

Southern New Hampshire University

A Digital Exhibition on Zoo Exhibits in the United States:

The Impact of Public Opinion on Post-Civil War Zoo and Animal Exhibit Development Within
the United States

A Capstone Project Submitted to the College of Online and Continuing Education in Partial
Fulfillment of the Master of Arts in History

By

Jocelyn Hopkins

Bristol, Rhode Island

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Student: Jocelyn Renee Hopkins

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Capstone Instructor

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June 21, 2023

Associate Dean of Liberal Arts
Southern New Hampshire University

Date

Abstract

This project explores the influence of public opinion on the development and evolution of zoos and animal exhibits. The main focus will be on the “Big Four” - four oldest accredited zoos in the United States: Philadelphia Zoo, Central Park Zoo in NYC, Lincoln Park Zoo in Chicago, and Roger Williams Park Zoo in Rhode Island. Four animal species will be examined to study zoo and exhibit development since the end of the Civil War in 1865. The animal species are elephants, orcas, red wolves, and timber rattlesnakes. These animal species provide historic examples of positive and negative animal care and species outcomes within captivity. Additionally, zoo and exhibit development progress will be supported with evidence directly from numerous zookeepers’ personal experiences, detailed *Keepers Corner* in the digital exhibition.

This project acknowledges that scientific and medical advancements have lent significant changes to current zoo missions and exhibit design, yet research points to public opinions about animal welfare having historically been the driving factor. The primary sources used are news articles, photographs, and personal testimonials. Secondary sources include journal articles, books, and dissertations. Source categories found focus on cultural, social and political lenses, while acknowledging that other lenses are present in the research but addressing source categories from the particular focal lenses.

Dedication

For the younger version of myself and all the younger versions of ourselves - may we continue to make them proud.

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Introduction

Zoos are a staple of our cultural landscape. They are tourist attractions for the cities they inhabit and they make for a fun family day outside. They have always been a way to spend time outside and be entertained. However, zoos have created a hybrid purpose as both entertainment and education. In creating attractions from their animal collections, they also fulfill their purpose of educating the public about wildlife conservation and species survival. These institutions have not always been stellar examples of care and animal welfare - the Animal Welfare Act was not made law until 1966. These institutions have a history of unsatisfactory, and often fatal, animal care and exhibits. In the 19th and beginning of the 20th centuries, animals were seen as commodities for turning a fortune. What changed that? This is the question this research will investigate. Figure 1, courtesy of The City of New York Department of Parks, shows an elephant at the Central Park menagerie in 1911, on its side with a handler and a dog perched on top - Titled: *The Children's Pets at Their Lessons*.¹

¹ *Annual Report*, New York: The City of New York Department of Parks, 1911, page 28, accessed on June 4, 2023: https://www.nyc.gov/html/records/pdf/govpub/4027annual_report_nyc_dept_parks_1911.pdf.



Figure 1: Elephant and handlers at Central Park menagerie 1911 (Courtesy, The City of New York Department of Parks)

Is the hybrid nature of zoo and exhibit development solely molded by scientific and medical advancements or have cultural and social changes had an effect on animal welfare and conservation?

Public opinion has an influence politically, socially, culturally, and even scientifically. It sways political debates, scientific study, and cultural trends. The main influence of zoo and animal exhibit development since their conception is public opinion. When looking at some of the first established zoos (Philadelphia Zoo, Central Park Zoo, Roger Williams Park Zoo), we can trace the changes in park design, exhibit designs, and animal care. There has always been a fascination with seeing exotic animals and visiting zoos - attendance is typically not an issue.

The 1991 City of New York Department of Parks Annual Reports notes of their menagerie: “The popularity of this feature of Central Park is apparent by the number of visitors, especially on Sundays. No attempt was made to record the number visiting the menagerie, because for years the crowds have been so enormous that the attempt would be useless.”² Significant events that evidence changes in public opinion include the Animal Welfare Act of 1966, the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973, and the Food, Conservation, and Energy Act of 2008.

The first chapter will discuss the trends in literature found during research. The prominent lenses have been social, cultural, and political. Scientific history has also been present. There is a strong partisan split in both primary and secondary sources. Animal captivity can bring out strong empathetic emotion and public outcry. The majority of the resources are either clearly pro- or anti- animal captivity and therefore, zoos. Animals that require complicated care, socialization, and/or large amounts of space - such as elephants and orcas- generate public discussion surrounding their captivity. The digital exhibition does a deep dive into the captive history of these species.

The next three chapters will analyze the development of the [online exhibit](#).³ It will discuss how the research informed the planning process, design, and content. The direction of this exhibit is meant to display both sides of public opinion about zoos and animal exhibits - the good and the bad. It also determines how the audience was chosen. As noted in the exhibit introduction, the purpose of this exhibit is not to sway visitors in one direction but to provoke

² *Annual Report*, New York: The City of New York Department of Parks, 1911, page 25, accessed on June 4, 2023: https://www.nyc.gov/html/records/pdf/govpub/4027annual_report_nyc_dept_parks_1911.pdf.

³ <https://digitallivingarchives.omeka.net/>.

thought and discussion surrounding zoological institutions, animal captivity, and environmental conservation in relation to the current climate status. The last chapter explores the realities of creating the digital exhibition into a physical exhibit space for guests to visit. It explores the ethics of live animals or imitations, possibly even holograms. It also discusses any staff required, venue rental costs, and more.

The intended purpose of this research is to assess the developmental history of zoos and animal exhibits. In establishing that public opinion has influenced zoo and exhibit development and then studying the history of public opinion and its influence, we can create a more accurate hypotheses for the future direction of zoos within our communities. The research aims to create new perspectives for those that hold negative views of zoos and help zoo employees and senior leadership understand public perception of their organizations. Negative perspectives can get caught up in the captivity portion of zoos without considering the positive influences they can have on environmental preservation. Alternatively, zoo employees can get caught up in the propaganda pushed by zoos and sometimes ignore valid concerns of the public surrounding their animals' livelihood, best evidenced by orca captivity.

Chapter 1: Historiography

Secondary source literature became prevalent towards the end of the 20th century, with a few odd selections from the mid-20th century. Anything prior to the 1950's are primary sources written as annual reports or newspaper and magazine articles. Research regarding zoos and animal captivity and welfare spans social, cultural, political, and scientific lenses. Typically, these lenses focus on one species, zoo, or region. The United Kingdom had established zoos and later, animal welfare laws, before the United States. Secondary source literature that focuses on zoos in the UK were utilized for the perspectives they provided. The scholarship written about zoos and animal captivity tackles the pros and cons of living collections and addresses the cultural and geographic impacts they have had on society.

Some historians and experts believe in the mission of the Association of Zoos & Aquariums (AZA) accredited zoos. Others feel that captivity of any kind is cruel and can never be equal to an animal's freedom in the wild. This chapter will investigate the historiography trends and literature associated with public opinion, zoos, and exhibits. A pattern in each secondary source's literary tone can be matched with the historic timeline in zoo and exhibit development and animal welfare improvements. Trends in the literature match the timeline with the establishment of animal welfare laws. The historiography lends a narrative in the history of animal captivity.

The research in this project is organized by lenses as well as by case study. In order to identify the patterns of public opinion within the history of zoo and exhibit development, specific examples needed to be investigated. The animal species represented within zoos are so vast that

it is not practical to focus on them all. Likewise, public opinion does not exist, and certainly not equally, for all species in captivity at zoos. The lenses apply to many animals' species captive in zoos as well as the examples being used in this research: elephants, orcas, red wolves, and timber rattlesnakes. Many of these sources utilize ethical arguments regardless of the lens they are speaking through. This is apparent in sources like *Cloning Wild Life: Zoos, Captivity, and the Future of Endangered Animals* by Carrie Friese, *Animal Attractions: Nature on Display in American Zoos* by Elizabeth Hanson, *Fear of the Animal Planet: The Hidden History of Animal Resistance* by Jason Hribal, and *Animal Welfare, Animal Rights: The Past, the Present, and the 21st Century* by Morton S. Silberman.

Detailed Discussion of Laws Concerning Orcas in Captivity by Lauren Tierney follows the death of SeaWorld trainer Dawn Branchaue at the fins of orca Tilikum. This was Tilikum's third SeaWorld trainer murder since 1991. Tierney discusses the history of orca captivity from a legal and scientific perspective. She addresses arguments both for and against orca captivity and uses two case studies of well-known captive orcas to address the pros and cons. She notes that, while there are regulations addressing both social and exhibit needs for orcas, "As there are few inspectors throughout the United States, roughly around 100 or so to inspect every facility, they are thinly-stretched in their ability to do so. While these regulations contain laudable detail, they are ineffectual without regular enforcement."⁴ Laws and regulations are meaningless if not enforced. The critical argument that orcas in captivity act as educational ambassadors to increase

⁴ Lauren Tierney, "Detailed Discussion of Laws Concerning Orcas in Captivity," *Animal Legal & Historical Center* (Michigan State University College of Law: 2010), accessed on June 4, 2023, <https://www.animallaw.info/article/detailed-discussion-laws-concerning-orcas-captivity#id-13>.

public awareness is met with disdain and condemnation when it is clear they cannot be properly cared for.

A trend within the secondary source historiography, regardless of focus or lens, is the desire to improve animal captivity and habitats. In contrast, a trend within the modern primary source focus, seen through zoo marketing, is their response to criticism. Due to their unique hybrid purposes, zoos typically put out different marketing than other public history institutions. The public messaging, however, still conveys a sense of importance to the community, like other public history institutions. The only comparable responses to criticism can be found in public history responses to criticism around inappropriate and illegal acquisition of other cultures' human remains and antiquities. Because zoos house living collections, as opposed to the typical inanimate collection, their treatment and quality of life are of huge concern.

Although this particular research is focused on the United States, resources that focus on zoos in Europe were utilized because of the perspectives they lent. In discussing the London Zoo in 2014, Takashi Ito describes the current state of public opinion on zoos as,

“A number of zoos today are challenged by those who criticise [sic] the caging of animals and are denounced as an institutional impediment to the protection of animal welfare. In the light of contemporary ethics, zoos may now seem to be little more than the vestiges of earlier times when humans were less respectful towards animals.”⁵

He observes that zoos are anthropocentric institutions pursuing the strategy of an ideal and practical relationship with the natural world.⁶ How do we wish we interacted with the natural world around us, versus reality? Zoos present the possibility of symbiotic relationships with

⁵ Takashi Ito, “Introduction: The Zoo in History.” In *London Zoo and the Victorians*, NED-New edition., (Boydell & Brewer, 2014): 1, <http://www.jstor.org/stable/10.7722/j.ctt4cg6x0.7>.

⁶ Ito, 1.

animals. The reality of human populations living in harmony with wildlife is more complicated. Ito's article discusses the hypocrisy behind 19th century zoo messaging of supporting exotic species but actively exterminating local species deemed a nuisance. The research presented in this project supports that claim in describing the differing public opinions between elephant and orca captivity versus red wolf and timber rattlesnake captivity. The historiography supports the end of captivity, regardless of exhibit improvements, for the former but would prefer to keep the latter in captivity rather than reintroduced to their native geographic locations. All four species have historically been considered nuisances in their wild habitats and have experienced increased habitation loss.

In literature supporting the mission of zoos, an interesting focal point is children's education. In general, children's play is evolving to support more outdoor and natural immersion, especially for children in inner cities. Because most zoos are located in major cities, they provide the ideal spot for outdoor play-based education. With more zoos adopting free or discounted options for lower class communities, they are increasing their accessibility and ability to reach more of the public. These exhibits are designed to promote free play and learning for children. It gives children ownership over nature while they explore.

In her book, *Practice-based Research in Children's Play*, Linda Kinney discusses the movement of zoos and aquariums spreading their mission through play-based areas within their institution in chapter seven "Play and value: determining the values of a nature play setting". This extends to both playgrounds and activities like summer camps. She determines, "The reasoning behind using nature play as a vehicle for connecting children with nature was a response to the emerging literature on children's diminished opportunities for contact and

associated benefits from being in nature.”⁷ Zoos and aquariums are redefining themselves as places to play, not just places to learn. In doing so, they are able to reach younger audiences early in their development, hopefully instilling a personal empowerment to protect the natural world from a young age.

Another literary example of anthropomorphizing animals in zoos is the book *Zoo Renewal: White Flight and the Animal Ghetto* by Lisa Uddin. This book discusses the “bad” feelings visitors can get at zoos - the seals that swim laps in their pools, the cheetahs that pace the fence. This theme among literature of zoo experiences that make one feel bad and want to fight for animal’s rights to not be caged is prominent and addresses the ethical lens from earlier.

“...reduced to a consumer spectacle like any other, and of which their millions of spectators are all on some level aware, the animals housed and displayed in modern zoos have been stripped of their wildness and are no longer interested in or able to return the human gaze.”⁸

It is the human tendency to project our own feelings onto other beings, whether or not that projection may be true. With the animal rights and welfare movement over the past decades, animal boredom and exhibit design are of particular focus within zoos. Enrichment activities involving food and things like puzzles are daily exercises provided to animals. When I worked for Roger Williams Park Zoo, I asked a zookeeper why the cheetah exhibit is located next to the zebra and wildebeest exhibits. They told me that it is enriching for all three species to be located next to each other as it promotes their natural habitat. It is just as good for the cheetahs to see the

⁷ Linda Kinney, “Play and Value: Determining the Values of a Nature Play Setting,” In *Practice-Based Research in Children’s Play*, edited by Wendy Russell, Stuart Lester, and Hilary Smith, 1st ed. (Bristol University Press, 2017): 155, <https://doi.org/10.2307/j.ctt1t89df7.13>.

⁸ Lisa Uddin, “Introduction: On Feeling Bad at the Zoo,” In *Zoo Renewal: White Flight and the Animal Ghetto* (University of Minnesota Press, 2015): 2, <http://www.jstor.org/stable/10.5749/j.ctt13x1mkh.4>.

zebras and wildebeest pacing their fence and planning their kill as it is for the zebras and wildebeest to be constantly aware of the potential threat posed by the cheetahs next door.

In her interview, Michaela Cook discusses the occurrence zoos often have to counter of visitors that anthropomorphize animals in her interview.

“A lot of times people anthropomorphize animals in their enclosure. By doing that, they assume an animal alone must be lonely- not that it could violently attack another animal if there were more than one in the enclosure. Or that when an animal is sleeping, it must be because they are bored and not for the reason that the species does that for most of their natural day. With that said, we of course are striving for visitors to have empathy and a connection to our animals. It is with that emotional connection that conservation can begin on a local level.”⁹

She goes on to note examples where zoos increased enrichment and visitor engagement for their animals. Visitor engagement provides opportunities for personal empowerment. Ethical practices and tendencies to anthropomorphize are underlying themes in this research.

⁹ Michaela Cook, “His 792 Public History Capstone: Interview with Michaela Cook,” by Jocelyn Hopkins, <https://digitallivingarchives.omeka.net/exhibits/show/snhu-zoo/the-keepers-corner>.

Chapter 2: Methodology

Within the exhibit, the primary sources utilized are historic photographs, videos, and publications such as magazine articles or annual reports. Modern day primary resources are web pages and publications made directly by zoos, zoological institutions, accreditation organizations, and government institutions. The interviews conducted of zoo employees on their positive and negative perceptions of zoos (before employment and present) support with this research thesis that public opinion has been the driving influence behind zoo and animal exhibit development. The secondary resources are written by historians, anthropologists, scientists, journalists, and animal welfare organizations. They all encompass both sides of the zoo and animal captivity argument, both good and bad aspects. The thing about both sides of this research is that, no matter what someone believes about zoos and animal exhibits, they are still talking about it. A zoos' mission is to educate, not convince. It is to create a sense of empowerment from guests, regardless of what empowers them. Captive animals would not need to have breeding programs in zoos if the urgency to help preserve them in their natural habitats was more popular.

Primary Sources

This project encountered complications collecting primary sources as zoos do not have established archives in the way that most public history organizations do. Digital archives are primarily modern while anything truly historic requires deep combing of haphazard locations. Many primary sources were found used in different secondary sources (not always cited) with

the original locations requiring investigative work. Social media has provided a great repository for modern digital archives of zoo happenings and history. Anything prior to the modern digital age is varied. For example, finding the original archives of anything orca related from the 20th century and older (i.e., Wallie V. Funk photography and Penn Cove Capture) required extensive effort. This research would not have been as successful without the contributions, ideas, and help from the various zoo employees cited in this project. Knowing the passion and bias these individuals would hold, I requested that they be as candid as possible in the positives and negatives in their own experience leads to this research. The interviews reflect individual preconceived notions going into these professions, based on popular opinion, and their dedication to improving and changing public conception through their actions.

Historic primary sources consist of zoo websites, photographs, artistic renditions, videos, and publications. Many of the sources feature zoo openings, particularly of the four focus zoos of this research: Philadelphia Zoo, Roger Williams Park Zoo, Central Park Zoo, and Lincoln Park Zoo. There were no obvious locations for these sources outside the Library of Congress. These sources highlight how public perception has advanced and positively influenced an animal's environment in zoo captivity. In addition to these primary sources are the laws passed during the 20th and 21st century that advocate for animal welfare rights. They are evidence of effective public outcry and opinion creating distinct changes in the requirements for holding animals' captive.

Secondary Sources

A mixture of journal articles, books, websites, blogs, and newspaper articles were

compiled for additional secondary sources for this research. The secondary research highlights 2 points: 1) exhibits, and 2) natural habitat. The research can be organized into categories based upon species, geographic location, and opinion on zoos. The secondary sources investigate the history of human interaction with animals. One theme explores creating something positive out of the negative history that can be associated with zoos and captive animals. The way animals were captured for display in zoos involved harmful practices. Harmful practices were also used when caring for animals in captivity.

The Penn Cove Capture was brutal and killed five orcas in the process of capturing seven. However, these actions allowed scientists to learn more about orcas' physically, socially, and ecologically than they ever could have from wild orcas. Elephants have had one of the most brutal histories in captivity, typically driven by fear of their size and capabilities, but are now widely loved, and, thereby making conservation efforts a little easier. Red wolves were driven to near extinction by habitat loss and hunting. Thanks to mass education, both the captive and wild populations are starting to slowly grow again. In the introduction of their book, *Living with Animals*, Natalie Porter and Ilana Gershon describe this relationship:

“There is not a little bit of hubris operating here, for the very idea that humans can somehow control the fate of their chosen animal suggests an unequal distribution of agency across species. And the inherently selective work of rescue, release, and conservation signals how the death-defying human-animal relation is always imagined in terms of a larger human audience, whose preferences dictate the task at hand.”¹⁰

The research supports that, whereas, some species experience successful survival because of captive breeding programs. The research provides evidence of this among captive red wolves

¹⁰ Natalie Porter and Ilana Gershon, “With Animals: An Introduction,” In *Living with Animals: Bonds across Species*, edited by Natalie Porter and Ilana Gershon (Cornell University Press, 2018): 4, <http://www.jstor.org/stable/10.7591/j.ctt21h4vcr.4>.

and timber rattlesnakes. Some species do not benefit from captivity as they cannot be provided a high quality of life in captivity without massive amounts of space and funding, if at all. This is evident in the research found amongst captive elephants and orcas. The historical nature of zoos as hybrids of entertainment and education will require them to find ethical means of attraction and income without staple attractions such as the elephant or the orca. This is not to say that the end of captive elephants and orcas on display will mean the end of zoological institutions. It may mean a focus on local fauna.

Chapter 3: Intended Audience

The chosen audiences are based on the research - chosen for this project interest in the topic and who could benefit from the information. This exhibit would do best as a traveling exhibition being highlighted at various institutions. The broad United States area and, therefore, its public, would be a targeted audience. However, international travel for this exhibition would also be beneficial. The UK also has a long and nefarious zoo history that would benefit from coming to terms with the history of animal captivity and zoo development. A positive outcome for these general audiences would be coming to terms with their nation's historic part in the endangerment and loss of habitat for animal species. Colonialism and imperialism created civilizations that have encroached on the land and local animal species to generate economic means for survival. A long-term implication has been created by this issue.

With climate change becoming more prevalent in our modern life, the importance of studying history and understanding how we got here has grown. Additional audiences would be staff at zoos - accredited or not. AZA accredited zoos and their staff can benefit from understanding their impact, the effects of public opinion, and their history. This information would be beneficial for zoos and visitors of zoos that are equivalent to those featured in Netflix's *Tiger King*. These types of institutions negatively impact public opinion about accredited zoos that hold their animal welfare and care to higher standards. Other audiences for which this research is important are students in environmental studies. They are knowledgeable about the state of wild species populations, threats to their survival, and recovery programs but may not

have in-depth education surrounding the history of zoos and the parts they have played in conservation - both positively and negatively.

Chapter 4: Project Planning & Process

As previously mentioned, the goal of this exhibit is not to sway visitors but provoke conversation based on the research. The design of the exhibit as a fictional zoo presents a direction that allows for an in-depth analysis on the history of these species in captivity, in zoos, and endangered in the wild, and the solutions to these problems presented. The research informed this process and the flow of exhibit topics. The historical research for elephants and orcas is incredibly high. These species were both mistreated for almost the entirety of their history in captivity - both on purpose and simply because of the lack of knowledge about their needs. The harsh public outcry about their captivity stems from the portion of their mistreatment that was documented and purposefully harmful.

Introduction

The first page of this digital exhibit introduces the research thesis, the research background and the exhibit's intentions. It lays out the exhibit structure and explains that the research is not designed to sway visitors in any opinion but, rather to provoke thoughtful discussion surrounding zoological institutions, animal captivity, and environmental conservation in relation to the current climate status. It also provides historical images of the Big Four American zoos featured within the exhibit. The structure of each exhibit topic describes the generalized history of each species in the wild and captivity, while providing significant individual examples per species of individual animals, captors, and organizations. It assesses the pros and cons of captivity throughout history, while focusing on the Big Four zoological institutions originally introduced.

Elephants

This webpage focuses on the whole history of captive elephants in America, even pre-zoo. Zoos started as personal collections, menageries, and traveling shows. Formal zoological organizations received many of their animals as personal donations from the public. Into the 21st century, many elephants, currently in captivity at zoos, are retired donations from circuses. Due to the typically unsuccessful breeding of elephants in captivity, the end of performance elephants and the legal protections of elephants in the wild, at some point elephant captivity will cease to exist. Elephant life spans an average of 60 years in the wild and about 40 in captivity. Many zoos are phasing out their elephant programs, understanding that the increasing conditional requirements for caring for them could be better directed at other species survival programs. The below figure features both the first captive elephant at Roger Williams Park Zoo, and the first elephant at this zoo to bear the name Alice.¹¹ The name Alice would become a tradition for elephants at this zoo, with one of the three current elephants holding the name Alice.

¹¹ “The First Alice at Roger Williams Park Zoo and her handler,” Roger Williams Park Zoo, 1930, https://issuu.com/rwpzoo/docs/wild_april_2022_singles/s/15442622.

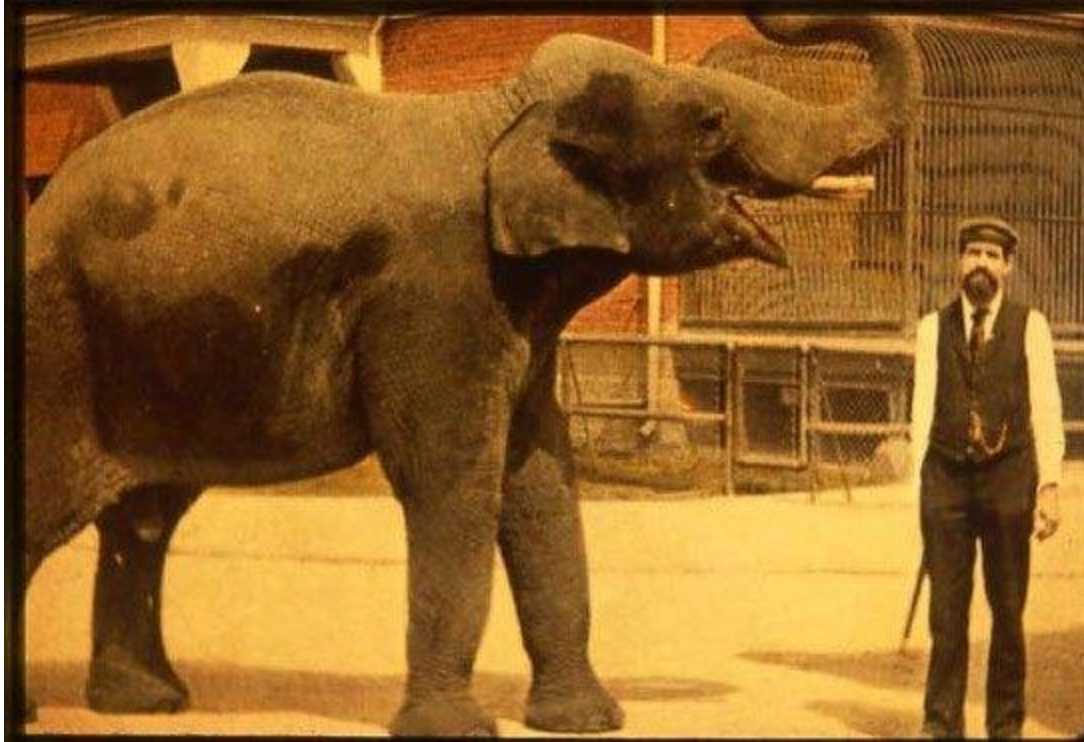


Figure 2: The First Alice at Roger Williams Park Zoo and Her Handler (Courtesy, Roger Williams Park Zoo)

AP News reports,

“Some elephant experts argue the more humans learn about elephants’ intelligence and social networks the more compelling the argument to release them — or at the very least to stop breeding them in zoos. They also note that poaching of elephants and habitat destruction in Africa continue despite conservation efforts by zoos and question the difference they’re making in hosting visitors who are largely seeking recreation.”¹²

The more scientific information available about elephant social structure, emotional capacity, and environmental needs, the stronger the argument becomes against captivity. Whereas some species benefit from breeding programs, others are benefited by direct efforts made within their local geographic habitats. Some still argue that without a direct presence in institutions far

¹² Amy Taxin, “Elephants in US zoos? Without breeding, future is uncertain,” *AP News*, February 28, 2023, <https://apnews.com/article/science-fresno-animals-elephants-4aca228adfe0bd1d930c17e8b9c6c4b2#:~:text=The%20Association%20of%20Zoos%20and,currently%20live%20in%20U.S.%20zoos.>

removed from a specific geographic presence, the personal responsibility to support their welfare wanes. However, evidence suggests that personal empowerment can still exist without exploiting individual animals. This section provides historic timelines of elephant captivity from the introduction of zoos into communities to modern day zoos. It explores their treatment, the public perception of elephants in America and their captive environments. Public perceptions did not only include third party viewers but, also, the animals' personal caretakers. Historic examples utilize both positive and negative experiences. The main theme of this research is that there are both positive and negative examples of animal care and species' history within zoos. Some based upon lack of knowledge and others on personal opinion.

Orca

This section of the exhibit explores the capture and history of captivity for the orca - otherwise known as the killer whale. An infamous captive orca mentioned is Namu, captured by aquarium owner and entrepreneur, Ted Griffin, during the Penn Cove Capture of the 1970's. Besides the historic examples like Namu, the documentary *Blackfish* presented one of the largest public outcries for a captive species. *Blackfish* featured a captive orca named Tilikum living at SeaWorld and explored the controversy surrounding orcas in captivity. The backlash created an opening for any species public activists felt should not be in captivity. This section describes the history of public opinion of orcas within the historical record to present-day while offering singular examples through history of specific individuals and captors. The research for this species analyzes the original fear and near-elimination (lending to their nickname *Killer Whale*)

in very early western history, the awe and acquisition of these animals in the mid-20th century, and the many examples of modern public opinion wishing for their freedom.

In *Detailed Discussion of Laws Concerning Orcas in Captivity*, Lauren Tierney lays out the legal requirements for housing an orca in captivity, including social and exhibit needs, which are noted in the exhibit discussion. Tierney's discussion provides insight to the legal requirements but also sheds light on the reality of its weak enforcement. The exhibit provides contradicting videos by both SeaWorld and Whale and Dolphin Conservation (WDC) to viewers, as well as an educational children's activity book from the WDC. The older primary sources, seen in the below figure, display the infamous Penn Cove Capture in the 1970's¹³ (Courtesy, Wallie V. Funk), in which five orcas were killed and seven orcas were captured. This included the well-known orca, Lolita. Lolita is currently at the foundation of the most recent wild release controversy. This infamous capture led to both public outrage at the loss of life and awe at the capture of such creatures.

¹³ Wallie V. Funk, "Penn Cove Capture," Pacific Northwest Studies, Western Libraries Heritage Resources, Western Washington University, August 1970, <https://mabel.wwu.edu/islandora/object/wwu%3A8780>.



Figure 3: Penn Cove Capture (Courtesy, Wallie V. Funk Photography)

Red Wolves

The visitors journey takes on a more positive tone in this exhibit with the introduction of the Southeastern Red Wolves - a species hunted and pushed to extinction in the wild in the late 1980's but, thanks to collaborative conservation efforts, is making a slow but steady comeback both in the wild and in captivity. The case study highlighted in this section is the recent births at Roger Williams Park Zoo - the first red wolves born in this program since 2005. A QR code is provided that links to a population timeline starting from 1987 to present with associated anthropogenic factors curated by the Wolf Conservation Center¹⁴:

¹⁴ "Red Wolf Population Timeline," Red Wolf, Wolf Conservation Center, accessed June 4, 2023, <https://nywolf.org/learn/red-wolf/>.

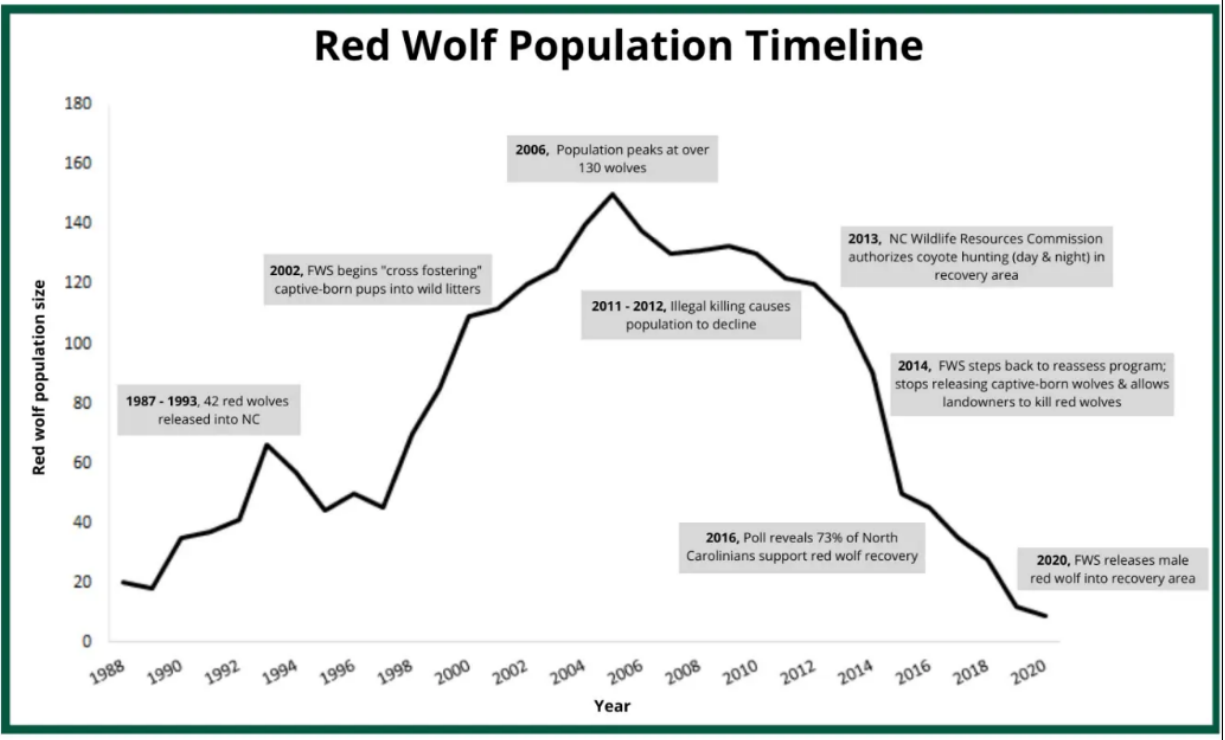


Figure 4: Red Wolf Population Timeline (Courtesy, Wolf Conservation Center)

This graph represents successful breeding and restoration efforts 27 years after red wolves were determined to be critically endangered with only 17 individuals left in the wild. In case of this species, exhibit habitats are easy to replicate, maintain, and promote breeding. Additionally, these animals can act as educational ambassadors promoting public awareness without enduring the psychological harm found in captive orcas. Due to their relatively local geographic location within the country, their presence in zoos historically helps promote their safety and success in the wild. They also have a higher success rate for wild reintroduction than do captive orcas. For these reasons, their captive breeding is, therefore, not as highly contested.

Timber Rattlesnakes

The final case study in this research are the timber rattlesnakes. While a success story in captive breeding programs like the one hosted at the Roger Williams Park Zoo, reintroduction into the wild was met with public hostility. This section studies the adverse public reaction to a reintroduction plan and the push to keep timber rattlesnake populations regulated to captivity in zoos. Public opinion supports their repopulation within captivity but their release into a controlled habitat on a secluded island was not supported. Timber rattlesnakes have been pushed out of their natural environments to critical endangerment - much like red wolves. The difference between these two examples and public reaction to their reintroduction into the wild is fear-based bias towards snakes. In 2016, a headstarting effort was announced for the remote 1,400-acre island in the middle of the Quabbin Reservoir, Massachusetts.¹⁵



Figure 5: Mt. Zion in the Quabbin Reservoir (Courtesy, The Weather Channel)

¹⁵ The Weather Channel, "Massachusetts Plans Endangered Rattlesnake Colony On Uninhabited Island," February 25, 2016, <https://weather.com/science/nature/news/massachusetts-rattlesnake-island>.

It was eventually scrapped after public outcry with illogical arguments like the rattlesnake venom leaking into the reservoir and poisoning Boston residents, or swimming to shore and slithering out of faucets.¹⁶

Erin Cashion and Bob Glotzhober stated in *The Quabbin Island Rattlesnake Reintroduction Plan: What you need to know*,

“Although zoos and other captive breeding facilities are critically important for the recovery of imperiled species, the ultimate goal of all propagation projects is to re-establish wild populations in their native range that are self-sustaining (when possible) to restore full functionality to their native ecosystems. The best place for any species is the ecosystem to which they have adapted and evolved.”¹⁷

The irony about this case study is that timber rattlesnakes have relatively slow rates of breeding and naturally inhabit locations with heavy public traffic. One of the few locations of wild timber rattlesnakes is Blue Hills Reservation in Massachusetts. This hiking area sees thousands of visitors each year. It is the hope of conservationists that timber rattlesnakes will one day receive the same public support for livelihood in the wild as captive elephants and orcas. This exhibit section explains the history of timber rattlesnakes’ wild populations, their population recovery efforts, a radio interview from NPR, and timber rattlesnake informational flier provided by the Massachusetts Division of Fisheries & Wildlife.

¹⁶ Ted Williams, “Recovery: Saving Timber Rattlesnakes, Why Wildlife Recovery Isn’t a Popularity Contest,” *The Nature Conservancy: Cool Green Science Blog*, published April 25, 2016, updated on February 28, 2023, <https://blog.nature.org/2016/04/25/recovery-saving-timber-rattlesnakes-wildlife-recovery-popularity-snakes/>.

¹⁷ Erin Cashion and Bob Glotzhober, “The Quabbin Island Rattlesnake Reintroduction Plan: What you need to know,” *Ohio History Connection*, June 6, 2016, <https://www.ohiohistory.org/the-quabbin-island-rattlesnake-reintroduction-plan-what-you-need-to-know/#:~:text=The%20Quabbin%20Reservoir%20reintroduction%20plan,rocky%20outcrops%20and%20forested%20ridges.>

Keepers Corner

The “Keepers Corner” section of the exhibition highlights personal interviews with zoo employees. Their personal experiences, journeys, and goals at zoos vary but they share the same theme: create positive perceptions and awareness through improved animal welfare. It was important that the research be supported by direct contacts to animal care. One interviewee, Lino Ribeiro, discussed an eye-opening conversation he had with Bronx Zoo Director, Jim Breheny, about public perceptions of zoos. Breheny said that, if you were to ask a child to draw a picture of a zoo, they would likely draw an animal behind bars. Lino uses this perception when thinking about animal exhibit design. He is quoted as saying,

“18 years later, I am still always striving to achieve that level of immersion for our guests. Exhibits like our recently renovated Rainforest also provides a similar experience. It's so important with each step forward we take in changing the public view on zoos, that we take a step back ourselves as zookeepers and remember what it was like when we first went to zoos as kids, and what made us want to do that for the rest of our lives.”¹⁸

Changing public perception of zoos and animal captivity through actions, not just marketing, is at the core of zookeeper’s intentions.

Conclusion

The final section of the exhibition summarizes the research findings of the case studies in relation to the original thesis. The conclusion restates the main points of the topic and reiterates the intention not to sway the visitor. The intention of the exhibit is to provoke further discussion

¹⁸ “Keepers Corner,” SNHU Zoo, Public History Capstone, accessed June, 2023, <https://digitallivingarchives.omeka.net/exhibits/show/snhu-zoo/the-keepers-corner>.

on this topic. It reminds visitors about the importance of this research. The conclusion provides 17 primary and secondary resources that lent information to the creation of this exhibit. It also provides a link to find AZA accredited zoos local to the visitor.

Chapter 5: Recommendations and Ethical Concerns

What makes a zoo a unique public history institution is its living collections. These collections of animals represent decades, sometimes even a century, of ancestral populations spanning the existence of formal zoos in the United States. The collections are historical in both their familial lineages and the stories told through their shared existence with humans. This unique existence, however, has left gaps in the archival nature that should not exist within a public history institution. Zoos tiptoe the hybrid line between history, education, and entertainment. Due to this, their personal histories are not well documented. Anything that is well documented is not easily accessible to the public - unless zoos want it to be. Zoos provide enough specific information to avoid criticisms and positively promote themselves. Ethical criticism about animal captivity in zoos can be compared to criticism surrounding the unethical ownership of Indigenous collections and remains by public history institutions. These concerns are where research initiatives could improve for this topic. As living collections are still archival collections, zoos should have an available history of the animals held and cared for by zoological institutions, their lineages in zoos across the country, and their personal names and histories publicly available and easily accessible. This chapter will dive into the gaps and concerns with the research available.

In researching, it was apparent that there were plenty of secondary sources that focused on either pro- or anti- zoo practices. Because this particular research was investigating public opinion, partisan opinion pieces did not hinder, but enforced, the research. However, focusing on zoological practices from a scientific and historic bipartisan lens would lend much to the topic.

This gap in the literature is being filled slowly as more focus begins on climate change and species endangerment. For all the negative aspects of zoos, it is clear they are still ambassadors of species survival. This will be important work in the future of increasing climate change.

An ethical dilemma within the research certainly rides on the glossing over of animal care in many of the prominent zoos' beginnings. It is clear that zoos want to distance themselves from the negative connotations associated with care of the past. However, facts are facts and even zoos experienced trial and error for decades with improper care, unsavory training and captivity efforts, and the use of harmful tools on animals. Zoos need to come to terms with their darker pasts. The primary sources do not hide the harmful practices of animal care and capture of animals. Orcas were aggressively herded, captured, and separated from their family pods - to be kept in small, over-packed confinement.¹⁹ Elephants were chained, overworked, and harshly treated as obstinate creatures.²⁰ Just as other public history institutions have come to terms with their ethical malpractices, zoos need to follow.

¹⁹ Lynda V. Mapes, "The orca and the orca catcher: How a generation of killer whales was taken from Puget Sound," *The Seattle Times*, December 13, 2018, updated June 26, 2020, <https://www.seattletimes.com/seattle-news/environment/the-orca-and-the-orca-catcher-how-a-generation-of-killer-whales-was-taken-from-puget-sound/>.

²⁰ Hribal, Jason, *Fear of the Animal Planet: The Hidden History of Animal Resistance* (California: AK press, 2011), 39-110.

Chapter 6: Budgeting & Staffing Requirements

As a digital exhibition on Omeka, this exhibition requires no staffing or costs besides the author's dedicated time. The contents, however, would work well as a traveling exhibit with just the information and engaging design, or as an immersive exhibit that can be tailored to a specific zoo. It would provide templates for presenting the exhibition with the zoos own animals matching those exactly in the exhibitions' case studies or provide templates that match other animal species to the presented exhibition examples. The planning for immersion will require funding just like the set up and travel at each stop will. A grant through the National Endowment for Humanities provides funding for permanent and traveling exhibit planning up to \$75,000 and implementation up to \$400,000.²¹

This project would require a curator, social media consultant, movers, and operations staff. The grant would need to be procured annually to provide annual salaries with the exhibit being a traveling exhibition. However, income can be generated through many venues, and for that reason, a Director of Development would be required as the bare minimum for fundraising staff. Other general operations income can be expected from each institution that rents the exhibit. The beginning operations would be accounting solely for general operations budget with extra research and exhibit development being able to be funded and procured after at least five years of general operations being covered without a deficit. Development will generate long-term donors as well as soliciting as many general donations as possible, via the hosting institutions' location and the overall exhibition production. Techniques such as strike funds and annual appeals to appropriate audiences can be utilized to cover general operating expenses. If

²¹ National Endowment for the Humanities, "Public Humanities Project Grants," accessed June 4, 2023, <https://www.neh.gov/sites/default/files/2018-08/exhibitions-instructions-aug-29-2018.pdf>.

fundraising events are required, the exhibition can work with hosting institutions in throwing fundraising events like galas and auctions. Another grant option is match-for-match campaigns in which the exhibit can work with local grants and the hosting institution to establish a challenge campaign that applies to new donations and increased donations.

Annual salaries for each required position vary based on the economy and base location for that position. An average of a \$40k to \$60k annual salary would depend on the position and department. Moving companies, with exhibition moving experience, will be used based upon location and references. In the case that the exhibit cannot be booked back-to-back at any time, an average storage fee will need to be factored into annual budgets (\$1,000 per month, four months of the year allotted for this possibility)²². The goal will be that hosts pay for incoming shipping, with the next host paying the costs for the exhibit to leave its previous location. The following graph from IDEA.org breaks down the square foot versus cost (USD) for different types of traveling exhibits with data gathered from the Traveling Exhibitions Database²³:

²² “What does it cost to rent a traveling exhibition?,” IDEA, posted February 10, 2011, accessed June 7, 2023, <https://www.idea.org/blog/2011/02/10/what-does-it-cost-to-rent-a-traveling-exhibition/>.

²³ “What does it cost,” IDEA.

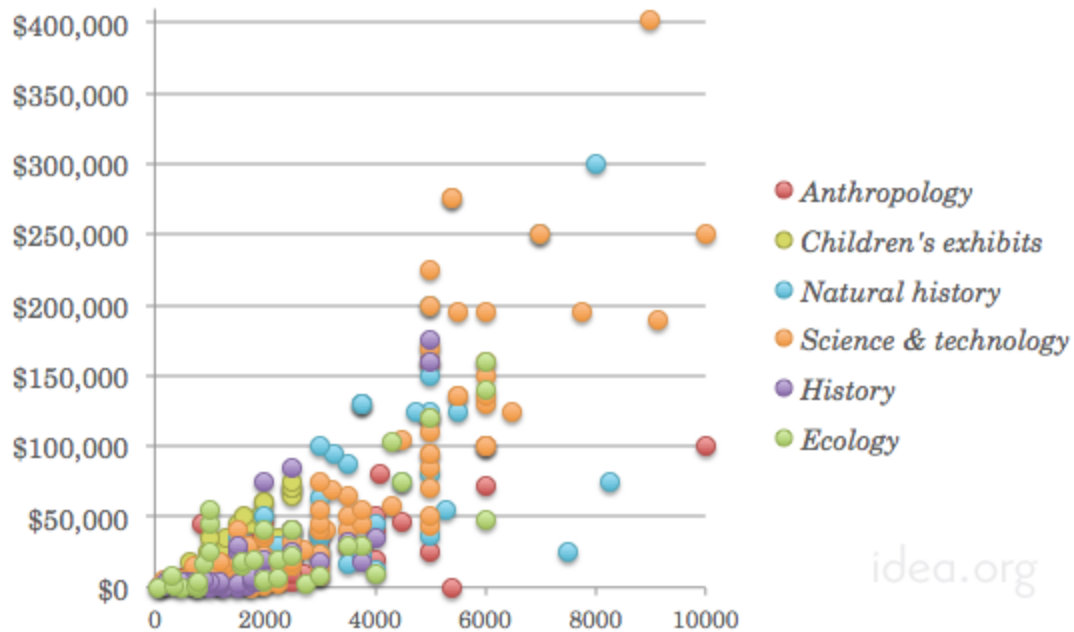


Figure 6: Graph rating 332 traveling exhibits by type on a distribution of cost (USD) vs. size (Courtesy, IDEA)

History-themed traveling exhibitions (purple) are on the lower ends of both cost and size and typically do not exceeding 6,000 sf or \$200,000 for the total rental costs. Provided below is a sample budget chart for determining the potential costs of an exhibit such as this:

Table 1: Exhibition Budget



SAMPLE BUDGET CHART

SNHU ZOO: Traveling Exhibition	Dates of Rental	Sample Applicant/Organization
Exhibition Expenses		
Fees	Amount	Description
Curatorial Fees (research, exhibition, shipping, installation, etc.)		
Artist Fees		
Loan Fee		
Licensing Fees		
Material acquisition and reproduction rights		
Photography		
Fabrication (models, furniture, etc.)		
Other		
Shipping/Transport		
Crating, packing, handling		
Gas		
Insurance		
Shipping/movers		
Other		
Installation		
Hardware and tools		
Framing		
Labor		
Other		
Administration		
Curators		
Development		
Communications Specialists		
Advertising		
Programming		
Opening costs		
Lecturers/Speakers		
Other		
TOTAL EXHIBITION EXPENSES	\$XX,XXX	
Exhibition Income		
Funding Source	Amount	Paid or Pending
Grants		
Corporate Sponsorships		
Rental fees		
Partner Organizations		
Other		
TOTAL EXHIBITION INCOME	\$XX,XXX	<i>Should be equal or less to expenses</i>

The expectation is that the exhibit will provide opportunities for seasonal employment and internship with financial compensation being made jointly between grants obtained by the

exhibit and funding provided by the host institution. Local minimum wage will be honored per each hosting institution for these positions, with the option to utilize docents where needed.

Conclusion

This project was formally presented by an on-line presentation exhibited on an Omeka website. It includes an Introduction, History of Elephants in America, Captive History of Orcas in America, History of Timber Rattlesnakes in New England, History of Red Wolves in SE United States, Keepers Corner with interviews, and the conclusion. The choice to include a Keepers Corner of personal accounts is meant to be a reflection of both what inspired these individuals to work for zoos and, also, the pros and cons of the institution. These individuals have experience with animal care, public education and interactions, exhibit design, animal enrichment, and their own personal histories of zoos from their youths.

As Keri Philips said in *The Ethical Evolution of Zoos*:

“Love them or loathe them, there's a zoo in almost every big city. Although for many visitors they're just another tourist attraction, modern zoos see themselves as valuable centres [sic] of education, scientific research and conservation.”²⁴

While the goal of the on-line exhibit is to promote thoughtful discussion, this research aims to study the effect of public opinion upon the development of zoos and animal exhibits in America and to provide insight on their future. With climate change affecting every part of the world, regardless of your beliefs, understanding how we got here is more important than ever. What zoos are doing right versus what is just entertainment and economic gain disguised as conservation is necessary to investigate.

The historiography discussed in chapter two demonstrates the differing views on the history of animal treatment in captivity, the advances made legally and scientifically since the

²⁴ Keri Philips, “The ethical evolution of zoos,” ABC Radio National, posted October 20, 2015, updated October 21, 2015, <https://www.abc.net.au/radionational/programs/rearvision/the-ethical-history-of-zoos/6869776>.

birth of zoological institutions, and current opinion. Secondary research on these topics were not prevalent until the end of the 19th century but, with most American zoos opening around the time of the Civil War, this literature has minor gaps. In diagnosing the trends in public history with advancements in zoo mission and animal care, it is important the research continues. This way, accredited zoos continue to be held accountable to high standards and non-accredited zoos with poor care standards, as investigated in the Netflix hit documentary *Tiger King*, are pushed to close or raise their standards. Lastly, this research hopes to make the public aware of ways they can support the natural world, especially in helping local species like the timber rattlesnakes.


The methodology in this research focused on social and cultural lenses with both primary and secondary sources as they pertained to zoos and the public and the advancements made in animal care since its conception. The primary sources utilized photos, videos and publications, exclusively discovered from digital repositories, as well as personal interviews from animal care workers at two different AZA accredited institutions. The secondary research supports evidence discovered through the primary research, supporting the thesis that public opinion has been the main influence in the evolution of zoos and animal exhibits. The flow of the digital exhibit carries visitors through four different species' histories in captivity but all elements support the main theme of public influence, even if the modern outcomes are not all the same.

Zoos hold important roles for our cultural and natural environments. At the base of this research is the passion and effort to create the most accurate recreation of a natural environment for the animals and educating the public. The need for zoos to properly archive and digitize their history as public history institutions is as necessary as it will ever be. Overall, the conclusion is

that public opinion has always played a factor in the creation and evolution of zoo and exhibit development and likely will continue in the future.

Appendix: Digital Exhibition: SNHU Zoo

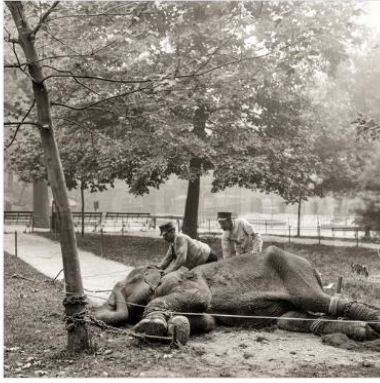
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Browse Collections
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About this Exhibit

Featured Item

[ELEPHANT CARE AT CENTRAL PARK ZOO](#)



THE ASSISTANTS TENDING AN ELEPHANT WHO HAS BROKEN OUT OF THE NEW YORK Zoological Park in 1922. This was the elephant's second escape attempt. The photo was originally captioned: "The end of the rampage. ALEX. LEWIS (center) and his helpers."

Featured Exhibit

[SNHU ZOO](#)

Recently Added Items

[SELECTION OF PHOTOS OF ANIMAL EXHIBITS IN AMERICA CIRCA 1899-1902](#)

A 1st page from the New York Daily News, circa 1900, with a photo of an elephant in a cage. The photo was originally captioned: "The end of the rampage. ALEX. LEWIS (center) and his helpers."


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Public History Capstone Project

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About this Exhibit


INTRODUCTION: WELCOME TO SNHU ZOO!



THE ASSISTANTS TENDING AN ELEPHANT WHO HAS BROKEN OUT OF THE NEW YORK Zoological Park in 1922. This was the elephant's second escape attempt. The photo was originally captioned: "The end of the rampage. ALEX. LEWIS (center) and his helpers."

SNHU Zoo

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Zoological institutions flourished after the Civil War ended. Menageries and personal collections were curated into formal institutions for both education and entertainment in what we know today as "zoos". Throughout the end of the 19th century to present, these zoological institutions have evolved among their local communities as staples in conservation and animal species preservation. Being a museum of living archives, zoos have ancestral lineages of captive animals as well as species with long histories of wild and captive conservation. They exist within our communities as a hybrid between educational/public history organizations and venues of entertainment.



Compilation of drawings of the newly opened Philadelphia Zoo. Courtesy of Harper's New Monthly Magazine

animal species preservation. Being a museum of living archives, zoos have ancestral lineages of captive animals as well as species with long histories of wild and captive conservation. They exist within our communities as a hybrid between educational/public history organizations and venues of entertainment.

This fictional zoo exhibit will take you through the zoological history of four different species through the lens of three of the first formally established zoological institutions. This exhibit will focus on Association of Zoo & Aquarium accredited institutions to establish both positive and negative examples of animals in captivity at the most respected level of care. The purpose of this exhibit is not to sway visitors in one direction, but to provoke thought and discussion surrounding zoological institutions, animal captivity, and environmental conservation in relation to the current climate status.

Historical Zoo Archives



Seal Pool at Central Park Zoo, NYC.

Browse Collections Browse Exhibits About this Exhibit

HISTORY OF ELEPHANTS IN AMERICA

Elephants have a long, complicated history of captivity in America. The first elephant arrived in North America in 1796 and until the 1980's elephants were obtained by zoos from the wild. These gentle, intelligent creatures were sold to individual buyers that would show, sell, or loan them to circuses, zoos, and menageries. Their care in captivity was tenuous and fraught with ill-considered techniques. There are many documented individuals that died at the hands of poor handlers or frightened civilians.

Two specific elephants that demonstrate the beginning of exotic animals on display in private shows are Old Bet and Betty the Learned Elephant (Lili Bet). Old Bet arrived in America at the end of the 18th century and was murdered by a farmer in Maine. Old Bet's owner then brought over Betty the Learned Elephant, who was also murdered in Rhode Island. Both have memorial plaques dedicated to them (shown below).

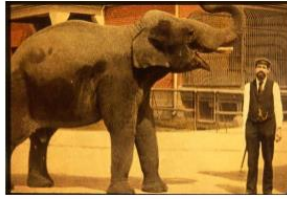
Elephants are an excellent example of public opinion shaping the direction of zoos because their care in captivity and the push for conservation and protection in the wild has positively increased due to the work done by zoos.

Executive Director of Roger Williams Park Zoo in 2014 provided his opinion on the controversy surrounding elephant captivity in the Providence Journal: "Though elephants can be a popular attraction, their captivity is controversial, too. Animal rights groups, and ones organized specifically on behalf of elephants, argue that for creatures used to living in large herds and roaming over large areas, no zoo could ever have adequate room for them to thrive." Goodman said the problem with letting elephants stay in the wild is that the wild is not safe for them. Estimates are that 56 elephants a day are killed by poachers for their ivory, he said. Four days of that kills more elephants than are in all of the United States zoos...In the last 25 years, the elephant population worldwide has dropped by two-thirds, to about 500,000. Goodman said keeping elephants alive in zoos and managed areas is a better way to preserve some of them."

Yet, none of the goodwill expressed by Goodman could prevent Roger Williams Park Zoo from being named one of the ten worst zoos in the country for elephants in 2019, mostly in regards to their continued use of bullhooks. Rhode Island was the first state to ban the use of bullhooks in 2016 - spurred by public outcry - but the ban applied to circuses and traveling shows, not zoos. Roger Williams Park Zoo has stated that the bullhooks are used only as guides, extensions of a keepers arm, and are necessary to ensure safe, proper care. They have asserted that when used properly, this tool does not inflict pain or harm.

Elephant mistreatment has been prevalent throughout elephant captivity since the first elephants stepped foot in North America. Their care, exhibit spaces, and training methods have massively improved. The constant misunderstanding of captive elephants needs have led to many injured handlers and visitors, as well as many hanged elephants. Like any animal, when attempts to understand their needs and empathy are implemented, injury and death caused by said animal no longer occur.

Modern elephant exhibits must be at least 5,400 square feet by AZA standards, of which Roger Williams Park Zoo is 2.5 times the required standard. In 2008, RWP Zoo underwent a "mammoth expansion" project, spending \$11 million to double the size of the elephant exhibit and including a pond and waterfall 11 feet deep for better enrichment (seen below). This expanded exhibit, which includes indoor and outdoor accommodations for all three elephants, is a large improvement from the first menagerie building RWP Zoo's elephants shared with numerous other animal collections. Within the last 20 years, many accredited zoos (including the Philadelphia Zoo) have started to phase out their elephant programs due to exhibit site regulations and animal care costs.



The second elephant at Roger Williams Park Zoo and the first elephant to be named Lili to honor her handler passed down to her heir and her handler.

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Modern elephant exhibits must be at least 5,400 square feet by AZA standards, of which Roger Williams Park Zoo is 2.5 times the required standard. In 2008, RWP Zoo underwent a "mammoth expansion" project, spending \$11 million to double the size of the elephants exhibit and including a pond and waterfall 11 feet deep for better enrichment (seen below). This expanded exhibit, which includes indoor and outdoor accommodations for all three elephants, is a large improvement from the first menagerie building RWP Zoo's elephants shared with numerous other animal collections. Within the last 20 years, many accredited zoos (including the Philadelphia Zoo) have started to phase out their elephant programs due to exhibit size regulations and animal care costs.

down hill. Going up the hill, he would turn, lie down, and allow himself to slip down the incline as far as practicable. Then he would get up and repeat the operation, much to the detriment of the hillock, which was sadly worn by the process. All these elephants were uneasy, and so evidently irritable that their proximity created a sense of fear. One could not but regret that they were not trained to useful work like their relatives abroad. Mentioning this subject to the superintendent, he said that the training of the elephant was a very brutal operation, and much to be dreaded on account of the amount of pain necessary to overcome the natural obstinacy of the animal; that one of the elephants of the garden had been trained, but that her temper is bad, and he did not dare trust her.

Perhaps some future Rarcy may show us how to subdue the elephant by a process as simple as that of a strap on the foot passing under the surcingle or girth. Doubtless his hands will ache to get hold of Empress and Don Pedro, the two little elephants of the collection, and the result will be two docile bates, two howdahs, bespangled, befringed, and glistening like the sun, bearing groups of joyous children all day, at ten cents a trip, from the elephant house up by the seal ponds, the monkey house, the prairie-dogs' field, to the old Penn mansion, for a call upon the courteous gentleman in charge. Perhaps he might object to being visited all day long in such state; but certainly he would like to see the children happy, and possibly he may understand what such a thing as an elephant ride means to the ordinary child.

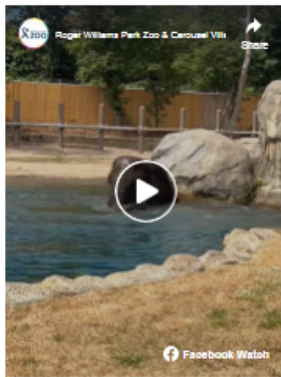
Harper's New Monthly Magazine, volume 22, dated December 1872/January 1873, details the life of elephants housed at the newly opened Philadelphia Zoo.

Don Pedro, the two little elephants of the collection, and the result will be two docile brutes, two howdahs, bespangled, befringed, and glistening like the sun, bearing groups of joyous children all day, at ten cents a trip, from the elephant house up by the seal ponds, the monkey house, the prairie-dogs' field, to the old Penn mansion, for a call upon the courteous gentleman in charge. Perhaps he might object to being visited all day long in such state; but certainly he would like to see the children happy, and possibly he may understand what such a thing as an elephant ride means to the ordinary child.

Harger's New Monthly Magazine, volume 28, dated December 1872-March 1873, details the life of elephants housed at the newly opened Philadelphia Zoo



Additional resources: listen to a short 20-minute *Wild Island* podcast on Spotify, Episode 12: Elephant Bridge discusses one of the first elephants in America - Lil Bet the Learned Elephant - murdered in Chepachet, RI in 1826. [LISTEN HERE](#)



← Introduction

Elephants

Orca →

Public History Capstone Project

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CAPTIVE HISTORY OF ORCAS IN AMERICA



Orca Breaching in Ocean



Orca has been held during a capture. (Image courtesy of Ted Griffin)

Public attention to orcas exploded in 2013 when *Blackfish*, the documentary featuring Seaworld's captive orca, Tilikum, first aired. And additionally, now more recently, with the announcement to reintroduce captive orca Lolita back into the wild, and hopefully, with her maternal pod with her sibling mother, Lolita was captured from the wild in 1970 during the Penn Cove Captures and has lived in captivity since.

Aquarium owner and entrepreneur Ted Griffin, the first man to both capture and train an orca (Infamus Namu in 1962) is quoted in a PBS interview saying the following about orca captivity:

"At any rate, this question will go on indefinitely and I just seek a common balance and an understanding. Would I catch whales again for live capture and for a pet? Yes. Would I do it the same way? No. If you gave me the choice of using the knowledge I've gained, I would be quite different about it, but I would still do it. Would I maintain killer whales in captivity? Yes. When would I not do that? When... a time came when it was possible to have them and exhibit them and have people become acquainted with them as I had, or the captivity corral, if you will, would be large enough that there wouldn't be any question as to whether or not it was big enough. So you're always going to have people on both sides [of the issue] and I don't know that it'll ever end."

Tilikum, the orca that is associated with three human fatalities and died in 2017, is a great example of the capabilities orcas have, which originally contributed to their endangerment. As mentioned in the section on elephants, both trainer and animal safety increases as the animal's captive needs are met. Western society feared orcas as dangerous and "killer" predators (hence the nickname killer whale) and were hunted as such until the mid-20th century. It was around then, with the passing of the Endangered Species Act of 1973, that attitudes towards orcas evolved from ocean pests to scientific curiosity. This is when live capture for public display and scientific evaluation became popular, especially due to Ted Griffin and the capture and training for entertainment purposes of Namu.

Exhibit spaces are a particular grievance for orca captivity. In 2010, Lauren Tierney of Michigan State University, College of Law wrote, "The orca's natural activity levels, sociality, hunting behaviors, acoustic perceptions, and the texture of their natural environments are all compromised by captivity. The habitat of marine mammals is complex and difficult and frequently impossible to recreate or simulate. Typical whale pools are about one ten thousandths of 1% of their normal habitat size."

Below, see two opposing examples of videos about orcas in captivity. The first is a Seaworld promotional video posted two years after *Blackfish* aired which discusses their collection of orcas and how they were obtained. They state they haven't Seaworld's previously captive orca Tilikum (the featured orca in *Blackfish*), his history from capture in 1983 to his death in captivity on January 6, 2017.

For more pro-captivity, anti-captivity, and additional reading on the orca debate, take a look at [these links provided by PBS](#).

Additional Resources - Download the Whale and Dolphin Conservation orca workbook here:



SNHU Zoo

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[Elephants](#)

[Orca](#)

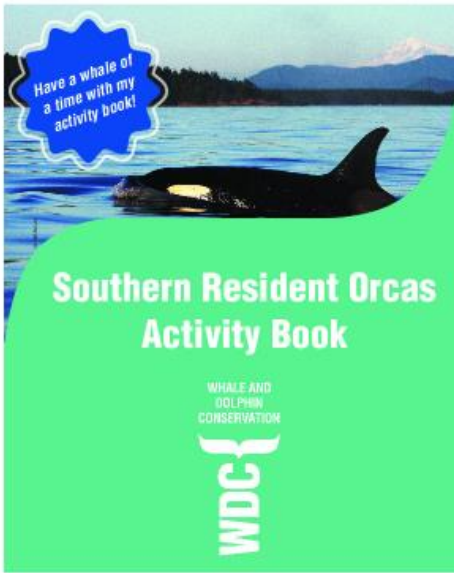
[Red Wolf](#)

[Timber Rattlesnake](#)

[Keepers Corner](#)

[Conclusion](#)

Additional Resources - Download the Whale and Dolphin Conservation orca workbook here:



Tilikum...

Watch on  YouTube



Penn Cove whale capture in August 1970. Photographed by Wallace J. Funk

← Elephants

Orca

Red Wolf →

HISTORY OF RED WOLVES IN SOUTHEASTERN UNITED STATES



Saluda, red wolf born in 2002 at Roger Williams Park Zoo.



The most endangered canid in the world, the red wolves, were nearly hunted to extinction by 1980, being formally declared extinct in the wild by 1985. The only remaining wild population can be found in northeastern North Carolina, currently at about 15-20 individuals, with a little over 200 individuals living in captivity. Fewer than 20 individuals were selected from the wild to participate in a breeding program, part of the AZA Species Survival Plan® and the U.S. Department Fish & Wildlife Service's Red Wolf Recovery Program.

On May 5, 2022, the first red wolf pup since 2005 was born at Roger Williams Park Zoo to mom, Brave, and dad, Diego. Animal Care Manager Jenny Theuman stated that Saluda will have three potential futures based on a recommendation from the U.S. Dept. of Fish & Wildlife Service: stay at RWP Zoo, reintroduce her to a wildlife pack, or move her to another accredited facility for breeding.

Part of using AZA facilities for breeding besides increasing the animal populations is to leverage the wide audiences that zoos experience to increase awareness. The more people care, the easier it is to preserve animal species and stop the actions that endanger them. For red wolves, those dangers are habitat loss, death from cars, hunting, and poor human-animal relationships. When people view animals as a pest or a trophy, it is easier to continue the practices that aid in totally eliminating them. Like the also endangered timber rattle snake, red wolves can't survive if the public isn't on board. The goal of the recovery program is not just physical recovery, but generating awareness and empathy.

**As of April 22, 2023, two more red wolf pups have been born to mom, Brave, and dad, Diego, at Roger Williams Park Zoo.*

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Seluda, the first pup born at Roger Williams Park Zoo since 2005, with her parents (Diego and Brava). Roger Williams Park Zoo participates in the Red Wolf Recovery Program.

● ○ ○

— Orca

Red Wolf

Timber Rattlesnake —

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HISTORY OF TIMBER RATTLESNAKES IN NEW ENGLAND

Timber rattlesnakes, like the New England cottontail, were once native to the entire New England region, spanning from Maine to as far south as the White Mountains. Since the end of the 19th century, however, this species of reptile has reached near extinction - the largest decline in population of any native reptile. Their biggest threat? People. These snakes have reached critical endangerment due to intentional persecution and general fear surrounding their existence, leaving less than 200 individuals spread between five small populations around Massachusetts.

Roger Williams Park Zoo has been partnered with Massachusetts State administration for several years in their captive breeding program, with the intention of releasing the rattlesnakes back into the wild. In 2016, this reintroduction plan was meant to headstart a small rattlesnake population to specifically one uninhabited island in the Quabbin Reservoir. Yet, what has stirred up controversy?

"It puts me in a lousy position when we're kept in the dark. If the goal is to have a population of rattlesnakes, it would seem to me that the best place would be a controlled setting like a zoo." - Sen. Anne Colby (D-Spencer), chair of the Joint Committee on Environment, Natural Resources and Agriculture, quoted in *Recovery: Saving Timber Rattlesnakes*, Wily Wildlife Recovery isn't a Popularity Contest. When word of this reintroduction was released, it was met with strong disapproval from the public.

In the past couple exhibits, we have seen examples of the public speaking out against breeding programs and captive animals in zoos. What has changed in the case of the timber rattlesnake? This species in question is not widely adored and is not an exotic species from a foreign land; this animal belongs in our backyard and the public fears them.

"We're out to save the endangered species of New England. It's not just about the cute and cuddly all-species matter. It's not for us to pick and choose. I want all the snakes in my wheel." - Louis Perotti, Conservation program Director at Roger Williams Park Zoo, quoted in *Recovery: Saving Timber Rattlesnakes*, Wily Wildlife Recovery isn't a Popularity Contest.

There has been no documented outcry for the captive breeding program and reintroduction of New England Cottontails to their original geographic region. And still, public opinion is so influential that the timber rattlesnake project has been indefinitely shelved, even though just around 200 of these individuals coexist with humans right now in their five small pockets of the state. Human fear is the greatest threat to these creatures and perhaps with some more time and publicity, they can garner the same public support and empathy as the killer whales.

Hear the Full 3-minute interview between NPR's Audie Cornish talks to Tom French of the state Division of Fisheries and Wildlife!

▶ 0:00 / 3:43



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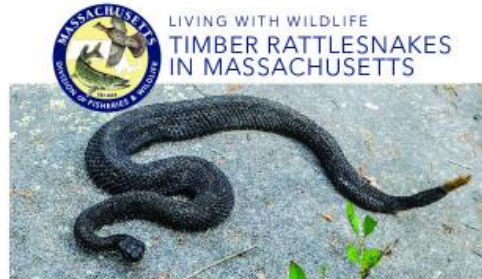
Conclusion



LIVING WITH WILDLIFE
TIMBER RATTLESNAKES
IN MASSACHUSETTS

pockets of the state. Human fear is the greatest threat to these creatures and perhaps with some more time and publicity, they can garner the same public support and empathy as the killer whales.

Hear the Full 3-minute interview between NPR's Audie Cornish talks to Tom French of the state Division of Fisheries and Wildlife:



The timber rattlesnake is the most critically imperiled reptile in Massachusetts. It is found in only five localities, nowhere as a species within the Commonwealth. The timber rattlesnake was historically native to at least ten of Massachusetts' 14 counties and has sustained the largest decline of any native reptile in the past 50 years.

DESCRIPTION
Timber rattlesnakes are relatively large, ranging from 30 to 60 inches in length. They are a jet black (black) viperid, suddenly contrasted with a prominent but not a red heavily keeled scales. Heaters are 7-16 inches long. The back pattern is variable, but may be yellowish or black, or patterns of bands with black, chestnut, and red-brown colors. In some individuals, the back pattern may be completely black. The timber rattlesnake has a triangular head and vertical pupils. Timber rattlesnakes avoid people.

DISTRIBUTION
The timber rattlesnake ranges from central New England to northern Florida, and west to Minnesota and Texas.

LIFE HISTORY
Timber rattlesnakes may achieve ages of up to 40 years.

They mature between the ages of 7 and 12 years. Timber rattlesnakes bear live young. Birthing usually occurs in late summer and one litter consists of 5-9 young. In the northern portion of their range—including Massachusetts—timber rattlesnakes give birth to a 2- to 4-year cycle.

FOOD, HABITS, AND HABITAT
The remaining timber rattlesnake population in Massachusetts are associated with deciduous and mixed pine oak habitats in unfragmented moderate areas. For Massachusetts populations, overwintering sites—usually dense woods usually situated upon or adjacent to a mass of deep, loose soil (e.g., fields) associated with old, backhoe-cleared, and ridges. Other important habitat features include: brush areas, barbed wire, and tree stumps. From forests to fields, summer activity areas may be located across fields from overwintering sites. Massachusetts timber rattlesnakes usually emerge from overwintering sites in April and hibernate frequently near the den entrance and mid-May. Long foraging movements are made throughout the summer. Timber rattlesnakes are a slow-worm predators that prey on mice and rodents, but they may also eat amphibians, snakes, and birds. Timber rattlesnakes mate in the spring and give birth in the autumn and spend approximately six months hibernating.

MASS WILDLIFE

If you live in or visit New England, check out this guide for living with timber rattlesnakes and help protect Massachusetts' most critically endangered species.

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THE KEEPERS CORNER



Gabriel Montague, Roger Williams Park Zoo
Providence, RI

"I had always felt as a young person that being a zookeeper was something I was supposed to do. When I was around 9 I had visited a subpar zoo with my family and I had literally left in tears. While my dad had been upset at some of the exhibits he had made it a point that he talked with some of the keepers and told me how much they cared and how hard they worked to make everything as good as it could be. That was one of the defining moments in my life where I decided I wanted to work with animals, specifically being a zookeeper.

After pursuing a BS in psychology, with an emphasis on animal behavior, I accepted my first internship at a big cat sanctuary in Texas. That was over 20 years ago and I've never looked back. The changes I've seen happen both in the profession overall and my personal growth as a keeper are amazing. Exhibits have gotten larger and more complicated; diets have become more nutritionally complete, and veterinary care has improved with leaps and bounds. Conservation both in-situ and ex-situ have become focal points of many zoos. There are so many aspects of zoos that have improved and are continually improving.

I'm excited to continue with my career and look forward to the next 20 or so years before I retire."

Gabe Montague is the author of "Head-Starting and Conservation of Endangered Timber Rattlesnakes (Crotalus horridus horridus) at Roger Williams Park Zoo," published in the Journal of Zoological and Botanical Gardens on November 14, 2022.



Michaela Cook, Roger Williams Park Zoo
Providence, RI

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Michaela Cook, Roger Williams Park Zoo
Providence, RI

"A lot of times people anthropomorphize animals in their enclosure. By doing that, they assume an animal alone must be lonely- not that it could violently attack another animal if there were more than one in the enclosure. Or that when an animal is sleeping, it must be because they are bored and not for the reason that the species does that for most of their natural day. With that said, we of course are striving for visitors to have empathy and a connection to our animals. It's with that emotional connection that conservation can begin on a local level.

I want someone to leave with a feeling of connection from simply learning an animal's name or discovering that they love watermelon just like our elephants Kate, Ginny, and Alice do. I think most people do not read the graphics that are provided in detail, either, which is ok. People are given a lot of information all the time and a trip to the zoo is usually a time to take a mental break from everyday life and build memories / bond with family and friends. But I think zoos are understanding that visitors want to have a profound experience with zoo animals instead of memorizing facts.

Zoos are being very creative with acknowledging this shift by doing things like having holes in river otter exhibits where the otters can hold out their hands for visitors to touch (North Georgia Wildlife & Safari Park) or a lion exhibit where there is a rope in the enclosure that has a hole for visitors to have a tug of war (Dartmoor Zoo). Roger Williams has been offering armadillo encounters to our visitors during the summer season for the past few years at no additional cost. A small number of visitors at a time are given instruction and

then go through 2 gates which take them to our connection corner. Here there are 6 & 9 banded armadillos running around for our visitors to be able to touch and interact with. These armadillos are education animals and are ambassadors for human interaction, travel, and touch. With that said, they also have a section of the yard roped off as a no touch area where the armadillos can go if they choose to for a break. I have not heard of any negative feedback but only accolades and positive social media posts. It truly is a great experience."



Lino Ribeiro, Capron Park Zoo
Attleboro, MA

"One of my favorite perceptions of zoos came from The Bronx Zoo Director, Jim Breheny. He said, 'If you ask a child to draw you a picture of the zoo, chances are they're gonna draw a picture of an animal behind bars. We gotta take that image and change it.'



Lino Ribeiro, Capron Park Zoo
Attleboro, MA

"One of my favorite perceptions of zoos came from The Bronx Zoo Director, Jim Breheny. He said, 'If you ask a child to draw you a picture of the zoo, chances are they're gonna draw a picture of an animal behind bars. We gotta take that image and change it.'"

That concept has always resonated with me from the beginning of my 18 year career and long before hearing it. I started as a zookeeper when I was 23 and it wasn't long after that some of my skills in the trades were noticed and I was moved over to the operations side of things. I was hesitant at first, fearing I was stepping away from the animals. But, in reality, I was now going to be directly responsible for the habitats they hopefully would thrive in and provide a great experience for guests.

One of the very first major exhibits I helped build were the two Lemur Islands in our 2-acre pond. Finally, this was a chance for my vision of creating a habitat that allows the animals to do what they would do naturally, but in a captive setting. We created a space with no caging, bars, or walls that had 360 degree viewing for our guests and an island paradise for our lemurs. We also added a 245 foot long boardwalk across the pond, bringing our guests right over the water and in great viewing range of the lemurs while they sunbathe comfortably at a distance.

18 years later, I am still always striving to achieve that level of immersion for our guests. Exhibits like our recently renovated Rainforest also provides a similar experience. It's so important with each step forward we take in changing the public view on zoos, that we take a step back ourselves as zookeepers and remember what it was like when we first went to zoos as kids, and what made us want to do that for the rest of our lives."



Lemur Island at Capron Park Zoo in Attleboro, MA.

CONCLUSION



Jocelyn Hopkins feeding Jaffa, a giraffe with Roger Williams Park Zoo, 2016.

From the research available past to present, it is clear that culturally society has changed the way that we view, treat, and care for animals of all species. As is true with humanity, individual opinions will vary but trends in public opinion have the ability to create documented changes.

The social and cultural trends of the 20th century, proven through such evidence as the establishment of the Association of Zoos and Aquariums in 1924 and the Animal Welfare Act passed in 1966, provide us with an idea of what the future of these establishments may look like. The future of zoos may not resemble the same public history institutions of today, but their footprint is too permanently enmeshed in our local culture to believe they may one day no longer exist.

Conservation and preservation - the mission of zoos - isn't about separating the public from who is right and who is wrong. It is understanding what and why people believe and figuring out how to educate to change their perceptions. Understanding the history of zoos and the animal collections they house contribute to that mission for a successful future.

Below are a list of the articles and resources utilized in this exhibit for further reading.

[Support your local AZA zoo](#)

Additional Resources

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Appendix: Interview Consent Forms



Interview Consent Form

Southern New Hampshire University: College of Online and Continuing Education
33 South Commercial Street, Suite 203
Manchester, NH 03101
1-866-860-0449

I, (please print your name) _____ Gabriel Montague _____, give Southern New Hampshire University the absolute right and permission to use my written or spoken material for educational purposes in the _____: **Public History Capstone**_. I understand that the written material may be used in a course presentation, discussion forums, or other educational setting.

The results of the interview will be used in course assignments or discussion forums, but your name or identity will not be revealed.

I release the University, the filmmaker/photographer, their offices, employees, agents, and designees from liability for any violation of any personal or proprietary right I may have in connection with such use. I am 18 years of age or older.

Name: _____ Gabriel Montague _____ Date: 05/21/2023 _____
Address: 12 Sanderson Rd Smithfield _____ State: RI _____ Zip: 02917 _____
Phone: 413-265-1000 _____ E-mail: gmontague@rwpzoo.org _____
Signature: _____ Gabriel Montague _____

Please return this form to the student(s) involved in the **his 792** course, and you may keep one copy for your records. Should you have any questions please do not hesitate to contact the **his 792** instructor or the SNHU College of Online and Continuing Education Office at 1-866-860-0449.

Southern New Hampshire University
Interview Consent Form

Southern New Hampshire University: College of Online and Continuing Education
33 South Commercial Street, Suite 203
Manchester, NH 03101
1-866-860-0449

I, (please print your name) **Michaela Anthony**, give Southern New Hampshire University the absolute right and permission to use my written or spoken material for educational purposes in the **_____ : _Public History Capstone_____**. I understand that the written material may be used in a course presentation, discussion forums, or other educational setting.

The results of the interview will be used in course assignments or discussion forums, but your name or identity will not be revealed.

I release the University, the filmmaker/photographer, their offices, employees, agents, and designees from liability for any violation of any personal or proprietary right I may have in connection with such use. I am 18 years of age or older.

Name: Michaela Cook Date: 5/22/2023
Address: 118 Berkley St State: RI Zip:02+910
Phone: 401-545-0464 E-mail: manthonycook@rwpzoo.org
Signature: *Michaela Cook*

Please return this form to the student(s) involved in the **his 792** course, and you may keep one copy for your records. Should you have any questions please do not hesitate to contact the **his 792** instructor or the SNHU College of Online and Continuing Education Office at 1-866-860-0449.


Southern New Hampshire University
Interview Consent Form

Southern New Hampshire University: College of Online and Continuing Education
33 South Commercial Street, Suite 203
Manchester, NH 03101
1-866-860-0449

I, (please print your name) Lino Ribeiro, give Southern New Hampshire University the absolute right and permission to use my written or spoken material for educational purposes in the Public History Capstone. I understand that the written material may be used in a course presentation, discussion forums, or other educational setting.

The results of the interview will be used in course assignments or discussion forums, but your name or identity will not be revealed.

I release the University, the filmmaker/photographer, their offices, employees, agents, and designees from liability for any violation of any personal or proprietary right I may have in connection with such use. I am 18 years of age or older.

Name: Lino Ribeiro Date: 6/3/23
Address: 89 Webster St. Douglas State: MA Zip: 01516
Phone: _____ E-mail: LinoRibeiro72@gmail.com
Signature: 

Please return this form to the student(s) involved in the _____ course, and you may keep one copy for your records. Should you have any questions please do not hesitate to contact the instructor or the SNHU College of Online and Continuing Education Office at 1-866-860-0449.

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