

Reusing Abandoned Zoos: A Progressive Approach to Human-Animal Relationship

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Abstract

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Zoos are no longer a vital part of our society today, due to their inability to adapt to current animal welfare standards a significant number have been closed and lie vacant, sometimes in dense urban setting. This thesis will tackle the problem of the abandoned zoo, adapting this institution to fit with the values of modern day animal welfare. So that in the future the zoo will not be the only habitat of the wild animal. In many cities urban sprawl and urban development has forced the local wildlife out of the city. A habitat that was once their own, has been claimed by the human race. Because of the lack of habitats, many animal species have adapted their survival techniques in order to live alongside to humans. Using the abandoned zoo typology, this thesis will restore urban land for the animals, fostering wildlife sanctuaries for regional wildlife, while allowing humans to view the animals and landscape in a noninvasive manner. The goal is to establish a positive human to animal relationship while transforming these sites within an urban framework. In response to the current shifts in zoological design, the idea that the zoo should work together harmoniously with the natural world, fostering local ecology and promoting biodiversity.

Acknowledgments

Well this is the end of academia, I don't think I can do much more schooling for now. It has been a very long, tiresome journey, but one worth the reward.

I would like to thank everyone in my support system throughout this chapter in my life. My parents especially, as they have gotten many frustrated, and exhausted phone calls throughout graduate school. Some how they always knew how to calm me down or pick my spirits back up. It has also been such a pleasure to meet some amazing friends along the way, we have such a tight bond since it really is only architecture students that understand what its like to be in architecture school. This experience has been a whirlwind , I can't believe its over...

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Preface.

Zoological history is vast and spans thousands of years of time. It is through investigations of the past zoological struggles and strategies that we can learn and apply these lessons to the future of zoological design. In the beginning of my thesis project I was interested in designing a zoo, re-envisioning what zoological exhibits are today. However after thorough research of the past and present zoological gardens, I came to the conclusion that the zoo needs to evolve.

Zoos have been a showcase of animals and nature for thousands of years. The first zoo appeared in a Sumerian city of Egypt forty-three hundred years ago, where thousands of captive wild animals were collected as “living trophies,” a symbol of power and prestige and man’s dominance over the beast.⁴ The zoo as a symbol of power and prestige can also be seen in France during the reign of King Louis XIV. King Louis XIV created a wildlife menagerie, at the Gardens of Versailles. The wild animal

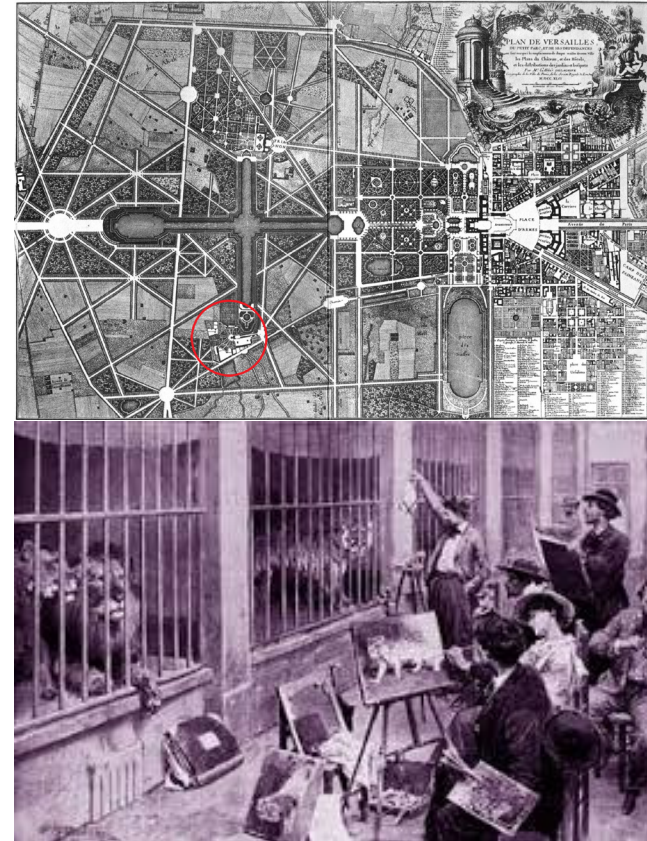


Image 1 Top & 2 Bottom.
The Zoological garden at Versailles. Early animal exhibits, showcasing wildlife on a stage³

attraction brought aristocrats from far and wide to view the exotic collections, and the architecture of the menagerie was comparable to a theater with the cages arranged like a stage.³

Looking at these two early zoos, wild beasts were used for the humans agenda, whether it be power and prestige or entertainment. These principles are deeply ingrained in the zoological theories and structure what we see in the modern day zoo. Society has evolved immensely since the reign of King Louis XIV, but yet zoos are still holding on to these principles. This stagnant evolution is troublesome, the modern day zoo shields itself with exhibits that allude to animals in nature, and however it is a false sense of reality. It is because of this revelation that this thesis steps away from historical zoological ideologies and develops a progressive approach that supports today's societal views on animal advocacy and wildlife conservation.

Introduction.

This thesis provides a framework for the abandoned zoos of the world. It focuses on reestablishing positive human to animal relationships within the urban environment, specifically educating the public on local wildlife conservation efforts, while allowing visitors to view the animals in a noninvasive manner. The goal of this thesis is to provide a framework for landscape restoration of local habitats, using the abandoned zoo as a platform for the restoration, in so doing this thesis will foster habitat sanctuaries for regional wildlife, positioning the needs of the beast ahead of the needs of the human.

In many cities urban sprawl and urban development has forced the local wildlife out of the city. A habitat that was once their own has been claimed by the human race. Because of the lack of habitats, many animal species have adapted their survival techniques in order to live in company with humans. Using the abandoned

zoo typology; this thesis will restore urban land for the local wildlife, reclaiming land in the urban context and reestablishing a bio-diverse environment.

The abandoned zoo typology is fairly new, these haunting shadows convey a decline in the success of the zoological environment primarily within the United States, but also in Europe, Africa and Asia. The question to ask is, why have so many zoos been forced to close? This thesis will investigate how the zoo has failed and as a consequence is losing its place in modern society.

To understand where the zoo went wrong in the present day, there must be an understanding of how the zoo has developed and evolved over time. It is through the understanding of these trends that one can understand how history has influenced modern day zoological design. This thesis will specifically look at studies of the early zoos and, modern zoological design and offer a prediction of how the zoo will progress.



Image 3 Top & Image 4 Bottom.
Belle Isle Children's Zoo, Detroit, USA is one example of the abandoned zoo typology

Chapter 2. Zoological Design, Past, Present, and Future

Zoos as a Showcase of Animals and Nature

Zoological Conservation Efforts

Case Studies of Urban Zoos

Zoo Evolution

A photograph of a lion lying down in a zoo enclosure. The lion is the central focus, lying on its side with its head resting on the ground. It has a thick, golden-brown mane and a lighter-colored body. The background shows a dark green tiled wall and a wooden post. The lighting is somewhat dim, creating a somber atmosphere.

Where did the zoo go wrong?

The foundation of the zoo stems from thousands of years ago, the zoo has failed to evolve from the ingrained traditions of the past.

Image 5.
Zoo of Berlin. Indoor Lion Exhibit

Zoos are a controversial typology in today's age. They not only serve the human population but are also home to many exotic animals, which live in captivity to serve the human agenda. David Hancocks argues in the book *A Different Nature: The Paradoxical World of Zoos and Their Uncertain Future*:

“There is a very different need for zoos today and going to a zoo to see pandas and tigers is no longer sufficient justification for its existence. The wild homes of those cherished beings are disappearing, destroyed by humans. Zoos must become gateways to the wild, metaphorically and practically.”⁴

This concept reflects the current shift in zoological design, which is the idea that the zoo should work together harmoniously with the natural world, so that in the future the zoo will not be the only habitat of the wild animal.

Zoos as a Showcase of Animals and Nature

For many zoo goers the zoo allows an escape from the urban context; much like going on a hike in the mountains, although there is no guarantee that you will see a wild cat or even a squirrel while hiking through the natural environment. Wild animals clearly fascinate people, and it is the staging of the zoo that allows the user to escape their current place and be entertained by a highly fabricated version of nature that is more accessible to the public because of its location. It is this need to be connected to nature that reveals the very complex relationship with humans and nature and entertainment.¹

The primary relationship between humans and nature is, as Eric Baratay and Elisabeth Fugier argue in the book: *Zoo: A History of Zoological Gardens in the West* defined by “the impulse to appropriate, master and understand; the progressive recognition of the complexity and

specificity of the diverse forms of life...”¹ However the notion of mastering or understanding nature is impossible; the nature that is viewed in a zoological setting is a cultural understanding of scientific knowledge that is a theory of the constructs of the natural world.² Therefore the notion that a zoo is a showcase of animals in nature is flawed. The false sense of the construct of reality leads the visitor on an exciting journey to a different place, but how does the false habitat effect the animals that are living in this wonderland?

The modern day exhibit is designed to replicate natural habitats, however they lack reality because of the scale of the exhibits, but also because they are designed for human entertainment, compromising the integrity of nature. In the article, “Zoo Animals and their Discontents”, Alex

Halberstadt writes about the physiological effect that zoological exhibits have on the animals because they are not living in nature, and how their living conditions have caused many species to exhibit unusual behavior. Halberstadt writes in the context of zoo animals: “Often, the animals suffer from afflictions that haven’t been documented in the wild and appear uncomfortably close to our own: depressed snow leopards, brown bears with obsessive-compulsive disorder, and phobic zebras.”⁹ Irene Papperberg, a comparative psychologist at Harvard, known for her studies on the African gray parrot, believes that unusual captive animal behavior stems from the environment that animals are living in.⁹

Zoological exhibits have been designed to replicate nature, however one of the main flaws in captivity is that the environment facilitates a structure which does not allow the animals to embrace their basic instincts.

Papperberg states: “An animal in the wild can’t afford to be depressed, it will simply be killed or starve, since its environment requires constant vigilance...”⁹ This theory is simple, wild animals are not meant to live in constrained exhibits, even ones that represent their natural habitat; because these exhibits do not provide a framework to allow the beast to use their natural instincts, in turn causing harmful psychological effects.

The effects caused by the living conditions at the zoos are not going to go away, as you cannot take the natural instincts out of the beast. The zoo has made efforts to breed animals for their temperament, but they have yet to breed an animal without wild instincts nor should they. The problems that the zoo faces with animal physiology is not going to go away unless the zoo adopts new ideals and techniques for animal habitats, changing their living conditions altogether.



Image 6. Top: Brookfield Zoo Primate House
Image 7. Bottom: Brookfield Zoo Swamp Exhibit

Both of these exhibits are examples of an artificial construction of nature. In the picture on the top zoo guests are guided through the “tropical forest” on raised pathways that allow the user a 360 degree view of the primates.

Zoological Conservation Efforts

In recent years zoos have attempted to contribute to the conservation of many endangered species and wildlife. The conservation goals of many zoos are very ambitious, however because the modern day zoo is being pulled in many different directions their efforts only make a small impact on the zoological conservation effort. The author of the *Zoo Future*, Jon Cohan recognizes the internal conflict that zoos face is real and effects conservation efforts. Cohan writes: “Caught between circuses, theme parks, museums, and menageries, zoos are struggling to be leaders in the conservation world. Getting there may mean letting some animals go.”¹⁰ And that is exactly what the zoo has had to do.

Many zoos have been claiming that because the zoo fosters an endangered animal breeding programs they can call themselves the modern Noah’s Ark.⁴ The fact

is, is that it is impossible for the zoo to save all of the world’s endangered wildlife through breeding programs, the scale of these establishments are just too small.¹⁰ In the book *A Different Nature*, David Hancocks writes about the struggles and strategies of zoological conservation, specifically in house breeding:

“Any sensible conservation policy would be based on ecological needs and would ignore many zoo species. It would also recognize that zoos are not the best place for breeding rare and endangered animals. For example, zoos tend to select animals suitable for zoos then opt for breeding docile, tractable specimens. A difficult or aggressive animal is not likely to be selected for a zoo breeding program, yet it might have the very genetic characteristics that could best equip its progeny for survival in the wild.”⁴

These breeding strategies are ultimately a mechanism that the zoo has developed because



Image 8.
Tale of Noah's Ark

the zoo is not equipped to handle wild animals. These animals are described as wild for a reason, as a tiger or lion can never be tamed or domesticated through breeding efforts. The zoo chooses to breed docile animals because they cannot control the beast. Allowing the genetic characteristics of a species to suffer is a crucial flaw, which will eventually cause problems with the genetic makeup of these species in the future.⁴

The zoos' strategies are flawed on many levels, not only

do their breeding programs lack genetic diversity, their intentions can be seen as unethical. Ultimately the breeding of wild animals by humans can barely avoid creeping into the realm of domestication.¹ Hancocks, explains that the zoological breeding strategies of the modern day Noah's Ark does not support the conservation of endangered species, who need the most breeding:

“Most zoos and many books and magazine articles in recent years have responded by claiming, repeatedly and loudly, that captive-breeding programs for wild animals make zoos the modern Noah's Ark. This simple imagery is ludicrous. We cannot save the world's endangered wildlife through the few successful breeding programs in zoos, just as one cannot save a language simply by holding on to a rare document.”⁴

This statement brings to question the relevance and future of the Noah's Ark concept in zoological conservation. According to the International Zoo Yearbook the Ark seems to be shrinking, meaning

the zoological breeding programs only focus on the conservation of a small variety of animals.⁹The modern Ark has been discriminating against the animals they take in, focusing on “saving the sexy species.” The “sexy species” are the animals that are crowd pleaser in the zoo, mostly larger animals that hold the attention of the audience. In a 1986 study from Jacksonville State University, found that zoo goers were more entertained and spent a longer period of time in the larger mammal exhibits.⁸Therefore the zoo has more incentive to saving these larger mammals, but is this strategy relevant in the conservation world?

With conservation it is very important to focus on bio-diversity, because in an ecosystem all species work together for survival. However because of the structure of zoological design, being that the animals are separated into individual enclosures, bio-diversity is not emphasized. Instead we skip less desirable parts of

the ecosystem, in favor of a small portion of the animal kingdom, the large mammals. Ultimately the zoo paints an upside down vision of world's ecosystem, in order to cater to their audience.⁸ This emphasis on large mammals fosters a ranking system of zoological species, which is carried into the conservation efforts of zoos.

William Conway, the general director at the Bronx Zoo defends his zoos' breeding program and offers a different perspective to the current breeding practices. Conway states that it makes sense to focus on the conservation of larger animals because they have longer life spans, making them slow breeders. He points out that the slow breeding animals such as a lion or elephant are the quickest to lose from environmental change because of their life cycles. Conway also states that

the only way to effectively conserve smaller animals or invertebrates is through habitat preservation.⁸ If this is the case maybe zoos should stop focusing on breeding and redirect their efforts in other places such as wildlife conservation. Shifting the strategy would facilitate natural breeding and the restoration of species.

The author of the book *The Modern Ark*, Vicki Croke explains that zoos need to shift their thinking on conservation, “We simply will not preserve the diversity of life on this planet by capturing everything in Zoos; there isn’t enough space.”⁸ This is a flaw in the breeding system of the zoos, it is not possible to save all of the species that make up the ecosystem. Bio-diversity is the key to conservation, which is what the zoological breeding programs are lacking. In order to make a difference in the conservation of species the efforts need to shift within the zoo. Jon Cohen, the author of *Zoo Futures* writes, “Zoos have been dressing

themselves up as champions of conservation, but they’re not matching it with what they do,” he says. “If you strip away the rhetoric of what zoos claim they do and what they actually do, it’s still 99.99 percent putting animals on show.” Instead, he states, zoos should work much harder at educating the public.” According to this view the zoo needs to focus on using its public popularity as a platform for conservation, and urge people to understand and appreciate the natural world.¹⁰

Based upon this large body of recent research, if the zoological conservation efforts are going to make a difference, the agenda needs to shift and not restrict their efforts to breeding jaguars, orangutans, and other zoological animals. Zoos need to focus on the larger picture of conservation and stand on a platform for conserving wild habitats, and

supporting bio diversity. David Hancocks writes that biodiversity was: “invented to help people generate a new view of Nature and its value to us and to encourage a change from thinking of preservation of species to conservation of wildlife.” Its potential impact on zoological design is immense, and is speaking to the next phase in evolution for many zoos and wildlife centers.⁴

Case Studies of Urban Zoos

With animal activism and awareness rising, it is necessary for the concept of the zoo to evolve. The zoo has many flaws and the animals are the ones that suffer from poor and confined enclosures, many animal activists consider the animal sanctuary as being the next step in evolution for the zoo. An animal sanctuary provides the animals with large, more open facilities allowing these animals to live more naturally and live out their lives in one place. ¹¹

There are many key differences between the modern day zoo and sanctuaries. The first one is the conservation goals of the zoo versus sanctuaries. Unlike zoos, sanctuaries do not breed animals through unnatural medical procedures. Secondly sanctuaries have more of a hands off approach to the human to animal interactions. Sanctuaries only provide daily health maintenance, allowing natural life cycles to take place, unlike the zoo

which can provide extreme medical intervention.

Overall the animal sanctuary gives wildlife the opportunity to live happily, and naturally in a safe environment. ¹¹

The International Crane Foundation in Baraboo,
Wisconsin.

The Crane Foundation is a 225 acre facility that focuses on landscape restoration, ecological research, captive breeding and reintroduction into the wild, as well as educating the public on the conservation of the world's 15 crane species.

One of the main differences between this foundation and the modern day zoo is that it focuses on quality over quantity. Because this sanctuary concentrates on one animal, versus the zoo housing hundreds of animals, the foundation can provide the proper environment for the crane, which is as close to living in the wild as possible.¹³ This foundation is the next step in the evolution of the zoo, allowing the wildlife to live in a safe, permanent, ecologically diverse environment, with very little human to animal interaction.

This case study re envisions the role of the animal in

the built environment, focusing on giving back to the crane species which has suffered from loss of habitats, because of human developments. Not only does the International Crane foundation help crane species grow and thrive in present day, it supports a thriving future for the crane by educating the public on the local species.¹³ Knowledge is key for change to take place, and this foundation provides a framework for the public to make better environmental decisions which will support the local wildlife in the present and the future.



Image 9.



Image 10.

Bronx Zoo and Facilities at St. Catherines Island, in Georgia and the National Zoo's off-site breeding property at Front Royal, Virginia.

The Bronx zoo is a unique example of a zoo that has broadened its horizons outside of its zoological compounds, and has taken a stance on larger issues on conservation of bio-diverse environments, protecting endangered species and endangered habitats, and fostering a unique breeding program that considers the needs of the beast first most.⁴ Hancock argues that the Bronx zoo has been involved in conservation projects throughout the United States, locally working towards conservation of America's wild lands. The Bronx zoo also sponsors ecological studies in Africa, which will eventually lead to the creation of new wildlife parks.⁴ This approach to conservation has been a successful tactic, if more zoo's incorporated such tactics the world's

ecology would be in better shape.

Another unique tactic that the Bronx zoo supports is an off site breeding program. The site of these programs are in a rural setting, stress free away from the hustle and bustle of the city. Hancock believes that the zoo should be separate from its breeding facility, stating:

“Zoos are for display and education: they cannot maintain the large numbers of individuals that are needed, and their exhibition facilities are not necessarily ideal for effective breeding programs, which are better undertaken on large tracts of rural land... The rural sites are appropriate because at such sites there is no competition for expensive exhibit space, better conditions can be maintained for hands-off management, husbandry regimes can replicate the animals natural activity cycles, and individuals can be conditioned or the least stressful reintroduction to the wild.”⁴

This program is very important to the evolution of

zoological breeding programs. This program supports a “hands off” approach to animal interaction, to keep the human imprinting at a lower rate. This is very important for these animals because they will be re-introduced into the wild.⁴

The key aspects of this case study is the local wildlife conservation. It is important for the zoo to support wildlife in their own context, there is a responsibility to educate the local public about conservation issues in their neighborhood and provide opportunities for the public to make their own wildlife ecosystems better.

Endangered Urban Animal Species and Wildlife

It is commonly understood that the human population is skyrocketing at an alarming rate. In consequence of this growth the unbuilt environment will shrink and human expansion will continue. Wild species are becoming captives, surrounded by people living in lands that once were their habitats.⁷ Species that once thrived with humans such as bats, insects, birds, and large mammals are being actively exterminated, resulting in an absence of ecological diversity in cities.¹² Due to these trends, more wildlife will be converted into farmland and human settlements. Norton writes these new

“developments condemns uncoun-
ted millions of wild animals each year to starvation, suffering, and death. Yet, while almost every U.S. state makes it illegal to withhold food or care from captive animals, not one prosecutes those who act the same way toward animals not captive... Perhaps the most serious threat to the well-being of many wild creatures is that they will be ignored, condemned by the growing masses of humanity to the same closets of irrelevance and curiosity as silent movies and trilobites. But those masses

are concentrated in cities where the zoos are.”⁷

At this point human growth may be inevitable, the question to pose is not how will the built environment evolve and grow to support the human race? It is will the wildlife living on this earth be disregarded as we accommodate the future expansion of the human race? The reaction to this reality is what will be important in the future and the zoo could be involved in preserving the animals that we live among in order to maintain a biodiverse ecosystem.¹²

In every city there is going to be a displaced urban wildlife population. It is becoming common that many wild species have evolved to co-exist with humans. The common American example is the

urban raccoon, which have learned to exploit the waste produced by the human population to survive. If the raccoon was living in its natural habitat they would not be invading human garbage dumps, or preying on the household pets. Because of this co-existence with the human race, the raccoon adapted its survival techniques and taken advantage of the opportunities that the humans presented. This is a case of flexible adaptation, however many species do not adapt as well, instead fleeing to a land undisturbed, landscape beyond the city.

This program is very important to the evolution of zoological breeding programs. This program supports a “hands off” approach to animal interaction, to keep the human imprinting at a lower rate. This is very important for these animals because they will be re-introduced into the wild. ⁴

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Chapter 3.

Zoo Evolution

 Cross-Species Collaboration

The Urban Ghost

History: Stanley Park and Stanley Park Zoo

Present: Stanley Park and Stanley Park Zoo

Zoo Evolution

With the growing concern of habitat loss and animal displacement, there have been calls to redesign the zoo to accommodate regional species. The idea is to connect the zoo to a specific context, while also allowing the opportunity for local animals to thrive and have a place in the urban constructs, proposing that architecture have a new relationship to life. Obscuring the boundaries between humans and animals, illuminating alternative ways of living with animals and designing a framework for biological design that would facilitate cross-species collaboration.¹² This approach of cross-species designing could be the next step in the evolution of the urban constructs. Potentially this awareness would ensure that there would be no chance for cities to remain the same, actively engaging the biological agents within them.¹²

Cross-species Collaboration

This thesis proposes to explore strategies that will: evolving the city; using the urban abandoned zoo as the platform for change; fading the path infrastructure of the abandoned zoo site and ecology into the city; blurring the boundaries and evolving the relationship between the animal and human territory.

To the left is a map of Stanley Park the site of the former Stanley park zoo, just north of downtown Vancouver, B.C. Because most abandoned zoos are urban there is an opportunity to use the land in a manner that would also influence the metropolitan area around the abandoned zoo site. This thesis design proposes that the ecology and natural habitats of the area be folded into the city limits through a designed framework, further morphing human and animals territories over time.



Figure 20. Map of Stanley Park and Vancouver, B.C., depicting the potential for ecology to be filtered within the city, blurring the boundaries between the human and animal territory.

The Urban Ghost

This thesis will propose an animal sanctuary on the site of Stanley Park in Vancouver, British Columbia, which is home to the abandoned Stanley Park Zoo. This site has the potential because offers a unique history, it is this perspective that will inform the public about animal advocacy as well as environmental conservation. Through the redevelopment of the abandoned zoo site there is an opportunity to create a permanent place for the animals of region to live and thrive, turning the page on the history of the zoological site.

Urban growth has effected the local wildlife of Vancouver, pushing most species to the outskirts of the city. This proposal will turn this park into a wildlife sanctuary for the local species that still remain, such as the Bald Eagle, Harbor Seal, Great Blue Heron, and many more. ¹⁴The site will be redesigned and cater to housing the local

animal species in a safe environment, while allowing the public to be educated about the local wildlife, and how to support bio-diverse conservation. Because the site is surrounded by water (which acts as a natural barrier) on most fronts, there is an opportunity to allow the animals to roam freely throughout the site, while the visitors will be directed through the sanctuary on a prescribed path. These paths will lead to observation follies that are centered on animal habitats, allowing the viewer to see these creatures in their natural environment.

The path through the Stanley park site will not only connect visitors with local wildlife, but also with nature. When traveling on the path the user will be positioned in very different conditions, because of topographical changes to the landscape, old growth trees, and stunning views to the mountains and the water. Each condition will allow the user to be immersed in the environment,

focusing on being reconnected to the earth, sky, and water. The experiential journey will allow the user to escape the city, and will be transported into the original habitat of the area, describing the past, present, and future of the abandoned zoo site.

The world is littered with decaying wildlife parks and abandoned zoos, these haunting shadows convey a period of a time when animal rights were not highly regarded.



Image 12

Belle Isle Children's Zoo, Detroit, USA

Rhodes Zoo, Cape Town, South Africa

Stanley Park Zoo, Vancouver B.C.

The World's Abandoned Zoos

1. nay ay park zoo, scranton, pa 2. discovery isle, detroit, mi 3. rhodes zoo, cape town, south africa 4. franklin park zoo, boston 5. maglasgow zoo park, scotland 6. stanley park zoo, vancouver, bc 7. griffith park zoo, los angeles, ca 8. chaleroi zoo, belgium 9. kirby park zoo, wilkes barne, pa 10. riber castle wildlife park, uk 11. the abandon zoo, ibiza, spain 11. abandon zoo, sakon nakhon, thailand 12. southpoint zoo, merseyside, uk 13. plumton park zoo, rising sun, md 14. discovery Island at walt disney world: orlando, florida 15. gaza zoo, gaza 16. crandon park zoo, key biscayne, fl



Figure 21. Map of all of the abandoned zoo sites within the world.

History: Stanley Park and Stanley Park Zoo

The abandon zoo site that thesis will revitalize is the former Stanley Park Zoo in Vancouver BC.

Stanley Park dates back 3,000 years ago when human settlement took place, it was home to the regions aboriginal population who later formed villages with the European colonists. The European Colonist brought alien species of animals and plants, as well as introduced industrial technologies such as logging, all of which altered the nature of the land significantly.

By the mid-1880's, and the first transcontinental railway Europeans flooded into the area founding the city of Vancouver. However the land of Stanley Park was not developed, instead the city evicted all of the people living on the peninsula and established Stanley Park as a protected urban park. ¹⁵



Image 11.
Stanley Park to the north of Vancouver B.C

During this time there here efforts made to reconstruct the natural environment, however because of lack of ecological knowledge, the alterations caused many problems such as: insect and disease ridden trees, muddy tidal flats, and bothersome crows and owls.¹⁵ The ecology of Stanley Park has suffered since human settlement on the land, with the alterations and other human developments such as the Stanley Park Zoo, the biodiversity of the park suffered.

Stanley Park Zoo dates back to 1888. “Henry Avison, the city’s first Park Superintendent, captured a baby black bear on the grounds and chained it to a stump, thus beginning a 108-year tradition of the park’s display of wild animals.”¹⁴ By the 1950’s the zoo was an established institution, drawing eager visitors to get a “glimpse of the wild.” Even though the zoo was very popular with locals, it had numerous underlying problems inherent

with bringing foreign animals into a different environment. The zoo struggled with sub-arctic animals such as the penguins and polar bears because they were not able to regulate habitat temperatures. They also had problems acquiring the proper food for their animals, which ultimately led to its demise.¹⁴

In 1994, Vancouverites voted to phase out the zoo, and the animals were re-homed. One exception was made: the elderly polar bear Tuk was allowed to stay because of health concerns, this exhibit the only reminder of the zoo today. Tuk passed a year later and the zoo was officially vacated.¹⁴

Despite being popular with Vancouver tourists the Stanley Park zoo closed in 1996 due to lack of government funding and concerns about animal



Image 13.
Stanley Park Zoo Penguin Exhibit, 1965

welfare. Lack of accessible resources was a concern with animal activists. The zoo was known for providing animals with unnatural diets, such as supplementing the fish for penguins with watered down dog food. Other animals such as the anteaters also suffered from supplemental diets and were fed dog food and canned milk when the zoo could not provide a sufficient number of ants. The exhibits were also a concern to the animal welfare activists because of their insufficient size, and unnatural characteristics.

Present: Stanley Park and Stanley Park Zoo

Today the only remains of the Stanley park zoo is the polar bear exhibit and its building. The Vancouver Aquarium Marine Science center is using the building for a salmon hatchery, but the outside exhibit remains untouched. There is also a 97,000 SF aquarium that was built at the cost of \$100 million; which is the most frequented attraction at the park among others such as: flower gardens, art attractions, sculpture parks, recreational activities as well as various landmarks.¹⁴

Today Stanley Park is very much a park for the people with activities that attract many Vancouverites. Like many zoos it is the entertainment aspect that brings these visitors to the site.

This thesis proposes to refocus the park providing a place for the local animals to live undisturbed, redefining human entertainment to work cohesively with the wildlife. It is important for the humans to also have a

place in the park, but the human role is more controlled, allowing the visitors to view the local wildlife while not having a strong presence in nature, putting the animal's wellbeing ahead of human entertainment.

The park is home to many of Vancouver's wildlife, such as the largest colony of great blue herons, along with many other small animals such as: coyotes, raccoons, harbor seals, bats, bald eagles, over 200 bird species, and beavers.

There is already a framework in the park for habitat restoration that will draw in more local wildlife and set up a framework for a more successful bio-diverse environment. ¹⁴

Stanley Park Zoo: Then and Now

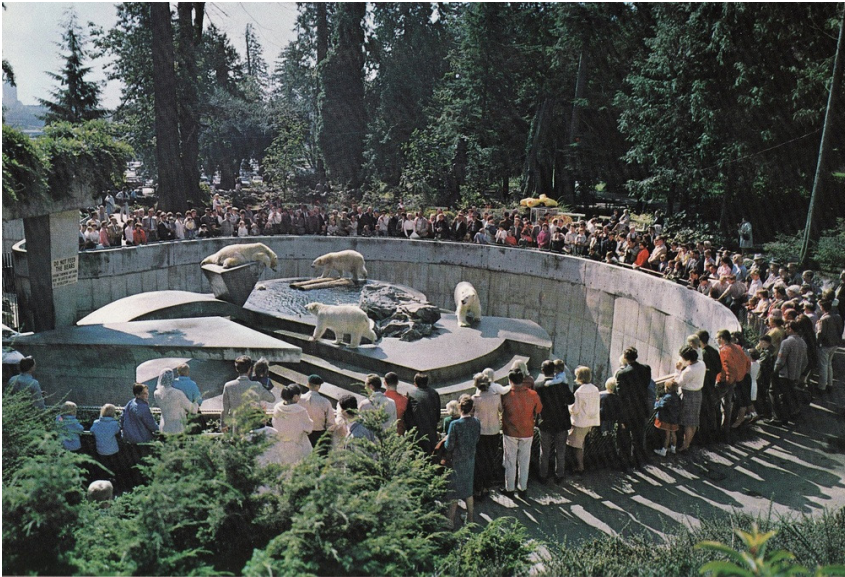


Image 14.
Stanley Park Zoos' polar bear exhibit when the zoo was open.



Image 15.
Abandoned Stanley Park Zoos' polar bear exhibit



stanley park

Project Site:
Stanley Park, Vancouver B.C.
-1,001 acre park

abandoned zoo site

Image 16.

Present: Stanley Park Infrastructure

Below is a map of the walking, biking, and vehicle paths used by visitors of Stanley Park. The red dots represent the human activity nodes of the site, such as the aquarium, sports fields, and other attractions. ¹⁴

Stanley Park is a park for the people. The forest ecology

and the animals that live in the park share the land with infrastructure such as: concrete walking paths, gravel paths, asphalt roads, and building footprints.

¹⁴

These paths are necessary for the site today, allowing the visitor to walk, drive, and bike throughout the full expanse of the grounds. ¹⁴ So even though these paths serve the user they do not serve the animals and plant inhabitants that call Stanley Park home, in fact they burden the growth, evolution and bio-diversity within the park. This thesis looks to transform the way infrastructure works within nature, allowing for a cohesive relationship between human and animal necessity. Can a path be designed so that it transports the user while supporting the growth and evolution of the natural environment?

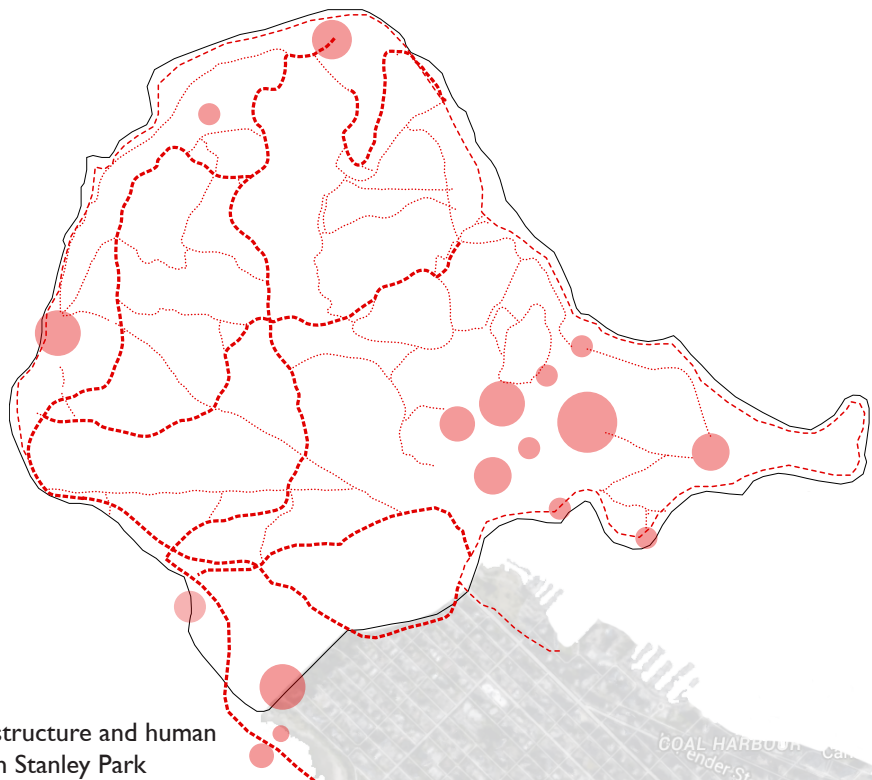


Figure 22. Infrastructure and human activity nodes in Stanley Park

This thesis proposes to refocus the park providing a place for the local animals to live undisturbed, redefining human entertainment to work cohesively with the wildlife. It is important for the humans to also have a place in the park, but the human role is more controlled, allowing the visitors to view the local wildlife while not having a strong presence in nature, putting the animal's wellbeing ahead of human entertainment.

The park is home to many of Vancouver's wildlife, such as the largest colony of great blue herons, along with many other small animals such as: coyotes, raccoons, harbor seals, bats, bald eagles, over 200 bird species, and beavers. There is already a framework in the park for habitat restoration that will draw in more local wildlife and set up a framework for a more successful bio-diverse environment.¹⁴

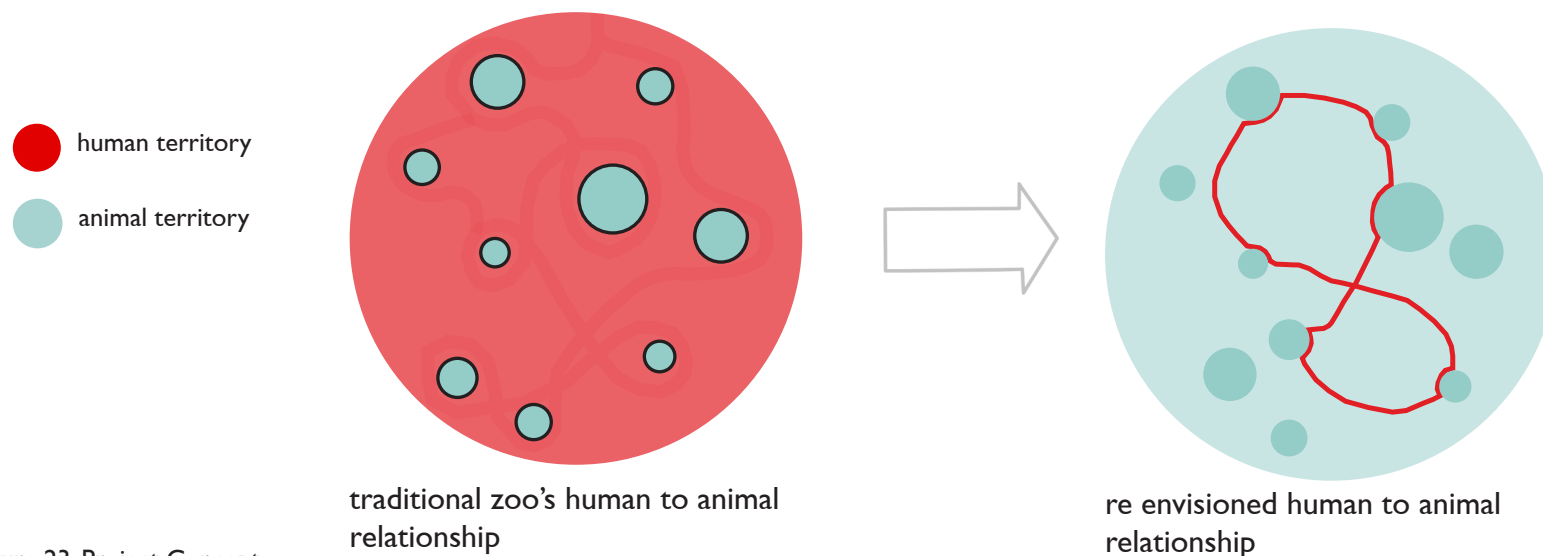


Figure 23. Project Concept

Stanley Park Wildlife

Reinvigorating habitats of regional wildlife, giving them the space they need to thrive. This thesis looks at the current animals living in Stanley Park and creates a framework that allows the habitats to grow and not be burdened by the human territory.



Figure 24. Wildlife in Stanley Park

Chapter 4.

New Theoretical Framework

Conservation Efforts

Relationship between Humans and Animals

Path Tectonics

- Typical Scale

- Animal Passageway Scale

- Urban Scale

Ecological Evolution

Human Experience

- Sea

- Sky

- Ground

- City

New Theoretical Framework

Goals

1. Providing a habitat for local wildlife within the urban environment through landscape restoration; allowing a space for the animals to live within the city constructs; creating a framework for the human territory (city) and the animal territory (park) to blur the boundary lines; and reinvisioning the city as an ecological place where animals can also live.

2. Designing a path through the park that would allow visitors to view the wildlife in a noninvasive manner, that supports the growth and evolution of natural forces while creating a dynamic human experience.

Wildlife Conversation

The goal of this thesis is to foster natural habitats for regional wildlife. Currently Stanley Park is home to many species of wild life, such as the Bald Eagle, Harbor Seals, The Great Blue Heron, Coyotes, Bats, Raccoons, Beavers, and over 200 species of birds. ¹⁴ All of these animals could benefit from a more bio-diverse habitat that would allow for a well-rounded ecosystem.

Relationship between Humans and Animals

This thesis proposes to reverse the role of the human-animal territory of the present and historical zoological environments. Like the design for the Chimpanzee National Observatory proposed by Provinelli, the path sequence in Stanley Park allows the user to roam through the park, but only on a prescribed path.

Provinelli's design is very similar being that the humans are confined to a series of elevated pathways that connect each building, leaving the Chimpanzees free to roam the compound in somewhat realistic habitats.¹⁵

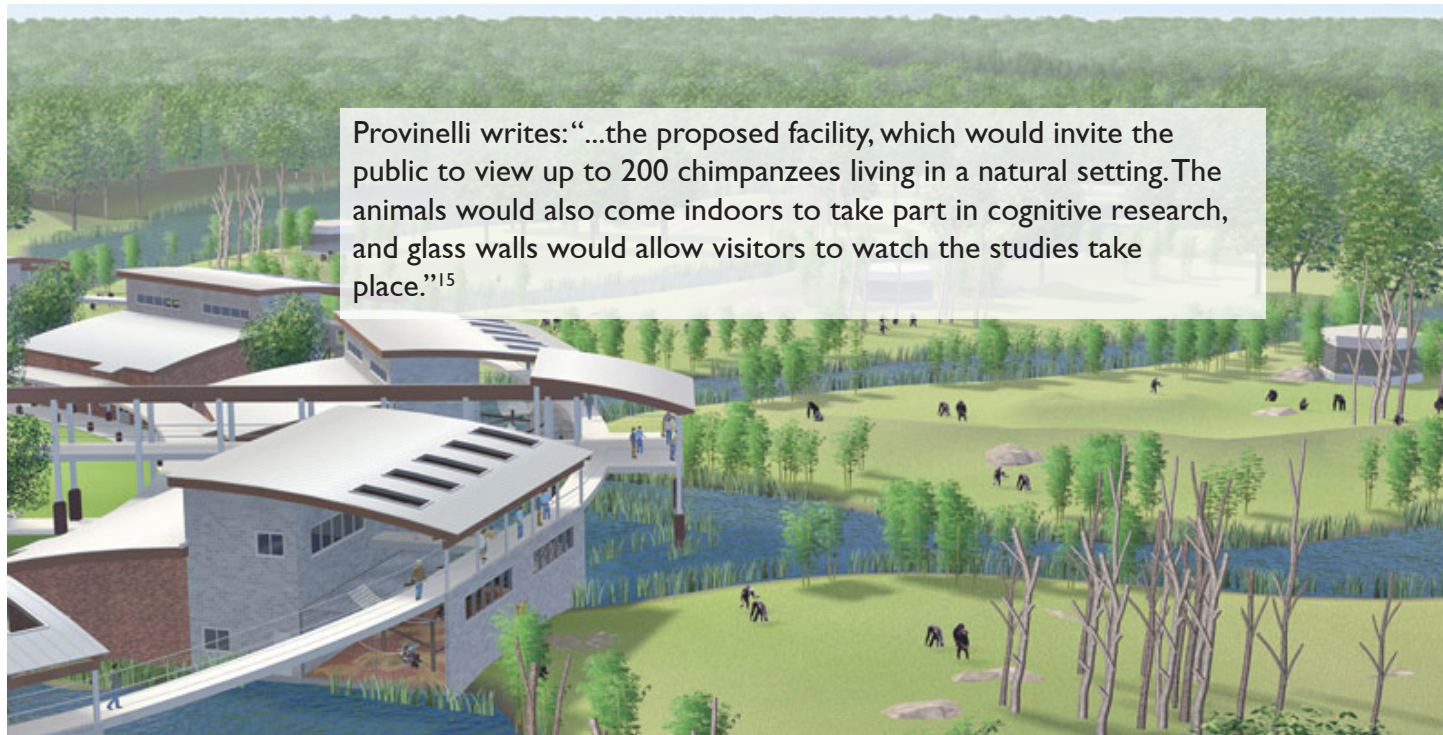


Figure 25. Proposed Chimpanzee National Observatory - Provinelli

Human-Animal Relationship Concept

applied to Stanley Park. Allowing regional wildlife to reclaim a piece of their natural habitat while interweaving the human experience. The visitors of Stanley Park are free to walk along the prescribed path and because of the design of the path the visitors will not invade or disrupt the animal habitats.

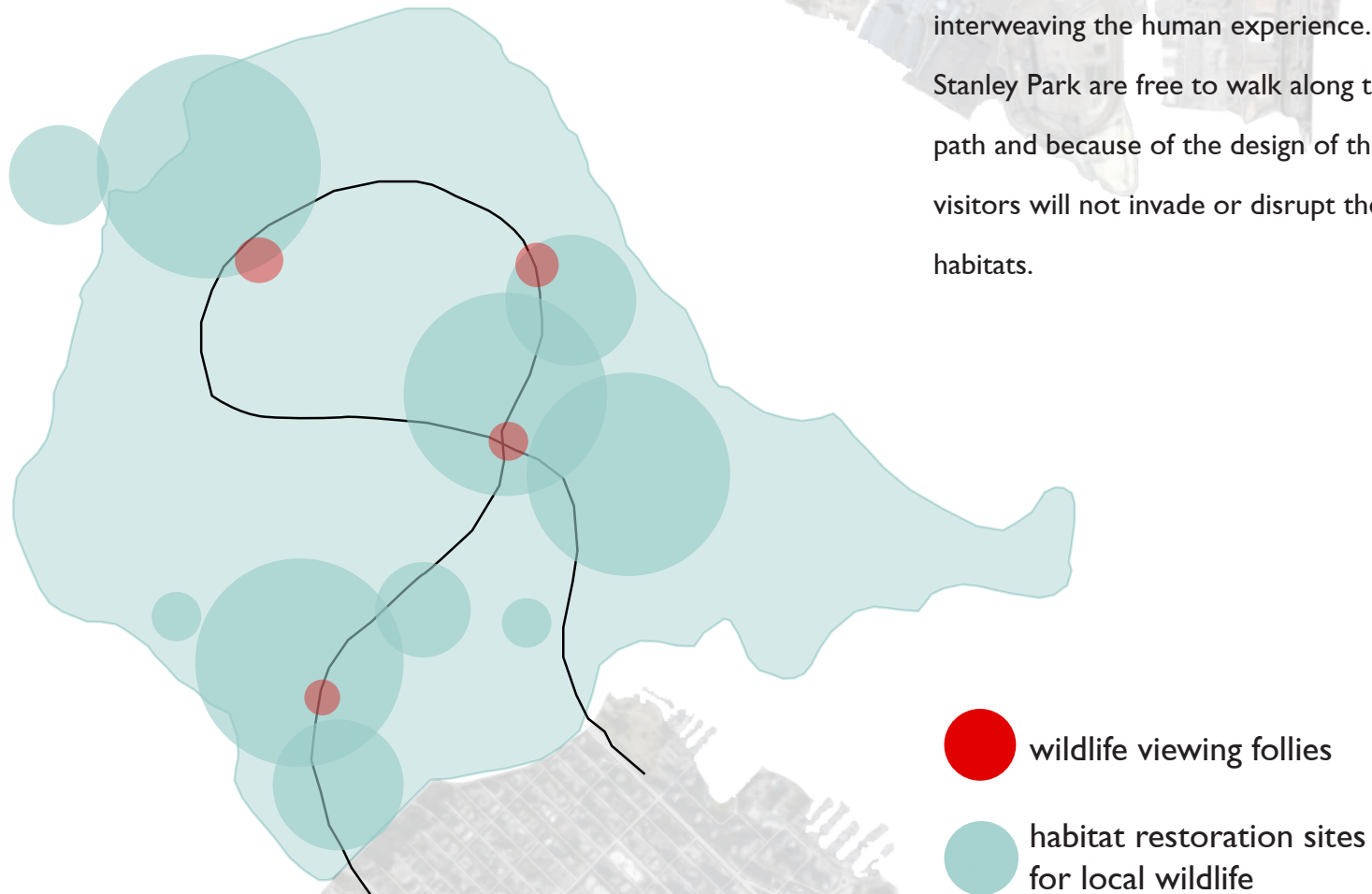


Figure 26. Project concept in relation to site

Animal observation

Connected to a series of pathways this design will allow the viewer to travel through the site and experience all of the different animal and plant species within Stanley Park. These paths will allow the public to escape the city and reconnect with nature, specifically focusing on allowing the human user to connect with three natural elements of Stanley Park: sea, sky, and ground.



Figure 27.

Sequence Path

Moving through the park in a noninvasive manner, providing a framework for viewing follies around the natural habitats of local wildlife.

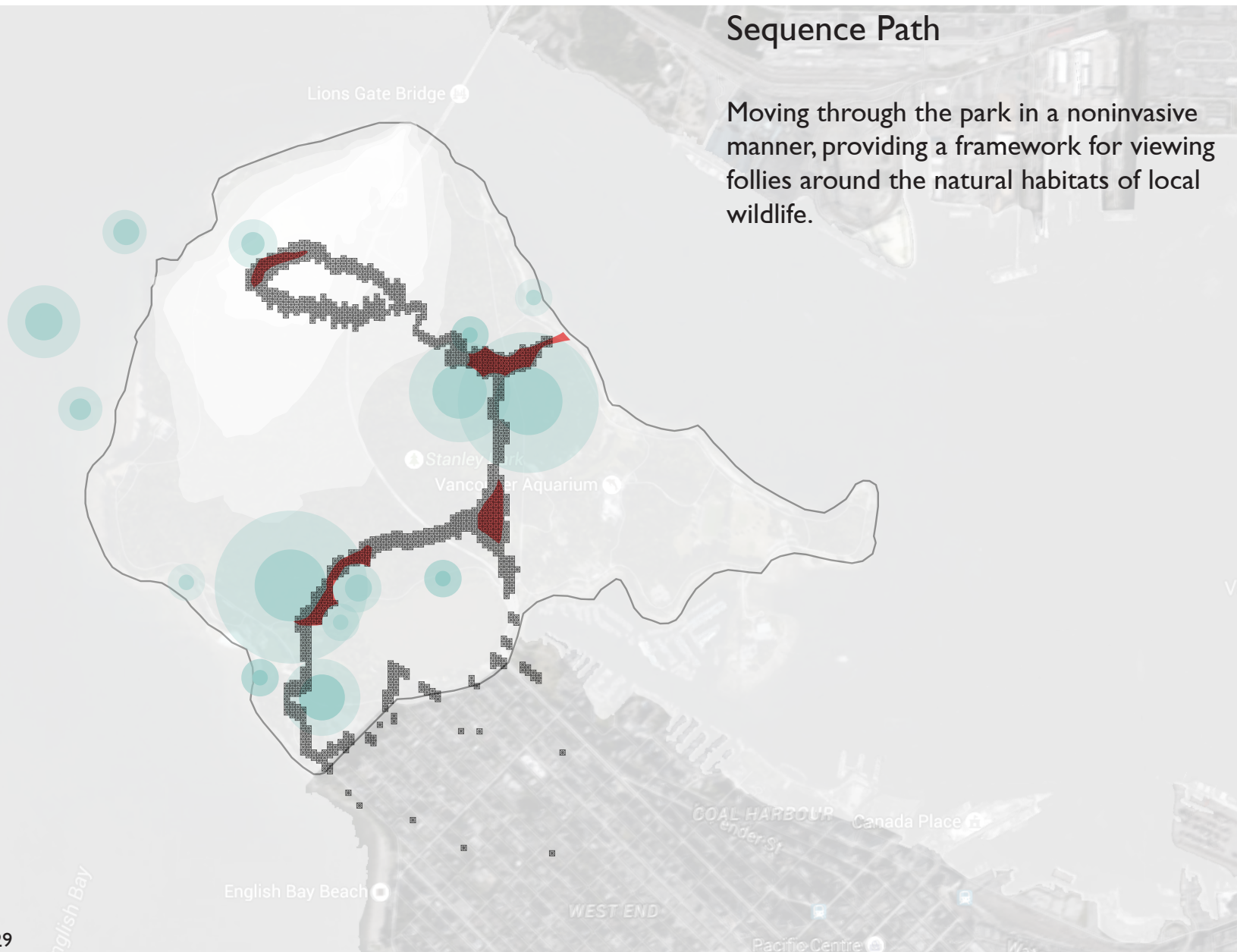


Figure 29

Infrastructure with Eco Path

Stanley Park has a lot of human activities today, this thesis proposes to keep most of the human activities and some of the walking paths in the southern portion of the site.¹⁴ Recognizing that this park is great place for the people while still giving back to the wildlife of Vancouver.

The image below portrays the new eco path, and the current infrastructure that is to remain. The remaining path on the south east portion of the site is to act as a turn around for visitors that do not want to make the full journey on the eco path.

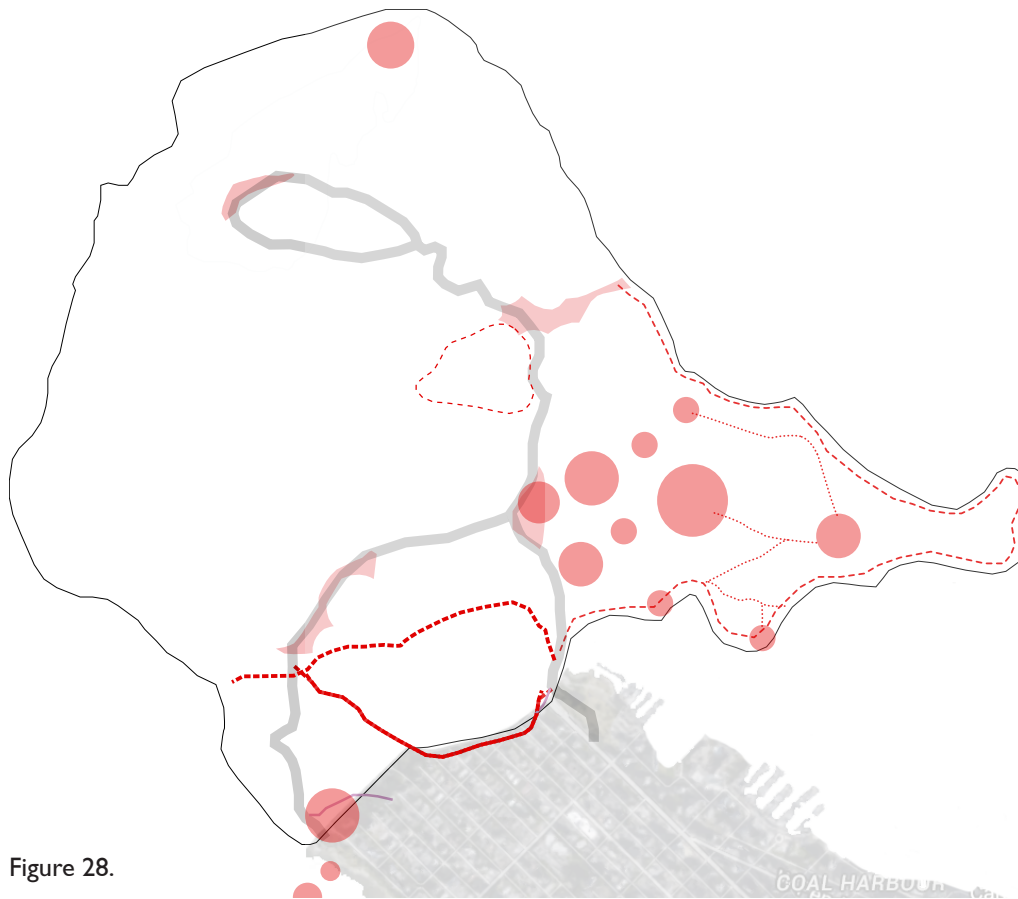


Figure 28.

Eco Path

Because this thesis is keeping a some of the current infrastructure is sets up two zones in the park: animal territory and human territory. Because of the path tectonics, the path itself acts a human barrier within the park, allowing people to view the sanctuary but not invade the park.

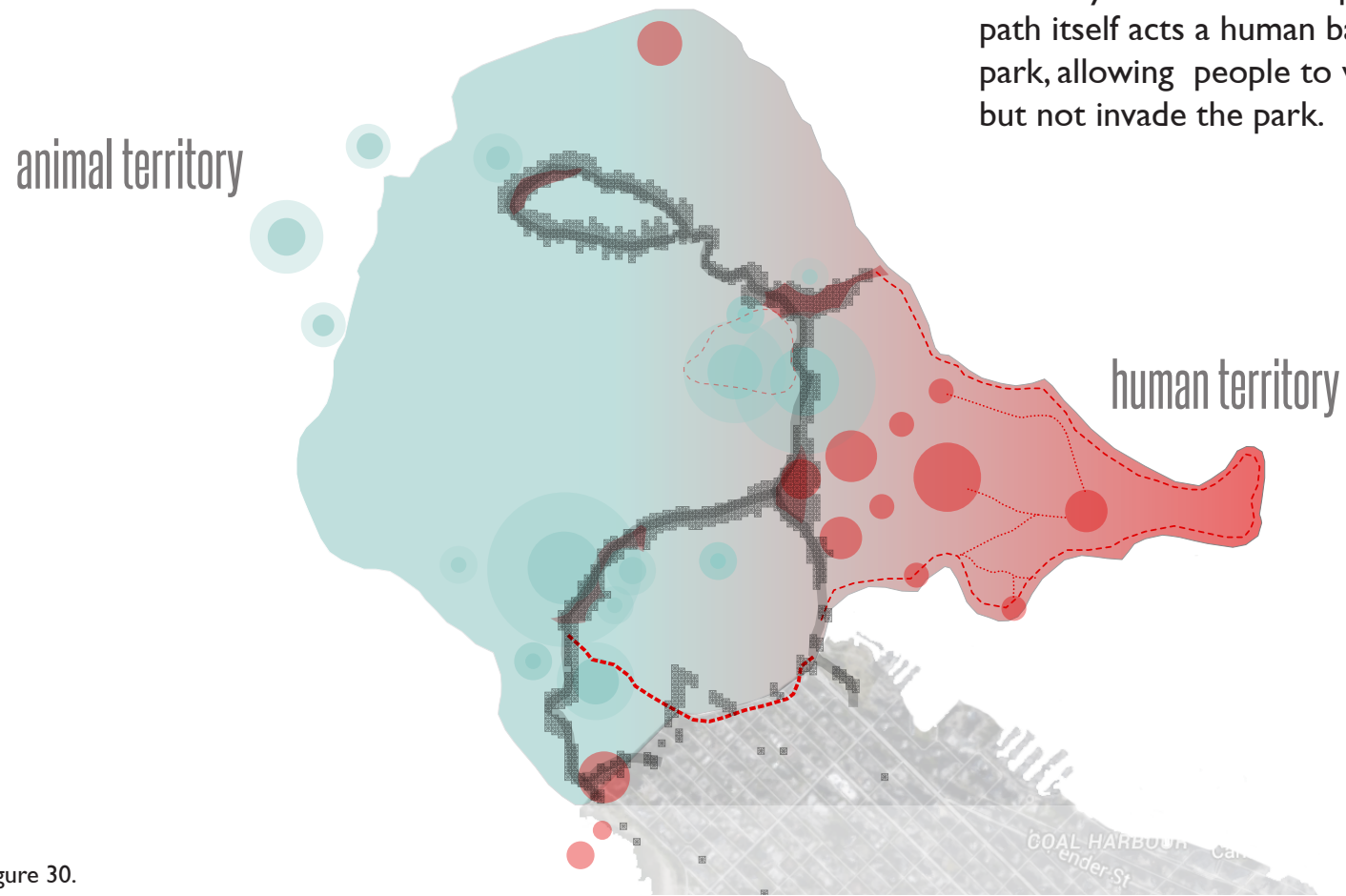


Figure 30.

Eco Path

perforated metal folding
walking surface

light, open, stacking
steel structure

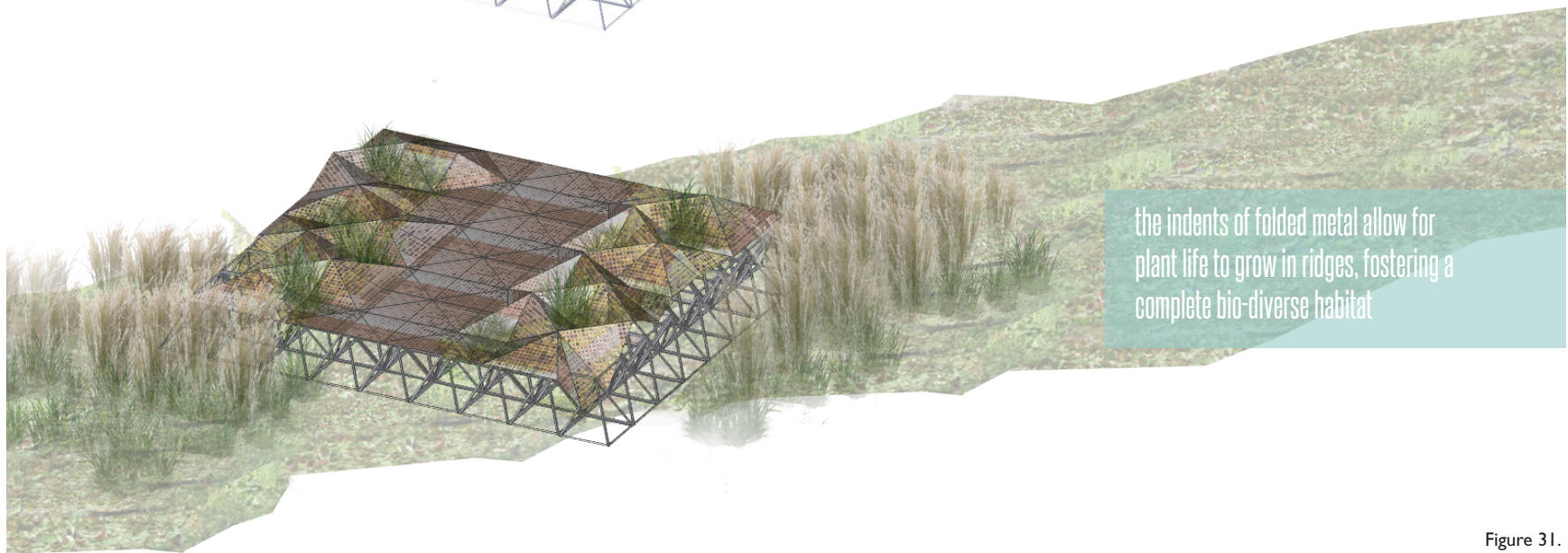


Figure 31.

Eco Path Tectonics

This path has three main components to the design.

First is the steel frame that provides open support to the walking surface. The steel frame is anchored into the ground with concrete piles, which allow the path to stay relatively flat on an uneven surface. The second component is the perforated walking surface.

The walking surface was designed so there is adequate drainage. In some places the perforated metal folds down off the path and connects to the ground (left side of image on pg 62.). This connection to ground acts as a growth catalyst, providing a framework for the ground ecology to move vertical onto the path. The third component is the green rivets, which are designed similarly to a green roof in order to foster the growth of ecology in the path itself. The rivets also act as a human barrier, instead of using the traditional handrail to keep people on the path, the folds in the perforated metal and the plant life discourage people from going off the path.

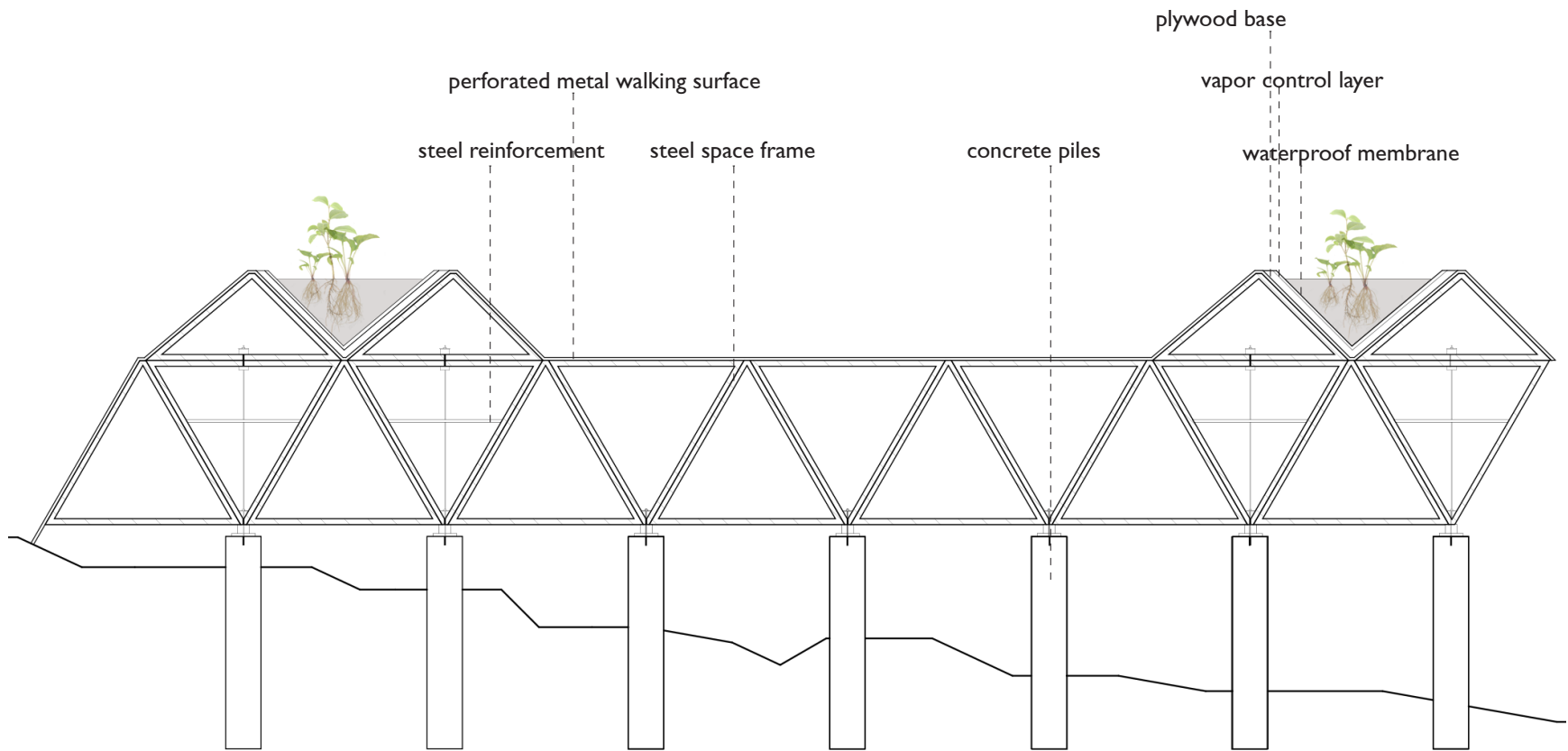


Figure 32.

Typical Scale: 5 ft high

This scale is used throughout the park. It allows for the human activity to be raised off the land while still allowing people to be in touch with the ground.

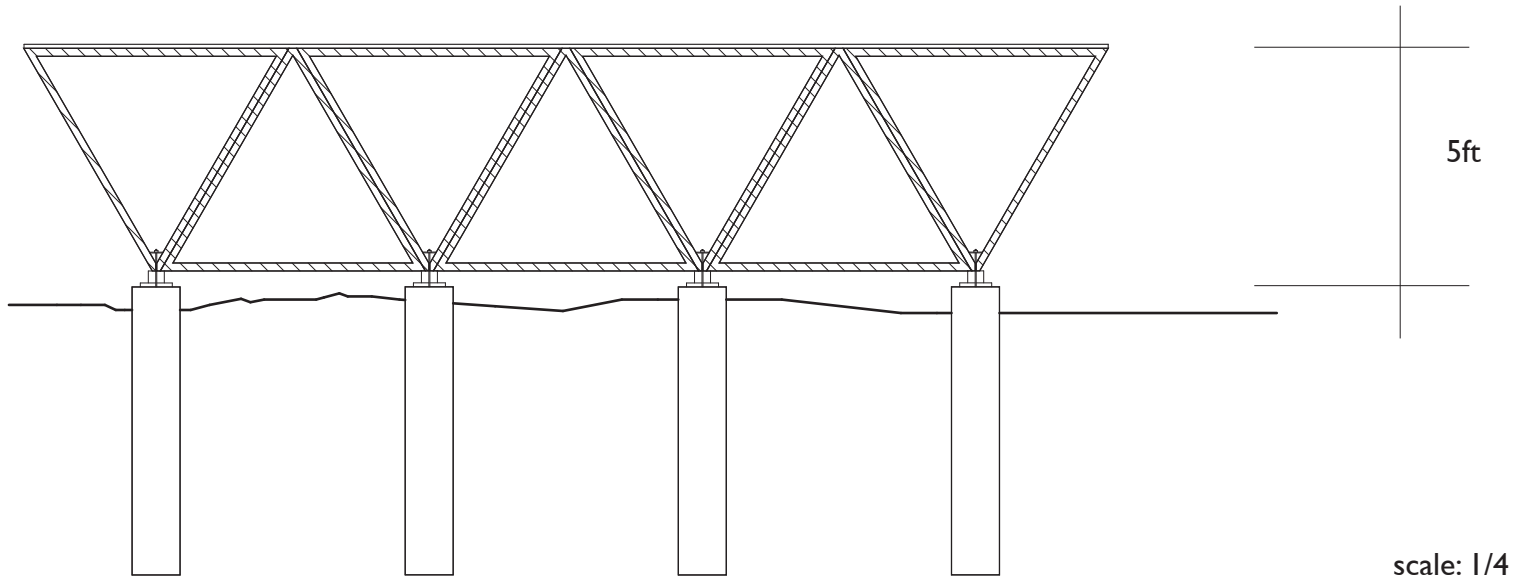


Figure 33.

Animal Passageway Scale: 10 ft high

This scale is used in locations of high animal ground traffic. In order for the path to be non-invasive for the inhabitants it needs to have the ability to adapt per the needs of the animals, this is why a second scale was developed.

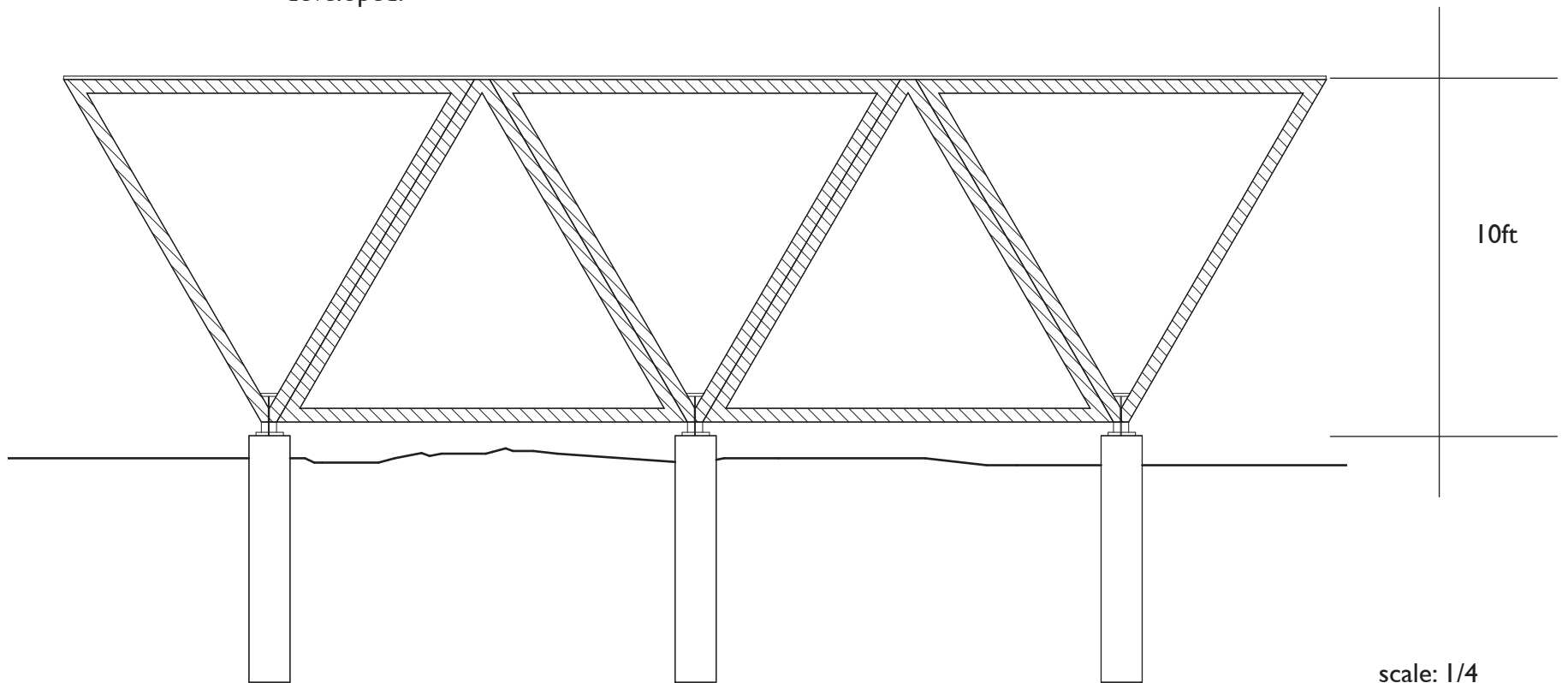


Figure 34.

scale: 1/4

eco path : animal passageway

Because the path sits 10ft above ground level at the animal passageway locations it does not create a barrier within the land, the animals inhabitants can simply walk under the path,

while the humans are contained above. This design also allows for the ecology of the site to grow underneath the pathway.

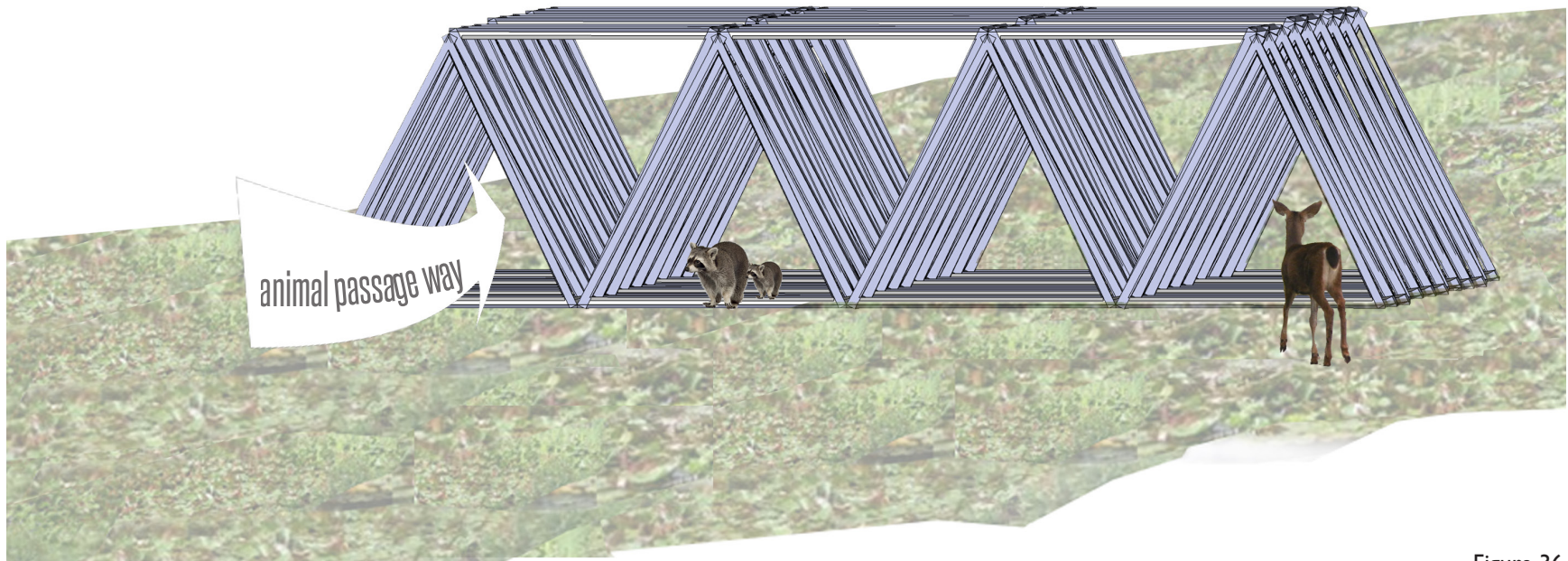


Figure 36.

Static Habitat

The zoo typology today suffers from a static habitat, non evolving, and unnatural. The goal of this thesis is to provide a framework for a habitat that can grow and evolve to the needs of the beast. From the pictures below, the two penguin exhibits from the Toronto Zoo and the Saint Louis Zoo, the exhibits themselves are lacking in life. All of the materials lack authenticity and

are unable to change or evolve for the needs of the user, the penguin. This is a problem for a lot of zoos today, however if zoos were able to use an evolving infrastructure in their exhibits, they would allow the animals to take control of their environment, and allow for evolution in these animals homes.



Image 17.
Toronto Zoo



Image 18.
Saint Louis Zoo

Dynamic Framework

Fostering ecological evolution within the city and park while still allowing humans to interact with the environment, the path acts as a catalyst for ecological growth. Because of the design of the path, plant life will flourish inside and around the path structure, and over time the path will become one with the forest, changing the way infrastructure works within nature.

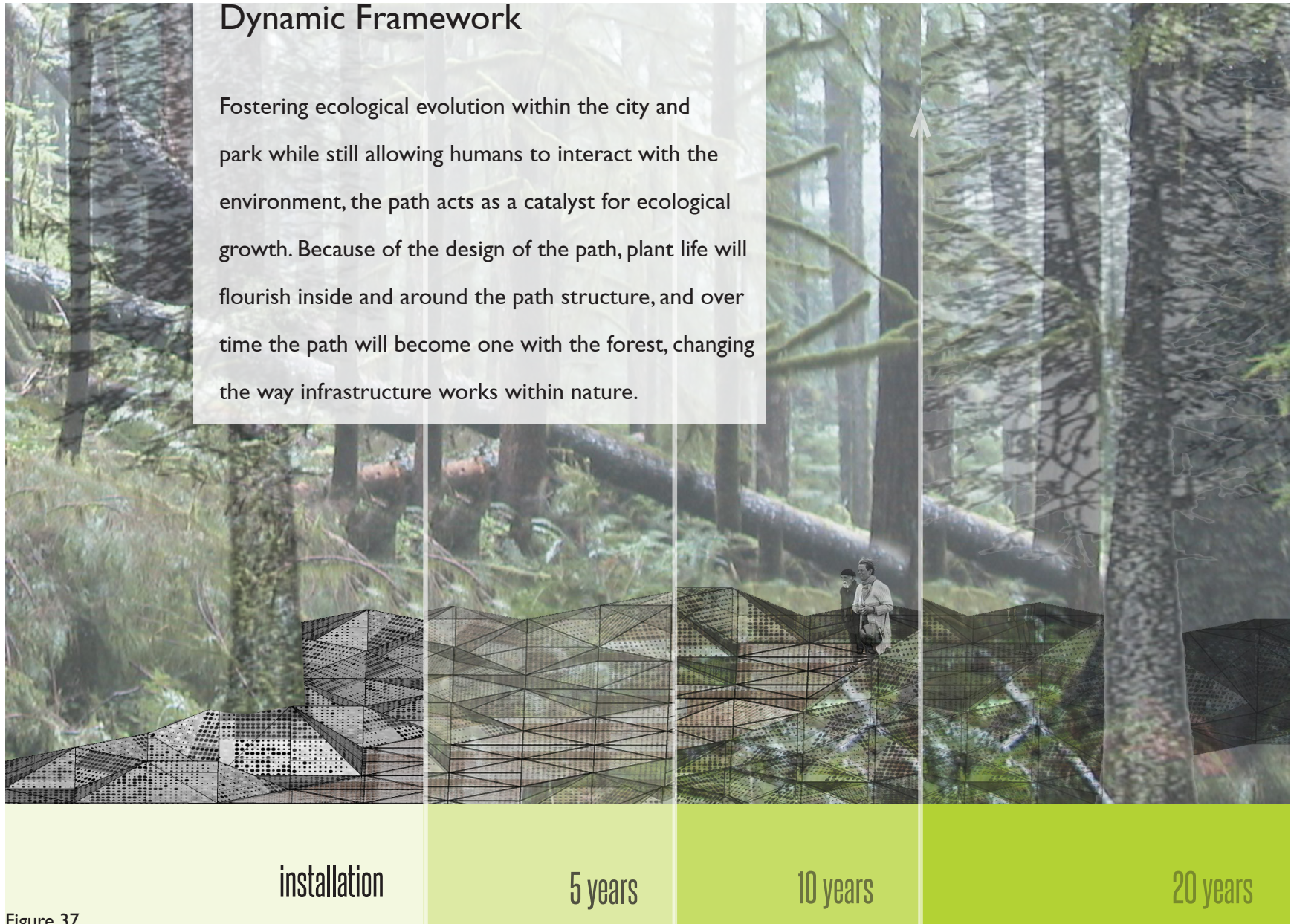


Figure 37.

Human Experience

Allowing people to escape the city confines and re-connect with nature.



Figure 38.

Experience Journey

Highlighting a series of Stanley Parks natural wonders, moving from the city, to the sea, to the sky, back down to the ground, and back into the city.

Below is a diagrammatic site section through the human path. The topography on the site can get to over 120ft above sea level. With the change in topography that path emphasizes these changes, highlighting the different experiences in the site.



Figure 39.

Sea Transition

Moving from the forested abandoned zoo exhibit to the beach. This node in the path highlights the Blue whales that migrate off the coast of Stanley Park, the Harbor Seals who live on the beached, and the Great Blue Herons who live close to the water.



Figure 40.



Figure 41.

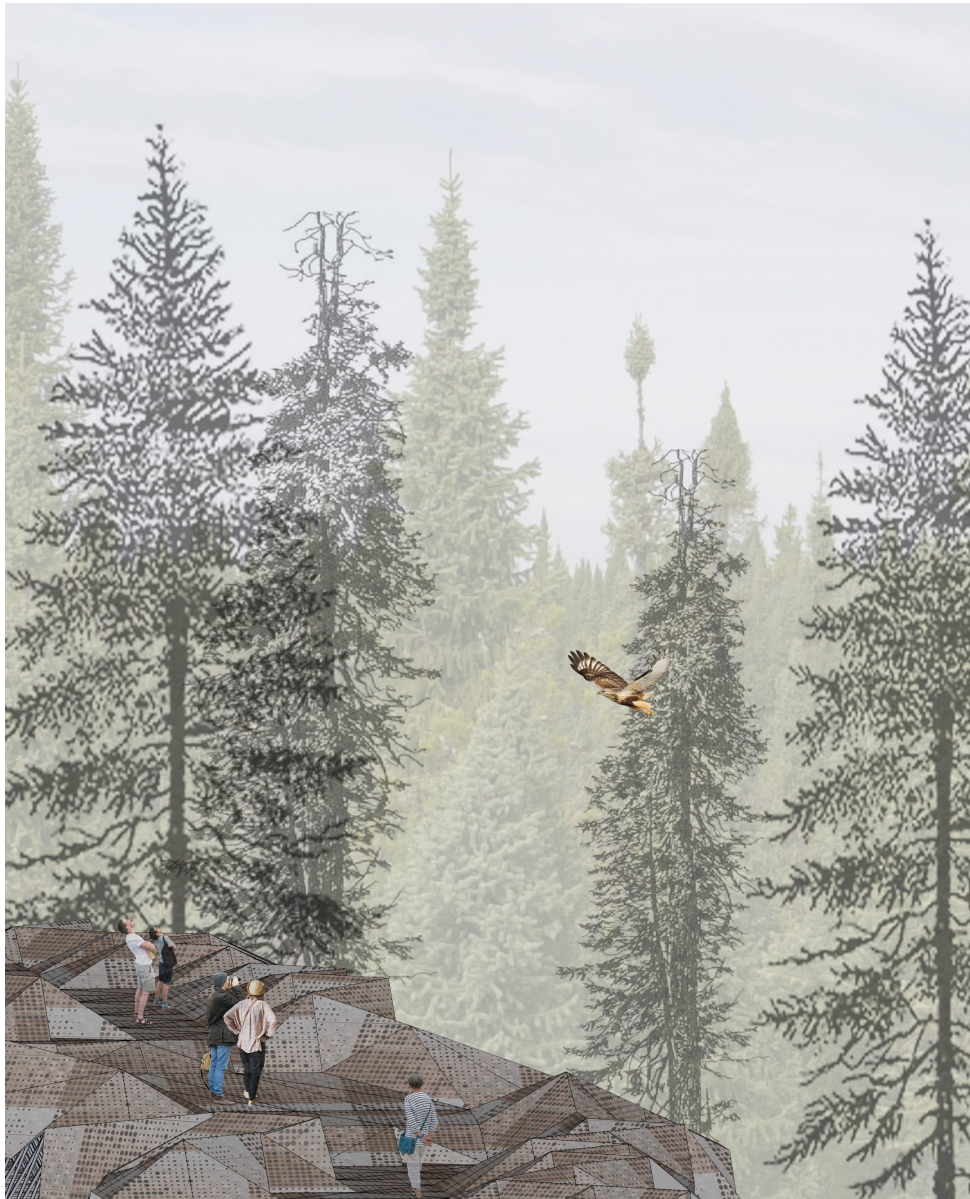


Figure 42.

Sky Transition

Gradually climbing to the highest point on the site, this experience journey elevates the experience of being 120ft above sea level. The path does not just rest 5 feet above ground but is raised to a high level, close to the tops of the 100 year old growth trees. The path at this level is centered around the habitats of the Bald Eagles living on the site, the many species of bats that fly around the park, and over 200 other species of birds that call Stanley Park their home.



Figure 43.

Earth Transition

After the sky node of the path the user moves back down into the calm of the forest. At this point in the path the walking surface sits about 5 feet off the ground. This height allows for most small animals to move underneath, while allow the human user to be connected with the ground. This segment of the path is focused on viewing ground animals of Stanley Park such as coyotes, beavers who live in Beaver Lake, raccoons, coyotes, and other ground species.

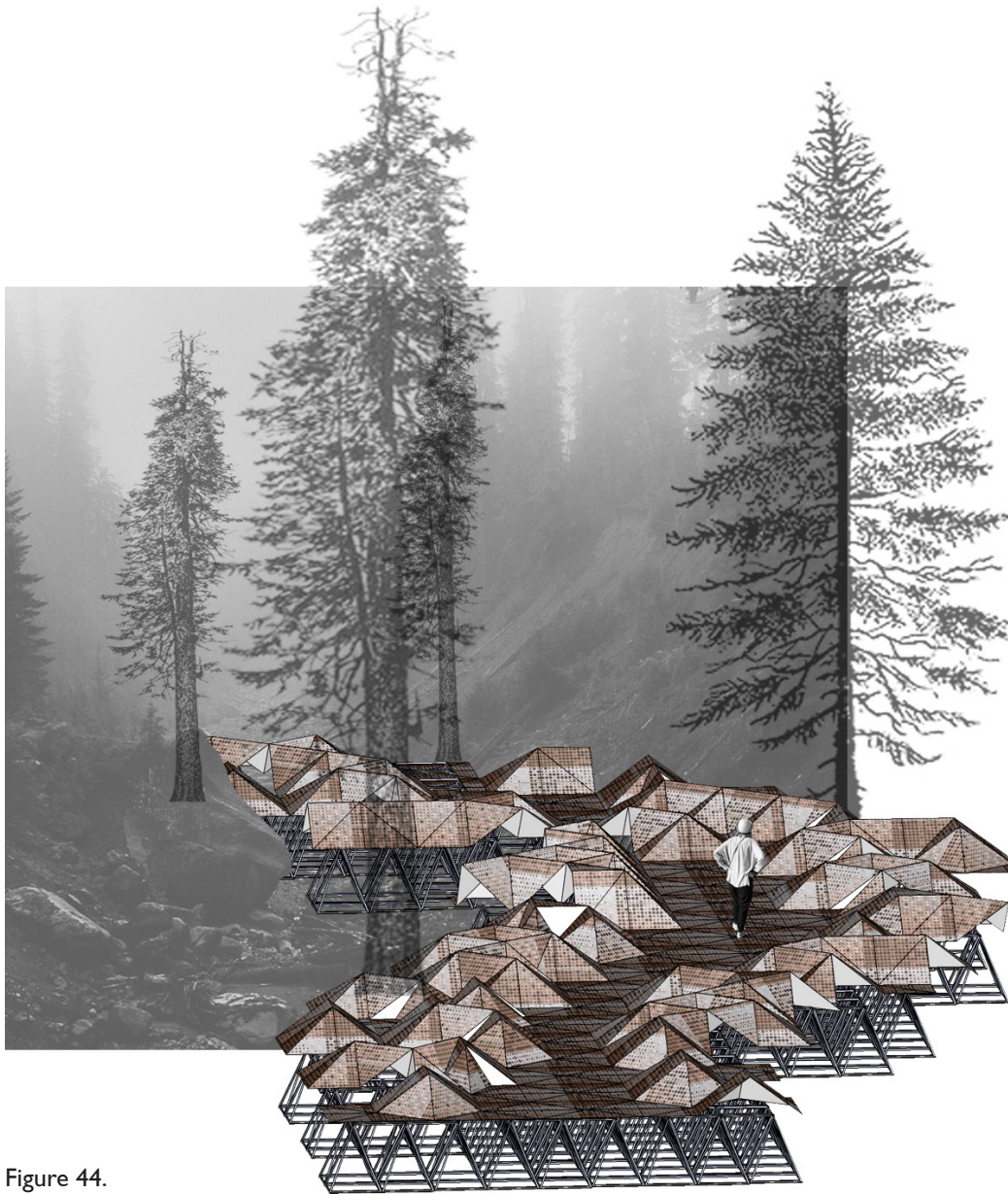


Figure 44.

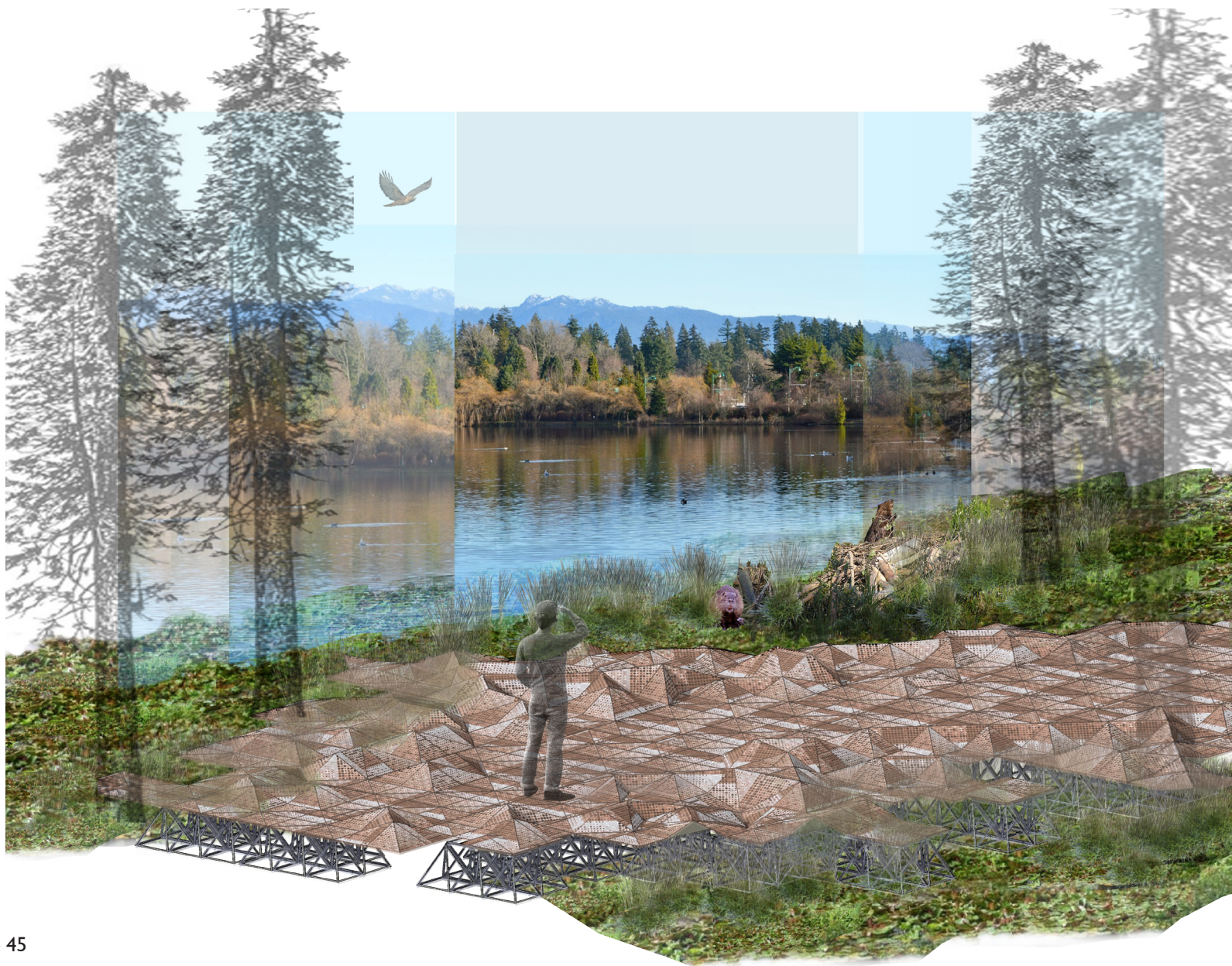


Figure 45

Remembrance

Allowing the visitors to experiencing the past zoological environment, and understanding why the zoo typology needs to change.



Image 19.

Remembrance

Bringing the path into the abandoned polar bear exhibit, allowing visitors to experience captivity.

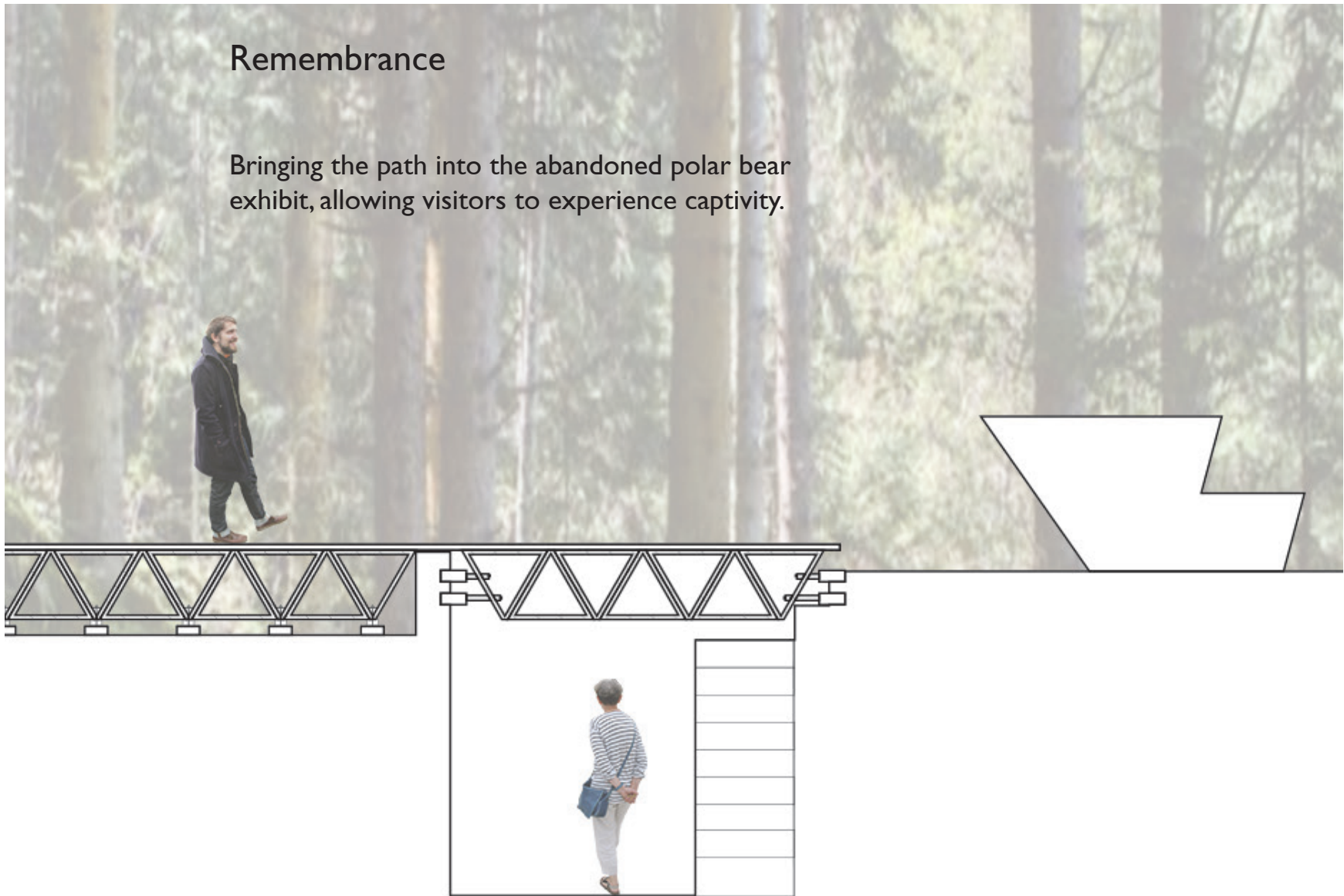


Figure 46.

City Transition

Ascending from the forest back into the city

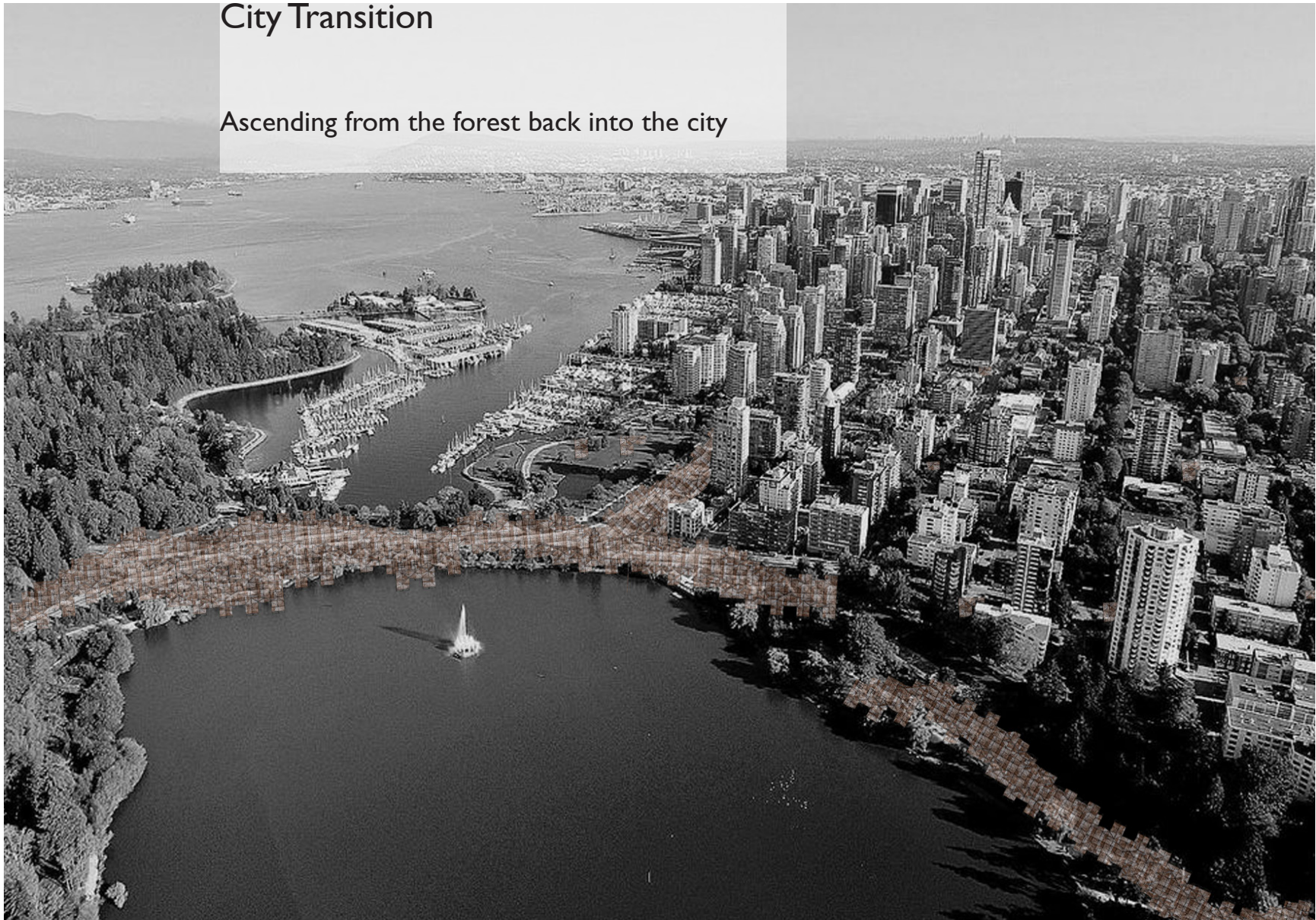


Figure 47.

Eco Pods

Evolving into a green city, meshing human habitat with animals and ecology.

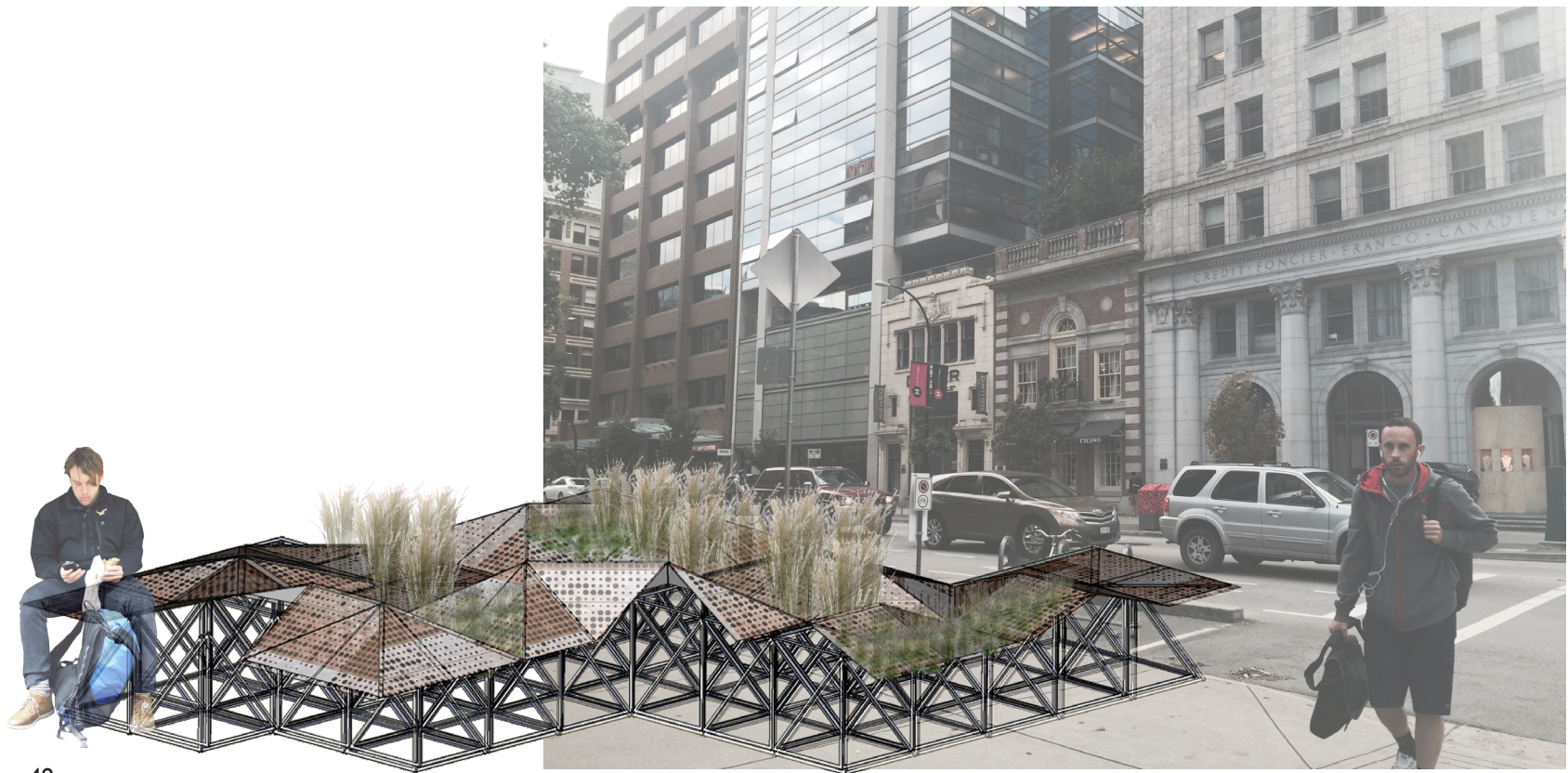


Figure 48.



Figure 49.

Chapter 5. Conclusion

The world as we know it is constantly changing and evolving, this is simply out of our control. However even though evolution cannot be stopped, we as the human race can impact the world and how it evolves. We have to ask ourselves how we can make the world a better place?

As architects this question should come to our mind every time we are designing a building or outdoor space, we have the power to design something that evokes change. Every work of architecture will somehow impact the environment and the living beings within it. This thesis was inspired by evoking change, changing the way human and animal territories interact with each other, possibly merging the two together to become one. Through living in many different places, some rural or suburban but mostly urban, I have noticed the division between wildlife and the city. This division causes so many animals and ecology to be displaced, moving into

a much smaller territory that does not allow the bio-diversity to thrive, hindering the evolution of wildlife and ecosystems. This displacement does not necessarily have to happen, through tactful human growth we can learn to merge the two habitats together.

For this thesis the ultimate goal was to envision this merging of habitats, and the abandoned zoo typology is the perfect venue of this change. Many of these sites are located in large metropolitan areas, where the land of the former zoo is able to evolve and be taken over by local wildlife and ecology, reforming an environment that was once present and fading it out to the surrounding city. It is an opportunity to give back to the wild animals, and remember the wildlife that once called the zoo their home; turning the tables on captivity and creating a place where the animals want to live, but

are not forced. This is a full circle venue that not only has the opportunity to give back to local wildlife but also to the human race, designing a framework for a complete bio-diverse environment that can only positively impact all living beings.



Figure 50.

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Image & Figure References

If image is not referenced, it is the authors original work.

Image 1 & Image 2:

“The Compleat Traveller.” : Palace of Versailles Gardens.
Web. 6 July 2015.

Image 3 & Image 4:

“7 Eerie Abandoned Zoos and Wildlife Parks - Urban Ghosts Media.” Urban Ghosts Media. 6 Oct. 2014. Web. 18 Apr. 2015.

Image 6:

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Image 7:

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Image 8:

“Up Ahead Lies Noah’s Ark, but That’s Waves Away.” Genius. Web. 9 Mar. 2015.

Image 9 & 10

“Home.” International Crane Foundation. 2015. Accessed June 12, 2015. <https://www.savingcranes.org/>.

Image 11:

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Image & Figure References

If image is not referenced, it is the authors original work.

Image 12:

“7 Eerie Abandoned Zoos and Wildlife Parks - Urban Ghosts Media.” Urban Ghosts Media. 6 Oct. 2014. Web. 18 Apr. 2015.

Image 13:

Image 14:

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Image 16:

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Image 17:

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Image 18:

“Saint Louis Zoo.” Penguin & Puffin Coast to Re-open :: Web. 12 Dec. 2015.

Figure 25:

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