is alive within a community of people so intimately related to a natural environment that the natural environment shapes the very way they relate to each other and their conception of the world they live in. They do not abstract from that experience to a universal religion or set of universal concepts." -Vine Deloria Jr., Kinship with The World

## Appendix B

### Mockup inclusive signage for Monarch Butterfly

## Monarch Butterfly (*Danaus plexippus*)



Native to North America, their natural range extends from southern Canada to northern Mexico and are found in a variety of habitats, including meadows, prairies, and forests



**Pollinator Gardens are great ways to help Monarchs during migration! You can even have a small one on a window planter!**

Did you know? Monarch butterflies migrate up to 3,000 miles from Canada to Mexico, taking four generations to complete the journey.



- Monarch butterflies begin their lives as eggs, which are laid on the underside of milkweed leaves by adult butterflies.
- After a few days, the eggs hatch into tiny caterpillars, which begin to feed on the milkweed leaves.
- The caterpillars grow fast and shed their skin several times during molting.
- After a few weeks, the caterpillar forms a chrysalis around its body to begin its transformation
- Inside the chrysalis, the caterpillar breaks down its old body to form into a butterfly.
- After about 10-14 days, the butterfly emerges from the chrysalis
- The butterfly feeds on nectar and continues the life cycle again.

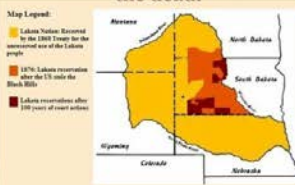
### **Endangered! Help out today!**

Monarch populations have declined due to habitat loss, climate change, and human action! Activities such as deforestation, pesticide usage, reduction of natural habitats, and loss of milkweed plants have all caused for Monarch populations to diminish! Do your part and plant pollinators in your neighborhood!

## Cultural Connections

Monarchs hold cultural significance to many individuals. Below are some examples of the ways in which different cultures have come to understand the Monarch.

Indigenous communities of central Mexico—the Purépecha of Michoacán and the Mazahua of Estado de México—revere the monarchs. According to pre-Hispanic folklore, the migrating butterflies carried the souls of ancestors visiting from the afterlife. For centuries, Mexico's monarchs have served as a powerful cultural symbol of connecting the living to the dead.<sup>8</sup>



The Lakota people believe that the monarch butterfly carry the spirits of their ancestors and that they represent hope and transformation.

### Plants for Monarchs!

- Milkweed (*Asclepias spp.*)
- Goldenrod (*Solidago spp.*)
- Joe-Pye weed (*Eutrochium spp.*)
- Purple coneflower (*Echinacea purpurea*)
- Black-eyed Susan (*Rudbeckia hirta*)



Monarchs are toxic to predators, thanks to the milkweed they eat as caterpillars, which contains a poisonous compound called cardenolide.



Please scan the QR code for a translated version of the sign.

Escanee el código QR para obtener una versión traducida del cartel.  
请扫描二维码以获取标志的翻译版本。



<sup>8</sup>From Tia Merotto piece "Winged Messengers: How Monarch Butterflies Connect Culture and Conservation in Mexico", Smithsonian Institute.

## Appendix C

### Flyer Mockup for Community Outreach Days

# Join us at the Zoo! Animal Allies Day is coming soon!

FREE ADMISSION TO LOCAL RESIDENTS 

FREE TRANSPORTATION AVAILABLE. CONTACT   
THE ZOO FOR MORE INFORMATION

- Discover the amazing world of animals and our connection with them!
- Learn about our conservation efforts and how you can make a difference!
- Hear from Indigenous leaders about their relationship with the natural world!
- Take home a free seed pack to start your own pollinator garden!
- Participate in a team cleanup and help make your community a better place!
- Workshops and crafts to keep the whole family engaged

Please join us for a day of community, fun, and learning! We are committed to bridging the gap between our environment and day-to-day life.

Through our outreach days we are hoping to engage communities in their local environments!

GAMES! FOOD! ANIMALS! CLEANUP! EDUCATIONAL TALKS! FREE SEEDS! COMMUNITY OUTREACH!

## Appendix D

### Pamphlet Mockup for An Introduction to Pollinator Garden and WSS

#### *Pollinator Gardens! The Whys, Hows, and Whats to Get You Started!*

Pollinator gardens are gardens designed and planted to attract and support pollinators such as bees, butterflies, & hummingbirds. These gardens hold a variety of native plants and flowers which provide food, shelter, and breeding habitats for local and passing pollinators. The purpose of these gardens is to help support pollinator populations and promote biodiversity in local ecosystems.



#### *Benefits*

1. Pollinator gardens provide crucial habitats for bees, butterflies, hummingbirds, and other pollinators, helping to ensure the health and sustainability of local ecosystems and food systems
2. By attracting and supporting pollinators, these gardens also help to increase plant productivity and biodiversity, which can have positive effects.
3. Pollinator gardens can be beautiful as well as educational. Creating these spaces provides opportunities for individuals to connect with nature and learn more about the importance of protecting and preserving our natural resources.

#### *Big Or Small!*

Pollinator gardens can be any size, from a small window box to a large meadow or park, and can be located in urban, suburban, or rural areas.

#### *Suggested Pollinators by Region*



Purple Coneflower

##### Midwest

- Purple coneflower (*Echinacea purpurea*)
- Wild indigo (*Baptisia spp.*)
- New England aster (*Symphotrichum novae-angliae*)

##### Southeast

- Butterfly weed (*Asclepias tuberosa*)
- Eastern redbud (*Cercis canadensis*)
- Swamp milkweed (*Asclepias incarnata*)
- Joe-pye weed (*Eutrochium spp.*)
- Black-eyed Susan (*Rudbeckia hirta*)



Butterfly Weed

##### Southwest

- Desert marigold (*Baileya multiradiata*)
- Blackfoot daisy (*Melampodium leucanthum*)
- Butterfly weed (*Asclepias tuberosa*)
- New Mexico locust (*Robinia neomexicana*)
- Maximilian sunflower (*Helianthus maximiliani*)



Wild Indigo



Swamp Milkweed



Joe-Pye Weed



Maximilian sunflower



Bee Balm



Hummingbird Sage

##### North-East

- Bee balm (*Monarda*)
- Purple coneflower (*Echinacea purpurea*)
- New England Aster (*Symphotrichum novae-angliae*)
- Joe-pye weed (*Eutrochium spp.*)
- Wild bergamot (*Monarda fistulosa*)



New England Aster



Blue Elderberry

##### West

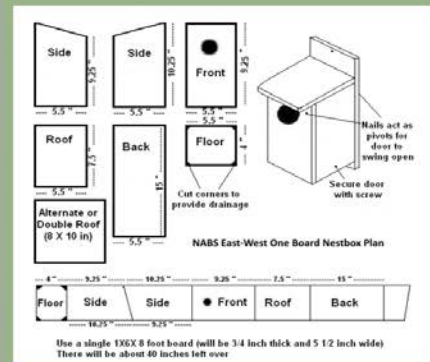
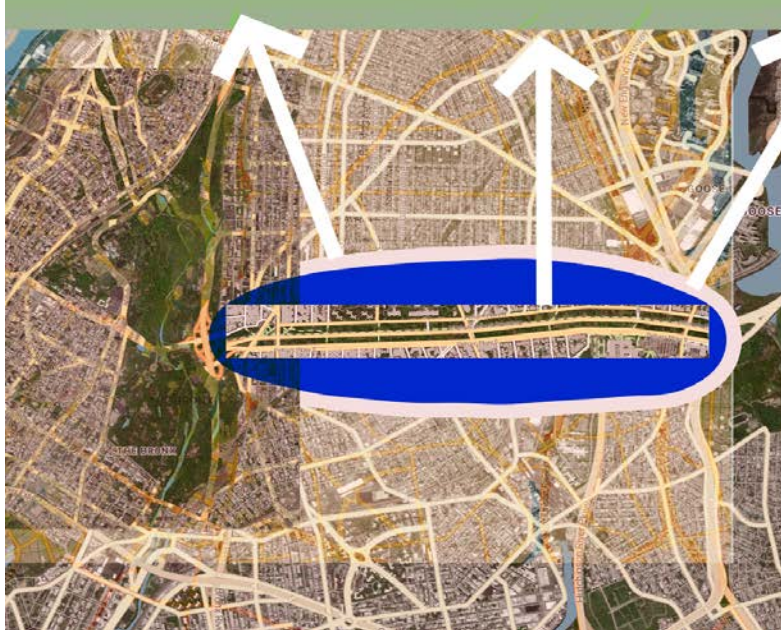
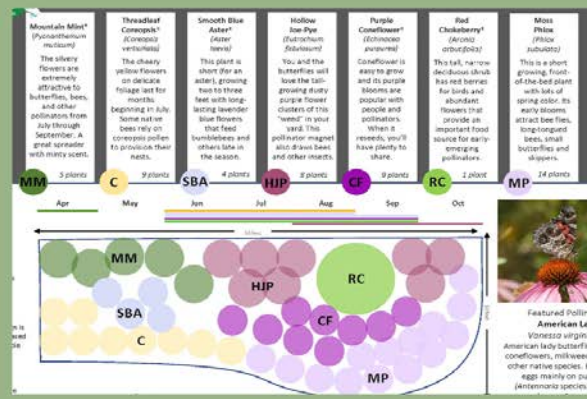
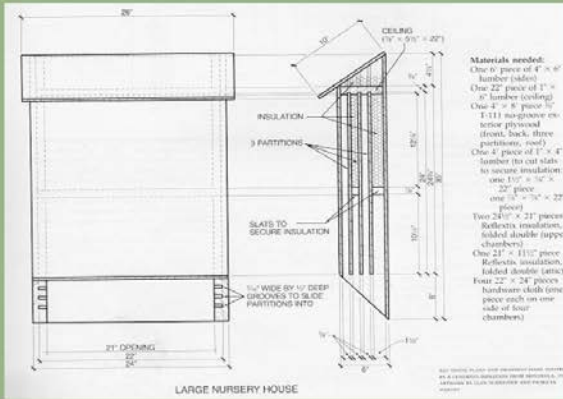
- California poppy (*Eschscholzia californica*)
- Hummingbird sage (*Salvia spathacea*)
- Western columbine (*Aquilegia formosa*)
- Blue elderberry (*Sambucus nigra ssp. caerulea*)
- Yellow monkeyflower (*Mimulus guttatus*)



California poppy

# Appendix E

## Proposal for situated Wild Species Spaces





## Appendix F

### Proposal for Collaborative Exhibit-making

# Take part in Exhibit Design

Calling Indigenous Voices, Local Artist, & Community Leaders!

#### Program Specifics

Looking for parties interested in engaging with a new method of enclosure design at the Bronx Zoo. Help design signage, enclosure backgrounds, viewing methods, and more!

Applications should include a cover letter, resume, and portfolio and/or work sample

Looking for:

Indigenous Artist

Interdisciplinary Thinkers

Local Community Members

Help us design new enclosure that bridge the gap between visitors and captive nonhumans! Contact Jane Smith at [jsmith123@bz.org](mailto:jsmith123@bz.org) for more information.

Payment provided in the form of a stipend. All materials needed will be provided on request



## References

- AZA. n.d. "Code of Ethics: Association of Zoos & Aquariums." AZA.org. Accessed 2023.  
<https://www.aza.org/code-of-ethics>.
- Barson, Tanya. 2011. "'Ota Benga', Fred Wilson, 2008." Tate.  
<https://www.tate.org.uk/art/artworks/wilson-ota-benga-t13633>.
- Bayma, Todd. 2016. "Rational Myth Making and Environment Shaping: The Transformation of the Zoo." *The Sociological Quarterly*, (December), 116-141.  
<https://www.tandfonline.com/doi/abs/10.1111/j.1533-8525.2011.01228.x?journalCode=ut sq20>.
- Belcourt, Billy-Ray. 2015. "Animal Bodies, Colonial Subjects: (Re)Locating Animality in Decolonial Thought." *Societies* 5 1:1-11. <https://doi.org/10.3390/soc5010001>.
- Belozerskaya, Marina. 2006. "Human Animals in The New World and The Old." In *The Medici Giraffe: And Other Tales of Exotic Animals and Power*, 130-179. N.p.: Little, Brown.
- Berger, John. 1991. "Why Look at Animals." In *About Looking*, 1-28. N.p.: Knopf Doubleday Publishing Group.
- Darancou, Iván E. 2015. "The couple in the cage." Youtube. Video.  
<https://www.youtube.com/watch?v=qv26tDDsuA8>.
- Delannoy, Isabelle. 2015. "On Being Living Beings: Renewing Perceptions of Our World, Our Society, and Ourselves." In *French Thinking about Animals*, edited by Louisa Mackenzie and Stephanie Posthumus, 133-148. N.p.: Michigan State University Press.  
<https://www.jstor.org/stable/10.14321/j.ctt13x0p3s.14>.

- Deloria, Vine. 1981. "Identity and Culture." *Daedalus* 110 (2): 13-27.  
<http://www.jstor.org/stable/20024722>.
- Deloria, Vine. 1999. *Spirit & Reason: The Vine Deloria, Jr., Reader*. Edited by Kristen Foehner, Barbara Deloria, and Samuel Scinta. N.p.: Fulcrum Pub.  
<https://archive.org/details/spiritreason00sams/page/n7/mode/2up>.
- Dooren, Thomas Van. 2016. "The Violent Care of Captive Life." In *Flight Ways: Life and Loss at the Edge of Extinction*, 86-122. N.p.: Columbia University Press.
- Flack, Andrew. 2016. "In Sight, Insane': Animal Agency, Captivity and the Frozen Wilderness in the Late-Twentieth Century." *Environment and History* 22, no. 4 (November): 629-652.  
<http://www.jstor.org/stable/26401687>.
- Foster, Karen Polinger. 1999. "The Earliest Zoos and Gardens." *Scientific American* 281 (1): 64-71. <http://www.jstor.org/stable/26058327>.
- Fusco, Coco, and Paula Heredia. n.d. "The Couple in the Cage — Coco Fusco." Coco Fusco. Accessed October, 2022. <https://www.cocofusco.com/the-couple-in-the-cage>.
- Gabriel, M.S. 1906. "Ota Benga Having a Fine Time." *New York Times* (New York), September 13, 1906.  
[https://timesmachine.nytimes.com/timesmachine/1906/09/13/120282299.pdf?pdf\\_](https://timesmachine.nytimes.com/timesmachine/1906/09/13/120282299.pdf?pdf_).
- Grazian, David. 2016. "Where the Wild Things Aren't: Exhibiting Nature in American Zoos." *The Sociological Quarterly* 53, no. 4 (December): 546-565.  
 10.1111/j.1533-8525.2012.01249.x.
- Haraway, Donna. 2015. "Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin." *Environmental Humanities* 6:159-165.

- Haraway, Donna J. 2008. *When Species Meet*. N.p.: University of Minnesota Press.
- Holtorf, Cornelius. 2013. "The Zoo as a Realm of Memory." *Anthropological Journal of European Cultures* 22 (1): 98-114. <http://www.jstor.org/stable/43234579>.
- "Introduction." 1980. In *The Wild Man: Medieval Myth and Symbolism*, 1-17. N.p.: Metropolitan Museum of Art.  
<https://books.google.com/books?id=LFDD4nuC1HoC&printsec=frontcover#v=onepage&q&f=false>.
- Kenseth, Joy. 1992. "A World Of Wonders In One Closet Shut." In *The Age of the Marvelous*, 81-101. N.p.: Hood Museum Of Art.
- Laidlaw, Rob. 2013. "Roadside Zoos and Menageries." In *The Global Guide to Animal Protection*, edited by Andrew Linzey, 65-66. N.p.: University of Illinois Press.  
<https://www.jstor.org/stable/10.5406/j.ctt2tt9r9.38>.
- M., Gabriel S. 1906. "Ota Benga Having a Fine Time." *New York Times* (New York City), September 14, 1906, 1.  
[https://timesmachine.nytimes.com/timesmachine/1906/09/13/120282299.pdf?pdf\\_redirect=true&ip=0](https://timesmachine.nytimes.com/timesmachine/1906/09/13/120282299.pdf?pdf_redirect=true&ip=0).
- Malamud, Randy. 2013. "The Ethics of Zoos." In *The Global Guide to Animal Protection*, edited by Andrew Linzey, 62-63. N.p.: University of Illinois Press.  
<https://www.jstor.org/stable/10.5406/j.ctt2tt9r9.36>.
- Newkirk, Pamela. 2016. "Ota Benga in the Archives: Unmaking Myths, Mapping Resistance in the Margins of History." *NKA*, (November), 168-173.  
<https://doi-org.ezprox.bard.edu/10.1215/10757163-3641821>.

- Pachirat, Timothy. 2011. *Every Twelve Seconds: Industrialized Slaughter and the Politics of Sight*. N.p.: Yale University Press.
- Parreñas, Juno S. 2018. "Forced Copulation For Conservation." In *Decolonizing Extinction: The Work of Care in Orangutan Rehabilitation*, 83-104. N.p.: Duke University Press.
- Paulson, Steve. 2019. "Making Kin: An Interview with Donna Haraway." *Los Angeles Review of Books*, December 6, 2019.  
<https://lareviewofbooks.org/article/making-kin-an-interview-with-donna-haraway/>.
- Perez, Tudela A., and Jordan Gschwend. 2007. "Renaissance Menageries: Exotic Animals and Pets at the Habsburg Courts in Iberia and Central Europe." In *Early Modern Zoology: The Construction of Animals in Science, Literature and the Visual Arts*, 419-447. Vol. 2. N.p.: Brill.
- Putnam, Walter. 2015. "The Colonial Zoo." In *French Thinking about Animals*, edited by Louisa Mackenzie and Stephanie Posthumus, 31-46. N.p.: Michigan State University Press.  
<http://www.jstor.org/stable/10.14321/j.ctt13x0p3s.7>.
- "Strategic Plan." n.d. AZA.org. Accessed 2023. <https://www.aza.org/strategic-plan>.
- Thomas, Keith. 1983. "Human Ascendency." In *Man and the Natural World: Changing Attitudes in England, 1500-1800*, 17-50. New York: Oxford University Press.