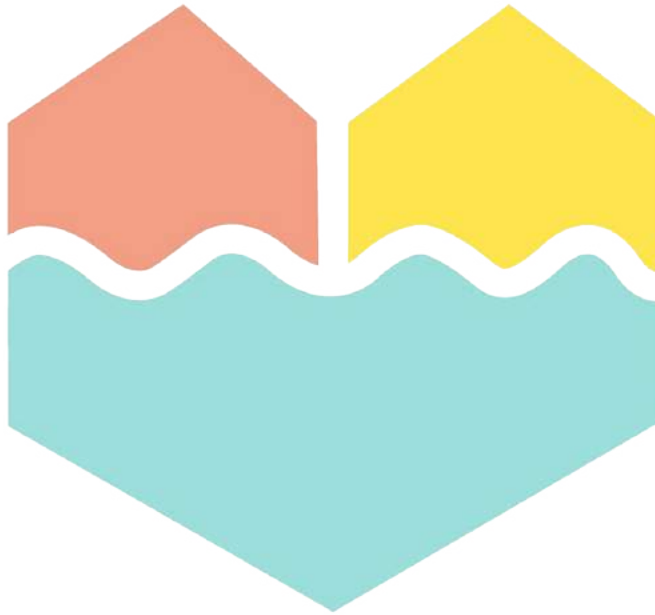


CELEBRATING THE PHÚ XUÂN SPIRIT

Report on Participatory Action Research
Ho Chi Minh City, Vietnam





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The material reported in this document is supported by the SUTD-MIT International Design Centre (IDC). Any findings, conclusions, recommendations, or opinions expressed in this document are those of the author(s) and do not necessarily reflect the views of the IDC.

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All black-lined icons in this book were created by Yu Luck**

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Towards a better community by design, one bridge at a time

FOREWORD

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The project started out under the Undergraduate Research Opportunity Program in 2014 to understand urban issues and explore the participatory community design process in rapidly developing cities in Asia. Phú Xuân, a suburban district in Ho Chi Minh City, Vietnam, was chosen as a case study as it experiences one of the highest economic growth and rate of urbanization in the region, yet faces multifaceted urban issues such as a lack of amenities, pollution, need for proper waste management and housing improvement. Over the past two years, we have built a multidisciplinary team that involves three universities – Singapore University of Technology and Design (SUTD), Ho Chi Minh City University of Technology (HCMUT), and Van Lang University (VLU) – to work with the Phú Xuân community. Besides coming from different countries, the students also come from diverse disciplines including architecture, structural engineering, mechanical engineering, system engineering, environmental engineering, and information technology. Communication among the cross-cultural, multidisciplinary teams in different locations (Singapore, Vietnam and sometimes China and United States when some members went for exchange programs) thus became a unique and challenging aspect of the project. On the other hand, the Phú Xuân community, being less exposed to participatory processes and more focused on making ends meet, also made conducting conventional community workshops less effective. Hence, the project called for new strategies of collaboration

between the universities and the community. This project was thus set up as a Participatory Action Research (PAR) project to prototype and test the following: (1) The collaborative design process between different academic disciplines and across cultural boundaries (international level and inter-district level); (2) The extent and acceptance of participatory design approach in Vietnam context; (3) A design prototype in response to the social and environmental issues faced by the local community.

In January 2014, a joint community design workshop was conducted in HCMUT. Right after that, a private Facebook group called “Community Design Project” was set up to facilitate the dialogue and exchange among students, researchers and faculty members from these universities. During the first phase of “Community”, the students had experimented with different approaches in engaging the community, from organizing community workshop, conducting door-to-door survey and interview, using technology to collect various data such as the soundscape of streets, a time-lapse of public spaces, geo-tagging of photographs by residents, and setting-up of photo booths to reveal the social network. The results were exhibited in a school in Phú Xuân in September 2014. Meanwhile, another Facebook page called “Celebrating the Phú Xuân Spirit” (in Vietnamese) was set up to publicly promote the project and garner participation from the residents.



Feedback gathered from the residents showed the following community issues: a lack of communal spaces, children's play area (aged 10-15) and greenery, garbage disposal at vacant lands (which became a hygiene issue when they were flooded during monthly high tide and annual rainy seasons), and security issues as drug addicts occupied those vacant lands. These issues, nevertheless, led to the golden opportunity to turn one of these vacant lands into a community park that is environmentally and socially resilient.

As we entered the second phase of "Co-creation", a 'roadside stall' was then set up by the students in May 2015 to solicit ideas on the park design. The location of the roadside stall right outside the school gate attracted not only the older school children (aged 10-15), but also their parents who came to fetch them at the gate. Most of all, it attracted the attention of several roadside drink stall owners who later became important advocates and connectors to the community and stakeholders of the community park. Several design options were then developed based on residents' inputs and were shared with the larger community. Finally, a playground structure centered around the traditional Southern Vietnamese "Monkey Bridge" was prototyped by the students and the community using local and recycled materials in a vacant land 50m away from the school. The site was also landscaped into a "Rain Garden" using indigenous plants, which not only added greenery and beautified the site, but also made

it more resilient to flooding.

This project has been nothing short of an incredible learning experience. The team has grown to learn how to conduct participatory community design across many different types of borders – culture, language, academic discipline and working location. We have also meaningfully experimented with how to engage the community using localized ground-up initiatives while leveraging on data-gathering technology and social media strategies. Importantly, we learnt that such a rigorous and collaborative design process requires several layers of empowerment – institution-to-institution, as well as institution-to-community – to effect social change. While participatory community design is still in its infancy stage in Vietnam, the project is a firm step forward, and hopefully, a building block for all future similar efforts.

The team would like to express our gratitude to SUTD-MIT International Design Center for their generous support of this project, especially Professor Kristin Wood for his guidance and continuous encouragement. We also want to thank our partners, HCMUT and VLU, for their trust in us and friendship during this unforgettable journey. Finally, I would also like to congratulate the team comprising of students from both Singapore and Vietnam, for receiving the SUTD Student Achievement Award – Humanitarian Award for this project, and sincerely hope this would continue to inspire them and many other students to lead the change in future.



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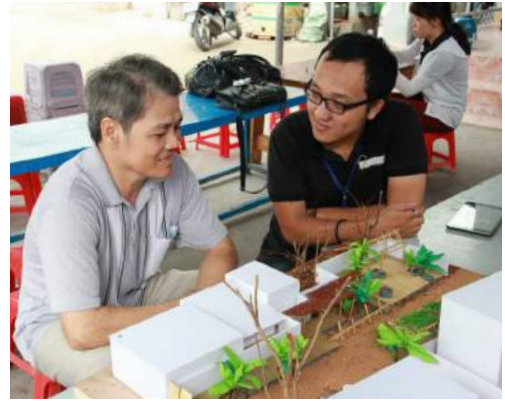
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PARTICIPATORY ACTION RESEARCH

Globally, there has been a rising trend where the approach of community-based participatory action research (PAR) is used in solving urban issues. In this approach, every stakeholder, from people to planners, are involved in studying and solving urban issues together. It aims to oppose the perspective that researchers are on a higher ground than their target audience, and empower the people to do something for themselves. This trend is gaining ground in developing countries where many non-governmental organizations (NGOs) and governments are experimenting with alternative approaches in tackling pressing urban issues amid rapid urbanization. From the usual method of "design for community" to "design with / by community", this cultural shift provides an area of tremendous potential

to research on. A fast developing nation in South-East Asia, Vietnam experiences rapid urbanization in two of its largest cities: Ho Chi Minh City and Hanoi. Ho Chi Minh City faces a myriad of urban issues from providing basic amenities to jobs for the residents, and thus serves as a suitable candidate in looking at the effectiveness of PAR in solving urban issues. The team was working in Phú Xuân Commune, a suburban district in Ho Chi Minh City, to study urban issues experienced by the local residents, with the objective of tapping on the expertise of each team member - from information technology to architecture - with the deep-knowledge of the community from the residents to provide different perspectives in tackling Phú Xuân's urban issues.



ABOUT PHÚ XUÂN, HO CHI MINH CITY, VIETNAM

Ho Chi Minh City is the largest city and the center of economic activity of Vietnam. The city was recorded with a population of 7.5 million in 2011, and is expected to grow to 13.9 million by 2025 with suburbanization occurring concurrently. Such rapid development brings about various challenges for urban dwellers and planners, such as competition for limited urban space, lack of amenities, sanitation and housing.

In this project, the team has chosen to work in Phú Xuân, part of Nhà Bè district, in Ho Chi Minh City, primarily because of prior relationships established with the community through the team's Vietnamese counterparts. The team will focus on Phú Xuân, while Nhà Bè will serve as a greater context for the research.

Phú Xuân is located on the east side of Nhà Bè. Its area covers 101 hectares, with a population of more than 16,000 and is surrounded by Sai Gon River, Long Tau River and some other communes in Nhà Bè. Phú Xuân experiences one of the highest rates of urbanization among all communes in Nhà Bè. In the past five years, Phú Xuân has developed rapidly in terms of infrastructure and economy. This is because it is located not far from District 7, one of the fastest and most developed districts in Ho Chi Minh City. However, many redevelopment projects are reportedly on hold because of land clearance issues. Its strategic location and complexities in redevelopment would make for an interesting and suitable study case for this project.

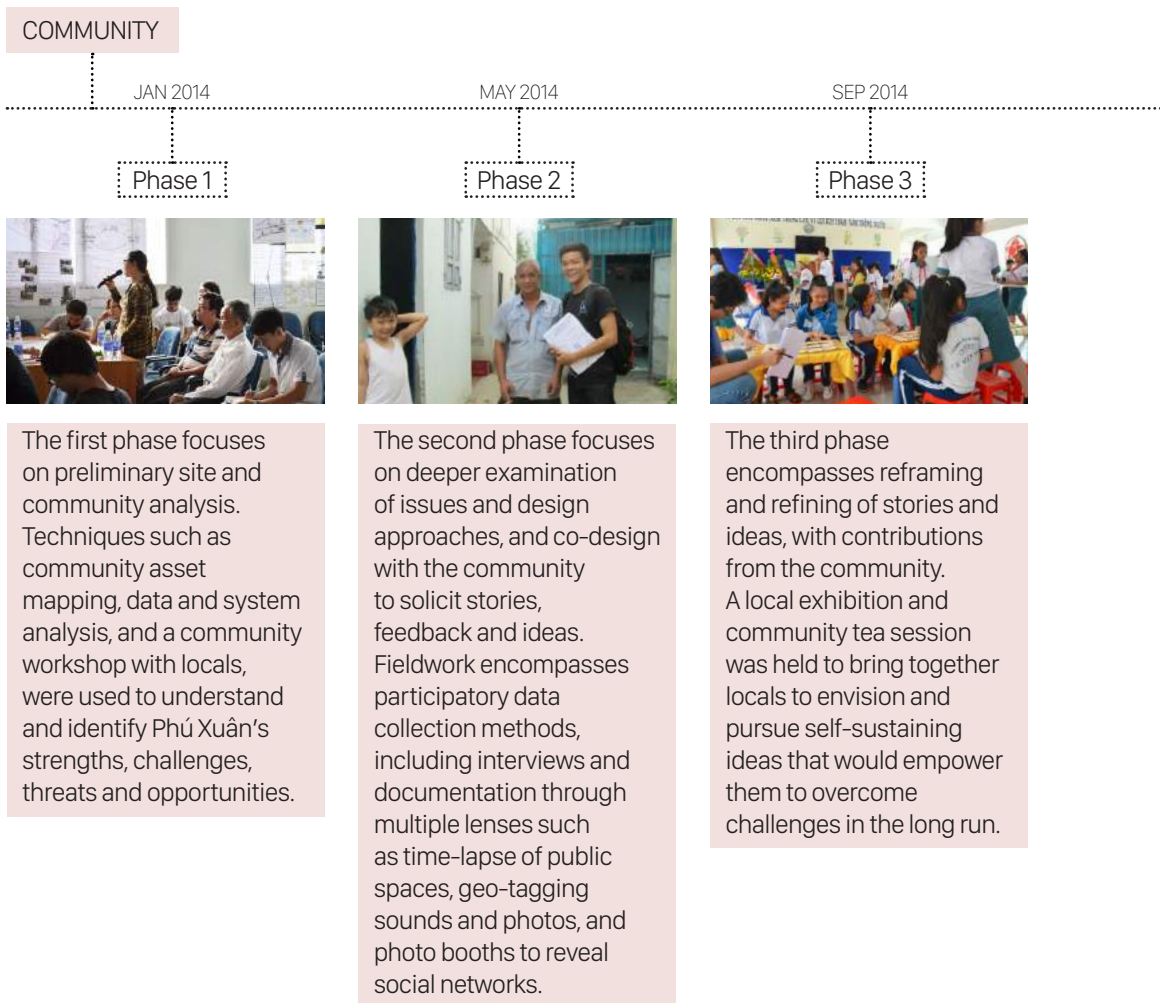


ABOUT THE TEAM

In this participatory action research project, the team has gathered members from multi-disciplinary background through a collaboration that involves three other local universities - Ho Chi Minh University of Technology, Van Lang University, and Ho Chi Minh City University of Transport.



PROJECT TIMELINE



CO-CREATION

MAY 2015

Phase 4



The fourth phase brings together the team and the residents to create and evaluate ideas together, through an iterative design process that leads up to the initial designs of a prototype. A co-creation workshop is organised where residents participate in the design process, and ideas are refined through a series of design reviews thereafter with the residents.

SEP 2015

OCT 2015

Phase 5



The fifth phase sees the construction and completion of an initial prototype, built by the team with the help of local residents. The completed prototype is publicised to the community as a new space for gathering and recreation.

CONTINUITY

DEC 2015

Phase 6



The sixth phase focuses on ensuring the continuation of this community-based design approach. The processes that took place throughout the project are showcased in a second community exhibition, and a public forum is held to share and discuss these methods with like-minded individuals and organisations.





COMMUNITY



Discussion and mapping of People, Places and Activities

STARTING PREPARATIONS

With the team comprising of members coming from different cultural backgrounds and academic disciplines - architecture, civil engineering, systems engineering, environmental engineering, and information technology - a community design workshop was organized to provide a structured platform for the entire team to identify issues and opportunities together with the residents of Phú Xuân. Through this, the team hoped to gain an understanding of the community from different perspectives, and identify some underlying forces at work to scope the real issues faced by the residents.



Community design projects involve a diverse range of considerations and possibilities in scope. When starting out on a new project, it is important to align all collaborators with the same understanding before starting work.

Data Collection Methods

PREPARATION	SITE VISIT	ANALYSIS
<ul style="list-style-type: none"> Interaction Skills Asset Mapping 	<ul style="list-style-type: none"> Sketch Interview 	<ul style="list-style-type: none"> Mapping of People, Places, and Activities Site mapping of characteristics SWOT: Strengths, Weakness, Opportunities, Threats
Enter the project with the correct mindset	Understand the concerns of locals	Identify links and relations Think of the potential of implementation



A training session on how to conduct an interview



Team discussions on their findings and proposals



Learning about residents through house visits

The first part of the workshop consisted of a rigorous and iterative process of site analysis, brainstorming and presentations over 10 days, exposing team members to the design approach of addressing community issues through a series of site visits and lessons.



During the initial phases of researching about the community, it is important to have the right mindset. Go in with the intention to find out more, instead of wanting to help.



The second part of the workshop was guided by the principle of designing with the community, with the aim of closely engaging community members. Through the workshop residents were brought through a process to brainstorm potentially self-sustaining ideas to empower the community, to eventually overcome their own challenges.



A young resident pens down suggestions for the place they grew up in



A local resident identifies his house on the map and offers some comments

The community workshop was held in the commune headquarters in Phú Xuân. The workshop began with the locals being invited to identify places where they live, work, learn and play on a map of their own neighbourhood. A sharing session followed, where locals shared their stories and views towards Phú Xuân. Teams then presented their study of Phú Xuân and some proposals to the locals.



A map of Phú Xuân annotated with post-its and ideas



When planning for a community workshop, it is important to consider the local context of the community when making decisions such as the tone for the session and the location for the workshop.

The workshop saw many locals, including youths, coming forward to share their stories, as well as opinions regarding the proposals. An elderly woman broke down while sharing about her life struggles. Another elderly woman angrily shared that her land was taken away “forcefully”. One woman shared that she was very contented with her life and that she valued the community spirit of Phú Xuân very much. A few shared about the lack of entertainment and communal space. In response to the proposals, a young girl also shared about her love for sports, learning musical instruments, reading and her wish for a community library.



A local student shares her feedback for a proposal



Written comments on post-its are placed on some proposals



Team proposals presented during the workshop



REVIEWING IDEAS

With the feedback in mind, the team began refining and diversifying ideas, while revisiting issues identified earlier. The multidisciplinary nature of the workshop revealed itself well at this point as the whole team got well-involved, coming up with refreshing ideas such as video games, alternate cartographies and energy harvesting.



Presenting WTP analysis to the rest of the team

The team then moved on to evaluate the feasibility of these ideas, plotting a graph showing Willingness-To-Pay (WTP), Value and Capability. One of the modes of assessment was the capability of the community, in which information from the site mapping was used to identify relevant community assets.

This allowed the team to appreciate existing implementations, infrastructures, resources, and even the community spirit and attitudes of the locals, and exposed the team to a host of factors and trade-offs that had to be studied, such as the fall-backs of tourism in Phú Xuân. These methods pushed the team towards a greater sensitivity, and to refine existing proposals upon more realistic and feasible grounds.

Issue	Potential projects	Willingness to pay (WTP)	Value	Capability
1) ownership of garbage disposal	Small river port wastewater treatment Bicycle market Bicycle parking lot	15000	High potential for tourism Friendly people Friendly environment	Building on an existing infrastructure
2) lack of entertainment	Modular recreation Community centre (1, 2, 3, 4, 5)	30000	Community spirit Existing empty land Part of existing infrastructure	Community support Existing empty land Part of existing infrastructure
3) Narrow road	Beautiful a (1, 2, 3, 4) wasteland and open space - raise the awareness, put down heavy garbage	50000	High potential for tourism Friendly people Friendly environment	Building on an existing infrastructure
4) Flooding	Beautiful a (1, 2, 3, 4) wasteland and open space - raise the awareness, put down heavy garbage	50000	High potential for tourism Friendly people Friendly environment	Building on an existing infrastructure
5) Poor drainage system	Beautiful a (1, 2, 3, 4) wasteland and open space - raise the awareness, put down heavy garbage	50000	High potential for tourism Friendly people Friendly environment	Building on an existing infrastructure
6) Unemployment	Beautiful a (1, 2, 3, 4) wasteland and open space - raise the awareness, put down heavy garbage	50000	High potential for tourism Friendly people Friendly environment	Building on an existing infrastructure
7) Unemployment	Beautiful a (1, 2, 3, 4) wasteland and open space - raise the awareness, put down heavy garbage	50000	High potential for tourism Friendly people Friendly environment	Building on an existing infrastructure
8) Unemployment	Beautiful a (1, 2, 3, 4) wasteland and open space - raise the awareness, put down heavy garbage	50000	High potential for tourism Friendly people Friendly environment	Building on an existing infrastructure

A WTP analysis of various issues and proposals

The team then presented their findings on the community as well as their proposals to a panel of Non-Governmental Organisation (NGO) representatives, investors, researchers and university professors. The comments made by the panel brought out perspectives from a professional experience, reminding the team to look towards implementing solutions that could be self-sustained by the community in the long run. The panel ended off the review by strongly emphasizing the need for raising environmental awareness, and collaborating with local unions, agencies and authorities to realise these ideas.



After the team has come up with some preliminary proposals, share these ideas with other people within and outside of the community, and you may uncover unexpected resources and ideas that will help propel the ideas forward.



A group presenting their ideas during the review



Members of the review panel from the community and industry



An industry partner expressing his interest to sponsor one of the ideas presented

Workshop Insights and Reflections

The objective of the workshop was to introduce the concept of participatory community design to the entire team, as well as to develop a good understanding of the Phú Xuân community.

This workshop was a first in many ways. For most of the team members, it was the first time that they had ever been involved in a multi-disciplinary project. For many, it was also a first-time exposure to human-centred design thinking. During ideation, it was noticeable that many initially stayed within their comfort zones and generated ideas that stayed within their academic expertise. However, by the end of the workshop, it was encouraging to see the ideas building on top of each other and acquiring a multi-disciplinary dimension. This brought the ideas to a whole new level of effectiveness. It was safe to say that the workshop had managed to effectively challenge the participations on the notion of design. The process of working closely with the locals and students from different expertise and backgrounds, reinforced the idea that design is not about the product, but about the people and the process.

However, on hindsight, the team realized that more time could have been spent in direct contact with the residents. In order to introduce students to design thinking techniques in a conducive manner, the workshop allocated most of the time in the classroom. It turned out that the amount of time given to site visits and interviews was insufficient to allow the team to acquire a deep and thorough understanding of the community. This was an observation that was also pointed out by the panel. In order to achieve the outcome of implementing well-rounded and sustainable solutions, the team must first spend more time with the community and walking in their shoes. This was the gap that the team sought to address in the subsequent stages of the project.



The conclusion of the review session with a group photo of the entire team and the review panel



RE - EXAMINING THE ISSUES

After the workshop, the team recollected and reflected on their findings on Phú Xuân, and realised there was still an insufficient level of understanding of the community. The team then shifted focus onto this aspect - learning more about the community, through the lens of a particular issue.

The team put together an overview of issues faced by Phú Xuân, and reframed the issues into four categories: Environmental, Social, Cultural and Economic.

The team then decided to focus on tackling the issue of waste management in view of two reasons:

- (1) Sites within Phú Xuân were affected by a lack of waste management.
- (2) Waste management is linked to many other issues faced by Phú Xuân. Studying waste management would be an indirect and less intrusive way to understand the community.

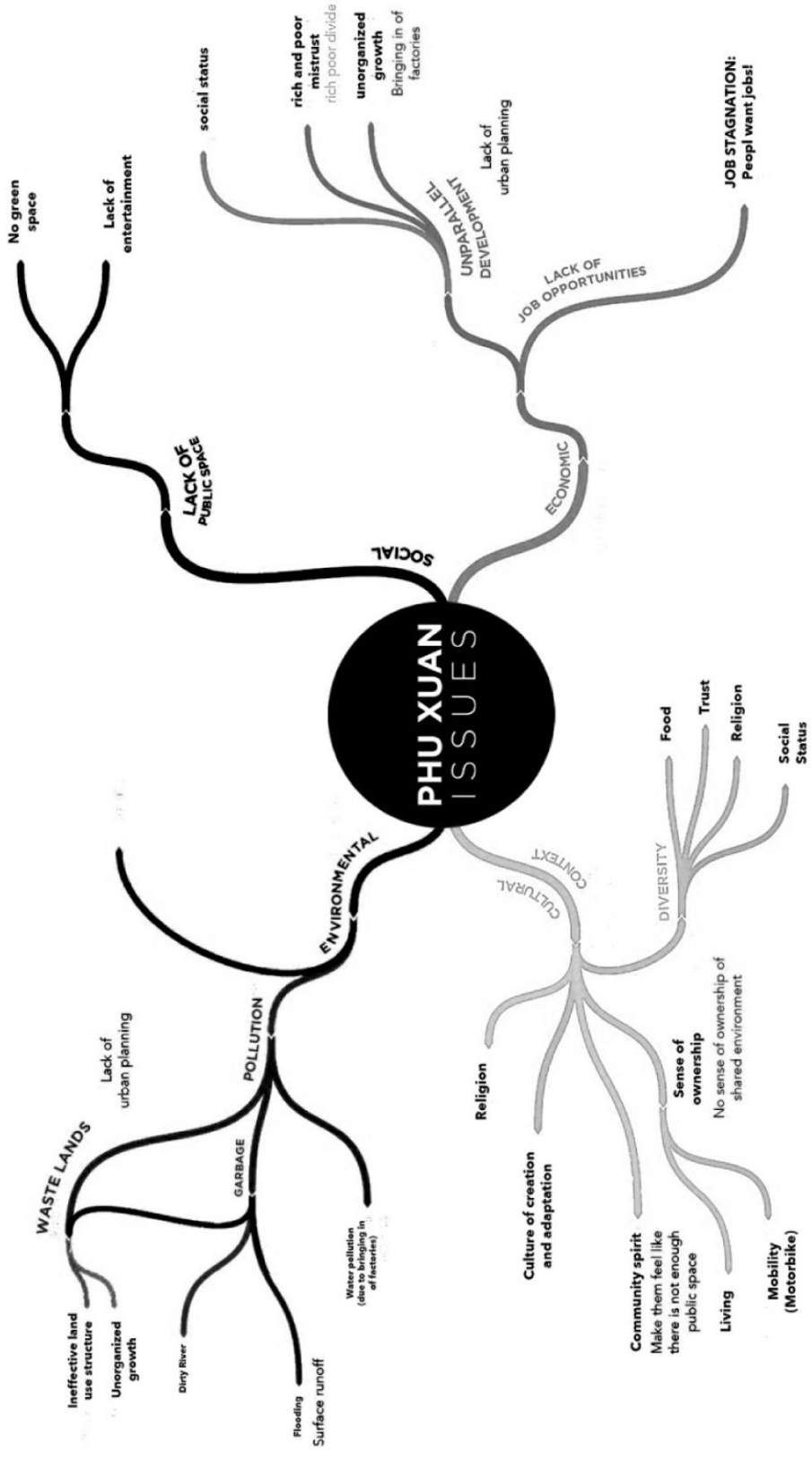
However, after a discussion with a community representative, the team concluded that this approach was too top-down, and decided to continue working on understanding the community by gathering more information about them instead, and at the same time raising awareness and interest about this initiative.



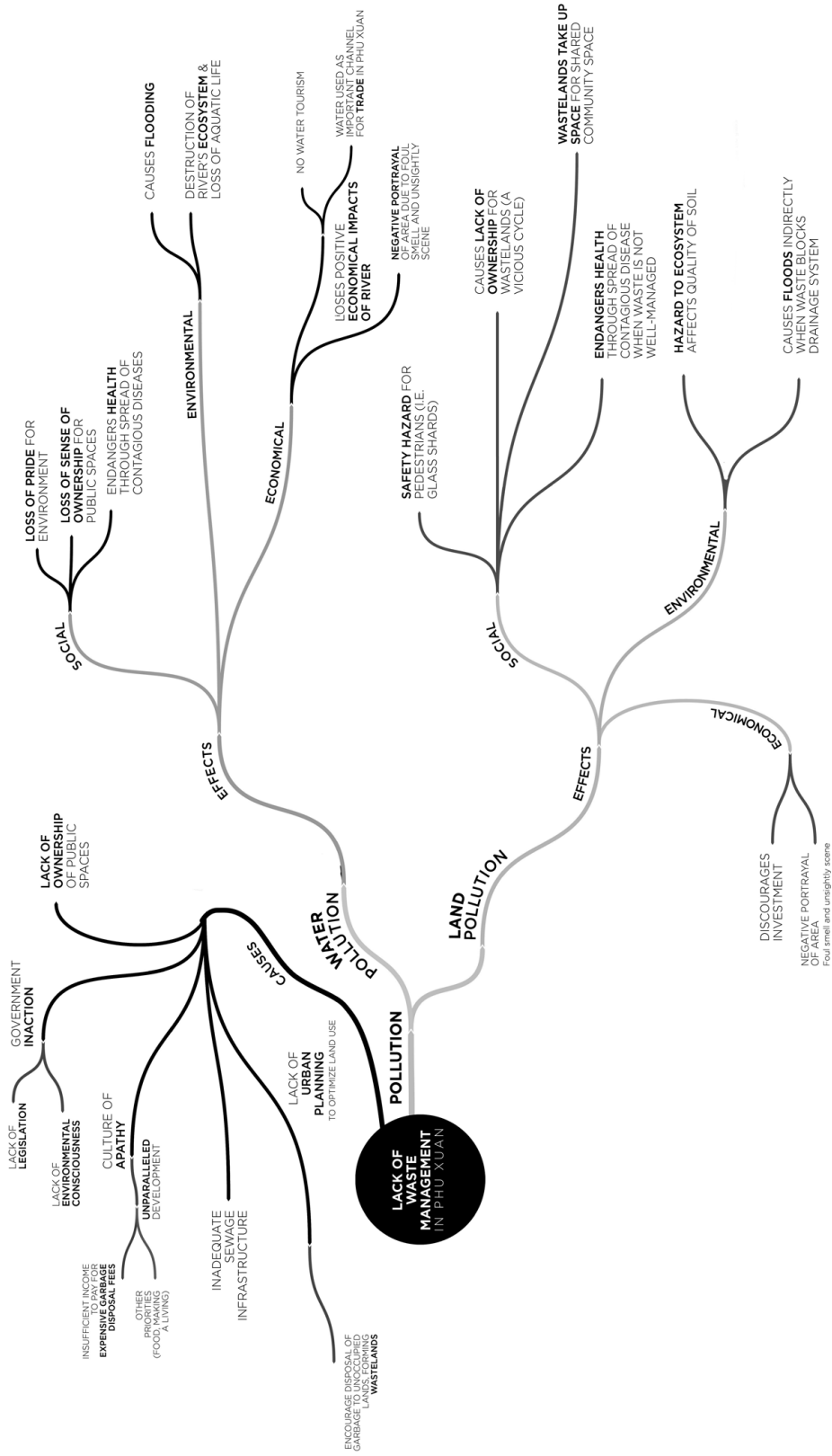
Unmanaged waste disposal around different parts of Phú Xuân



A team discussion relooking at the issues concerning the community



The complex web of issues in Phú Xuân categorized into Social, Economic, Environmental and Cultural



An analysis of the issue of a lack of waste management

COLLECTING PIECES OF PHÚ XUÂN

The team came up with five different data collection methods that included interviews with important stakeholders, and documentation of the community through multiple lens. These methods were designed based on two criteria:

- (1) They should collectively capture as many aspects of the community as possible.
- (2) They should collectively exploit the different physical senses to collect information.



A team briefing on data collection methods



The team is split into smaller groups, each taking on a chosen method



A group getting familiar with the video recording equipment

Data Collection Methods

Surveys



Purpose
To find out insights that various stakeholders have about the Phú Xuân community

Different surveys were designed for each type of stakeholder: community, government, academia, activist

Process

A mix of experienced and new volunteers
Residents were generally friendly and willing to be interviewed
Each interview took an average of half an hour

Video Recording



To document activities and movement within the place through videos

Cameras would be mounted from a secure high point to observe what is happening on the ground

Camera placed at more than 20 different locations for 1-2 hours
Locations chosen based on how people used the areas
Spent time talking to locals passing by and observing their lifestyles

Sound Recording



Purpose To identify informal social spaces of Phú Xuân through recording its soundscape

Sound recorders were mounted at various secure locations to record the sounds of the place

Process

Sounds were collected from various places to form a soundscape of the commune

Sounds were also recorded at various wastelands

Disparity in volume showed where and which communities made use and adapted the wasteland space for their own use

Photobooth



To explore the social network of people in Phú Xuân through setting up photobooths at key locations

Photos of residents who came in groups were taken for free. These residents were also surveyed on their relationships with each other, as well as their neighbours, friends and family

A group opened the photobooth at a cafe selling drinks

The cafe owner became uncomfortable with presence of a large group of people, leading to the switch of location to Le Van Huu Secondary School

It was more conducive to work there, but less frequented by the general public

This led to a close collaboration with the school for the next phase of the project

Geo-Tagging Photos



To create a map with photos that represent significant places in Phú Xuân, including places of interest, services, public spaces and voids

Photos to be geotagged using Global Positioning System (GPS) loggers

Equipped with digital cameras, generic GPS loggers and a GPS-logging software, BaseCamp by Garmin

Categories of the photos taken: (1) Religion and Culture (2) Social Spaces (3) Environment

Split into 2 groups: the first group taking photos by themselves and the second team asking residents to take photos

The second group received rather poor response and was eventually disbanded, even after the attempt to combine the photo taking procedure and the participation of the survey as it was too time consuming



Beyond the typical surveys and interviews, adopt creative ways to collect data from the community! You might be able to obtain much more latent information about the community.

Surveys

After organising all the survey responses, the team realised that there were three general types of responses: locals who had mild opinions, locals who expressed a strong sense of appreciation, and locals who actively sought improvement. The third group of people became the point of interest for the team.

The team also identified three main areas in which the responses were focused on: social connections, recreation and the environment. This finding was similar to the results collected previously, and through further analysis, the team narrowed down the scope of possible changes that the residents could bring in the future.



Interviewing a local resting along the street



A resident invited a group into his house for an interview



A map of Phú Xuân commune with symbols indicating the location where various interviews took place



Interviewees were asked to represent their community or express their point of view by taking photos of scenes relevant to the examined community. These photographs then generate narratives for the individuals photographed.



One of the many residents who were interviewed

Video Recordings

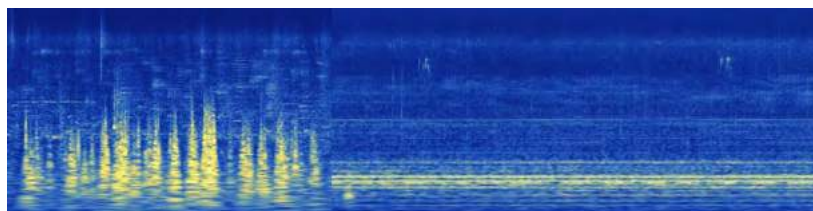
At most locations, there was a common scene where the people of Phú Xuân enjoyed gathering in groups and chatting with each other. They gathered over drinks at a roadside cafe, to play card games or to watch their children play. There was no specific public space that they had to go to; it seemed as if they gathered wherever was convenient.

Due to the unique nature of Vietnamese businesses, where shop owners would operate in front of their houses with barely any partition separating their living space and shop front, neighbours would gather at someone's house-cafe at the same time. This was a special phenomenon because it blurred the boundary between the typical public and private spaces. There was a strong sense of neighbourly spirit observed where small groups of neighbours would gather, especially in the afternoons.

However, there were few, if not none at all, community gatherings that brought the whole of Phú Xuân together. Thus, other than one's immediate neighbours around their house, the typical household had few opportunities to interact with others outside of that circle. This could prove challenging to inspire community action within Phú Xuân if its people were not used to gathering as a community in the first place.

Sound Recordings

Mapping the sounds and photographs of Phú Xuân provided the team with a macro view of the community. The soundscape revealed that it was full of life in the day, but its streets turned quiet once the sun set, reflecting a lifestyle of early-to-sleep and early-to-rise. While empty wastelands were often silent, street corridors bustled with conversations and sounds of motorcycles, the locals' primary mode of transportation, suggesting that people preferred to gather in the spaces between houses. Conversations often had women's voices, which indicated that men were usually not around in the day, perhaps due to work. The recordings often captured children's laughter and conversations in the background, suggesting a prevalence of children in Phú Xuân playing in the outdoors.



Sounds of people chatting near a temple and motorbikes rumbling past



A web application was built to show the locations at which the sounds were captured



Differences in sounds revealed a wasteland that was converted by families in a neighbourhood into a social space for dinking, play sports and enjoying the outdoors



Photo Booth

During the four days of data collection in Phú Xuân, the Photo booth team interviewed more than fifteen groups of residents. Friends, neighbors and families came by, and the team managed to pass each of them their group photo for keeping.

Amongst the visitors, one particular group stood out. The group comprised of a woman with an older daughter, around the age of seven, as well as a toddler daughter. From the interview, the team found out that the woman's older daughter was not her biological daughter. She had been abandoned by her parents when she was young and the woman took her in, caring for her like her own. Through the photo booth interviews, the team realized that there was a strong sense of kinship in Phú Xuân commune, where friends, family members and neighbors cared for each other.



Some portraits of local residents taken by the Photo Booth team

Geotagging Photos

Accessing location-based information would have helped the team understand patterns of social gathering spaces, cultural landmarks and even the empty lands that have the potential to be meaningfully repurposed. Unfortunately, the geotagged data was lost due to technical difficulties, and the team had to obtain information through other data collection methods.



Places of interest geotagged using a software



A geotagged photo of a local resident setting up a community kitchen right beside a garden on an empty plot of land



Handle and back up any collected information with great care, so that the team can refer to it easily in the future.

Conclusions about the Phú Xuân community

The table below consolidates an analysis of the community's strengths, weaknesses, opportunities and threats, categorized into four aspects: Social, Environmental, Economic, and Political. These conclusions were made based on observations collected previously.

Strengths	Weaknesses
Social	
<p>Strong sense of ownership to their own land 'My family used to farm here, I don't want to move.' 'I stay here and run my own business.'</p> <p>Friendly locals with strong community spirit 'Everyone knows everyone'</p> <p>Children are given freedom and independence</p> <p>Common religion</p> <p>Good security and trust among one another</p>	<p>Lack of public entertainment and recreational green space 'I have nothing to do besides taking care of grandchildren.' 'My children can only play in the internet store.'</p>
Environmental	
<p>Tranquil and peaceful place with beautiful riverside views – many do not wish to leave Phú Xuân because of this 'Everyone knows everyone I like to stay near the river and enjoy the river.'</p> <p>Resilient locals living by the water 'We live with the flood, it is part of our lives.'</p> <p>Increasing environmental awareness</p>	<p>The waste management system is expensive, even more so for those who live far away from the main road 'No one cleans the trash, I have to burn it myself.'</p> <p>Vulnerability to floods 'in july and october, the flood will be worse' 'floor is too low, no money to fix it'</p> <p>Land and water pollution 'The soil is very dirty, there is a lot of waste and waste water, which is not good for the health of children who play on it.'</p> <p>Poor infrastructure</p>
Economic	
<p>The locals are hardworking and work hard for their family</p> <p>Resourcefulness and diverse expertise of the locals</p>	<p>Locals complain about the lack of money, and yearn for better jobs and better business. Some also face unemployment. 'business not doing well as not many people visit here' 'many young people work in factory with low salary'</p> <p>Economic divide: lack of trust between the rich and poor</p>
Political	
<p>There is active civic participation and established unions that were set up to support different groups. 'Many policies involve taking care of the elderly financially by the elders' union.' There are campaigns that encourage poor children to go to school.</p>	<p>Lack of communication between the government and the people</p> <p>Perception of corruption within the government</p>

Opportunities	Threats
Social	
<p>Underdeveloped and underutilised land and river with the potential of being developed into community space</p> <p>Novelty of big community events</p> <p>Strong partnership with local universities</p>	<p>Overcrowding and influx of immigrants</p> <p>Youth addiction to the internet</p> <p>Ageing population</p>
Environmental	
<p>Schools are well-equipped, making it a good platform to promote environmental awareness and education</p> <p>Planting of mangroves along the coast</p>	<p>Unhygienic and dangerous due to pollution and poor infrastructure, and increasing industrial developments</p> <p>There is still a lack of public environmental awareness among the general population</p> <p>'People don't care about the condition of public space.'</p>

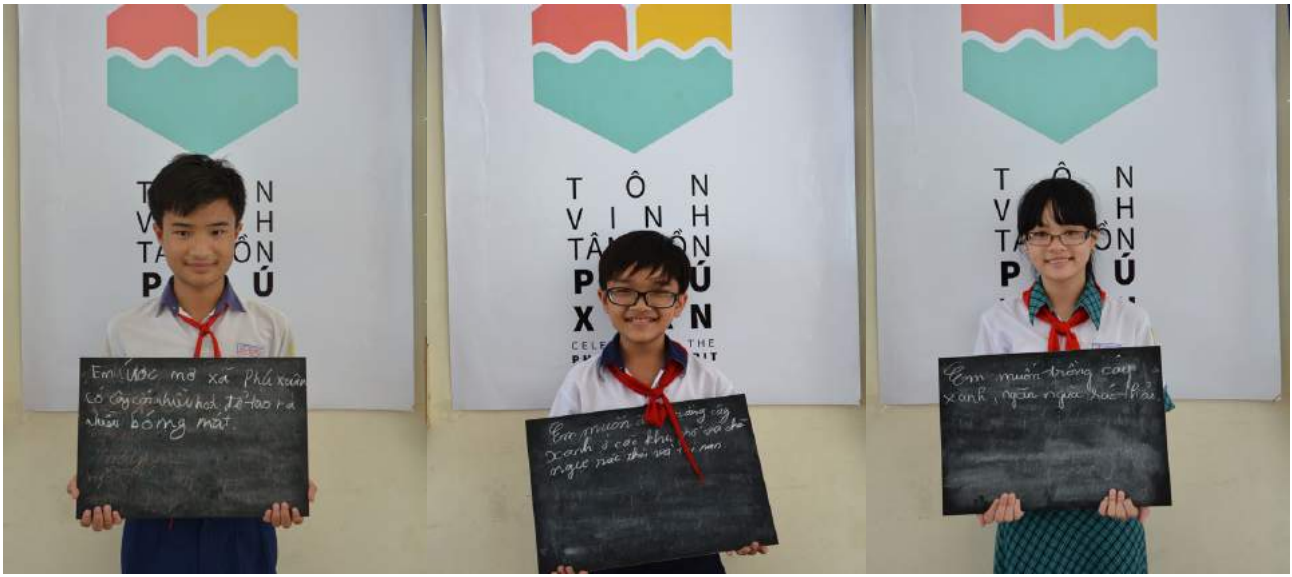
Data Collection Insights and Reflections

Through this process of data collection, the team collectively built a diverse database of information from scratch, piecing together a clearer yet multi-faceted picture of the Phú Xuân community. The insights arose not solely from what was observed but also, from every little interaction with the residents.

The data collection methods could even further engage residents in the process, enabling residents to become co-researchers of their own community – residents could collect information from their families, neighbours and fellow residents. Cameras could be entrusted into the hands of the residents, allowing them to capture snapshots of the people, places and activities around Phú Xuân that hold significant value to them, forming an intimate experiment which in turn unveils the relationships, daily routines and common places shared by the Phú Xuân community.

In the following phases, the team continued to understand and learn from the community, opening up room for greater levels of participation from the residents as well as the local university students.





VISIONS FOR THE COMMUNITY

The findings from the previous workshop and data collection were organised, analysed and presented in a local community exhibition. The aims of the exhibition were firstly, to provide a lens for the locals to relook at the stories, issues and assets of their own community. Secondly, it aimed to gather like-minded locals, and strived to empower them to envision and pursue sustainable ideas, helping Phú Xuân to improve one step at a time. The nature of the exhibition would be organic and ever-growing, with the team inviting locals to contribute to the exhibition with their own aspirations and ideas for a better Phú Xuân.



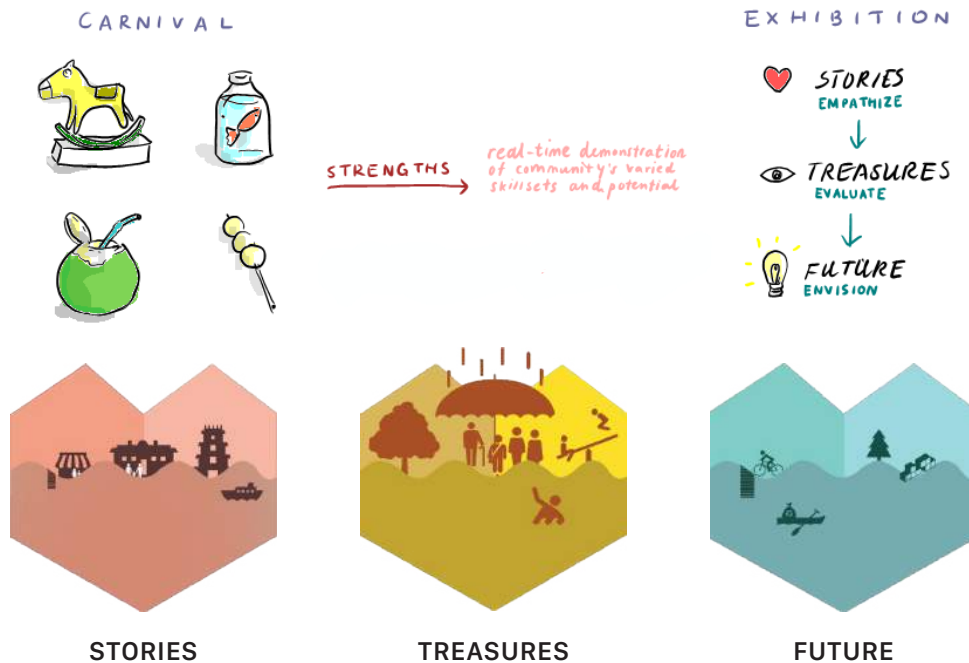
The exhibition was held at the ground floor of a local high school, a familiar location for both adults and children within the community

Experience Design

The team sought to create a highly interactive and organically growing exhibition where visiting locals could leave their mark. The exhibition would become a part of the community design process, using existing data to further gather and extrapolate stories and ideas from participants, such that they become the researchers of their own community, and through the process build their confidence, capacity and network as community designers.

		
<p>See Phú Xuân with new eyes</p>	<p>Bring the community together</p>	<p>To dream about the future of Phú Xuân</p>
<p>Rediscover the strengths and potential of the Phú Xuân community. Celebrate the spirit and beauty of Phú Xuân!</p>	<p>Discover who their neighbours are and what they are like. Talk about the past, present and future of Phú Xuân together.</p>	<p>Make a change for Phú Xuân by becoming a part of a potential community project that will be designed for them, with them.</p>

In order to present the wealth of information collected in a clear and coherent manner, the data was grouped into three themes: Stories, Treasures, and Future; and was exhibited together with a carnival and workshop showcase of the project to create a holistic and sequential experience.



STORIES


The theme "Stories" showcases a series of personal stories which provide a glimpse into the lives of residents in Phú Xuân, with the hopes of allowing the people to empathise and connect with one another, and build trust through personal stories.


TREASURES

The theme "Treasures" presents a big-picture view of Phú Xuân, and uncovers the unique qualities of the community through recounted memories and feelings for Phú Xuân. The strengths, weaknesses, opportunities and threats of the commune are also discussed.

FUTURE

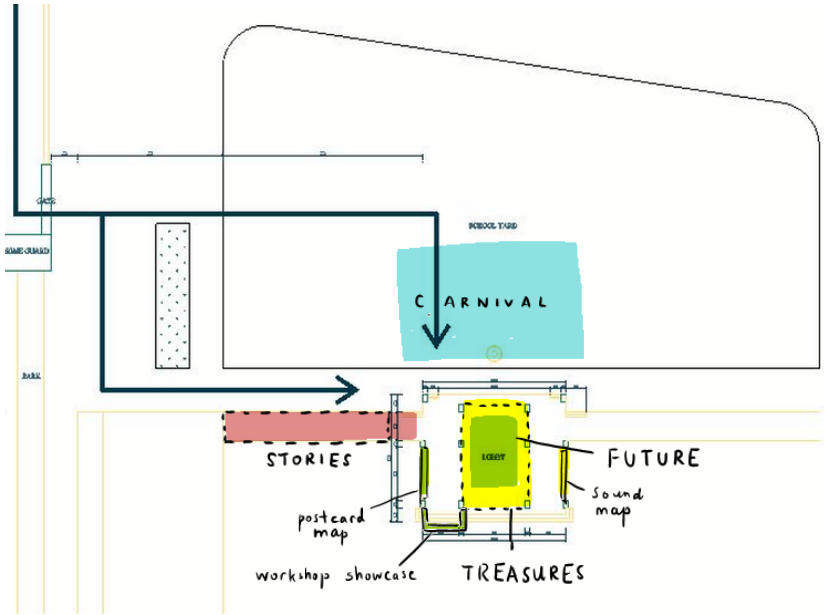
The theme "Future" explores what the future of Phú Xuân could become, visualised by the exhibition participants themselves. Geotagged photos are turned into postcards where wishes for the future of Phú Xuân can be written on.

 When designing material for an exhibition, find ways to display information in a fun and interactive way to engage and capture the attention of visitors.

 When preparing for a community exhibition, get as many people from the community as possible to assist in the set up of the exhibition. This could include nearby business owners, community leaders, or the local authorities. This engagement will help to bring more visitors to the exhibition through word of mouth, rather than traditional publicity methods such as giving out flyers.

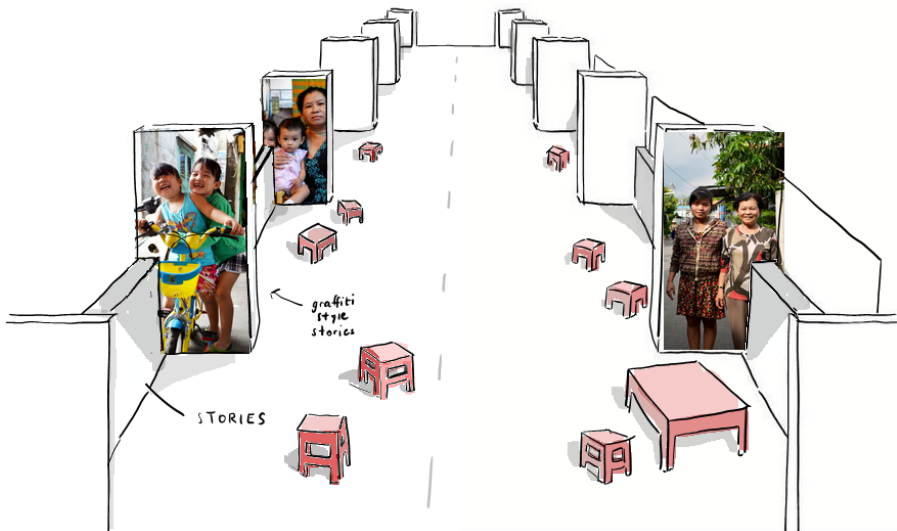
Visitors enter the exhibition compound from the main entrance of the school, and move through different themed areas with a variety of set ups and activities taking place.

Exhibition Floor Plan and Themes

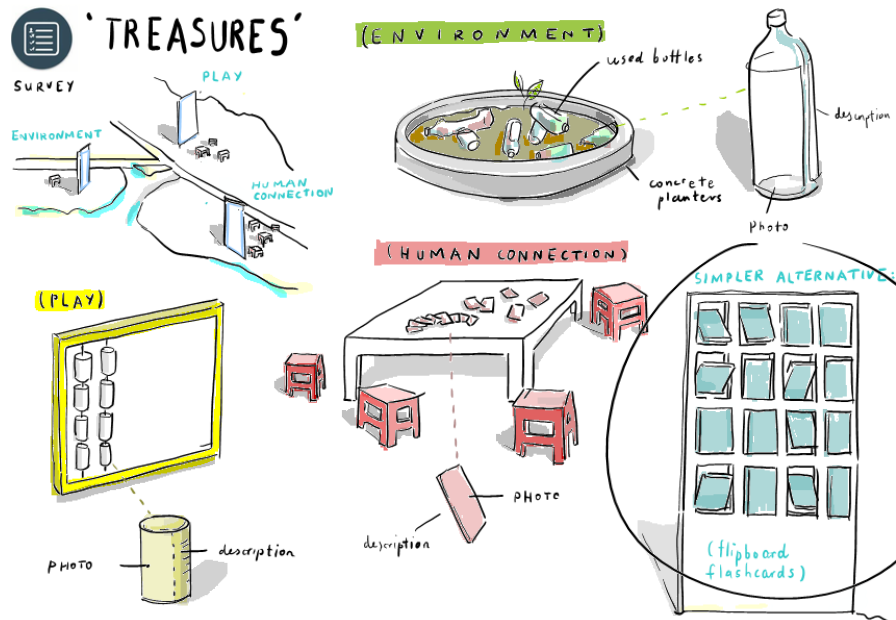


"People of Phú Xuân" shines light upon the unsung everyday heroes within the community through the feature of in-depth biographical summaries of the lives of five Phú Xuân residents.

"Places of Phú Xuân" employs time-lapse videos that rediscover the character of different places in Phú Xuân and the lives that surround them, as well as the potential of these places as social spaces.



In "Views of Phú Xuân", surveys of almost a hundred residents reveals the community's thoughts about the life in Phú Xuân based on three categories: Environment, Play, and Human Connection. Significant quotes by residents are presented in the form of wooden cards, which is represented as a visual symbol on one side and in a quote description on the other side, encouraging interaction and discovery.



"Voices of Phú Xuân" taps on the often overlooked sense of hearing and uses sounds to help people rediscover the colourful landscape of Phú Xuân. It has a selection of 24 sounds across the whole of the Phú Xuân commune, which is featured within a geotagged map.

'TREASURES'
SOUNDS

By composing a song using sounds they hear everyday only in Phu Xuan, it inspire them to see their own community in a different way and helps them to recollect memories and feelings about this very place that they call home. They feel a sense of nostalgia and pride for these little indicators of life that make up their community.

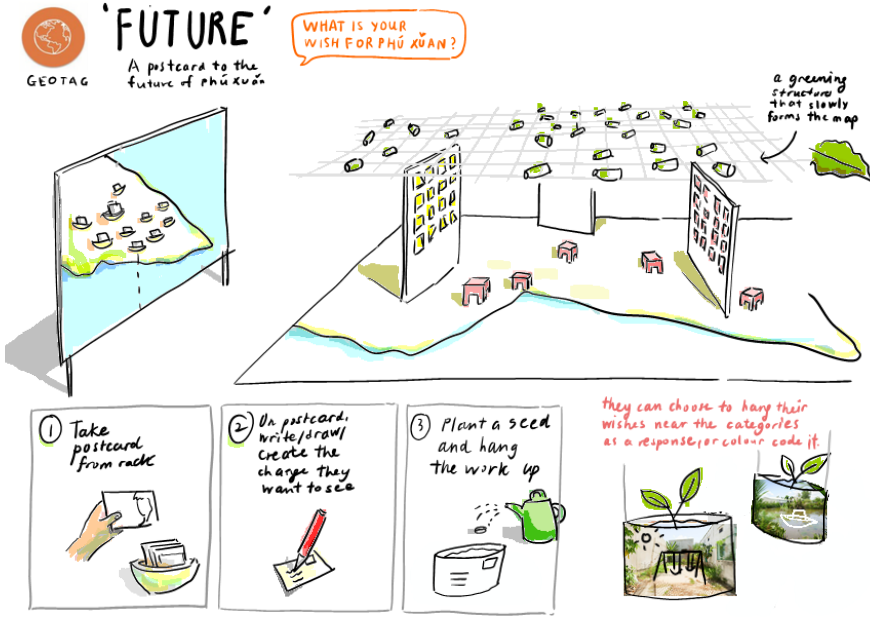
MAKE A SONG ABOUT PHÚ XUÂN
allow the visitors to compose music using sounds unique to the Phú Xuân community



Every sound selected will show a pop up of the photo of the sound. The end result will be a cloud combination of photos describing the future the composer wants for Phu Xuan. Using the sounds, he paints a portrait of the Phu Xuan he wants.



A mural assembled out of postcards acts as a versatile platform for the residents to pen down their dreams and hopes for Phú Xuân and customise it with their own photos and perspectives. It was then hung as a collective expression of the future Phú Xuân can become.



A small area is set up to display photos that showcase the progress of the project, with information about the processes and considerations that take place. This provides an introduction into the nature of participatory design to the residents.





An interactive display showcasing different sounds of Phú Xuân, under the theme 'Treasures'



Several students looking at a panel of geo-tagged photos on a map of Phú Xuân



Students interacting with flip cards showcasing different issues concerning Phú Xuân



Each flip card depicts an issue faced by the community, or a characteristic that might help to tackle these issues



A student poses for a photo with his written postcard, under the theme 'Future'



A group of students gathered at the Children's Corner

Children's Drawings

Through the use of paint, the children were asked to express their vision of the future of Phú Xuân. Many of them expressed vivid creativity and imagination through their works. Some two-thirds of the drawings depicted a desire for change through the implementation of greenery. Some proposed the building of theme parks, a cleaner river, and safer roads. All of the ideas encapsulated a single common vision – land reuse.

The existing landscape of Phú Xuân comprises of houses made predominantly from concrete, with plots of empty land spread all around. These sites are often abandoned, and become wastelands and dumping grounds, negatively impacting the otherwise charming town. Through the children's drawings, the team saw the desire for an ideal environment enriched with the beauty of nature and social activities, and the issue of land reuse became one of the driving points for the project.



Findings from the Exhibition

As part of the exhibition, visitors were given surveys that asked for their opinions not only about the exhibition, but also about issues concerning Phú Xuân. The data collected from these surveys hence contributed to the set of information and understanding about the community.

Part 1: Stories		Total collection	41
Places of Phu Xuan			
Question 1:			
In your daily life, have you ever visited these places?	Yes	28	
	No	11	
What you usually do when crossing there?	Go to school	4	
	Go to work	3	
	Daily routine	2	
	Hang out /visit relatives	1	
People of Phu Xuan			
Question 1:			
Is anyone in the story your friend or friend's relative?	Yes	36	
	No	4	
Question 2:			
Have you ever experienced the same thing?	Yes	10	
	No	27	

Part 2: Treasures										
Question 1: Is there any new or interesting things about Phu Xuan that you know by this exhibition? Has your thinking and feeling about Phu Xuan changed?	Safety	Understanding people living around	Be inspired and motivated by the stories of protagonists	Know that there are still more poor people in the community	Phu Xuan is more developed than imagine	Other: Lacking of trees, public entertaining places, acknowledge of appearance of immigrants, etc...				Total
	2 3%	34 50%	11 16%	2 3%	6 9%	13 19%				68
Question 2: In your opinion, what is good of living in Phu Xuan?	Friendly, closing to neighbors	Taking care, and help each other in daily life	Many trees	Fresh air, peaceful atmosphere	Lots of social, public activities	Delicious food	Many schools, playgrounds, parks, markets...	Other		
	31 31%	19 19%	3 3%	12 12%	9 9%	3 3%	18 18%	5 5%		100
Question 3: And what are not good about Phu Xuan?	There are still many people living under low living standard: the society is not yet developed, high rate of unemployment	High rate of criminal (druggers, violent committing...)	Hygiene, polluted water, air...	Animals and cattles are grazed on streets	Poor infrastructure in transportation, sewage system	Lack of trees	High rate of traffic accidents	Low sense of social responsibility	Other	
	10 10%	21 20%	36 35%	2 2%	6 6%	3 3%	19 18%	4 4%	2 2%	103

Part 3: Future							
Question: Could you please share with us an idea about the Phu Xuan community project? It can be the idea you saw from the exhibition.	Planting more trees	Having more playgrounds, parks, commercial centers	Having clean environment without pollution, flooded, and garbage	Helping people in poor condition and low living standard	Utilizing vacant lands for community purposes	Others (Relating to druggers, criminal rate, transportation infrastructure, hospital, ...)	TOTAL SURVEY COLLECTION
	29	50	43	14	13	9	101

Question 1: How do you feel about this exhibition?	Interesting/Inspiring	Help to know more about the community	New and strange			TOTAL SURVEY COLLECTION				
	39	10	3			46				
Question 2: Which part of the exhibition do you like most?	All session	Part 1: Stories	Part 2: Treasures	Part 3: Future						
	2	2	12	32						
Question 3: Do you have any inputs to make the exhibition better?	Mass publicize the information about the exhibition	Should contain more pictures/infographics	Should convey a clearer message	Should choose more appropriate venue/location	Should have other sessions (playground, quizzes...)	Souvenir	Bigger scale	Organize regularly	That's enough	Others
	2	5	1	1	7	4	3	3	4	5

Exhibition Insights and Reflections

The aim of the exhibition was to motivate and empower residents to make changes in the community, one which however was not an easy concept to express clearly. The idea of participatory community design was a new approach and experience even for the team. Some of the team members, especially new Vietnamese student volunteers who had not undergone the design workshop conducted at the start of the project, turned out to be unfamiliar with the idea of participatory community design and the purpose behind the project and the exhibition. The language barrier also proved to make this more difficult. This gap could have been better bridged if the team had ensured that more experienced team members had shared their knowledge and experiences with the new volunteers through more exposure and interaction while preparing for the exhibition. This further emphasized the important roles local collaborators play in a community design process, especially if there is a language barrier.

Through their feedback, visitors commended the novel concept of the exhibition. People enjoyed experiencing their community in new ways, such as through interacting with the sound map. The children were also very enthusiastic about filling in questionnaires. It was also remarked that the use of color themes for each space brought clarity to the experience. Brochures explaining the concept and process were given out, but a personal guided tour would have relayed the message in a clearer manner. However, the team was constantly short-handed on Vietnamese team members to conduct these tours for visitors. Hence, there could have been ten minute interval tours of 1:10 guide-visitor ratio, so that the Vietnamese volunteers can explain the exhibition to more people at the same time.

The team created the 'Future' section to be interactive and ever-growing, but this could have been extended to 'Stories' and 'Treasures' too. Post-it notes could have been handed out to the participants to encourage the addition of their opinions or stories in those sections. Additionally, the story and time-lapse exhibits could have switched and change along the course of the 3 day exhibit, instead of remaining static.

Throughout the exhibition, the team observed that children were more interested in the exhibition activities, and they tended to participate more actively. This observation made the team realize that the children are the future of Phú Xuân, and that they should be focused on in future initiatives.



CONCEIVING NEW IDEAS

With the conclusion of the exhibition, the team had, up to this point, amassed a large amount of information and ideas through different means. Moving forward, the team went further in depth into the research by exploring different solutions together with the community that were built upon the detailed findings and understanding of them for over a year. Below is a list of possible projects that the team felt they could move towards together with the community. Each solution is proposed with an analysis of the issues it addresses, and its feasibility in terms of its projected capability, willingness and value for the community.

ISSUES	POTENTIAL PROJECTS	CAPABILITY	WILLINGNESS	VALUE
<p>ENVIRONMENTAL</p> <p>Phú Xuân faces air, water and land pollution, partly because of the lack of public environmental awareness, and the high cost of waste collection that only serves the main roads. Floods are also frequent in Phú Xuân during the rainy seasons.</p>	<p>THE GREEN BOAT</p> <p>Eco-tourism</p> <p>In this eco-tour, locals take tourists on their personal motorbike boat to visit inspiring locals and various historical and cultural sites of interest, as well as witness the process of waste collection, sorting, upcycling and energy-harvesting by the community.</p>	<p>locals' capability</p> <p>This project taps on the diverse expertise of the locals, their friendly hospitable and strong community spirit, as well as Phú Xuân's proximity to the river, and its tranquility and beauty as a riverside district.</p>	<p>locals' willingness</p> <p>Eco-tourism helps create a variety of jobs, resulting in less unemployment.</p> <p>Eco-tourism could also mean more business for the locals and higher income.</p> <p>This could also create more public spaces for recreation and entertainment, which locals are willing to spend money on.</p>	<p>intended outcome for Phú Xuân</p> <p>Waste collection by boat could result in lower waste collection cost incurred by the locals who live further away from the road, discouraging them from disposing of their garbage irresponsibly into the river and onto wastelands</p> <p>More locals could also travel by boat, reducing the number of carbon-emitting vehicles on the road.</p> <p>Eco-tourism, environmental education and energy harvesting could also create a variety of meaningful and impactful jobs for the locals, and become an incentive for the locals to keep their environment clean and beautiful.</p>
<p>ECONOMIC</p> <p>Locals hope for better jobs and income.</p>	<p>River Cleanp - Pedal-cipate</p> <p>These boats are also equipped with energy harvesting pedals that help to filter the polluted river water, garnering both the efforts of locals and tourists in cleaning up the river, allowing them to pedalicipate in the cleaning process as one.</p> <p>Waste collection</p> <p>These boats are also used for a cheaper alternative for waste collection, for households living near the river.</p>	<p>It builds on existing infrastructure, and its network of interesting places and inspiring locals. It also taps on the many boats and motorbikes owned by each of the locals.</p>	<p>It builds on existing infrastructure, and its network of interesting places and inspiring locals. It also taps on the many boats and motorbikes owned by each of the locals.</p>	<p>It builds on existing infrastructure, and its network of interesting places and inspiring locals. It also taps on the many boats and motorbikes owned by each of the locals.</p>

ISSUES

SOCIAL

Locals hope for public space and opportunities for public entertainment and recreation.

POTENTIAL PROJECTS

MODULAR PUBLIC SPACE

Modular activity platforms can be built on existing wastelands, providing a communal space for a wide range of events/activities organized by the local community.

Examples of such activities include:

- Community farm
- Garbage farm - up-cycling workshops
- Eco market - up-cycled souvenirs and artworks
- Outdoor classroom - demonstrations of energy harvesting using rainwater and solar
- Competitions - making recycled art and community cleaning
- Public recreational and entertainment space (playgrounds, parks)
- Cultural and festive events
- Sharing platforms - TED talks

Wasteland game

Through an online game, locals, especially the youths, are encouraged to contribute their own ideas for public spaces in Phú Xuân using the modules. Good ideas can be looked at and developed by the community as a prototype that can become a sustainable solution.

CAPABILITY

locals' capability

This taps on the diverse expertise of locals, existing skills of building and construction and the availability of construction materials, their strong community spirit, and builds on existing wastelands. This taps on the locals' deep knowledge of their own community and community spirit amongst its people.

WILLINGNESS

locals' willingness

This could also create more public spaces for recreation and entertainment, which locals are willing to spend money on.

VALUE

intended outcome for Phú Xuân

Modular wastelands could become a creative canvas for the community, to create spaces specific to the site, people and events.

ISSUES	POTENTIAL PROJECTS	CAPABILITY <small>locals' capability</small>	WILLINGNESS <small>locals' willingness</small>	VALUE <small>intended outcome for Phú Xuân</small>
	<p>MOBILE LIBRARY</p> <p>Phú Xuân is lacking in the aspect of educational resources and facilities. As such, for most youths, their leisure time will be spent in existing facilities such as the internet cafe. In order to tackle this problem, a mobile library could be created, with books gathered through donation drives being transported to various parts of Phú Xuân. This will activate certain zones of the neighborhood as educational spaces, encouraging youths to learn through literature and texts.</p>		<p>Many local children show great interest in reading, and a desire to learn, and practice English.</p> <p>Parents want good education for their children.</p>	<p>The mobile library could be a mobile community space that could spread ideas about environmental awareness and action.</p>
<p>Small roads are run down, while main roads have no clear pedestrian routes, creating possibilities for accidents.</p>	<p>Traffic Safety</p> <p>Creation of roads with clear pedestrian crossing system, the paving and upgrading of established routes</p>	<p>This builds upon many locals' existing skills of building and construction and the availability of construction materials.</p>	<p>This heightens the safety of the locals and decreases risk of accidents.</p>	<p>By transforming the roads into safe spaces, accessibility and traffic conditions improve; leading to a more vibrant street life and economy.</p>





C O - C R E A T I O N

PROCURING A SITE

The team conducted a walkabout around the neighbourhood to identify spaces that could become potential sites for the construction of a prototype. From open plots of land flanked by two houses, to an in-between space within a cluster of houses, the team considered the viability of several options.

Potential Sites



A large empty plot of land in between two houses



A passageway with frequent human traffic and presence



An abandoned plot of land used as dumping grounds

When looking for a location for prototyping, it is helpful to consider a range of factors that relate to project objectives and scope. The effectiveness of the selected location may determine the effectiveness and impact of the final prototypes. The factors considered in this process includes:



Accessibility through an entranceway



Visibility from the main road



Feasibility in size of land



Terms of use

The Final Site



The site: part wasteland, storage grounds, secondary access road

At one of the suitable sites, the team chanced upon a phone number written at the adjacent house, and thereafter got to make contact with the owner of the land. After some discussion, the landowner agreed to allow the team to use the land for a period of two years to create prototypes with the community.



RAISING INTEREST

Personal Encounters



Teams reaching out to local residents at their homes in small groups

Through conversations during these house visits, the groups got to ask about what the residents felt were lacking within the neighbourhood. The interactions took place more casually than in a formal interviewer-interviewee fashion, to allow the groups to connect better with the residents and understand their perspectives. Along the way, some residents indicated that they were unable to attend the workshop as they had to remain at home to look after the children or their commercial businesses. For these residents, the groups took the opportunity to show them photographs of the site, and asked for their opinions on what they might like to see.



The sights and sounds encountered during the house visits also allowed the groups to gain an increased awareness of the way of life of the residents and the neighbourhood.



To publicise upcoming events held within the neighbourhood, the team also set up a Facebook page for the project, posting frequent updates on activities. When working in a different environment, consult local partners to figure out some effective tools and information channels for publicity.




DESIGNING WITH RESIDENTS


To kickstart the co-creation process with the residents, a full-day workshop was planned with activities that aimed to bring residents together to brainstorm ideas, reflect on local issues, and envision possibilities for the site and the neighbourhood of Phú Xuân. The intention of this workshop was not to teach design thinking, but rather as a way of getting things started. The workshop activities were hence planned in a way such that residents could participate in them easily without any prerequisite knowledge or skill.




The location: an open space between a high school and residences




When planning for a co-creation workshop, it is important to consider the purpose of the workshop and its intended impact within the community and for the project. This will help inform the specific aspects of how the workshop could be conducted.




What are the aims of the workshop?



What are the expected outcomes?



Who is the target audience?



What are the logistics needed?



Under the tent: a workshop session in progress

Workshop Activities

A Picture is worth a Thousand Words

Residents were shown various photos of various public spaces, most of which were from different parts of Vietnam. They were then asked to comment on aspects such as facilities, material choice, spatial design, forms and shapes, size and volumes. This visual exercise helped the team gather some initial ideas about the residents' opinions towards different spatial environments.



Site Map Sketching

After brainstorming, the residents then sketched out new ideas onto a map of the site, planning the layout of various elements. During this activity, they were asked to consider reasons why they might place different elements in particular positions around the site.



When interviewing residents, it is helpful to assign a pair of interviewers, one who engages the interviewee in discussion, the other who takes notes on the conversation.

While the workshop took place outside the school, many parents and school children would pass through the place at noon and in the evenings. Members of the team took the opportunity to further outreach, engaging people from both age groups in the workshop activities, or a simple chat to hear about their ideas.



Curious schoolchildren giving their ideas



A resident joins in the activities outside the tentage

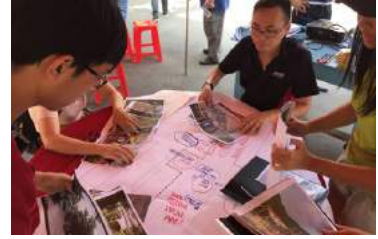


A coloring table for children

To encourage residents to join in the workshop in the day, activities for children were also conducted parallel to the co-creation workshop. As such, families could bring their children along for the workshop without worry of leaving them at home. The children were provided with art materials to sketch and draw, some of which were then referred to for more ideas on what might be helpful to the community.

DATA COLLECTION AND ANALYSIS

The residents' comments, feedback and ideas were collected in the form of sketches, comments, and interview transcripts recorded during activities throughout the day. Contact details, as well as some background information of some of the residents, such as gender, age, occupation and family size, were also noted down. The information was collated, and translated from Vietnamese to English.



The team going through annotated photos and sketches



Carefully designed data collection methods can help to give deep insights relevant to the project about the target audience.

Analysis Process

The compiled information was put through a computer program that ranked the frequency of keywords and phrases mentioned by the residents. Further analysis of the results informed the team of common areas of concern and needs for the residents, categorized into themes. Sketched maps were evaluated for the placement of particular elements around the site.



A site map marked with ideas



Children's drawings made up part of the references



Team members checking through interview transcripts



Sketched site maps are laid out together for comparison

Analysis Findings

- | | | | |
|---|--|--|--|
| ① Common Keywords | ② Common Features | ③ Additional Concerns | ④ Central Themes |
| <ul style="list-style-type: none"> - children - area - passageway - trees - corner - side - benches - gate - bamboo - play - stone | <ul style="list-style-type: none"> - playground - fitness corner - tables & chairs - traditional games corner - more greenery at entrance & pavements | <ul style="list-style-type: none"> - waste collection - soft grounds for play areas - creative spaces - interactive seating areas - site safety issues - green - environment - information - sports areas | <ul style="list-style-type: none"> - children's play area - exercise corner for the elderly - clean and green space |



After the information collected has been sorted and analysed, the findings were shared and discussed with the entire team to get everyone to a common understanding

DESIGN DEVELOPMENT

With these findings in mind, the team split into 3 smaller groups, and began discussing and developing a specific design strategy to respond to these themes, while referring to the residents' sketches and ideas. The groups then each created a physical site model that would visually express the design strategy, using cardboard, foamboards, as well as other recycled materials collected from the vicinity. In this process, the groups generated ideas such as an elderly fitness corner, interactive spaces, and open areas for local food vendors to generate some income and make the place more lively.



Synthesizing ideas into a single site map



Making simple models

Model Representations



Plasticine models as simple representations



An attractive entrance as a gateway



An open, landscaped site with wide trellises



A bridge play structure and feature pond

RESIDENTS' FEEDBACK

Residents who took part in the co-creation workshop a few days earlier were invited once again to join in for a feedback session, where the team sought comments for the three design strategies that were developed since the co-creation workshop.



In preparation for the feedback session, sketched drawings and photos taken during the co-creation workshop were put up on one side of the tentages. These materials would serve to inform visitors about the past efforts that led up to the session, create a sense of familiarity between the team and residents, and expand on the presence of the team within the neighbourhood.



A member of the local residents' committee hears from a team member about past workshop activities



When organising an activity in a community or public space, find creative ways to create an environment that feels comfortable for a transient audience. This way, both first-time visitors and regular attendees can be engaged in equally meaningful ways.

The feedback session was once again held in the evening afterschool time, where the team sought to draw feedback from as many parents and school children passing by as possible.



A resident comments about one of the site models, as a group of curious school students look on



A conversation with several residents, with members of the team sitting in and taking notes



A student joins in with several other peers to give their comments



PROGRESSING FORWARD

Having gained additional input from the residents, the design proposals were further evaluated through Willingness-To-Pay (WTP) and Strengths, Weaknesses, Opportunities, Threats (SWOT) frameworks. These analyses served to identify the residents' needs, asset capabilities, and the potential of each of the proposals, and thereafter the team moved to prioritise design solutions based on their effectiveness.



Analysing a variety of needs and design solutions



A group discusses about a series of design proposals



Groups presenting their analyses to the entire team

The team concluded the session by making plans for the construction of a prototype, appointing group leaders to be in charge of project management, logistics, and design development. A timeline was also laid out for the next 4 months that led up to the construction of the prototype.



Project management tools such as the Gantt Chart are very helpful in setting up a schedule of a list of tasks that needs to be handled by the team. These tools can be used to coordinate tasks between groups and keep the team on track.

Workshop Insights and Reflections

The main objective of this community design workshop was to allow residents to participate in the design process. At the same time, it also allows the team to understand the lifestyle of the residents and better interpret their needs and wants for the design of the vacant land. To build on the team's understandings of the people in Phú Xuân allows for more empathetic design on the site.

While preparing for this workshop, members of the team went around to do door-to-door invitation. To the team's surprise, most attempts to invite residents to the workshop did not succeed. Vietnamese students from the team explained that the residents in Phú Xuân are quite reserved and are not receptive to talking to strangers who knock on their doors. Nonetheless, there were a few willing residents who came to attend the workshop.

Most responses the residents gave were based on what they knew and saw. The team frequently received replies such as a park with beautiful lines of trees, a pond with statue, a playground or even a swimming pool. Through more in-depth understanding, the team realised that these features, as mentioned, were made with reference to the public spaces in District 1 in Ho Chi Minh city. It was common for residents of Phú Xuân to bring their children to other districts to use the public facilities there. Hence, the residents wanted the exact same facilities in Phú Xuân so as to reduce their need for travelling. The team then interpreted the data consolidated from these activities. The data were evaluated by giving a value to each element mentioned by the residents and then sorted out according to the needs. (For example: trees > provide shelter from sun, gate > attract attention and safety.)

The entire team then came up with three designs that fit the needs and wants of the residents, as opposed to directly implementing elements they mentioned, such as typical playgrounds and ponds. This is an important part of two way co-creation process, where the role of the team was to design and create something with added value, as opposed to a one-way process.

During the trip, many changes were made to the initial plans made by the team. Based on past experiences, the team was cautious that plans for the residents may not be carried out smoothly, and that the team needed to be flexible in decision-making. However, this was common in every visit to the community, and was easier said than done. For example, coming out with a detailed plan with residents but to no avail as residents may not come on time or may not even turn up. Such events led the team to be unsure about what to do at certain points in time, and would also prove to be tiring. In these scenarios, the team had to frequently think of a solution on-the-spot to make things more efficient and effective when such things happen.



REFINING THE PROPOSAL

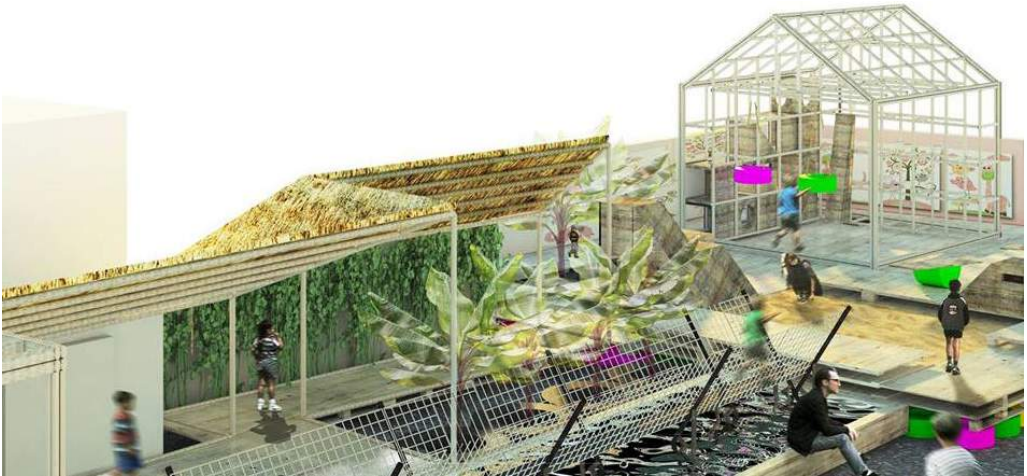
Based on the wealth of analysis conducted, the team began work on developing a concrete design proposal that would respond to this acquired understanding.

Design Development

During the design process, several rounds of reviews were held over video conferences, with members of the team spread across different geographical locations in Vietnam, Singapore and United States. In these reviews, the team bounced ideas, sketches and architectural models, assessing designs that would be effective in tackling the needs of residents, while relating closely to the local context and architectural typology.



Regular discussions within the team over video conferencing, between Singapore, Vietnam and United States



Design iterations expressed through simple rendered images and physical models

During this process, the team also did some research on existing Southern Vietnamese architectural typologies, as a way to imbue a sense of familiarity and relevance to local culture into the design. The traditional monkey bridge structure caught interest with the team, and was eventually adopted as a design feature.



A traditional monkey bridge design constructed from bamboo

A smaller group of members in Vietnam also began searching around Phú Xuân for building materials that could be used to realise the designs. Amongst these materials considered, the group visited a bamboo reserve near Phú Xuân to procure some bamboo as construction materials, and were taking on a tour by the local staff around the reserve to learn about the different uses and setups constructed out of bamboo.



A bamboo bridge structure suspended by thin ropes on display



A bamboo joinery detail

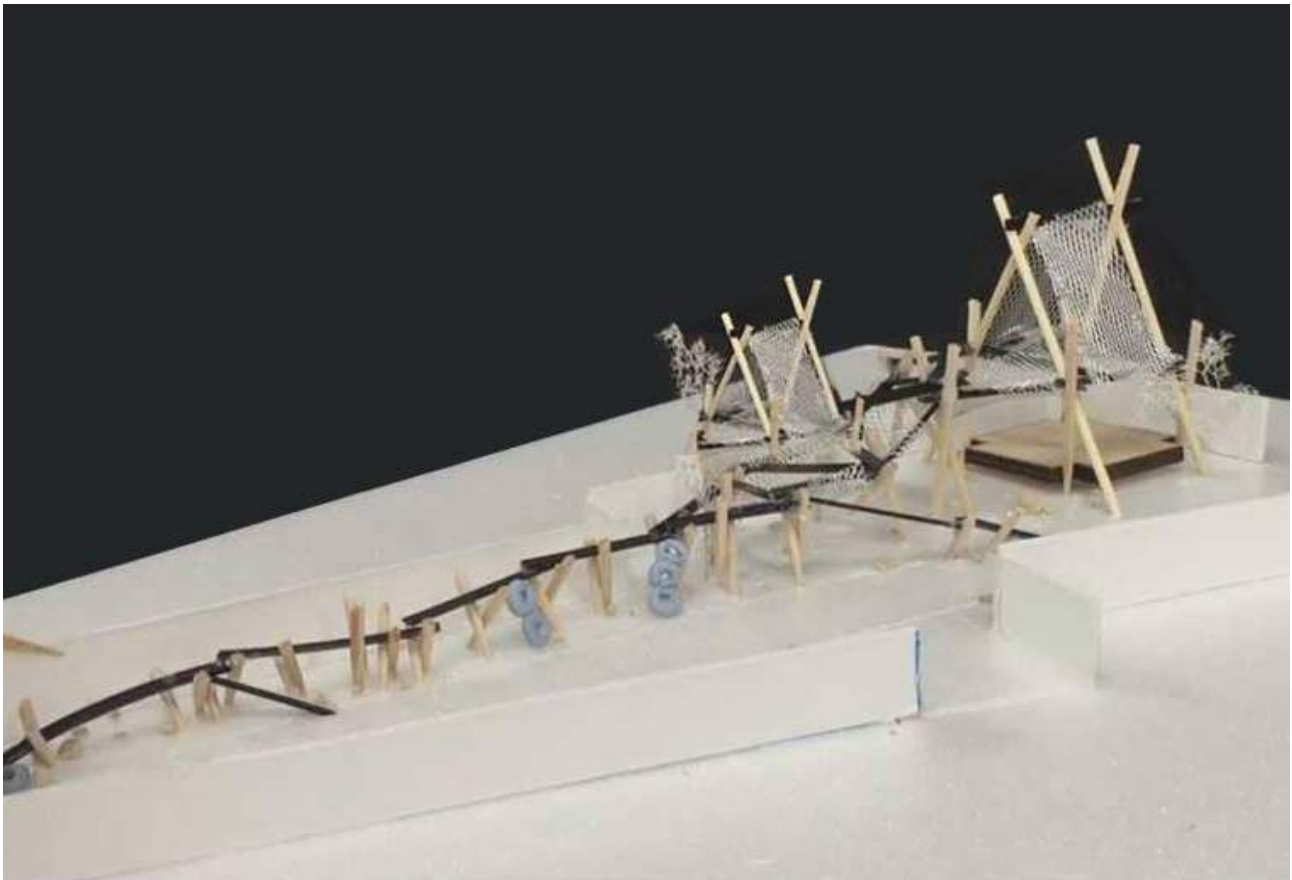
Gathering more feedback

The design developed during this process were brought back to the community for a second feedback session, where the team introduced the ideas to more people and asked for their opinions. Groups also went on house visits to gather more comments, raising awareness of the project within the community.



Members of the team engaging residents in discussion





The Design Proposal

The final prototype was eventually designed as a holistic strategy to respond to several local issues through its various parts: a rejuvenated public park with various features for people of all ages within the community to enjoy, providing a safe playing ground for children, and a green space for respite.



Land Reuse

An old wasteland is now transformed into a usable recreational space



Greenery

A public park where people can relax in and gain respite in nature



Safe Playing Grounds

A play structure for children, in an area that is safe from traffic on the main road



Community

A public space for local residents to gather



Resilience from Flooding

A terrain made into a rain garden to drain rainwater away and stay dry during the monsoon season



Hygiene

A space cleaned of trash and waste, avoiding hygiene problems, especially when flooding occurs



Local Context

The main monkey bridge feature takes reference to the traditional bridge in South Vietnam

PREPARING FOR CONSTRUCTION

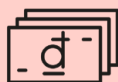
The schedule for construction was confirmed for a duration of two weeks, when the Singaporean team would join up with the team in Vietnam. Prior to this, the Vietnamese team began cleaning up the site of construction debris and trash, and then constructing supportive structures for part of the design.

When planning to construct a large-scale prototype, there are many aspects of the project that requires planning and decisions:



Finalising Design Plans

What will be built?
Is it structurally sound?



Budget and Logistics

What resources are available?
What materials are needed?
What are the total costs?



Manpower and Timeline

How much time is available?
How many people will be present?

When the Singaporean team joined up with the Vietnamese team in Phú Xuân, the team split up to work simultaneously on the initial phases of construction, as well as confirming the remaining aspects of the prototype, consulting a civil engineer on the structural integrity of the design, and budgeting material costs from different sources.



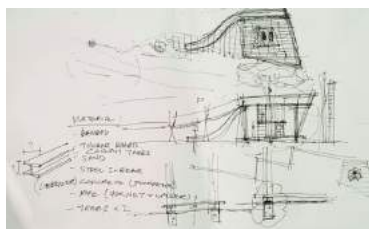
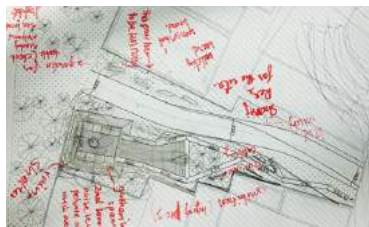
Discussions on the construction details of the prototype within the team



Collating total material costs to check against the available budget



A civil engineer from a local university is consulted about the structural integrity of the prototype



Design plan sketches from the top and side view



CONSTRUCTION BEGINS

After the necessary details have been decided, the team moved to continuing work on the site. The site was first cleaned up of weeds and construction debris before several tasks began concurrently: constructing the monkey bridge; paving a new road; and landscaping the site.





MANAGING THE PROCESS

The period of construction of the prototype was scheduled to be completed within a duration of ten days. As members of the team were available at different times during this period, a table was created indicating the AM/PM availability of each person for each of the ten days. This helped the team on-site on each day to be able to plan ahead with the manpower available.

Everyday, the team gathered at the start of the day to set down the goals for the day, split up into groups to handle different tasks, and appoint respective group leaders to be in charge.



The team gathers at the start of the day to set down tasks for completion by the end of the day



Starting off each day with a team briefing to set down goals and tasks for the day helps to keep the entire team on track, especially for projects on a tight timeline and with a large number of team members.



A chalkboard is used to write down a list of tasks and appointed group leaders for the entire team to be aware of the ongoings of the work

LOCAL INVOLVEMENT

Throughout the duration of construction, local residents occasionally came forward as individuals or in small groups, offering guidance and help in parts of the work that the team was engaged in.

A resident next door donated several banana saplings, while others offered a helping hand at construction work. Experienced adults demonstrated how to drill holes through narrow wooden poles, while children joined in on painting a mural. Materials were also procured from nearby businesses. At the end of the construction period, the completed community park welcomed its first users after word was spread around by the team.



A young visitor at the site



A resident offers some advice on putting the X-shaped posts into the ground



A resident comes forward to give a demonstration after seeing some initial difficulty faced by the team



Gardening activities were held for children to experience planting seeds in soil, get creative by decorating their planter bottles, and having their creations become a part of the site



A group of children get involved to help complete a mural painting on a wall that runs along the site



In participatory design projects, the scope of co-creation is not simply limited to the design phase, but includes the process of realizing these designs. When local residents get involved in constructing the prototype, this allows them to gain a sense of ownership and responsibility in the project. This could become a starting point to gather the community to create their own desired outcomes.









Prototyping Insights and Reflections

During the construction period, the team considered leveraging the help of residents as additional manpower. This in itself was difficult because most people would only help if they were sure of the end-product and what they were supposed to do, when in fact the participatory nature of the project meant that the outcome was decided by them, and therefore, uncertain. The participatory element required a higher level of involvement, not merely physical, but psychological as well. Therefore, it would have been more effective to start by asking for something small. These requests do not have to be monetary – most residents claimed they did not have money although they like to contribute to the project – but could also be in terms of materials (e.g. cardboard boxes, spare wood pellets, plastic bottles), tools (e.g. barrel, shovel, power source), or even skills and knowledge (e.g. gardening knowledge, carpentry skills).

Given the time constraint, the team prioritised the needs of the residents and decided to build a monkey bridge, a decision targetted at the children. The team had envisioned building an initial structure, such that residents could be inspired to further add on to the site. However, a significant number of adults interviewed were either unhappy or disappointed with the monkey bridge as it did not cater to their needs. Furthermore, it was largely due to the lack of the presence of adults that resulted in vandalism on the site. On hindsight, the team could have considered alternatives to engage the adult residents, instead of solely focusing on the children.

Due to time constraints, there was also a lack of in-depth research done on the structural stability of the materials. The team also did not expect the children to intentionally test the limits of the structure by jumping on it, leading to eventual damage sustained by parts of the structure.

During the trip in October, the team was told by members of the authority that it was no longer authorised to work on the land anymore because the owner of the land had sold it to another company. The original agreement with the landowner was made void. This drove home to the point that it is important to involve people who had a stake in the place. In this case, the land-owner did not stay in Phú Xuân and therefore did not get to see and experience the benefits of PAR.

During the trip, many changes were made to the initial plans due to unforeseen circumstances. As a result, we realised the importance of striking a balance between a detailed plan and a flexible plan. For example, it is very tempting to create an elaborate plan on the workshop. However, it is not easy to find a common time such that all the residents can participate in the workshop. Therefore it was ultimately organised in a way that there will always be people who can attend to the interested parties at any point in time. In the situation where the turn-out was too low to hold a proper workshop, the team split up into several groups to do door-to-door invitations and interviews.







C O N T I N U I T Y



EVALUATING IMPACTS

After we completed the prototype, we left the transformed space in the hands of the community for the period of four months that followed. Thereafter, we returned to see how the prototype might have had an impact on the community, and how such an effort could be sustained in the future.

Community Feedback

Having worked with the community for two years, we wanted to quantify the results of our efforts by gathering feedback from the community.

When gathering feedback from the community, it is important to identify what we truly want to find out from the residents before crafting our questions. The factors considered when crafting feedback questions for the community include:



How much do they know about the project?



What aspects of the project do we want feedback on?



COMMUNITY EXHIBITION

With the project coming to a close, a community exhibition was held to celebrate the contributions of all the residents and collaborators. It also gave us an opportunity for us to survey the residents who attended the exhibition.

Sample questions asked

- How do you use the space?
- How do you feel about the project?
- What do you like and dislike?
- How often do you use the space?

Some remarks by the residents

- Inspiring project for the community to learn from
- Prototype needs more strengthening
- Need more greenery to beautify the place



Residents of all ages were surveyed on their opinions of the project

The exhibition was held close to the site and showed how the project was conducted over the two years



Ending of the exhibition with Christmas celebrations for the community

REFLECTING BACK

While the team wished to continue the efforts in prototyping on the existing site, the land was recently acquired for future developments and thus current activities had to come to an end.

Closing Evaluation Workshop

A final closing workshop was conducted to evaluate how the project could have progressed better over the two years. The team reflected on their experiences and the processes undertaken during the project, and how it could have been done differently.



Groups presenting their learning points and suggestions for improvements to the entire team

Learning Points

- Numerous publicity runs were necessary and essential to keep residents engaged.
- Future projects should have a longer timeframe (for example, five years), with shorter cycles of development and evaluation (for example, six months to a year).
- Better balance of time spent between understanding the community and implementation.
- The team could have tested out other structures and concepts before the actual implementation such as testing the rigidity of the bamboo structure, stress test and failure mode effects analysis (FMEA).
- The project could have a greater focus on engaging the community in the project and the maintenance of it.



'When people know you are sincere and genuine, they will naturally want to be involved because they know you care.'
 - Ben Harley

LOOKING AHEAD

What better way to end the whole project than to share our experiences with like-minded individuals and inspire everyone else in the process? A public forum was organised where professors, NGOs and university students shared their thoughts and experiences in working with the participatory action approach. There was also a Question and Answer session where attendees debated and gave their insights on various topics. There were also discussions about the continuity of the projects. Questions were also raised about balancing the interests of different stakeholders and how to garner support from the government.



'Participatory design is diverse, it works with different types of communities. Everybody plays a part, be it in developed or developing countries.'
 -Dr Chong Keng Hua



- Q. How do we ensure the continuity of such an approach?
- A. Continuity should not just be targeted at residents. Continuity is about spreading the idea of community participatory design. It can also come from an approach of helping the residents implement their own projects.

Insights and Reflections

As it was the Christmas season during this phase of the project, the team held a Christmas-themed community exhibition to attract residents and display how the project progressed over the two years. Initially, attendance was sparse thus the team went around the community to invite more residents. In addition, a movie screening was held, followed by a Santa event for children. The team also surveyed residents of all age groups and gifts were given for their contribution. The event was successful as it attracted a large group of residents and brought them together while informing them more about the project.

An interview with the head of a resident committee of a neighbourhood in Phú Xuân also brought us more insights. He acknowledged the inspiration and positive impacts that our pilot implementation had brought about to the residents, and wished for more projects like this to be undertaken in the community. He also shared that in an attempt to provide more essential public spaces for the community, the local authorities usually cope with various problems such as land acquisition, compliance to central spatial planning, difficulty in getting permission to develop the lands from higher level authorities, and the lack of funds and other resources to implement projects. As a result, they prefer spending more resources on structures that they have more control of in the decision-making processes and also those with more direct benefits in the short-term. The head of resident committee also wished to see more people stepping up to run initiatives that benefit the entire community.

The team noticed that residents began using the structure in unexpected ways, such as for the hanging of laundry on the bamboo bridge. Such unexpected behaviour could point to a deeper need in the community. Despite being broken, the fact that the bridge was still being used by children for playing meant that our structure has succeeded in providing recreational value for the community to some extent.

It may be near impossible to quantifiably evaluate the impact on the residents in this phase. However, the team believes that it has succeeded in engaging the community by building awareness in the residents that they play a critical part in the project. We see this in their active participation in surveys and the workshop, their proactive provision of help in the prototype construction, and lastly, their enthusiasm in spreading awareness about this project and its approach to others in the community. It has been an undoubtedly fruitful endeavour.





CONCLUSION

Participatory Design as a Tool

The objective of this Participatory Action Research (PAR) project is to find out whether participatory action from stakeholders could yield more benefits in the long-term as compared to the traditional ways of initiating a community project.

Much has been learnt from the project, which was an extraordinary two-year effort. In the Community phase, the team kickstarted partnerships between various universities in Vietnam and Singapore to embark on the PAR. The team sought to develop a better understanding of Phú Xuân by building a relationship with the residents through an extensive number of platforms, such as workshops, exhibitions, interviews and novel data collection techniques. In the Co-Creation phase, with the help of the Phu Xuan community, the teams from both countries collaboratively identified the need for a play structure and a green space for recreational and leisure purposes. Thereafter, with the support of enthusiastic residents, the team successfully built a monkey bridge play structure and a rain garden on a piece of vacant land. In the Continuity phase, a final exhibition was held to showcase the project and at the same time obtain feedback on the impact of the participatory approach on the residents. On top of that, a public forum was organised to inspire university students to make a difference in the community through participatory community design. It was a time of reflection on the evolution of the project as well as an opportunity for discussion about the project's future sustainability.

Participatory community design is never trivial to conduct. On the whole, the team made headway in building up awareness in the residents that they are the best agents of change in their own community. However, there remains areas for improvement. Despite our efforts in publicity, it seemed like most residents did not hear of our initiative. A few enthusiastic residents were identified as potential community leaders because of the tremendous support they had provided. However they did not seem willing or able to actively sustain the project on their own. However, the prototype is still in use despite not being actively maintained.



Indeed, the idea of attempting to create an impact on a community level in a span of two years is a far-fetched goal. Cultures, habits and behaviours take decades to evolve. The desire for people to come together, co-create and co-fund not only requires time but mostly importantly, it requires ambition from the people to want a better community together, which is something that has to be cultured overtime.

However, one strongly positive outcome was how deeply the project seemed to have impacted our Vietnamese student partners. From the beginning, the main responsibility of explaining our project to the local residents had always laid on the local students who have the ability to speak Vietnamese. This pushed them to have to understand and synthesize the entire participatory community design methodology so well that they could explain the concepts to the ordinary layman. It is a success to see local Vietnamese students embrace participatory community design, when they had never been exposed to it before. It was amazing to witness them begin to adopt techniques learnt in this project to other external community projects. A seed has been planted.

Ultimately, the success and the future of Phú Xuân lie mainly in the hands of the residents themselves. They are in the best position to sustain, maintain and protect the results of this two-year project. Although the team did not manage to motivate the entire Phú Xuân community to embrace community design, a small but distinctive step has been made in the right direction. The project has managed to empower local Vietnamese students, who will eventually become leaders of the community's future. This is not the end of the road.



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Singapore University of Technology and Design (SUTD)
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Phú Xuân Commune

Phú Xuân Commune Authorities
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