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社会 **建筑**
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S O C I A L A R C H I T E C T U R E

THEORY & PRACTICE 2019

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Social Architecture: Theory and Practice

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INTRODUCTION

This course aims to equip the students with theoretical/historical knowledge of 'Social Architecture' as well as practical skills for practicing it. Students are exposed to key concepts, methods and goals developed in social architecture, an umbrella term that includes community architecture and planning, community design, social design, democratic design, community development, etc. These disciplines share a common approach of environmental design that encourages social behaviors leading towards certain public benefits, such as livability, safety, and sustainability. Through case studies, fieldworks and hands-on workshops, students have learnt the various design processes that often involve the members of community, and how these strategies could be applied in their own design projects. The first half of the course introduces students to theories and methods; while the second half explores various topics under which social architecture is currently being practiced. This book is the result of investigations on various aspects of people and places in Singapore conducted by students taking this course in 2019.

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Feeding Punggol

A look into where they get their food

by Caleb See, Jing Ren Tan, Joshua Tan, and Weng Shern Poon



ABSTRACT

Punggol is a relatively new residential estate in Singapore. The main age groups that live in Punggol are young children and families. Traditionally, hawker centres and wet markets exist in typical neighbourhoods, especially in the older, more mature estates. Today, due to the increased focus on the manufacturing and service industry, there has been a drop in these local family-owned food businesses. As a result, a possible implication of Punggol's young age is the lack of food

options and reduced accessibility to food in the area. This project investigates whether these concerns are felt, if such a phenomena has compromised the social condition of Punggol, and proposes programs and interventions to alleviate the weakened condition, if any.

Keyword: Food, Social, Interaction, Freshness, Availability, Healthy

Due to the implementation of the BTO public housing scheme, Punggol is largely populated by young couples who were looking for new homes and hence created a demographic statistic whereby the main age groups that live in Punggol are young couples in their 30s, and young children that are in the sub-10s. For the older, more mature estates, there were histories of hawker centres and markets as a lot of the businesses focused on food. Today, due to the increased focus on the manufacturing and service industry, the work force has shifted away from low-value added industries such as food businesses, but work in the corporate sector instead. Therefore, a possible implication of Punggol's young age is the lack of food options that are affordable and family-owned in the area. Furthermore, there is a lack of associations to the existing, more established estates. Instead of being grown in a more segmented way, Punggol was largely created as an independent project rather than as an extension. This could also have affected the provision of food availability in Punggol.

A condition rather unique to Punggol is the void decks that have seemed to shrink. This reduces the propensity to have social gatherings in the spaces below the residences, and funnels all these neighborhood functions to designated pavilions which are too small and few to serve those functions. Since a vital social space has been taken away, this reinforces the need to have more social spaces in Punggol. The new, upcoming residential estates in the Northshore area will introduce more residents into the area, hence exacerbating the current problem and highlighting this site as one of critical importance.

The objective of the mapping at Punggol tries to investigate the two urgent conditions that need to be addressed in Punggol: the availability of food and the social conditions. In our research, we primarily investigated the resident's accessibility to fresh food, the food patterns of residents and whether there could be a more social solution to the current situation in Punggol. A Farmer's Market was initially proposed as a program due to its potential to balance the social and culinary.



Figure 1. Supermarkets in Punggol



Figure 2. Restaurants in Punggol



Figure 3. Coffeeshops in Punggol



Figure 4. Wet markets in Punggol

PRELIMINARY RESEARCH

Punggol exists as a unique case within the slew of new public housing estates in Singapore when viewed from the perspective of food. In this town, gone are the familiar sights of large hawker centers and sprawling rows of wet market, instead replaced by clean twenty-four hour air-conditioned supermarkets dotting the Punggol landscape. The traditional functions of the wet-market, of a place

of bargained deals, a place of well-worn familiar faces and a place of purchased “free gifts” are displaced by sanitised, cold, calculating self-checkout counters and ever-changing staff.

As such, the team was interested in the impact the lack of traditional wet market has on the Punggol resident, and whether its replacement, the supermarket is for the better or worse. The demographics of shoppers, the amount of groceries as well as the time they visited were analyzed.

Supermarkets have replaced the wet markets social and economic functions, serving as the major (and sometimes sole) source of groceries, while allowing individuals to grab groceries at any time (24h supermarkets are prevalent everywhere in Punggol). Supermarkets have also allowed people of all ages to partake in buying groceries, allowing families to do their marketing together.

To further deepen the understanding on the food habits of Punggol residents, one of the team members conducted a more in-depth research into Punggol coffee shops to understand how the coffee shops were being utilised and the demographics that used it. The main users were young families and elderly folk. The young families would eat at the food courts after the kids get off from school. They would be more focused on themselves rather than interacting with other people.

The elderly men were mostly crowded around and facing the TV, though they weren't necessarily looking at its content. Rather, the elderly seemed to be more interested with the people walking by and the environment.



Figure 5. Preparing the boards



Figure 6. Gastronomical Chart

During the duration of the study, there were several delivery food riders that came to the coffee shop to collect food. This study showed a little about the demographics at the coffee shop, as well as piquing interest about the variety of food and the social aspects of having meals.

The supermarkets and the coffee shops both served as the impetus for the project's exploration of the food conditions in Punggol.

METHODOLOGY

The team was interested in exploring research in a more social way, rather than one that reduced people into numbers and data, therefore the research methodology was composed of four more interactive and personal methods. They were:

Polaroids (Visual Snapshots)

Polaroids were used as a hook to incentivise interactions with the residents. A polaroid was offered to participants and one was taken for the project's research. The polaroid would become a personal gift for those that participated. At the same time, the polaroid would give key identifiers of the people interviewed, what they were doing at the time, as well as the general vicinity of the place they were at. However, some users also declined the photo taking due to privacy reasons.

Food Board (Gastronomic Chart)

The board was also a useful tool to facilitate interaction and interest. The unique "3Dventure" font and striking colours were used to attract people. The font was quirky and more informal, making it look less professional and

If given more fresh food options, do you think you'll cook more often?



serving of only one type of food from one owner. Residents wanted more stalls that served similar food, so there would be more options.

The response to the Farmer's Market tended to be more positive further away from Waterway Point. People interviewed nearer to Waterway Point tended not to cook. People further away from the mall tended to cook more, and were also interested in the idea of a Farmer's market.

The wet market conditions in Punggol were also dismal according to residents, they generally priced their goods higher than NTUC/ Sheng Siong. This diverted the people who cook and need fresh food to supermarkets instead. One respondent mentioned that she even goes to Kovan to shop at the wet market rather than Punggol as the food was more fresh, people were more friendly, and the prices were cheaper. This also reveals the social nature of the transaction and the importance of social relationships even in the purchasing for groceries.

In addition, we asked people if the presence of more fresh food sources would encourage people to cook more often. Our initial assumption of a straightforward "yes" to the question was challenged. Instead, almost 45% of the people we interviewed answered "no". The decision to cook does not solely rely

on the availability and convenience of access to fresh groceries. Instead, the time of the day (after work vs weekends) and presence of additional help in food preparation (mother-in-law, maids, etc.) were also important.

At the same time, it is still important to have an availability of fresh groceries. A respondent shared that inculcating the habit of cooking in the house from young has encouraged him to participate more in cooking. A possible hypothesis that could be put forward would be the impact of growing up within close proximity to food sources, eventually impacting the behaviours of the individual with regards to his preference of food source.

The different types of people that were surveyed had several general characteristics. The single men tended to eat at home or buy food home. Families with working mothers would cook on the weekends, eat out after work or find it too inconvenient to cook. There were several families that were multigenerational and the grandparents would cook for the family. Children tended to like fast food joints more.

Lessons:

There exists a wide range of **preferences** within Punggol.

The cheapest food options includes traditional coffee shops and smaller family-owned eateries, typically located below housing estates. Cheap food is readily served at economical prices, and therefore cater to the tight-on-budget and/or time-sensitive consumers. This includes school children as well as families with parents that do not necessarily have the time or energy to cook.

Restaurants and malls on the other hand cater to couples and families whom prioritise food quality as well as comfort over the price of food. In many cases, this includes young couples with higher disposable income (less financial burden), as well as retired couples with working adult children supporting them. The quality, variety and consistent availability of food options that traditionally only exists in town attracts many residents to these restaurants as well. Families with a wide range of food preferences are better able to find restaurants that better suit their taste buds.

An interesting insight garnered from the interviews was the socially-acceptable size of social groups within coffeeshops relative to other food establishments. It is common to see individuals seating alone and enjoying their time, occupying a small table at the corner of premise. In comparison, such a scene appears less often within restaurants, where individuals rarely loiter around after finishing a meal.



Figure 8. Interviewing an auntie



Figure 9. Interviewing a family



Figure 10. Family taking photos with our board



coffee shop

COFFEE SHOP
OUTSIDE



HOME

BU KAH TCH



GENKI SUSHI

Pin Tai Fung

WATER WAY PT



Faces of Punggol

Polaroids of people whom we have interviewed.

Our research further revealed reasons for many families to cook at home. Health and taste preference are a main driving force for a home-cooked meal. This is further promoted by the presence of family members (e.g. retirees who might stay at home looking after grandchildren).

Research Methodology Evaluation:

The people who responded negatively at Waterway Point might be doing so simply because they are at Waterway Point, and thus, prefer more formal and structured settings. We therefore directed attention towards the peripheral areas in Punggol.

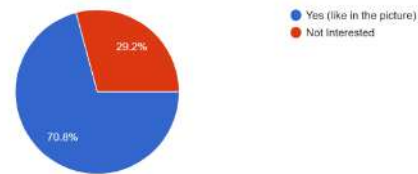
One key observation was a higher rate of rejection at the residential HDB areas. A possible reason is how public the areas were, which would correlate with how prepared people are to interact with other people around them. Furthermore, for people near the residential areas, they usually have an agenda: to go to their destination or to reach home. Answering questions would restrict them from achieving this goal, and hence they are less willing to stop. Conversely, at shopping malls or selected areas, these people have already fulfilled this objective, and reached their destination, and hence would be more open to unexpected situations.

The setting was found to be very important when approaching people. People who looked free and unencumbered, as well as people who looked like they were waiting for something or bored were much more receptive to our questions. Generally speaking, people who were mobile, were not willing to speak to the researchers.

One interesting question a respondent asked was: "What does architecture have

to do with the food options in Punggol?" This provided an interesting discussion with the public, allowing us to talk more about the profession. We explained that architecture wasn't just about structure and engineering and that observed behaviours and social patterns can be the driving force for architecture. By looking at social phenomena and how people behave, architects can use this information to create an environment to help encourage already lively communities.

Would you be interested in a farmers market in punggol?



CONCLUSION

Our Proposal: The Upgraded Farmer's Market

The farmer's market is a viable program that could cater to the many residents interested in the variety of fresh food it would provide. It's promise of being locally grown/made and higher quality of produce provides an alternative, innovative and upgraded source of fresh food in the saturated and standardized supermarket scene in Punggol.

The farmer's market is most preferred to be held once a week, with only a handful indicating that it should be once a month. This is to ensure both the quality of produce as farmers are not driven to produce large quantities in order to fulfil demand, while allowing participants to

keep prices at a premium as this market does not happen frequently, limiting supply and transforming the marketing experience into an event itself.

The location of the farmer's market should be situated farther away from Waterway Point, as derived from our survey responses that suggest a greater need for fresh groceries at the peripheries of Punggol. Specifically, one location that we had identified was the East of Punggol, where residents complained of a higher-than-market price wet market and only one food choice which was Koufu. In addition, as our team had walked the grounds of the Punggol East, we walked into Punggol East Container Park and what we felt made it a suitable location was the presence of many other recreational facilities, such as the futsal courts and prawning farm that would attract people to carry out other activities in addition to the farmer's market. The vast car park also acts as an incentive for residents who drive to buy fresh foods.

One interview conducted at that area was a local business owner who operated an affordable restaurant beside the prawning facility. He had feedbacked that there were many like him looking to start a business, but not enough support from the local population due to the lack of promotion and happenings in the area. However, the freshness of the farmer's market concept would be able to kickstart business in this area and turn this into a node for the weekly farmer's market. Currently, there are other farmers' markets in Singapore that are held once or twice annually, and they are situated at Kranji, Serangoon and Queenstown that feature Singaporean farms selling produce that is labelled organic and

locally-produced. However, based on our feedback, the farmer's market should also include a more community-aspect whereby individuals have a chance to apply to sell their own food/produce such as herbs that they grow specially at home or sauces and curries that they make. There are also people interested in farming, and nearby community gardens that are owned by separate individuals who might be interested in setting up shop in this farmers' market, and we argue for a lower barrier of entry as to who is allowed to operate in this market. This would pitch this farmers' market's unique selling point over its competitors.

This would allow the farmer's market to be more than just a platform for the already established farms. It would perform the important social function of increasing interactions and fostering a community in a dispersed and isolated scene.



- Prawning and Fitness
- Restaurants
- Carpark




Another location that we felt was also suitable to establish such a farmer's market was the Punggol 21 Community Centre located at Coral Edge LRT station, not far off from the Container Park. The advantages of this site was the ability to make use of existing open spaces that already have supporting infrastructure and a sheltered roof, for holding the Farmer's market in Punggol. Instead of having to erect a temporary structure to house these stalls as compared to the location at the Container Park, the farmers' market can simply be the setting up of booths in the open space of the CC and the provision of temporary structures. The downside is it's less appealing location to people who are driving, and people who are out for other recreational activities.

The above proposal however targets mainly the people who cook at home seeking fresh groceries, and highlighted the desire for better accessibility, wider variety and healthier produce. However, the above proposal alone is insufficient in addressing other issues raised such as the tired, working individuals, who might look at cooking as an insurmountable challenge in itself as well as those that prefer a much cheaper alternative to food in Punggol.

Our proposal would also like to suggest the idea of an Integrated Hub established as a node away from waterway point, for people staying at the peripheries of Punggol to be able to congregate a central location where they are able to eat and buy groceries at. Currently, the lack of food variety present in Koufu at Punggol Plaza, and the few vendors in the wet market present the need for such a hub to be established in this area.

As such, we suggest the hub to include the programmes of a bigger wet market that can attract vendors from Punggol as well as neighbourhoods near Punggol to set up shop and establish supplier links to the area. Also, the need for a hawker centre that attracts individual stall owners rather than centrally-owned "kopitiams", such as those seen in older neighborhoods such as Ang Mo Kio, Bedok and Bishan, will be able to solve the current issues pertaining to the lack of food variety and quality of the food.



-  Punggol 21 CC
-  Punggol Plaza
-  Carpark

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A Better World by Doggos

The Social Impact of Pet Dogs in Punggol

by Lim Hui Yee, Nicole Tay, Tan Hui Yin, and Yang I-Chien Dana



Figure A. Image of child playing with a dog at open space in Punggol Waterway Point

ABSTRACT

For a growing number of Singaporeans, pets have become an integral part of their lives. According to the Agri-Food and Veterinary Authority (AVA), the number of canine pets increased from an estimated 47,000 in 2006 to 62,000 in 2015, equating to more than 35% increase within a decade. While it has been established that pet dogs provide their owners with a direct source of companionship and support, their role in catalysing the forging of friendships and formation of social networks have not been investigated or

studied in depth before. Thus, the aim of this research is to study the role and potential of pet dogs in bringing about social interactions within public spaces, as well as propose ways to induce a more dog-friendly environment that could in turn become hubs for social interaction amongst strangers.

This study was conducted specifically in Punggol, a new-age district that seeks to integrate nature into urban living.

Keyword: Canine pets, Social Interaction, Public Spaces, Punggol

Pet dogs have the ability to provide their owners with more than companionship. Every evening, numerous dog owners would use various parts of the Punggol Waterway trail to walk their dogs, and it is a common sighting to see dog owners strike a conversation with fellow dog owners while their furry creatures interact with each other, or have non pet-dog owners walk up to these furry creatures and strike a conversation with the owners.

These sightings are particularly common in Punggol, Singapore's newly dubbed baby town. This is most likely due to the relatively younger demographic that live within Punggol as well as the extensive nature parks and trails that has been developed as part of the Punggol21 plan.

Thus, this study hopes to tap on pet dogs' abilities to bring people together, to create more nodes for social interaction amongst users of the Punggol Waterway Park.

This study further proposes location-based design interventions that are developed upon feedback received from the pet dog owners in hope of inducing a more dog-friendly environment that could churn out greater levels of social interaction.

METHODOLOGY

This study was conducted in two layers. The first layer was aimed to find out the more superficial facts that were present in the existing pet culture in Punggol- in the aspects of the type of pet and the locations of gathering. The two main methodologies that were undertaken at this layer were:

1. ONLINE RESEARCH

To find out more about and get acquainted with the various social pet groups that exists among Punggol Residents on social media platforms such as Facebook.

2. PRIMARY ONLINE SURVEY

To gain a better understanding of the general sentiments both Punggol and Non-Punggol residents have towards the potential of pets in bringing about social interactions.

The preliminary study concluded that there were 2 main pet congregations that takes place in Punggol on a regular basis: pet birds as well as pet dogs. However, the pet birds congregations were more private and exclusive, which is why the group decided to focus purely on pet dogs.

This was followed by a second round of studies through which allowed for a deeper understanding of motivation and concerns. The methods are as follows:

1. ON-SITE OBSERVATION

To observe and record the receptiveness of pet dog owners to strangers who approach them and strike a conversation



Figure B. Site of Study

because of their canine pets as well as in the presence of a slightly aggressive dog.

2. ON-SITE INTERVIEW

To prepare a set of questionnaires to ask pet owners and non-pet owners the social interaction that has been experienced through the presence or absence of pet dogs. Also to find out concerns and suggestions that pet dog owners have towards inducing a more pet-friendly

environment in Punggol.

3. PARTICIPATION

To use a covert method and insert ourselves into the situation to better understand and experience taking part in a social event revolving around dogs. In this method, the participation in a Dog Walk was done with the help of one of our furry friends, Latte.

RESULTS AND DISCUSSION

The various methodologies adopted allowed for a better understanding of the potential for pet dogs to bring about social interaction in Punggol. The results and its analysis are as documented below:

ONLINE RESEARCH

With the prevalence of social media, pre-existing social groups formed around pets were explored by the team to get an insight into how pets are currently bringing people together. From our initial visits to Punggol, we found out that there were a few pet gathering events from time to time, such as parrot watching on weekends and some dog walks. Hence, we wanted to search for Facebook groups and pages that shared about these pet gatherings in Punggol.

Two existing groups in the Punggol area included the Wings of Parrots Community Facebook Page (Figure C1) and the Punggol Dog Lovers Facebook Group (Figure C2). The Wings of Parrots Community Facebook Page was mainly used as a announcement page for their weekly meet-ups, updates on parrots and their training progresses. The Punggol Dog Lovers Facebook Group was a more social group where they shared food and good bargains for dog items, announcements for lost dogs and requests for companionship on spontaneous walks (Figure C3).

This shows that there is potential for pets to bring strangers together to form a community for social interactions, which can be further strengthened with appropriate interventions.



Figure C1. Wings of Parrots Community Facebook Page



Figure C2. Punggol Dog Lovers Facebook Group



Figure C3. Walk requests on Facebook Group

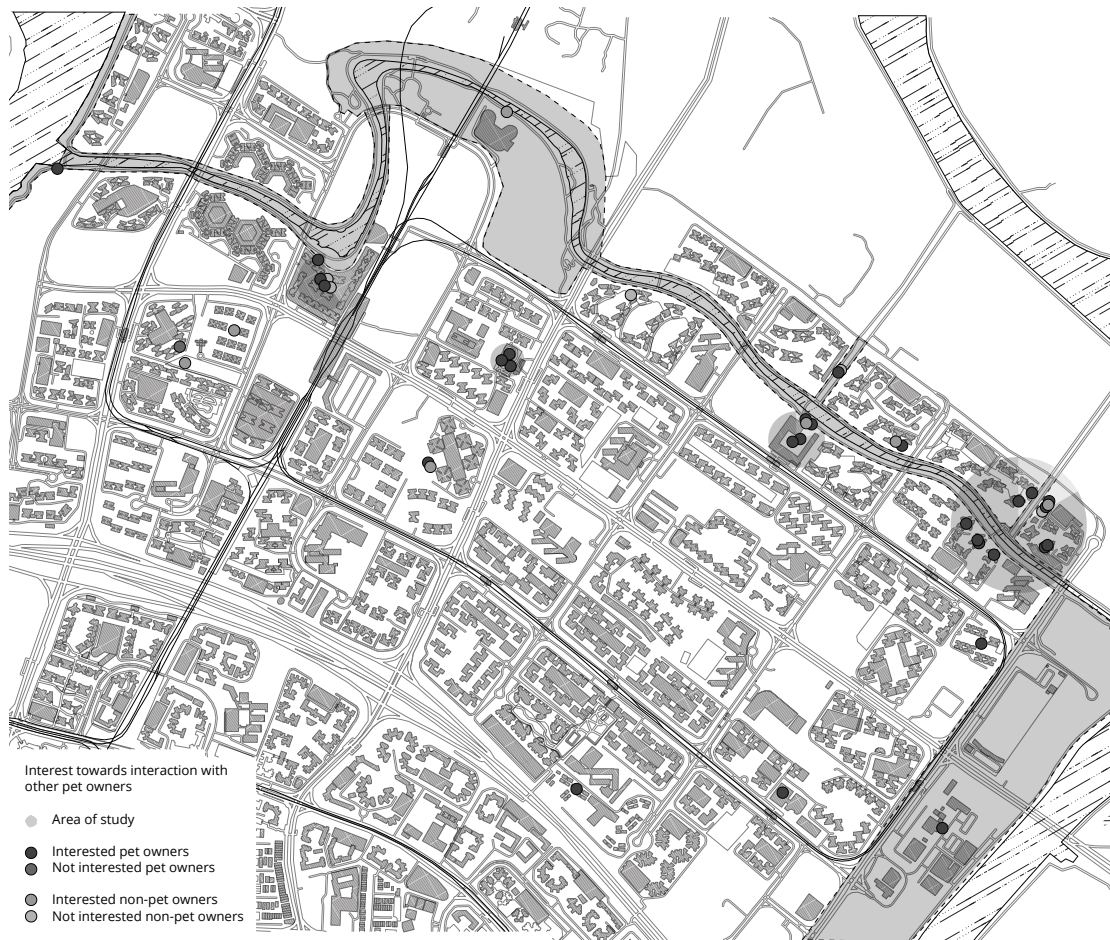


Figure D. Mapping of Survey

PRIMARY ONLINE SURVEY

The objectives of the online survey were to find out the general attitudes of people towards social relations brought about by the interactions of pets. To achieve this, views of both Punggol residents and the rest of Singapore were welcomed within our survey, which was sent out via social media links. Concurrently, the survey also sought to find out and determine the main areas of where pets were normally seen to be congregating and suggestions for improvements. This would subsequently aid the team in physical methodologies in our analysis, of which the team narrowed down the areas of footwork research.

The team managed to reach a grand tally of 110 surveyees in order to achieve an generally accurate depiction of the results

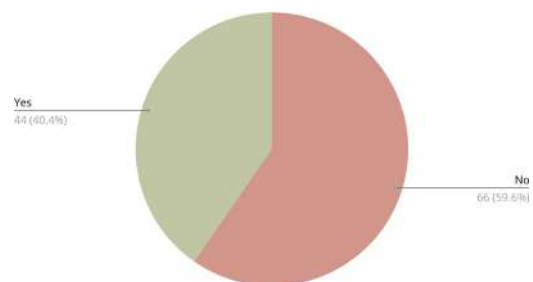


Figure E. Pie chart percentage of Punggol vs. Non-punggol surveyees

garnered. As shown in Figure E. 40.4% of people surveyed were residents of Punggol. This made up a substantial amount of people surveyed and also provided the team with enough insights after filtering the survey data provided by the residents in the subsequent questions.

Punggol residents were seen as a whole to be interested in the social interactions brought about by the pets of others as seen from Figure F whereby 77.2% were willing to interact with other pets should the opportunity arise. Further feedback showed that the top few reasons why they were interested were to allow their own pets to socialise with the other pets, as well as let themselves socialise with the owners too through casual conversations. On the other hand, people noted that the reasons why they did not want to interact with the pets of others were because they were purely not interested or worried that the pets might not have compatibility in socialising with each other.

In the aid to further back up our later methodologies, the survey also sought to find out where were pets commonly seen around within Punggol. Our survey

findings led to us determining several areas of hotspots such as Oasis and the walk around Waterway point. The general places of common sightings also involved voiddecks, playgrounds and fitness corners.

The survey also sought to gather suggestions for amenities provision that could induce a more pet-friendly place from the surveyees in order to find out what was the general needs of the Punggol pet populace. The top few suggestions included pet parks, an open space where pets were free to be unleashed within, which could be in relation to the natural landscape of the Punggol Waterway. Other top suggestions included poop bags, bins, and water dispensers to cater to the pets throughout their walks. All of which could be further taken into consideration after further analysis through the various research methodologies.

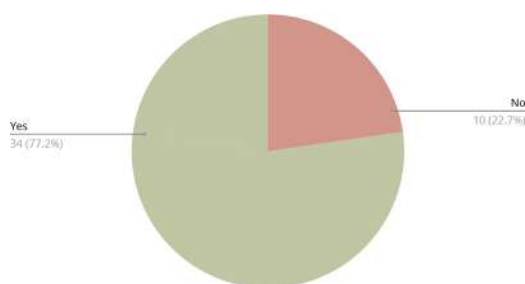


Figure F. Pie chart of interest by Punggol residents with other pets



Figure G. Receptiveness of people towards approach (with and without aggressive dog)

ON-SITE OBSERVATION

Based on the preliminary online research and primary online survey, the group was able to scope down the top two specific sites within Punggol that records the greatest numbers of sightings of dog congregations. They were namely the Sumang and Oasis areas. At Sumang, dog congregations typically take place along the park connector. Whereas at Oasis, the dog congregations occur within the HDB blocks, where there exists multiple playgrounds and open fields.

Thus, the group headed down to these two specific locations and attempted to observe and understand the difference in receptiveness of dog owners when strangers approach them in the absence or presence of an aggressive dog. The study hopes to better understand how dogs'

personalities would affect the likelihood of social interactions occurring between people.

Based on our observations, it was evident that pet owners were generally receptive when a stranger approaches them alone, as seen in Figure G1-G6. However, they get more wary and unfriendly in the presence of an aggressive dog, as seen in Figure G7-8. This could be because they feel threatened and are afraid that their pet dog might get into a confrontation with the aggressive dog.

From this study, it can be concluded that dogs' personality and compatibility have significant effects on the level of social interaction that can occur between the pet owners or non-pet owners.



Figure G1. Dogs of dog owners that we interviewed



Figure G2. Dogs of dog owners that we interviewed



Figure G3. Dogs of dog owners that we interviewed



Figure G4. Dogs of dog owners that we interviewed



Figure G5. Dogs of dog owners that we interviewed



Figure G6. Dogs of dog owners that we interviewed



Figure G7. Dog owner who turned away because of Latte



Figure G8. Dog owner who turned away because of Latte

ON-SITE INTERVIEWS











Dogs in Punggol	 Attitudes towards dogs	 Interaction between dogs	 Amenities for dogs	 Safety of dogs
Acceptable				
Unacceptable				
Observations and Suggestions	<p>Generally ready to interact with other dogs and their owners.</p> <p>Most are positive that dogs will help to encourage social interactions.</p>	<p>Dogs can get territorial and fight with other dogs.</p> <p>It may be quite dangerous for smaller dogs to be around bigger dogs, especially if they are unleashed.</p>	<p>There is a lack of water dispensers and dustbins along the waterway.</p> <p>Could be helpful to provide poop bags around the area.</p>	<p>Cyclists and Personal Mobility Device (PMD) users pose a threat to dogs on the shared paths along the waterway.</p> <p>Good to have a space dedicated specially for dogs to run free in a safe environment.</p>

Table 1. Interview Responses

With our online survey, more than 50% of the results came from people who did not live in Punggol, and since our site is in Punggol itself, we felt that there was a need for more studies to be done with Punggol residents. Hence, to gain a more in depth understanding of what the situation in Punggol was like, we went down to conduct interviews on-site. Based on our online survey results, we pinpointed potential intervention sites based on where dog owners were more commonly sighted, to analyse in detail. These were namely around the Sumang and around Oasis area. We approached people who were walking with their dogs to ask them questions from our survey and also get more insights through interviews.

When we were first approaching people to conduct our survey, we noticed that a lot of people were quick to dismiss us and people around started to try and avoid us. Hence, we changed our approach on

how we reached out to people. Instead of starting with the survey, we simply just started a conversation with people and waited until they warmed up to us, after which they were a lot more willing to help us with the survey. People were also generally more open to us when we first start by asking them about their dogs, further suggesting that having dogs around help people to lower their guards and be more open to interacting with strangers.

Over the course of a few hours, we managed to interview 18 dog owners regarding their views on whether dogs could help to bring about social interactions, especially in Punggol. We also asked about what could be done to make Punggol more dog friendly, and if there was anything that would encourage them to bring their dogs to gather in certain places. As seen in Table 1, we have consolidated the results to give a quick overview of the main concerns that were

brought up and how people generally felt about them.

There were four main concerns that were often brought up:

1. Resident's attitudes towards dogs
2. Quality of interactions between dogs
3. Amenities for dogs
4. Safety of and for dogs

1. Resident's attitudes towards dogs

Since there is a large community of dog owners in Punggol, people are generally used to seeing dogs around and along the waterway. When we asked people about whether they see any congregations of dogs in the area, they would often point out spaces such as Oasis Terraces and the area around block 662C.

We also asked about the kinds of interactions that they had when they brought their dogs out and many said that both dog owners and non dog owners would come up to them to chat about their dogs and play with them. Non dog owners often included people who used to own dogs, people who want to own but are not able to, and parents who want their kids to get used to playing with dogs.

2. Quality of interactions between dogs

Through our conversations with these dog owners we also learned more about how dogs interact with each other. Depending on the dog, they could get quite territorial and end up fighting with each other in a shared space. Some also tend to get quite overly excited when they meet other dogs and people.

Another owner mentioned that smaller dogs would be disadvantaged if they were to share a space with bigger dogs and that it could potentially be quite dangerous for them. Hence, one suggestion would be to have separate spaces for them, although this would result in lesser spaces for both.

3. Amenities for dogs

Many of the dog owners that we spoke to mentioned that they have to bring their own poop bags and water bottles down, which is quite troublesome to hold on to especially when they are holding onto their dogs as well. Another issue that they raised was that there were very little bins along the waterway and as a result, they had to carry their dog's waste around with them. They said that if these issues could be solved, people would be more inclined to bring their dogs down to gather and play with others.

4. Safety of and for dogs

The main safety concern that dog owners had was the fact that since the path along the waterway was shared with everyone, there were always cyclists and Personal Mobility Device (PMD) users that would speed on the path, making it dangerous for them and their dogs. Hence, they do not dare to unleash their dogs, even if they were allowed to.

While we were interviewing people, we also noticed that some parents were hesitant to let their kids near dogs, showing that not everyone would be as comfortable if dogs were allowed to run free. Hence, it is important to have a space specially dedicated for dogs to be unleashed.

DOG WALK WITH VANILLA PUPS

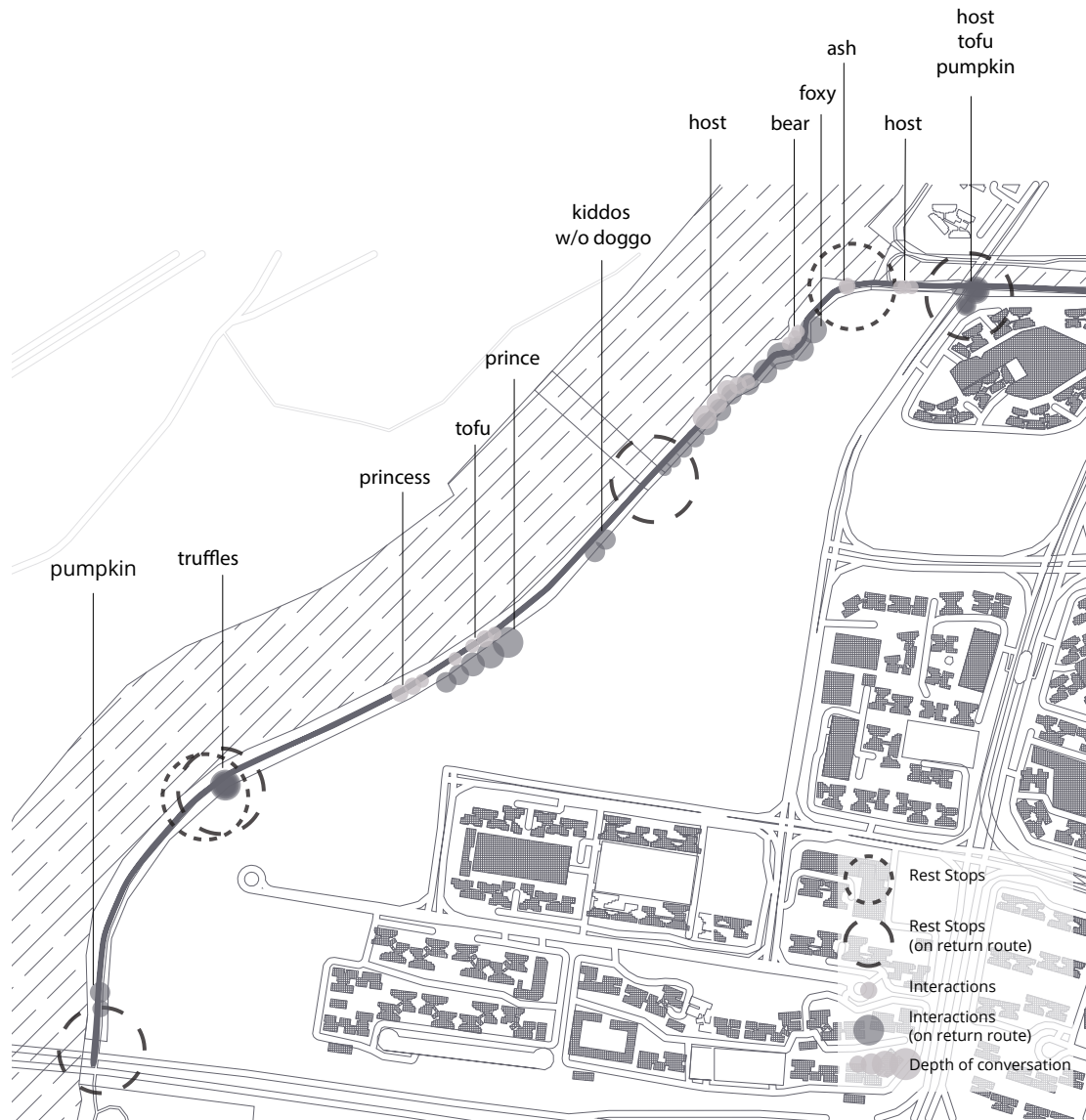


Figure H1. Map of interactions between owners throughout the Dog Walk

WHAT: Dog Walk with Vanillapups

WHERE: Punggol Sumang Walk

WHEN: 28 July, 8.30am

WHO: Anyone

HOW: An event on Facebook

Through the online research conducted on common social media platforms, we chanced upon this event that seemed highly relevant to the project. We immediately responded to the event and attended it. We found it on the Punggol Dog Lovers group page where one of the members shared the happening of this event.

On the day of the event, around 35 people, together with 20 dogs (Figure H5) arrived at the meeting point along the waterway near Waterway Cascadia, where the walk first started. The map in Figure H1 shows the presence of interaction and the depth of conversation relative to the location and duration into the walk. The walk first started off quite awkwardly as Latte was barking intensely and aggressively in the first five minutes. Some background knowledge about Latte- she is a human-friendly dog, but not a dog-friendly dog. She is usually aggressive to other dogs upon approach, but becomes tamed after some butt-sniffing. Hence, with the aggressive barking in the first few minutes, it might have scared off the owners whose dogs were relatively more timid. This shows that despite good intentions to meet new people through their dogs, the owners have to first understand their dogs behaviour and always adapt to the situations. As seen in Figure H6, Ash (the husky) was the largest dog that day and his owner, knowing that Ash would intimidate the smaller dogs, stood by the side most of the time. Yet he was always very willing to engage in any conversation when the others approached him. So, after Latte has settled down, that was when interactions started happening. As seen from the map, the first half of the walk consists of many short conversations/ small talks that typically went by the sequence of:

“Oh, what’s the name of your dog?”

“How old is she? Is it a he or she?”

“Is this the first time on this walk?”

Conversations were pretty shallow but it was pleasant to start getting to know them and their dogs. Yet, as seen on the map, most of these dog owners had a follow up conversations in the second half of the walk.

In the second half of the walk, everyone had loosened up and conversations were happening more smoothly. Length of conversations were getting longer too, perhaps because the dogs were no longer tugging on the leash and people could now walk and talk at their own pace. With people willing to open up now, more could be understood about them- why they came on this walk and what they felt about Punggol as a dog-friendly environment. Surprisingly, it was also discovered that almost a third of the people who went on the walk did not even stay in Punggol and it was the first time for quite a number of them. It was through Facebook or word of mouth that they heard about the event. Most of them came for two main reasons - to exercise with their dogs or to make new friends and socialise. On top of that, dogs themselves get to socialise as well, as seen in Figure H7.

At the end of the 4.5km walk, despite it being the end, everyone hung around to chit chat and play with the other dogs (Figure H9). Residents and passersby who were not pet-owners also stopped by to say hi and interact, which really showed the potential of creating a strong community through the dogs (Figure H8).

An informal interview with the organisers of the event was also done to understand more about their motivation for organising such an event.



Figure H5. Attendees of the Dog Walk



Figure H6. Segregation of groups



Figure H7. More butt sniffing



Figure H8. Interactions between pet owners and non-pet owners



Figure H9. People hanging around after the walk



Figure H10. Map of interactions between owners throughout the Dog Walk

It was mentioned that this walk first started in January 2018, when the couple spontaneously decided to ask neighbours living around them if they wanted to walk their dogs together. The turn out was only 3 people, which was quite disappointing. But the event grew through the months with increasing number of participants. This dog-walking event now happens at the end of each month, at different parts in Singapore such as Bishan Park, East

Coast Park and Coney Island. I was also told that there were participants who were non-dog owners too who attended to just hang out with the other dogs.

Through this interview, it further proved the potential of strangers interacting and making friends through their dogs, perhaps through these social dog events.

Observations gathered during the walk also pointed to potential improvements that could be installed to enhance their experience using this space with their dogs.

As the walk was a total of 4.5km, rest stops were essential to allow for both the human and the dogs to rest and drink up. These stops happened either under overhead bridges under the expressways or under pavilions along the park connector. These rest stops are circled in dotted lines in the map in Figure H1. During these rest stops, people would pull out separate water bottles, one for their dog (Figure H2) and one for themselves. This was quite troublesome as it meant that the owners had to be carrying two bottles of water which could be heavy and at the same time troublesome to walk with. On top of that, there were no water dispensers found along the way.

At the same time, it was also noticed that along this 2km park connector, there were completely no rubbish bins. Which meant that if their dogs did poop, they had to bag it up and carry it all the way back to the area near the HDBs before they could throw (Figure H3). Used poop bags were also found on the ground as litter (Figure H4), which poses a hygiene concern.

Therefore, with these concerns, they can be consolidated and contribute to the final proposal of this project.



Figure H2. Portable water bottles for dogs



Figure H3. People holding on to used poop bags



Figure H4. Used poop bag found on the floor

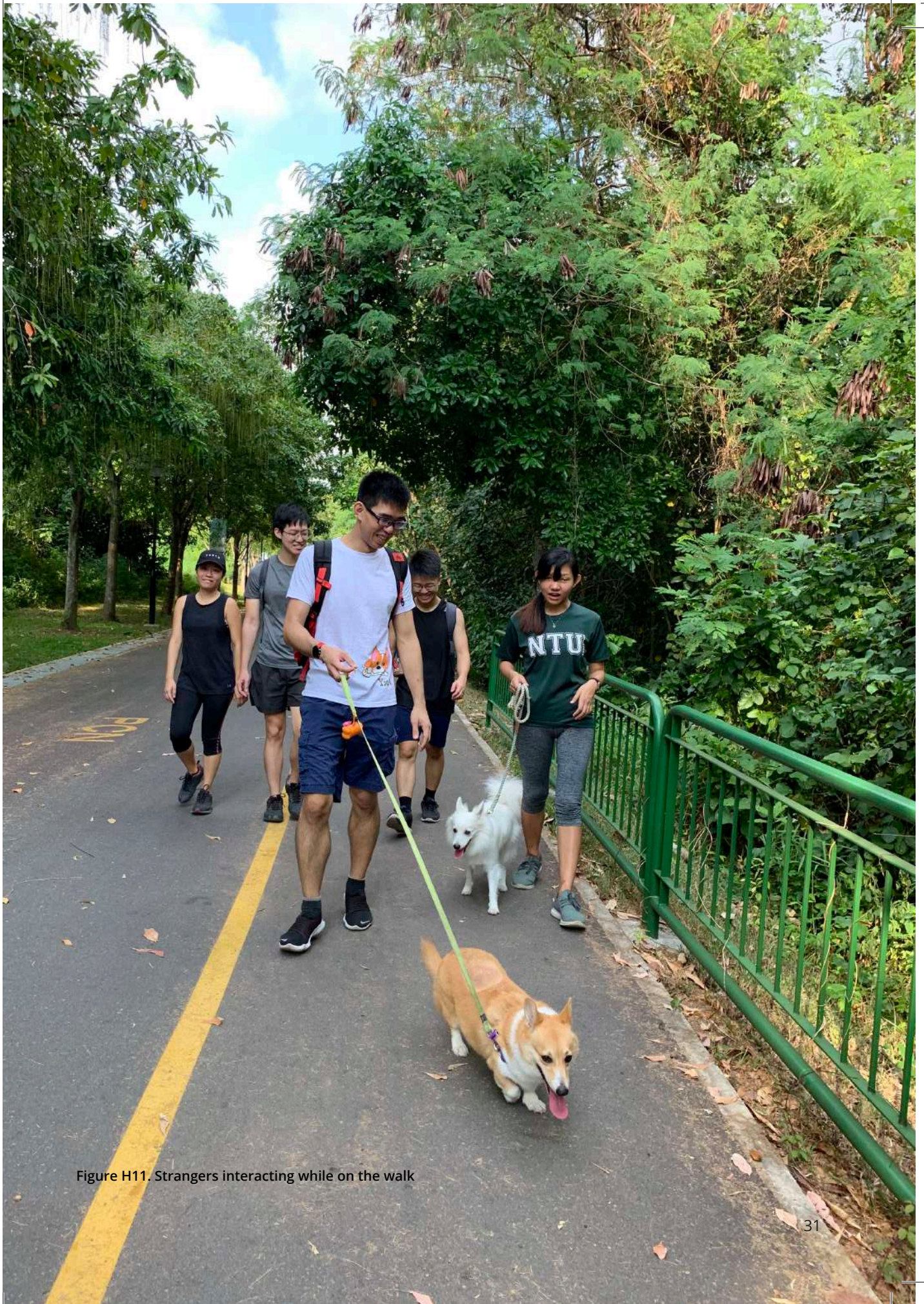


Figure H11. Strangers interacting while on the walk

PROPOSED INTERVENTION

From the research that had been done through the five methodologies applied, specifically from the online research and the interviews, it can be concluded that the general attitude towards the dog community is positive and that the interest towards bridging the gaps between the pet owners and non-pet owners is present. Hence, the proposed intervention can be put in place to enhance that experience and at the same time, also provide for the need of a free open area for dogs to run free and unleashed, within a boundary providing the safety to both the dogs and the residents of Punggol.

The proposed intervention comes in two parts - Doggo-Hooman Cooler and a dog run. They are both highly-location specific (Figure I).

The first proposal is a cooler station (Figure J1) that will be installed at typical rest stops- in shelters under the bridges and pavilions (Figure J2). The components of the cooler station was taken from the feedback of the survey and also from the observations and conversations during the Dog Walk. Location was based on the understanding of the need for rest stops during the Dog Walk as well.

As for the second proposal, a dog run (Figure K2) is proposed to be placed near Blk 662C Edgedale Park (Figure K1). This program was derived from the concerns understood from the interviews and also the suggestions from the survey. For the location-wise, it was concluded through observations and interviews that this location had high levels of dog activities most of the time and is very prime while walking their dogs (Figure K3).



Figure I. Site map with proposed intervention locations

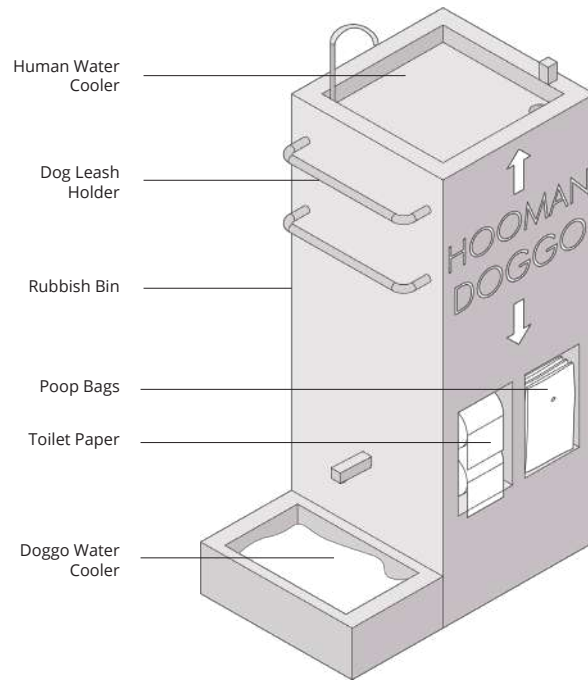


Figure J1. Proposed prototype for the Doggo-Hooman Cooler



Figure J2. Proposed locations for the Doggo-Hooman Cooler



Figure K1. Proposed location for Dog Run Park, Block 662C Egedale Park

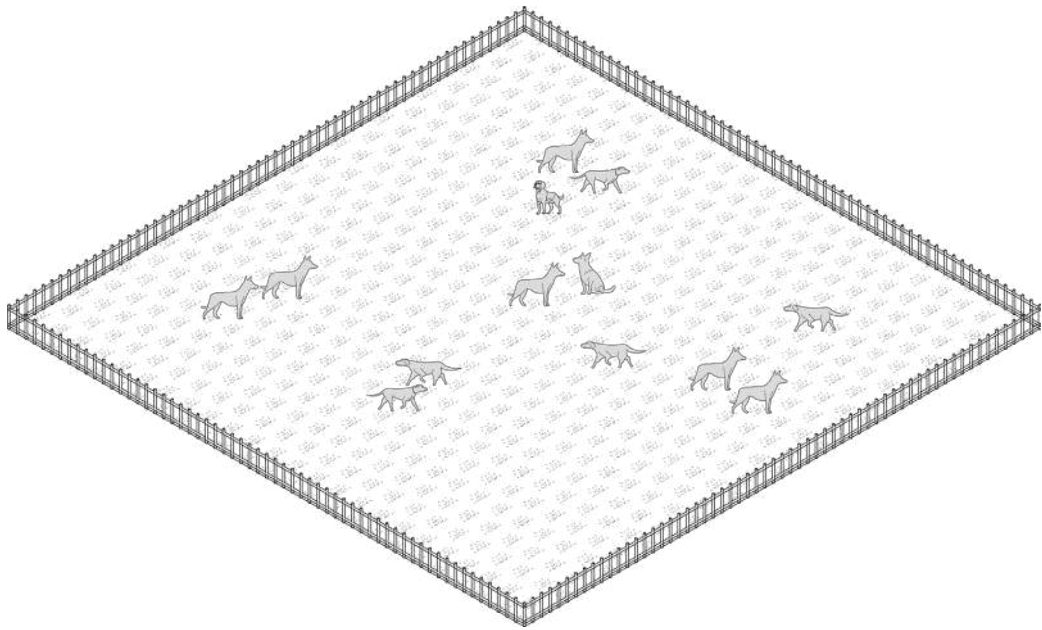


Figure K2. Proposed location for Dog Run Park, Block 662C Egedale Park



Figure K3. Gatherings at proposed dog run park location

CONCLUSION

As the saying goes, 'dogs are man's best friends'. The social impact that dogs can bring about to humans cannot be denied. The results and analyses from the various methodologies adopted have further proven the research hypothesis that pet dogs have great potential in bringing about greater degrees of social interactions in public spaces. This is greatly because of the fact that these furry creatures make great conversation starters, and in a way makes people more approachable and willing to engage socially.

However, there are many considerations to be taken into account when tapping onto these pets' potential, such as the differences in the dogs' personalities. For instance, when two dogs are unable to get along and play well together, they might end up in a confrontation, thereby resulting in a lack of interaction between their owners.

Hence, the design interventions and approaches have to be extremely sensitive to both the needs of owners and their dogs in order to create friendly environments for social interactions to occur.

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Community Spaces in Punggol

New Strategy for Communal Layout

by Tan Yuan Ling Rebecca, Zhang Bojun, Zhou Peizhang, and Zhu Wentao



ABSTRACT

Punggol is a developing housing estate in Singapore with many new and experimental architectural designs of communal spaces. Due to limitations in space, new living habits and behaviour, communal spaces in Punggol diverge greatly from the traditional void decks and parks of the past.

This project studies different forms of communal spaces in the vicinity of Oasis Terraces. Through a comparative study of these new communal spaces using social architecture analytical tools and methods such as trace and shadowing, the advantages and disadvantages of

these spaces can be derived.

Using the strategies derived from the comparative study, a grasshopper simulation of the optimal programmatic arrangement of communal facilities within a residential community space can be created. The results of the simulation will be applied onto the site of an existing community centre. By interviewing residents and users of this residents' committee, the feedback regarding such a new design can be garnered and lend insight to the usefulness of the strategies and simulation.

Keyword: Community, Programmes, Simulation, Strategy

Punggol is a new residential town in the north of Singapore. Under the Punggol-21 plan unveiled in 1996 (Punggol. (n.d.). Singapore. Retrieved August 15, 2019, from <http://www.punggol.com/>), the area was designed as a town that serves as a concept for a new model of housing. In 2007, the Punggol-21plus plan was released, introducing Punggol as a new waterfront town with a 4.2km-long waterway that cuts through the land and offers the opportunity to live in proximity to parks and nature.

Objectives of Research

Punggol contains many new and experimental designs of community spaces. In lieu with government initiatives, shared spaces and facilities are increasingly prioritised as a crucial component of residential housing. However, there is a lack of understanding of the effectiveness of these planned communal spaces. Therefore, this project aims to examine the effectiveness of those communal spaces using different research methodologies. The Oasis area is chosen to be the site of this project because it contains all four types of new communal spaces implemented in Punggol. Through an investigation of all these communal spaces, our group will use these findings to come up with a framework for the arrangement of communal spaces. This framework will be applied onto the existing site of a community centre. By interviewing residents and users of this community centre, feedback regarding this new design can be garnered and hence lead to various insights.

Significance of Research

This research is important to empirically

understand the effectiveness of new communal spaces in Punggol. In addition, the strategies and grasshopper simulation can act as a pivotal role to lend insight to the design of future community spaces in Singapore.

METHODOLOGY

Types of Communal Spaces

Before using various research methods on different communal spaces, the communal spaces are categorised into four main categories, open plaza, playground, roof garden and outdoor resting network (Table 1).

Types of communal space	Description
Roof Garden	The roof garden located above Oasis Terrace is a new typology of communal space characterised by ramps and a sequence of communal programmes such as fitness corners and playgrounds.
Open Plaza	The open plaza is located on the ground level of Oasis Terrace and is a multi-purpose space that is often used for ad-hoc events
Garden within Residential Estate	The garden is located within a residential estate and faces the Punggol river. This typology of communal space is the closest to the traditional parks in older housing estates. This garden contains playgrounds and fitness corners.
Outdoor Resting Network	The resting network refers to the sequence of rest stops along the Punggol Waterway and the circulation paths that links these rest stops together.

Table 1. Types of communal spaces

To understand these new communal spaces and its effectiveness, the following methodologies are used:

1. Site Observations

Observe, record and compare the population demographics of the people utilising the different communal spaces and the manner of usage.

2. Shadowing

Tracing the movement of the people within and to these communal spaces

3. Interview

To prepare a set of questionnaires to find out resident's opinions about the effectiveness of these communal spaces.

Population Demographics

The research on user demographic is done through site observation. The demographic can be generally categorised into 4 groups, kids, young people, adults and elderly. This site observation was on 4 different time slots (Weekday daytime (3-4pm)(Refer to Fig.1), weekday night-time (6-8pm) (Refer to Fig.2) and Weekend daytime (3-4pm) (Refer to Fig.3), weekend night-time (6-8pm) (Refer to Fig.4)

As shown, the open plaza has the highest usage, followed by the outdoor resting network, roof garden and the garden within residential estate. The main user of all these communal spaces are adults, followed by kids and elderly. In addition, people mainly use these spaces at the daytime, there is a significant decrease in the number of people observed during the night-time.

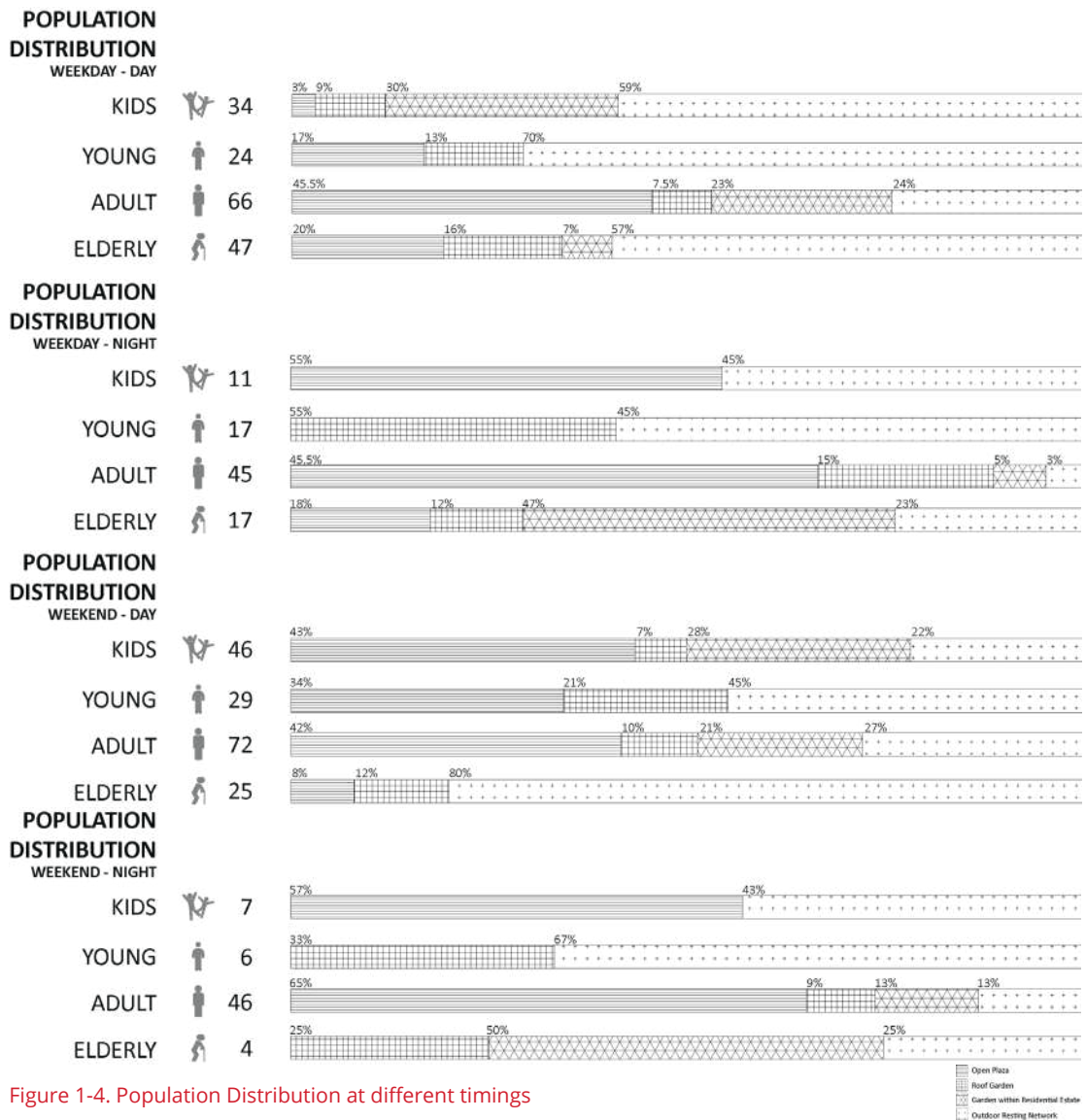


Figure 1-4. Population Distribution at different timings

Site Observations

Through observing and photographing the amenities and facilities available in the different community spaces (Gehl & Svarre, 2013), an understanding of the usage and behaviours of people within the different community spaces can be derived.

1. Elevated Gardens



This site has the highest number of school children, likely due to the abundance of communal spaces with an appropriate level of privacy. Many students would utilise these spaces after school. In the afternoon and evening, nearby residents would utilise the facilities such as fitness corners.

2. Open Plaza



This site has the highest number of residents due to its proximity to the Oasis LRT Station. Even with the absence of events, residents would still pass by this area and utilise the benches located at the side of this plaza especially the elderly.

3. Garden within Residential Estate

This site has the lowest population density among the sites observed. However, young children accompanied by their parents would often play in

the playgrounds in the afternoons and evenings.



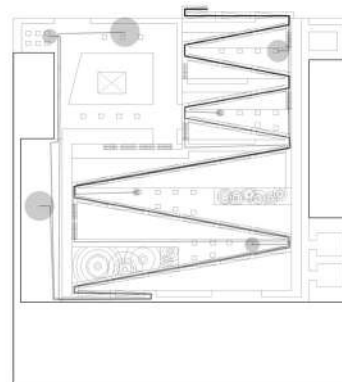
4. Outdoor Resting Network



The outdoor rest areas are observed to be less utilised when near large community spaces such as parks or plazas. This can be attributed to the fact that people would tend to move to these larger community spaces with more programmes and facilities rather than utilise the rest stops nearby.

Shadowing

By tracing and studying the movement of people within the individual community spaces and throughout the area, the main circulation paths and human traffic hotspots can be derived.



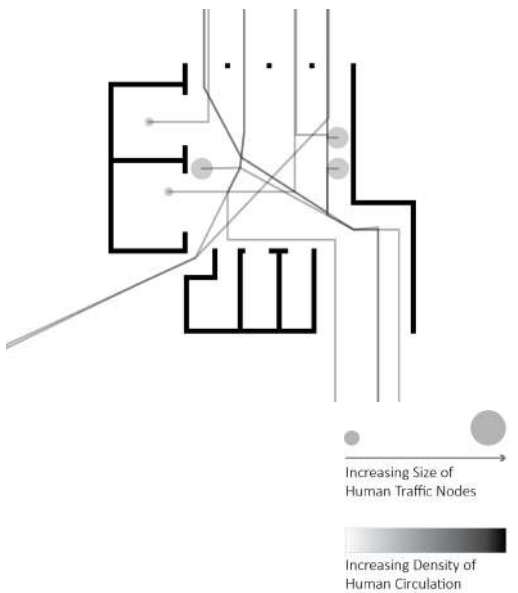
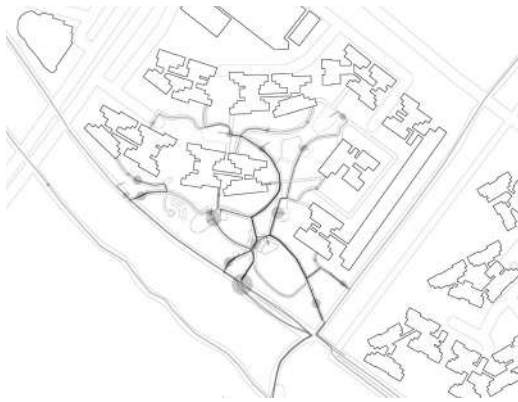
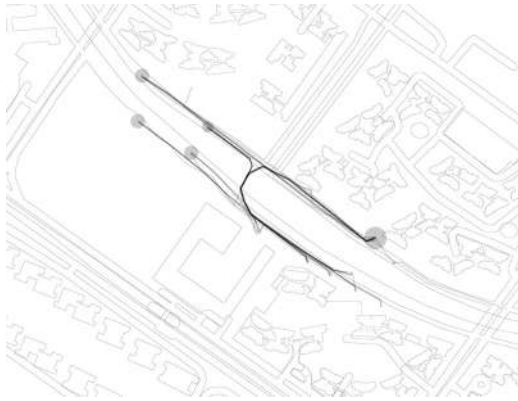


Figure 5-8. Path trace at four different sites (Roof garden, Outdoor resting network, Garden within Residential Estate and Open Plaza)

Interview

Interviews were conducted to gather feedback from the residents about the new proposed design strategy.

Findings / Interesting Observation

Based on all the observation and interviews, here are our understandings and suggestion of these communal spaces:

1. *Open Spaces should be positioned nearer to the entrances of the community centre*
2. *Open space should be located at the edge*
3. *Green spaces should be close to other programmes*
4. *Minimum one playground and one fitness corner because these two usually come together*
5. *Percentage of other programmes - dependent on the needs of the cc that we are choosing*
6. *Rest stops should not be beside the programmes because they will likely be underutilised.*

Types of communal space	Description
Roof Garden	Although these green spaces fulfil its function of bringing nature into residential estates, it can be observed that programmes such as playgrounds and fitness corners should be accompanied with the greenery to increase its usage. In addition, many of these green spaces are simply located along the circulation paths within the residential estate with little conscious design for the interaction users and environment. Spaces can be further designed to allow for and promote such interaction.
Open Plaza	Open plaza is very common in both the residential estates and shopping malls. However, the utilisation of the open plaza is often heavily reliant on the nearby facilities and programs. The high utilisation rate of the plaza is mainly contributed by the users walking pass this plaza, they will not stay in this plaza for long except for people who want to rest on those benches provided within the plaza. Hence, open plaza can only be located along main circulation and try to incorporate more programmes in this plaza in order to achieve a high utilisation rate.
Garden within Residential Estate	Activity areas tend to be more activated when they are accompanied by complementing programmes. Furthermore, a combination of activity areas catering to different age groups can connect different age groups and promote intergenerational interaction.
Outdoor Resting Network	The utilisation of the resting networking is relatively low compared to other communal spaces. People will tend to use communal spaces attached with other programs instead of pure seating spaces. People tend to choose seating areas based on the level of comfort and conveniences instead of the distance. Thus, the best way to arrange seating area is to locate seats based on the population density and flow in the given area.

Figure 9. Observation at different sites

RESULTS AND DISCUSSION

Strategies and simulations to design future spaces

Based on the research and observation of different types of communal spaces in Punggol, a python programmed agent-based computational model is developed to derive the best programmatic adjacency of different types of communal spaces. This system is then transposed to an existing resident's committee because it is one of the most common programmed communal space that exists within public housing estates.

The computational model uses a genetic algorithm to run all the possible

combinations of programmatic adjacencies and ranks these combinations according to a score system. This score system is defined by five criteria:

1. *Compliance of the minimum percentage of space for fixed programmes*
2. *Green space in proximity to other forms of communal space*
3. *A minimum number of two activity spaces*
4. *Open space unblocked and located at the perimeter*
5. *Open space close to the entrance*

Each criterion holds a score of 1 mark and the maximum score of the iterations is 5 marks. From the several iterations with the maximum score, the best one is chosen according to the context.

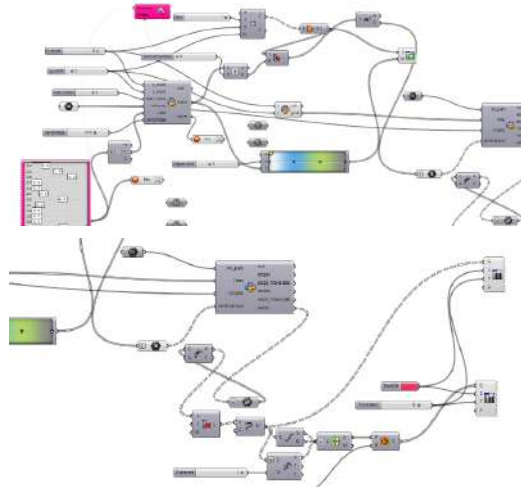


Figure 10. Simulation Scripts

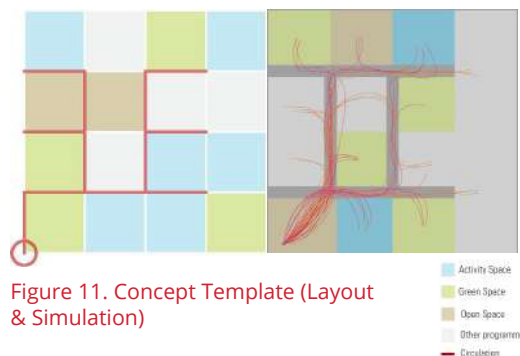


Figure 11. Concept Template (Layout & Simulation)

The final suggested conceptual diagram is chosen based on its score against the matrix set and its suitability to the context. This conceptual diagram (Refer to Fig.11) is meant to be a suggestion of how a resident committee can be designed in future. The individual squares only specify the type of communal space it can be, and the facilities or programmes within each given space can be changed according to the needs of the community. (Jonathan Hill, 2001)

The following are some examples of facilities and programmes that can be used in the different communal spaces:

1. Green Spaces: urban farms, sensory garden, flower garden, hydroponic farm
2. Open Plaza: amphitheatre, stage, open dance studio, pet park, event space
3. Garden within residential estate: playground, fitness corner, gym, yoga room
4. Outdoor Resting Network: benches, discussion area, chess table, mini karaoke room

Choice of Existing Community Centre

Our group chose the Punggol Vista Community Centre (CC) as our case study to adapt our simulation model. Punggol Vista CC is one of the three community centres in Punggol. It is the nearest CC to our targeted site (The Oasis Terrace). Also, this CC is located under a multi-storey carpark which is similar to the context of residential committee in general.

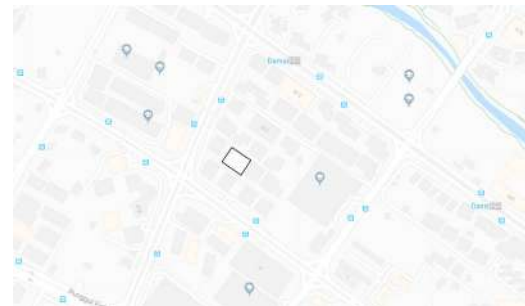


Figure 12. Location of Punggol Vista Community Centre



Figure 13. Entrance of Punggol Vista Community Centre

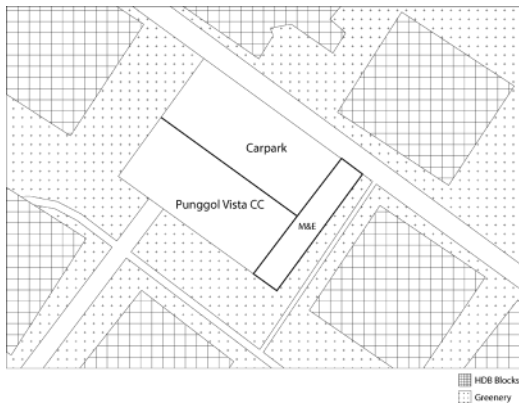


Figure 14. Entrance of Punggol Vista Community Centre

Apply the model in the CC

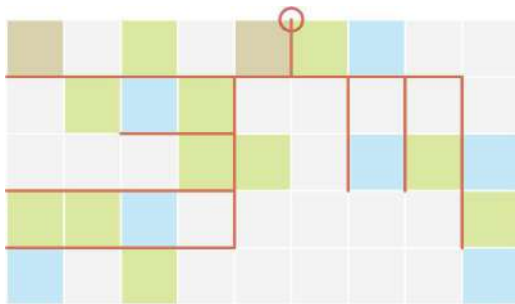


Figure 15. Highest Score Iteration 1

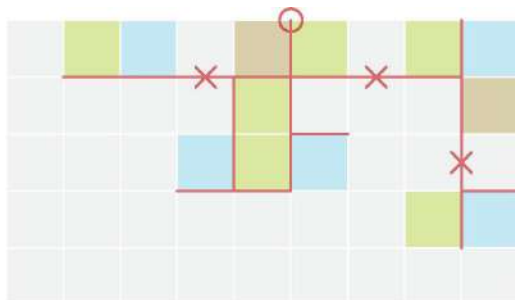


Figure 16. Highest Score Iteration 2

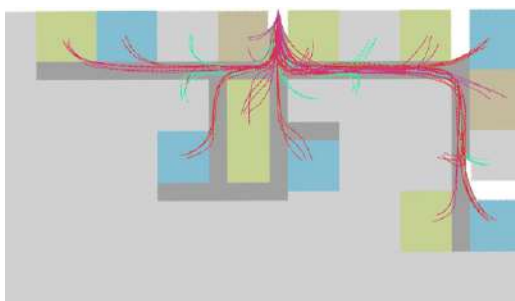


Figure 17. Circulation Simulation

According to the results of the circulation, there are two iterations (Refer to Fig. 15 and Fig.16) that scored full-marks according to the score matrix. However, after analysing the site context, we found that there was a need for a concentrated and defined area of non-communal area due to the required pre-school programme in the community centre.

Using an agent-based simulation (Fig.17), it was found that the rest stops should be located at the areas marked by a cross for proximity to main circulation paths while ensuring that it is still well-utilised.

Interview

To analyse and gauge if the new strategy to design communal spaces is in line with the needs of the community using the space, the group interviewed residents to understand their opinions on this new layout strategy.

Some of the interview questions that were asked includes:

1. *Is there a suitable number of communal spaces in the community centre at the present?*
2. *Is there a suitable number of communal spaces in this new plan of a community centre?*
3. *Will you be more inclined to visit this resident's committee with this new layout?*
4. *What types of facilities would you like in these categories of communal space?*

The comments are generally positive. The surveyed residents commented that it is an interesting idea to strategise and formalise the communal spaces in community areas. Residents who often frequented the current community centres felt that the new layout would encourage more people to utilise the CC.

Resident's suggested other facilities that they would enjoy in these different categories of communal spaces:

Green Space: Herb garden

Activity Space: Muai Thai gym,

Open Space: Kitchen for cooking lessons, cafe

Resting Network: Table Football, Billiards

CONCLUSION

This research provides a clearer understanding about the effectiveness of the new communal spaces in Punggol. The proposed layout strategy gives a new direction for future CC and RC planning. This new strategy provides suggestions to the programmatic arrangements of communal spaces and takes into consideration resident's preferences and opinions. It is hoped that this can increase the utilisation of community spaces and encourage more public life.

However, there are still limitations to the proposed strategy. Data-collection was done through observation and presents some inaccuracy. In addition, the simulation was done with agent-based modelling with random movement and cannot fully account for real-life behavioural patterns. Yet, the research and simulations could be a good start to understanding and modelling people's needs and desires to create a more vibrant and meaningful community spaces.

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Are Common Spaces Still Effective?

Investigating Effectiveness of Common Spaces within Toa Payoh

by Chen Rui, Fang Zixin, and Low Si Hong



Figure 1. Residents using the common space of their neighbourhood

ABSTRACT

Singapore is constantly evolving, and the needs of our stakeholders within each neighbourhood are changing as well. Nevertheless, there seems to be slow in progress on providing newer types of common spaces in coping to the different needs of our stakeholders today.

Thus, the goal is to study whether these common spaces are still relevant and effective, and to analyse the possible factors that contribute to the effectiveness of such common spaces.

Our research will be focusing on the neighbourhoods of Toa Payoh. Despite being one of the more mature estates, there is still a healthy balance of new and old life within this area.

Keyword: Effectiveness, Common Spaces, Neighbourhood (no more than 5 words.)

METHODOLOGY

DEFINING OUR PARAMETERS

In this research, the common spaces include both spaces with defined and undefined purposes. Common space with defined purposes include fitness corner, playground, benches, while common spaces with undefined purposes void deck, pavilion, drop-off points, etc.

Then, the effectiveness of a common space is factorised into two measurements. Firstly, the quantity of people approaching and using the common space, and the quality of their experience at such spaces, which is defined by the amount of time spent altogether.

FACTORS THAT AFFECT THE EFFECTIVENESS OF COMMON SPACES

It is identified that there are two factors that can affect the effectiveness of common spaces, which are place and people.

Place is said to be defined as the placement of programmes, from a macro to micro scale. At the most macro scale, we find at the location of the neighbourhood with respect to the whole Toa Payoh town, such as being the nearest to Toa Payoh Centre, or SAFRA, etc. Next, at the community scale, we identified at the prominent amenities that act as points of attractor, such as supermarket, food court, bus stop, etc. Then, at the neighbourhood scale, we observe the placement and typology of HDB flats, sheltered walkways, roads, etc. Lastly, at the most micro scale, which is the common spaces scale in this research, we find the placement

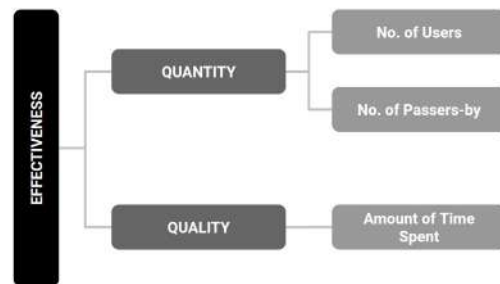


Figure 2. Measurements on effectiveness of common space

and typology of our amenities. Thus, placement of programmes will result in the human flow formed naturally.

On the other hand, people refers to the demographics of residents within the neighbourhood. Information that can be gathered are the majority age groups and their preferred common spaces. Likewise, these will also result in how the human circulation flow is paved.

Thus, the place and the people of each site can create a human circulation flow. And these three factors, directly or indirectly, can possibly affect the effectiveness of common spaces.

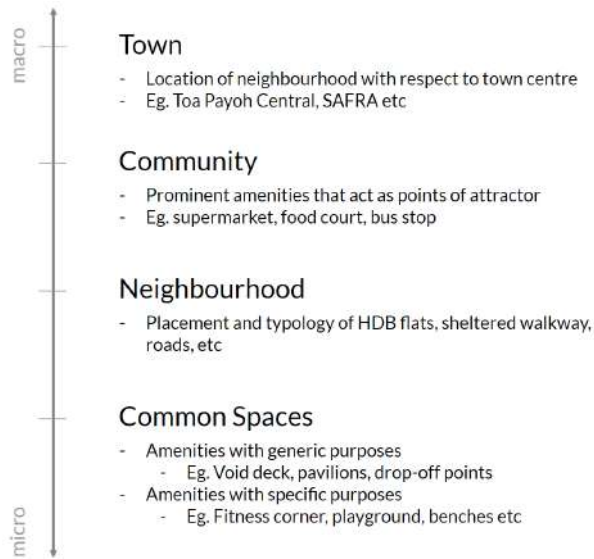


Figure 3. Breakdown of placement of programmes from macro to micro scale

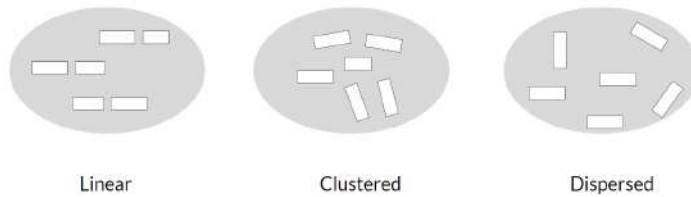


Figure 4. Types of HDB flats arrangement

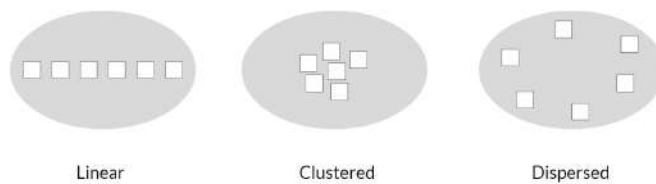


Figure 5. Types of common spaces arrangement

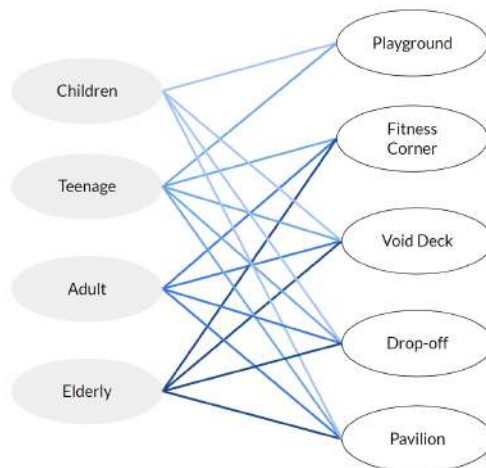


Figure 6. Breakdown of people in the age group and their preferred common space

SITE OBSERVATION AND ANALYSIS

The three sites we are focusing at are the neighbourhoods of The Sapphire (Block 153), The Peak (Block 138B) and Block 120 neighbourhood.

In order to measure the effectiveness of the common spaces, we observed all three sites from 10am to 6pm on a Saturday. More information on the record of our observation can be seen in the Appendix. For this research, we choose to compare the observation when the effectiveness of the common spaces are the highest.

Illustrations of the three sites are shown below, along with the information of factors place and people, as mentioned in the previous chapter.



Figure 7. Location of three sites in Toa Payoh town

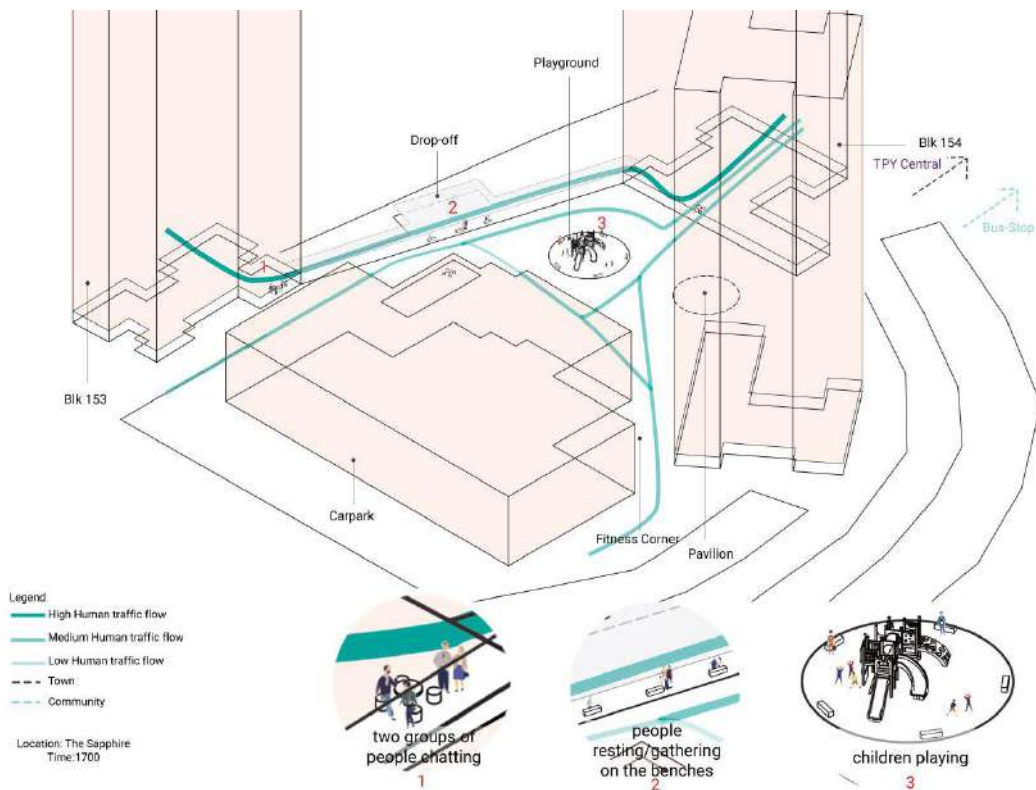


Figure 8. Illustration of neighbourhood The Sapphire

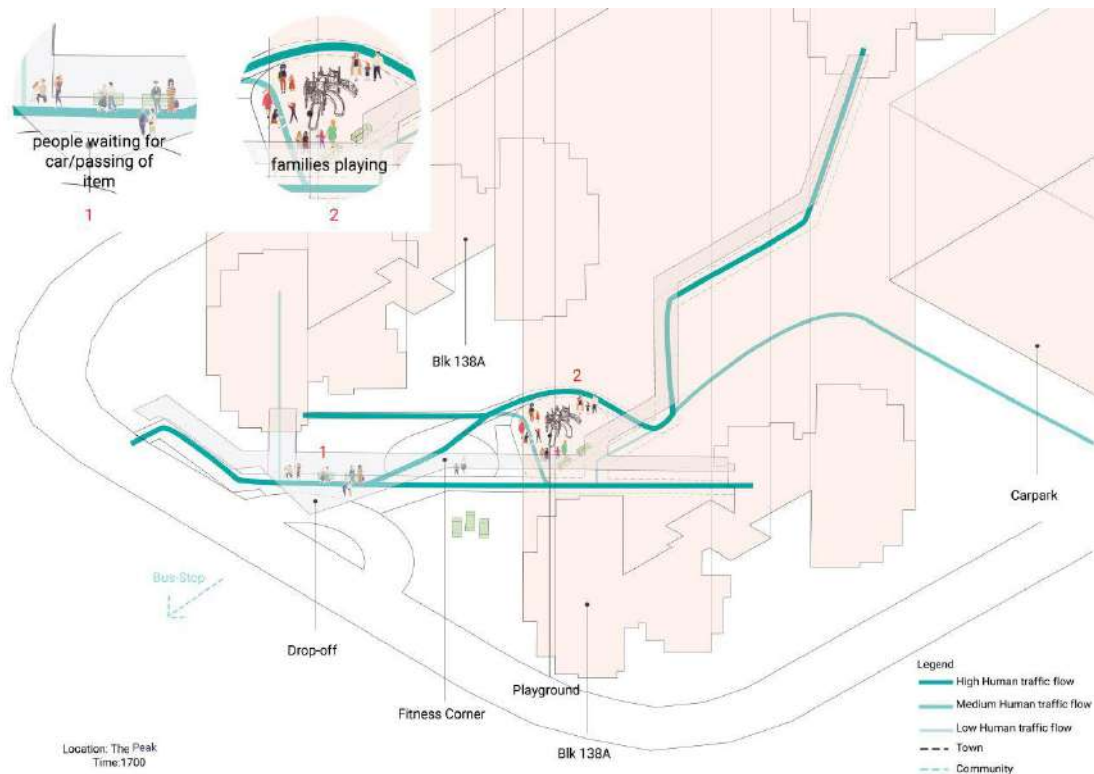


Figure 9. Illustration of neighbourhood The Peak

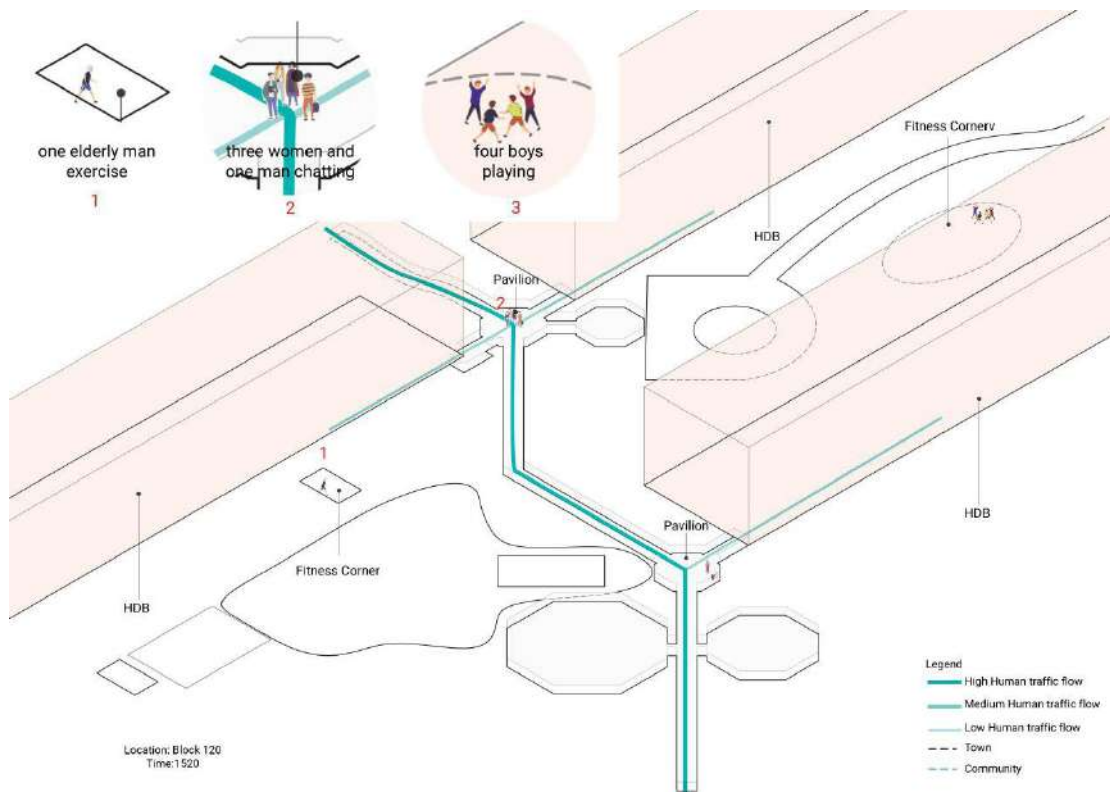


Figure 10. Illustration of neighbourhood Block 120

RESULTS AND DISCUSSION

After conducting a comparison between the three sites, a diagram of measurement on the effectiveness of each site is made, as shown in the next two pages.

Judging from the number and size of the dots of the diagram, we are able to infer that the common spaces of The Sapphire (Block 153) neighbourhood being the most effective, while common spaces being the least effective are found for the neighbourhood of Block 120.

Relating to the factors that contribute to the effectiveness of common spaces, here are some of the possible factors that lead to that at the neighbourhood scale, the building blocks are clustered around this area, allowing multiple common spaces available which can draw crowd from varied age groups. At the common spaces level, this area is equipped with many seatings and benches, encouraging people to stop and rest, increase the occupancy here and thus the effectiveness of common space of this area.

While on the other hand, for the neighbourhood of Block 120, when observing in terms of neighbourhood scale, the flats are linear and compacted, resulting in the amenities unable to gather as a central location. Next, from a common space scale, there are numerous amenities of the same function but small and scattered around the neighbourhood, which might lead to residents using other amenities but unable to be observed during the site survey. Thus, the effectiveness of common space of this neighbourhood is low.

Another possible reason could be that the sheltered pathway does not introduced opportunity to the common spaces nearby since the pathway seems to act like a walkway to bring people from one point to another using the shortest displacement. The lack of intersecting point between the sheltered walkway and common spaces discourages people to use these common spaces such as the playground and fitness corner.

Occupied Status

Location: **The Sapphire**
Time: **5pm Sat**

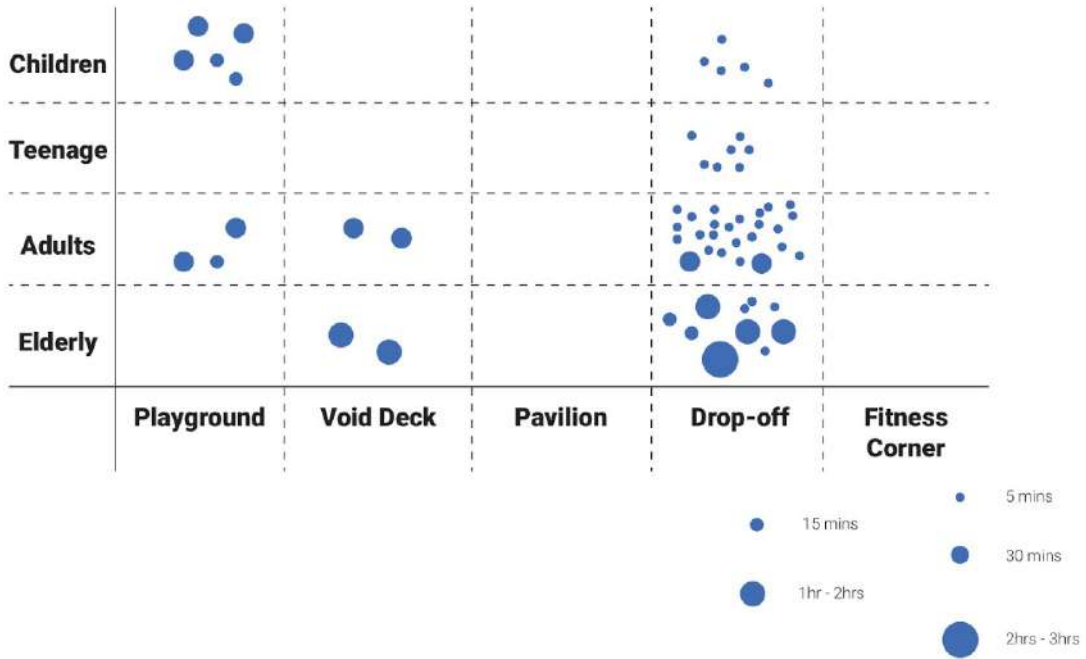


Figure 11. Distribution of residents of different age group in The Sapphire

Occupied Status

Location: **The Peak**
Time: **5pm Sat**

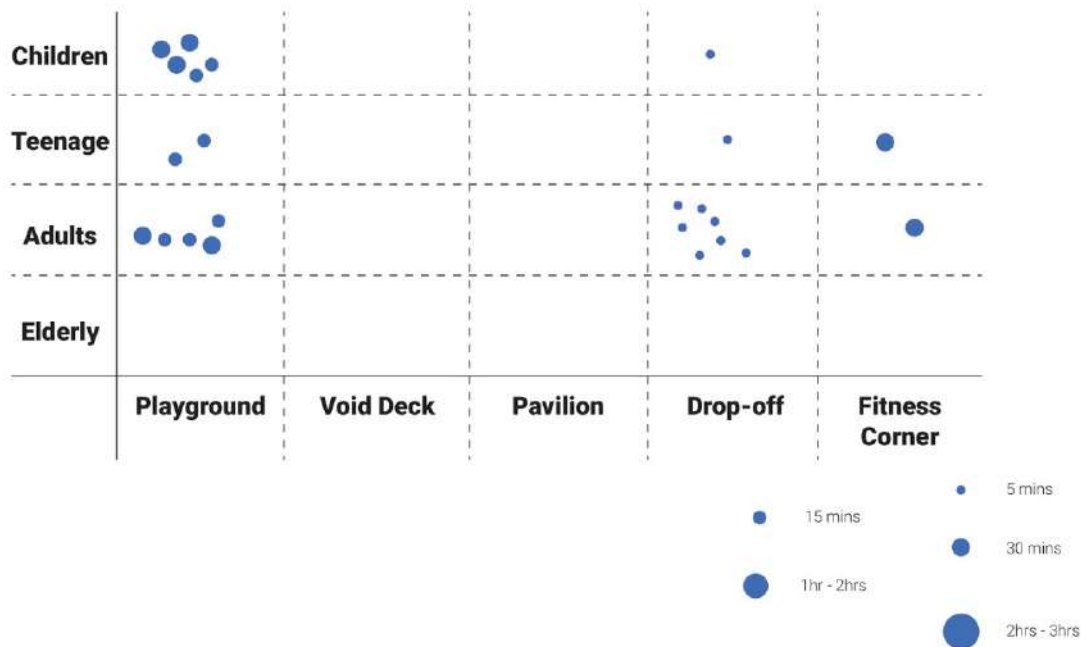


Figure 12. Distribution of residents of different age group in The Peak

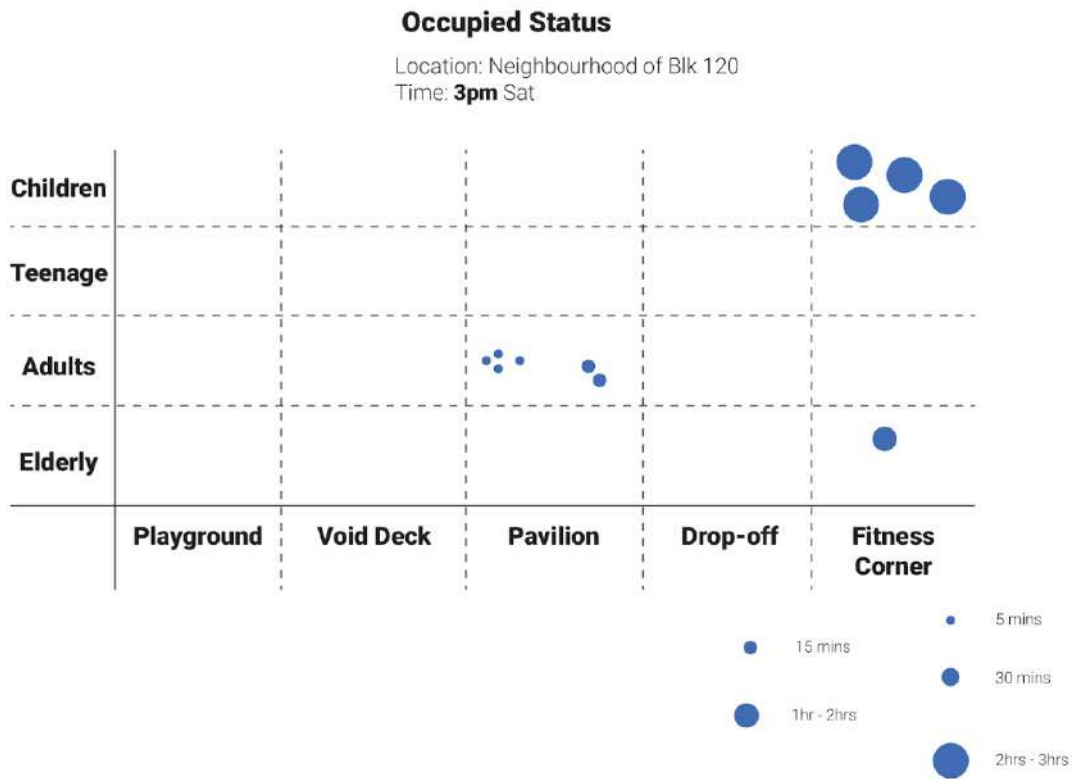


Figure 13. Distribution of residents of different age group in the neighbourhood of Blk 120

CONCLUSION

From our case studies, we realise that while at the community scale, being close to an attractor point (such as MRT exit) can result in higher volume of passers-by, the placement of programmes at the neighbourhood and common spaces scales have a stronger influence in the effectiveness of the common spaces.

Nevertheless, the research can be improved by further refining the definition of “effectiveness” of common spaces, not limiting to the number of people used and the duration spent, but observing whether residents are using space for the intended purpose in the first place.

In conclusion, this research is still useful in placement of programmes at the neighbourhood scale in the future planning.

INTERACTION

Action Breeds Interaction—Case Studies in Toa Payoh West

by Yi Xin, Ci Min, and Sally



ABSTRACT

In today's HDB (Housing Development Board) estates, the Kampung Spirit has started to fade and although several older flats in Toa Payoh have managed to retain some traces of it, most newer flats have almost completely lost this spirit of togetherness.

In an attempt to revitalise and bring back the lost Kampung Spirit in newer HDB blocks, a few older HDB blocks were studied. The key essence that led to interaction between residents was

identified to be the act of sharing. Be it a furniture or an experience, when residents take the initiative to share a piece of themselves with their fellow neighbours, it brought them closer together as they start to gain a better understanding of each other.

In this research, a social experiment was conducted to encourage residents living in newer HDB blocks to share something

Keyword: Kampung Spirit, Togetherness, Sharing, Interaction

of theirs with the community. This experiment aims to act as a precedent for future similar acts of sharing, hopefully, on an even bigger scale. The result of this experiment is one that presents us with potential for future similar works. We observed participation and evidence of action by the residents, and regardless of the extent, it exists as a stepping stone towards greater communal interactions.

In none of our previous individual research, we found the walkway between Blocks 123 and 124, lorong 1 Toa Payoh to be heavily populated with residents during the day. Besides occupying the furniture already installed on the site, residents in the area have also contributed their own furniture to transform the area into a bustling informal void deck space. Through asset mapping and interviews with residents who occupy the space, we learnt that because of their contribution to the space, they felt a greater sense of belonging and are more inclined to return to the site.

We identified this act of sharing as a catalyst for interaction between residents.

We attempted to test our hypothesis in the newer HDB block adjacent as we noticed the lack of community life there.

With the limitation of time, we were unable to fully understand the existing demographic of the newer block and hence adapt our research to their needs and preferences. Furthermore, the short time frame given to carry out our experiment made it harder to engage with the entire community. With these limitations, we geared our research more towards seeing the potential of the site

for the growth of informal interaction. Significant questions in research:

1. *How do we cultivate a culture of sharing?*
2. *How do we promote informal interactions in the community?*
3. *How do we impart the spirit of togetherness from the older generation to the young?*

METHODOLOGY

Research:

We started out by conducting Asset mapping of 3 different sites in Toa Payoh West which we have identified as being successful in encouraging informal interactions.

These mappings were done via observations of the site over a period of 12 hours, from 6am to 5pm on a Saturday. This time frame was identified as being the prime time where all 3 sites were the most populated between this time period.

Though we were not stationed at all 3 sites for the entire 12 hours duration, we went down more than once to do the observations and gathered data about the site through interviews with people in the area. With this, we were able to craft out a series of images that show a typical day at each site.

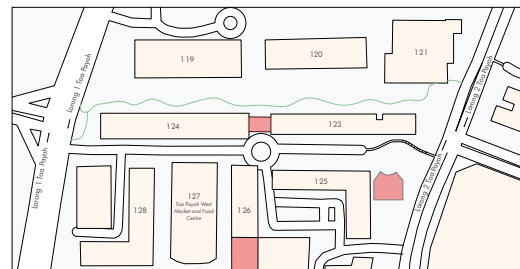


Figure 1: Site map

Walkway between Blocks 123 & 124



Figure 2: Site map



Figure 3: Site map



Figure 4: Site map

Pavilion next to Block 125



Figure 5: Site map



Figure 6: Site map



Figure 7: Site map

Void deck under Block 126



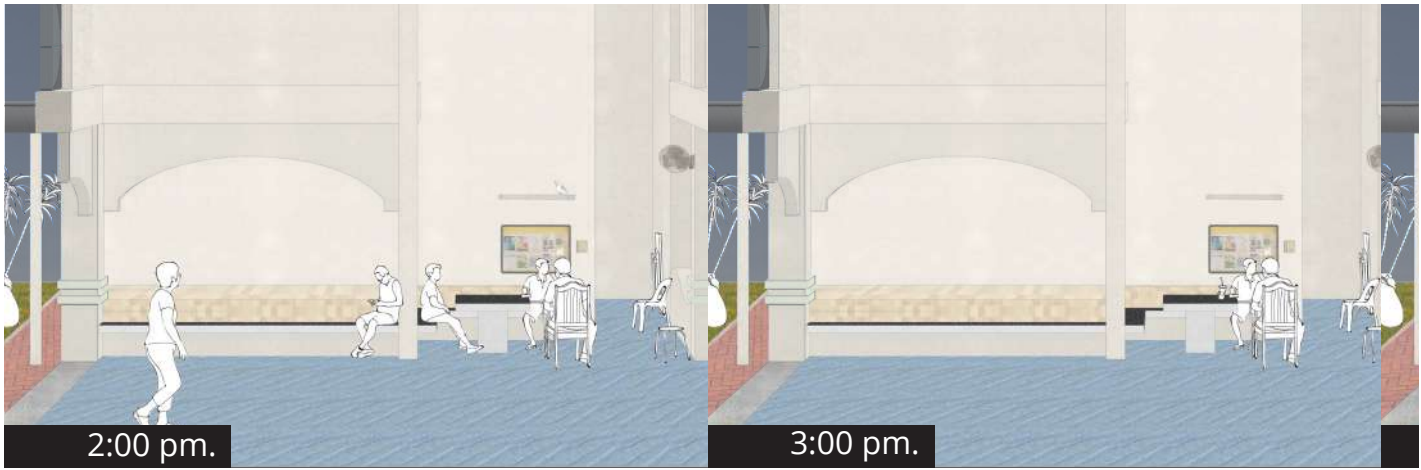
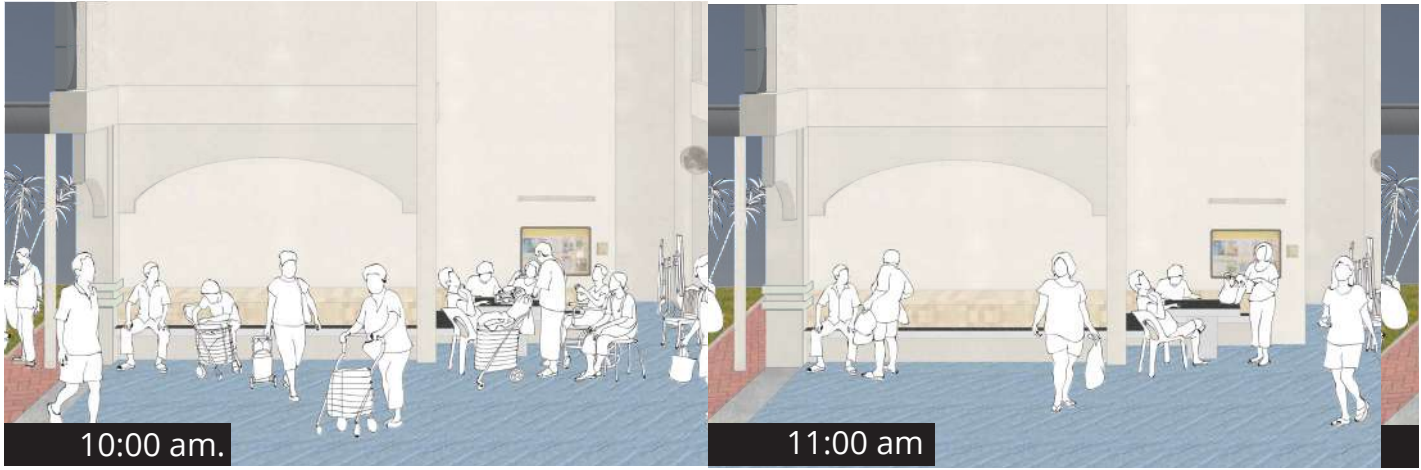
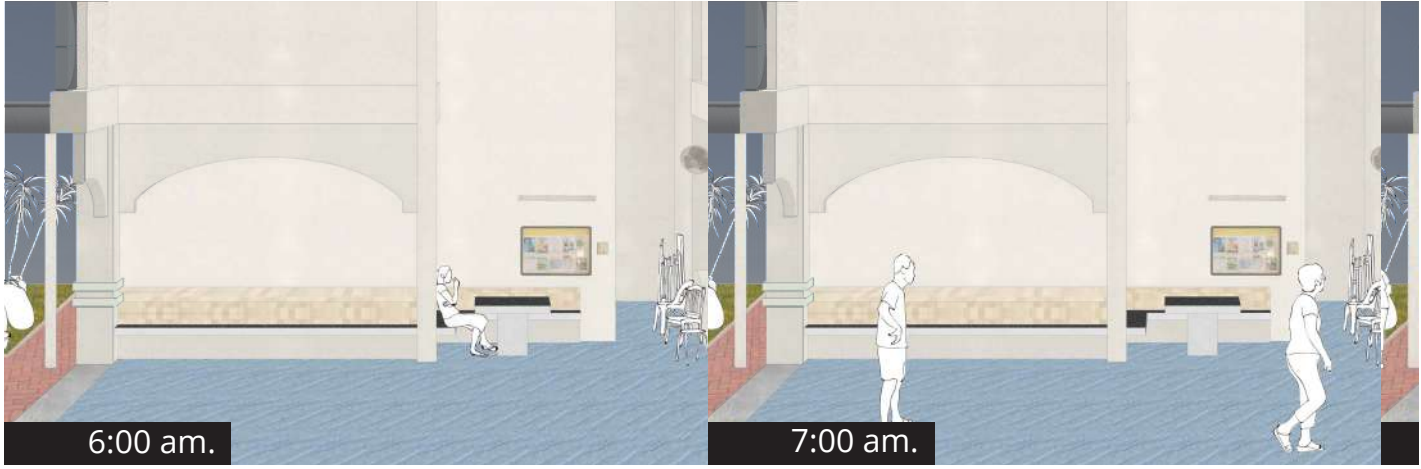
Figure 8: Site map



Figure 9: Site map



Figure 10: Site map

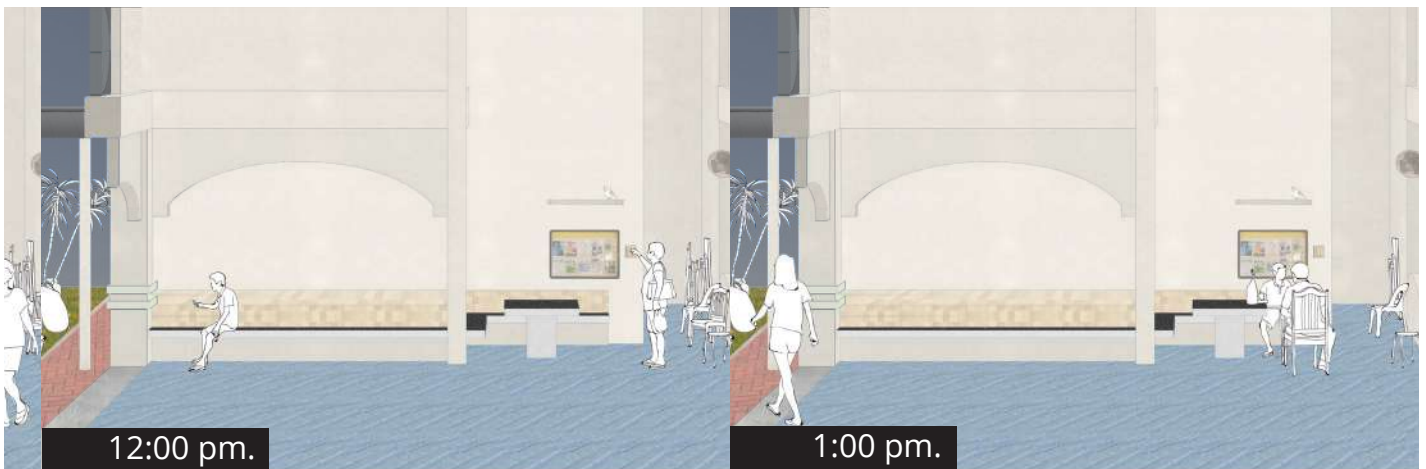


**Typical day along walkway
between Blocks 123 & 124**



8:00 am.

9:00 am.



12:00 pm.

1:00 pm.

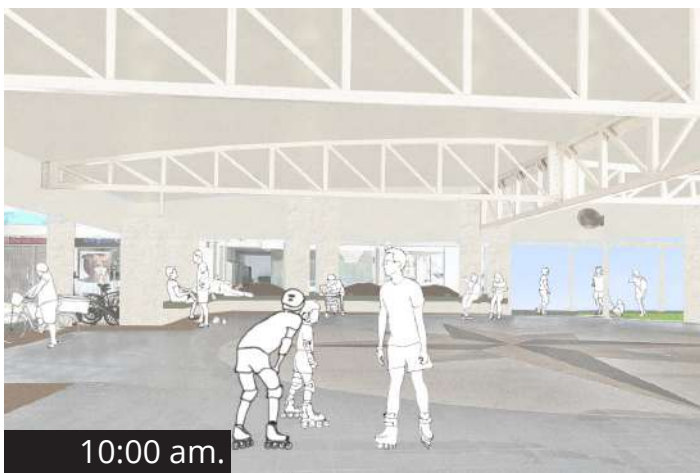


4:00 pm

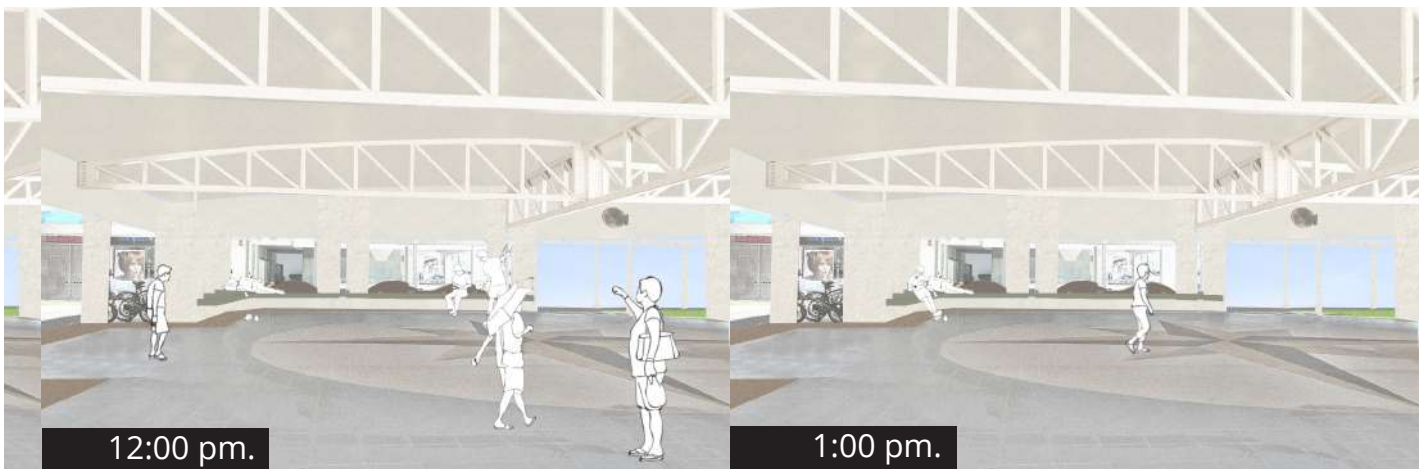
5:00 pm.

This transition space is extremely populated in the early mornings due to the comfort and convenience of the site. It's both a pick up point and also a void deck space where most will pass by on their way to the hawker centre. With fans and lights, residents are also more inclined to spend longer time in this area.

Residents make use of the space so much that they start to leave things behind such as their old furniture and chess sets. These things then get shared by the community who uses this space and transforms the whole atmosphere of the site into a lively and communal one.

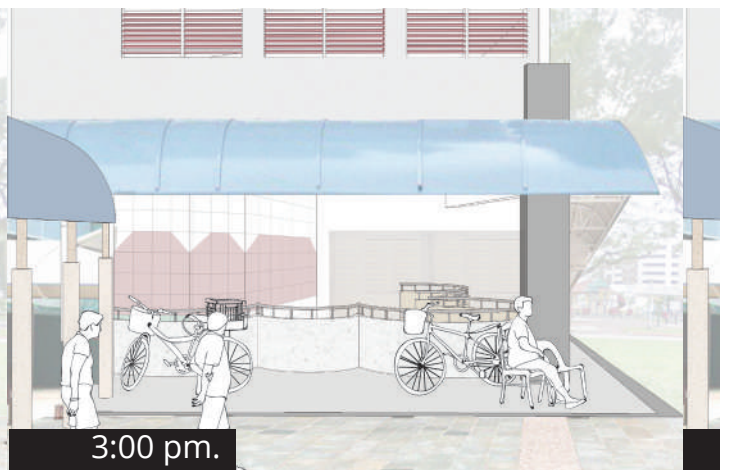
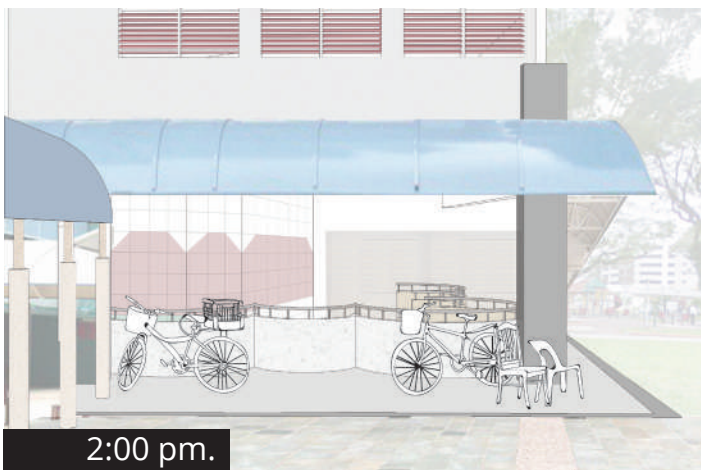
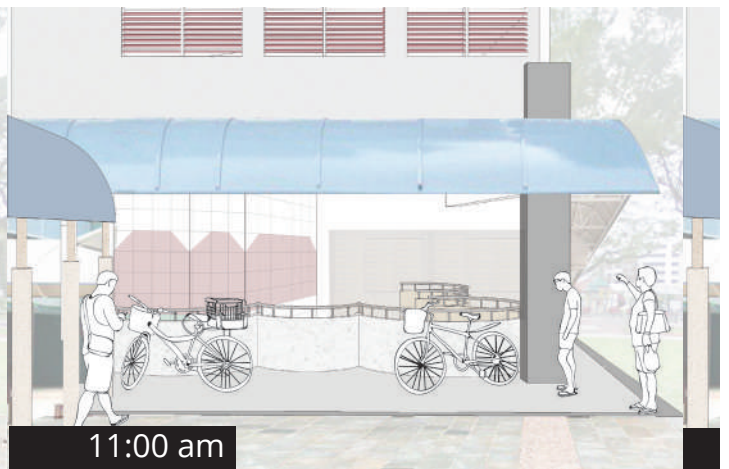
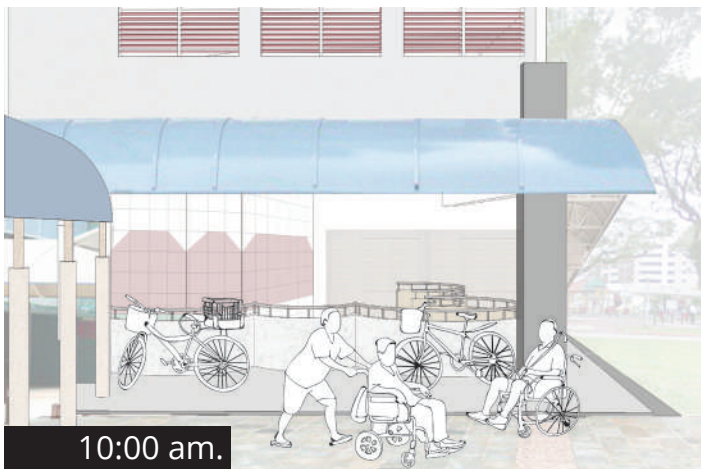
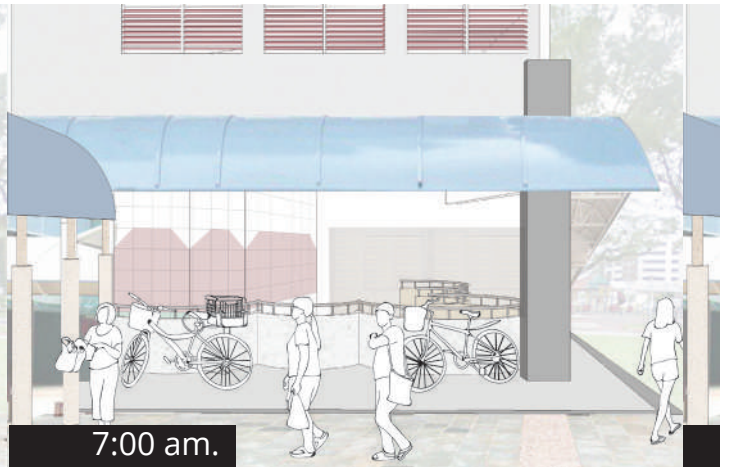
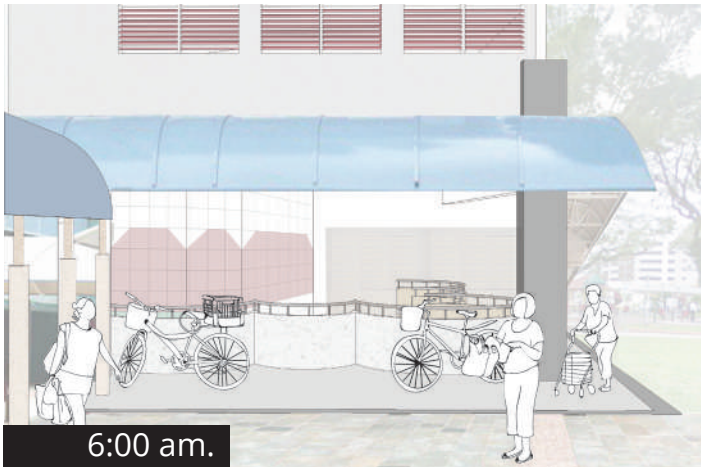


Typical day at the Pavilion next to Block 125

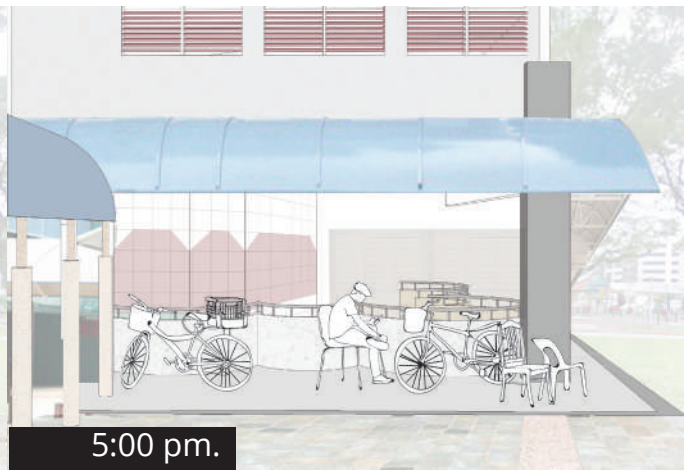
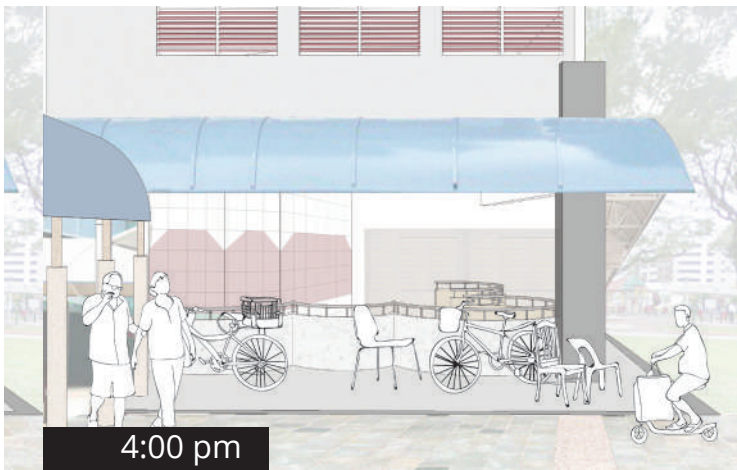
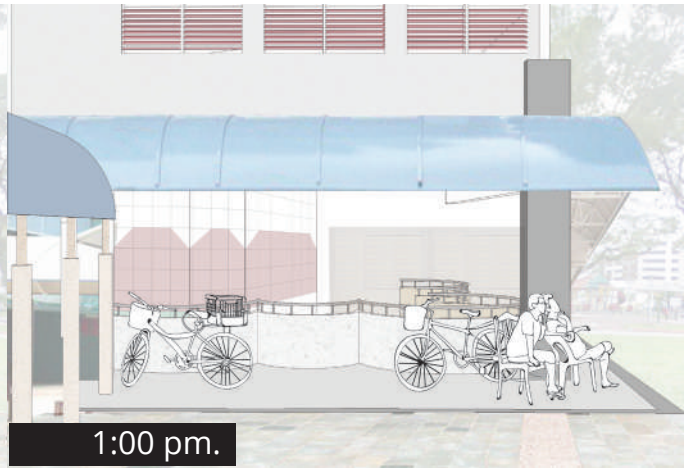
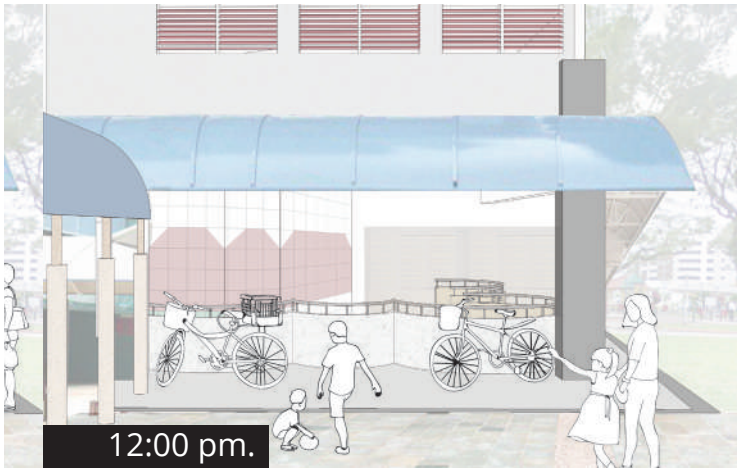
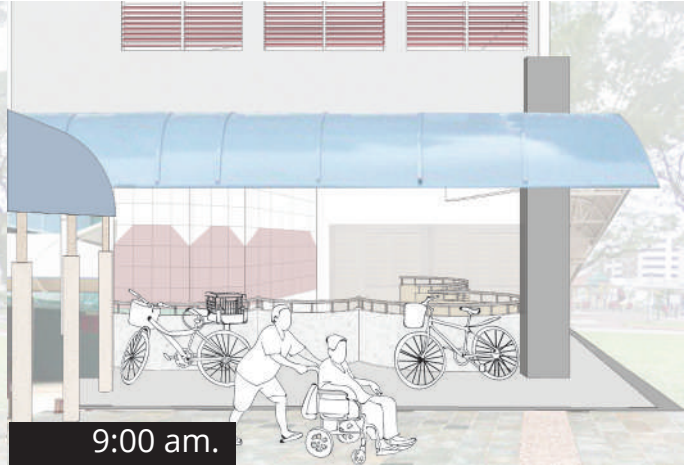
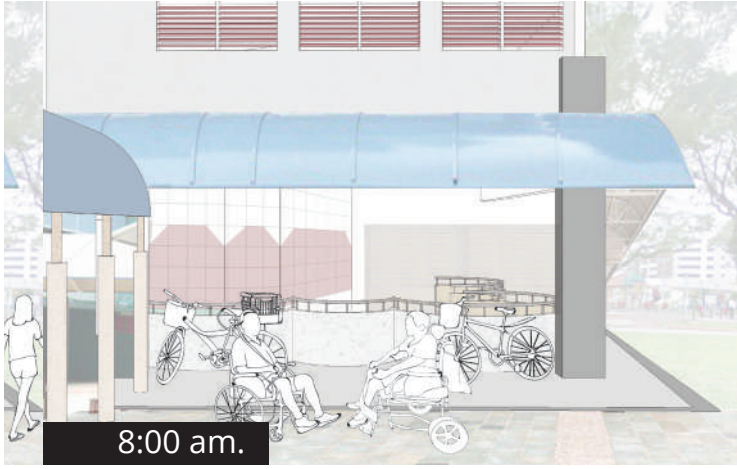


On a typical weekend afternoon, this pavilion at the edge of the HDB estate between the blocks and the main road remains mostly quiet. Unlike the other sites that were studied, being an intermediary or transition space between nodes and destinations, this pavilion was slightly different in function in the sense that it is a purposed void space.

Nonetheless, the pavilion exists as a large sheltered space with benches, thus continues to attract people who idle in the afternoon. Being situated beside the playground also allows the pavilion to act as a spill-over space, or extension of the playground for children to run wild. The shelter then acts as a good spot for parents and helpers to watch and wait.



Typical day at the void deck under Block 126



This void deck space is generally populated as it is located near to a hawker centre and rows of shops selling houseware and food. The area is also relatively breezy and has an unobstructed view of greenery. Even though fixed seating is provided, most people prefer seating on individual chairs that have been left around the area. A group

of handicapped elderly meet here everyday during the mornings and evenings as the area is spacious enough for them to rest. Elderly also populate the area throughout the day to talk and read newspapers, enjoying this area as an extension of their living space. This helps to liven up the void deck space.

Precedent Studies:

After the Asset mappings, we researched online for references and studies that have attempted to analyse and breakdown common characteristics that make up a good social space. We found 3 good references that guided us in the curation of our social experiment later on.

Political legitimacy and housing : Singapore's stakeholder society

In a study of the design of co-living apartments, an interesting method that has been employed by several projects is allowing for the immense involvement of potential residents in the design and establishment of these apartments. This way, the housing is not just curated by a third party but curated by the residents themselves. This could then act as the residents' filling up of an empty space, the natural budding of natural relationships.

Through many participatory workshop sessions in the designing of the apartment, it is believed that the residents will then interact and establish the essential ties that will go a longer way when they eventually become neighbours. The connection between co-living spaces and the almost forgotten kampungs lie in the desire for a spirit that ties the people together, to become the very representation of *Gemeinschaft* as coined by Ferdinand.

Public spaces in the village were informal, "they happened by the way rather than intentionally" and "paths thus doubled up as both circulation paths and social spaces, giving the lanes a social liveliness" (Chua, 1997).

Before I Die project

This is a global participatory public art project that reimagines our relationship with death and with one another. It encourages people to input their personal thoughts and aspirations onto a board put in public, and set up by the people. In this way, individuals can both share and receive others' deepest thoughts -- the act of sharing a piece of oneself -- and create a connection with these "strangers".



Figure 11: Before I die project



Figure 12: Global participatory public art

The Qualities of Informal Space: (Re) appropriation within the informal, interstitial spaces of the city

This study talks about the overlooking of informal spaces and their potential to be appropriated in comparison with "more homogenous, staged, controlled, 'official' public spaces".

Combining our learning points from both the mappings and precedent studies, we identified a few key points to take note of

in the crafting of a space to spark informal interactions.

1. *Active participation is crucial for a sense of belonging and ownership*
2. *A transition space is often in the path of people's daily commute, and an opportunity to disrupt their mundane routine is created*
3. *Informal spaces can be more effective in gathering the public than formal spaces*

With this, we applied our learnings in a social experiment.

Hypothesis:

The sharing of a personal item can spark informal interactions between residents.

Due to time limitations, we decided to encourage the sharing of smaller and disposable personal items that most people are likely to have on hand - sweets and tissue packets.

Location of activity:

We chose a commonly used transition space between Blocks 130A and 131.

The chosen site is in close proximity to a social node (Community Centre and Hawker Centre) thus human traffic in the site is always relatively high.



Figure 13: Overall site



Figure 14: Close up of ramp

Duration of activity:

10/8/19 / Saturday / 9.30am - 12.30pm
12/8/19 / Monday / 9.30am to 10:30am

These timings were chosen based on previous observations where we noticed higher patronage during this time of the day where many residents walk through the site to get to the traffic light where they cross the road to get to the food market opposite.

Apparatus and Procedures used:

Cork Boards, Signage with instructions, Sweets, Chocolates, Tissue Packets, Markers, Containers, Post-its, Stickers, Pins

Miscellaneous items such as pen knife and double-sided tape were also used in the setting up of our materials.



Figure 15: Apparatus used



9 - 9.30am
Setting up of materials at the pillar



9.30 - 10.30am
Observe from afar



9.30 - 10.30am
Hey participation!



9.30 - 10.30am
Patiently waiting



10.30am
Added a "Look" signage after noticing that most people pass by without glancing in the direction of our set-up



10.30 - 11.30 am
Continue to observe from afar



11.30am
Acted as a passer-by and put up a packet of tissue in front of a passing crowd in an attempt to prompt them to follow suit



11.47am
Added more sweets to make our board look more attractive

We left the boards to stand till Monday morning to see whether there will be greater reception after more people pass by and come to know about it.

Throughout our experiment, we carried out some minor improvisations when we realised that the results we were getting were not as desirable. These include the addition of the 'Look' signage, pretending to be a passerby and the addition of more

sweets onto the notice board.

We saw these as minor improvements made to our set-up that do not change our original design.

We recorded our results in a video collage. It covers the setting up of the notice boards, observations of passers-by interactions with the boards, interventions we made and the final outcome of our board.

An Instagram story was chosen as the style of presentation as the time limitation of each video (15 seconds), ease of editing and availability of timestamps helps us keep the videos fun and concise.

RESULTS AND DISCUSSION

Observations:

Saturday

1. Before the addition of the 'Look Here' signage, most people walked by the boards without noticing it. Most residents were on their phones while walking and hence do not pay much attention to their surroundings.

2. The addition of the signage brought greater attention to our boards and more people started to pause in their footsteps to look at what's on them.

3. The general observations we gathered was that while most people stopped to look at the boards, they did not physically interact with it.



Figure 17: Original set-up

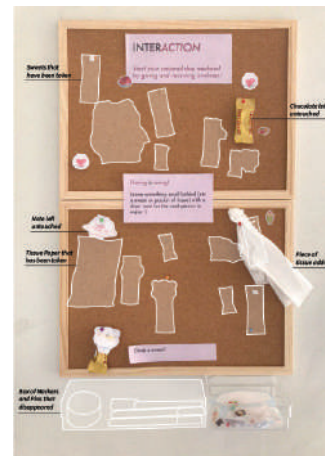


Figure 18: Final outcome

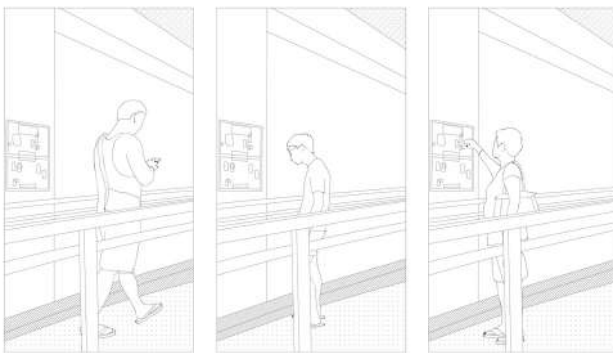


Figure 16: 3 levels of Interaction with the notice board

Monday

1. The board was almost empty when we collected it. All the sweets had been taken with the exception of the chocolate (probably because they were melted) and there were some notes left.

2. From interviews with 31 residents in the area over a time period of 1 hour, we learnt that 29 of them did not notice the board being put up.

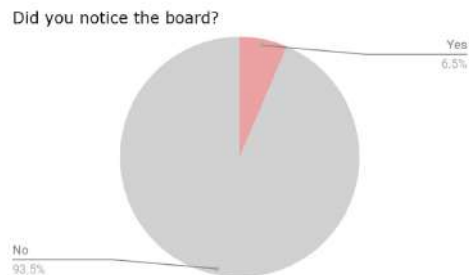


Figure 19: Results from Interview with Residents



Figure 20: Results from Instagram poll

3. A resident we interviewed suggested that we carry out a more long-term activity. He says that this initiative was too sudden and did not give people enough time to prepare for the activity. He also gave the reference of book sharing in Public Libraries.

4. Another resident we interviewed mentioned that he had no sweets on hand to offer and also felt that most people will also not carry sweets on them.

Instagram Poll:

Following this, we did a quick poll on instagram to get a quick gauge of what thoughts other people might have on this social experiment.

Out of the 20 responses we recieved, 14 said that they would participate in this activity while 6 said that they would not. Some comments we recieved were:

1. People often don't have sweets or tissue packets on-hand and on the go

2. Residents might have been conscious and aware of being filmed even though we were stationed a distance away

3. It will be cuter if there is some sort of game that people can play to attract their attention

Results interpretation:

Overall, we observed that most people seem to miss our notice board, possibly due to it not standing out enough to catch the attention of passers-by.

For those who did notice the board, most just stop to take a look and did not partake in any physical interaction with it. This could possibly be because of inconvenience or the lack of time or appeal of our board. From the interviews and comments, most seem to centre around the fact that most people do not carry disposable items such as sweets or tissues on them all the time. This is futher seen upon collection on Monday, most items were taken from the board yet only 1 item was added on.

Future actions:

Firstly, following the suggestion given in the instagram poll, a possible future implementation of this activity could include a game to entice people more. The addition of a game could also encourage greater interaction with the board and spark informal conversations when people linger there for longer periods of time.

Secondly, we can also conduct similar activities but with longer testing periods. This would also give us more

representative results and allow residents to gain greater awareness of the project thus possibly increase user participation.

Thirdly, an alternative experiment to attempt could be to encourage the sharing of larger, more sentimental items such as furniture instead. Even though our original thoughts were that we should start small with the sharing of smaller, more disposable items, it could perhaps be that because the items are too small and easily disposable that people did not feel enough attachment and sense of ownership to them.



Figure 21: Possible set-up for furniture experiment

With larger items such as furniture, a possible way to encourage residents to start contributing to the space would be to gather a few unused furniture laying around/ ask residents to loan us some of their extra furniture and lay them out along the transition space we have previously identified. When residents pass by and see their furniture being part of the space, they could be more inclined to use it and maybe even encourage them to add on to the space with more personal belongings.

Lastly, the recordings of results could be done up in more detail, categorising the

responses we received by age groups and whether the participants arrived as an individual or in groups etc. This can help in further identifying what our experiment was lacking in, what different age groups are more inclined towards and how coming as a group versus coming as an individual can affect users' responses towards our experiment.

CONCLUSION

While we had to work within our limitations, the greatest one being the lack of time and resources, our study presented to us potential and hope.

We decided to start off our social experiment and analysis with the acknowledgement that we would not be able to achieve the extent of social cohesiveness and community life observed in the sites of our precedent studies -- especially the informal space between Block 123 and 124, and the void deck space below Block 126. It was important to keep our goals realistic in the process of developing and designing our intervention. Through much thought and consideration, combining what we observed in our studied sites, understanding what elements we would like to impart to the newer HDB estates, and gathering precedents of similar experiments or activities, we came up with our final intervention.

With our research, we condensed our learning points into a hypothesis: *sharing a piece of oneself, regardless of the form it is presented in, can spark informal interactions between individuals.*

This hypothesis instigated our desire to prompt people to share something

they might have on-hand such as a tissue packet or some sweets in our little experiment. Yet, we realised that there were in fact many hurdles to overcome to ensure active participation of a sizeable crowd amongst the passers-by. In the process, we shifted our goals slightly.

Despite the lack of the act of giving or sharing by the public as proposed by our experiment, the ability to stop people in their tracks, and to put a pause to their daily motion to notice something out of the ordinary in an ordinary space, presented to us a sense of hopeful trajectory.

Perhaps if this experiment could be blown up to a larger scale for a longer period of time and use more sentimental objects, then it would be interesting to test our hypothesis once more.

After all, our ultimate goal is still to see the liveliness and warmth of a community spread and persist throughout our society regardless of the changing times, but it does not hurt to start small -- a little something is better than nothing at all.

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Before I Die. (n.d.). Retrieved from <https://beforeidieproject.com/>

Shaw, P., & J. H. (2009, July 2). The Qualities of Informal Space: (Re)appropriation within the informal, interstitial spaces of the city. Retrieved from http://arts.brighton.ac.uk/__data/assets/pdf_file/0003/44850/41_Pamela-Shaw,-Joanne.Hudson_The-Qualities-of-Informal-Space.pdf

Activating Urban Voids

Reimagining Void Deck in Toa Payoh as Social Ground

by Ng Su Wen, Phang Li Wen Charlotte, Shoon Lei Khin, and Tan Zhi Wei



Figure 1. Interview with members of the SAC

ABSTRACT

This project seeks to rethink the relationship between void decks and elderly communities in Singapore. Toa Payoh is one of the country's oldest HDB estates, with relatively larger elderly population. This township was chosen to be studied to understand how void decks have contributed to the well being of the elderly. Walking around the township, discovering several small spots where residents have decorated their immediate living space with abandoned furniture, our project sought to utilize abandoned

furniture to create a community driven communal space at void decks. We propose a communal ownership of this space by the elderly, located near existing Senior Activity Centres (SACs). This space, serves as a ground up initiative led by the elderly, creating a space where they can freely gather for various activities without being limited to the opening hours of the SAC. This space also acts as a spillover space when the SAC has events, allowing for more elderly to join in.

Keyword: Void deck, elderly, SAC

Void decks have been a long-standing architectural feature in the Housing Development Board's design of residential blocks since the 1970s as a sheltered space in the ground floor. The government aimed to introduce void decks to create opportunities for residents to interact through the use of a shared space. They are designed to be large and flexible spaces for communal use and are used for a wide variety of social activities from weddings to funeral wakes. Over time, these spaces have also been converted to accommodate activities such as childcare centres and community centres to cater to the needs of the residents. Additionally, recreational amenities such as vending machines, benches and chess tables have been added to void decks to make them more user-friendly. The concept of void decks seems promising: it encourages social interaction and provides space for social events. However, taking a stroll through most of the void decks in Singapore would reflect something different, or if not opposite of what was envisioned by the planners. The element of design is absent, the columns are taking up more space than they should, reducing the almost lack of spatial quality to practically nothing. The chess tables are strewn with beer cans and cigarette buds, the walls are covered in dirt patches, bicycles are stacked above one another in a corner while abandoned furniture fill up another corner. What is left of such a precious space is somewhat resembling of a dumpster, a clashing description of what it was set up to be.

The paper will analyse a few notable case studies of void decks in Singapore that underwent successful transformation through the efforts of residents into what

one would deem as a desirable shared space. Using various fieldwork techniques such as photographs, interviews and diagrams, the paper will also redefine the role of void decks as a social ground and determine the benchmark for a desirable communal space, with a focus on serving the needs of the aged in Singapore.

Toa Payoh

Toa Payoh is a matured residential town located in the Central-North region of Singapore. In the past, Toa Payoh used to be a squatter district that was engaged in farming and the rearing of pigs. In 1962, with the Government efforts in increasing compensation rates, the squatters began moving out. This kickstarted the clearance and the redevelopment of the estate.

The town was the first prototype following the urban planning principles of the time. The housing estates are self-contained and each neighbourhood is equipped with its own amenities and community centres.

Unsurprisingly, as one of Singapore's oldest Housing Development Board (HDB) estate, Toa Payoh has a relatively larger elderly population compared to other districts in Singapore. The demographics of Toa Payoh reflects an emerging situation in Singapore: the nation is witnessing a profound age shift in population and is positioned at a prelude of what many would term as a "grey tsunami".

Senior Activity Centres

From a MSF Social Isolation Survey done in 2009, a worrying trend of increasing number of socially-isolated elderly in



Figure 2. One-to-one interview with one of the SAC member

Singapore was reflected. In order to meet the needs of the ageing population in Singapore, Senior Activity Centres (SACs) are introduced into neighbourhoods with a larger population of elderly. The SACs can be found in the void decks of rental blocks and they serve as the drop-in centres of the poor or needy seniors that occupy the one-room and two-room rental flats. The centres provide welcoming and

receptive environments for the seniors to participate in active ageing. Socio-recreational programmes and activities such as karaoke sessions, craft sessions with volunteers and exercise sessions are conducted at the centres to keep the seniors engaged. In addition to these activities, the SACs also provide support services such as befriending, guidance, monitoring of homebound elderly etc. for

the seniors.

In this project, as part of re-vitalising the void decks, the SACs in Toa Payoh will be studied hand-in-hand with the project proposal to see how the proposed idea can be integrated into the existing elderly-care and support system to make it a well-managed and sustainable initiative.

Case Studies

To facilitate the project progression, some successful examples of how void decks have been transformed into effective and vibrant social grounds for the residents have been studied. The case studies provided some background into how such initiatives work and how they are managed within a sustainable framework.



Figure 3. My Kind of Fridge

My Kind of Fridge
Block 441, Tampines Street 43

My Kind of Fridge is a small project that is staged at the void deck of Block 441, Tampines Street 43 to provide an avenue for the public to donate fresh food to the needy residents living in Block 441 and 442. This project is supported by the Town Council and serves 100 rental flats. Residents living nearby and sometimes restaurants contribute to the initiative. With social media exposure, netizens have also been responding well to this

social initiative and this has garnered further support for the project.



Figure 4. Community Cafe

Community Cafe
Block 839 Tampines Street 83

This initiative is paired with another community garden initiative in the vicinity. Within the community garden, the residents are free to grow any plants they want. Some of these grown plants are then used as ingredients for food prepared in the cafe. The food served by the cafe is free of charge.

This cafe has also evolved over time to become a venue for the elderly to have potlucks. One of the residents mentioned that this initiative allowed her to meet most of her neighbours whom she would not have gotten to know outside of it.



Figure 5. Mini Kampung at Yishun

*Mini Kampung
Block 603 Yishun Street 61*

This was an initiative introduced by a few residents living nearby where the void deck is turned into a "kampung central" with a kitchen and toys. This place is usually occupied by residents in the morning and in the evenings for their gatherings and meals. This spot was also opened as a senior citizens' corner in 1997. One of the volunteers who manage the space often go around picking up discarded goods that are still in good condition for communal use in the area.

There are a few lessons that can be drawn from the case studies. These examples demonstrated the importance of community involvement in sustaining such initiatives. When the community has vested interests in the place (sense of ownership), the place would be managed well. With such interventions, a lot of interaction within the community is encouraged and this would not be possible with the use of simply an empty void deck. Additionally, in order to manage such a space for a long time while ensuring sustainability, the cost of managing it has to be kept at an optimal low.

Site Analysis

To better understand the environment where an intervention would be proposed, several site visits were made to collect data for analysis. The information collected was documented through casual conversations with the residents, photos and on-site observations.

Prior to the visits, a brief site analysis was conducted to better understand Toa Payoh Town. The site analysis aided in narrowing down the specific location for investigation. The information is represented in a site map where different types of buildings were mapped out. From the site map, it can be observed that the residential areas are zoned into many small neighbourhoods. In particular, the chosen location for the first site visit were Lorong 7 and Lorong 8.

Site Visit

For the first site visit, some exploration around the neighbourhood of Toa Payoh Lorong 7 and 8 was conducted. During the exploration, the void decks were the main spots of observation.

It was observed that there was two main types of void decks in this area. The first type of void deck observed was rather small in size. These void decks belong to the newer residential blocks which are generally designed to be taller with smaller building footprints. This resulted in the smaller void deck spaces under each block.

The second type of void decks observed was long and rectangular in shape. For this particular type, there are usually one or more type of activities occurring in the same space e.g. Senior Activity Centres, dialysis centres, pre-school education centres etc. These facilities are meant to serve the needs of the residents living in the residential blocks. Together with these facilities room, there are assigned "play areas" which are essentially just long stretches of empty spaces spanned by large columns.

Site Map

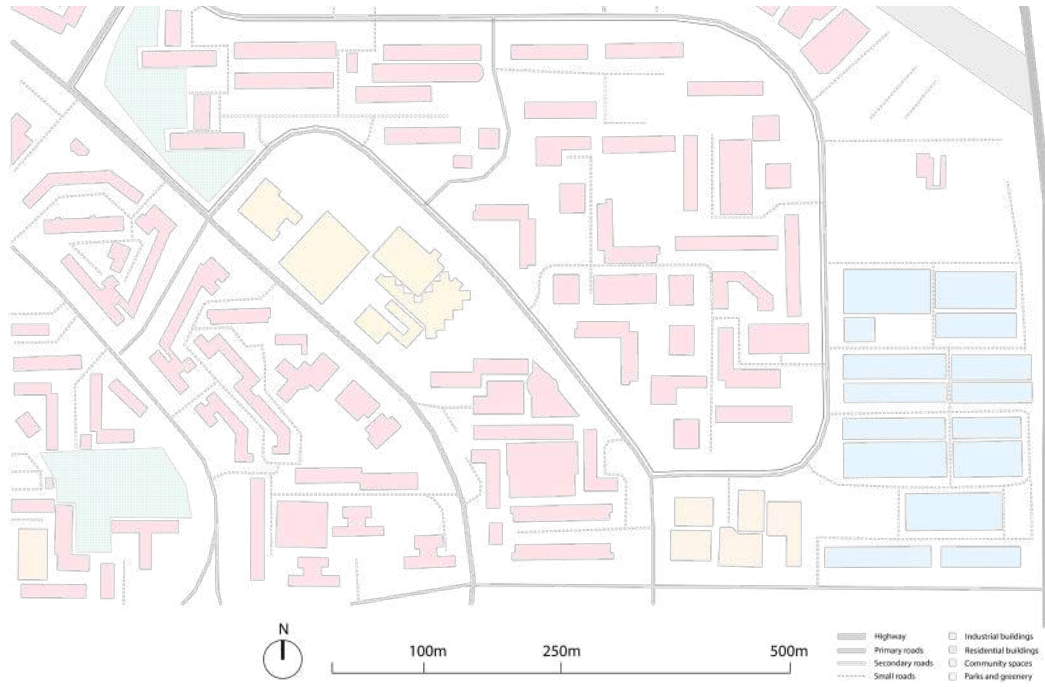


Figure 6. Site Map



Figure 7. Small void decks

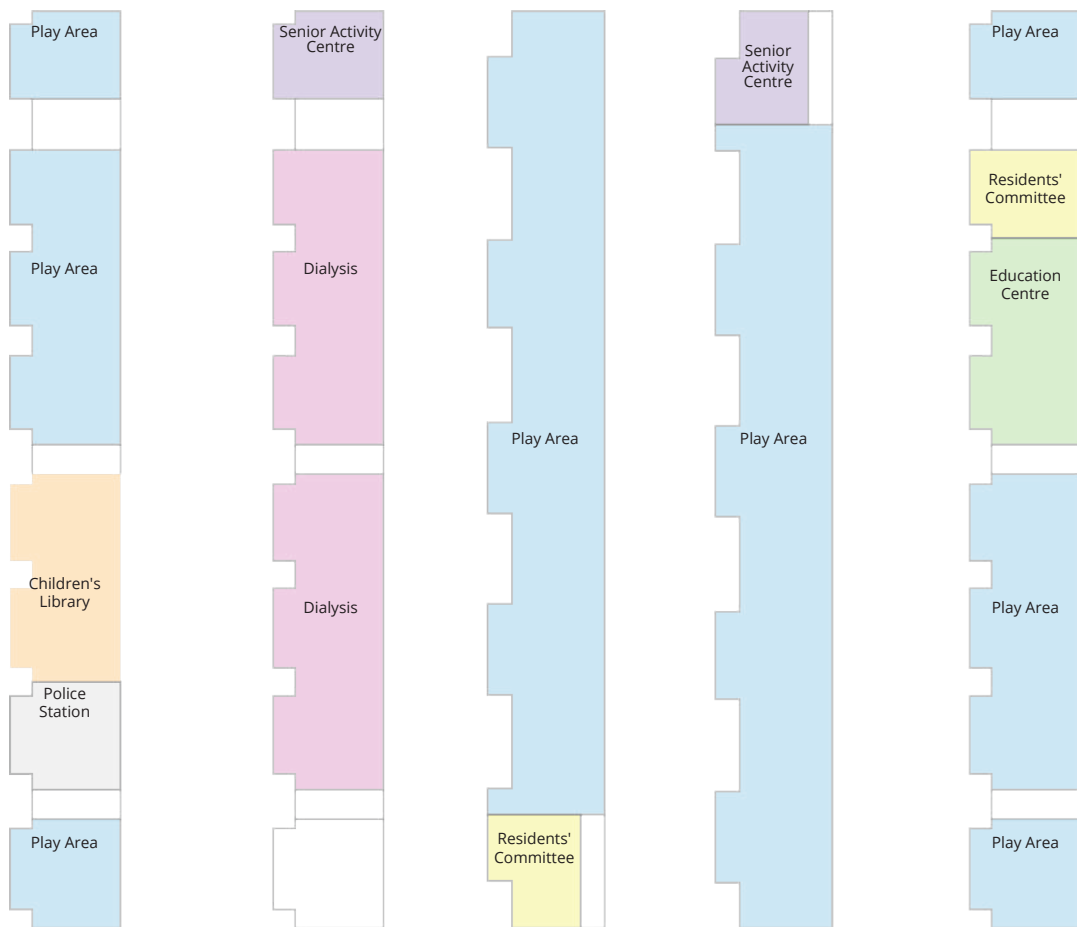


Figure 8. Ground floor plan of long, rectangular residential blocks

Key Observations

It was observed that the void decks in Toa Payoh Lorong 7 and 8 are very empty and rather dirty. The walls are stained with dirt and rubbish could be seen strewn over some areas. Additionally, there were a large number of bicycles parked in the void decks, making the space under the blocks tinier than it already is. For the larger void decks, they tend to be very empty. Some of them do not have any amenities at all, while others are equipped with benches and tables. However, despite having sitting areas, the void decks are still rarely occupied by anyone.

With reference to Figure 10, the design of this particular gathering area appears

to be problematic too. The benches and tables all face one direction and each table is only equipped with one bench. It does not appear to be suitable for gatherings or social activities why maybe why this space is mostly unoccupied.

As for the spaces void of amenities, rather than being used as a gathering space, they become merely walking routes for the residents. They also turn into makeshift rest areas for construction workers working nearby due to the lack of activities occurring there. Another observation made was the abandonment of furniture at some of the void decks. Many of these furniture are still of good and usable conditions.



Figure 9. Bicycles parked at void decks



Figure 10. Tables and benches



Figure 11. Make-shift nap area



Figure 12. Abandoned sofa



Figure 13. Abandoned furniture

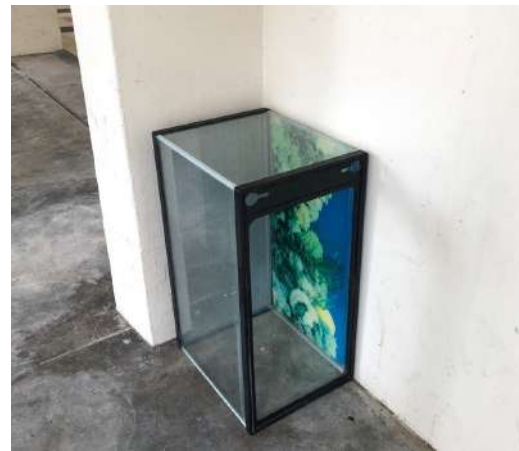


Figure 14. Abandoned fish tank

METHODOLOGY

From our site analysis, we found out that large quantities of bulky items are disposed at the bulky disposal areas. Many of these disposed items are still in good condition and can be reused. Hence, in addition to reimagining the role of void decks as a social ground, we would also like to find out how these disposed furniture can be reused in the void deck to aid us in achieving this goal.

If we want to expropriate void decks as a social space, it is important for us to find a suitable community to look after this area. Since the demography of Toa Payoh is largely elderly and we are targeting the aged in Singapore, we also decided that a potential community to look after this space could be the Senior Activity Centres (SACs). Hence, our research and methodology aim to investigate how the SACs can help to give the disposed items a second life by using them to create new community spaces for the elderly.

We started by contacting several SACs to seek their permission to have a visit to find out more about SACs and their members, the elderly. Below are the objectives of our visit:

1. To explore the current programs run by the SACs
2. To better understand the lifestyle of the elderly under the SACs' care
3. To gather the feedback and opinions on such programs (their preferences/dislikes)
4. To find out about the additional facilities they would like to have
5. To find out if the SACs will be a suitable community to be in charge of the new social ground
6. To gather feedback about our proposal (feasibility and appeal to the elderly)

After we got the permission from THK SAC @ Toa Payoh and Care Corner @ Blk 5 Lorong 7 Toa Payoh to carry out our research with them, we went down to conduct interviews with the members and staff of the SACs. We also did a participatory workshop with the elderly to find out how they would appropriate an empty void deck for their use. This would help us determine what kind of furniture and arrangement would be suitable if we were to reimagine the void deck as a social ground for the elderly, and potentially an extension of the SACs.

Interviews

In order to understand the lives and opinions of the elderly who frequent the Senior Activity Centre, visits were made to the centres and casual conversations were carried out with the elderly. Additionally, to provide a more balanced viewpoint, the staff working at the centre were also interviewed.

Senior Activity Centre Members

Interviews were conducted individually, with one interviewer being assigned to one interviewee. The interviews were conducted in an open ended format with the interviewees being asked a few questions in relation to their experience with the Senior Activity Centre. Following the questions, a small activity was being conducted with the interviewee. Images of void decks and cut outs of furniture photos that we obtained during the initial site visit were printed out. These print outs were given out to the interviewees and they were told to design the void deck using the furniture of their choice. The focus of the interviews were to understand the type of activities that are usually carried out in the centres, the problems and limitations of the space and potential improvements that can be made.

Senior Activity Centre Staff

The staff members working at the Senior Activity Centres were also interviewed so as to obtain a clearer and more objective perspective of the programmes that occur in the centre. The interviews with the staff also provided deeper insights into some of the issues and problems surrounding the operation of the centres.

The project was also introduced and some questions pertaining to the feasibility of it were posed to the staff members of the centres.

Interview Questions (Elderly)

The questions below were raised to the interviewees in a casual setting.

1. How often do you come to the Senior Activity Centre?
2. How long do you spend on average each time you visit the centre?
3. What are some of the activities you carry out in the centre?
4. Do you like the Senior Activity Centre? Please elaborate,
5. What changes would you like to see being made to the Senior Activity Centre?
6. If a self-managed extension to the centre is created, are you willing to contribute to its management?

Interview Questions (Staff)

The questions below were raised to the interviewees in a casual setting.

1. What are the activities planned by the centre for the members?
2. Do you face any space constraints during the planning of the activities?
3. If a self-managed extension to the centre is created, are you willing to contribute to its management?
4. What do you think of its feasibility?

Participatory Workshop

After the interview, we did a participatory workshop with the elderly to find out how they would reimagine the void deck according to their needs. The participatory workshop involved furniture cut-outs and images of 2 different void decks. The elderly will get to choose what kind of furniture they want to place on the image of the void deck. They were also asked to arrange the furniture according to how they visualise the new void deck to be.



Figure 15. Void deck 1



Figure 16. Void deck 2

RESULTS AND DISCUSSION

A total of 32 interviews was conducted with elderly from 2 different SACs. Our team conducted one to one interviews with the elderly through casual conversations, getting to know them before delving into the interview questions. Apart from the interview questions, the team also took time to ask about their well-being, the friends they made within the community and other activities they participated in when they were not at the SAC. These conversations enabled to get to know the elderly and understand the reasons behind their answers to our interview questions. Besides the interview questions, our team also engaged the elderly by asking him/her to participate in a mini design game. The idea was to allow the elderly to design his/her own desired void deck space with the provided cut out furniture. It was truly exciting to see the elderly move the furniture around and engaging with them by asking for their rationale behind that particular layout. Overall, the 32 responses through the interview and game taught us more about their opinions of the SAC and void deck spaces.

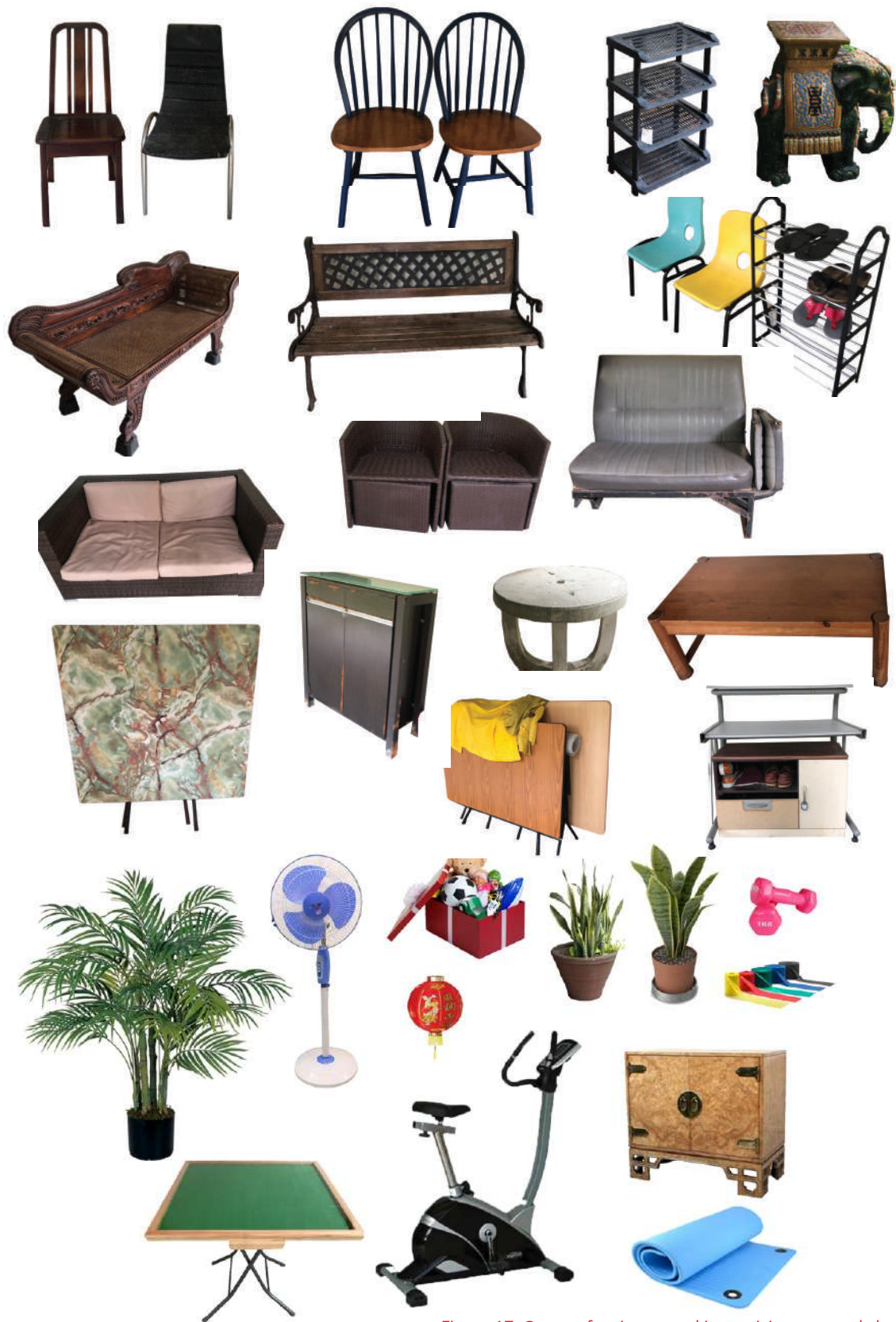
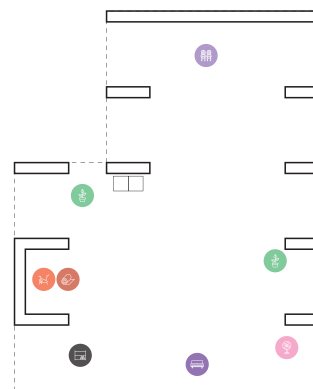
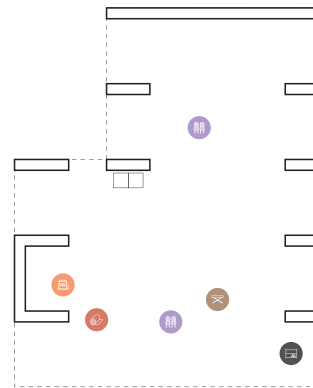
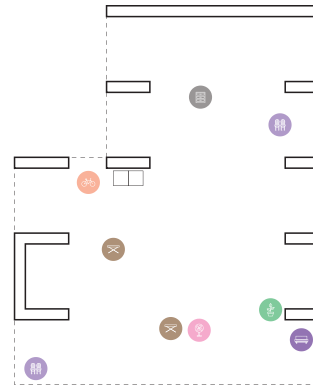
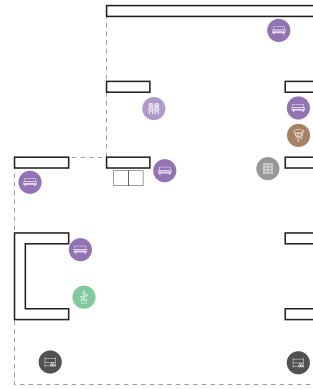
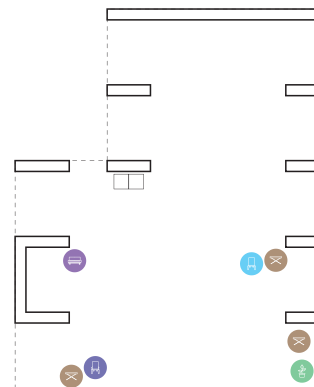
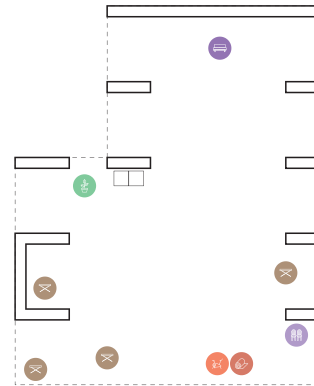
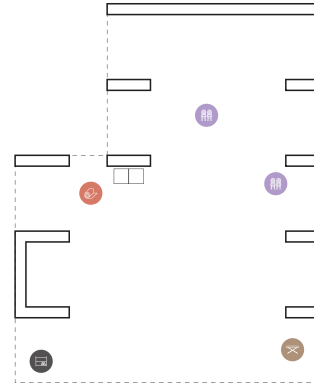
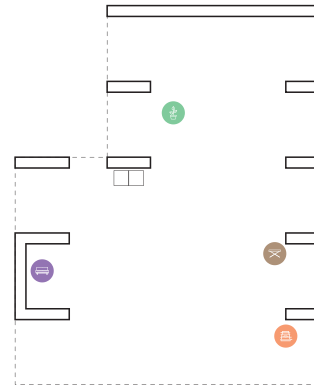
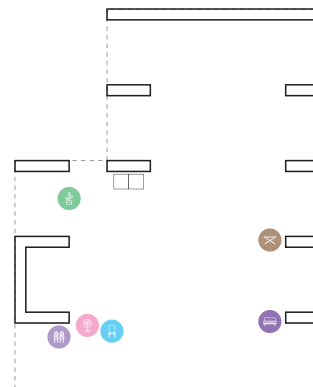
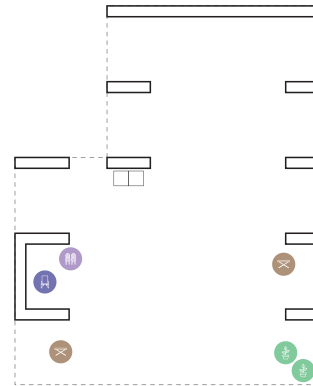
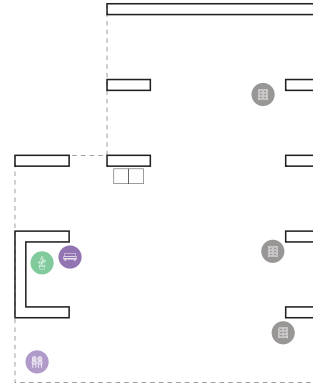
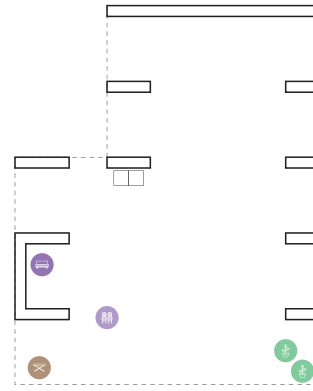


Figure 17. Cut-out furniture used in participatory workshop

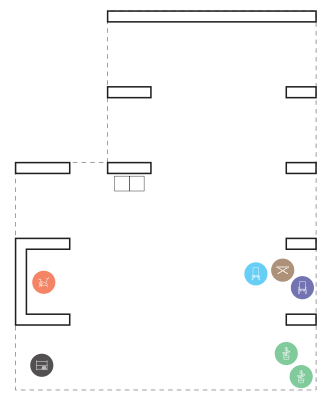
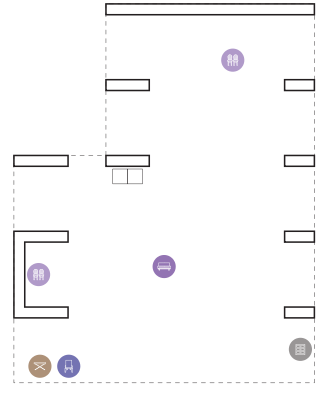
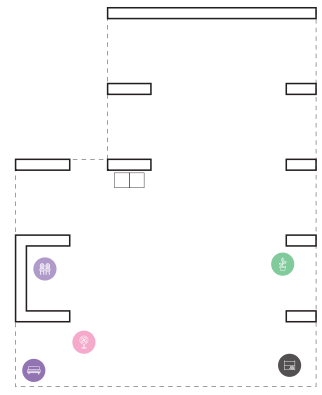
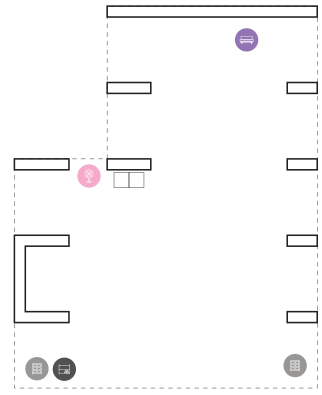


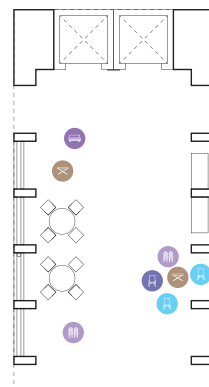
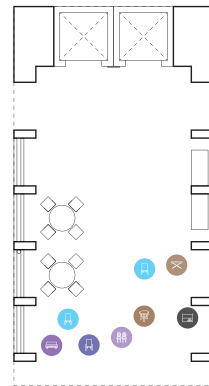
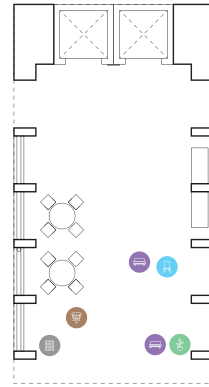
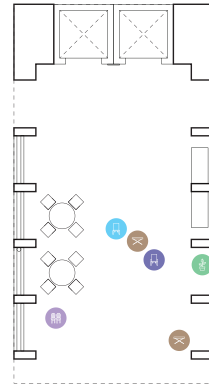
VOID DECK 1



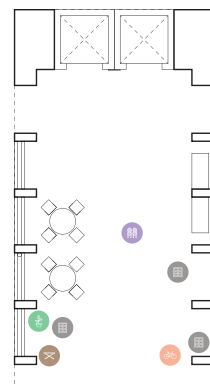
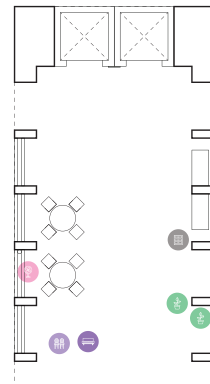
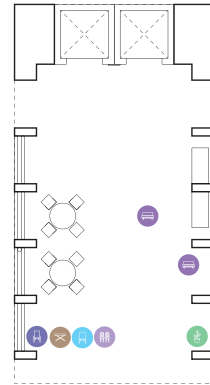
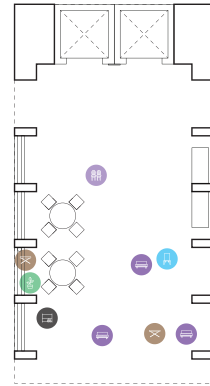


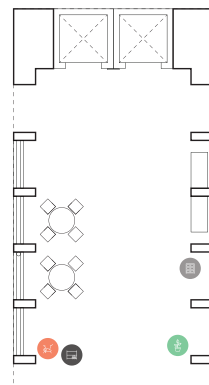
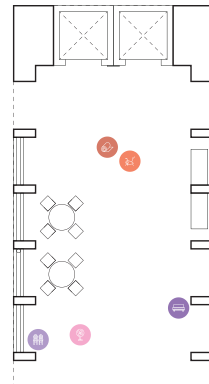
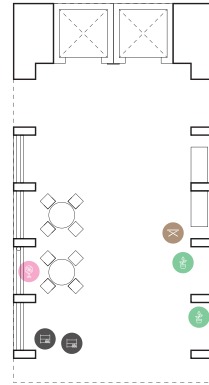
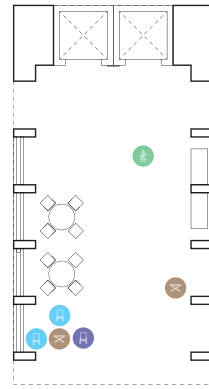
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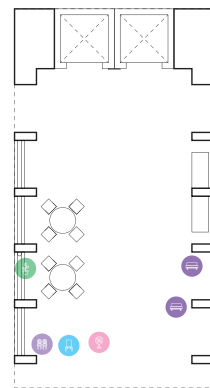
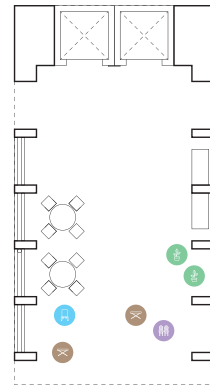
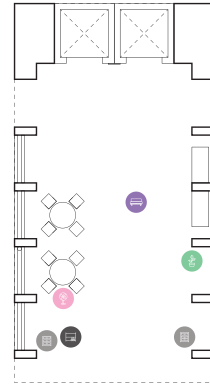
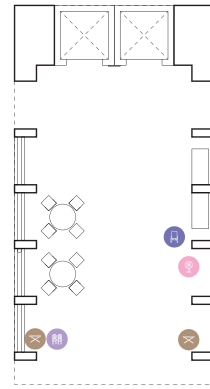


VOID DECK 2





VOID DECK 2



Interview Results

From the interview with the staff of the SAC, it was revealed that out of the few hundreds senior citizens living in the rental flats nearby, the centre draws in 40 to 50 seniors daily. The centre provides free lunch for the members of the SAC everyday.

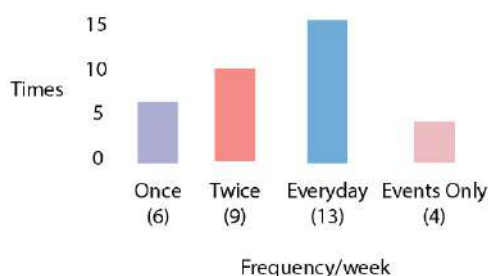


Figure 18. Frequency of visits

The interviews with the elderly from the different SACs showed that close to half of them visit the centre daily. This group of daily visitors participate in exercise sessions (two times a week) and accupuncture sessions (once a week). They mainly see the SAC as a social gathering space where they meet their friends to have chats and play games.

For the members that visit the SAC once of twice a week, they are usually there to participate in the weekly activities organised (exercise and accupuncture sessions).

There is also a handful of the members that visit the SAC during special events such as visits from the volunteers for craft sessions and festive events.

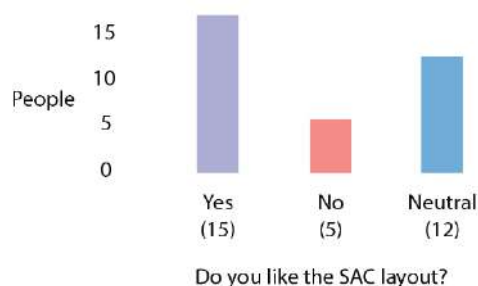


Figure 19. Opinion on SAC layout

On the topic of the SAC design, about half of the interviewees displayed some form of fondness for it. The other half expressed neutrality for the design and a small percentage of the interviewees expressed their dislike.

Reasons accounting for the fondness of some interviewees for the SAC includes the provision of air-conditioning, availability of seats and the spaciousness of the SAC for different activities to be carried out.

For the interviewees that did not express any fondness or dislike for the space mentioned that the design is not of their main concern. For them, the provision of the activities is sufficient.

On the other hand, for the minority of the interviews that expressed their dislike for the space, some reasons raised include the lack of ample space for larger events to be organised and the poor condition of it in terms of cleanliness.

When asked to propose new facilities in or any changes to the SAC, many of the interviewees mentioned having a larger space with more tables and benches. A handful of them also raised the idea of having a community garden to be managed collectively. There are also a

few of them that stated that they would prefer an open space to a closed space for carrying out their activities. They revealed a preference for natural ventilation over air-conditioning systems.

The interviews with the staff managing the SAC revealed the same problem reflected by the elderly: facing space constraints during the planning of activities. When an activity is planned for a crowd of more than 30 people, they would have to move it outdoors to accommodate for the space required.

Since the staff are the ones who are the most informed about the pros and cons of the SAC design, the project proposal was raised to them for evaluation. There were some concerns raised regarding the proposal. One of the staff stated that it is a difficult task to take care of public spaces such as void decks. She raised the possible scenario of people such as the *karang guni* taking away the furnitures for themselves. With the furniture lying around in the case of poor management, it may pose as a fire hazard and block up the emergency route. Additionally, the void deck is a shared space for all residents so it is hard to dedicate a specific amount of space just for the elderly.

Apart from the above concerns made, the staff also did state that they recognise the need for more facilities to be added in or for some changes to be made to the space in the SAC. This is so as to provide a more conducive environment to facilitate an active-ageing lifestyle for the elderly.



Figure 20. Summary of results from participatory workshop

Participatory Workshop Results

From the participatory workshop, it is observed that sofas, chairs, foldable tables and plants are most desirable. The sports equipment are less desirable because they are seen as indoor activities and hence, most of the elderly felt that these items are not suitable for an outdoor social space. It is also observed that most of the furniture are placed at the peripheral of the void deck to ensure sufficient walking space for other residents. There is an imaginary entrance at the corners of the

void deck where the elder would place the shoe rack. Single chairs are often placed around a foldable table to replicate the typical furniture setting in a living room. In addition, we also received feedback from the elderly that chairs with armrest are more desirable because the armrest act as support for the elderly. However, we did not prepare sufficient cutouts of chairs with armrest and hence, this information could not be observed from the results of the participatory workshop.

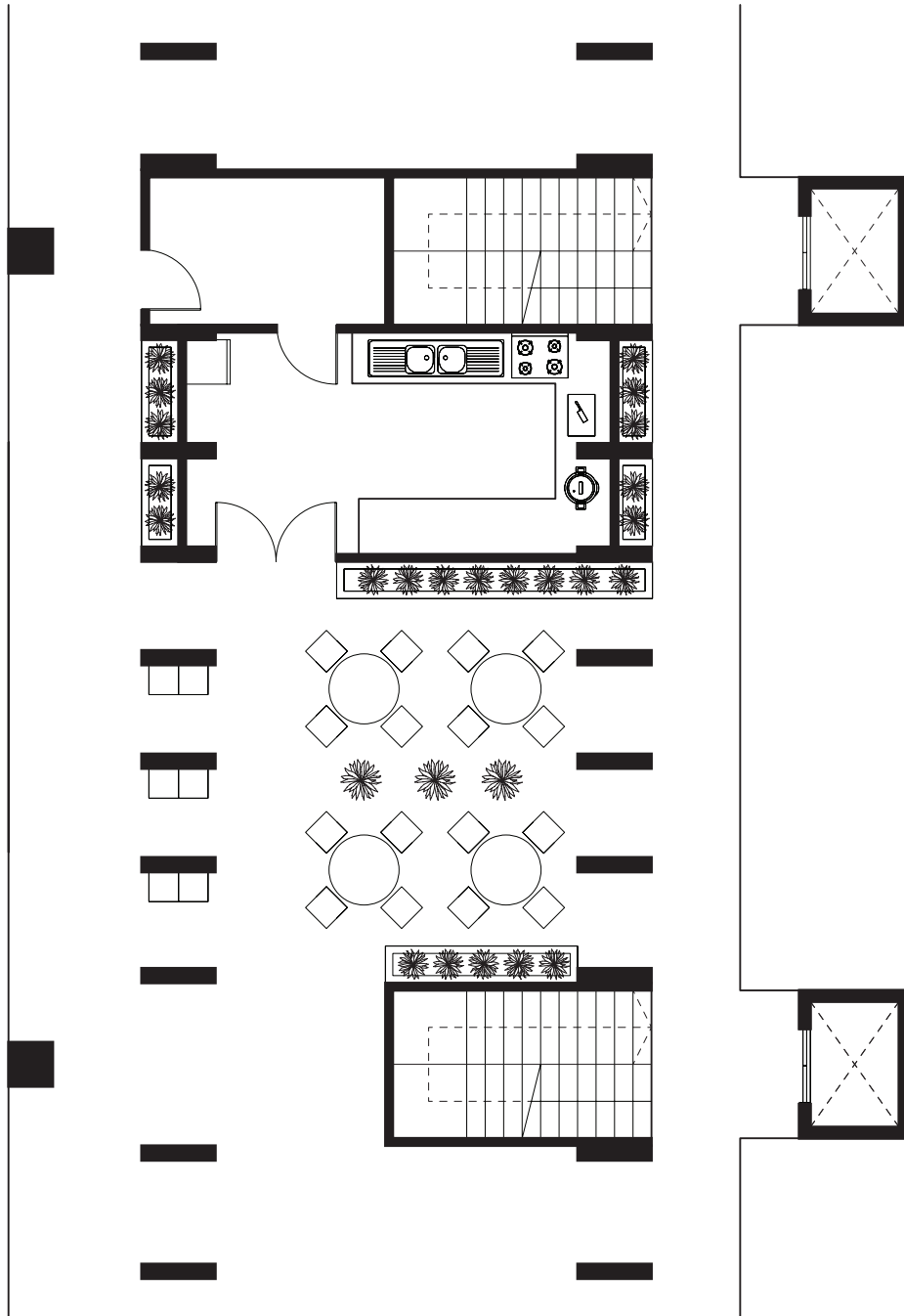


Figure 21. Artist impression

Proposed Model

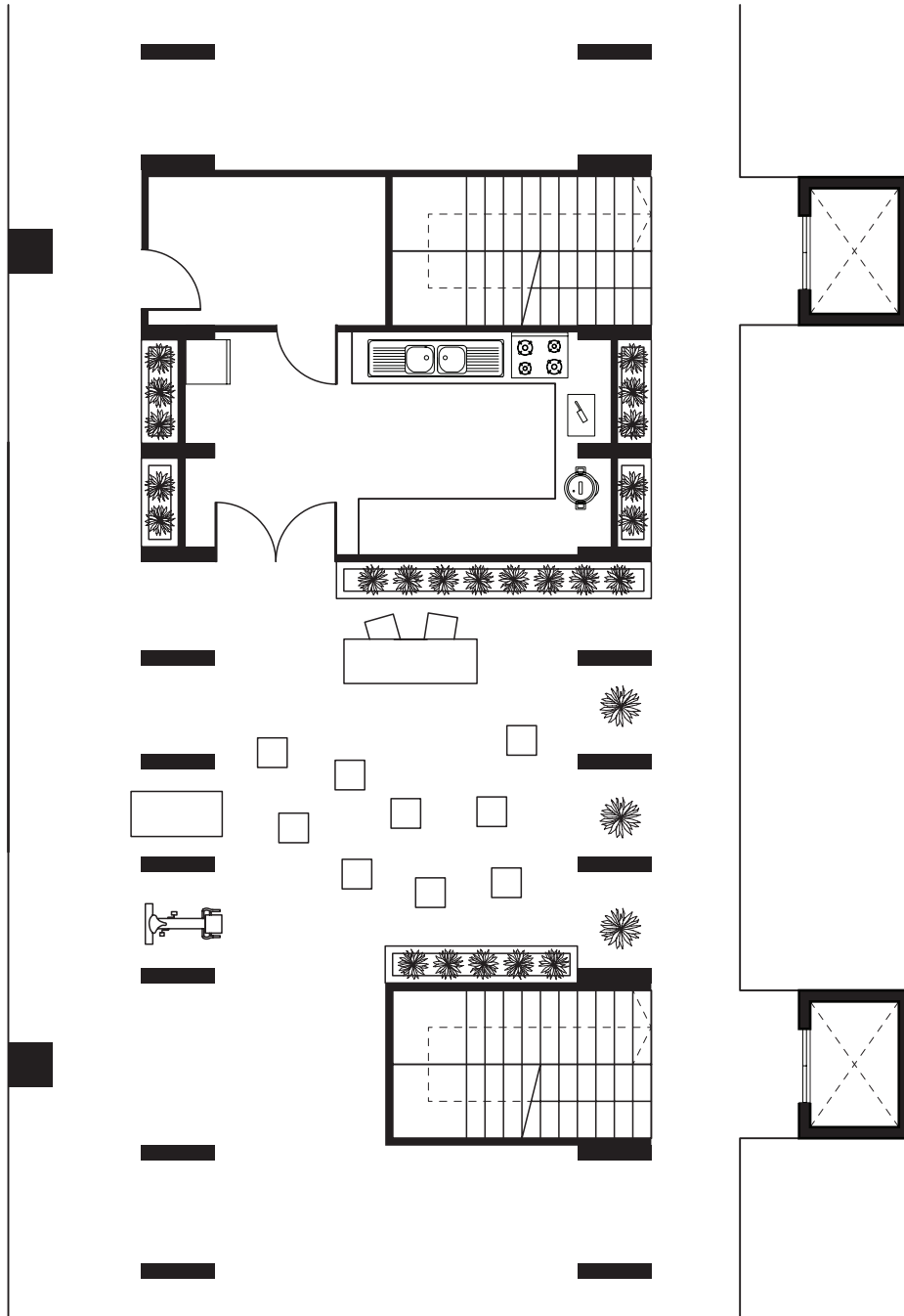
The design proposes for a community centric space led and owned by the elderly themselves. Our team proposes for a kitchen and storage space that the elderly can make use of to cook for others on casual gathering or for events. The storage space would be used to store furniture that can be placed around to suit the needs for different activities. This flexible void deck space can be adapted to suit different programmes that the community holds or act as a spillover space for nearby SAC when there are events. Our team proposes three possible arrangements of the space to suit

different programs: communal gathering, exercise and games. These three possible layouts were proposed from our findings through the interview with the elderly, claiming that they were often limited to the opening hours of the SAC and needed more space for activities such as exercise and games like bingo. Thus our team propose this space, to be managed by the elderly community themselves, with a kitchen to suit their needs and a flexible use space for various activities.



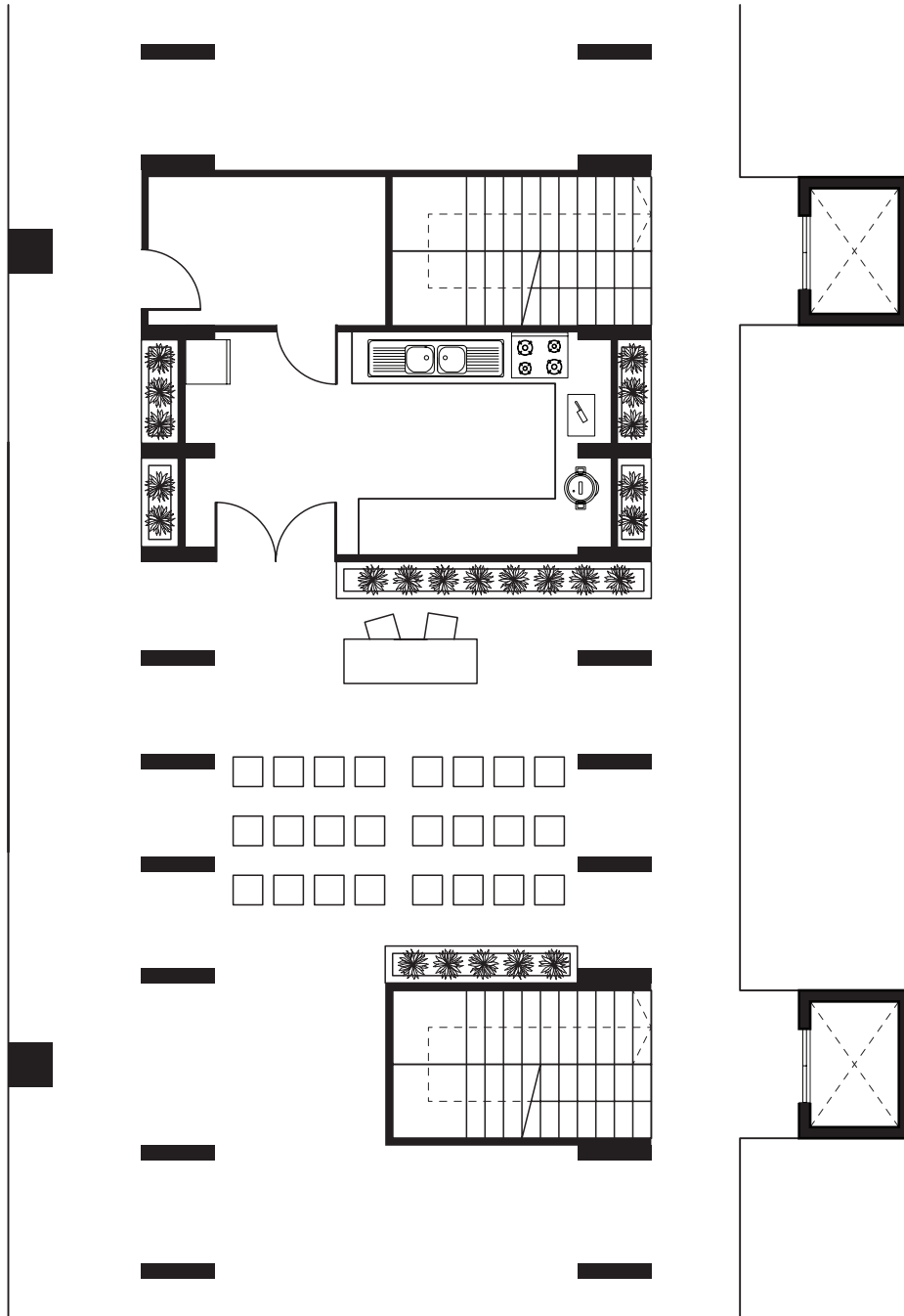
Scale 1:100

Figure 22. Proposed layout 1: Gathering space



Scale 1:100

Figure 23. Proposed layout 2: Exercise space



Scale 1:100

Figure 24. Proposed layout 3: Games space

CONCLUSION

Most void decks are underutilised and this research aims to find out how we can revitalise these spaces. Using the discarded old furniture we found in Toa Payoh, the team proposed that these void deck spaces can be revitalised as social ground for the elderly through the use of these discarded furniture. We also looked into the possibility of SACs being the community to look after these areas.

However, from our interview with the SAC staffs, we received the feedback that it would be difficult for the SAC staffs to look after the place. Despite that, there were also concerns raised regarding the lack of space in the SACs to hold larger events. We also received positive feedback from the elderly that they are willing to manage the space if they were given the responsibility to look after it. Hence, in our proposed model, we also planned these areas to be managed by the elderly community themselves.

In conclusion, there is a potential for void deck spaces to be re-purposed as social spaces for the elderly, and this requires cooperation from the elderly community so to make sure that it is well-maintained at all times. Looking at the successful case studies in other areas of Singapore, where the void decks are successfully transformed into a social gathering space for the elderly and are managed by the elderly themselves, we believe that this culture can be injected into the elderly community of Toa Payoh as well.

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INTERACTION

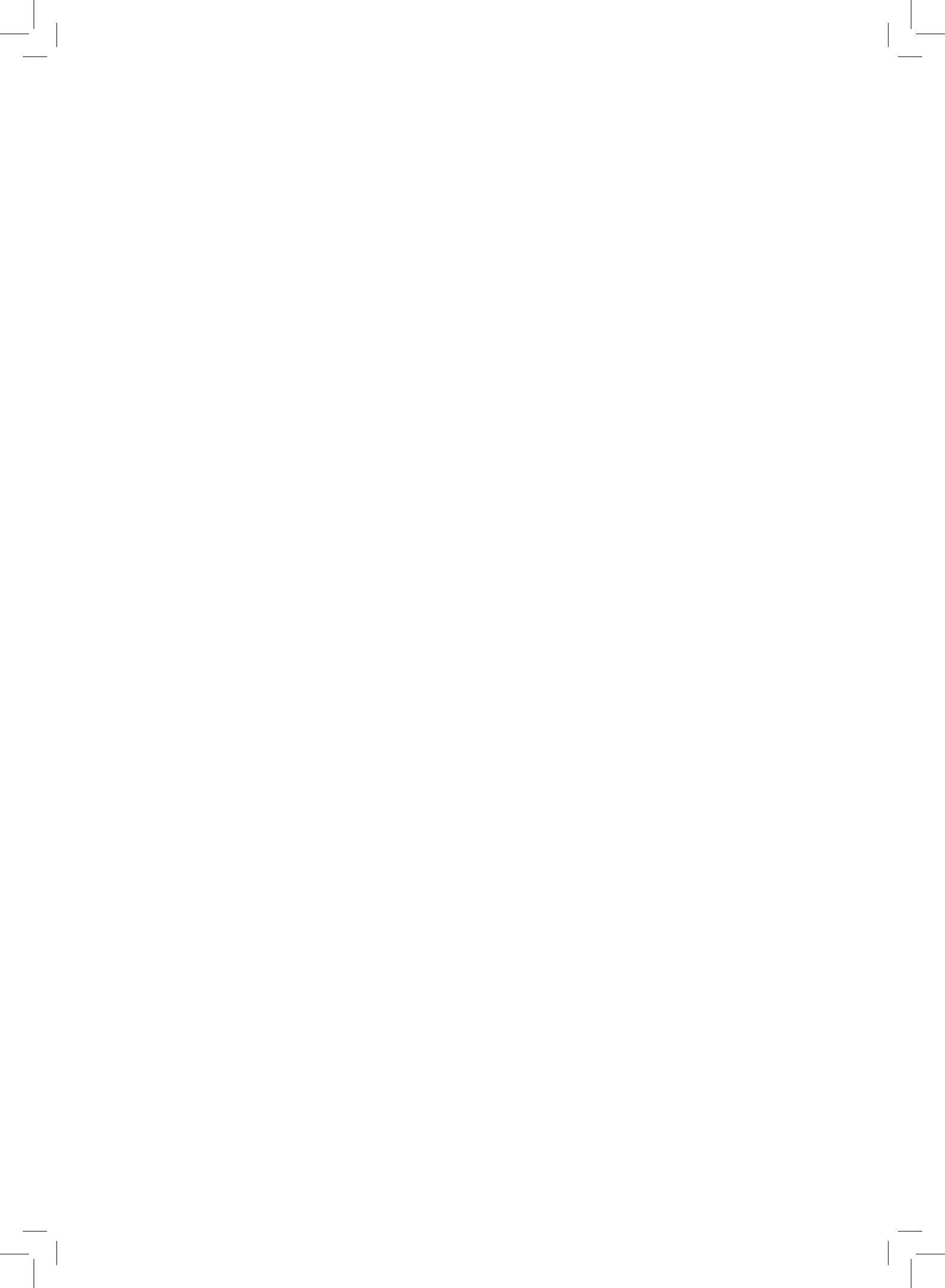
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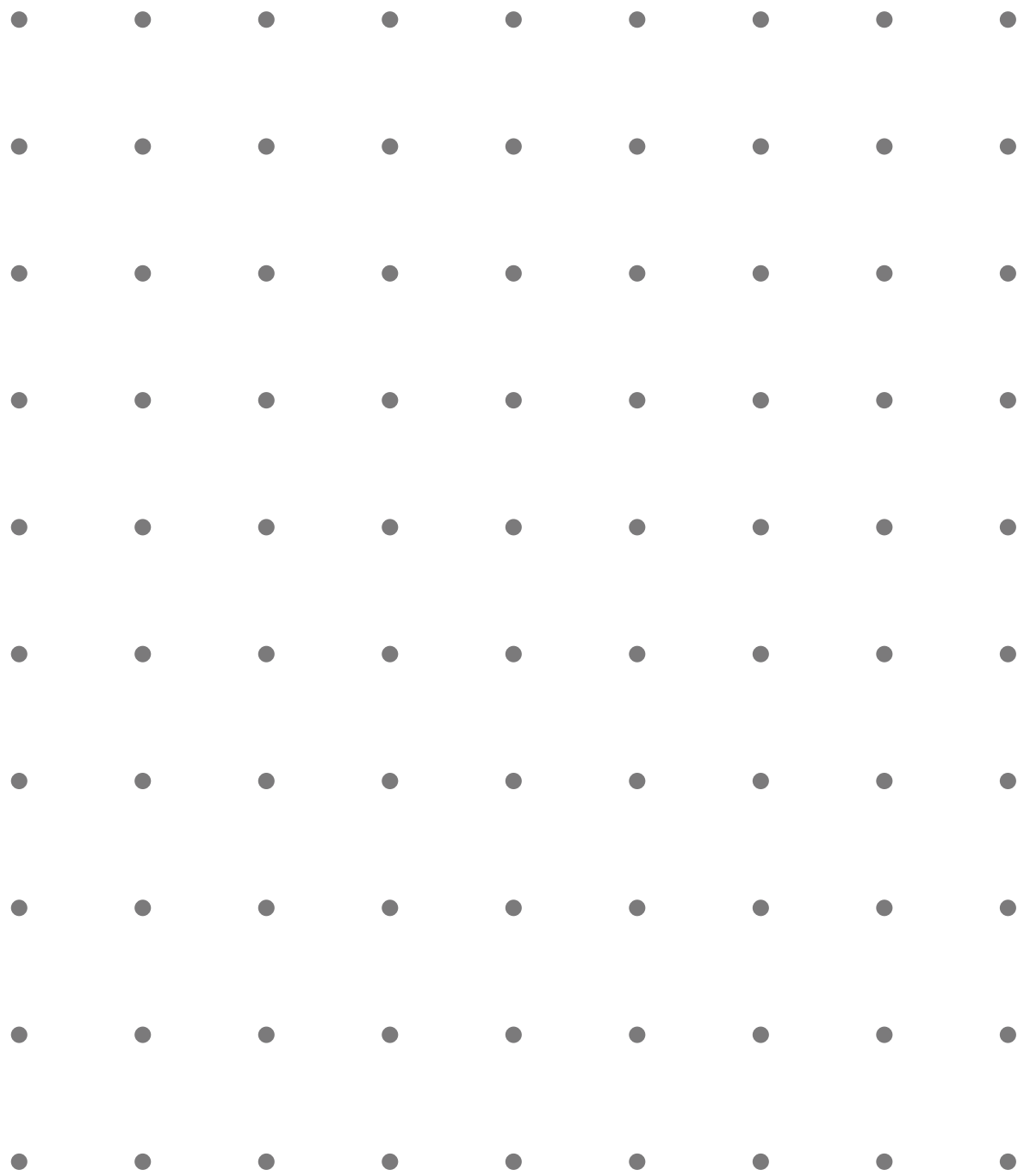
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