

Research Article**UNZOO: TAILORING DESIGN PRINCIPLES AND RETHINKING ANIMAL WELFARE*****Susan Mya Çaksın, Farid Behjati Hoseini and Peyman Gorgestani**

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Abstract

Traditional zoos have long faced scrutiny for their ethical implications and limitations in animal welfare. In response, the 'Unzoo' concept has emerged as a potential practice. This study seeks to explore how Unzoos deviate from traditional zoo practices, how they prioritize naturalistic habitats and animal welfare by immersing educational experiences. It also analyzes benefits and challenges. Additionally, this paper also delves into the ethical considerations, challenges and ethos in dealing with animals and wildlife conservation. It began with discussion on western philosophical approaches in animal welfare. Architects, conservationists and ethicists and advocates of this field are being studied. Islamic perspectives as well as organizations and initiatives are also discussed future development of a better design farmwork. This paper intends to offer a deeper understanding of the opportunities and challenges of the Unzoo concept in modern wildlife management and conservation efforts.

Keywords: Unzoo, Zoo Architecture and Sustainability, Eco-friendly Zoo Practices, Animal Welfare.

INTRODUCTION

The goal of 'Unzoo' is to rethink the interaction between humans and animals within a zoo setting by emphasizing on animal welfare, natural habitats, and interactive educational experiences. For many years, traditional zoos have been controversial, often criticized for ethical issues and not taking good enough care of the animals. The emergence of the Unzoo concept pioneered by Jon Coe had transformative movements in zoological environmental design. By putting a strong emphasis on natural habitats, animal welfare, and interactive educational experiences, this concept aims to reinvent the human-animal interaction within a zoo context. In this exploration of the Unzoo concept, we study the initiatives of international architects, designers, conservationists, ethicists and various organizations to be able to understand the core of the concept and develop a better design framework.

METHODOLOGY

This study is based on content analysis approach to examine the Unzoo concept's deviation from traditional zoo practices. The research is structured into several phases to ensure a comprehensive understanding of the Unzoo model and to be able generate design principles. The first chapter 'Western Philosophical Approaches in Animal Welfare' helps us understand the application of Western philosophy to animal welfare. The second chapter 'Insights of Architects, Conservationists and Ethicists' discusses perspectives of experts. Third chapter 'Islamic Perspectives on Animal Welfare' relates to Islamic viewpoints on Animal Welfare. And the chapter 'Tailoring Unzoo Design Principles' elaborates on several case studies to be able to tailor better framework.

Western Philosophical Approaches in Animal Welfare

Pythagoras, a Greek philosopher and mathematician (570-495 BCE), was a vegetarian and had significant thoughts on animal rights and human-animal relationships.

As a believer in the transmigration of souls, he held the idea that souls could reincarnate into different forms, including animals. This belief instilled in him a deep respect for all living creatures, including animals.¹ Roman philosopher Plutarch (46-120 CE) argued as a vegetarian, against meat consumption in his essay 'On the Eating of Flesh' raising ethical concerns about animal suffering and questioning humanity's right to dominate other species². Utilitarianism, developed by Jeremy Bentham and expanded by John Stuart Mill discussed on the judgment of Good and Evil in terms of Pleasure and Pain. It is addressed specifically in terms of maximizing pleasure and minimizing pain for the greatest number of people. Mill's statement 'It is better to be a human being dissatisfied than a pig satisfied; better to be Socrates dissatisfied than a fool satisfied'³ reflects his view on quality of Pleasure. It is our human nature to honor intellect and reason of human beings and our intuitive inclination to value human lives more. Later Utilitarian thinker Peter Singer argues for extending moral consideration to all sentient beings, regardless of species. Singer asked the question of whether they can suffer? Instead of whether or not can they reason or talk.⁴ Singer rejects Wittgenstein's position on necessity of language in meaningful attribution of states of consciousness for this topic in the premise of pain nothing to do with language. However, this paper stands with the importance of language in animal welfare. Not because it indicates their consciousness, but because humans do not speak their language. Roy Casagrande argued for the language, intelligence and sophistications of other sentient apex predators that could have surpass the humans' dominance.⁵ Tom Regan's central concept Speciesism also became a cornerstone of contemporary animal rights discourse. Speciesism is discriminating against Beings based on their Species.⁶ The underlying concept is that if a person wouldn't harm a dog, why should it differ when it

¹Porphyry, 'On Abstinence from Animal Food', in 1-17.²Plutarch, 'Moralia: On the Eating of Flesh'.³John Stuart Mill, *Utilitarianism*, 1863.⁴Peter Singer, *Animal Liberation: The Definitive Classic of the Animal Movement* (HarperCollins, 1975).⁵Roy Casagrande, *Masculinity*, 2023.⁶Tom Regan, *The Case for Animal Rights* (University of California Press, 1983).

comes to other species such as cows and chickens. James Hutton gave several examples of how animals feel sense of justice such as when dogs notice when they aren't getting the same rewards as their peers, they refuse to take orders.⁷ He questioned if animals really do experience the world in moral terms, what does this mean for how we should treat them?

Insights of Architects, Conservationists and Ethicists

Michael Pawlyn is an architect and ecologist. His book 'Biomimicry in Architecture' focuses on mimicking natural forms, processes, ecosystems and seeks to apply in designing sustainable buildings and structures that are more efficient and suitable for the environment.⁸ 'Seawater Greenhouses and the Sahara Forest Project' explores the creation of fresh water in desert settings using seawater.⁹ David Hancocks, another prominent architect, examines the success and failures of zoos including conservation, teaching, research, and recreation. In order to address the current threat of biodiversity, he is a prominent advocate for the reinvention of zoos. Hancock emphasizes naturalistic and immersive habitats for animals in zoos and advocate for designs that prioritize animal welfare and conservation education.¹⁰ Dale Jamieson, in his article 'Against Zoos' in 1990, began with criticizing methods and principles of animal captivity starting from pre-modern times of Roman Games before establishment of modern zoos in eighteenth century. He discussed four benefits of the zoos namely: amusement, education, opportunities for scientific research, and help in preserving species. However, he harshly criticized the lack of respect for animal autonomy and interests, inability to replicate natural environments as well as having potentials for causing psychological harm to animals.¹¹ Jane Goodall is a celebrated primatologist who has dedicated her life to studying and advocating for chimpanzees. Her work revolutionized the understanding of the intelligence and significance of primates. By observing chimpanzees in their natural habitat, she switched the then narrative of chimpanzees being aggressive and unintelligent and revealed the complex social structures, tool use, and emotional behavior of them.¹² Giving up on anthropomorphism (projecting of human characteristics, emotions, and behaviors to animals) and studying chimpanzees on their own terms is now known to be the most suitable method of study. Her research played a crucial role in establishing Gombe Stream National Park in Tanzania, a vital chimpanzee habitat. Marc Bekoff, biologist, ethologist and behavioral ecologist advocates for Compassionate Conservation, emphasizing animal well-being alongside ecological objectives. He calls for recognizing Animal Sentience.¹³ Temple Grandin, a visionary animal scientist, emphasizes on the importance of creating predictable and calming environments. She recognizes the diverse needs of different animal species.¹⁴

⁷James Hutton, 'Animals Feel What's Right and Wrong, Too', *NAUTILUS*, 13 April 2022.

⁸Michael Pawlyn, *Biomimicry in Architecture* (RIBA Publishing, 2019).

⁹Ken Yeang and Michael Pawlyn, 'Seawater Greenhouses and the Sahara Forest Project', *Architectural Design*, 2009.

¹⁰David Hancocks, 'Adapt or Perish? Zoos Must Choose', *University of California Press*, 2001.

¹¹Dale Jamieson, 'Against Zoos', *Environmental Ethics: Readings in Theory and Application*, Wadsworth Publishing Company, 1990.

¹²Jane Goodall and Phillip Berman, *Reason for Hope: A Spiritual Journey* (Grand Central Publishing, 2000).

¹³Marc Bekoff, 'Marc Bekoff PhD.', 2024 <<https://marcbekoff.com/>>.

¹⁴Temple Grandin, 'Temple Grandin PhD.', 2024 <<https://www.templegrandin.com/>>.

Islamic Perspectives on Animal Welfare

Human being as 'Khilafah' on the earth mainly concerns with upholding responsibilities (Quran 2:30) (Quran 38:26). Vicegerent (caretakers) of the earth and its resources is to manage resources wisely and sustainably while stewardship (representatives) is to care for creations responsibly. The Islamic Ecological Paradigm (IEP), developed within the classical Islamic tradition, challenges the western notion of environmentalism. It draws inspiration from classical concepts to form an ontological alliance to address environmental challenges that transcend physical and cultural boundaries.¹⁵ Cruelty to animals, according to Islam, causes divine retribution. It is strictly forbidden to kill animals for pleasure, amusement, target practice, or any other purpose beyond sustenance and self-defense.¹⁶ The Qur'an contains two hundred verses that discuss animals, and six surahs (chapters) with the names of animals insisting a holistic view of the natural world where animals are respected as integral parts of the ecosystem.¹⁷ The term 'Sacrifice' (Qurban) is used in regard to slaughtering animals for sustenance demanding acknowledgement of the life sacrificed. List of regulations are to be followed in sacrificing animals including health conditions, sharpening and swift usage of knife and several ethical codes including not to be slaughtered in front of other animals and more. Yearly celebration of Qurban on Eid al-Adha is a tribute to devotion, sacrifice and obedience of Prophet Ibrahim, the father of followers of Abrahamic faiths.

Tailoring Unzoo Design Principles

Shelter, medical care, neutering for stray animals and adoption programs has been primary concerns for animal welfare in the cities. To be able to develop better design principles for Unzoo, we studied several animal associations and shelters to confirm the necessity of tailored approaches that consider the specific needs and challenges of the local context and population. It is noted that wildlife conservation, community involvement, education, and advocacy play critical roles in advancing animal welfare. Persian Wildlife Heritage Foundation (Iran) focuses on conserving Iran's natural heritage. This organization works on wildlife conservation projects, including efforts to protect endangered species like the Asiatic cheetah. While its primary focus is on wildlife, the foundation's work highlights the intersection of animal welfare and conservation. The challenges and strategies in wildlife conservation as well as the role of scientific research in informing conservation practices is to be highlighted in this initiative.¹⁸ The Princess Alia Foundation (Jordan) works towards the humane treatment of all animals and has been involved in various animal welfare and conservation projects.¹⁹ The foundation illustrates the impact of advocacy at higher levels of society and government, showing how leadership can facilitate significant changes in animal welfare legislation and attitudes. It also emphasizes the importance of a multifaceted approach to animal welfare, including

¹⁵Nazrul Islam and Saidul Islam, 'Human-Animal Relationship: Understanding Animal Rights in the Islamic Ecological Paradigm', *Forthcoming in Journal for the Study of Religions and Ideologies*, 2015.

¹⁶Richard C. Foltz, Frederick M. Denny, and Azizan Baharuddin, *Islam and Ecology: A Bestowed Trust*, 2003.

¹⁷L. Safitri and others, 'Animal Welfare from Islamic Perspective', *KnE Life Sciences*, September, 2022.

¹⁸Persian Wildlife Heritage Foundation (PWHF), 2024 <www.persianwildlife.org/>.

¹⁹P.A.F., 'Princess Alia Foundation', 2023 <<http://princessaliafoundation.org/>>.

conservation efforts, education, and direct animal care. Tasmanian Devil Unzoo (Australia) is a pioneering wildlife conservation facility that represents a shift from traditional zoo concepts towards a more interactive and naturalistic approach to wildlife conservation and visitor education. It is dedicated to the conservation of the Tasmanian devil, a carnivorous marsupial native to Tasmania. The habitats resemble the natural environment of the Tasmanian devil, allowing visitors to observe these animals in conditions that promote their natural behaviors. The design of this Unzoo allows visitors to engage in activities while learning.²⁰ It has targeted conservation efforts which emphasizes species-specific strategies facing unique set of threats. At the same time, eco-tourism supports funding for conservation projects. PAWS (Pakistan Animal Welfare Society) work to improve the conditions for animals in Pakistan through advocacy, education, and veterinary care. They are involved in various initiatives, including rescue operations and awareness campaigns.²¹ PAWS emphasizes the role of education and public awareness in changing societal attitudes toward animals, promoting a culture of care and respect. They also demonstrate the importance of engaging with policymakers to improve animal welfare standards and regulations at the national level.

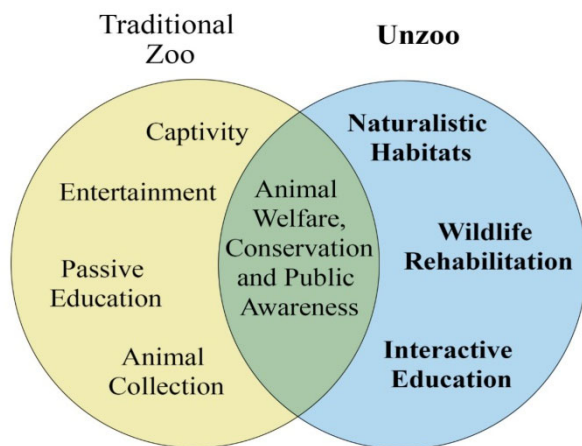


Figure 1. Venn diagram Developed for Unzoo

HAYTAP (Animal Rights Federation, Turkey) is a coalition of animal rights groups across Turkey, advocating for legal reforms to improve animal welfare and prevent cruelty.²² It has been noted that the role of advocacy and legislation in promoting animal welfare is crucial. It tackles the challenges of implementing and enforcing animal protection laws in Turkey. Brooke (Egypt) is an international animal welfare organization and hospital serving 1.4 million working horses, donkeys, and mules throughout the Middle East, Africa, Asia, and Latin America. Staffs include animal welfare experts, vets and many other specialists.²³ Brooke provides free veterinary care and education to owners about animal welfare. It's vital to notice the importance of veterinary care for working animals and educational outreach for sustainable welfare improvements. Working with animal owners in economically disadvantaged areas can be more challenging. COP (Centre for Orangutan Protection, Indonesia) is an organization focused on the conservation of orangutans. Orangutans are highly arboreal

and live in all levels of the forest. Their habitats have been facing significant threats due to activities such as oil palm plantations, logging, and land burning. The organization's activities involve active patrols to prevent illegal logging and wildlife trafficking, as well as rehabilitating and releasing orangutans back into the wild.²⁴ Conservation strategies depends on the complexities of rehabilitating and reintroducing animals into their natural habitat.

Conclusion

The exploration of the Unzoo concept underscores a paradigm shift in how humans interact with animals within zoological settings, prioritizing animal welfare, naturalistic habitats, and immersive educational encounters. This innovative approach addresses the longstanding ethical concerns by fostering environments that closely mirror natural habitats. Our study highlights the critical role of architects, designers, conservationists, ethicists, and various organizations in shaping these transformative spaces. Significant takeaways include the vital importance of engaging visitors in conservation through interactive wildlife experiences, the development of innovative models that blend animal welfare with habitat authenticity, the application of species-specific strategies to meet unique conservation needs, the vital role of community involvement in achieving conservation goals, and the utilization of eco-tourism as a dual tool for education and conservation support. These findings pave the way for a more ethical and sustainable framework for human-animal interactions in zoo environments.

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²⁰Great Oak Holdings, 'Tasmanian Devil Unzoo', 2024 <<https://tasmaniandevilunzoo.com.au/>>

²¹PAWS, 'Pakistan Animal Welfare Society', 2024 <www.pawspakistan.org>

²²HAYTAP, 'Hayvan Hakları Federasyonu', 2024 <www.haytap.org>

²³The Brooke Hospital for Animals, 'BROOKE: Action for Working Horses and Donkeys', 2024 <www.thebrooke.org>

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