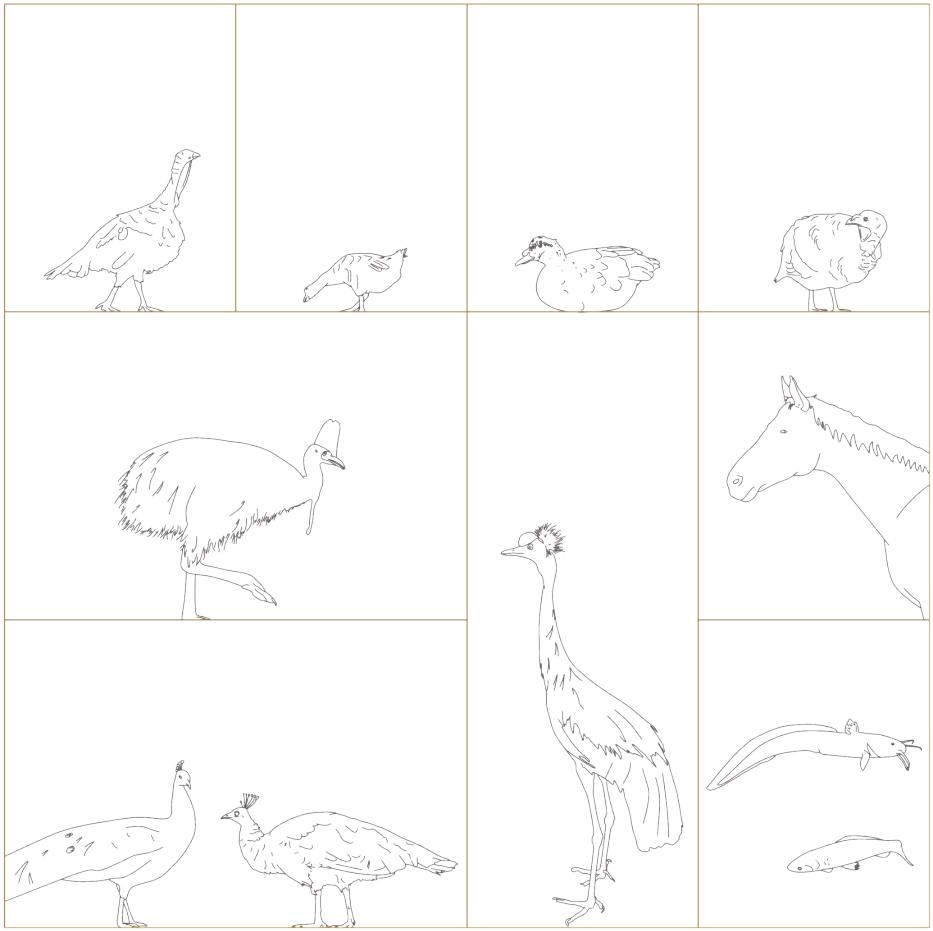

Neighbourhood Animal Farm

Research Project by:
Lee Xuan Ying, Diane

Project Supervisor:
A/P Chong Keng Hua

An Undergraduate Research Opportunities Programme Plus 2021 Project

Foreword

Animal farms are places where people can interact with live animals in settings that one is typically not able to experience in the garden city. The project serves to understand the possibility of having animal farms within Singapore's neighbourhood vicinities.

I started this project out of curiosity about whether it is still possible for Singaporeans to interact with farm animals in Singapore despite the land-scarce situation. I learned more about Singaporeans' perceived acceptance towards having such places in Singapore and got a firsthand experience of a similar typology in Singapore which no longer exists.

By consolidating this research into the booklet, I hope to share my realisations with you and open your mind about having places to engage with animals in Singapore. Enjoy!

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Introduction

Animal-Assisted Activities (AAA) and Animal-Assisted Therapy (AAT) are gaining traction in therapy communities internationally. Such interventions are used to cater to a myriad of various types of rehabilitation: from development disabilities to mental health, while the presence of interacting with animals contributes to the overall well-being of the people involved in the process (Casey et al., 2018). Although there are scarce verifiable evidence for its effectiveness, AAA and AAT have been explored to be relatively effective as a method to enhancing the psychological and physiological welfare of the beneficiaries and the people involved (Muckle & Lasikiewicz, 2017).

As Singapore continues to tackle the challenges of an ageing population and mental health awareness, AAA and AAT are novel approaches that can potentially be considered as rehabilitation strategies among Singaporeans; these strategies can possibly be integrated into the fabric of the city, or even the neighbourhood.

Animal-Assisted Activities

Activities that provide opportunities for motivational, educational, therapeutic and/or recreational benefits to enhance quality of life with the help of animals. Examples include petting farms/zoo, where close interaction with animals is possible.

Animal-Assisted Therapy

A more structured, goal-directed intervention in which an animal is incorporated as an integral part of the treatment process. It is delivered and/or directed by specialised health professionals with skill and expertise regarding the clinical applications of human-animal interactions.

The Four Focus Points of AAA and AAT

Analysis of literature and precedent studies regarding experiences with AAA and AAT generally indicate that they have these four focus points:

Education

Learning about animals and animal behaviour; empowerment sessions with animals

Healthcare

Engaging animals as a form of psychological and physiological rehabilitative strategy for people

Community

Getting involved in community-bonding events related to engagement with animals

Ecology

Animals are actively involved as part of the sustainable farming process of produce

These focus points are observed to be part and parcel of keeping these places of AAA and AAT self-sustaining and meaningful for the staff, beneficiaries, and visitors, making these places successful. The focus points will also be used as part of a survey methodology to learn about the perceived acceptance of AAA and AAT in Singapore among people living in Singapore.

Methodology

Study Objective:

To understand the perceived acceptance of AAA and AAT activities in Singapore among people living in Singapore.

This helps to generically evaluate whether people living in Singapore are open to having such activities in Singapore. A case study of a petting farm (an AAA place) in Singapore has also been documented in this study; this helps in understanding the qualitative successes of AAA and the constraints faced in maintaining similar places.

Hypothesis

It is hypothesised that an existence of a reinvented typology of the Neighbourhood Animal Farm, featuring a place to interact with animals in their comfortable environments, would be perceived to be acceptable to most people living in Singapore, especially if it is relatively accessible.

1: Digital Survey

Objective to find out:

Awareness of AAA/AAT

Understanding how aware people living in Singapore are of AAA and AAT

Perceived Willingness to Try AAA/AAT

How likely people living in Singapore are to try out AAA/AAT, regardless of their understanding of AAA & AAT

Perceived Acceptance of Accessible AAA Amenities

How open people living in Singapore are to having accessible AAA amenities in Singapore

Perceived Priorities of AAA Amenities in Singapore

Learning about what those living in Singapore think local AAA amenities should focus on and how it can be integrated

2: Documentation

Case Study Documentation using:

Site Survey

Documenting site dimensions and translating them into architectural CAD drawings

360 Visual and Soundscape Documentation

Using a 360 camera to record the surroundings and soundscapes at certain points/paths of the space

Interview Documentary (ft. Owner Mr Thierry Lim)

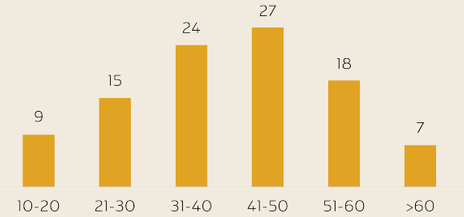
B-roll footage and interview with Mr Lim consolidated into a video documentary sequence to share the story

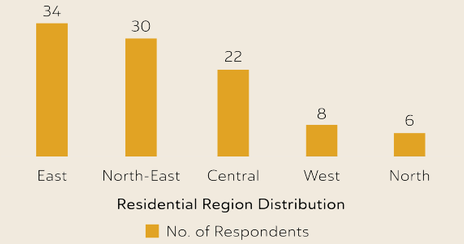
Results: Digital Survey

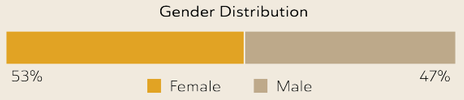
Respondents' Demographics (100 participants):

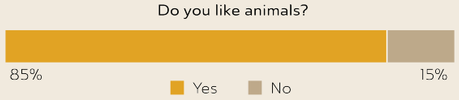
Demographic Questions and Supplementary Questions Relevant to Study

Overall, most respondents like animals and are comfortable interacting with animals, while a small percentage of people are not comfortable with animals because of their inherent fear of animals or because they have yet to forge healthy relationships with animals.

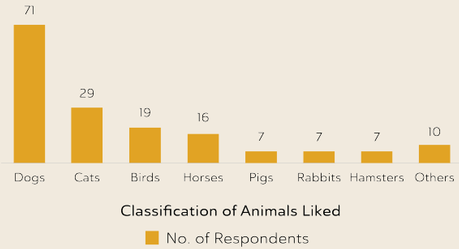




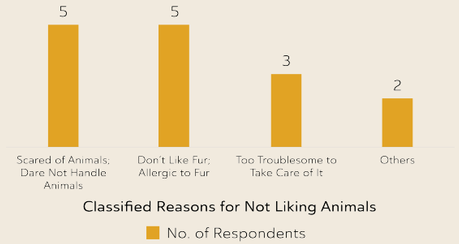


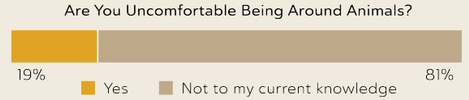


Respondents who say **"Yes"** to liking animals

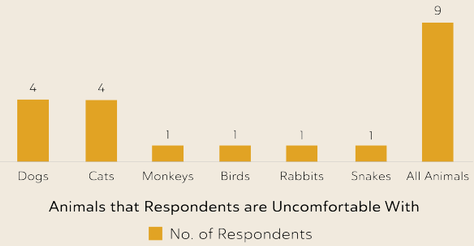


Respondents who say **"No"** to liking animals



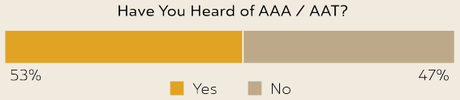


Respondents who say **"Yes"** to being uncomfortable around animals were asked as to the kinds of animals that they are uncomfortable with and their reasons:

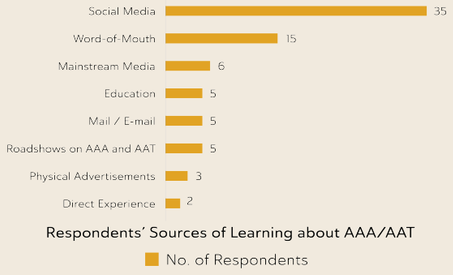


Majority quoted that they are either scared of all animals / specific animals, likely because they are unsure how to interact and forge healthy relationships with animals. There is also a small percentage of respondents who have allergies to the animals' fur.

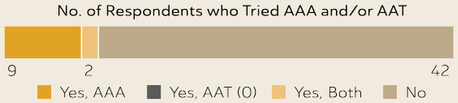
Respondents' Awareness and Perceived Willingness to Try AAA/AAT



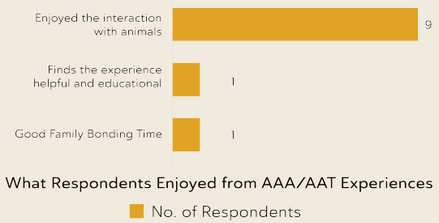
Respondents who have **heard** of AAA/AAT



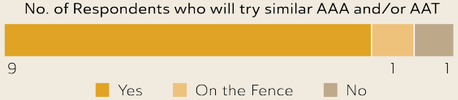
Majority of the people who have heard of AAA/AAT received information about such activities through social media, indicative on the effectiveness of using social media to raise awareness about AAA and AAT practices.



Respondents who have **tried** AAA/AAT

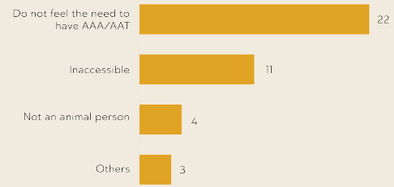


Are they willing to try similar AAA/AAT experiences?



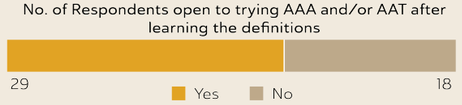
The 11 respondents who experienced AAA/AAT before are more likely to try similar activities again if given the chance.

Respondents who have **not tried** AAA/AAT

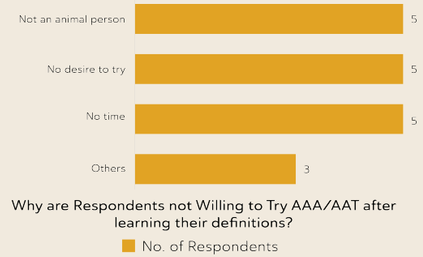


Majority of the 42 respondents who have not tried AAA/AAT found alternate ways to de-stress through activities that do not involve animals. Several respondents indicated the inaccessibility of AAA and/or AAT in Singapore as the main reason why they have yet to try AAA and/or AAT.

The 47 respondents who have not heard of AAA/AAT were given the basic definitions and were asked as to whether they are willing to try:



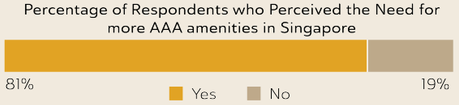
Respondents who are **unwilling** to try



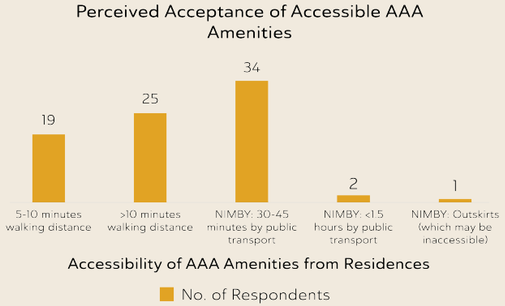
The 18 respondents who were not inclined to trying AAA and/or AAT cited reasons mainly relating to the fact that they are not into animals, find such activities too time-consuming, or have no desire to give AAA and/or AAT a try.

Overall, respondents who have tried AAA and/or AAT before are highly likely to find opportunities to experience a similar experience in comparison to respondents who have not tried these activities before. In addition, more than 50% of the respondents who just learnt the definitions are open to giving AAA/AAT a try if possible.

Respondents' Perceived Acceptance of Accessible AAA Amenities



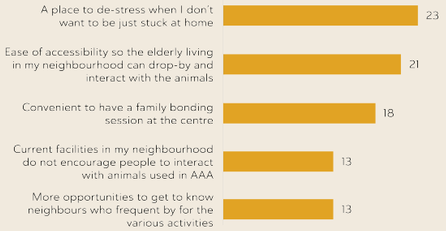
Respondents who say **"Yes"**



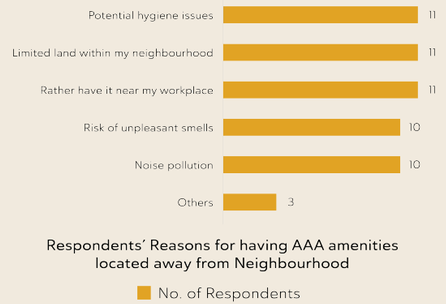
Respondents were then asked to pick a few reasons that justify their selection of picking a *NIMBY or non-NIMBY option.

*NIMBY: Not in my Backyard

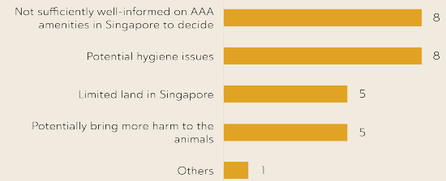
Respondents who chose **"non-NIMBY"**



Respondents who chose **"NIMBY"**



The 19 respondents who perceived that there is no need for more AAA amenities were asked to pick reason(s) to justify their choice.



Overall, the majority of the respondents are for having AAA amenities in Singapore that are relatively accessible from their homes. For those who are currently not wholly on board with having easily accessible AAA amenities, it seems that addressing concerns of hygiene and maintenance would be the first step in enticing them to be more accepting of such facilities.

Respondents' Perceived Priorities of AAA Amenities in Singapore's Context

The 81 respondents who perceived the need for more AAA amenities in Singapore were also asked as to what priorities should such a typology of AAA place serve.

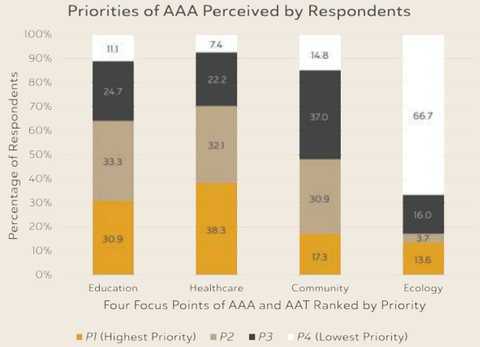
Participants were requested to rank the four focus points of AAA and AAT (Education, Healthcare, Community and Ecology), according to their own perceptions and opinions.

The collective rankings were then processed into a point system, where the higher the points (max score 4.0), the higher the priority of focus point. This is according to the formula:

Sum of Points (for each focus point), denoted as ***S*** can be calculated with the below formula:

$$S = [4 \times \frac{P1}{100}] + [3 \times \frac{P2}{100}] + [2 \times \frac{P3}{100}] + [1 \times \frac{P4}{100}]$$

where P1 represents the percentage of respondents who rank the focus point as 1 (highest priority), P2 represents the percentage of respondents who rank the focus point as 2 (second-highest priority), P3 represents the percentage of respondents who rank focus point 3 (third-highest priority) and P4 represents the percentage of respondents who rank the focus point at 4 (lowest priority).

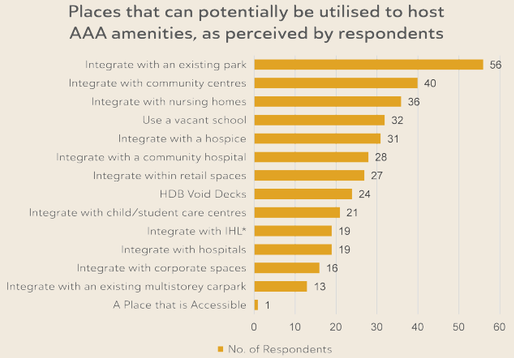


Based on the outcome, the scores are tabulated below to determine what is the collective decision of the priorities.

Four Focus Points	*P1* (%)	*P2* (%)	*P3* (%)	*P4* (%)	Sum of Points
Education	30.9	33.3	24.7	11.1	2.84
Healthcare	38.3	32.1	22.2	7.4	3.01
Community	17.3	30.9	37.0	14.8	2.51
Ecology	13.6	3.7	16.0	66.7	1.64

From the points evaluation, **"Healthcare"** is the collective's highest priority, followed by **"Education"**, **"Community"** and then **"Ecology"**.

The same respondents were then asked to select from a list of proposed existing space(s) that can potentially be repurposed to accommodate AAA amenities, or to propose an existing space that is not part of the options.

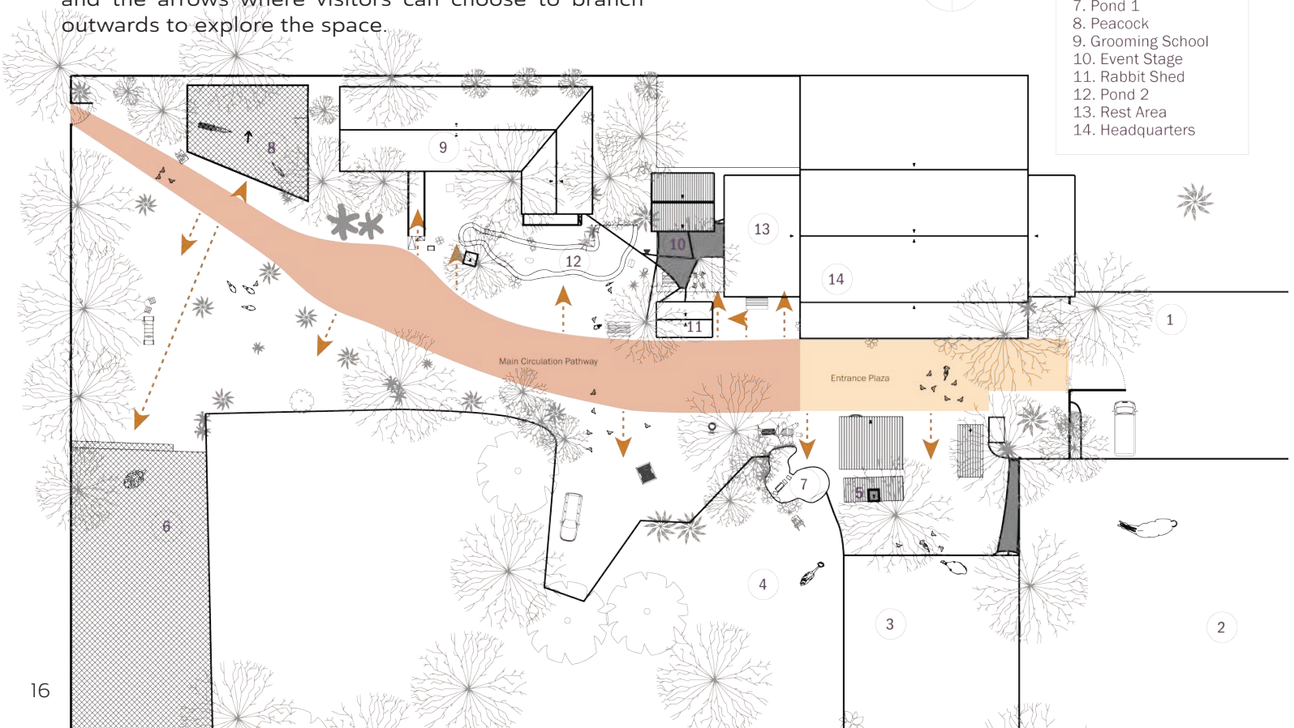


*IHL: Institutes of Higher Learning

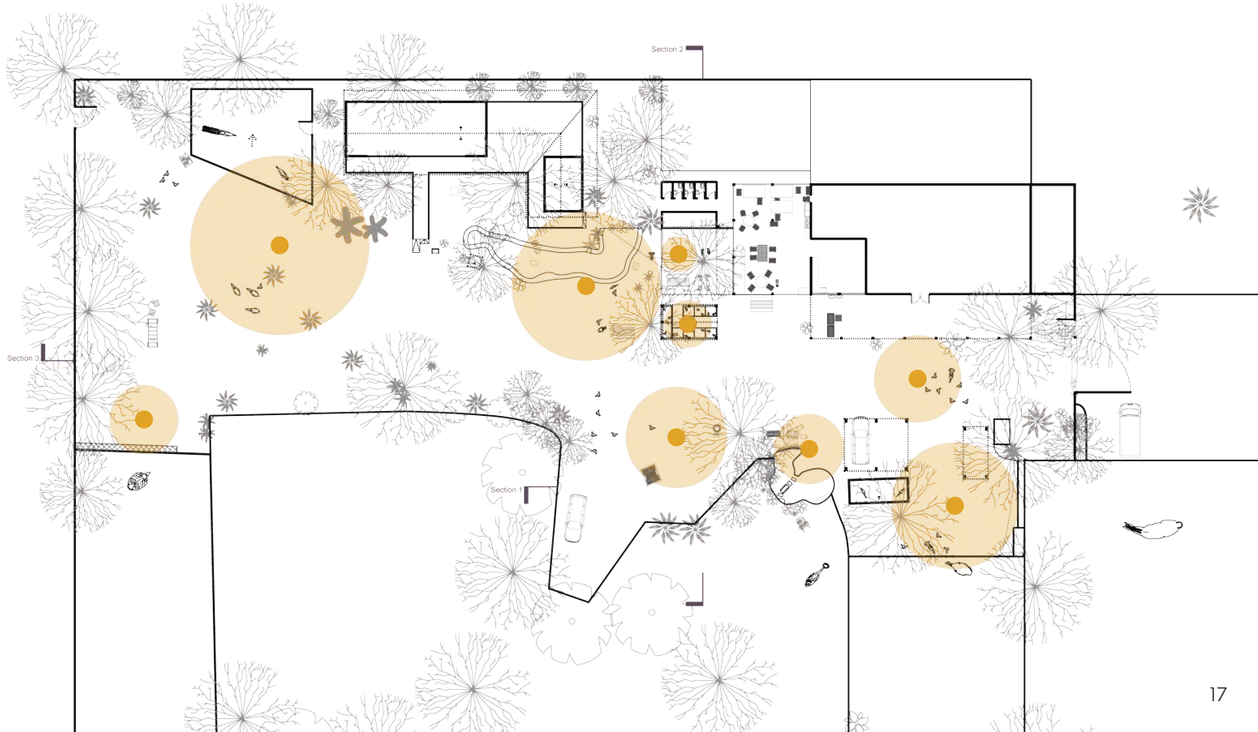
Most respondents perceived that existing parks could be integrated with AAA amenities as most parks are relatively accessible and allow one to interact with animals and nature.

Results: Documentation

Annotated Site Plan of The Animal Resort: comprising of an entrance plaza, main circulation pathway of visitors and the arrows where visitors can choose to branch outwards to explore the space.



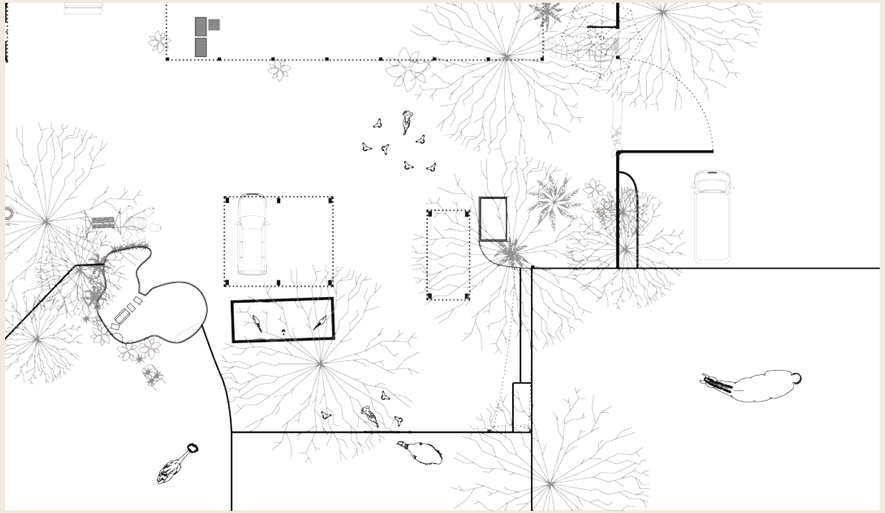
Annotated Floor Plan of The Animal Resort: showcasing the location of activity hotspots (places where visitors frequent by the most within the site).



Entrance Plaza

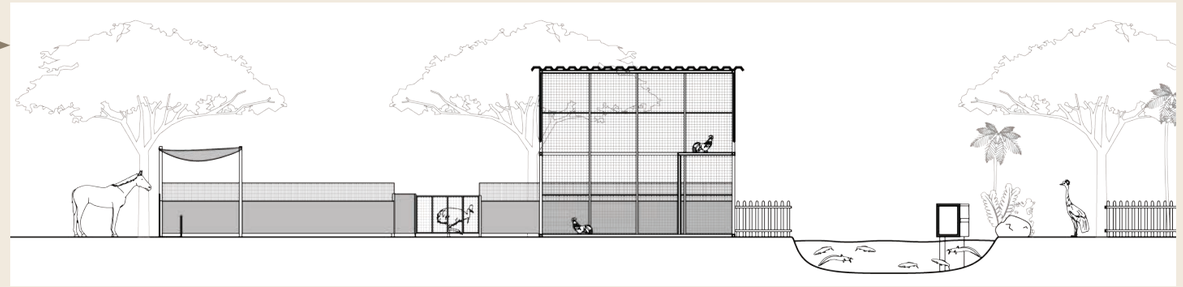
Snippet Floor Plan: Indicates that most free-moving turkeys hang around the entrance plaza most of the time. This is where most visitors will stop by to feed and/or admire the turkeys.

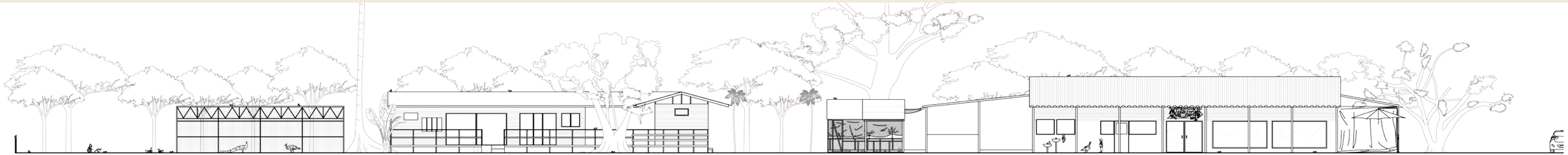
Moving southward, visitors will also be greeted with the sight of PIN Number (horse) and the cassowary, along with the golden crown crane and the fowl in the bird aviary.



Visitor feeding PIN Number with Guidance: a form of active engagement visitors can have with animals in the petting farm.

Snippet of Section 1: indicates the branching corner space of the entrance plaza where the horse, cassowary, bird aviary and small pond area are located.

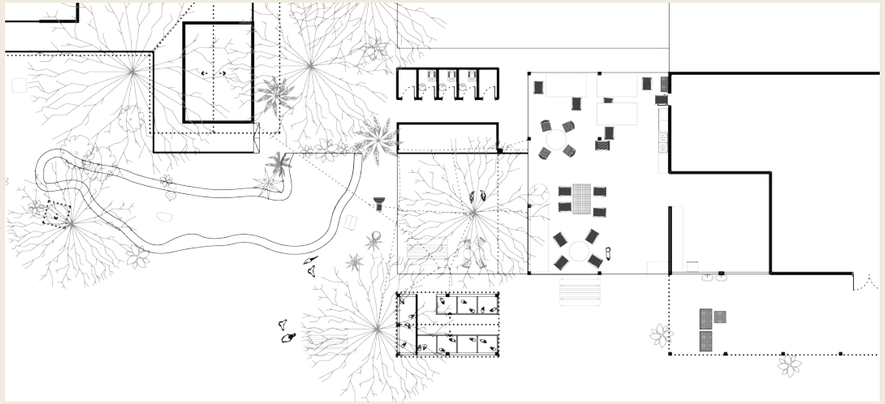


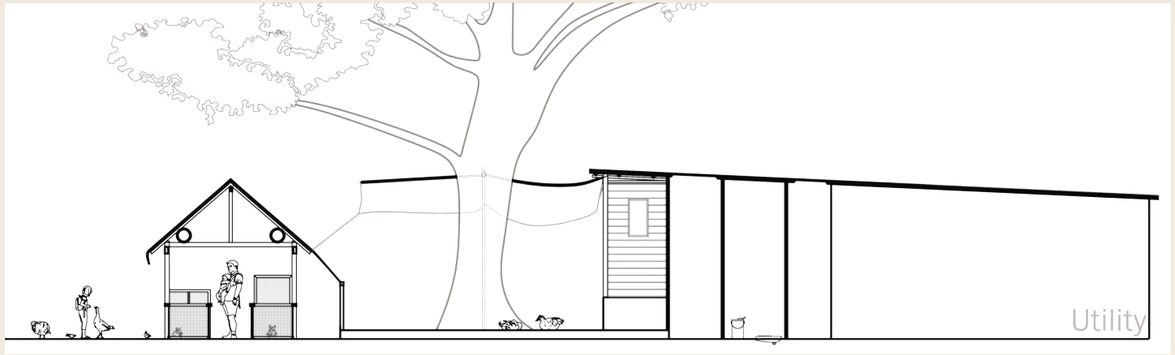


Longitudinal Section: showcases the view from the central space to the view direction of The Animal Resort HQ.

Sheltered Spaces & Back Central Area

Snippet of Floor Plan: Indicates the spaces under sheltered areas where visitors can rest up and have events such as birthday parties at the stage area. They can also wander in the rabbits' shed too!

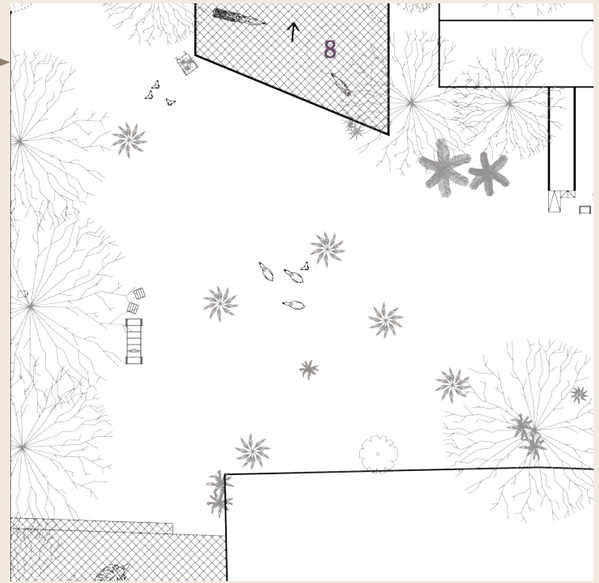




Snippet of Section 2: difference in activities moving towards the main stage when it is not used for events.

Young visitor admiring the Maribou Stork: a form of passive engagement visitors can have with animals that are caged up in the petting farm.

Snippet of Site Plan: indicates the large central area sandwiched by the peacock enclosure, grooming school side and the maribou stork den side. The geese often wander around here too!



The Digital Archive

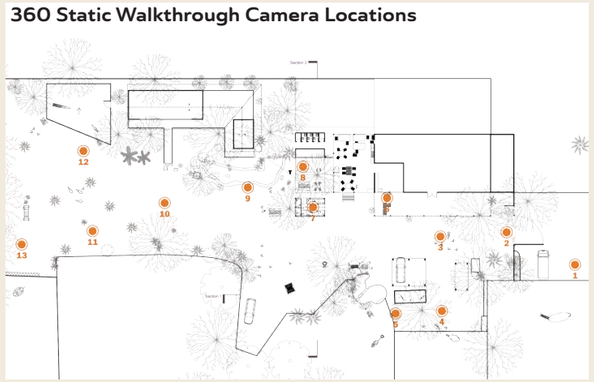
QR Codes:

Each will direct you to a video / publication link that bears the documentation of The Animal Resort. Scan them to view more!

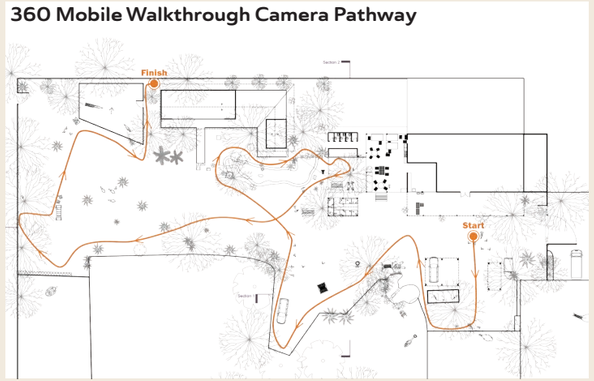
360 Static Walkthrough

360 Mobile Walkthrough

360 Static Walkthrough Camera Locations



360 Mobile Walkthrough Camera Pathway



A1 Architectural Drawings

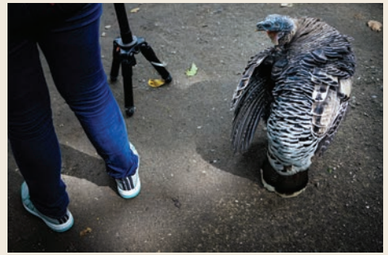
Mr Lim and His Animals: The Animal Resort Story (Video Documentary)

Behind-the-Scenes:

Featuring pictures taken during the site documentation process with the documentation volunteers team and the people at The Animal Resort!

Site Tour ft. Ms Joanne Lim

Casual Interview Session with Mr Thierry Lim



Documentation ft. Director Turkey Quality Checks

Future Considerations

The results indicated a relatively strong perceived acceptance of having accessible AAA amenities in Singapore. The sharing by Mr Lim has also highlighted that such spaces provide relief to the urban dwellers of Singapore, with architecture made of local materials.

A recommendation for authorities' is that they should be more sensitive in understanding the place, its users, and its relevance to the Singapore's context while undertaking redevelopment.

Overall, people living in Singapore should be provided with more opportunities to interact with animals. Finding appropriate places to host such activities, even temporarily, would give much psychological and physiological benefits to the people in ways that they would not have experienced. The main challenge is to keep these activities sustainable such that the users, stakeholders, and authorities would see the value in having Neighbourhood Animal Farms in Singapore.

Learning Points from Digital Survey:

Awareness of AAA/AAT

Approximately half of the respondents have heard of AAA/AAT before, mainly through social media platforms.

Perceived Willingness to Try AAA/AAT

Moderately Acceptable: perceived willingness to try AAA/AAT is relatively lower among people who have heard of AAA/AAT as they either have alternative sources to de-stress or find AAA/AAT resources inaccessible in Singapore. However, 61% who were not aware are open to trying AAA/AAT, while 81% of those who have tried AAA/AAT before are willing to try such activities again.

Perceived Acceptance of Accessible AAA Amenities

Strong acceptance: located in places that can be reached by short public transport trips or walking; Majority indicated places like parks, community centres and nursing homes as places that can integrate such AAA amenities.

Perceived Priorities of AAA Amenities in Singapore

Mainly addressed towards healthcare of psychological and physiological rehabilitation and therapy, followed by education with AAA as a medium. This is then followed by community and then lastly ecology.

Learning Points from Documentation:

Petting Farm Experience

There was a central circulation space that allows for visitors to interact with the free-moving fowl, while having smaller programs, such as horse feeding and looking at caged animals, branch out of the main central circulation spine.

Intimate Interactions with Animals and Nature

Spaces integrated with nature where visitors can engage with animals while having a full experience of nature.

Unstructured and Organic

Unlike the more structured settings like zoos or riding schools, dynamic engagements with fowl can occur in a safe, exploratory environment.

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