



COMPENDIUM 2023

ALESSANDRA FERRETTI

THE NARRATIVE: ANIMALS & DESIGN

COMPENDIUM 2023

The Narrative: Animals & Design

Alessandra Ferretti

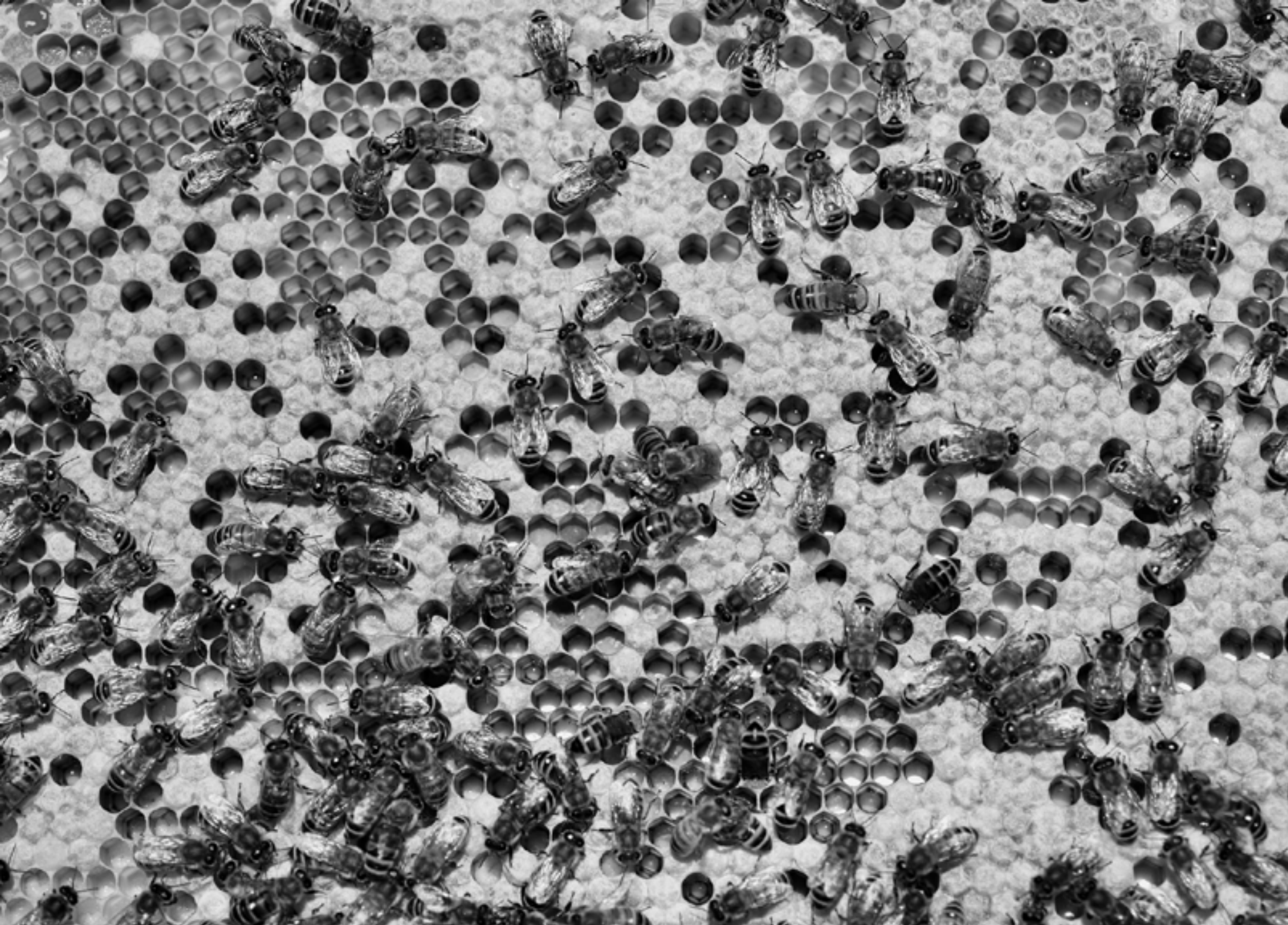


Table of Contents

1 Introduction	1	5 Opportunities	42
Abstract		Insights	
Project Summary		Concept Matrix	
Timeline & Work Progression			
2 Research & Exploration	5	6 HMW Question	45
The Animal-Human Relationship			
Convictions: How Animals Play A Role In		7 Prototyping	47
Mental Health		Animal Design Thiking Book	
Animals & Design Thinking Strategies		Interactive Park	
3 Primary Research	13	8 Next Steps	52
Site Observations		SP2 Research Plan	
Interviews			
Probe Kits		9 Conclusion	54
Empathy Map			
Journey Map			
Concept Matrix		10 Bibliography	57
4 Research Synthesis	37		
Investigative Delibiration			
Initial Inisghts			



Animal Dominance Over Design Thinking & Strategies

The foundation of our innovations.



Introduction

Project Summary

Over the course of this study, I journeyed and investigated a wide range of areas pertaining to the interactions between animals and humans. It provided me the freedom and chance to examine a wide range of subjects that I find captivating, ultimately leading towards identifying my final research topic.

Animals have always captivated me, whether it's because of their appearance or the way they've adapted to their environment. I really think that we can learn plenty of lessons from them, and that we should begin safeguarding them as much as can now, before it's too late. Animals provide us with a whole diverse perspective of the world and how it works. Humans have warped our understanding of the planet and misused its resources. Animals are what balance out the chemicals and other organisms around us, and they have always coexisted peacefully with the natural world.

Animals typically hold a special place in the hearts of many individuals and families in modern times, contributing to emotional well-being and enhancing human lives in a variety of ways. The human-animal relationship ranges from the beginning of times, prehistoric times, to the 21st century. As time advanced and the human species got innovative, its relationships with animals grew deeper, shaping and expanding into the ways we view and experience them today. I began this project with the intention of examining the fundamental bond that exists between humans and animals as an individual who has spent their entire life among animals. After doing extensive investigation, I started to tilt more in the direction of their emotional bond. As I directed my primary research methods towards this subject, the conversations I had with a few interview subjects naturally progressed and expanded into greater lengths. As an illustration, consider research on the significance of animal personalities and how pet owners perceive their animals. However, the topic evolved into what it is today—Animals and Design Thinking Strategies—primarily due to desk research.

As I began to delve deeper into the idea between animal design thinking and the relationship it shares with humans, it led to me focus my research on the following question:

What Roles do Animals Play in the Human Spectrum of Design Thinking?

I was able to conceptualize my analysis and explorations, I delved further into the subject by establishing the final re- search question, while providing careful consideration to the manner in which my preliminary findings contributed to the question. Finally, my research led me to three key findings:

“Animals have an essential and valuable function in a person’s mental health and well-being.”

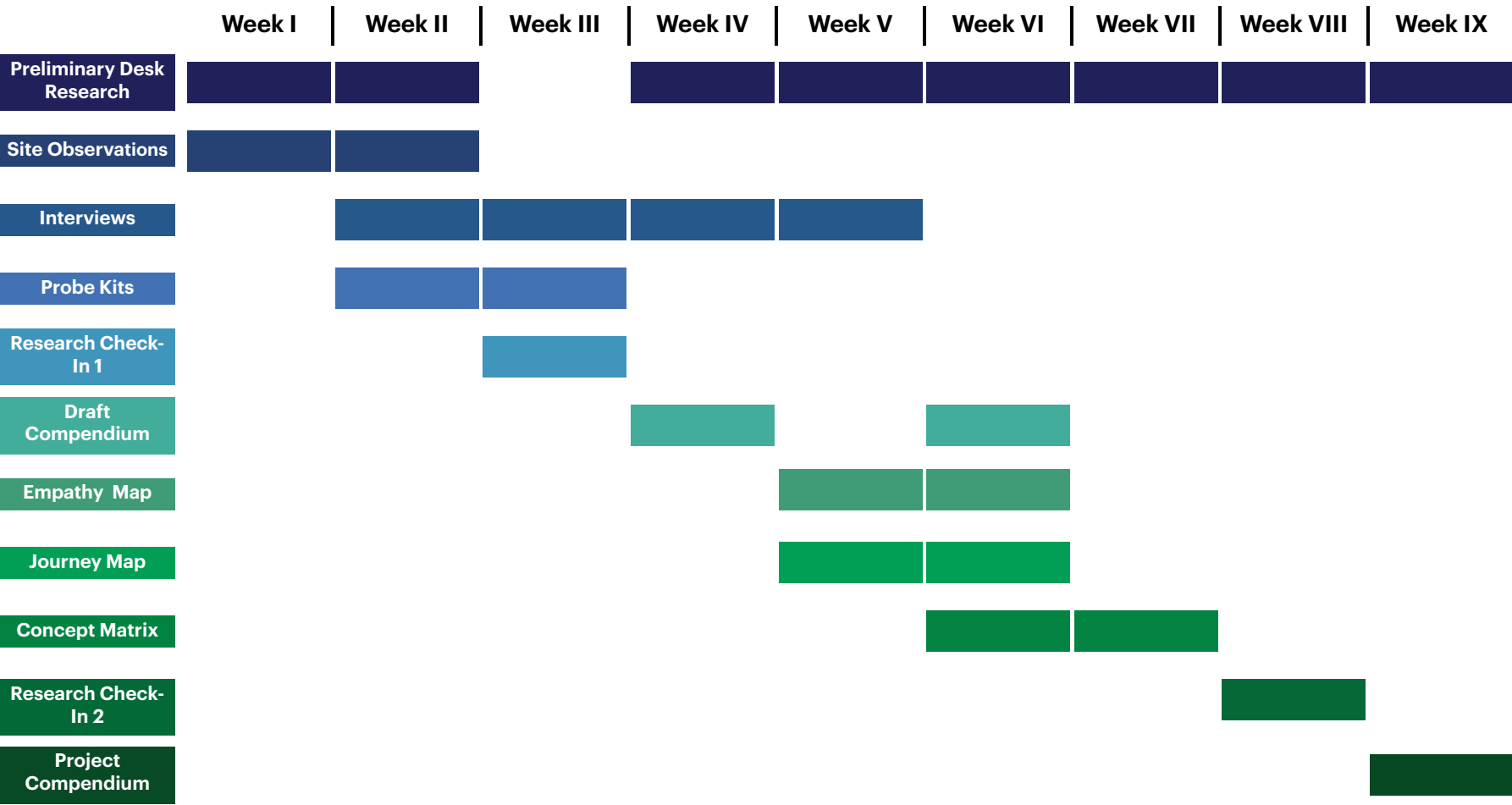
“People are becoming more cognizant of animal emotions, allowing for a broader range of ap- preciation for thei viability towards humans.”

“Everything we do, whether emotional or statistical, results in a sort of design process.”

These three determining elements enabled me to emerge an interactive inquiry, which will allow me to potentially inves- tigate further in the future:

How Might We Tailor Our Innovations Through Animal Design Thinking?

Timeline & Work Progression



2

Research & Exploration

The Animal-Human Relationship

The animal-human relationship is a rich and multifaceted interaction that has evolved over millennia and has been impacted by cultural, historical, and individual variables. Companionship is one significant aspect, in which animals, particularly pets, provide emotional support, friendship, and a sense of connection. This tie has resulted in the domestication of numerous species, establishing long-term relationships between humans and animals.

Humans and animals have historically created working partnerships for practical reasons such as agriculture, transportation, hunting, and protection. Horses, dogs, and oxen are examples of animals that have contributed to these efforts. Animals also play an important role in therapeutic and emotional well-being through approaches such as animal-assisted therapy. Trained animals like dogs and horses interact with people to improve their physical, social, emotional, and cognitive performance.

Animals have cultural and symbolic value, since they feature in myths, folklore, and religious traditions. In different cultures, they may be cherished or regarded sacred, showing a strong symbolic relationship between humans and animals. Conservation initiatives emphasize the significance of protecting wildlife and natural habitats, emphasizing the interdependence of ecosystems and human well-being.



Animal research poses ethical concerns, spurring continuing arguments about animal welfare and the investigation of alternatives. Responsible pet ownership necessitates a dedication to the care and well-being of pets, which includes correct nourishment, medical treatment, and a secure environment. Ethical concerns range from industrial farming to animal testing to the influence of human activities on nature.



The animal-human relationship encounters obstacles and tensions as well, especially when human actions have a harmful influence on animals. Animal populations are threatened by habitat degradation, poaching, and pollution, underscoring the importance of balancing human needs with conservation and ethical issues. To achieve this balance, continuing efforts must be made to encourage responsible and ethical interactions between humans and animals.

Convictions: How Animals Play A Role In Mental Health

Animals play a vital and beneficial part in mental health, according to both personal experience and scientific studies. Many people attest to the emotional support that animals provide, highlighting the connection and unconditional love they provide. Scientific research has shown that interactions with animals can result in physiological changes such as increased levels of oxytocin (the “bonding hormone”) and decreased levels of stress chemicals, which contribute to enhanced emotional well-being.

Spending time with animals, whether through pet ownership or encounters with therapy animals, is frequently linked to lower stress and a sense of peace. According to research, the presence of animals can result in reduced blood pressure, a slower heart rate, and other physiological changes that reduce stress. Furthermore, many people claim that



having a pet or participating in animal-assisted activities helps them cope with anxiety and sadness. According to research, animal companionship can give a form of social support, reduce feelings of loneliness, and lead to improved mood.

Pets, in particular, can improve social interactions and help people connect with others, lessening feelings of loneliness. Animal-assisted therapies are utilized in a variety of therapeutic contexts to improve social skills, communication, and general social interaction quality. Caring for animals provides a sense of routine, purpose, and duty, all of which contribute to an organized and fulfilling day. According to research, the routine connected with pet care has beneficial consequences on mental health, such as greater self-esteem and a sense of purpose.

Animal-assisted therapy and other animal-assisted interventions are becoming more acknowledged for their therapeutic effects in the treatment of a variety of mental health disorders. Controlled research shows that animal-assisted treatment improves results for those suffering from PTSD, autism spectrum disorders, and mood disorders.

Finally, animals offer nonjudgmental and unconditional love, offering a secure space for people to express themselves without fear of being judged. This nonjudgmental attitude has been linked to feelings of acceptance and emotional well-being. In conclusion, an increasing body of research supports the convictions surrounding the good influence of animals on mental health, demonstrating the various ways in which the animal-human link contributes to emotional well-being.



Animals & Design Thinking Strategies

The animal kingdom is a remarkable source of motivation for design thinking strategies. Over millions of years, animals have evolved to adapt to a variety of settings and obstacles. Their existence is a monument to their clever use of design principles to overcome hurdles.

Adaptation is one of the most prominent design thinking strategies in animals. Species have evolved traits and behaviors that help them survive in various habitats as a result of evolutionary processes. The capacity of the chameleon to change hue for camouflage, for example, illustrates a design thinking method that values adaptability as a fundamental to survival.

Animals excel in optimizing form and function for efficiency. Nature demonstrates a commitment to minimalist design, where each feature serves a purpose. The streamlined bodies of dolphins and fish, for example, minimize drag in water, showcasing a design thinking principle that prioritizes functionality and efficiency.

Animals showcase impressive problem-solving abilities. From the intricate webs of spiders to the cooperative hunting strategies of wolves, the animal kingdom exhibits innovative approaches to addressing challenges. These solutions often emerge through a combination of instinct, learned behavior, and adaptation, mirroring the dynamic nature of design thinking.



Social animals provide insights into the importance of collaboration and communication in design thinking. Bees, for instance, work collectively to build intricate hives and efficiently gather food. The intricate dances of bees communicate precise information about the location of resources, highlighting the role of communication in problem-solving.

Animals leverage their senses for effective problem-solving and decision-making. Bats, through echolocation, exemplify a sensory design approach, utilizing sound waves to navigate and locate prey. This strategy underscores the significance of leveraging available sensory modalities to enhance problem-solving capabilities.

Animals exhibit resilience through iterative processes. For instance, the process of metamorphosis in butterflies involves multiple stages of development, each refining and improving upon the previous one. This iterative design approach, observed in various animal life cycles, reflects a commitment to continuous improvement and adaptability.

The animal kingdom serves as a rich source of inspiration for design thinking strategies. From efficient adaptations to collaborative problem-solving, animals embody principles that can inform human innovation. As we observe and appreciate the ingenious solutions that have allowed different species to thrive, we gain valuable insights into the versatility and effectiveness of design thinking in addressing diverse challenges. By incorporating these lessons into our own creative processes, we can foster a more sustainable and innovative future.



3

Primary Research

Site Observations

Research Objective & Plan

When observing and listening, one can learn so much more than in a conversation. There are times when people communicate much more through their body actions with themselves and others, that represent more that person is than when you talk to them. This was one of the main reasons I decided to do site observations as my first research method.

Before I began any other research method, I wanted to use my knowledge from my desk research to get an in-depth understanding of the relationship between people and their dogs/pets in New York City. I am aware that my study focuses on animals in general, but given that we live in a metropolitan city, I don't have the opportunity to really observe the ways people interact with their farm animals, or any other animal for that sort.

I will be visiting areas that engage in any sort of animal activity for my site observations. Fortunately, I live in a pet-friendly neighborhood, which means there are plenty of dog parks and pet-friendly stores. Over the course of three days, I will visit dog parks and simply observe individuals walking their dogs to get a feel of how people and animals interact, as well as how they contrast and compare to one another. I'll also go to pet supply stores (such as PetSmart), doggy day centers, and pet spas. With the range of aspects within revealing what surrounds animals, it will provide me the opportunity to obtain an in-depth examination and understanding of how animals are portrayed and cared for, as well as examine how it has changed. I am convinced that some variables will surprise me, and I am curious to observe how animals and people expose their personal relationships to society.

Observation Notes

Dog Parks/Walking	Pet Stores	Doggy Day Care & Grooming
<ul style="list-style-type: none">- Every dog in some way looks or reflects what their human looks like.- The initial understanding of a humans personality is reflected on the animal, they are very similar in the ways in which they interact with others.- Every dog has a unique leash, and is in some way accessorized to express their personality.- Some dogs reflect their humans emotions, while others might seem to be trying to cheer up their human if they are down.- Dogs are mostly accompanying humans on their chores, so aren't just taking out for scheduled walks but rather to be a companion.- The more a human interacts with other humans, the more the dog interacts with other dogs.- Within the human water fountain there is a dog fountain to drink from as well.- In the dog parks, there are smaller areas reserved for smaller dogs to protect them from bigger dogs.- Dogs are allowed to enjoy their walk, and kind of set the pace of the walking.	<ul style="list-style-type: none">- When walking into the stores it seems like it is a mall for animals.- There are so many categories to choose from, clothes to animal tents.- There are so many new. Creations, and everything is thought of.- Variety of toys for every issue a dog might have, and a wide variety of colors.- Cat towers look like nyc penthouses.- Endless aisles of foods, wet, dry, half-way, etc.- There are clothes for every occasion, Christmas, halloween, everyday wear, etc.- Birthday cookies and cakes for animals.- Chips for dogs.- Clothes and harnesses for bunnies and hamsters.- The bowl and food container aisle looks like a crate & barrel for animals.- Therapeutic beds.- So many styles of leashes, that go from the vibe of Tiffany's to Target.- Pet healthcare (eg. Everyday vitamin gummies).- So many hair products for cats and dogs.	<ul style="list-style-type: none">- So many dog grooming business that also include doggy day care (eg. Biscuits and Baths).- Dogs are accessorized before being handed back to their humans with bows or bandanas.- Dogs are given the best shampoos and conditioners, and are thoroughly washed, honestly seems better than human hair salons.- Constantly being taken care for and given love.- Many dogs seem to enjoy the grooming.- Each dog has a different personality and it can clearly be seen when they interact with other dogs.- Seems like you are looking into a room of people who can't talk English but are clearly communicating with each other.- Each dog reacts and acts like their owners.- There are different types of grooming.- Daycare is a play pen, where there is a person always entertaining the dogs and making sure they are interactive with each other.

Dog Parks/Walking	Pet Stores	Doggy Day Care & Grooming
<ul style="list-style-type: none">- Dogs are extremely excited to go into the dog park.- If humans are not in the dog park, they don't really like people touching their dogs without permission.- Dogs don't really care for other people, they are focused on their walk and humans.- Dog parks are really created for them and their enjoyment, their is minimal space for humans to sit or be "chilling".- Dogs seems to be very ecstatic and happy during walks, but especially when inside the dog parks.- The are many dog parks, but the textures vary from cement to grass fields.	<ul style="list-style-type: none">- Wide variety of razors to cut/shave dog hair.- Cleaning aisle designated for animals (eg. Laundry detergent).- Animal furniture.- Animal necessities (eg. Toothbrushes with toothpaste).- Dog ice cream, from bacon flavor to lamb gut.	<ul style="list-style-type: none">- All the playpens have simple or one color rooms, but are designed to be with hills, and to entertain dogs (hills, holes, etc.).

Reflection

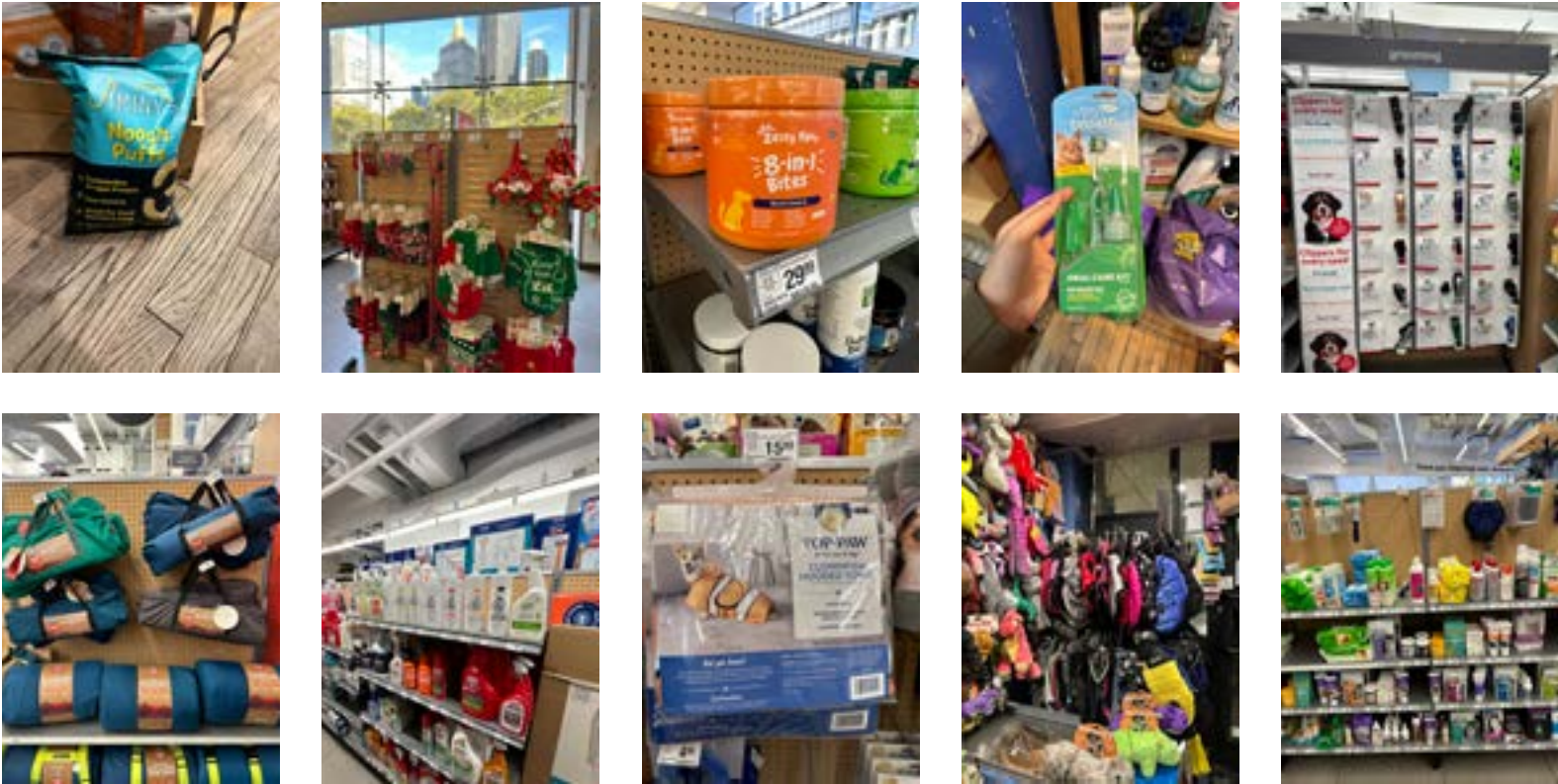
As I went around Battery Park, a neighborhood filled with dog parks and families, I began to notice how people interact with their pets. I was aware that each dog and person has a unique personality, but it was incredibly intriguing and enjoyable to observe how these personalities complimented one other and how they talked with one another. It was quite amusing to witness how the dogs replicated their masters’ qualities and complimented one other’s emotions and feelings.

I also went to pet stores and puppy day centers all across town. As I stared through the windows, it was almost as if each dog was a human, because their personalities were so diverse and it was clear how they differed from one another. In pet stores, I noticed how animals are beginning to be moved into a human form; in other words, pets are increasingly shifting into the family category and escaping the “pets” motif.

Animals and humans are increasingly bonding and becoming more intimate. It is evident not only in pet stores and the way humans and animals interact with one another, but also in human apparel stores, which are beginning to incorporate animal clothing, whether matching or not. It’s fascinating to observe the path COVID-19 took, as well as the manner in which animals are actually becoming a part of humanity and stepping in as family members. I personally cherish all of my animals as if they are family, but it is refreshing to witness others do the same, and to see how they may mirror children in some respects.

In the culmination, the site observations were one of the pivotal moments in the research topic—from humans and animals to animals and design. My site observations were primarily concerned with how humans are creating notions and inventions that aim to make animals more like themselves, rather than how animals design and think. After reflecting on it for some time and utilizing different research techniques, I started looking at how animals plan their lives and how people have drawn inspiration from it or adapted from it. Eventually, my research lead me to my chosen topic: *The Narrative Between Animals and Design Thinking Strategies.*

The following images are photographs from certain human designs for animals that I thought were very interesting, and largely played a role in portraying the ways in which the emotional and significant stance animals have on humans and society.



Interviews

Research Objective & Plan

Interviews are an important research method because they allow for the collection of rich, primary data, the acquisition of profound insights, and the exploration of a study issue from different perspectives, all of which contribute to the overall quality and validity of a research project. During my interviews, I was able to establish four distinct stakeholder groups, which allowed me to craft questions tailored to each persona. This enabled me to be more particular and focus my research, allowing me to thoroughly investigate ideas, actions, and experiences.

As I finished my interviews, it not only measured my findings, but also presented me to other areas. This prompted me to look into additional research methodologies that would allow me to dig further into my interviews and genuinely grasp their motivations. Nonetheless, as previously stated, the many interviews with numerous stakeholders aided me by providing leverage when I commented on the interviews and insights discovered during particular interviews, which led to deeper and longer conversations beyond the questions written.

Stakeholder Groups



In terms of the various stakeholder groups, I sought to reach out to a diverse collection of people who all had a strong connection to animals, but from very different perspectives. As much as I felt it would be intriguing to learn about first-hand animal experience, I additionally believed it would be a refreshing angle to approach psychologists to obtain their perspectives and thoughts based on what they observe from their clients. There’s also an interesting parallel between having veterinarians and psychologists weigh in, given they’re both doctors, albeit for distinct species.

Animal Carers	Francesca Ferretti <i>PhD Student Candidate, Marina Natural Products & Chemistry, Professor at Griffith University</i>	Adam Riescher <i>Postgraduate Student, Accounting & Financial Management, King’s College London</i>	Cindy Jung <i>Undergraduate Student, BBA in Strategic Design & Management, Parsons School of Design</i>	Olivia Lasa <i>Undergraduate Student, BFA in Fine Arts, Parsons School of Design</i>

Interview Questions:

1. Did you grow up with animals? If so what animals?
2. Tell me a little bit about them.
3. Do you currently have any animals?
4. Do you think animals play a big role on the development of a human?
5. How do you think animals benefit us emotionally?
6. Do you think that your animal brings you more happiness into your life?
7. In average, do you feel more content when you are around animals?
8. How does your animal play a role in your emotional stability?
9. If in the future you plan to have kids or a family, would you want them to grow around and with animals?
10. Do you think you would have grown differently if you hadn’t grown up around animals or vice versa?

General Insights:

Each interviewee, as expected, had a unique relationship with their entrusted animal. Nonetheless, when it came to the fundamentals of how animals should be treated, who they are, and what they symbolize, all answers resonated accurately. There was a strong desire to love animals, and each interviewee believes that people who grew up with animals are much nicer and kind to be around, and are more likely to create a stronger and special bond with likeminded people. Overall, it was acknowledged that animals teach humans patience and discipline, both of which are necessary and important factors in life, as well as unconventional love and the value of communication.

Animal Welfare Groups

Best Friends Lifesaving Center

Animal Rescue Service & Leadinng “No-Kill Move-ment” (New York, USA)

Animal Haven

Animal Shelter, Behaviour Intervention & Enrich-ment Outings (New York, USA)

Interview Questions:

- 1. How do you define the emotional connection between humans and animals, and why is it important?
- 2. What are some common challenges in advocating for and improving the emotional welfare of animals in today’s so-ciety?
- 3. What advice or tips would you give to individuals who want to strengthen their emotional connection with their pets or contribute to animal welfare efforts?
- 4. What role do animals play in providing companionship, emotional support, and therapeutic benefits to people, espe-cially those facing challenges like loneliness, anxiety, or disabilities?

General Insights:

Both interviewees, emphasized the emotional lives of animals, arguing for the recognition of their sentience, the impor-tance of positive emotional bonds with humans, and the creation of environments that support their mental well-being. They aim to protect animals from harm, ensure humane treatment, and promote responsible care and stewardship.

Animal Health Bodies

Dr. Pablo Lopez

General Practitioner Veterinarian, Clinica Vet-erinaria Santo-Domingo (Madrid, Spain)

Anonymous

Managing Veterinarian & Vet Acupuncture, Battery Park Veterinary Hospital (New York, USA)

Angela Kang

Graduate Student, Uni-versity of North Carolina, Intern at VCA Legion Road Animal Hospital (NC, USA)

Interview Questions:

- 1. What are some common signs that an animal is emotionally bonded to its human caregiver?
- 2. How can the emotional well-being of animals be positively influenced by their interactions with humans?
- 3. What are the benefits of having a strong emotional bond between humans and their pets for both parties?
- 4. Are there any medical or behaviorall issues that can arise in pets due to emotional stress or separation anxiety from their human caregivers?
- 5. How can humans foster and nurture a healthy emotional connection with their animals?
- 6. What role does empathy play in the relationship between humans and animals, and how can we enhance it?

General Inisghts:

Even though animal health bodies typically focus on the physical well-being of animals, but some recognize the inter-connectedness of physical and emotional health. In essence, while the primary focus of animal health bodies is often on physical health and medical care, there is an increasing recognition of the importance of emotional well-being in animals. They may acknowledge that a positive emotional relationship between animals and humans can contribute to better health outcomes and advocate for practices that support the overall welfare of animals, similar to how humans benefit emotionally and health wise from animals as well.

Psychol-ogists

Guadalupe Torres
Children & Adolescent Psychologist, Pediatric & Adolescent Unit, Hospital Ruber Internacional (Madrid, Spain)

Adam Brown
Associate Professor of Psychology (Clinical) & Vice Provost for Research at The New School (New York, USA)

Interview Questions:

1. Do you think that it is important for humans to grow-up around animals? Why?
2. In what ways do you think that humans benefit emotionally from animals?
3. How do you think that individuals who grow up around animals differ from individuals who don't?
4. In what ways do animals bring general and emotional stability to humans?
5. How does the presence of animals in a person's life affect their overall well-being and mental health?
6. What role do pets play in alleviating stress and reducing symptoms of anxiety and depression in humans?
7. What are the potential psychological benefits for children who grow up with pets?
8. How might the bond between humans and animals impact social interactions and relationships with other people?
9. In what ways can interactions with animals, such as volunteering at animal shelters, contribute to a person's sense of purpose and fulfillment?

General Insights:

Psychologists may approach the emotional relationship between animals and humans from various perspectives, considering both human and animal psychology. Psychologists recognize the multifaceted nature of the emotional relationship between animals and humans. They explore the benefits of these relationships for human well-being, acknowledge the emotional experiences of animals, and may advocate for ethical and responsible interactions that promote the welfare of both humans and animals.

Reflection

All the interviews were very successful, although I still have a few to fulfill. All the interviewees were extremely insightful and brought to my attention many new factors within my topic of choice that I then went ahead and did more thorough research on. I was able to learn something new from each interview, which I am very grateful for, and it gave me an opportunity to broaden my understanding and knowledge of my explorations.

Even though there were separate stakeholder groups, they all arrive to a very similar conclusion. They believed that the people who grow up around animals are more keen to develop a patient and respectful personality in comparison to those who don't. People are more attracted to people who are more down to earth, and know how to respect others, whether a human or animal.

There also was a lot of talk and proven theory of the ways animals benefit the emotional stance and mentality of individuals, which is something that began to rise and gain fame during COVID-19, which led to many people being isolated in their homes. Animals were the key saving point of COVID-19, and both psychologists testified to it. It was interesting to also see the ways in which each interviewee commented on their experience with animals, and how they thought. It was pertinent for children to grow up around them and nature, giving them a bigger and better understanding and perspective of our world.

Similar to human-human relations, animals may have special connections with humans, which is something important and that takes time to develop. Nonetheless, when it comes to adoption centers, it is a tricky line to follow. Usually the animals are older and it is harder for a person to connect with them, which is why it is important for a person to let them get to know the true personality of the animal, and vice versa, before making any decisions.

Ultimately, the interviews provided valuable insights and understandings into the ways that animals evolved alongside with humans as an integral component of society. Not only were lengthy and sporadic conversations really helpful, allowing the interviewee and I to move around the questions as we went along, but the presence of other stakeholders was also very beneficial. However, each member of the stakeholder groups had a distinct way of speaking and interpreting the idea, which was again a really helpful topic for further discussion.

Probe Kit

Research Objective & Plan

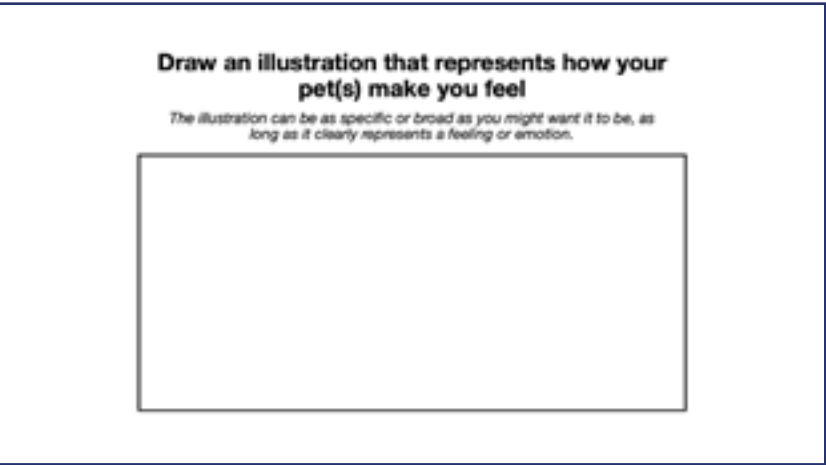
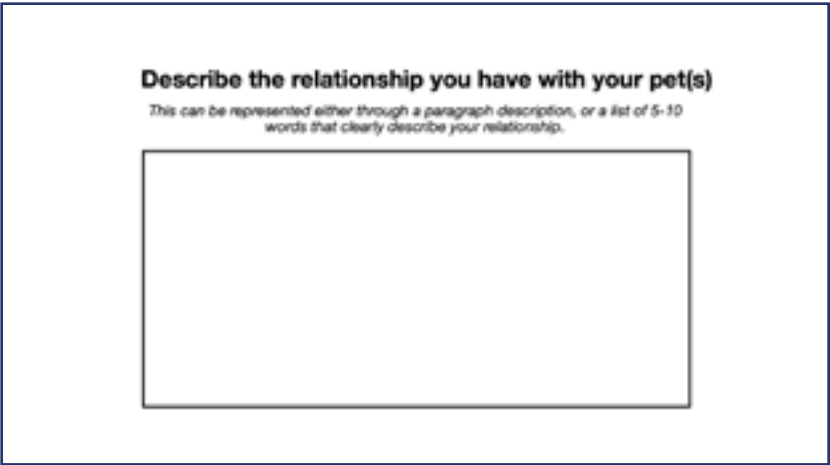
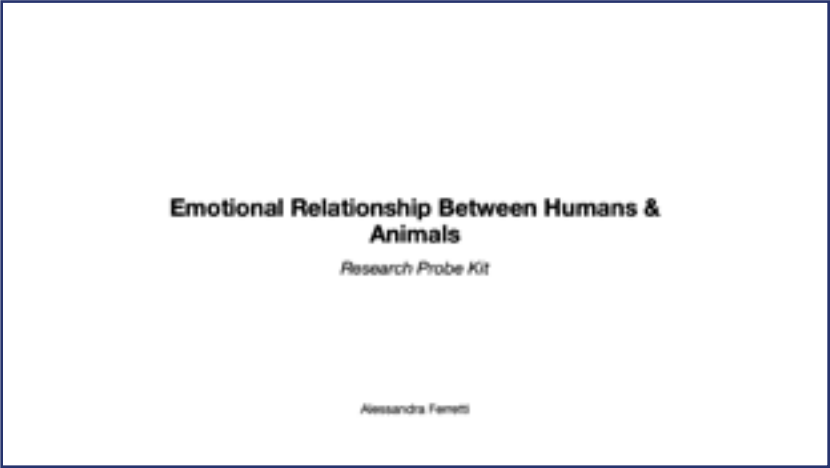
Probe kits allow you to gain a deeper and more in-depth understanding of your research topic, diverse human-animal relationships, and how an animal makes you feel. Furthermore, put yourself in the position of the participants/audience and witness the things they do.

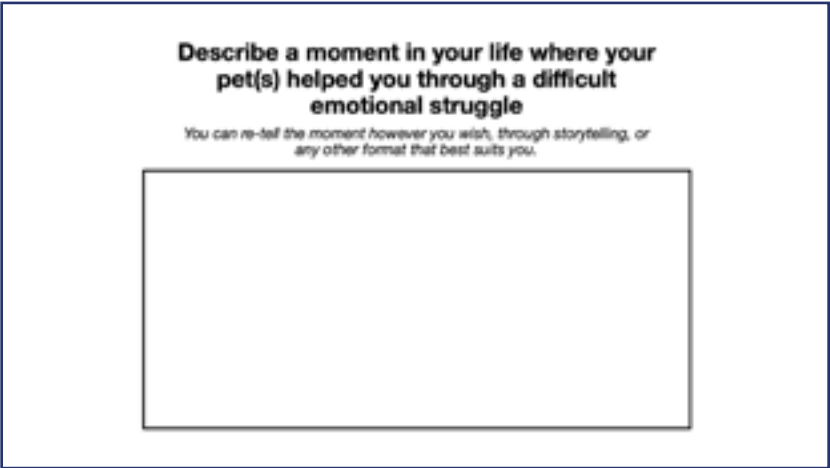
As previously stated, I aimed to place myself in the shoes of others for this endeavor and understand people’s relationships with their animals from the bottom up. Having stated that, I built a five-slide deck with interactive questions and activities regarding a person and their pet. Every activity addressed the relationship from an alternate viewpoint in order to examine how the answers changed and gather greater variety of responses from those engaged to distinguish the different and similar ways in which emotional bonds differ from person to person, or animal to animal.

Unlike interviews, I opted to solely concentrate on only a single stakeholder category for this research method: animal carers. The purpose of this research technique is to unravel the raw bond and connection between humans and their animals, which can only be offered by people who own or have owned animals for normal, emotional, or service reasons.

The probe kit will be distributed to at least ten participants, each of whom grew up around or with animals and currently maintains one. I anticipate that they will deliver comparable general results, but when it comes to specifics, they will differ. Each person has a distinct and individual relationship with their animal; no two are same. Thus is why this study approach piques my interest, since it will allow me to better comprehend relationships other than my own.

Blank Template





The questions and activities designed for the participants are centered on their relationship with their animals. Each activity asks particular approaches to characterize their pet and relationship with the objective to learn how separate and comparable relationships differ, allowing one to asses situations from a bird’s eye view.

Reflection

The probe kits were completed by ten indivudals, who currently have a pet, and/or grew up witha strong relationship to one, or many. Similar to the interviews conducted with the stakeholder group “animal carers” teh general inisghts were to be expected. In other words, each participant, to be expected, had a different relationship with the animals, the same way we have different relationships with each human, nonethless, not one of the probe kits sparked any negativity in any way, shape, or form.

One way we can analyze the dufferent answers is from looking at the second exercise: “draw an illustration that represents how your pet(s) make you feel.” It was interesting not only to see the way participants creativelys drew their illustrations, but rather the meaning that came out of each. The referneces for each participant were intriguing, and resonated with how the relationship was described in the first and third exercise. The ideas that I drew out from the illustra-tions, however, were how animals gave humans energy, love, comfort, caring, etc. Furthermore, followig the discussion of illustrations, it was one of the most in-teresting and captivating parts of this re-search method, because I gave the participants space to be creative, and it really provided me with much more kn-woledge than words ever could.



Another aspect of the probe kit that greatly aided my research was the last activity: “describe a moment in your life where your pet(s) helped you through a difficult emotional struggle.” This aspect of the activity was extremely per-sonal, but it was a way for me to really understand the raw bond, and help answer my first research question. It brought great insight into what animals provide for us, and really led me into diving towards the emptional aspect of the ani-mal-human relationship.

Some examples will be portrayed in the following page.

“It has only been a few months since I have my puppy Timón, but he has already helped me through so much. During the summer, I had a difficult conversation with my father, we both weren’t able to express ourselves well during the argument and it got difficult. I went back home and Timón received me with such excitement and enthusiasm eventhough I had no energy to play. I layed in my bed crying and just thinking about what happened, and without even thinking it twice, he rushed to my bed, begged for me to pick him up (since he has short dachshund legs and can’t do it on his own) and just layed so close to me. He even licked me, in a way, knowing that I needed his love in that moment. His company, no matter how sad and stressful I feel at any point in my life, is so helpful and it really does help me get through emotional struggles along the way a little easier.”

“During the challenging times of COVID-19, my dog became my steadfast companion and a source of immense comfort. Her unwavering presence and boundless affection provided a much-needed emotional anchor as I navigated the uncertainties of the pandemic. Whether it was our daily walks that offered a respite from isolation or the simple joy of cuddling together on the couch, her presence never failed to lift my spirits. Her enthusiasm for life and playful antics injected a dose of positivity into my days, helping to alleviate stress and anxiety. My dog taught me the importance of cherishing the small moments and finding solace in the simple pleasures of life, reminding me that even in the darkest of times, there is always a ray of light and love to be found.”

“I had a moment in my life where nothing was interesting or significant. I started staying in bed more than usual, I hated nature and I just didn’t want to go out at all until I adopted my second dog. He made me go out more and appreciate life more. Also, all of my dogs are always there for me when I’m having a bad day. I would just sit with my dogs and talk to them as if they are my therapists.”

Empathy Map

Research Objective & Plan

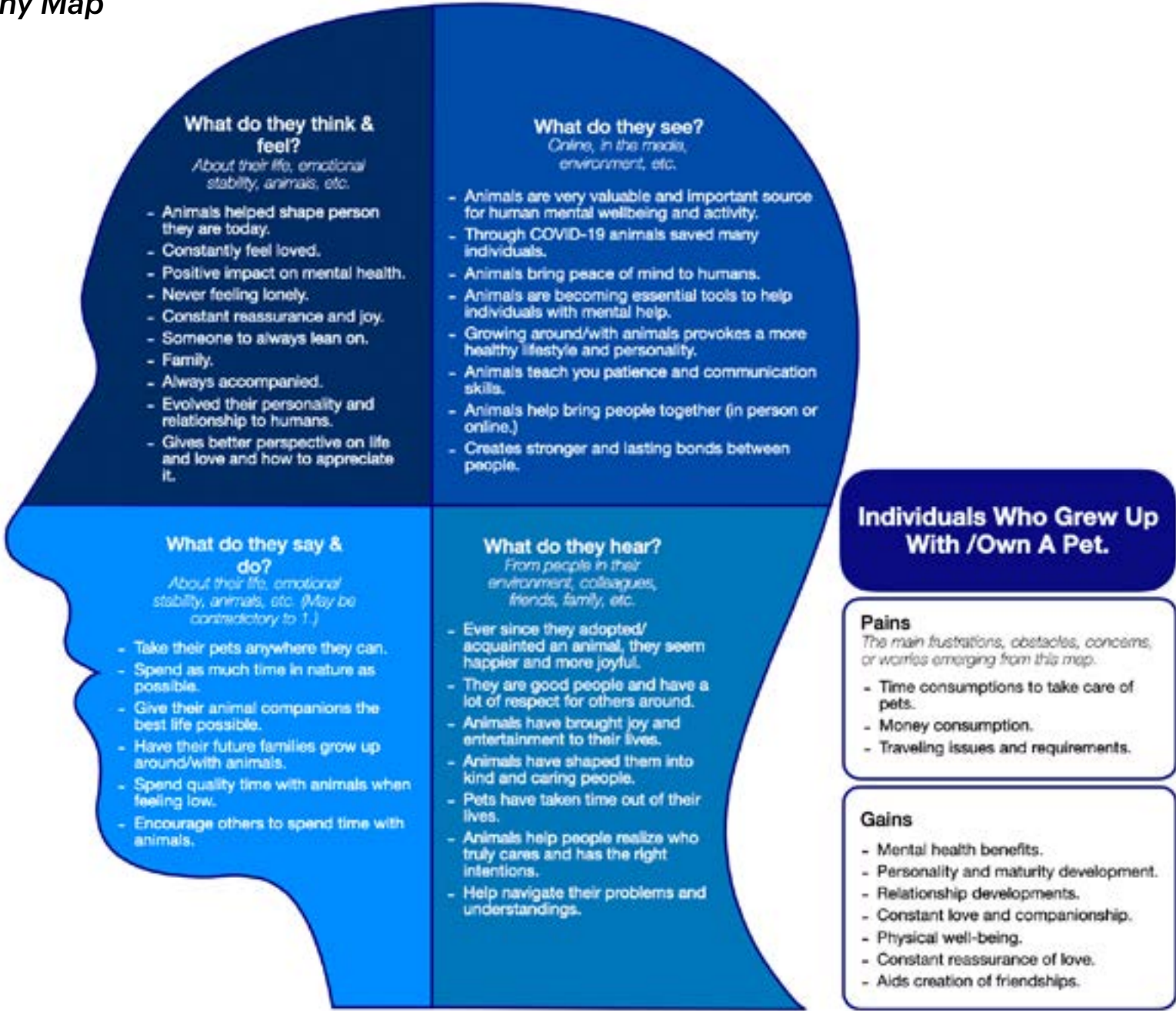
An empahty map gives me the opportunity to collectively look into all my interviews and probe kits through a lense to gain deeper inisght into the stakeholder group: animal; carers. As important as the other stakeholder groups are, the empathy focuses only on the one group, as it is an intention to better understand the ways in which animals affect a persons daily life and mental health from a personal stance.

To some it might seem that the empathy mao is repetitive, but rather it properly summarizes beliefs and statement into groups, allowing one to see the bigger picture, without having to read through all the interviews and probe kits. Also, it is a way to represent my data, without having compromising the interviewees personal thoughts and feelings to others.

The empathy map will be divided into six categories: what do they think & feel, what do they see, what do they say & do, and what do they hear. Each category approaches a different way of understading how individuals who grew up or own a pet feel, hear, see, etc. It is importat to note that some categories might bleed into others, or even contradict them, given the numeruos amounts of interviewees and participants. However, as one will look at it as a summary of all findings, the fluidity of it will bring it all together.

Overall, I am hoping that the empathy map gives me a clearer and better understanding of the impact animals have on the well-being of humans, whether that might be physical or mental, and moreover to broadly understand the problem at hand, for future opportunities.

Empathy Map



Reflection

To start off, I wanted to mention how the empathy map was extremely useful to present, it gave my audience an easy and understandable concept of the interviews and probe kits. It has given us a clear window of the stakeholder group: animal carers, and allows us to really get an in-depth scope of how animals are a thriving and essential factor in our lives today.

The empathy map represents the ways in which animals aid humans in many factors, in the physical and mental sense of things. It has allowed people to thrive and unlock so many features within their personality that might not have been developed if for not having a dependent animal to take care of. It is interesting to see the ways in which many answers correlated with each other, and how the overall impact an animal has had on a person's life is extremely positive. Of course, on the other hand, we have the negativity that comes with all of it, that is also a great deal breaker for many individuals, but when comparing them to the gains, it is a very very small percentage to sacrifice, considering. The pains stayed very much the same for every individual, as it was mostly surrounding the economic side of things, and in regards to dogs, the time consumption they take. Nonetheless, it was interesting to explore the ways in which how to every negative point discovered, there was also a positive side to it. For example, when it comes to time consumption, the plus side to it is that it benefitted the individual in the physical sense of moving, and the mental health part by moving around and leaving the house every few hours.

As I began studying the empathy map, I began to think the ways in which these individuals design their life accordingly to their pet's needs. Design being the key word. As the word design began rolling around, my research started to expand, and further delve into the current topic. The empathy map highly connected with my site observations, and had a way of developing how we design products and our lives, in accordance with animals, in order to make them the most humane possible.

Journey Map

Research Objective & Plan

I took a different approach to the journey map conducted. A journey map overall allows one to understand the custom-ers processes, needs, and perceptions. With that being said, I wanted to understand the emotional journey a person goes through when adopting an animal.

Adoption emotionally contrasts from buying a pet, given that when you buy an animal, you buy them at a very young age. This gives one the opportunity to easily connect with the animal, as they are new to the world, and have yet to develop their personality and opinions, similar to a human baby. Whereas, when it comes to adoption, it is much more difficult to connect and understand the animal. It is similar to making new friendships as an adult, one might instantly connect, and others might take time to develop a strong connection.

With that being said, the journey map will provide will provide to categories for each step: action & interaction, and thoughts. This will give the opportunity to better understand the emotional journey. The journey map will be de-signed around a positive experience of adopting/rescuing an animal. This will be conducted through the use of the interviews between animal carers and animal welfare groups, as well as researching experiences online.

I aim to understand the emotional stance one might go through, and really explore the ways in which the system is designed to consider the animals feeling and well-being. It is an essential component to adopting, and my personal ethical values, which makes this all the more important.

Journey Map



Action & Interaction:

- Research about animal or breed.
- Explore local rescue organizations.
- Gather Information on supplies needed.
- Talk/discuss to contacts about their experiences with adopting.
- Create financial reports on typical/regular costs of animal.

Thoughts:

- “What animal do I want to rescue?”
- What breed/personality is best for me?”
- “How will this animal change my lifestyle?”
- “Do I have the time and resources to take care of them?”



Action & Interaction:

- Find and filter animal on adoption/rescue website (eg. petfinder.com)
- Choose a rescue/adoption center.
- Select a few animal/breed that you would want to meet.

Thoughts:

- “What animal do I want to rescue?”
- What breed/personality is best for me?”
- “How will this animal change my lifestyle?”
- “Do I have the time and resources to take care of them?”



Action & Interaction:

- Call rescue/adoption center to find out more about the personalities of the animals.
- Inquire about business hours and set up an appointment to visit and meet the animal.

Thoughts:

- “What animal matches my personality most?”
- “Who will connect with me better?”
- “Who needs more help than I can give?”
- “I’m glad they took the time to match me to the right animal!”



Action & Interaction:

- Individual gets in their transportation method to travel to the rescue/adoption center.
- They think/discuss the impact that the animal of choice may have on their lifestyle.

Thoughts:

- “Will we have a connection?”
- “I hope we click.”
- “Do I have all my paperwork?”
- “Will I be able to take them home with me tonight?”
- “Do I have enough money in case I can take the baby home today?”



Action & Interaction:

- Pick-out the furry friend you best connected with, that you know you can take care of.
- Finalize paperwork.
- Pay adoption fee.

Thoughts:

- “I can’t believe we are finally taking the baby home!”
- “I can’t wait to see how he reacts.”
- “Do you think he is happy and will be happy?”
- “Should he sleep in my bed for the first few nights?”
- “I can’t wait to spoil them with so much love and toys!”



Action & Interaction:

- Transport animal and furry friend home.
- Let animal get accommodated to to the house and you.
- Slowly let the animal get used to you, and your voice.
- Read up on how to get the animal comfortable with their new surroundings.

Thoughts:

- “They look nervous, I hope they are okay.”
- “Do you think they are happy?”
- “Does he like me and the house?”
- “Should I try to make contact?”
- “Is he/she scared?”



Action & Interaction:

- Make vet appointment.
- Interact with other dogs (if applicable).
- Buy food, supplies, toys, beds, etc.
- Spend quality time with each other.
- Get to know who they really are, vice versa.
- Give them so much love.

Thoughts:

- “They are so sweet, they. Have changed so much and are so comfortable!”
- “I feel so loved.”
- “Life is better.”
- “They are helping me socialize.”
- “I am learning so much about myself and new skills.”
- “I feel overall healthier.”

Reflection

The journey map provided a variety of knwoeldge, but specifically represents the emotional rollercoaster the adoption process is for humans, let alone animals. Even though the map might seem simplistic, it is interesting to analyze the how the emotional levels are deeply affected by how the animal feels or acts. Adding to that, the way that the adoption process has been ndesign, is an additional factor to representing the ways in which humans emotions are becoming more cognizant of animal emotions, allowing for a broader range of appreciation for their viability towards humans.

This research method is what really drove my interest into exploring the idea od design and animals. I was extremely intrigued to learn more about the system and how they design for the animals well-being, which sparked an interest in design, similar to the empathy map. Although the idea of learning more about the emotional relationship between animals and humans was extremely interseting, and the map has introduced me to a whole new world of learning, the way that it was designed caused diverse research.

Overall, the journey map introduced the ways in which us humans design formats, but how do animals design their own. When arriving to a new house, or meeting their new potential parents, what is their thought process, and how do they design their following steps to create the most effective outcome?

4 Research Synthesis

Investigative Deliberation

As the research section came to an end, it was time for me to deliberate with my understandings, thoughts, and findings. Once my research methods came to a close, is when I officially decided to shift my topic from the emotional relationship between animals and humans, to the narrative between animals and design thinking strategies.

As we think of our mental health, and the ways we have learnt to cope with certain diagnosis, we find that animals are in the center of it, whether through the medical use, or the emotional. It is interesting however, that we haven't delved deeper into how we can make a more sustainable innovative future by looking at how the animal kingdom lives.

Whether it is considering the making of a bees nest, or the ways in which squirrels layer their plants and finding to maintain heat, it came to questions, how can we efficiently use their design thinking strategies, to not only better our innovations, but prepare and design a more sustainable future. In the past, we have used the knowledge of animals to benefit the constructions of buildings, however, how can we more efficiently do so.

As humans, we are attempting to shape animals into more humane creatures, my thinking is the realization that we should be doing the opposite. Humans are in need to become more efficient and in-touch with their roots, therefore learning more from animals, and adapting our way of thinking to theirs.

I want to emphasize on the fact that this new topic is extremely interesting to me, and brings much more joy to research about it. Nonetheless, I am using all the research conducted to drive this investigation, as it is still extremely useful, and brings a new aspect to the idea of animals, and how they think. I am content with how I reached to my current topic, as it has educated me greatly, and will bring a strong prominence to the present topic.

Initial Insights

Animals, like people, are unique in that they each have a distinct personality that they acquire via their life experiences.

Adoption process' are designed around the animal emotions and reactions.

Animals have an essential and valuable function in a person's mental health and well-being.

Everything we do, whether emotional or statistical, results in a sort of design process.

Human emotions are becoming more cognizant of animal emotions, allowing for a broader range of appreciation for their viability towards humans.

Each of the insights came from the understandings and conclusion of the primary research methods, but most specifically the Empathy and Journey Map. They provided much insight, as they each summarized and brought together multiple of the other research methods, allowing one to view everything in a simplistic manner.

5 Opportunities

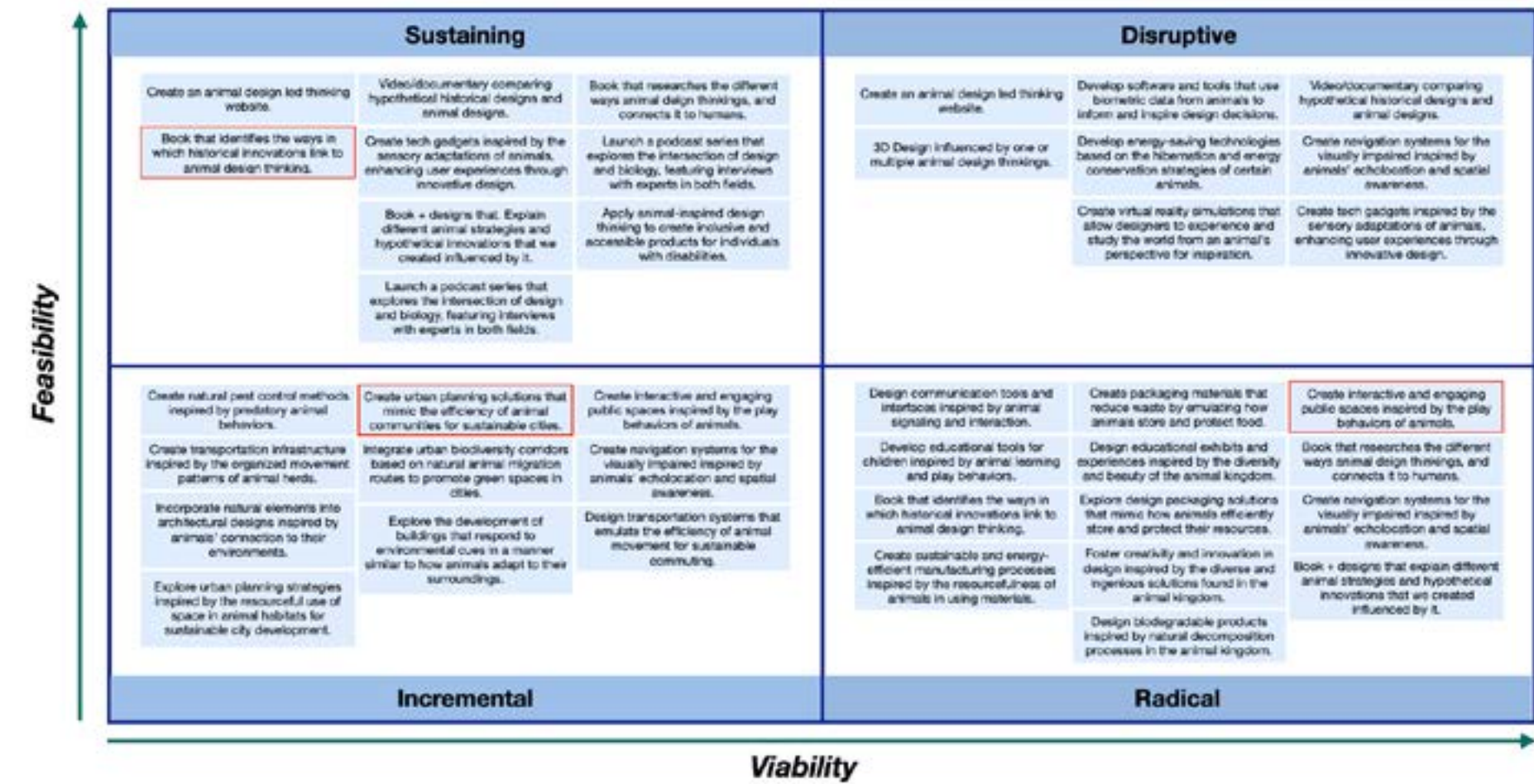
Insights

Animals have an essential and valuable function in a person’s mental health and well-being.

Human emotions are becoming more cognizant of animal emotions, allowing for a broader range of appreciation for their viability towards humans.

Everything we do, whether emotional or statistical, results in a sort of design process.

Concept Matrix



Book that identifies the ways in which historical innovations link to animal design thinking.

Create urban planning solutions that mimic the efficiency of animal communities for sustainable cities.

Create interactive and engaging public spaces inspired by the play behaviors of animals.

Out of the fifty opportunities brainstormed, I chose my top three, which are presented above. Each identifies a different opportunity to approach the topic at hand in complete different settings and industries.

The concept matrix opens up the panel of opportunities for inventions or projects within the chosen research topic. I decided to navigate the opportunities, by dividing them into four groups: sustaining, disruptive, incremental, and radical. Each is measured by the feasibility and viability of them, depending on the designated factor.

6

**HMW
Question**

**HOW MIGHT WE
TAILOR OUR
INOVATIONS
THROUGH ANIMAL
DESIGN THINKING?**

7 Prototyping

Animal Design Thinking Book

For my first prototype, I designed a book that identifies the ways in which animal design thinking links to historical innovations, & how we can use it in the present. This book focuses on animal design thinking, contrasting and comparing it to historical innovations, studying how humans have worked and may work in the future, and thoroughly examining the various ways in which we have already implemented animal design thinking in our innovations.

I developed a mockup of the cover for a prospective book I'd write, which incorporates the Table of contents, which is a quick description of all the topics that will be presented and how they will be distributed throughout the book.



Table of Contents

Introduction

1. Animals & Design Thinking

2. Humans & The Use of Animal Design Thinking

Humans & Design

3. The Evolution of Innovation & Human Thinking

4. Important Historical Innovations

Future of Human Innovations

5. Animal Design Thinking & Sustainability

6. Human Sustainable Innovations

7. How To Better Implement Animal Design Thinking Into Our Sustainable Innovations

As i move on with this research project, I would ideally want to create the book. With that being said, I created the design criteria for it, to better understand the design aspect of the book, and identify the important features that will be included.

Must

Title and typography, cover design, chapter dividers, and layout and formatting.

Should

Narrative flow, icons and symbols, back cover and blurb, and inclusive design.

Could

Illustrations and graphics, and interactive elements.

Won't

Author's voice.

Interactive Park

C

The park would hypothetically vary from beehives, to squirrel tree habitats, monkey jungle swings, and much more, as represented by the following illustrations.





8 Next Steps

SP2 Research Plan

In order to make the second prototype a reality, I would need to conduct a bit more preliminary desk research (books, films, papers, etc.), interviews (architects, design students, etc.), artifact analysis, and design analysis. When that chapter is finished and I am more knowledgeable about the human design element of things, I will begin writing the first draft of the book. The book would not be excessively long, but it is still a book, so after the first draft is completed, I would have some professors, students, or any other important accessible person read through the draft and provide feedback. This leads to the creation of the final editorial. Finally, we reach the final phase, which is to construct a short trailer introducing the book. A brief documentary explaining the book’s content and really putting the audience on a cliffhanger to learn more.



9 Conclusion

Conclusion

This research journey deepened my interest in the intersection of design and animals. The realization that animals are not only recipients of human design but possess their own inherent design thinking strategies became a central theme. Animals contribute valuable insights to sustainable innovation, prompting a reevaluation of how we can learn from their natural behaviors to design a more sustainable future.

The shift in my research topic from the emotional relationship between animals and humans to the narrative between animals and design thinking strategies marks a crucial evolution. This new perspective explores how animals’ design thinking can inspire historical and present innovations, emphasizing the need for humans to adapt their thinking to become more efficient and sustainable.

The empathy map and journey map methodologies provided a comprehensive view of the emotional and design aspects of the animal-human relationship. The empathy map illuminated how animals contribute to humans’ physical and mental well-being, while the journey map delved into the emotional complexities of the adoption process.

The book prototype, plays a crucial role in synthesizing and presenting the insights gathered throughout the research journey on the narrative between animals and design thinking strategies. It serves as a comprehensive exploration of the intersection between animal design thinking and historical innovations. The focus is on drawing parallels between how animals naturally approach problem-solving and the ways humans have historically innovated. One of the key functions of the book is to conduct a comparative analysis. It contrasts and compares instances of animal design thinking with historical human innovations. By juxtaposing these two perspectives, the book aims to highlight the unique and effective problem-solving strategies embedded in the natural behaviors of animals. These case studies serve as real-world illustrations of the principles explored throughout the research, offering tangible examples of how animal design thinking can be applied in various domains. This examination includes architectural designs inspired by animal structures, technological advancements influenced by animal capabilities, and sustainable practices informed by the efficiency of natural ecosystems. A central theme of the book is the promotion of sustainable innovation. It emphasizes the importance of learning from the animal kingdom to design more efficient, sustainable, and environmentally conscious solutions. By drawing parallels between natural systems and human innovations, the book advocates for a shift

toward more harmonious and sustainable design practices.

In conclusion, the research journey has been a dynamic exploration of the intricate and evolving relationship between humans and animals, shedding light on the transformative potential of understanding and incorporating animal design thinking into human endeavors.

10 Bibliography

Natterson-Horowitz, Barbara, and Kathryn Bowers. *Zoobiquity : The Astonishing Connection between Human and Animal Health*. New York, Vintage Books, A Division Of Random House, Inc, 2013.

Hogan, Linda. *The Radiant Lives of Animals*. Boston, Massachusetts, Beacon Press, 2020.

Wohlleben, Peter. *INNER LIFE of ANIMALS : Love, Grief, and Compassion- Surprising Observations of a Hidden World*. S.L., Greystone Books, 2021.

Orlean, Susan. *On Animals*. Simon and Schuster, 21 June 2022.

Safina, Carl. *Becoming Wild*. Henry Holt and Company, 14 Apr. 2020.

Lass-Hennemann, Johanna, et al. “The Relationship between Attachment to Pets and Mental Health: The Shared Link via Attachment to Humans.” *BMC Psychiatry*, vol. 22, no. 1, 3 Sept. 2022, <https://doi.org/10.1186/s12888-022-04199-1>.

“Yes, Dogs Can “Catch” Their Owners’ Emotions.” *Premium*, 1 Oct. 2021, www.nationalgeographic.com/premium/article/yes-dogs-can-catch-their-owners-emotions.

Prato-Previde, Emanuela, et al. “The Complexity of the Human–Animal Bond: Empathy, Attachment and Anthropomorphism in Human–Animal Relationships and Animal Hoarding.” *Animals*, vol. 12, no. 20, 19 Oct. 2022, p. 2835, <https://doi.org/10.3390/ani12202835>.

“The Human-Animal Bond throughout Time.” The College of Veterinary Medicine at Michigan State University, 7 Dec. 2018, cvm.msu.edu/news/perspectives-magazine/perspectives-fall-2018/the-human-animal-bond-throughout-time#:~:text=The%20New%20York%20Times%20reports. Accessed 18 Oct. 2023.

News In Health. “The Power of Pets.” NIH News in Health, NIH News in Health, 6 Mar. 2018, newsinhealth.nih.gov/2018/02/power-pets.

“The Pet Effect: Facts about the Incredible Human-Animal Bond.” The Pasadena Now Weekender, 26 Dec. 2020, www.pasadenanow.com/weekendr/the-pet-effect-facts-about-the-incredible-human-animal-bond/.

“Human-Animal Bond.” American Veterinary Medical Association, www.avma.org/one-health/human-animal-bond.

Melvin, Christina. “History and Science of the Human-Animal Bond.” Today’s Veterinary Nurse, 19 Nov. 2020, todaysveterinarynurse.com/personal-professional-development/history-and-science-of-the-human-animal-bond/.

Biondi, Justine. “The Magical and Emotional Bond between Humans and Their Animals.” The Mental Well, www.thementalwellblog.org/blog/the-magical-and-emotional-bond-between-humans-and-their-animals. Accessed 18 Oct. 2023.

