



The Design For Hope: Re-Imagining Animal Shelters

Author: Ms. Vasudha Sharma (Student)

Research Guide (Co-author): Ar. Udit Bhardwaj

Amity School of Design
Amity University, Noida-201301

Abstract: Animal shelters are part of the welfare of our pet friends as they provide shelter and care to homeless, abandoned, or surrendered animals. This research paper will introduce unique spaces that comprise an animal shelter. This will be carried out through minute details of design considerations that positively impact the overall adoption process and experience for both animals and adopters.

The paper focuses on key touch points and challenges within the adoption process. With the need to innovate service design solutions for the system, it embarks on a comprehensive analysis of existing literature. The study will be focused on discovering opportunities to streamline communication that would make the process a lot more efficient so that stray animals would have a better chance of finding permanent homes.

Index Terms - Animal shelter design, adoption process optimization, humane-architecture, innovative shelter solutions, welfare-centered spaces.

I. INTRODUCTION

Animal shelters hold a crucial role in society because these are places where homeless, abandoned and surrendered animals seek shelter. These shelters or institutions primarily offer temporary or permanent shelter and provide necessary care during the adoption process and give animals a second chance for a stable home. Many shelters have been rendered helpless under the most un-livable conditions. Overcrowded conditions, poor design layouts, inadequate infrastructure, and limited resources often impede the effectiveness of the adoption process and degrade the quality of life for the animal. Increasing recognition of the need to fundamentally change the design of animal shelters has been voiced so that they not only serve but also encourage the welfare of the animals and humans. The goal is to maintain the animals' physical and mental health during their stay, from intake to adoption or disposition. (Pable, J. (2007).)

This paper considers shelter design with particular attention to animal health and well-being as well as to sustainability in construction and operations. An overall goal is to maintain the physical and mental health of the animals during their stay, from intake to adoption or disposition. Also, effective design can be used for reducing operational expenses by reducing space, lessened use of drugs on some of the sick animals, and saving time on cleaning

The paper calls for consideration of conducting thorough planning and needs assessment before actual construction can start on the day-to-day operations. Having identified the four elements impacting animal health in sheltered environments-space, sound, light, and air-many design strategies have been presented in order to address each of the elements toward achieving a healthy efficient environment for animals and staff. This balance is more about developing an inside environment that focuses on animal welfare, sustainability, and the functionality of shelter operations.

The existing design of most shelters pays little heed to the psychological and emotional needs of the animal as well as the experiential aspects of the journey of the adopter. This research, "The Design for Hope: Reimagining

Animal Shelters," explores how novel design strategies may be leveraged to recreate the adoption process toward better facilitation for both animals and adopters.

II. BACKGROUND AND CONTEXT

Animal shelters have been viewed as nothing more than a holding facility for animals before they are adopted. These facilities perform many other functions much more advanced than that. The shelters are rehabilitation grounds where animals receive medical attention, behavioural assessment, and staff and volunteers strive hard to ensure successful adoptions.

However, many shelters, especially those in urban areas, struggle with inadequate space, archaic infrastructure, and lack of resources. A shelter's physical environment has a huge effect not only on the behaviour of the animals accommodated there but also on the perception of the potential adopters.

Poorly designed facilities frequently cause stress, anxiety, and behavioural issues in animals, which makes them less adoptable. In addition, the aesthetic and functional design of the shelter determines the experience of adopters, whether they decide to adopt or even visit the shelter. Though there are studies about animal shelter design, research has covered primary and secondary functions such as efficiency of utilization and hygiene, which make little contribution to the exposed space in linking environmental psychology concepts with user-centred design and biophilic design to improve the experience for animals and human beings. Thus, this study will try to deal with the issue by exploring how design can be better used to make an adoption process that is not only humane but also efficient.

This research will therefore look at the possibilities for reconceiving the traditional shelter model and integrating novel approaches of design which can help improve better the lives of shelter animals and even increase adoption rates.

- This research thereby holds important significance in changing the present model of shelter design from the current operation of shelters. Millions of animals get into these shelters every year, and in most cases, the rates of adoption fail to meet the high number of animals that are euthanized.
- What is needed is a traditional design that sacrifices little of both the welfare of the animal and that of the adopters in exchange for mere functionality, otherwise, traditional designs are insufficient in their provision to meet the increasing demands for humane and efficient services in animal welfare.
- In this research, focus was on the emotional and psychological needs of animals and humans as the means through which a shelter environment with desirable behavioural outcomes in animals could be created as well as the smooth adoption process.

III. HYPOTHESIS

The central research question that guides this study is: *How can innovative design strategies improve functionality and enhance the adoption process in animal shelters, which will help animals and adopters?*

This research question takes the intersection of architectural design and animal welfare as a basis to establish what new approaches can be adopted to overcome existing challenges in animal shelters. This study hypothesizes that by purposeful design intervention-through the creation of animal reducing stress and improving flow communication between staff and adopters and improving aesthetic appeal-animal shelters might be better places where animals could be permanently housed.

IV. SCOPE

Within this research paper, the scope is looking to expand into new design principles with animal shelters. The work aims to focus explicitly on how design elements are going to enhance the overall experience of the animals and adopters. The study focuses more on the architectural and interior design aspects of animal shelters with a particular interest in environments that alleviate animal stress, improve staff efficiency, and influence decisions to adopt animals.

1. *Animal welfare*: This research project is going to see how some aspects of design, like acoustics, lighting, ventilation, and spatial arrangements, can change the physical and emotional health and welfare of animals housed in shelters. It will observe what happens when stress is minimized and living situations are improved because calmer and healthy animals are easier to adopt.
2. *Adoption process*: Considering the psychological effect of space on human behavior, the study will consider how the shelter environment is perceived, emotive, and responsive to decisions made by the

adopter. Consideration of layouts and aesthetics, including way-finding concepts, towards decision-making improvements for the improvement of user experience to increase adoption ultimately.

3. *Innovative Design Approaches*: The study will consider various innovative approaches to design-including biophilic design, modular construction, among others-from the standpoint of how these can be integrated into the existing model for an animal shelter. On the whole, then, the design solutions sought are supposed to be adaptable, cost-effective, and scalable to the respective shelter environment.

V. REVIEW OF EXISTING LITERATURE

There are many reasons why animal shelter design is important in optimizing the health and welfare of animals within the shelter. Because they spend most of their lives in a shelter, it becomes very crucial to plan environments to not only function but enhance physical and psychological well-being. The factors identified relate to it are lighting, ventilation, spatial design, and incorporation of multifunctional spaces. Yet gaps exist in available literature that considers the complexity of these design elements and their long-term effects on animals and humans. This literature review will scrutinize knowledge regarding animal shelter interior design, showing strengths, limitations, and opportunities for future research.

1. *Lighting, Ventilation, and Temperature Control*

Though there is limited research done on the role played by environmental features in animal shelter designs, there is still a lot of information to indicate that natural lighting, adequate ventilation, and temperature control are the essential factors to be considered in designing shelter animals. *Boyden & Morrow (2018)* postulate that environmental conditions bear a significant role in the health and welfare of shelter animals. Natural light will reduce levels of stress in animals, while adequate ventilation will provide a clean air environment while fighting off airborne diseases. Another crucial aspect of animal welfare is the temperatures. This is highly fundamental for shelters since the environmental conditions are extreme. Use of such environmental controls leads to comfort and conditions that make the environment non-distressing, hence promoting the well-being of animals in general.

Still, there lacks adequate research about the long-term effects of environmental control on different species and individual animals with differences in needs. For instance, most of the cat and dog shelters occupy places, but there is a dearth of research regarding how the lighting and ventilation requirement are distributed differently for other animals like rabbits, birds or reptiles. In addition, further research should be conducted at the intersection of artificial and natural light with animals' circadian rhythms.

Whereas *Boyden & Morrow (2018)* provides a foundational understanding of the environmental needs, a gap is left by studies focused on particular design solutions that best meet such needs for different species within the shelter environment.

2. *Material Choice and Design Aesthetics*

Kulyk (2023) further expands with the role appropriate material choice extends in producing comfortable and stimulating environments for animals in shelters. Materials that are durable and easy to clean always ensure hygiene and inhibition of disease epidemiology. Simultaneously, materials used in shelter design can also be beneficial to create a calm and stress-free environment. For instance, sound-absorbing materials greatly reduce noise levels, which is most important in shelters where barking or any other noises coming from other animals create great stress.

These considerations are well-documented, but still lacking in one's understanding of how these materials impact the behavior of animals. Material aesthetics have sometimes been overlooked when functionality would be preferred-in this case, to last longer and low-maintenance. Studies should also be conducted to determine how materials that simulate natural environments could be developed to enhance the psychological well-being of shelter animals. Biophilic design principles embrace the integration of natural elements into the built environment and, therefore, hold many secrets yet unknown about the shelters of animals.

Kulyk (2023) comments that selecting the right materials should be deemed essential but is one aspect to be developed further to research the potential of naturalistic design elements for stimulating feelings of serenity and safety in animals.

3. Architectural Planning and Sociological Insights

Architectural planning is another critical design aspect relevant to both animal welfare and the practical operation of shelters. *Kardan & Obynochna (2023)* also emphasized that designing a shelter needs to be planned in terms of the functional content, the location, and visitor preference. The study revealed that sociological surveys are crucial in predicting visitor and staff preferences for designing the space plan of the shelter. Effective architectural planning should consider, on the one hand, the functional needs of the shelter, and on the other hand, the psychological needs of both animals and adopters.

In fact, one of the most positive points is regarding this aspect of user-centered design incorporated into shelter planning and design. It allows the inclusion of staff and visitor and adopter views in designing shelters that would better meet the diverse needs of stakeholders. However, it does not consider the possibility of more flexible and responsive spaces that can change overtime according to what the shelter needs. There is nothing which says much about the way architectural design could potentially make a difference in the behavior of animals in the shelter, especially by creating space that encourages natural behaviors with reduced stress.

Another area that has been largely understudied involves the role of wayfinding and spatial flow for visitors. Navigating an animal shelter is incredibly confusing to adopters in most shelters, but particularly those with highly complex layouts or ineffective signage. Even less is written about how architectural design can help make visiting a place feel more intuitive and welcoming—the sense of which can feed, in turn, into higher adoption figures.

4. Multifunctional Spaces and Human-Animal Interaction

There are multifunctional spaces that are to be found in animal shelters. Their purpose should not only be to provide services to the animals, but also to the staff and visitors. According to *Kardan & Obynochna (2023)*, applying high-quality materials and functional design solutions can contribute to the creation of appealing spaces that comfort users. Such space might include adopted meeting space, veterinary care, grooming, and even animal-to-play with space. In such diverse environments, more meaningful interactions between humans and animals can become better suited to occur, which are vital to the adoption process.

It is important to note that the concept of multifunctionality can be stretched further than this, such as incorporating places intended for enrichment of animals. This necessity for adoption meeting rooms and veterinary clinics has already been established while those areas that allow animals to perform naturalistic behaviors, namely: play, exploration, and rest are not given so much attention. Enrichment spaces that encourage these practices will improve the mental and physical health of the animals, which will in turn increase their rate of adoption. *Kardan & Obynochna (2023)* also highlight the significance of multifunctionality but do not follow up on this to elaborate how such spaces can be designed to maximize animal enrichment.

5. Concept of "Pet Medicare" Facilities

This paper introduces facilities for "pet medicare" that hold medical care, grooming, play areas, meeting spaces, and retail facilities all under one roof. Such an integrated facility caters to an enhanced holistic approach in the welfare of animals and within the comfort of a single location. Facilities can even adapt to creative themes, such as origami-inspired designs, in order to infuse contemporary styling for lovable and professional approaches.

According to *Kurnia & Ariyanto (2017)*, the strength of their work in innovation lies in the various different functions converging into one space. This religious philosophy of congregating all these services of retail, medical, and recreation within shelters may allow for extra earnings along with a better experience for the animals and adopters. Still, the study does not fully explore how such designs can be implemented into smaller shelters with tighter budgets. There is scarce discourse on how these multifunctional facilities can manage to create a balance between aesthetics and functionality particularly when the environment calls for very strict hygiene protocols.

6. Gap in Existing Literature and Opportunities for Future Research

While the current literature does provide a great deal of information on the basic principles for design, there are many areas that have not been considered. In particular, little research exists as it relates to effects of the design of shelters on long-term behavior changes in animals. The majority of studies look into very short- or

immediate-time effects; few data exist on how effective shelter design might influence animal behavior post-adoption.

While there is a dearth of insights on how designers' elements interplay in the creation of calming effects for animals, many studies discuss the need for a calming environment. Natural light alongside soundproofing and biophilic design principles offer potential solutions, and more empirical research needs to be conducted to assess their effectiveness in real-world shelter environments.

Visitor experience remains poorly researched in the context of animal adoption. Although many papers have been written about the functional needs of shelters, less attention has been paid to how design might affect the emotions and subsequent behavior of adopters. Perhaps most importantly, psychology among adopters and how the shelter environment might be used to enhance positive engagement between humans and animals is something that needs to be addressed more.

VI. METHODOLOGY

This paper will apply a qualitative approach to explore the design of shelters for animals and innovative strategies within the context of design in moving toward adopting, ensuring better welfare for those animals within shelters, and a more positive experience for adopters. This methodology is appropriate for the research objective as it enables an in-depth exploration of real-life cases, which can provide rich, contextual insight into how the varying nature of different design interventions impacts the lives of animals and humans alike, within the environment of the shelter.

Rationale for Case Study Methodology- Qualitative

The qualitative case study methodology fits the broad outline of this study well, since the depth to which it will be possible to examine shelter design tends more towards the practical application of design strategies than theoretical concepts. The complexity of animal shelter environments, by its multiplexity that consists of a wide set of interactions among animals, staff, and visitors, requires a methodology that can somehow represent those relationships and how each may be affected by design.

This can be done through case studies because specific shelter designs embraced the new approaches for investigation into the challenges, successes, and long-term outcomes of those projects. This approach is particularly effective in addressing the following aspects of the research:

1. *Context of the real world:* Case studies might include the possibility of analyzing shelter environments as they exist in the real world, with recording of reality and actual behaviors of animals, staff, and adopters in these spaces. It is thus very important to be able to understand actual real-world implications of choices in design other than hypothetical scenarios.
2. *Complex Interactions:* Animal shelters are interactive environments where multiple parameters—space, materials, acoustics, and lighting interact to affect the animal as much as to affect the human visitor. A case-study-based approach can offer a detailed overview of how design elements promote easy management of animal stress, improve the workflow of professionals working there, and create more pleasant conditions for visitors.
3. *Diverse Shelter Models:* Multiple case studies from a variety of shelter types, including urban, large capacity facilities, and small, community-based shelters can be analyzed to draw out a range of design solutions. In doing so, best practices developed for one type of shelter but applicable to various other shelter contexts and design strategies potentially unique to regions or shelter types are identified.

6.1. Data Collection Methods

The data shall be collected using the following methods,

- *Site visits and observations:* These direct observations take place in shelter environments and are necessary for assessing how animals, staff, and visitors interact with space. These are conducted by focusing on spatial layout, material selection, lighting, ventilation, and other elements of design that influence behavior and well-being.
- *Interviews with Shelter Staff and Designers:* Interviews with shelter administrators, architects, interior designers, and staff will give some insight into the design process, challenges faced in implementing such designs, and perceived effects of design on the adoption process and animal welfare.

- *Document Analysis:* Architectural plans, design reports, and operating documents from these selected shelters are analyzed to get insight into the design decisions they made, what they expected from it, and what post-occupancy evaluation was used.

VII. ANALYSIS OF DATA COLLECTED

7.1 Case 1: Analysis of Pako Street Animal Social Life Campus: Interior Design and Architectural Considerations

Pako Street Animal Social Life Campus, Gökdere, Bornova, Izmir:

A model architectural project that unites free animal welfare with encounters between humans and animals. It rescues some of the common problems of most animal shelters and hygiene, accessibility, and green open areas - this facility brings some new spatial schemes and interior solutions for the rehabilitation and adoption process of stray dogs. This analysis will review the design elements from both an architectural and interior design perspective. Functionality and user experience, spatial configuration, and incorporation of natural environmental features into the built environment are considered.



Source: ArchDaily (<https://shorturl.at/k3TZx>)

1. Architectural Design and Site Planning:

Strictly based on architectural principles, this Pako Street Animal Social Life Campus is a masterpiece in thoughtfully planned site design and taken into consideration the architectural principles to address the complex issues that any animal shelter should. The facility covers 110,000 square meters, and the plan includes distinct zones for different shelter functions-something very critical in the proper operation of a large-scale animal rehabilitation center. This will minimize stress to animals and visitors and promotes human interaction with dogs.

2. Zoning and Spatial Distribution:

The general design separates shelter units on both north and south edges, therefore creating an appropriate central zone that pools to become a communal area for animals as well as visitors. This differentiation of space is highly essential and helps in keeping order as well as functionality because every zone has been devoted to a particular purpose. For example, at the extreme east end of the site is a section for sensitive operations, to which veterinary services, quarantine units, and dens are allocated. This is to ensure that the medical needs of the animals are being met without distracting the general ambiance of the shelter. The administrative units and educational areas are provided near an open amphitheater, thus allowing visitor interaction with the animals. This creates a central focus that draws visitors into the heart of the campus, thereby reinforcing the theme of adoption through interaction.

The amphitheater works as a focal point: An amphitheater is both an architectural element and a functional and symbolic centerpiece. It encourages human-dog interaction in controlled fashion within an engaging space where visitors are invited to sit with the animals and thus get to know them. Architecturally, it is a meeting place where it offers people an added space to facilitate interaction in the community shelter. It breaks the stereotype about animal shelters or wild-alienation or utilitarian, instead depicting it as a lively, interactive space.

3. *Integration with the Natural Environment:*

The use of green space and natural products further emphasizes campus integration with the surrounding environment. Softscapes include green and dirt areas. It gives space for animals to run around, play, and get a feeling of nature, which is cognitively important for their psychological well-being. Architecturally, this approach blurs the lines of the built environment into the natural landscape, making the shelter not like an institution but an elude for both the animals and visitors. This is important for the sustainability aspect of design as incorporating sustainability into shelter design helps create spaces that are more efficient and cost-effective.



Source: Archdaily (<https://shorturl.at/9S453>)



Source: Archdaily (<https://shorturl.at/2fAB4>)

4. *Interior Design Considerations*

The interior design of the shelter is very important because it is through these conditions that one can create comfort, hygiene, and stimulation for both the animals and the people involved. Key design principles applied at Pako Street Animal Social Life Campus include functionality of spaces, material usage, and enhancing human interaction.

5. *Spatial Arrangement and Circulation:*

The design has large-sized living units for the animals that will provide adequate room for movement and comfort. In this regard, living areas have natural light and air circulation, which is critical in maintaining the health of the dogs. Natural light is shown to be a stress reducer that improves mood, which is quite useful to a population of animals that often associates itself with some traumatized or anxious feelings. Its incorporation of automatic watering systems makes it possible to efficiently meet the basic needs of animals, thereby reducing the workload on staff and improving hygiene in general.

Visibility - wire mesh screens A very innovative element of the interior design is the use of wire mesh screens along the facades of the interior circulation axis. This is a design intent that will facilitate easy flow of air and

penetration of light. It will also help in creating visual interactions between the animals and the visitors. Visual interaction is very crucial for encouraging bonding between potential adopters and the dogs since it allows non-pressure methods of communication that lower the stress levels for both parties. In addition, the screens allow the animals to be able to see one another, which reduces some of the loneliness and isolation.

6. *Durability Hygienic Materials:*

The choice of inner shelter materials reflects thinking towards functionality in conjunction with aesthetics. Through the use of strong, easy-to-clean materials, such as exposed concrete walls on the inner shelters' faces, it makes the facility low-maintenance yet it presents a modern appearance along with a sophisticated feel. Exposed concrete is a practical option for shelters when hygiene and durability are more important. Meanwhile, the material would be used in a way that would also perform other functions, such as providing shades and even information display surfaces for the different resident dogs.

7. *Human-Animal Interaction and Social Spaces*

Recycling rehabilitation through human-animal interaction has been one of the most prominent design concepts applied to Pako Street Animal Social Life Campus. Educational seminar rooms and dog care and adoption workshops are very important features in the interior design. These spaces, apart from forming part of the education mandate of the shelter, offer the visitor an opportunity to learn about responsible pet ownership in a positive setting. The design would allow for and encourage community involvement by inviting educational institutions, especially those that work with disabled children, to rehabilitate the dogs. That way, this socialization process will become relevant to both the animals and children since the animals will be positively socialized, and the children benefit by enjoying the therapeutic effects from playing with the dogs. Another unique aspect of the shelter is using the concrete walls exposed on the east side of the central amphitheater to post information regarding the dogs available for adoption. This would enable the adoption experience to be heightened by easy access for visitors of the information pertinent to the physical and behavioural characteristics of each dog to make informed decisions. Walls fit so well into the overall aesthetic of the shelter and also serve both functional and educational purposes.



Source: ArchDaily (<https://shorturl.at/kiTFc>)

Gaps and Challenges

Although the Pako Street Animal Social Life Campus offers innovative design solutions at many points, there are some points where the project still can be developed further. For example, although the design encourages human-dog interaction, it is unclear how much space there would be for cats or other pets, which are relatively smaller in size. Also, although such integration of a green space is very praiseworthy, long-term sustainability with respect to maintenance cost and resource utilization poses significant problems for shelters with low budgets.

A weakness in this design is focusing on open space, mostly vast areas-a situation that would not benefit all animals. Possibly a more nervous or reclusive animal might need a smaller area where they could have more privacy to create as little stress as possible. Future designs can be even more customized and specific, suited to the needs of particular animals or temperaments.

7.2 Case 2: Analysis of SPCA Animal Shelter, Noida: Interior Design and Architectural Considerations

This huge 9-acre animal shelter, located in Noida has great potential; one of the more impressive aspects is the volume of animals it can accommodate. The massive size allows having different zones of different types of animals as well as various amenities so that more efficient working spaces are managed better. The huge area also has a possibility to conduct exercise yards, dedicated vet clinics, grooming areas, and adoption centers. On the other hand, the shelter can house many animals. This is one of its advantages-creating a haven to accommodate many wild animals, stray dogs, cats, and other animals that need care.

The inside design and overall layout have several inconveniences that affect the animals themselves and also the functionality of space in which staff and visitors work. There seems to be a lack of clear zoning and organization. The ample space has a potential that seems not to be utilized well and rarely differentiated into well-designed areas. Separation of different types of animals according to their behaviors or medical needs is minimal. For example, aggressive or sick animals are not separated well from those who are fit for adoption, so there is anxiety, stress, and even the potential spreading of diseases.

1. *Hygiene and Ventilation*

The design never really adequately addresses hygiene and cleanliness. Many interiors have poor ventilation, which raises issues of air quality; this is an important factor toward the health and wellness of animals and staff members. The lack of natural ventilation also tends to cause bad odors, and moisture builds up, thus creating unhealthy conditions for the animals. Furthermore, the materials used for flooring and walls are difficult to clean or even maintain, hence resulting in unsanitary conditions, which make the shelter easily prone to infections and diseases among the animals.

2. *Inadequate Lighting*

Lighting is another critical area where the shelter design lacks. Many areas, which encompass the enclosure of animals and employee spaces, have deficiencies in lighting. The periods of artificially induced darkness in these areas are detrimental to the physical and psychological health of the animals because daylight exposure has been shown to be important in offsetting the development of stress and maintaining a healthy rhythm of circadian activity. This artificial lighting is normally too weak to create a bleak atmosphere both for the animals and the visitors.

3. *Lack of Green Spaces and Enrichment Areas*

While the shelter has an expansive outdoor space, there is a clear absence of open green spaces or enrichment areas with plenty of greens to exercise, play, or even manifest more natural behaviors by the animals. The lack of these outdoors engagement spaces frustrates and bores the animals because they spend most of their time in small, bare enclosures with minimal space for maneuvering and for self-entertainment physically and mentally.

4. *Strengths and Improvement Opportunities*

Despite these drawbacks, the scale of the shelter and the number of animals at the shelter present some reliable basis for possible correction. Proper redesign and reorganization will make the shelter a functional and humane habitat for the animals. The vast area could be best utilized by converting it into an animal-specific area, like an isolation area for the sick animals and an exercising yard for the healthier one. Also, sufficient investment into right materials, natural lighting, and ventilation systems would make the quality of life for the animals better. The following are the pictures of the shelter designed:



VIII. FINDINGS

- *Design For Animals and Humans Visitors*

The feature of communal play areas, viewing rooms, and adoption zones help create human-animal interaction experiences thereby enhancing bond and improving adoption rates.

- *Learning and Training Rooms:*

It will be good to have learning rooms where the public can hear lectures on responsible pet care and, indirectly, improve community support for shelters.

- *Outdoor Exercise and Spacious Green Area:*

To meet the physical, natural behavior, and needs of the animal, the shelter should focus on green open spaces and outdoor spaces for exercise and play. This would allow the animal to be relaxed, more adoptable, and generally healthier in the long run.

- *Staff-Friendly Design*

Provision of shelters also calls for consideration of staff's welfare through the provision of well-designed functional spaces like offices, break rooms, and veterinary care units which would enhance efficiency in operations and high staff satisfaction.

- *Holistic Interior Design:*

Inspirative holistic design of shelter spaces turns them into healing environments both for animals and humans. They are supposed to find a balance between functionality, sustainability, and aesthetics where all occupants can enjoy welfare benefits.

- *Positive Outcome in Proper Zoning and Quality Material Use:*

Pako Street Campus Shows that rehabilitation of animals and interaction with humans will be enhanced by proper zoning and green spaces, solid and sanitary materials, and admission of natural lighting, making this place a therapy venue.

- *Destructive Effects of Poor Design:*

The Noida shelter is a shining example of how poor design-or lack of proper zoning, good lighting and ventilation, and green space-can have a destructive effect on the physical and mental lives of animals and serves to decrease the functionality and efficiency of the shelter.

- *Revolution of Shelter Design:*

Original, creative design of an animal shelter can revolutionize the way such facilities function, from being just holding facilities to therapeutic, healing environments supporting animal rehabilitation, human adoption, and overall community wellness.

IX. FINDINGS

Re-imagining an animal shelter's interior design means a shift of interest from utilitarian or merely-used spaces to environments that invest in the well-being of animals, human-animal interaction, and functionality. The following are elements of lighting, ventilation, zoning, and material use that are durable and hygienic in preparing comfortable, healthy environments for animals. A shelter ensures that there is the right design that improves the life of an animal, which minimizes stress and has a tendency to alter the behavior of the animals positively (Heemstra, E.M. (2013)

Designing spaces animal-friendly is as important as creating welcoming, interactive environments for visitors and potential adopters from a human-centered perspective. Spaces that encourage the interaction of animals with people, like communal play areas, viewing rooms, and adoption zones, may create a deeper relationship which later translates to higher adoption rates. Other educational spaces and workshop areas for responsible pet care raise public awareness.

Among all the poorly addressed aspects of traditional shelter design, especially that of attention to environmental enrichment and green spaces is often a neglected thing. Providing outdoor space for exercise, play zones, and natural environments in shelters can make animals perform natural behaviors, which are much needed for the physical and mental well-being of animals. This enhances their experience and makes them more adoptable because adopters create positive bonds with animals that are relaxed and happy.

The shelter space also needs to be considered from the viewpoint of the shelter staff whose work is instrumental to the success of the shelter. Well-designed staff spaces-that include offices, break rooms, and veterinary care units-are integral to the efficient operation of a shelter and to the satisfaction of its staff. A shelter's design needs to serve both the animal and human users in a functional, sustainable, and beautiful way.

That is, imagining the animal shelter through better thought and holistic interior design changes these institutions into healing spaces for both animals and humans. Thoughtful design is, therefore, not a matter of aesthetic choice but a critical base for all aspects of creating a successful and sustainable future for an animal shelter site-a place where the welfare of all occupants really does come first. The Pako Street Campus stands as testament to the fact that greens, proper zoning, use of durable and hygienic materials, and human-animal interaction through innovative design features would make both animals and visitors a humane and therapeutic environment. Natural light, open spaces, and visual interaction features further perfect the process of rehabilitation and adoption.

The Noida shelter analysis, on the other hand, definitely exhibits the negative effects of the ill design-it lacked proper zoning, dismal lighting, poor air circulation, and no green or enrichment areas. All these stressors contribute towards discomfort and unhappiness of the animals but detract from the functionality and efficiency of the shelter itself. Though the Noida shelter is big in size, it cannot be compared with its lack of thoughtful organizational spatiality.

A creative and revitalized eye on animal shelter interior design lays out significance that focuses on the resultant need for functionality, aesthetics, and care of the animal. Future designs will be heightened in hygiene, ventilation, natural lighting, and green spaces, and hence will help promote the physical and psychological well-being of animals. Meanwhile, shelters should take on a more human-centric approach towards presenting an area where animals can bond with their potential adopters, as created in the Pako Street Campus.

In this way, architects and interior designers will be able to revolutionize how animal shelters operate and become spaces that could be centered on healing, interaction, and community involvement. So, in this revolutionary approach of reimagining shelter design, animal shelters could transform from holding facilities into therapeutic environments supporting rehabilitation for animals, human adoption processes, and well-being for all occupants.

REFERENCES

- [1] Boyden, P., & Morrow, L.D. (2018). Shelter design and flow of animals through a shelter. *BSAVA Manual of Canine and Feline Shelter Medicine*. W.-K. Chen, *Linear Networks and Systems* (Book style). Belmont, CA: Wadsworth, 1993, pp. 123–135.
- [2] Kulyk, K. (2023). *Pets as a Factor of Individualization of the Interior of Premises*.
- [3] Kardan, K., & Obynochna, Z. (2023). *Architectural and Planning Organization of Shelters for Homely Animals*
- [4] Kurnia, I., & Ariyanto, A.F. (2017). *Perancangan Interior Pet Medicare Di Kota Blitar, . Pendhapa*.
- [5] Heemstra, E.M. (2013) *Shedding a light on animal shelters: the use of light and its effect on the adoption process*.
- [6] Pable, J. (2007). *Interior Design: Homeless shelter design: A psychologically recuperative approach*. *Journal of Interior Design*

- [7] Wagner D, Hurley K, Stavisky J. *Shelter housing for cats: Practical aspects of design and construction, and adaptation of existing accommodation. Journal of Feline Medicine and Surgery.* 2018;20(7):643-652

