Indexicality & Interiority

ADDRESSING THE ROLE OF INTERIOR ARCHITECTURE IN INFORMAL SETTLEMENTS THROUGH A SEMIOTIC APPROACH TO MEANING-MAKING.

M(INT)PROF M(INT)PROF MINI-DISSERTATION ADDENDUM
DHANE HERBST U16004338

ADDENDUM

Cover Figure: Project Collage (Author 2021).

UNIT FOR URBAN CITIZENSHIP

Department of Architecture
Faculty of Engineering, Built Environment and Information Technology
University of Pretoria

URBAN CITIZEN STUDIOS IN PLASTIC VIEW

Position Statement
01 June 2021

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To whom it may concern,

Since 2016, students from the Department of Architecture at the University of Pretoria (UP) have been engaged in mapping, research and design proposals around the Plastic View informal settlement, otherwise known as Woodlane Village. This work has been undertaken in collaboration with various departments within UP such as the Centre for Contextual Ministries, the Law Faculty and the Department of Family Medicine through the Community Oriented Primary Care (COPC) network as well as the stakeholders in the area, such as the Moreleta Church, the Informal Settlement Forum and SA Cares for Life.

ETHICAL CLEARANCE DOCUMENTS

Outcomes of these studios have been made accessible to the community and interested stakeholders as part of creating public awareness of the complex socio-economic conditions in the settlement. During the 2020 lockdown period, some of our staff and students were involved in the food drives and other assistance offered by local NGOs.

Recent developments in the area and meetings held by local authorities seem to suggest that there is a growing interest and concern regarding the position taken by the various stakeholders with regard to the eviction, relocation or support of the settlement. It is in light of this that we would like to make it clear where the Unit for Urban Citizenship stands in this contested situation.

It is our view that the socio-spatial inequalities of the past need to be remedied through meaningful collaboration and negotiation by all parties concerned. Since the dawn of democracy in South Africa, policies have been established to assist in this process, most of which have not been implemented successfully. Pertinent to the situation under discussion is the *Upgrade of Informal Settlement Policy* (2004), that specifically calls for comprehensive community engagement processes to enable the in-situ upgrade of informal settlements across the country. Provincial and municipal funding mechanisms are described in this policy in support of such processes. We fully support this as a valid, appropriate and thoughtful approach to the complexities inscribed in rapid urbanisation and emergence.

Through longitudinal engagement in the settlement, and in collaboration with stakeholders that have the interest of the residents in mind, we are of the view that the foundations are being established to develop shared visions and community-driven action plans that would address overarching concerns effectively and amicably. In pursuit of this goal, we have post-graduate students from the department of Architecture at the Honours, Masters and PhD level involved in various research and development initiatives. We therefore request that municipal authorities offer support for our continued research and engagement in the settlement in the hope of establishing sound platforms for future development.

Salient documents

- National Development Plan 2030
  - https://www.gov.za/issues/national-development-plan-2030?gclid=Cj0KCQjw4cOEBhD MARIsAA3XDRi-OB6f5F9DOQ-U6XrxQAk16COEAs3iQRP5a55LsQNwryi2HA8io9kaAv5 LEALw_wcB#
- National Spatial Development Framework
  - https://www.gov.za/sites/default/files/gcis_document/202002/draftnsdf20jan2020-com pressed.pdf
- National Housing Code: Upgrade of Informal Settlement Programme
  - http://www.dhs.gov.za/sites/default/files/documents/national_housing_2009/4_Increme ntal_Interventions/5%20Volume%204%20Upgrading%20Infromal%20Settlement.pdf

UNIT FOR URBAN CITIZENSHIP

Department of Architecture
Faculty of Engineering, Built Environment and Information Technology
University of Pretoria

We would like to encourage all parties involved in this matter to familiarise themselves with the above documents, so that the intentions of our engagement can be understood in terms of the policy frameworks that exist to address our country's fragmented past.

We look forward to constructive engagement with the City of Tshwane going forward.

Yours sincerely,

Dr Carin Combrinck
Director: Unit for Urban Citizenship
Carin.Combrinck@up.ac.za
Senior Lecturer in the Department of Architecture
University of Pretoria

Faculty of Engineering, Built Environment and Information Technology

Fakulteit Ingenieurswese, Bou-omgewing en Inligtingtegnologie / Lefapha la Boetšenere, Tikologo ya Kago le Theknolotši ya Tshedimošo

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YUNIBESITHI YA PRETORIA

Reference number: EBIT/259/2020

Dr C Combrinck
Department: Architecture
University of Pretoria
Pretoria
0083

Dear Dr C Combrinck

FACULTY COMMITTEE FOR RESEARCH ETHICS AND INTEGRITY

Your recent application to the EBIT Research Ethics Committee refers.

Conditional approval is granted.

This means that the research project entitled "Urban Citizen Studios: Public Interest Design" is approved under the strict conditions indicated below. If these conditions are not met, approval is withdrawn automatically.

Conditions for approval
Conditional approval on the understanding that:
- Applications from each student (including application forms and all necessary supporting documents such as questionnaire/interview questions, permission letters, informed consent form, researcher declaration etc) will need to be checked internally by the supervisor. A checklist will need to be signed off after the checking.
- All of the above will need to be archived in the department and at the end of the course a flash disc / CD clearly marked with the course code and the protocol number of this application will be required to be provided to EBIT REC administrator.
- Any personal and demographic data (eg gender, income, education) have provided the motivation that is acceptable based on the supervisor's evaluation.
- Students using organizations data not publicly available or collecting data from employees have the permissions in place.
- No data to be collected without first obtaining permission letters. The permission letter from the organisation(s) must be signed by an authorized person and the name of the organisation(s) cannot be disclosed without consent.
- Images and observation of people will require consent. Images and observation of minors are prohibited.

This approval does not imply that the researcher, student or lecturer is relieved of any accountability in terms of the Code of Ethics for Scholarly Activities of the University of Pretoria, or the Policy and Procedures for Responsible Research of the University of Pretoria. These documents are available on the website of the EBIT Ethics Committee.

If action is taken beyond the approved application, approval is withdrawn automatically.

According to the regulations, any relevant problem arising from the study or research methodology as well as any amendments or changes, must be brought to the attention of the EBIT Research Ethics Office.

The Committee must be notified on completion of the project.

The Committee wishes you every success with the research project.

Prof K.-Y. Chan
Chair: Faculty Committee for Research Ethics and Integrity
FACULTY OF ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY

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Assigned EBIT tracking number	EBIT/	/
Date received		

UNIVERSITY OF PRETORIA

FACULTY OF ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY

FACULTY COMMITTEE FOR RESEARCH ETHICS AND INTEGRITY

(EBIT Ethics Committee)

APPLICATION FOR APPROVAL OF A RESEARCH PROJECT

This application form must be read with the relevant UP regulations, as documented in the Code of Ethics for Scholarly Activities, and the Policy and Procedures for Responsible Research. By completing and submitting this form, you declare that you have read these two documents and understand the regulations.

Important: Each item must be completed.

Complete the form in your word processor. Forms completed in handwriting are not accepted.

Where applicable, underline the correct answer (e.g. <u>Yes</u> or No).

---

1. RESEARCHER DETAILS: (Please include your Supervisor details in this section if you are a student)

Applicant details:		University of Pretoria supervisor details:	
Initials and surname:	C Combrinck	Initials and surname:	C Combrinck
Title:	Dr	Title:	Dr
Email:	Carin.Combrinck@up.ac.za	Email:	Carin.Combrinck@up.ac.za
Phone:	012 420 6536	Phone:	012 420 6536
Employee/student number:	05075718	Employee number:	05075718
Department:	Architecture	Department:	Architecture
Are you a student (yes or no):	No		No

---

2. RESEARCH PROJECT TITLE (use a descriptive title)

Urban Citizen Studios: Public Interest Design in South Africa

3. RESEARCH PROJECT DETAILS

3.1 Provide a complete but concise description (no more than 5000 characters, including spaces) of the study objectives and study design, so that the relevant ethical aspects can be identified.
- From this, please identify the aspects clearly that you believe require ethics clearance.
- Please note: do NOT submit a complete research proposal. The Ethics Committee will not consider this, but will only consider the documents required for submission of an application.

The Urban Citizen Studios are situated in the Honours (NQF Level 8) and Masters (NQF level 9) level of the UP Department of Architecture. A requirement of these studios is for the students to engage with specific networks of communities that have an established relationship with the department that has existed for more than five years in the Mamelodi East area as well as Moreleta Park as part of their introduction into the field of Public Interest Design. Following on the successful conclusion of the NRF/STINT project *"Stitching the City: From Micro data to Macro views"*, a methodological framework was developed for the collection, management and sharing of data that may continue to inform work done in these studios. This methodology is reliant on face-to-face and on-line engagement with a variety of stakeholders, that includes the following research instruments: Unstructured interviews; Workshops; Transect Walks; Surveys; Visual Journals; Observation. Data is then captured on platforms such as: Maptionnaire; Kobo Toolbox; Aerial or drone imagery; GIS and archives.

From this data, students are expected to develop Community Action Plans in collaboration with the stakeholders, followed by CoDesign processes that may include the physical implementation of prototypes. In support of these studios, students will also participate in the project documenting Public Interest Design in South Africa. The project proposes the cinematic documentation of selected architectural interventions in South Africa since 1994 that represent a paradigm shift towards Public Interest Design. In reference to Kim's (2018) Conceptual Taxonomy, nine episodes are proposed, in which the following themes will be used to categorise the work:

- Design as Political Activism
- Open-source Design
- Advocacy Design
- Social Construction
- Collective Capability
- Participatory Action Research and Practice
- Grassroots Design Practice
- Pro Bono Design Services
- Architect-Facilitator

Interviews with the architects and project team members, clients and affected communities are proposed, with specific attention to the processes that governed the inception, implementation and consequence of the interventions. Documentation of the contextual circumstances and tangible quality of these interventions will be undertaken by students enrolled for their professional Honours and Masters degrees in Architecture, Landscape and Interior Architecture, in collaboration with a professional team of documentary film-makers. Interviews with architects that have undertaken significant projects in other parts of Africa will be included to contextualise progress in the discourse on a continental level.

Why is this important? Despite the radical political transformation promised in the democratic elections of 1994, the people of South Africa remain adversely affected by the socio-spatial legacies of a segregated urban landscape. The contributions by architects to address these challenges go largely unnoticed and remain marginalised, even within the mainstream profession. The purpose of this project is to bring to the fore the significant and important work that has been done in this space, which may be seen as establishing a basis for the promotion of Public Interest Design as a legitimate and potentially mainstream pursuit of the architectural profession in this country.

The objective is to document projects that have been implemented in South Africa since 1994, to foreground the value of an emphasis on Public Interest Design, thereby establishing a sound platform for including this in mainstream architectural education and praxis. The series of documentary films will explore and illustrate how these projects were undertaken and how they have impacted on their communities over time.

3.2 Will a research questionnaire/survey be used?	Yes	No
• If Yes, please answer the next question. If No, ignore the next question.		

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• Please submit your questionnaire, survey questions or interview questions with your application. This will be a separate file that should be submitted as a pdf file, using this filename format: Questionnaire.pdf or Survey.pdf		
3.2.1 Does your questionnaire/survey include any personal questions? (including ANY of the following: name, address, email address, any other information by which a respondent can be identified, gender, age, race, income, medical status)?	Yes	**No**
3.3 Are employees of a firm, organisation or institution questioned as informant in this study? • If Yes, please submit letter(s) of permission from this entity to carry out this study. It should be clear that the person giving permission is authorised to do so and should be on a company letterhead and should include the date and that person's signature. • Where required, your application cannot be considered without this permission. • This letter should be submitted as a pdf file, using this filename format: CompanyPermissionLetter.pdf	Yes	**No**
3.4 Will you be surveying or questioning UP students or UP personnel in this study? • If Yes, you need to submit a letter or email from the Dean that provides permission for you to include UP personnel or students as participants in your study. • Where this is required, your application cannot be considered without this permission letter. • This letter should be submitted as a pdf file, using this filename format: DeanPermissionLetter.pdf	Yes	**No**

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4. RESEARCH PARTICIPANTS

Does the project involve people as participants, either individually or in groups? If Yes, please answer questions 4.1 to 4.7. If No, continue to section 5.	**Yes**	No
4.1 Does the study involve people as informants, or does it involve people as research subjects? **Informants** are people of whom you require an opinion, e.g. people that are interviewed or that take part in a survey. **Research subjects** are people that actively take part in research, e.g. where biological measurements are made (e.g. heart rate) or where people take part in behavioural tasks (e.g. listening tasks)	**Informants**	Subjects

4.2 Describe possible safety and health implications that participation in the project may pose.

None foreseen

4.3 What is the expected duration of participation of people in the project?

People will participate intermittently on a voluntary basis. The duration of the studios extends over the academic year.

4.4 Describe the manner in which confidential information will be handled and in which confidentiality will be assured.

No geographic or personal references (name, address, ID, occupation, age, income etc) that may accidentally imply the identity of the interviewees will be included in the interview/ survey/ focus group discussion. Interviewees or survey participants will be asked to give consent to be surveyed, interviewed, recorded or quoted. If they request that certain parts of the interview cannot be made known, it will be deleted and not used in the study.

4.5 Please explain how and where data will be stored. It should be clear that data will be appropriately protected (e.g. password protected in encrypted files).

Data will be stored on a password secured electronic devices.

4.6 Is remuneration offered to subjects for participation? If yes, please expand.

No

4.7 INFORMED CONSENT/ASSENT

Informed consent is a requirement for *all* studies. All participants need to provide individual informed consent, which the researcher should keep on record. An example for an informed consent form appears on the website, but this should be adapted to be very specific about your study and what you will require of participants.

Please submit your informed consent form (an example of the form that you will use) with your application. This should be submitted as a pdf file, using this filename format: InformedConsent.pdf

4.7.1. Please describe what you will do to obtain informed consent/assent from your participants (or their caregivers in the case of underage participants).

We will explain the research project to the interviewee and ask their permission to be surveyed, interviewed, recorded and/or quoted. If they request that certain parts of the interview cannot be made public or published, it will be deleted and not used in the study. We will explain that they will remain anonymous, that the data will be securely stored and that some information might be used for publication purposes. All discussions will include translation to ensure that communication is clear.

4.7.2 Detail the measures you will take to ensure that participation is voluntary.

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We will explain to the interviewees/ survey participants that they may refrain from participation or stop the interview/ survey if they do not feel comfortable at any stage. All discussions will include translation to ensure that communication is clear.

5. ENVIRONMENTAL IMPACT and HAZARDOUS MATERIALS

5.1 Does the project have a potentially detrimental environmental impact, or are hazardous materials used in the project?	Yes	**No**

- If Yes, you will need to submit a letter of approval from the Department of Facilities and services, Occupational Health and Safety division, before the Ethics Committee can consider your application.

- If section 5 (this section) is the only aspect of your project for which you require clearance from the Ethics Committee (i.e. no people or animals are included in your study), you should not apply to the Ethics Committee, but should apply for clearance directly to the Occupational Health and Safety division.

- If No, continue to section 6.

6. DISSEMINATION OF DATA

6.1 How and where will your results be published and/or applied?

Through architectural filmmaking, it is proposed that the dynamic field of Public Interest Design may be conveyed not only to those within the architectural profession but also to the public at large. In addition, through the publication of a printed and e-book, the academic rigour supporting the documentary film may become widely available and recognised as an educational and practice resource.

7. DECLARATION (Tick the relevant boxes)

x	I accept and will adhere to all stipulations pertaining to ethically sound research as locally, nationally and internationally established.
x	I will conduct the study as specified in the application and will be principally responsible for all matters related to the research.
x	I shall communicate all changes to the application or any other document before any such is executed in my research, to obtain the necessary permissions from the Ethics Committee.
x	I will not exceed the terms of reference of the research application or any other documents submitted to the Ethics Committee.
x	I confirm that I'm not seeking ethics clearance for research that has already been carried out.
x	I affirm that all relevant information has been provided and that all statements made are correct.
x	I have familiarised myself with the University of Pretoria's policy regarding plagiarism http://www.ailbrary.up.ac.za/plagiarism/index.htm. Plagiarism is regarded as a serious violation and may lead to suspension from the University.

Please submit the completed Declaration By The Researcher form with your application.
Please submit this as a pdf file with this filename format: Declaration.pdf

8. SUBMISSION CHECKLIST

Each item to be submitted should be submitted as a separate pdf file, using the naming convention given earlier in this document or below.

8.1 Have you submitted confirmation that the research proposal has been approved? Please submit as a pdf file with this filename format: Confirmation.pdf	**Yes**	No	

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8.2 Have you submitted your application form (this form)? Please submit as a pdf file with this filename format: ApplicationForm.pdf	<u>Yes</u>	**No**	
8.3 Have you submitted your survey questions, questionnaire or interview questions (where applicable)? Please submit as a pdf file with this filename format: Questionnaire.pdf	<u>Yes</u>	**No**	**N/A**
8.4 Have you submitted the _Declaration by the researcher_ form? Please submit as a pdf file with this filename format: Declaration.pdf	<u>Yes</u>	**No**	
8.5 Have you submitted the _Informed consent form?_ Please submit as a pdf file with this filename format: InformedConsent.pdf	<u>Yes</u>	**No**	
8.6 Have you submitted permission letters from firms, institutions or organisations where required? Please submit as a pdf file with this filename format: CompanyPermission.pdf	Yes	**No**	<u>**N/A**</u>
8.7 Have you submitted a permission letter from the Dean where required? Please submit as a pdf file with this filename format: DeanPermission.pdf	Yes	**No**	<u>**N/A**</u>

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ETHICS APPLICATION: DEPARTMENT OF ARCHITECTURE

URBAN CITIZEN STUDIOS
PUBLIC INTEREST DESIGN IN SOUTH AFRICA

APPENDIX A

SECTION A: URBAN CITIZEN STUDIOS

Observation and physical mapping:

1. Social networks & nodal points of energy

2. Building fabric density and typology

3. Position, size and impact of Institutions of learning, churches, health facilities

4. Prevalence and reach of NGO's

5. Street, sidewalks and public accessibility

6. Security: Tangible and intangible systems

7. Retail stratification: Informal trade, SSME's, franchises, large retail outlets, central markets, food distribution networks

8. Densification, infill and anchoring strategies to redefine, revitalise and support distressed and isolated urban neighbourhoods

9. Intersection of formal and informal sectors as it relates to shelter, health, commerce and cultural activities

10. Opportunities for the production and processing of food (Food sovereignty)

11. Access to potable water, sanitation, electricity

12. Condition and functionality of soft and hard infrastructure

13. The role of green infrastructure in shaping environments: biodiversity, water management and harvesting, climatic conditions

Open interview/ focus group questions in support of observations and mapping:

1. Spatial perception questions:

    a. Do you visit this part of the city regularly?

    b. What are reasons for you to come to this area?

    c. How do you feel about the city of Tshwane in general? Please elaborate

    d. What activities do you typically enjoy to partake in general? Why?

    e. Please describe the quality of the amenities you use; School, church, sport, shopping, clinic: eg. Well maintained, poor condition, easy to use, safe, scary?

    f. What are your impressions of this space?

    g. Have you noticed changes to this space over time? Please explain

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URBAN CITIZEN STUDIOS

PUBLIC INTEREST DESIGN IN SOUTH AFRICA

APPENDIX A

- h. On a scale of 1 to 10 how will you rate these spaces? Please explain why you say so

- i. Which qualities of the space do you find pleasant? Why?

- j. Which qualities do you not enjoy/ would you like to change? Why?

- k. Do these spaces remind you of anything specific? Please elaborate

- l. Which features stand out for you? Please describe them

- m. Do you feel safe in this space? Explain

- n. Do you enjoy this space? Explain

2. Transport related questions:

   a. Please describe the route between your home and amenities: School, church, sport, shopping, clinic

   b. Please describe the route you travel between home and work.

   c. Please describe the type of transport you use: How far (how many hours) do you walk every day/ bicycle/ car/ bus/ train?

3. Social network-related questions:

   a. Please describe the groups you are connected to and how often you meet, such as: family; school (friends and parents); sport clubs; church; savings groups; support groups; residents' committees; NGO's or NPO's; arts & crafts groups; any other?

   b. Please explain your use of the internet: Do you use your cellphone or computer? How many hours a day are you connected? How do you acquire data?

   c. Where do you prefer to do your shopping for food/ clothes/ furniture/ electronics? Please explain why you choose these places?

4. Expenditure related questions:

   a. How do you manage your monthly income? What are the things that you spend your money on and what do you do when you run short?

   b. Do you own your home/ pay rent/ informal dweller?

5. In the case of home-run businesses:

   a. Do you conduct any type of business from your home? How did you decide to choose this type of business?

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PUBLIC INTEREST DESIGN IN SOUTH AFRICA
APPENDIX A

b. What are the benefits of running your business from home?

c. Have you made any additions to your home to accommodate your business? Please explain.

d. Did you make use of an architect/ builder/ quantity surveyor or anyone else to help you?

e. Did you need to have plans approved for any of the changes?

f. Would you be interested in moving to another premises, if so why and where to?

6. In the case of informal trade:

   a. How did you decide to choose the place where you trade?

   b. What type of produce do you sell and why?

   c. How do you manage your business?

   d. What type of profit do you hope to make?

   e. What improvements have you made to your trading stall and what are you still planning to improve?

   f. Do you need any type of permission to trade in this place? How do you have to apply?

7. More business-related questions:

   a. Who are your main suppliers? Where are they situated and how often do you buy stock?

   b. Who are your customers?

   c. What times of the day do you trade?

   d. How long has your business been operational?

   e. How many people do you employ and how do you manage them?

   f. Is your business registered or informal?

   g. Is your business part of a network, savings scheme, co-operative or buying group? Please explain.

   h. What are the biggest problems facing your business? How do you usually deal with these problems?

8. Food security questions:

   a. Do you plant your own vegetables? Explain where/ how/ why/ how much?

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ETHICS APPLICATION: DEPARTMENT OF ARCHITECTURE
URBAN CITIZEN STUDIOS
PUBLIC INTEREST DESIGN IN SOUTH AFRICA
APPENDIX A

    b. Do you keep animals on your property for food? Explain where/how/why /how much?

SECTION B: PUBLIC INTEREST DESIGN

1. Processes that governed the inception of the project

    a. How were you involved or included into the project?

    b. What role did you undertake in the decision-making processes?

    c. What is your design background?

    d. How transparent were the power relations governing the project?

2. Implementation and consequence of the intervention

    a. How has the intervention impacted you?

    b. How has the intervention impacted your social networks?

    c. How significant is this project to its socio-economic, cultural or material context?

3. Contextual circumstances and tangible qualities that are significant

    a. Please describe any aspects of this project that have been significant to your experience of it.

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Moreleta Integration 2021

Rituals

Do you give consent that the information shared in this interview can be used by the University of Pretoria as part of a larger research Project conducted by the Department of Architecture?

☐ Yes

Log time of current activity

| |
| |

Current activity by observation

| |
| |

Photo of activity

| |
| |

Where is the activity happening?

☐ Dwelling

☐ Business

☐ Social gathering

☐ En route

Gender by observation

☐ Female

☐ Male

☐ Other

In what age group do you fall?

☐ Child

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☐ Adolescent

☐ Adult

☐ Middle Ages

☐ Elderly

What is your daily ritual? (morning. afternoon and evening)

What is your weekly ritual?

How has life in Plastic View changed your routine?

What do you do over the weekend?

135

Moreleta Integration 2021

Knowledge

Do you give consent that the information shared in this interview can be used by the University of Pretoria as part of a larger research Project conducted by the Department of Architecture?

☐ Yes

Where are you from?

What did you learn from your place of origin?

Who did you learn it from?

How long have you lived in Plastic View?

What did you bring with you?

What did you learn from living in Plastic View?

What did you learn from the community of Plastic View?

Who did you learn it from?

136

✖

What are your aspirations?

How will you achieve this?

Where do people retire?

When do people retire?

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UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA mbuilder

Moreleta Integration 2021

Communication

Do you give consent that the information shared in this interview can be used by the University of Pretoria as part of a larger research Project conducted by the Department of Architecture?

☐ Yes

What languages do you speak?

☐ Shona

☐ Venda

☐ Sotho

☐ English

☐ Afrikaans

☐ Xhosa

☐ Swati

☐ Ndebele

☐ Tswana

☐ Tsonga

☐ French

☐ Porteguse

☐ Pedi

☐ Zulu

☐ Makhuwa

☐ Sena

☐ Chichewa

138

☐ Other

If other, please explain

What lingo do you speak?

☐ S'pitori

☐ Fanagolo

☐ Other

If other, please explain

How often do you understand people inside the community communicating with you?

☐ Always

☐ Seldom

☐ Never

How often do you understand people outside the community communicating with you?

☐ Always

☐ Seldom

☐ Never

How do you communicate with people?

☐ In person

☐ Cellphone

☐ Email

☐ Written communication

☐ Other

If other, please explain

How do you overcome language barriers?

Is there a universal method (signs/symbols) of communication?

How does language affect your activities?

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YUNIBESITHI YA PRETORIA rmbuilder

Moreleta Integration 2021

Secondary Data Collection

Do you give consent that the information shared in this interview can be used by the University of Pretoria as part of a larger research Project conducted by the Department of Architecture?

☐ Yes

What existing initiatives are in place to tackle education?

What are the biggest events happening in Plastic View?

How do they do this?

How does this institution contribute to that?

Do you face communication barriers?

☐ Yes

☐ No

How do you communicate with residents?

☐ In person

☐ Cellphone

☐ Via Email

☐ Other

If in person, who do you speak to?

14

_____

If other, please explain

_____

How do you overcome communication barriers?

_____

EMPATHY MAPPING

Daily routine mapping morning to night | User-centered mapping

AGE CATAGORY BY OBSERVATION

☐ CHILD ☐ ADOLESCENT ☐ ADULT ☐ MIDDLE-AGED ☐ ELDERLY

DAY OF WEEK

☐ WEEKDAY ☐ WEEKEND

LOCATION OF INTERVIEW

BINARY BY OBSERVATION

☐ MALE ☐ FEMALE ☐ N/A

LANGUAGES TOP 3

LINGO

☐ S'pitori

☐ Fanagalo

☐ Other

_____

_____

_____

COMMUNICATION TOP 3

_____

_____

_____

Wake up

NIGHT

MORNING

Resources

Social

Night activities

Day activities

EVENING

AFTERNOON

Sleep

SKILLS

_____

_____

_____

CHALLENGES

_____

_____

_____

PLACE OF ORIGIN

ARRIVAL

TIMELINE

NOTES AND OBSERVATIONS

Informed Consent Form
(Form for research participant's permission)

1. **Project Information**
   1.1. Title of research Project:
   Urban Citizen Studios: Public Interest Design in South Africa (Research Focus: Moreleta Park Integration Project).
   1.2. Researcher's details:
   Dr. C Combrinck, Department of Architecture, University of Pretoria.
   1.3. Research study description:
   This research inquires into contextual factors, historic evolution, social construction, and typology within the Moreleta Park / Pretoria area. From this data, students are expected to develop Community Action Plans in collaboration with the stakeholders, followed by Co-Design processes that may include the physical implementation of prototypes. The conversation will be recorded and data will be stored securely. Some of the results may be published and although participants will remain anonymous, some of their answers might be quoted in the publications. If it is requested that certain parts of the interview cannot be made public or published, it will be deleted and not used in the study.

2. **Informed Consent**

   2.1. I, _____ hereby voluntarily grant my permission for participation in the project as explained to me by the researcher.
   2.2. The nature, objective, possible safety and health implications have been explained to me and I understand them.
   2.3. I understand my right to choose whether to participate in the project and that the information furnished will be handled confidentially. I am aware that the results of the investigation may be used for the purposes of publication.
   2.4. Upon signature of this form, the participant will be provided with a copy. I will remain anonymous; my comments may be used without giving any geographic or personal references (name, address, ID, occupation, age, income etc.) that may accidentally imply my identity.

   – I give permission for the interview to be recorded: Y / N
   – I give permission for notes to be taken: Y / N

   Signed: _____   Date: _____

   Witness: _____   Date: _____

   Researcher: _____   Date: _____

SUSTAINABLE BUILDING ASSESSMENT TOOL RESIDENTIAL

1,04

		Target	Achieved
BI	**Building Information**	**4,3**	**3,9**

BI 1	Building Targets	Target	Achieved
EN	Energy	0,0	0,0
WA	Water	0,0	0,0
WE	Waste	5,0	5,0
MA	Materials	5,0	5,0
BI	Biocapacity	5,0	4,2
TR	Transport	5,0	5,0
LE	Local Economy	5,0	5,0
MN	Management	5,0	5,0
RE	Resources	5,0	4,0
SP	Services and Products	5,0	2,5
AC	Access	5,0	4,4
HE	Health	5,0	4,5
ED	Education	5,0	5,0
IN	Inclusion	5,0	4,2
SC	Social Cohesion	5,0	5,0

BI 2	Priority Key (Not Performance Key)		
VH	Very High	5,0	
HI	High	4,0	
ME	Medium	3,0	
LO	Low	2,0	
VL	Very Low	1,0	
NA	None / Not Applicable	0,0	

BI 3	**Project Name**
	Proposed Community Office for Plastic View

BI 4	**Address**
	1353 De Villebois Mareuil Dr, Pretoriuspark, Pretoria, 0081

BI 5	**Site Area**	327	m2
BI 6	**Gross Floor Area (GFA)**	191	m2
BI 7	**Gross Internal Area (GIA)**	112	m2
BI 8	**Number of Useable Rooms**	1	
BI 9	**Number of Bedrooms**	0	

BI 10	**Architect**
Dhane Herbst	
SACaresForLife	

BI 11	**Mechanical Engineer**
Name	
Co	

BI 12	**Electrical Engineer**
Name	
Co	

BI 13	**Wet Services Engineer**
Name	
Co	

BI 14	**Structural Engineer**
Name	

SUSTAINABLE BUILDING ASSESSMENT TOOL RESIDENTIAL
1,04

		Achieved
SB	**SBAT REPORT**	**3,9**

SB1 Project

Proposed Community Office for Plastic View

SB2 Address

1353 De Villebois Mareuil Dr, Pretoriuspark, Pretoria, 0081

SB3 SBAT Graph
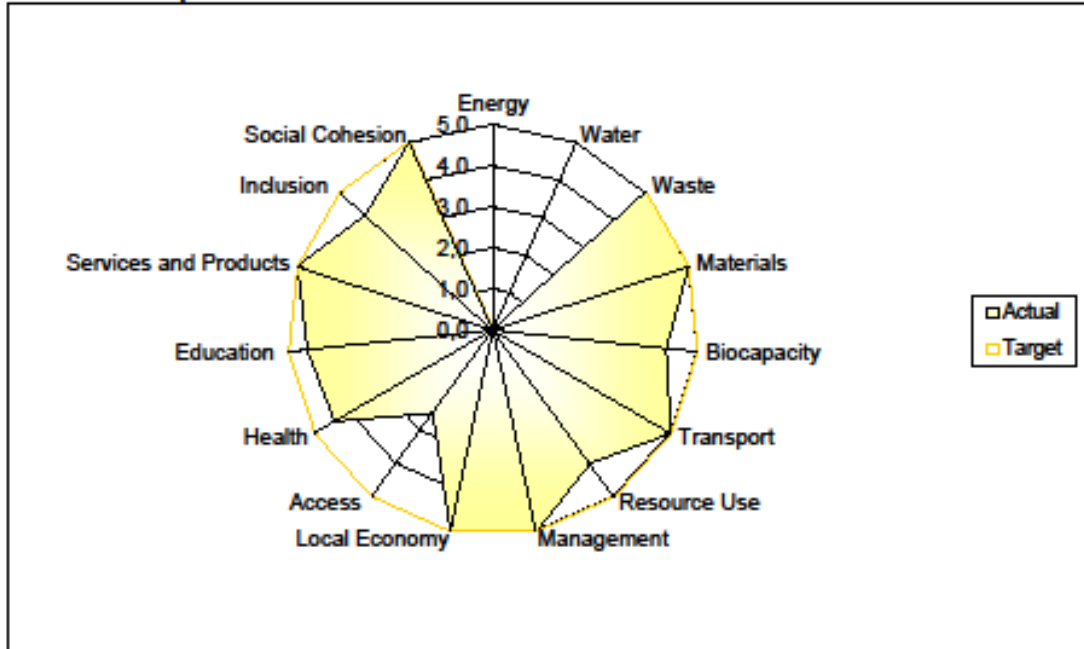
SB4 Environmental, Social and Economic Performance

	Score
Environmental	2,8
Economic	4,3
Social	4,6
SBAT Rating	3,9

SB5 EF and HDI Factors

	Score
EF Factor	4,0
HDI Factor	4,5

SB6 Targets

	Percentage
Environmental	97
Economic	86
Social	93

SB7 Self Assessment: Information supplied and and confirmed by

Name	Date
Signature	

SB8 Validation: Documentation validated by

Name	Date
Signature	

SB9 Validation Report Version

	IVR

An Ethical Roadmap to Student Engagement with vulnerable communities

A critical self-reflection

"In a highly divided and unequal society, the point is not to arrive at consensus but rather to bring differences and conflicts to the surface, in order to generate deeper democratic engagements. Only then, can the root causes of social and economic conflicts emerge, creating the basis for more radical and transformative debates" (Pieterse & Van Donk, 2014:153)

(MPIP 2021)

REALITY STUDIO DELIVERABLES

147

(MPIP 2021)

(MPIP 2021)

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(De Vos 2008)

" We as a community face many challenges but speaking to you is good. It seems good that someone somewhere is interested in hearing our side of the story"
Francis (MPIP, 2021)

(MPIP 2021)

149

(Zorn 2021)

"When preaching agency and co-design constantly we have some way to go with regard to building a sustainable collaborative trust network" (MPIP, 2021)

(MPIP 2021)

(MPIP 2021)

(MPIP 2021)

"Although we have, and most probably will continue to, constantly question ourselves, this probing is not rooted in self-doubt but rather in a personal obligation toward Moreleta Park's urban issues and the fact that few desire to recognise, let alone address, these issues" (MPIP, 2021)

(MPIP 2021)

(Zorn 2021)

(MPIP 2021)

(MPIP 2021)

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"As smaller groups we had quite a clear plan what to do, but upon engagement on site we learnt that it wasn't as effective. We had to reiterate our plans to ensure more valuable engagement" (MPIP, 2021)

(MPIP 2021)
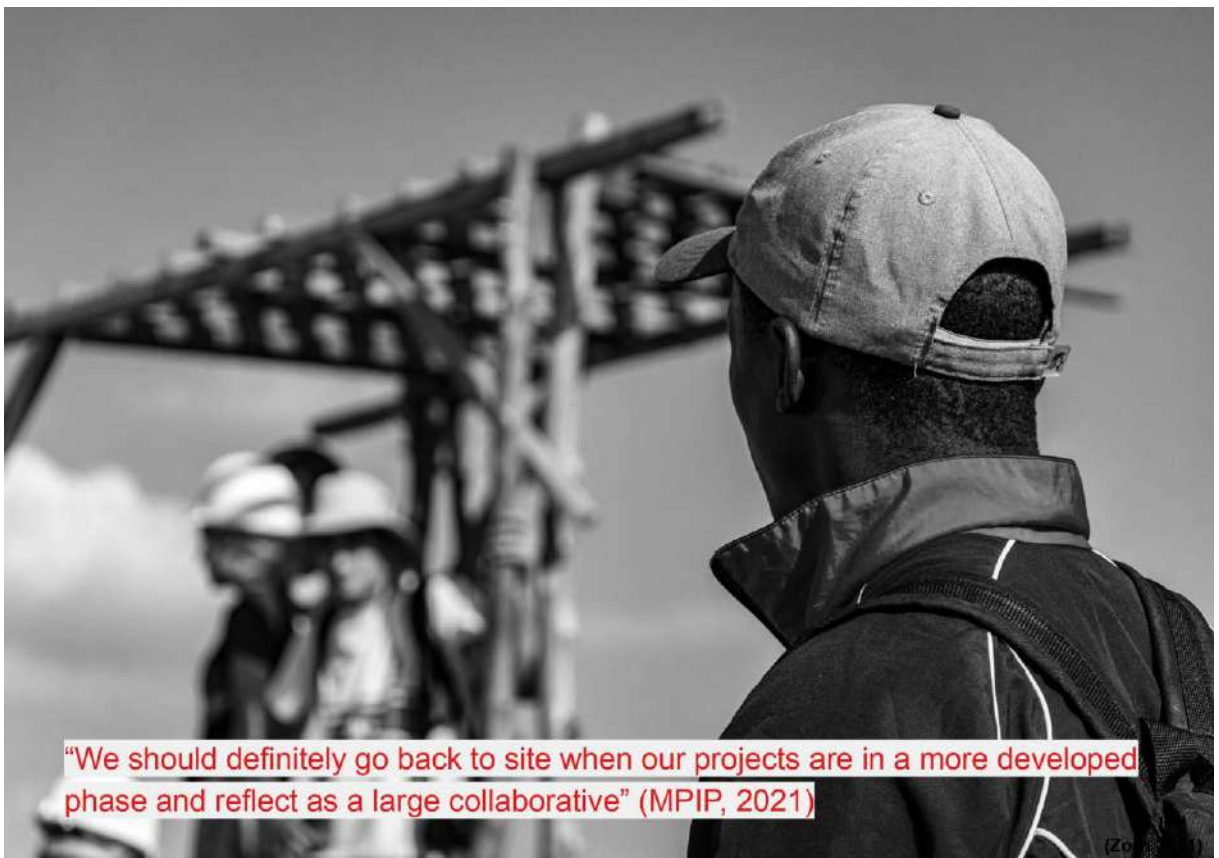
"We should definitely go back to site when our projects are in a more developed phase and reflect as a large collaborative" (MPIP, 2021)

(Zo...1)

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(Zorn 2021)

(MPIP 2021)

155
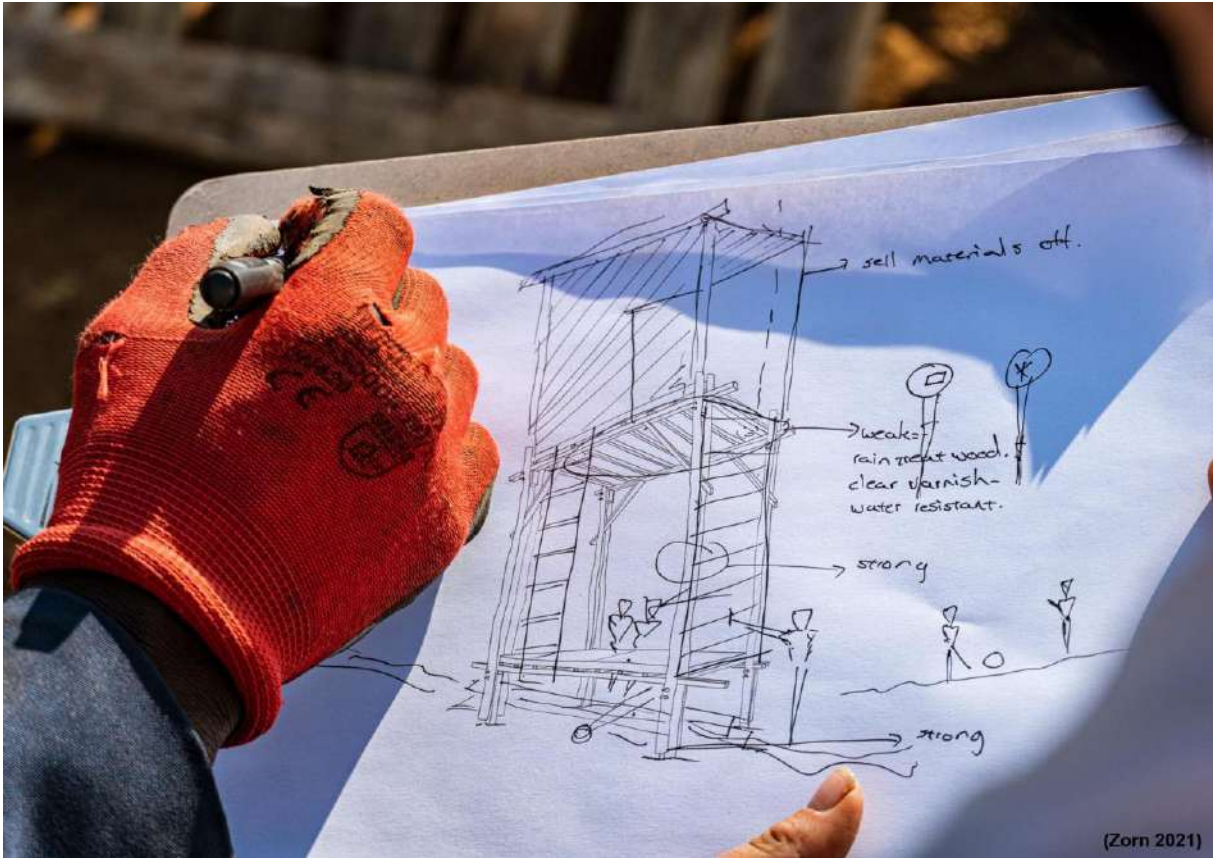
"I think as a large group we failed at this [building the type of contact we were aiming for], we didn't pull through on the expectations that we ourselves created -especially with the prototype, but we still have a chance to amend this throughout the year" (MPIP, 2021)

(MPIP, 2021)

(Zorn 2021)

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(Zorn 2021)

"There needs to be change in the ethical and moral constitution of people in the field." (Combrinck, 2021)

(Zorn 2021)

HOW CAN STUDENT RESEARCHERS BETTER ENSURE AUTHENTIC, ETHICAL ENGAGEMENT WITHIN VULNERABLE COMMUNITIES?
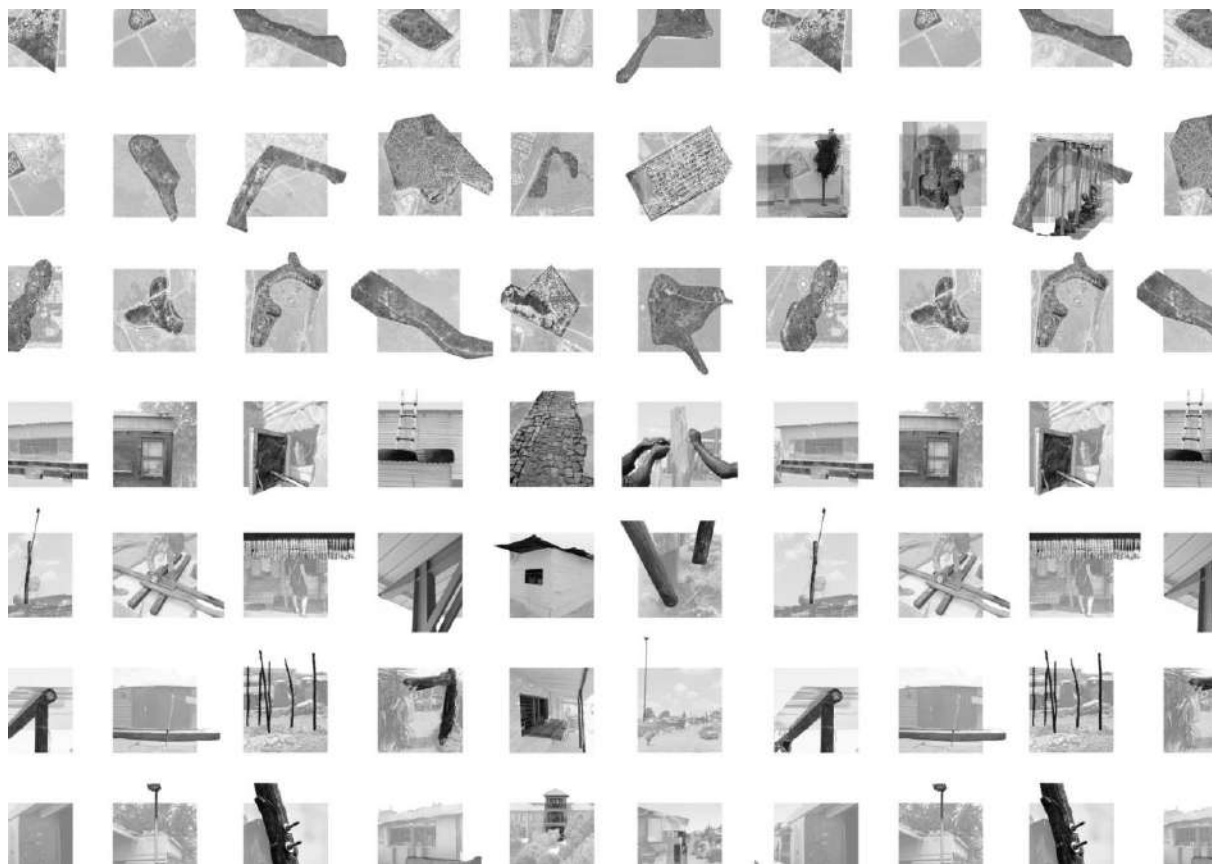
CASE STUDY

PLASTIC VIEW

MORELETA PARK INTEGRATION
PROJECT

*UNIVERSITY OF PRETORIA &
CHALMERS UNIVERSITY
OF TECHNOLOGY
2021*

1. SOUTH AFRICA

3. CITY TSHWANE

4. REGION 6

2. GAUTENG

5. PRETORIA EAST

6. PLASTIC VIEW

The context

Julina Lindqvist
Chalmers M(Arch)

Lina Zachrisson
Chalmers M(Arch)

Brendon
Creighton
UP M(Arch) Prof

Dhane Herbst
UP M(Arch) Prof

Delani Kriek
UP M(Arch) Prof

Alexia Katranas
UP M(Arch) Prof

Nick Ramsey
UP M(Arch) Prof

Alexander Mbedzi
UP M(Arch) Prof

Chris De Bruin
UP M(Arch) Prof

The team

The Project

The Methodology
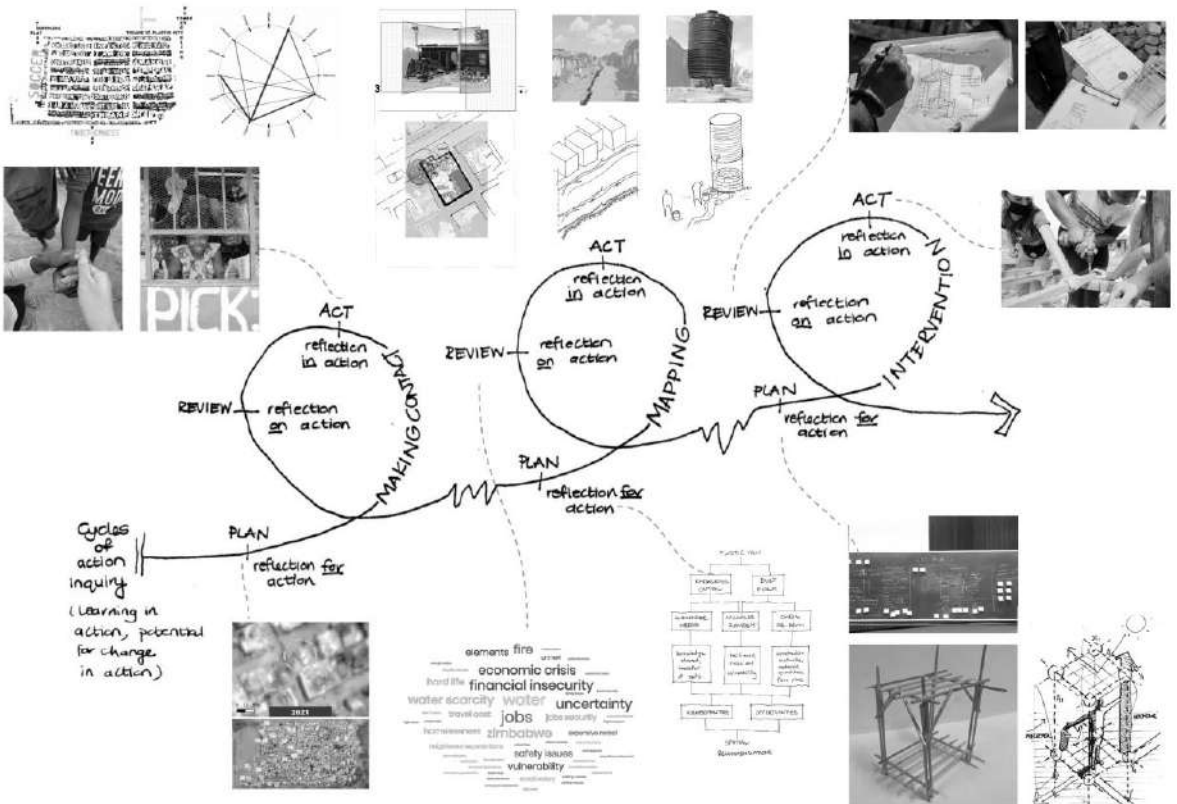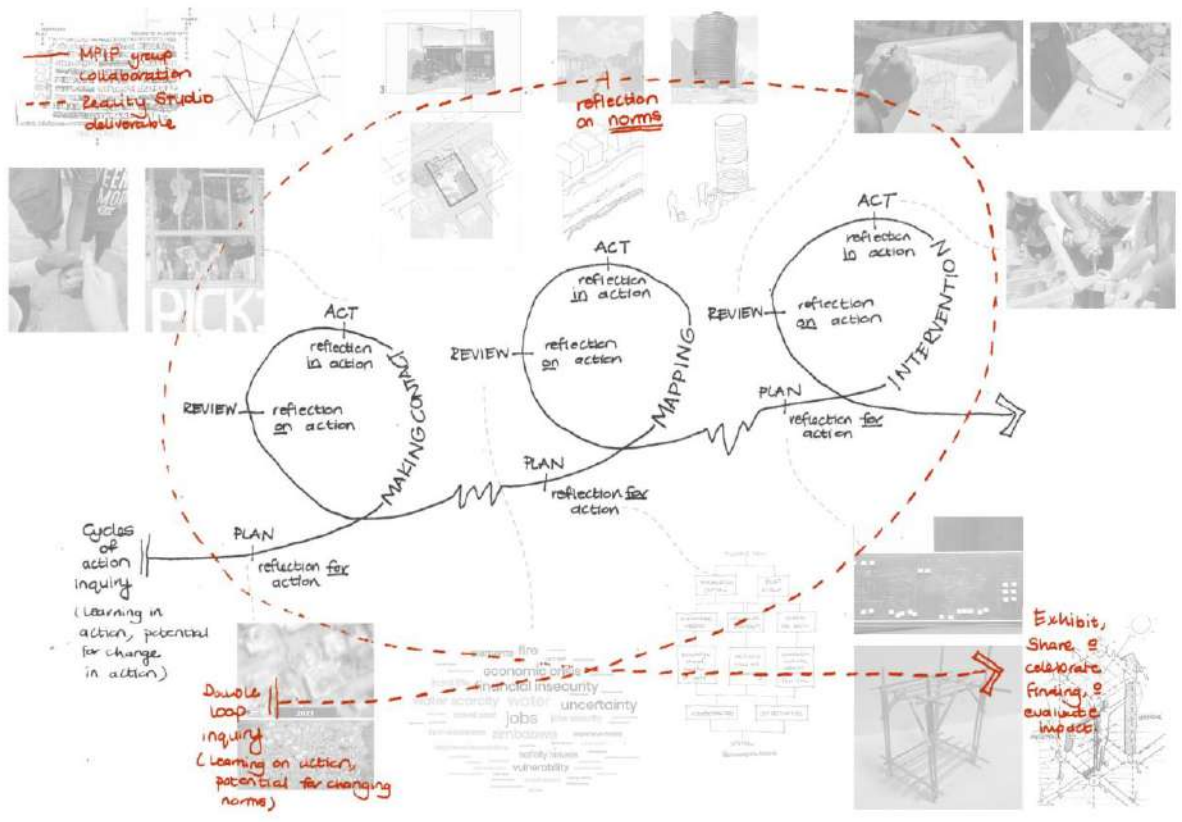
The diagram labels:

MPIP group collaboration
Reality Studio deliverable

reflection on norms

ACT — reflection in action
REVIEW — reflection on action
PLAN — reflection for action

MAKING CONTACT
MAPPING
INTERVENTION

Cycles of action inquiry (Learning in action, potential for change in action)

Double loop inquiry (Learning on action, potential for changing norms)

Exhibit, Share & celebrate finding, & evaluate impact

The reality is that you can't really set up a mutual goal unless all parties are equally and directly implicated in the outcomes.

... because our intention is not, and should not, be to assume the position of being "saviours" [...] It felt a little bit more like journalism; I think that's how our stakeholders started to see us eventually.

Real benefit and change can only happen when people who can take action are able to use our research outcomes

In general we were over cautious with ethics simply to ensure no discomfort and ensure that we could use all the valuable information later

The mall and the sweets situation was a bit of a jolt. Sometimes improvisation doesn't have the best outcome. I suppose at least we learnt never to bring sweets to site."

To this day, however, it's difficult to know how on-board the community leaders really were with the whole idea.

We were under the impression that we assessed most of the harmful aspects but realised on the day of the build (and soon after) we didn't nearly think of everything.

The reality is that you can't really set up a mutual goal unless all parties are equally and directly implicated in the outcomes.

We had a clear plan to use epicollect and geotagged photos etc. This however changed when we tested it on site as we realised that we needed something more engaging and personal, which lead to a reiteration of our questionnaires to paper."
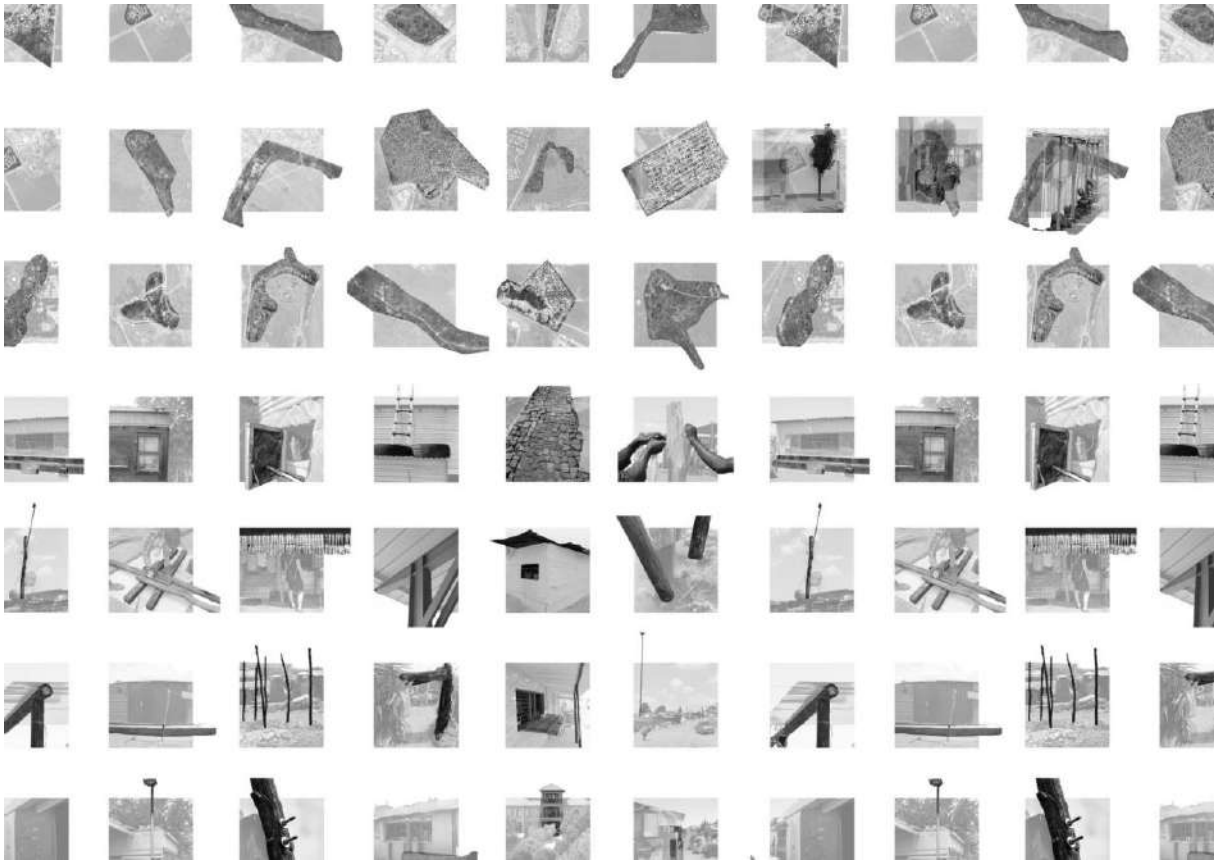
I'm not sure that this is possible, but it will be fruitful to, from the get go, know what groups to target. We can build on existing relationships and expands if the opportunity presents, but it won't be possible to always include everyone."

Generally we had loose daily goals which guided us more than a set plan would have because of the ever-changing circumstances"

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An Ethical Roadmap to Student Engagement with vulnerable communities

A critical self-reflection

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Ethical

= our theory and principles for ethical engagement
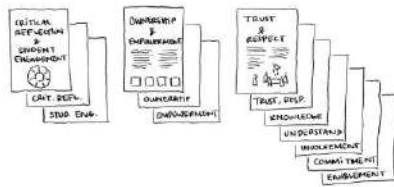
Roadmap

= the structure of this project, creating a framework within which to "accomplish" ethical engagement
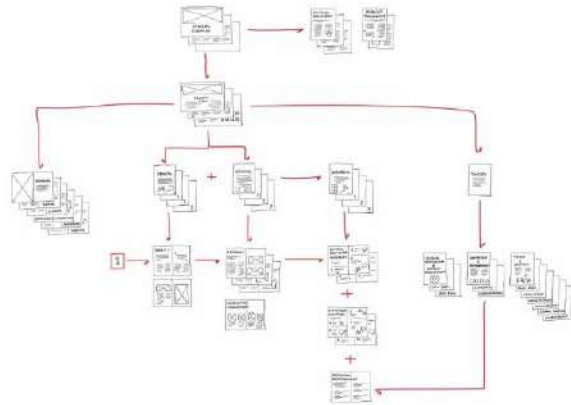
Ethical Roadmap

MPIP 2021   Home   Context   Mapping ⌄   Ethical Roadmap ⌄   More ⌄   🔍

Ethical Roadmap

Case Studies

Templates   Stories   Lessons   Reflective Questions   Theory
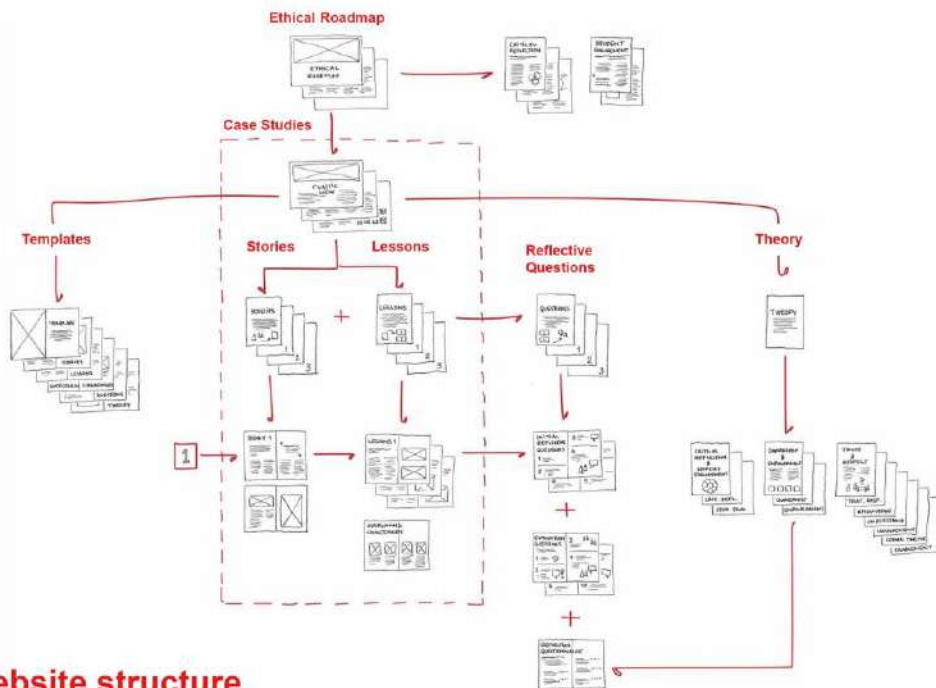
Website structure

Critical Reflection

= an activity during which we actively challenge and question the assumptions and actions we are fostering and carrying in our research and practice
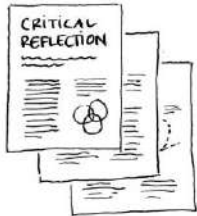
Double loop action research
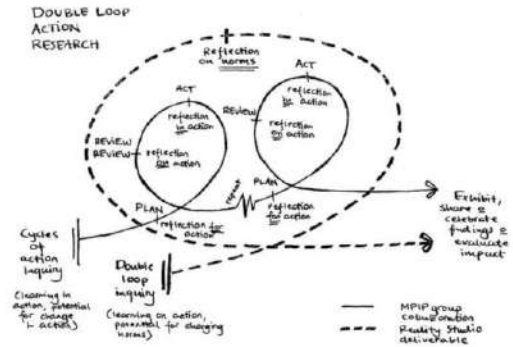
Critical Reflection As A Methodology

Critical reflection & stude...
☑ Case study Plastic View
☑ Reflective Questions Vers...
☑ Theory
Templates

Theory

Stories

Stories

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MPIP 2021   Home   Context   Mapping ⌄   Ethical Roadmap ⌄   More ⌄   Q

Case study Plastic View

Stories

Story 1

Story 2

Story 3

Managing Expectations, Communicating Intentions

Making Contact
Story no. 1

Stories

- -

MPIP 2021   Home   Context   Mapping ⌄   Ethical Roadmap ⌄   More ⌄   Q
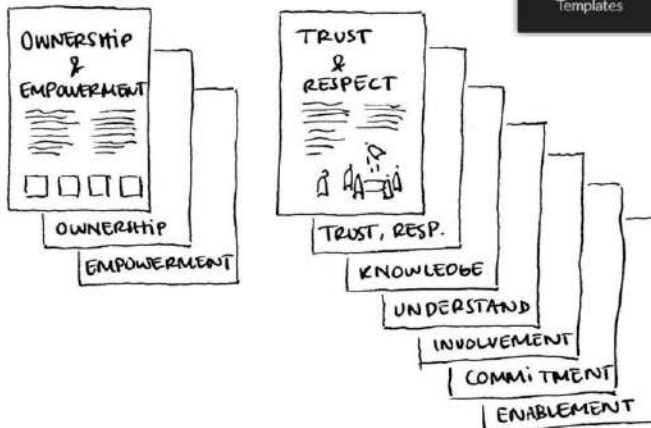
Case study Plastic View

▾ Stories

▾ Lessons Learned

Lessons Learned

- -

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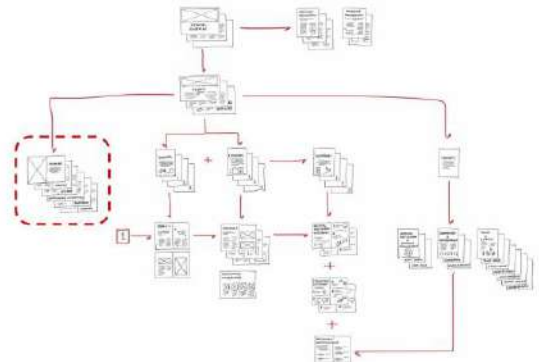# Reflective Questions

Reflective Questions

Templates

STORIES

LESSONS

Lessons Learned

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STUDENTS
How well have you considered ethical boundaries in your Reality Studio project?

TEACHERS
Is it ethically justifiable to encourage student engagement processes in vulnerable communities?

GENERAL
How can YOU establish a more sustainable practice?

Ethical Roadmap to Student Engagement within vulnerable communities

Report

Julina Lindqvist and Lina Zachirsson
in collaboration with students from University of Pretoria

Acknowledgement

The finalisation and success of this project outcome required much guidance and assistance from other people, providing encouragement and helping us on our way to completing this project. Without their help we wouldn't have come this far. We would like to thank our supervisors and professors Emilio Brandao, Shea Hagy, Carin Combrinck, Liane Thuvander and Larry Toups for assisting us in our work and for providing us with the support and guidance which made us find our way to completing the project.

We want to take this moment to acknowledge our team members, for whom we are so grateful. Our brilliant foot soldiers, who have stayed on this journey with us, supporting and educating us on these topics. It has been a privilege working with you throughout this semester and navigating our way through this process together. We thank you for your encouragement, inspiration and for always being by our side.

We sincerely thank the Department of Architecture at both Chalmers University of Technology and University of Pretoria for giving us the chance to carry out this research project. It has been a privilege to be given a chance to make an actual difference.

CHALMERS
UNIVERSITY OF TECHNOLOGY

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Donkieiers • Loading Minds • Dikgopolo tša Dithlabeli

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Abstract

This project is the result of Reality Studio 2021, at Chalmers University of Technology - a design studio within the department for Architecture and Civil Engineering with the overall mission to improve everyday human life as well as support survival and decent livelihoods for people living in rapidly changing or extreme environments. In this year's studio we had the opportunity to collaborate with students from University of Pretoria, South Africa, where we joined the Moreleta Park Integration Project, working within the informal settlement of Plastic View in Pretoria East. The Covid-19 pandemic and the restrictions across the world framed this year's studio and opened up the possibilities of us collaborating from a distance. The aim of this collaboration has been to strengthen the community's role in the neighbourhood, and to contribute to the settlement's own development.

From our findings while working within this contested site, we came to realise the dual nature of student engagements within vulnerable communities. Even though they are done with the best intentions, processes that are meant to empower and improve can quickly become exploitative and exposing to the community. Time constraints, educational deliverables and a focus on the individual outcome of the student, often limits the scope of engagement and can compromise the commitments towards the community. This is increasingly problematic when engaging with already vulnerable communities, without the necessary knowledge or tools to navigate your way through ethical boundaries. Our contribution in this project is to provide generations of students with a toolkit for critical reflection, enabling students like ourselves to continuously engage with the ethics and morals of their engagement with the community.

We believe that critical reflection is an important tool for building critical awareness, to challenge your assumptions and beliefs, which will generate a more sustainable and ethical approach to student-led participatory projects. We also suggest that building trust, showing respect, developing a mutual understanding for one another and basic pedagogies for communication of intentions and expectations are all simple, yet highly efficient tools for making these engagements more ethically justifiable. All of these aspects are unpacked in detail to our open source platform for collective learning, a website where future students can take part of our compiled theory on these subjects. It also shares our own process acting like a case study and examples on how to use the website and its reflective questions for students to develop their own critical practice.

Part I

the student's learning process as main focus?

is all participation good?

"We must practice *participation* in our student projects in order to learn the most from the context as well as ensure a well-grounded solution to the community's problems"

"fly-in-fly-out" architects "fixing" problems...

GENERALISATION OF "COMMUNITY"!!

fostering a problem-solving mindset

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Table Of Content

The Team

The Moreleta Park Integration Project is a student-run international collaborative effort to legitimise the spontaneous urban settlement of Plastic View in Moreleta Park through credible, conclusive data analysis. We are all in all 15 students from University of Pretoria, and 2 students from Chalmers University of Technology. Working together for six weeks in the spring semester of 2021, we have collaborated across the world, one team in Pretoria and one team in Gothenburg, Sweden. Dividing our group into a Sky-eyes team working remotely, and a Foot-soldier team, acting as our eyes on the ground we have been able to make the most out of this collaboration.

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Nick Ramsey
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Alexander Mbedzi
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Chris De Bruin
UP M(Arch) Prof

Brendon Creighton
UP M(Arch) Prof

Dhane Herbst
UP M(Arch) Prof

Julina Lindqvist
Chalmers M(Arch)

Plastic View Context

South Africa is a country that is suffering the aftermaths of the Apartheid, a governmental attempt of separating the black population from society, placing them in the outskirts without no longer being citizens of the White South Africa. What is left is a segregated and fragile nation, with a long way forward without the ability to provide for all its citizens. (Jensen & Zenker, 2015)

In Pretoria, South Africa where this case study is located, segregation and disparity is still noticeable. People are still being treated unequally, and a lot of people are forced into living in informal settlements, hindering them being reintroduced to society. Xenophobia and systemic racism are still embedded within their society. (Kihato, 2014)

Plastic view is an informal settlement located in a suburban area of Pretoria, South Africa, called Moreleta Park. The settlement emerged in the area in 2009 due to a court order giving the permission to stay there and is therefore considered partially legalised. The settlement is highly contested, due to skepticism and hate coming from neighboring communities, thinking the residents are criminals who don't belong there. They live under the constant threat of being evicted and their homes can be demolished any day. The partially formalised settlement does not provide the most basic human needs, that any human should be entitled to. Water and sanitation are being provided in small amounts, far from being enough for all the people living there. (Vos, 2014)

1. SOUTH AFRICA   2. GAUTENG   3. CITY TSHWANE

4. REGION 6

5. PRETORIA EAST

6. PLASTIC VIEW

6

Previous Engagement 2016-2020

The design studio of Urban Citizenship at the University of Pretoria has been engaging with the communities of the informal settlements in Moreleta Park since 2016, with research at an Honours and Masters level. The project group working in Moreleta Park 2020 showed an extensive research project done by the UP Honors students behind Moreleta Park Integration Project - a collaboration between ten students aiming at giving insight into the systematic issues at play in the informal settlements 'Plastic View' and 'Cemetery View' in Moreleta Park. The outcome of that collaboration was twofold - a community mapping uncovering the complex socio-spatial layers of both sites and their relationship to surrounding neighbourhoods, as well as a community action plan following this mapping, consisting of three parts addressing incremental, small scale actions and their implementation, with the aim to integrate the two settlements with the rest of Moreleta Park. The extensive mapping documentation from our group members work in 2020 is referenced in appendix III.

Informal Settlements

Informal settlements can be described as urban or suburban areas where groups of individuals are living without access to basic functions such as water, electricity, and sanitation, and often without formal rights to the occupied land. They are also defined by lacking in providing acceptable housing durability and sufficient living space. (UN Habitat, 2016) Informal dwellers tend to occupy land that is interstitial and of marginal use - the terrain is vague - often on the periphery of the city or close to infrastructure, having waterways or other features that make the area typically ill-suited for formal urban development. Their location in regions like these often also comes with its physical segregation from the formal city, to deepen the social segregation, stigma, and marginalisation that informal dwellers are faced with. (Kucina, 2018)

The current era of global urbanization brings with it a massive surge of people to urban regions in search of better job opportunities and better life prospects. Following this trend, informal settlements are a reaction to the inability of current housing policies failing to provide adequate and accessible housing and living conditions to the ever-growing number of urban citizens. This negligence results in the need for urban dwellers to take matters into their own hands and build their own homes, and as the resulting settlements are created, and changed over time, by the residents themselves, they are organic and fluid. Due to this capacity and tendency to change alongside the needs of the community, they are also characterised by a level of resilience that formal areas often lack. (Kucina, 2018)

The concept of informality within our built environment is a process that is being constantly triggered and sped up by global urbanisation, neoliberal policy making, and extensive population migrations from rural areas to our cities. This is a process that is visible in countries in the Global South; in large metropolitan regions in South America, Asia, and Africa, informal urbanisation has long made its mark on the urban fabric. (Sheppard et al., 2020)

Informality in South Africa

In South Africa, a country struggling with the dark history of colonialism, racial segregation, and apartheid, informal urbanism has its evident place in the urban landscape. Though the country boasts a strong set of legislation that presents a progressive view towards a holistic and sustainable approach to informal settlements, they are still increasing rapidly and are continuously under-prioritized in service development. (Combrinck, 2015)

Under both colonial and apartheid rule, which existed for almost three centuries, non-white citizens of the nation that were to become South Africa were forcefully relocated from their indigenous lands into areas designated for non-whites. When the apartheid regime was finally abolished in 1994, restrictions on where people could and could not live were lifted, and millions of people who had been excluded from the economic growth of the country for centuries started moving to cities in search of access to services and opportunities. Migrating to an urban center was the most logical thing to do for any family looking for a better life and better prospects of employment. Without access to affordable housing, migrants settled on the peripheries of the cities, on unused and unwanted land, often hazardous and ill-suited for development, creating townships and informal settlements. Many of these remain today. (Vox, 2021)

The new government of 1994, run by the African National Congress (ANC), started building affordable homes, with access to clean water and sanitation at an unprecedented rate, to meet the new influx of people to the cities, but it had some unforeseen consequences. The only available land was on the periphery of the city, leading the best of intentions to unintentionally reproduce the very system they were trying to dismantle. A large portion of the majority black population of South Africa lives in townships on the outskirts of the city, while economic cores remain predominantly white (Horn 2020:5, Peberdy 2017:16).

Informal settlements, townships, and their unequal distribution of access to services, housing, and land are the inter-generational consequences of colonialism and apartheid. Colonialism and apartheid have long since been a part of the past, but many of the barriers, both natural and social, that they produced are yet to be dismantled.

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Process

Since the initial formation of our large group collaboration, we have been moving in and out of various group constellations within the large group. In the initial phase of 'making contact' we worked as one whole group, with a structure of some people going to site a couple of times each week while others worked remotely. The first couple of weeks included an extensive review of previous mapping documentations, theory and gaining a thorough understanding of the context. This was to prepare ourselves for the next phase of mapping and documenting. It also included initiating and re-establishing contact with relevant stakeholders, going through previous findings and comparing our observations with those made the previous year, specifically through the lens of the effects of the covid-19 pandemic. The documentation of earlier research, carried out by students of the University of Pretoria, can be found in appendix 3-4.

After this initial phase of re-discovering the site and re-establishing contact, the project moved into a more focused mapping phase. We divided into three smaller groups of three people in each, based on our personal interests and individual focuses for future research topics. This phase allowed us to cover a lot of ground, conducting extensive data collection on different aspects of the community. The results of this phase are laid out in more detail on our website, see appendix 2.

Moving into the next phase of the project, it became more difficult to collaborate as a large group, mainly due to the nature of the remote international collaboration and us, the Chalmers students, not being able to be present on site. While the Pretoria students continued work on a full scale prototype to be assembled on site, the two of us focused more clearly on the Reality Studio deliverables, eventually developing into our Ethical Roadmap. While still collaborating and helping each other out on a weekly basis, structuring the continued work this way allowed us to use our experiences within Plastic View as a case study, with crucial input from the on-site part of the team and reflection sessions together in a large group guiding the way. Both masters and honours students of University of Pretoria collaborated together on the finalisation of the prototype, of which a detailed documentation can be found on our website, see appendix 2.
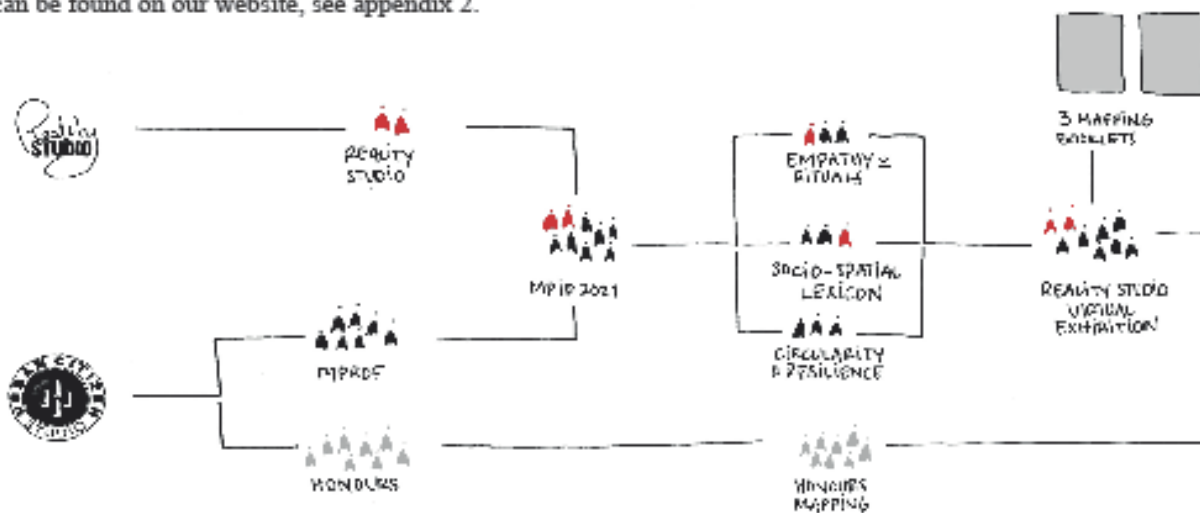
Reflection of Process

Since setting out on this journey together, we as a group have been forced to develop certain tools and methods in order to cope with the complexity of making up such a large collaboration. During the first few weeks, waves of uncertainty flooded our group and we were unsure if this international online collaboration would favor us or not. After many online meetings and group dynamic discussions characterized by openness and honesty, we worked through the uncertainties. It was however difficult to navigate through decision making, clashing schedules and deliverables.

When going into the mapping phase and dividing ourselves into smaller groups, we found it easier to conduct our work and contribute equally. We all found our purposes and could collect our data more organised. This made the process a lot smoother and we could work more efficiently.

Leaving the mapping phase and recovering from a few setbacks moving forward, pushed us into the intervention phase, the prototyping. With a lot of uncertainties regarding how to move forward, how to divide the work and how to make our outcome benefit the vast number of people in our group as well as the stakeholders, proved to be a challenging period of time. Making it difficult for us working from a distance to contribute to the rapid design ideation of the prototype, led us to distancing ourselves from the group and having to find the answers we were looking for on our own. Pausing the group work had both positive and negative consequences. It was with a heavy heart for all parties that we came to this conclusion, but an important one nonetheless - due to time limitations and the process being beneficial for all involved. This change made the work more efficient and allowed us to move forward more rapidly. The process of getting to our final result still proved to be a bit of a roller coaster. Not being sure where our interests would align and trying to fit it with everyone else's intentions, sometimes felt like an impossible task to manage. Somehow we pushed through it, and once we figured it out everything fell into place.
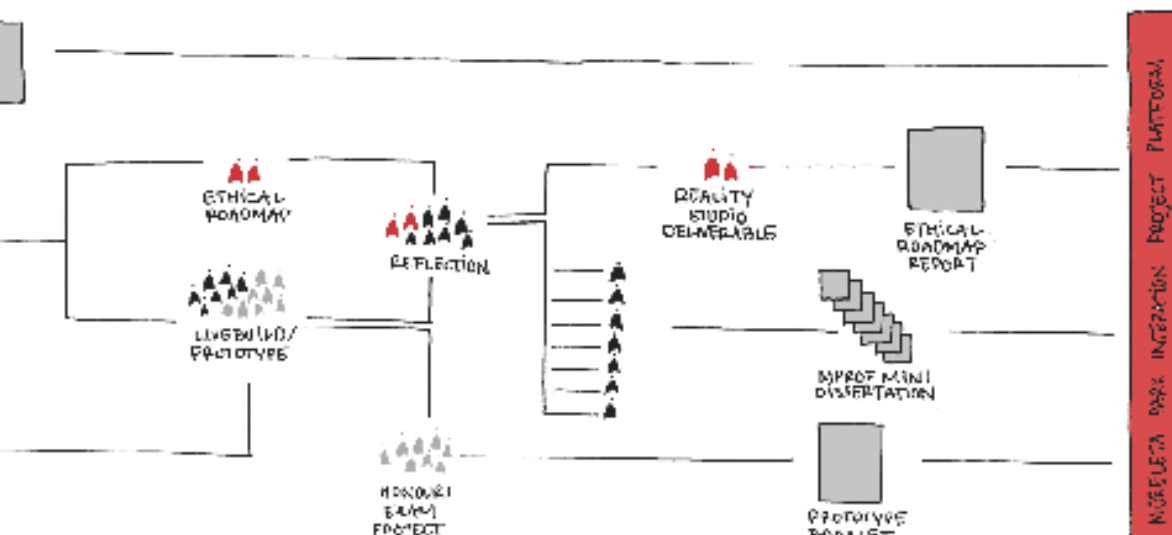
Sustainability goals

Universal Declaration of Human Rights, Article 19 "Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers." Our project will serve to ease the mutual understanding, communication and knowledge transferral between us as students and the vulnerable communities.

UNSDG 4.4 By including communities from the beginning, making them a part of the process for them to develop their own context instead of us providing them with solutions, relevant knowledge and tools can contribute by giving the community the relevant skills for employment and entrepreneurship. This is not only giving them the appropriate abilities to take ownership of their own development, it also encourages a more ethical engagement between researcher and community.

UNSDG 11.3 Creating tools for students how to make a community take ownership of a project, will contribute to a more inclusive and sustainable urbanisation and capacity for participatory, integrated and sustainable human settlement planning and management
Moreleta Park Congregation

One local goal from Moreleta Park Congregation is to legitimise the informal settlement. Right now people are illegally staying there, the structure of the leadership is not working because of the huge flow of people going in and out of Plastic view. They are trying to achieve a more sustainable way of living. Where people can coexist and where they are allowed to be there. By introducing a more ethical approach on how to handle these issues, it might be easier to get everyone's voices heard and come to a mutual understanding that could benefit the whole Moreleta Park, and not just Plastic View.

Parliament of the Republic of South Africa:
"It is necessary that a uniform, recognisable and comprehensive system of spatial planning and land use management be established throughout the Republic to maintain economic unity, equal opportunity and equal access to government services;
The system of spatial planning and land use management promotes social and economic inclusion."

11

Stakeholders

Students of the University of Pretoria: Educational and collaborative stakeholders. Together we work as a group to map and analyse the site. The students are our eyes on the ground, giving us the opportunity to get an extensive overview of the community in question. Hopefully our contribution to this year's Reality Studio will benefit their work in the upcoming semester and their Thesis work. It could also benefit future students working in similar conditions.

Community leaders: The leaders of Plastic View act as representatives for the community, expressing their mutual understanding of Plastic View to the students of University of Pretoria. Their ability to express themselves in the English language makes this appropriate. Additionally, since they are already being trusted with a leading role in the community, they can provide valuable insights on the behalf of the community.

SA Cares: Active NGO stakeholder that works on improving plastic View, and specifically improvements regarding early childhood care. They can provide funds and manage various projects in Plastic View. Interested in the immediate needs and have an advocacy role on behalf of the Plastic View community.

Neighbouring communities: The main opponents to the existence of informal settlements in Moreleta Park. Opposing the interests of improving Plastic View, important stakeholders to consider in terms of benefitting the entire community and for the survival of the settlement.

Formalising vs legitimising

"How much structure will be needed before the structure itself inhibits personal freedoms, gets in the way of people and progress? At what point does it disable the natural and organic process of emergence?"
(Hamdi, 2010, p. 18)

Formalisation is often presented as the "solution" to the humanitarian challenges posed by informal settlements. It is thereby implied that, without acquiring the status of "formal", it is not possible for urban dwellers to have decent living standards and access to basic services and infrastructure. In the very words 'formal' and 'informal' there is a hidden power structure - the 'in-' indicating informality's inferiority under the formal. It is thereby suggested that the former is only defined by the absence of the latter.

In South Africa's National Housing code, there is a volume dedicated to the upgrading of informal settlements, known as the UISP (SA 2009). This volume applies to any settlement that contains one or more of the following characteristics: "Illegality and informality, inappropriate locations, restricted public and private sector investment, poverty and vulnerability, and social stress" (Section 2(A) of the Upgrading of Informal Settlements Programme, in terms of section 3(4) (g) of the Housing Act No. 107 of 1997).
It is emphasized that relocation of the settlement is the very last resort, speaking to the constitutional right of citizens "to enter, to remain in and to reside anywhere in, the Republic" (Section 21(2) of the Constitution of the Republic of South Africa No. 108 of 1996). This creates a grey area in cases where there is a majority of migrants from neighbouring countries residing within the settlement, and the myriad of prerequisites in providing documentation for non-citizens often delays the onset of the upgrading process. Community participation and partnership is advocated for successful project implementation and handover, acknowledging that community members are the experts in their development needs.

The settlement that we are working with in this collaboration, Plastic View, is situated in just such a grey area. Many of the members of the community are migrants from neighbouring countries and lack legal documentation. Formal upgrading processes are therefore hard to expect in any near future. The settlement was however legitimised and formalised by the municipality in 2008, to the degree that they will be allowed to remain and do receive some water and sanitation provision, but any long term improvements from the authorities side cannot be expected. Scattered dwellings in the spaces between high-income housing estates and shopping complexes were consolidated and fenced off, in an attempt to bring control and uniformity to the settlement. Expansion restrictions have allowed the overall footprint of Plastic View to remain relatively stable. Although the layout has not visibly changed much, the settlement has densified considerably and the population continues to increase.

Eliminate risks of failed projects

Incorporating participatory design into design studios in architecture schools, is a valuable way for students to both gain insight into the types of projects and contexts that require such an approach, and to develop these skills at an early stage in the architectural career.

Undertaking projects in complex and challenging contexts is equally justifiable, as learning by doing is a strong pedagogical tool. Community based learning approaches, where students situate themselves within the given context, immerse themselves in the complexity of it and learn from the possibilities that present themselves, pose an opportunity for mutual learning and benefit. Students are given a great opportunity to develop the necessary skills for future work within similar contexts, are made aware of the big challenges facing the profession and get to learn, act and reflect on the outcome in quick succession. The community meanwhile are presented with the opportunity to use the student's time and knowledge to both learn from them and for the generated outcome to be of direct benefit.

The ideal of participatory design processes, especially within vulnerable communities, could be questioned when the outcome of such a project fails to be of any real use to the host community. From working with the same community in Kisumu, Kenya for many years, and the studio having built up a long relationship with them, it sheds light on the difficulty these approaches face. The community has become dependent on the aid of the university. Since the engagement with Reality Studio comes with large funding, it is a great opportunity for the community to develop.

Reality Studio has unfortunately seen a few examples of projects resembling some kind of "fly-in-fly-out" solutions to the communities development, where the community sees the urge of accepting aid and initiatives due to their high need for development. Accepting help out of the fear of missing out on aid, puts us students in a dangerous and dominant power position which makes participatory design methods very sensitive. The attitude during the years of working in Kisumu has, as we understand it, been one of allowing students to propose a solution and letting them see what they can do with it - which leads to the projects being only momentarily, if at all, anchored in the community's main needs. The solutions might only be something that the students picked up on on a whim or were surprised by rather than the true need of the community. Similar situations have happened in Plastic View where the community hasn't had the proper tools to maintain the solutions proposed by the external actor, because of the community's lack of ownership of the project from the beginning.

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Part II

Would that eliminate risks altogether?

"In order to eliminate the risk of failed projects we must ensure community ownership and empowerment throughout the entire process. The community themselves must be the authors of their own change and development"

hard to accomplish in student-led projects?

exploitation?

"their problem, their responsibility"?

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Theoretical framework

To avoid the continuing problem of communities failing to take ownership of an intervention once external actors leave the process there is a need to establish certain ethical values or pedagogies within each process of engagement. Students engaging with a site only for a limited period of time, perhaps on an on and off basis, can in the long run be the cause of frustration and inadequacy for communities. We want to eliminate these risks by educating students on how to engage on site within these short interactions and how to approach stakeholders in a more authentic and equal manner. We also believe that it is essential to critically reflect on your engagements, to challenge any inappropriate beliefs or assumptions that the process might be based on.

Empowerment and ownership of the community appears to be the cornerstones of a functional and sustainable long-term collaboration. If the community fails to take ownership of the process, and if there is no empowerment of those involved, there will be a limited chance for projects to succeed in the long run, and the whole purpose of the engagement will be questionable. We as students should have clear intentions of assuming a role of enablers, rather than providers for the communities we engage with. Our role should not be to impose our own ideals and expectations onto those we wish to empower, but rather to switch the power relations and enable the community to be in charge of the process.
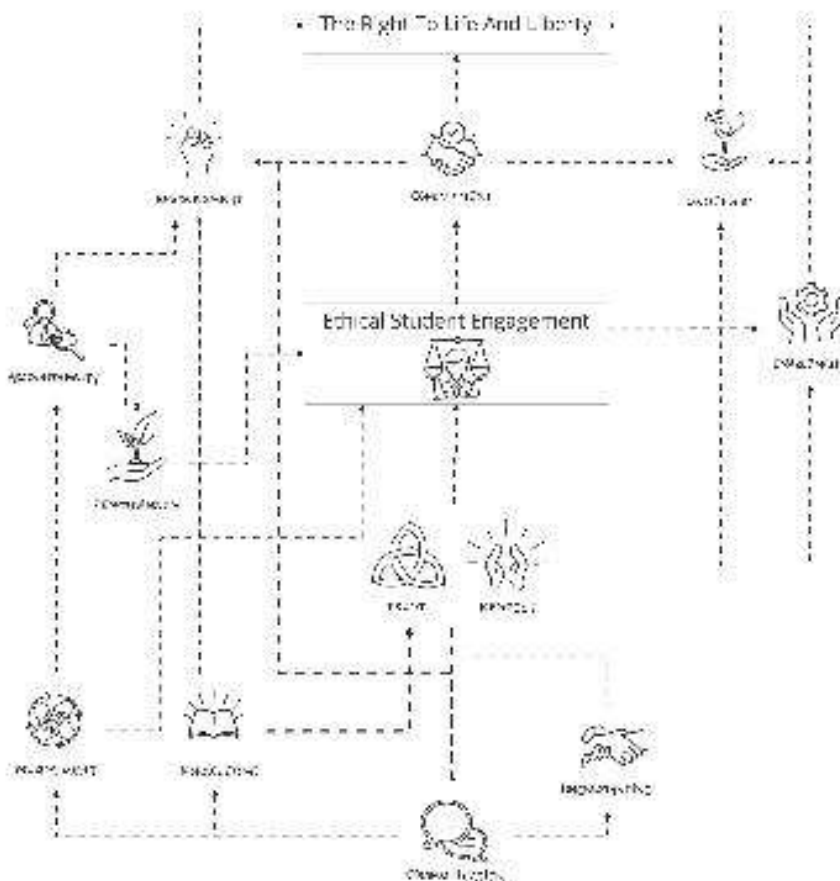
The theory implemented for this project is primarily framed by the Expressions of ownership theory. According to Helma van Rijn and Pieter Jan Stappers (Rijn, 2008) ownership is expressed through three pillars. (1) instrumental, where the user feels encouraged by using certain tools and techniques - the guidance on how to navigate these implemented values, (2) perceptive, when receiving authorship when voicings results into outcome - mutual respect and understanding, as well as sharing of knowledge, and lastly (3) symbolic where input gives them recognition for their efforts - recognition promotes respect and trust, which accumulate commitment and involvement.

Spatial Agency, by Jeremy Till and Tatjana Schneider has made up a cornerstone of our work from the start. Spatial agency encompasses many of our main values such as mutual understanding and shared control of process, the empowerment and enablement of others, acknowledgement of others' knowledge as well as the importance of a critical practice, an open-ended evaluation of the conditions.

In the book Teaching community, Bell Hooks highlights the importance of respect, both for yourself and others. How dominance is usually expressed through different power hierarchies and social structures, and the dangers of acting on it. She gives suggestions on how to abandon those ideals and how to instead create a mutual partnership in any collaboration. Small change by Nabeel Hamdi offers a similar view on participatory design. That the hierarchies of dominance within any collaboration needs to be deserted and to instead focus on working as a unity. That the sharing of knowledge between all actors, will only make the collaboration stronger.

These theories are all important aspects on how to improve student engagement and how to eliminate the risks of harming the community or not providing the right tools for the community's continuation of the project. Another important aspect is to critically reflect on the engagements taking place, to recognize potential risks in advance, enabling you to prevent causing any harm. With our theoretical background we are hoping to provide a simple, yet underestimated course of action towards more ethical student engagements. To ensure authentic and ethical engagement you must recognise the importance of matters such as establishing mutual trust and respect, the sharing of knowledge with others, reaching a mutual understanding of an outcome that all parties can benefit from, making use of pedagogy for easier communication and also knowing how to reach equal commitment, enablement and involvement between stakeholders. We believe that building a theoretical background like this was crucial for our reflection on the process and the ethics thereof, and as such lays out the very foundation for our work.

Figure 1: 1.2 The relationship between psychological ownership and motivation for involvement, adapted from van Rijn & Jan Steppers (2008)

Critical Reflection

A critical reflection can be explained as an activity during which we actively challenge and question both the validity and the appropriateness of the beliefs, assumptions and actions we are fostering and carrying out in the current context. (Mezirow, 1990) It should help expose one's frame of reference and help you understand the theories and reasoning that lay at the base of a certain action. Critical reflection should be used as a potentially transformative tool for researchers to evolve from their current praxises into something even better, something more conscious and ethically appropriate.

For clarity we here need to make an important distinction, that between reflection and critical reflection. The word reflection means, simply framed as looking back onto previous experiences. The word itself doesn't encompass in what manner or for what purpose. A critical reflection however, is the act or process of looking back at past experiences through a critical lens, to analyse, reconsider and question those experiences. It represents a change of perspective taking place within the practitioner themselves, through actively critiquing ones previously held assumptions and beliefs. It can help us understand others' perspectives, make connections between previously isolated ideas and thoughts as well as identify both strengths and potential flaws of one's own actions. (Mezirow, 1990)

Above mentioned potential benefits should explain why critical reflection should be a must for anyone positioned to work or conduct research with vulnerable communities. At the essence of this methodology lies the establishment of a critical practice, which can only be achieved through the development of self awareness, critical thinking and reflection. (Finlay, 2008)

In the following chapters of this report we will show the result of double loop action inquiries, which means actively adding an additional layer of critical self reflection onto the process. Critical reflection is applied both to each individual ideation phase, such as to each of our design phases, such as our iterative cycles of mapping and interventions on site, and on top of that a reflection on norms is carried out.
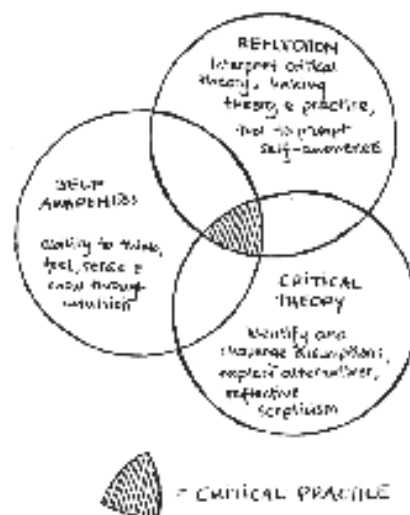
Figure 2: Developing a critical practice (Finlay 2008)

Our process

It was through actively reflecting critically on our own process that we started questioning the ethics of our, and others', engagements. It was through thorough investigation and analysis of the different phases of our engagement that we could see if we either fulfilled or overlooked the stakeholders' own interests, or mainly our own. By comparing the engagements we had on site with the theory that we have compiled for this project, we could identify the implications that our interactions could have had, and how we could have avoided some of the challenging situations if we had only adapted some of our own theory into our work.
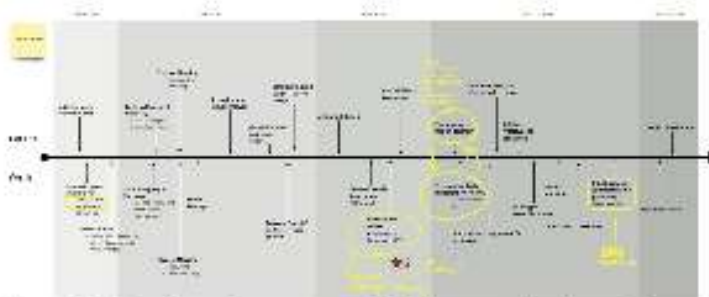
Figure 3.1: Timeline of our process including our reflection on Ownership

Ownership

When delving into the topic of ownership and comparing it with the process that we had, it was difficult to find connections. After reflecting on it, we started to question whether it is possible for students with limited time, having their own educational reasons for engagement and without any proper training to be able to establish community ownership. To be able to do that you will have to fully relinquish control of the process in favour of the community and other stakeholders. With the intentions of an academic outcome, this seems rather conflicting and perhaps a bit misguided.
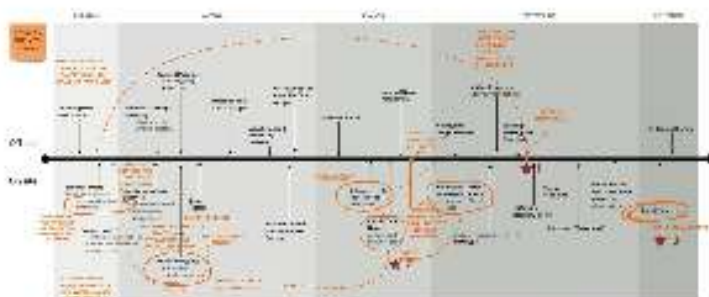
Figure 3.2: Timeline of our process including our reflection on commitment and involvement

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Commitment/involvement

From the beginning we had a wide scope of stakeholders, initiating contact with anyone who spoke English and were willing to participate. This was valuable in terms of getting as wide a response as possible for our data collection. However we started asking ourselves whether it would have been better to have a more narrow target group, and work more closely with them. Whether that would generate more commitment and involvement, establishing a better connection and making them feel more empowered by the process. Our approach can however challenge that commitment, since it is difficult to keep everyone engaged, perhaps more than one time. It is important to nurture those commitments to make it last over time.

Figure 3.3: Timeline of our process including our reflection on Communication

Communication

Diving into our communication efforts on site we noticed that there had been a few situations of misunderstandings. Situations that could have been prevented if we had established better contact from the beginning. To make sure that all stakeholders have a mutual understanding of our intentions, our role and what the plan was. Some of our engagements challenged the perception of these expectations.

Figure 3.4: Timeline of our process including our reflection on commitment and knowledge

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Knowledge

The act of sharing knowledge between us and the community could have been explored further. We had a lot of good moments, both in the mapping phase and intervention phase, where the community shared their knowledge with us. When discussing this further we noticed that it was perhaps only one-sided, only for our own benefits. It should have been two-sided where we could have shared a lot of our already existing knowledge with them. Our website is, perhaps, more targeted towards external actors who are trying to improve the settlement. This means we never really got, or took, the chance to share any of our findings with the community.

Figure 3.5: Timeline of our process including our reflection on commitment and trust

Trust

Since some of the students had already been engaged with Plastic View the previous year, some connections and levels of trust were already established. What we seemed to be missing was the lack of communication on the ground to nurture that trust and to build on it further. As already mentioned it may have been better to limit the number of stakeholders to make sure that it is possible to establish mutual trust. Focusing more on the community leaders could have generated that trust, as well as acted as a symbol of our respect for the hierarchies present on site.

Giving back some of the photos that we took from the site, left the people we have been involved with with a positive attitude and generated some trust between us. Such a simple act helped communicate what it is we have been doing and giving something back to the people.

Reflecting on our engagements through a critical lens and attempting to relate it to the theory that we have collected was extremely useful. It made us look at our process with a completely fresh set of eyes and realise the complications we may have caused, going into these engagements with limited experience and knowledge about the subject of ethics and authentic engagements and exchange.

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Questioning

What we realised when reflecting on our own process was that there is no way for us as students to be able to fully empower the community nor to give them complete ownership of our projects, within the boundaries of our educational purposes. There is neither time nor capacity for this for our deliverables.

From our own experience and through reflections in and from the field, we have come to question the very nature of student-led participatory projects within vulnerable communities. We have realised how quickly the process and our attempts of trying to empower the community, can instead be seen in an exploitative and condescending light. The student-participant exchange struggles with an inherent power imbalance, born both from various contextual layers of complexity - in our case a history of racial segregation, apartheid and structural inequalities - but also born from the paradox of the student having to balance the commitment towards the educational outcomes with what benefits the community.

We believe that this has its roots in the nature of the architectural education. Students of architecture have been trained to adopt a problem-solving mindset, which leaves us with a tendency to immediately start searching for problems and their direct solutions, rather than engaging with the *processes* of that context development. It is also possible that members of vulnerable communities agree to follow the thoughts and ideas of the external actor rather than to express what they truly need, born from the reasoning that any aid would be better than no aid at all. This has been the case of several past projects of our design studios, and is a phenomenon we should strive towards eliminating.

The nature of the design process inherently pins the student as the main owner and author of both process and outcome, which in reality clashes quite dramatically with design studio's attempt to ensure community empowerment and ownership. So we ask ourselves the question, can student-led participatory projects ever be mutually beneficial for researcher and participant? And more importantly, Should it? And if so, how can student researchers ensure authentic, ethical engagement within vulnerable communities in the future?

Being a student or researcher within a vulnerable community comes with a long list of obligations and responsibilities. As in our case, working within vulnerable communities often comes with having to deal with power imbalances that are not stemming from the student-participant relationship directly. Areas where we tend to conduct humanitarian work are often suffering from histories of colonialism, racism or other structural stigmatisation and marginalisation. Attempting to conduct research in such areas when coming from a more developed country or region, you must be extremely careful not to fall into patterns of assuming a role of the "fly-in" architect or designer, approaching the engagement with hidden colonial or imperial ideals of making the community "more like us". We have a responsibility to do our best to frame our work as a process of mutual learning and understanding, not just a one-sided development. It is also important to take steps towards a more transparent mode of operation, as this will help enable the host community to hold us accountable for our actions.

Part III

"The nature of student engagements render equal exchange, community ownership and mutual benefits incredibly difficult, if not impossible, to achieve. Is it then ethical to conduct such research at all?

Shared power!!

Involving people is a way for us to be held accountable!!

If not me, then who?

Ethical to withdraw from responsibility??

Ethical Roadmap

In this particular portion of the larger Moreleta Park Integration Project, and what has developed into our project outcome, we have chosen to focus on dissecting our design- and participation process through the act of critical self-reflection. The outcome of our own critical journey, reviewing our engagements with and within the informal settlement 'Plastic View' in Pretoria East, has come to evolve into the designing of a framework and methodology for critical retrospective. The aim is for this work to function as a toolkit, to be used and applied by future students of architecture and design onto their own processes of engagement within vulnerable communities. We strongly believe that both our journey towards a critical view of our own work as well as the lessons we have drawn from it, would be of great use for future generations of students. Allowing them to learn from our failures and successes, enriching and broadening their perspectives and, hopefully, lead them to a more ethical and self critical practice. The design of this 'critical retrospective' is to be seen as a complement to the open website that is the Moreleta Park Integration Project today.

You can review the complete ethical roadmap as an attachment at the end of this document. For full user experience however, we recommend that you make your way to the chapter dedicated to the ethical roadmap on the Moreleta Park Integration Project open source platform, the link to which can be found at the end of this document.
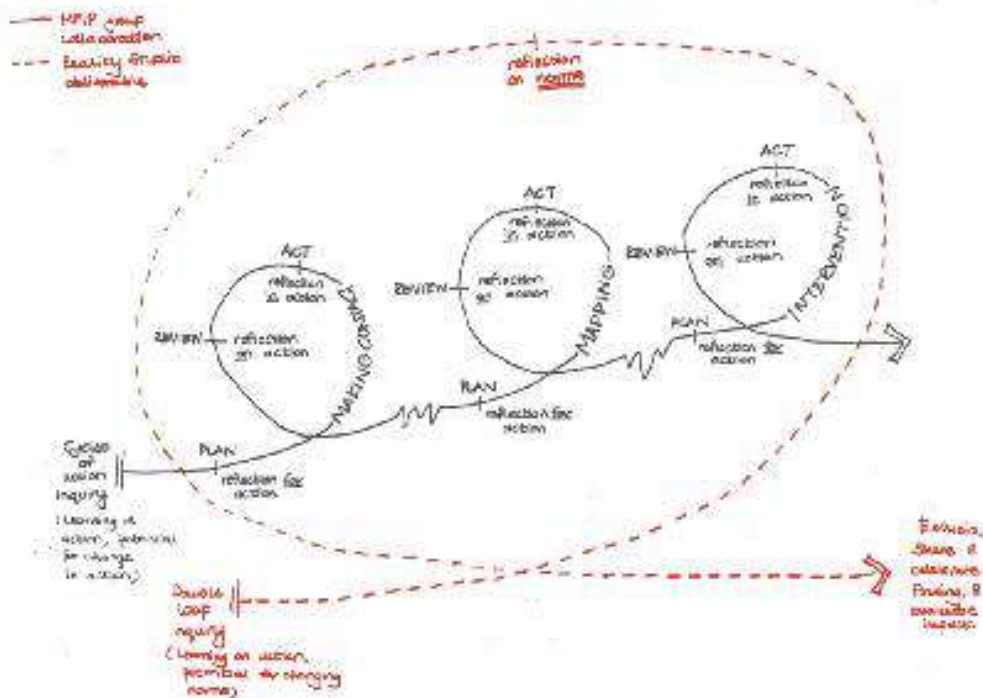
Figure 3: Double loop Action Research methodology, adapted from Schon's model of reflection (1983)

Ethical

= our theory and principles for ethical engagement
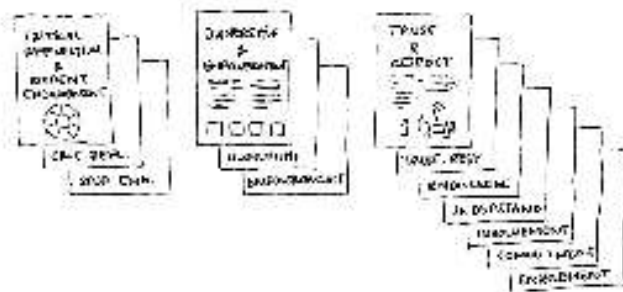
Roadmap

= the structure of this project, creating a framework within which to "accomplish" ethical engagement

25
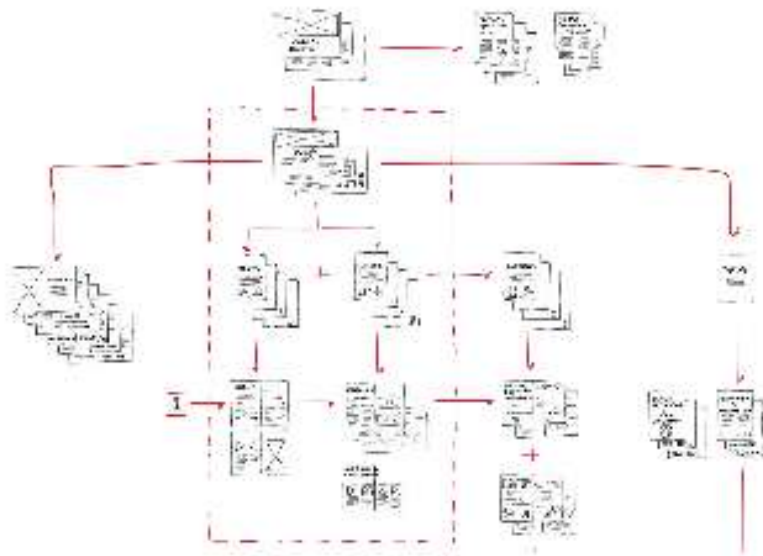
Website structure

Going into this website there are different paths you can take.

What we advise is to look at the theory section first. This will give you a detailed background to why it is so important with critical reflection and to educate yourself in the values we have set out, as well as the questioning of the current nature of student engagement in vulnerable communities, in order to broaden your perception of these issues. After a deepened knowledge about the issues of student engagement, we propose going into the importance of empowerment and ownership, as well as the chapter about trust and respect.

Moving on to the section concerning our Case Study, Plastic View, you will be presented with a collection of stories and lessons from our own experiences, built on the theoretical background you have already taken part of.

It all begins with the chapter about stories. These are small narrative extractions from our own experiences on site, snippets of questionable engagements or situations, which caused us to reflect on our interactions with the community. Each story relates to a phase in the process, and at the moment our process of engagement has been split into three schematic phases; The initial phase for making contact with various stakeholders; the mapping phase for collection of data; and the final phase of intervention. Each story is followed by its corresponding 'lessons learned'. This chapter contains a selection of those lessons we have been able to draw from the situation described in the story, followed by a section about challenges we overcame throughout that phase.

For the ease of use and implementation of the critical standpoint that we have presented in this academic work, each phase (making contact, mapping and intervention) is accompanied by a set of reflective and evaluative questions. These are for future students, such as ourselves, to ask themselves prior to and after any engagement within a vulnerable community. We believe that encouraging students to actively reflect on the ethics and reasons for their engagement, both before, in and after the action, will lead both to the building of a more sustainable relationship with the community, as well as a more successful project outcome.

In the following pages the concepts of stories, lessons and questions, as well as other parts of our ethical roadmap, will be described more thoroughly.
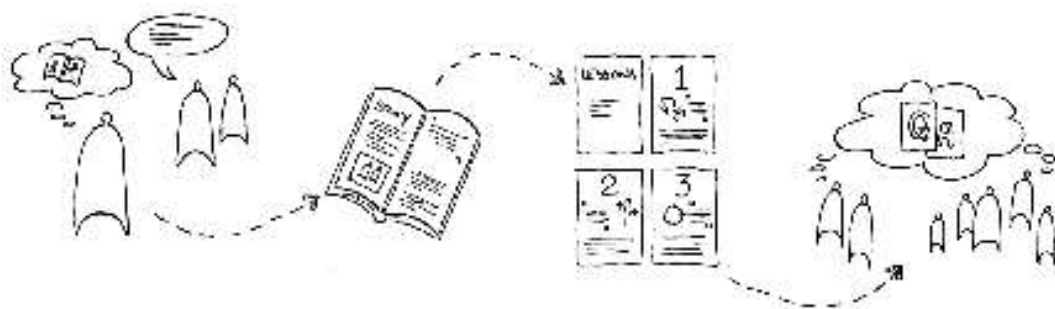
Case Study - Plastic View

Stories
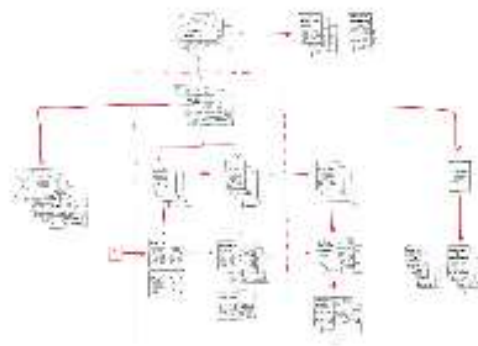
Throughout our collaboration this semester and during our student engagements in and with the residents of Plastic View, the students from University of Pretoria have gained a lot of experience and insights from site visits and other activities. Even though there have been many rewarding moments, we have also found ourselves in highly challenging and difficult situations. We have had a lot to learn from these unpredictable situations, enough for them to be valuable for future students to take part of and learn from. Some of our experiences have therefore been compiled into stories, for others to learn from, allowing them to avoid similar situations and mistakes in their respective engagements. On the whole, this is to avoid the same mistakes being repeated over and over again, every time there are new student engagements, as well as learning from what we did well.

Lessons

LESSONS LEARNED
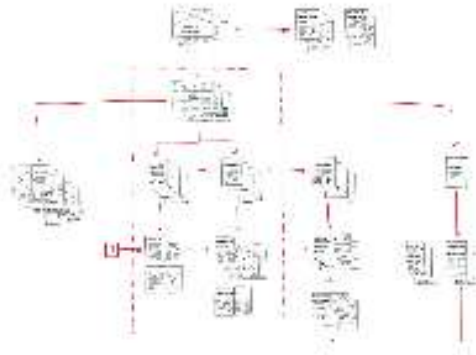
We have compiled three stories from our own engagements that encompass and shed light on many of the lessons we deemed important to grab onto and share with others. Each story then generates a set of these lessons, and though some of them can be traced back to that specific point in time or relate strongly to a specific situation, others are more general and stem from several interactions with the members of the community. Due to time constraints, for the purpose of this academic work we have narrowed it down to four lessons per phase. Some are quite existential and others more practical, but in one way or another they all reflect on the subject of student engagement, and are based on our personal process and theoretical background. At the end of each of the phases we have included a collection of anecdotes on things that we, together with the community, did to help overcome some of the challenges we faced during this process. These are a valuable complement to the lessons, as they carry a ray of hope and insight into some of the positive aspects of student engagement.

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Reflective Questions

REFLECTIVE QUESTIONS - PLASTIC
VIEW CASE STUDY
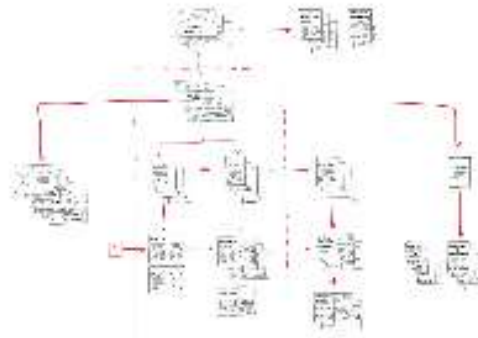
The chapter on reflective questions is dedicated to all future students within the education of design professions to use throughout their own processes of engagement within vulnerable communities. All questions are thoroughly grounded in the theoretical background compiled and presented here, and have derived from our own lessons learned. Most questions also include notes, hints or follow-up questions that we believe can help students develop a critical practice and standpoint. They are also designed to help the reader structure, plan and carry out their engagement process as ethically justifiable as possible. At the end of each set of questions there is an additional quick questionnaire, focused on whether or not the reader has taken part of and implemented the theoretical aspects presented in this work, simply to ensure students have taken this step towards what we believe can ensure authentic and ethical engagements.

We suggest the reflective and evaluative questions to be used as part of reflective charrettes or workshops within the project team, both before and after any engagement. The questionnaire regarding the principle values can be used as a helping hand at any point throughout the process, to ensure a sustainable and ethical process.

29

Templates
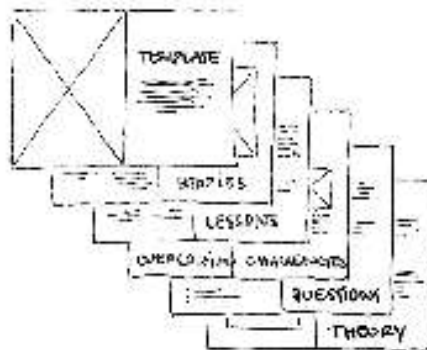
Though constituting the final Reality Studio deliverable, for us this document is only the beginning of the toolkit to ethical student engagement. Considering our engagements in Plastic View as a case study and not the main component of this work, emphasises the possibility of, and aim for, it living on and growing long after our exit. The case of Plastic View works as a first example of how to use the website and how to implement the structure of critical practice onto any project.

It should show how moving through the questions, actively documenting the experiences into stories and reflecting upon the lessons drawn from them enforces a routine of critical reflection into your practice. We hope that future students will be able and willing to conduct these exercises and thus add to the website with their own stories, lessons learned and reflective questions, eventually contributing to the building of a large, collaborative learning platform.

We have created and uploaded templates that should be easy for students to apply to their own processes, fill in, and thus make their contributions to the website. This goes for the sections 'Stories' and 'Lessons'. We see the current reflective questions, however, as a first attempt, a beta version towards a more comprehensive and holistically sound set of questions. We believe they could, and should, be left non-static, to be updated and developed as future students evaluate them and see the need to exchange or update them to more appropriate ones. We can not claim to know the whole picture, and thus see the need for such documents to be in constant editing, changing with the growth of our collective knowledge.

Part IV

"We must develop a _critical_
practice, develop critical
awareness and actively consider
and question the principles of
ethical engagement when we
conduct student-led participatory
projects"

Self-awareness ~ responsible?

How much does one reflect before it becomes hinders the doing?

Ethical for whom?

Have we considered the child perspective?

What about other professions?

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Reflection

We approached the Reality Studio this semester, with the hope and belief that we would be able to truly generate a positive change for the communities we were about to work with. We were under the impression that all it would take was a thorough contextual understanding, starting with an extensive mapping of the site and a well grounded analysis, in order for us to be of use. Complete novices to working with vulnerable communities, in a foreign context non the less, it's easy to underestimate the complexity of things.

We later came to realise that it wasn't all that easy. In conversation within the project team and through our interactions both with the site and other students, we started identifying the pattern of the failure of student engagements due to the community lacking knowledge or capability to continue on the development of the project on their own, after termination of the students' engagement. We noticed that there must be something missing from the equation of student engagements. There was a lack of understanding of intentions, goals, and what role we students were expected to take in the context development.

Instead of seeing ourselves as providers, trying to help the community, we should rather look at our engagements as serving the community soley. The focus should be to support democratic processes, allow free speech, and recognise the power of dialogue. If we allow ourselves to a more serving position, we can avoid a domineering practice, where the community will be able to learn by themselves instead.

We eventually came to question the whole idea of students conducting research within a community and what threats doing so might pose to the people living in these areas. We ourselves experienced situations where we posed a risk of intruding upon people's private space or imposing power imbalances, challenging our roles as researchers. These were unforeseen situations that we couldn't have predicted, but that only emphasises the need to ask the question whether we really have enough experience to help these people. In contrast to 'normal' school projects, we here position ourselves within very real contexts, researching the lives of real people, often in vulnerable life-situations and with enough issues on their own. The consequences of our actions can have a more severe impact than perhaps we can anticipate. Simultaneously though, the potentially positive impacts that engagement can have, might prove to be of great importance in actually changing someone's life for the better. If we don't learn how to tackle these issues, to deal with inequalities and real situations in a school environment, how can we expect students of architecture to know about and prioritize these matters in their future careers?

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Child perspective

Our ethical standpoint during engagement with the community, was to not include children, due to the difficulty in doing so in such a complex context. The children are especially vulnerable in the community and perhaps shouldn't be involved because of any potential stress that might cause them. There seemed to be more to lose from engaging children than to gain from it (from an ethical perspective, and for the children's own good). We thought the only way to consider children's perspective would be by actively engaging children in participatory activities. Since we chose not to do so, we may have overlooked their perspective in most of our engagements.

One of our methods for achieving ethical engagements on site - reflect before acting - was something we failed to do in our own preparation for activities, which we should have done due to the importance of actively considering the child's perspective in the process. It could have prevented the unintended unethical inclusion of children, which may have caused more harm than good. At times it may have caused unhealthy power imbalances between us and the children, as well as causing a safety risk when building on site. Things that we didn't consider when failing to do a harm and risk assessment prior to our engagement.

When considering community participation, it is important to keep in mind that children are as much part of the community as anyone else, and have the equal rights to have their voices heard. Children should be able to express their opinions and partake in their communities' development. The problem is, that involving children in research means taking time from them that they could instead spend on playing and leisure. Furthermore, due to their innocent and trusting nature, the involvement of children in the process can easily become exploitative.

From our perspective, there is a fine line between the positive aspects of engaging children in the participatory process, and the negative. Navigating through those ethical boundaries can be tricky as involvement could cause harm or pose a risk to the children. The challenge is to find a way to involve children without causing any potential harm. The question is not whether to involve them or not, but rather how and when. When reflecting on our ethical roadmap we would have wished to include the child's perspective more in our reflective questions. If a process or intervention is positive for the child, it will most likely be good for everyone else as well, so we should have put more effort into making sure that all questions apply to the benefit of the child, which would then benefit their surroundings as well.

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Future project ideas

When designing our website structure, there were a lot of other things that we wished to include in our toolkit on the website. For example we would have wished to add more phases than the three that we have today. Especially adding a 'follow up' phase, that will help with the follow up process after the engagement is finished and how to tackle those issues and make the transition as smooth as possible. Due to time constraints this was however not possible.

We also thought about connecting all the lessons learned and certain reflective questions with the specific theory that it relates to, to make it easier to jump between pages and find the relevant information and examples on how to deal with certain issues. Due to the limitations of the website and time constraints this was not possible to follow through.

At this point our project is focused on future students working in vulnerable communities. It would however be beneficial in the future to do something similar that is more targeted towards stakeholders. Something that they can use when engaging in these communities as well. NGOs are far more out there and do so much more than we ever could, so it would be good to include them in this subject of ethical approaches.

Conclusion

After changing our perception on these issues over and over again, we have come to recognise some of the issues with student engagements. For one, there is a fine line between empowering a community and exploiting them. The multiple commitments of student engagements, both towards the community and towards the own project also makes shared ownership, control and equal benefit hard to accomplish.

By simple means, such as just changing the way you interact with other people towards a more respectful and inclusive manner, you can position yourself appropriately within at least some ethical boundaries. Other boundaries are harder to both identify and to implement an appropriate position towards.

Critical reflection is highly important for students engaging with vulnerable communities. It enforces a continuous challenge and questioning of the appropriateness of the beliefs, assumptions and actions we have been fostering throughout the process. It is a transformative tool, enabling us to evolve our praxises into something even better, something more conscious and ethically appropriate. Doing so also develops our own self-respect and self-awareness.

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Evaluation

Having designed a project based on the importance of ownership and empowerment, one could think that we would follow our own principles. However when reflecting on our process and collaboration we observed that we ourselves might have done exactly what we preach others not to do. When separating ourselves from the rest of the group a bit, it was believed to be in the best interest for everyone. That we could now focus more clearly on this specific outcome and the others would be able to focus more on their individual research thesis, at least for the time being. What we didn't take into account (though we definitely should have, considering the topic of this project) was that since we failed to adequately include the rest of our group members in our process, they might not feel like they have the ownership of our outcome, the ethical roadmap. We preached that a hand-over process should not be necessary if the collaboration is close enough. When finishing the website and asking them if we should guide them in how to use it for future preferences it felt like a huge setback. We ended up at the exact point our entire project is trying to avoid. Which goes to say that working with various stakeholders, letting them be a part of the entire process from start to finish is difficult. Especially when time is so limited and everyone has slightly differing objectives.

Ever since deciding to delve deeper into the subject of ethics in our project, we have come across a few additional uncertainties that we have been unable to tackle in this report - we have however reflected on them. When conducting interviews on site we have asked all participants to sign a consent form to make sure that we have their consent for participation. When reading the actual consent form we were alarmed by the complex language. It has a strict architecture jargon, that we would be surprised if the participants signing the forms could actually understand. Then what is the purpose of the consent form if they don't know what they are signing? Another issue is that the participants are signing papers that students will then upload to their respective appendixes, and then uploaded to our online platform. The participants are probably not being made aware of their signature as well as their names and other personal information being exposed online on a website. Does consent to participation necessarily also mean consent to publication? Does Reality studio and Urban Citizen studio have a responsibility in supporting and reminding us about these issues regarding publications and what to upload or not on a website, or facebook and instagram? We still have a huge responsibility in maintaining people's integrity.

We have also come to question our own website and the jargon used. Is it too difficult for inexperienced users to use our toolkit? Could a change in language allow stakeholders to use it more easily? The hope was to make it accessible for new students in the beginning of their process, and it can be questioned how accessible our theories, language etc. is for them as well. Can someone new to participatory processes easily follow our methodology?

These are all questions and ponderings that we would have liked to consider further, if we were to continue work on this project.

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Endnote

Even though we still question if we as students have the right training and capability to go into these vulnerable communities, we believe what we have done is a first step into a more ethical approach. Just to acknowledge that we pose a potential threat with our engagement on site is crucial for students to develop a further understanding on the issues. We still believe that we have a positive effect on communities, that we bring some hope and a good spirit. Some might not expect for us to find a solution to all their problems, but we might be a positive force for them that they can administer in the future for some positive benefits.

This has been a challenging process in so many ways for us. So many uncertainties and so many people that had to benefit from our project. We had to consider the Reality Studio deliverables, The University of Pretoria students benefits of the outcome and our collaboration, the communities benefits of this and of course our own interests. There have been days that have felt hopeless, and days that have been hopeful, but in the end we are very proud of what we have achieved. We could not have done this without the Students of University of Pretoria and we are very grateful for having been a part of this collaboration and making friends with them!

Can't stress enough how this experience has made us develop as human beings. Constantly challenging our beliefs and assumptions, to just develop a further and further understanding of the issues. It has been an eye opener to realise that some things can seem to be ideal, but when twisting and turning on it, you see all the backsides and new improved ideals. Things that have their own backsides and positives. We will bring this with us, that there are positives and negatives with everything that you do. Reflecting on those different sides is so self-fulfilling and makes you develop as a human.

From the beginning we have said that this is a challenge in communication and management. Being nine people, studying on different universities and programmes, with several different schedules and individual focuses has been a challenge on its own. Even though this has made us confused and sometimes upset, it has brought us a lot of lessons. Without all this confusion and time constraints that it posed on us, we wouldn't have done what we did as our outcome. We wouldn't have understood the importance of being self critical and learning from our own lessons. Being given an important life lesson is more important than any other school project. To be given the chance to improve as humans and then trying to give the chance for others to take the same journey we did is highly rewarding and made this process worth it ten folds.

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Appendix

Appendix - contents

Ethical Roadmap to Student Engagement - MPIP Platform

Mapping Booklets - Moreleta Park Integration Project 2021

APPENDIX II

We have spent a few weeks delving into our various focus areas, while developing our methodologies and models of research. As smaller data collection and analysis groups we delved into themes that correlate with our individual master projects and the larger group research narrative to produce a large set of data that can be used going forward. All the data collected was analysed through the various lenses that provided us with a deeper understanding of the site across various the scales of inquiry. This serves to enrich our projects by enabling a capacity for further complexity and a responsive process that will be slotted into our final outcome: the website. Stay tuned!

When exiting the research phase of our project, our collectively bettered understanding of the Plastic View, it characteristics, rituals, typoligies and the life of the community has been collected and translated into a shared language. The aim is for our findings to be made accessible and open, and are to guide our work in the weeks to come.

While each of our three groups have worked towards individual booklets for our collected research, data collection, coding and analysis, we are also feeding our insights into a shared online platform.

https://sites.google.com/tuks.co.za/mpip-2021/home

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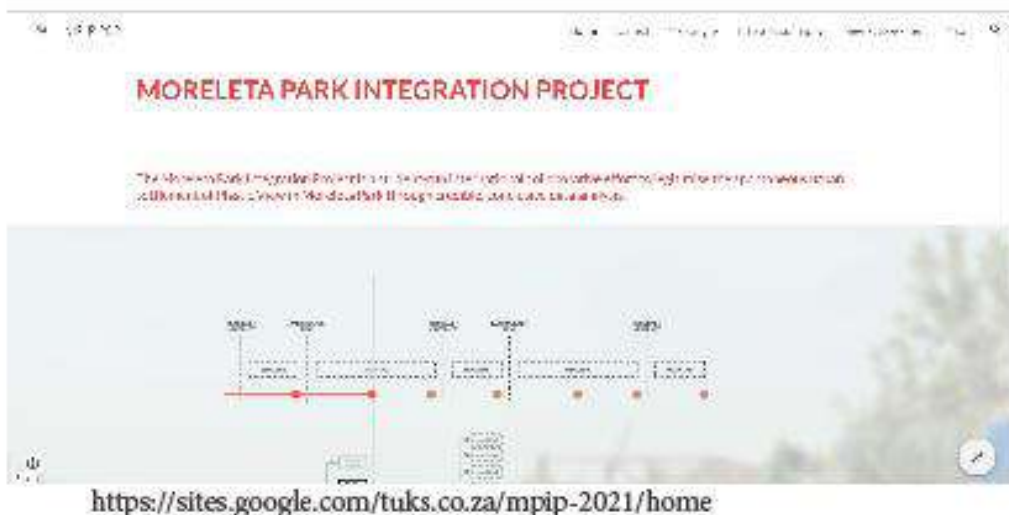
MPIP- Community mapping booklet, Honours 2020

APPENDIX III

Throughout this document both Plastic View
and Cemetery View are compared to one
another whilst simultaneously being compared to their immediate surrounds; mostly
consisting of gated communities and inaccessible 'public spaces'. Through analyzing
these areas in relation to their macro, meso
and micro contexts we can draw a variety of
conclusions from our research without posing specific large-scale, long-term solutions.
The project document is laid out in a similar
fashion as the research methodology and
aims to gather ample amounts of information to draw strong substantiated conclusions from,
supported by layers of theory.

MORELETA PARK
INTEGRATION PROJECT

https://sites.google.com/tuks.co.za/mpip-2021/context
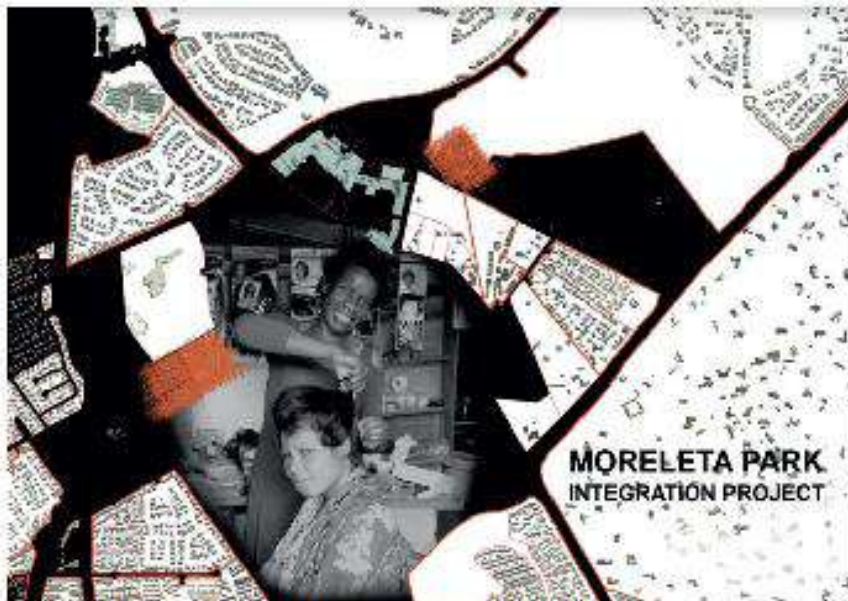
MPIP - Community Action Planning booklet, Honours 2020

APPENDIX IV

The Informal Settlements Forum is an organisation working in the area of Moreleta Park and comprises of three focus groups working hand in hand to improve the living circumstances within the urban informal settlements of Plastic View and Cemetery View. This organisation has many different stakeholders ranging from NGO's, estate residents, informal settlement residents etc. As a main driver for the comprehensive completion of this project we as a group aim to aid to the needs of the Forum and work together with the Forum, the micro and macro communities as well as the many other stakeholders invested in the overall improvement of the area of Moreleta Park. The goals and objectives set out in this document are in conversation with the previous Mapping Booklet. The goals are, however, adjusted to the community action plan and guide the plan to consist of incremental, small-scale elements that can be implemented in a phased approach. The plans are developed along these guidelines and all three parts of the community action plan eventually aim to integrate the wider area of Moreleta Park. In conversation with realistic implementation of the community action plan, we as a group have decided to only include Cemetery View as part of the Media-based Action Plan and not the other two aspects of the larger action plan. The decision to focus on Plastic View for the two other aspects of the community action plan follows on the myriad of information on the current certainty of the future of Cemetery View. It is our observation that the uncertainty surrounding Cemetery View's existence within the marshland has made residents highly skeptical and we as a group have decided to respect the privacy of residents and instead work alongside the community members of Plastic View and the Informal Settlements Forum.

MORELETA PARK
INTEGRATION PROJECT

https://sites.google.com/tuks.co.za/mpip-2021/context

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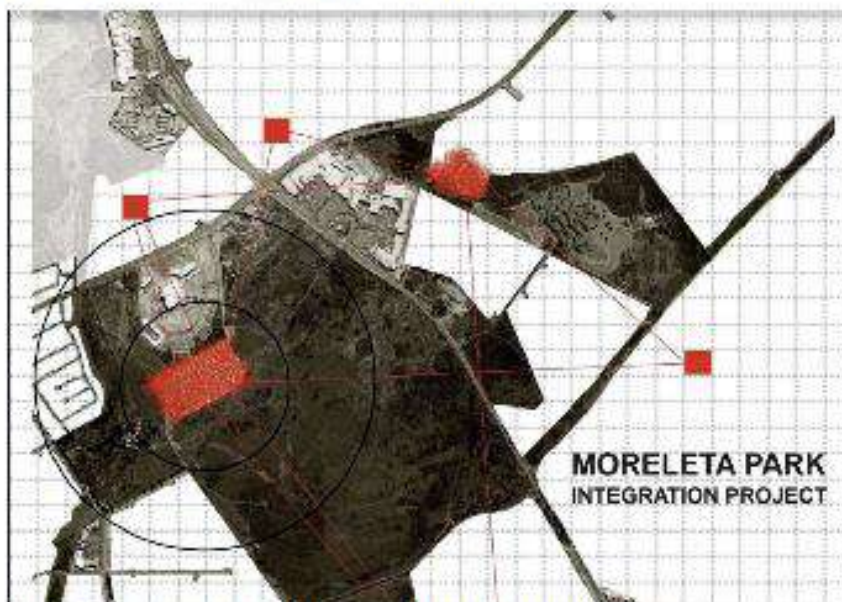
Moreleta Park - Community Mapping Booklet, Honours 2021

APPENDIX V

The urban landscape is a political space, and in the case of South Africa, this is one very much characterized by the inequality perpetuated by the Apartheid regime. As a result of the continued social inclusion and exclusion which dictate the country's landscape, informal settlements have organically emerged and will continue to do so unless major action is taken. This is a direct reflection on the existing socio-spatial injustices that exist within our urban fabric. The research conducted in this

project delves into two such settlements, Plastic View and Cemetery View, both located amongst the wealthy gated estates of Pretoria East. Our focus will extend more towards the mapping of Plastic View on a macro, meso and micro level in order to gain an understanding of the key systematic issues that people living in a settlement face. The research will be conducted through three lenses namely: environmental, technical and social. Conclusions drawn from this research, along with the foundation of the 2020 Moreleta Park Integration project booklet and Community Action Plan, will be used to dictate live action workshops based on site.

MORELETA PARK INTEGRATION PROJECT

https://sites.google.com/tuks.co.za/mpip-2021/mapping/honours-2021

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Moreleta Park - Community Action Planning Booklet, Honours 2021

APPENDIX VI

The urban landscape is a political space, and in the case of South Africa, this is one very much characterized by the inequality perpetuated by the Apartheid regime. As a result of the continued social inclusion and exclusion which dictate the country's landscape, the organic emergence of informal settlements can be noted. This is a direct reflection of socio-spatial injustice. The research conducted in this project focuses on one such settlement, Plastic View, located amongst the wealthy gated estates of Pretoria East. Having considered the site on a macro, meso and micro level during phase one,

the students from the Unit for Urban Citizenship now move on to the design and construction of a prototype. This will inform a 'research by design project' through on site workshops that aim to engage with community members. The group aspires to share ownership of the prototype with the community for the foreseeable future. This prototype aims to become a platform that enables knowledge transferal between the University of Pretoria and the community of Plastic view that will in return encourage agency.

https://sites.google.com/tuks.co.za/mpip-2021/mapping/honours-2021
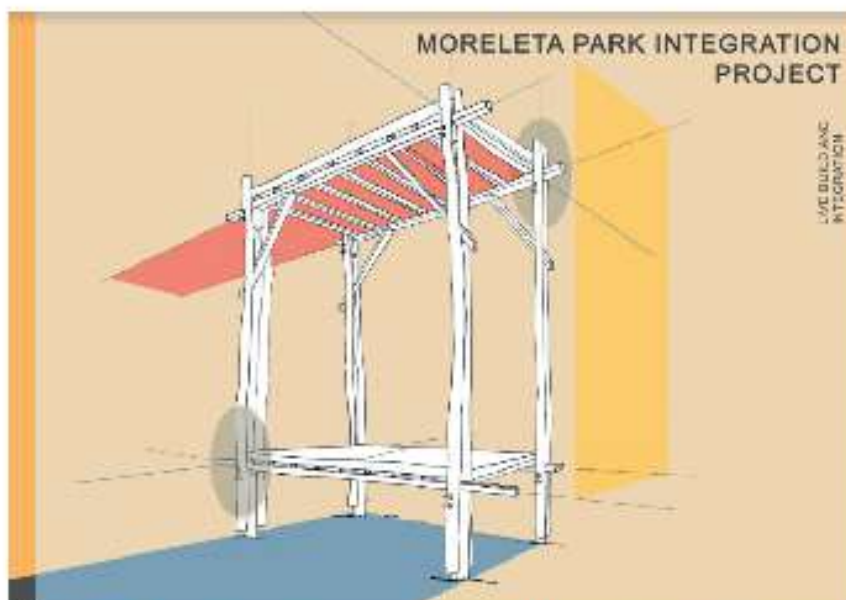
Discovery

- discovery
/dɪˈskʌv(ə)ri/
noun

1. The action or process of discovering or being discovered
research
2. The initial introduction to site, theories and methodologies used in the project. Provides a basic understanding of where we fit in and how to deal with the rich, complex layers.

(MPIP Masters 2021)

Introduction

Plastic View is one of two informal settlements located in the suburban area of Pretoria called Moreleta Park. At this part of the process we have been divided into three groups, from the nine students that are working in this context. This group consists of two Pretoria University students and one student from Chalmers University of Technology. Our main focus is to dive into empathy mapping from an ethnographic research perspective. The aim is to get an insight of the rituals, knowledge systems and the ways in which people are communicating within the settlement. By observing and interviewing the people in Plastic View we can get a better understanding of the context and recognise the needs of the people living there.

This will be done by looking at the people, scenarios and places present in the settlement. Our data collection will done by on site visits and secondary data collection by previous mappings and research. Our aim is to also create a methodology that could work for future research within the subject. Something that could be adapted as a way of mapping empathy in other settlements.

Collaboration between the Universities

Delani Knek UP M(Arch) Prof	Alexia Katranas UP M(Arch) Prof	Lina Zachrisson Chalmers M(Arch)	Socio-spatial cataloguing
Nick Ramsey UP M(Arch) Prof	Alexander Mbedzi UP M(Arch) Prof	Chris De Bruin UP M(Arch) Prof	Circular material and skills flows
Brendon Creighton UP M(inst)Arch) Prof	Dhane Herbst UP M(inst)Arch) Prof	Julina Lindqvist Chalmers M(Arch)	Empathy and greater rituals

Annique Haese, Charlotte Swart, Wessel Ebersohn, Ingrid Schmutz, Naseera Goga, Nicholas Hudson, Ryan Meij, Tlamelo Mojakhoko

UP B(Arch) Hons

Broad spectrum focus mapping

Research Methodology

Moreleta Park Integration Project

Stakeholder analysis

Mapping Stakeholders - Internal and External
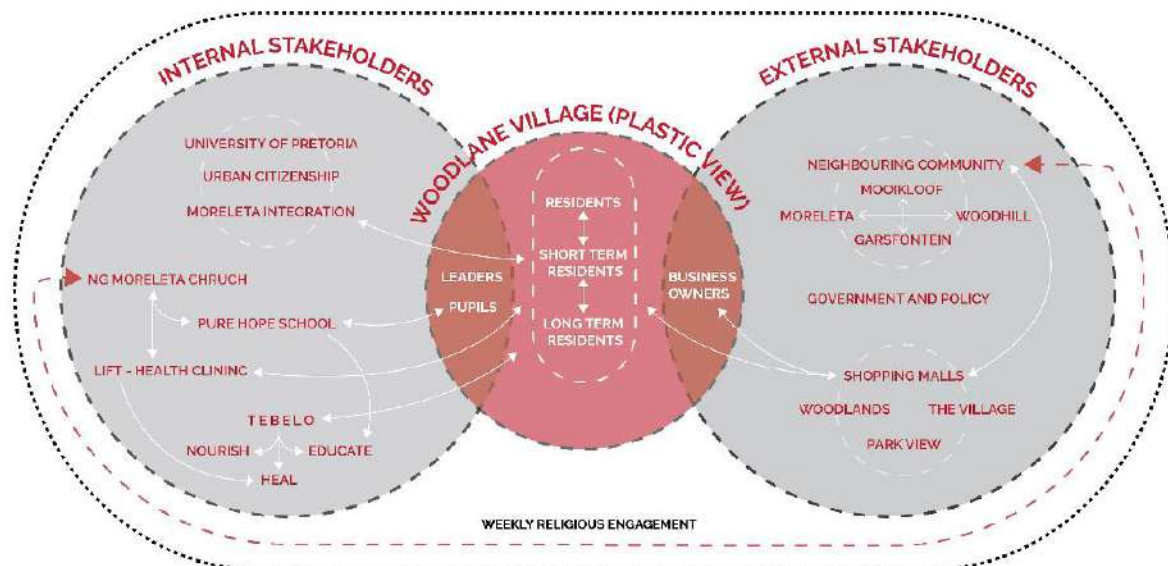
Stakeholders can be mapped according to internal and external stakeholders. Internal stakeholders are existing companies, organisations or people who directly influence residents. While external stakeholders can be viewed as infrustructures, local surroundings and places which influence the daily lives and rituals of residents.

Figure 1.2 - Mapping of the stakeholders, both internally and externally

Limitations

Data collection limitations
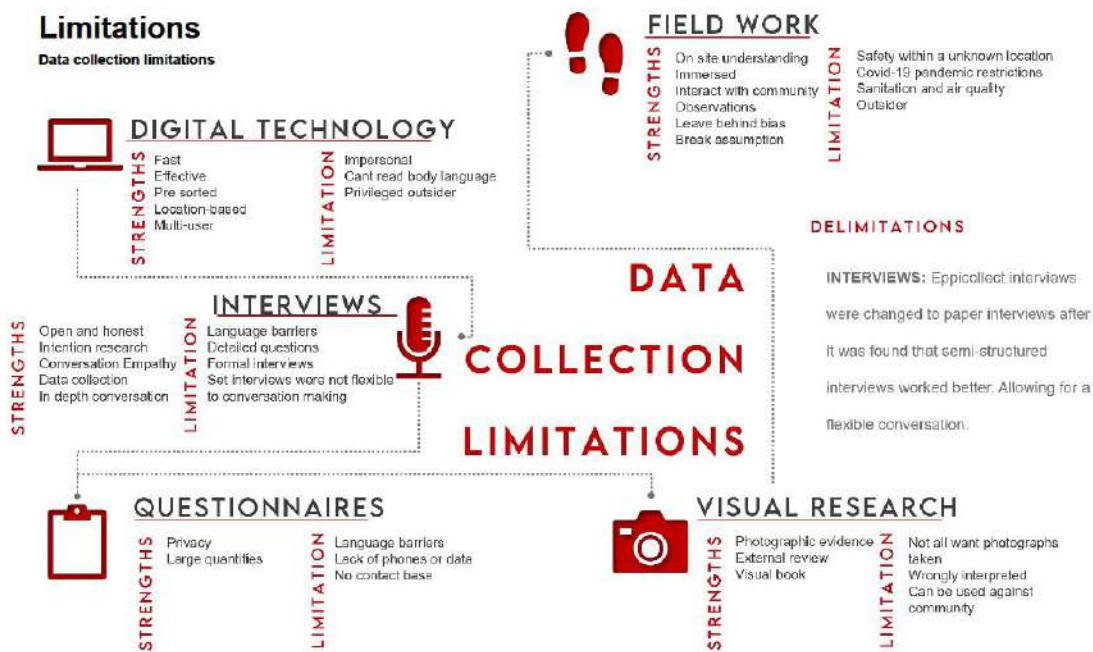
The data collection methods are derived from ethnographic research methods and were analysed by strengths and weaknesses. Any limitations were kept in mind research was conducted and delimitations assisted to complete research tasks.

Figure 1.3 - Data collection limitation

Delimitations of the study

This study serves as a base to understand the context of Plastic View through a normative lens. To understand the community we will have to empathize with the people and identify how they use their space in their daily life. We are therefore going to study the people living in Plastic View. By doing this we can identify their needs through an empathy mapping and customize solutions based on those needs in later stages of our courses. Additionally this methodology can hopefully be used to help out informal settlements in the future towards a bigger movement to eradicate these injustice ways of living.

Plastic View has around 9000 residents, which are too many for us to observe individually. Especially with the time limit of only being able to do this study for roughly a month.

This study will divide people into five age categories; children, adolescents, young adults, middle aged and elderly. This way we can limit our data collection into these groups and still get a broad overview of the whole community. The number of participants will be dependent on the time we get to spend on site. A large collection of data will also be represented through visual material that we observe on site and through photos taken, to get a more comprehensive understanding of the situation.

(MPIP Masters 2021)

Immersion

🔊 - Immersion
/ɪˈmɜːʃ(ə)n/
noun
1. The action of immersing someone or something in a liquid
2. Deep mental involvement in something.
research
3. Engaging in a vigorous investigation to site through an empathetic lense to gain a deeper understanding of the residents and their inhabitation of Plastic View

(MPIP Masters 2021)

(MPIP Masters 2021)

Empathy mapping

Empathy is defined as the action of understanding, immersing, being sensitive to experiencing another thoughts, feelings, experience either in the past or presently (Merriam Webster, 2021).

The proposed research study aims to understand the community and its residents. Understanding as a designer can be achieved either through an experts lens, or through an empathetic approach. Empathy mapping starts with the individual, then space and then scenario. This allows the researcher to layer an activity that is being completed by a resident within a place and time.

Why Empathy

Empathy is important as researcher to avoid biases and assumptions in the process of understanding and generating solutions. Empathy helps understand the human aspect to a problem and the consequences that are related to someone's daily life.

Plastic View has many diverse groups of people, form different countries, age groups and knowledge systems (Molenberghs, 2017).

People, scenarios and places

People

People refer to the residents from the community. For this study people are the most important asset in mapping empathy. People conduct personal and group activities during the day for personal or group satisfaction or gain. People inherently each have their own knowledge and beliefs, this is transferred through communication.

Scenarios

A scenario is a setting wherein activity takes place where knowledge, communication, people, time, and place are present simultaneously.

Places

Place refers to space where people and scenario meet. Places are divided by use, purpose and meaning. Personal spaces could include homes, while public spaces include the streets, resources points, and essential services. While semi-private space could consist of schools, religious places, and work spaces. Place form an essential part of understanding empathy and the connections within the community between residents and the space.

(MPIP Masters 2021)
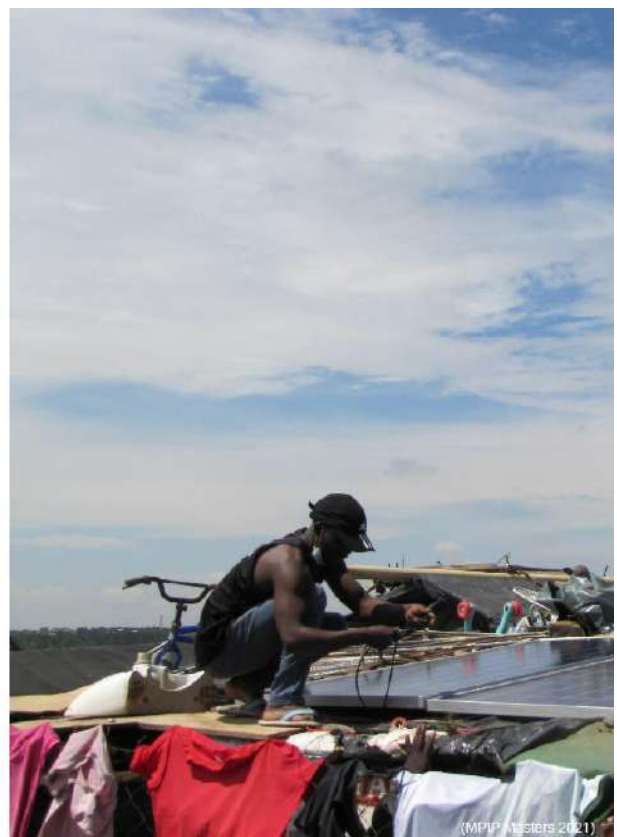
Themes

In the discovery phase, on site investigations showed a variety of spatial, services and physiological problems that many residents faced. To conduct empathy mapping and understand the impact of various problems it was important to understand the process in which the daily lives of residents take place within a space, during a scenario, including groups of people, who are all culturally diverse and in a layered age demographic. This understanding of people is then divided into rituals, knowledge, and communication.

Rituals within empathy understand where activity that is taking place, while understanding the context of why and what is happening and with who. This is important to know how much time is spent on activities, and who take part in activities to derive roles that are expected by the community or within families.

Knowledge expands into gaining an external and internal perspective. External knowledge systems such as schools, NGO courses and people who provide an expert input into the community. Internally, individuals have their own knowledge and skills, these are used within daily rituals but also are used to teach others, this can be called the transferal of one's individual knowledge. Moreover, there is also a sense of appropriation of knowledge, construction of residences is a clear example.

Communication is strongly linked to both knowledge and rituals, through doing activities, residents share knowledge and practice knowledge to complete tasks. Language also becomes a passive instrument in the success of activities. Communication can be seen in multiple scenarios and places, and are all different in nature. languages spoken at home are different to in the street, and different once more at work or school, making language and communication an expensive commodity.
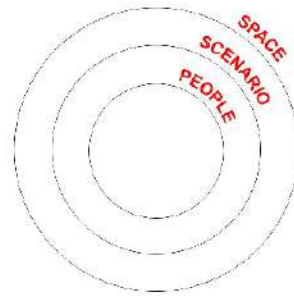
Figure 2.1 - Conceptual diagram of the correlation between people, scenarios and places
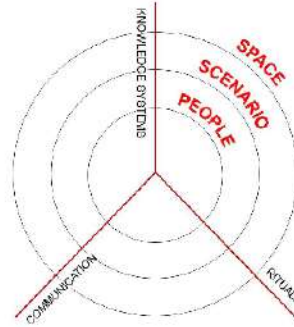
Figure 2.2 - Conceptual diagram of the correlation between the different themes

(MPIP Masters 2021)

Grounding

🔊 - grounding
/graund/
noun

1. A basic knowledge of or training in a subject
2. Process of making something well balanced and sensible
research
2. Supporting our approach to the research through external sources and clarifying our research methodology and approach to empathetic mapping

Theoretical framework
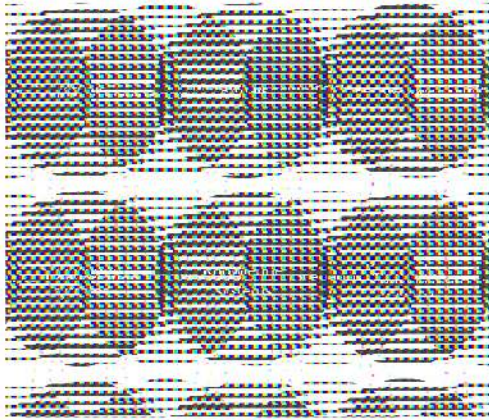
Jahn Gehl's methods of observation:
Jahn Gehl has been a pioneer in urban planning since the 1960s. His methods have been used ever since and are considered one of the most important methods for improving the quality of public space and its life. (Gehl & Svarre, 2013)

Jahn Gehl's methods of observation conduct which spaces are used, and for what. Gehl suggests to ask simple questions, such as where? who? when? to see if a space is inclusive for everyone or not. According to his methods it can be fruitful to sort people into categories, such as gender, age ethnicity for example, when doing the research. Other aspects such as the weather can be important factors to take into consideration. Public space changes constantly depending on the day, the time of day, the season, and the year as a few examples. (Gehl & Svarre, 2013)

Ethnographic research method:
Similar to Jahn Gehl's observational method, ethnographic is about observing people in their natural environment. Instead of looking at the space, the Ethnographic perspective is to recognise the day-to-day life and the cultural activities of the people.
Pieter de Vos used storytelling as a method of unravelling the true identity of a place and to understand the life of the people living there. The methodology of narrative analysis can be effective when doing community-based research and the perception of their livelihoods. (Muratovski, 2016), (Reeves, et al., 2008)

Selection of research approach:
Our theoretical framework will be constructed from these theoretical methods and will cover the "people, scenarios and places" that we've already introduced.
We consider it to be beneficial to divide people into different age groups as Jahn Gehl's methods suggest. Additionally we want to cover all hours of the day, and both weekdays and weekends to make sure that all aspects of life are presented. We will not only be looking into the space aspects, but to also include the ethnographical aspect of looking into the transfer of knowledge, the rituals and the languages used in the community to get a richer understanding of the livelihood present. This will not only be done by observation, but also by the storytelling approach, where people get to share their stories.

Figure 3.1 - Theoretical framework diagram

Data Collection

Autoethnographic Research
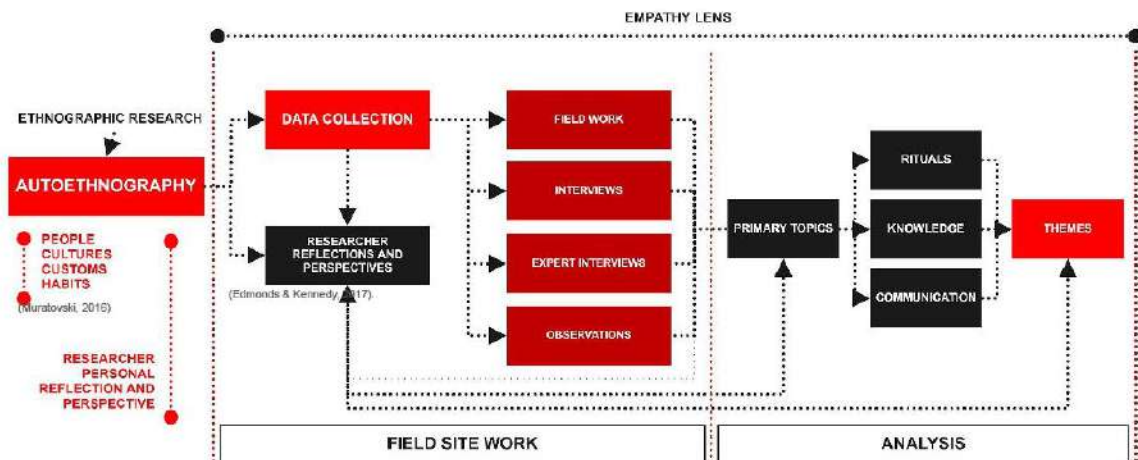
Figure 3.2 - Autoethnographic research data collection diagram (Reeves, et al. 2008)

(MPIP Masters 2021)

Empathise

🔊 - empathise
/ ɛmpəθʌɪz/
verb

1. Understand and share the feelings of another
research

2. Acknowledging that as outsiders we do not have the capacity to fully understand the complex lifestyles of Plastic View and conducting research to challenge the preconceived assumptions by observers of the settlement. Conducting research through the lens of the settlement's inhabitants.

(MPIP Masters 2021)

Plastic View

Plastic View is a spontaneous urban settlement in Moreleta Park, Pretoria. The settlement embodies a 'new' method of urbanism in South Africa, where densification occurs spontaneously on open land fragments located between luxury estates and public amenities.

The 1913 and 1936 Apartheid Land Acts confined all non-white South Africans to 13% of the country's surface area. These acts went hand-in-hand with the Apartheid Urban Areas Acts of 1923 and 1945 enforcing the relocation of all non-white residents to city peripheries and designated homelands. Following these Acts a European segregationist spatial development framework was superimposed on the city of Pretoria (Strauss and Liebenberg, 2014).

The fragmented remnants of these racist policies perpetuate themselves in the current urban state of Pretoria 27 years after democracy.

The various complexities surrounding Plastic View and the urban issue manifesting itself within this settlement is what drew all nine Masters students (as well as a group of Honours students from the University of Pretoria) to the site in the first place. Initially our team struggled with coordination and conciliation of interests, tasks and deliverables but as our engagement with Plastic View (both on and off-site) became more rigorous and team meetings more focused we managed to align main themes clearly.

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Collection of data

Due to the human-centered nature of our project we went through an iterative process to ensure that the data collection reflects an empathetic approach to the inhabitants. Our initial data collection methodology revolved around formal EpiCollect questionnaires but after an initial on-site session we realised that the phone-based questionnaire created a barrier between researcher and interviewee that compromised the empathetic investigation we were undertaking. Thereafter the questionnaires were converted into a one-page infographic to be filled in by willing participants. Along with the page we conducted conversation-led interviews that were recorded and transcribed. The conversation enable more interactive data collection that we revisited as a group to reflect upon and draw certain conclusions.

These conclusions were the themes that surfaces as crucial parts of the inhabitants of Plastic View and their daily lives. The data gathered aimed to give a deeper understanding of the residents in Plastic View and will be transcribed into accessible information that can be used going forward as design informants. The aim of an empathetic approach to data collection was to enable the design projects to be responsive and considerate to the inhabitants (and clients) of the projects.

With one member of the group in Sweden, the two members located in Pretoria, South Africa, acted as foot soldiers and after each site visit we had a debriefing session to convey our findings and discuss our experiences.
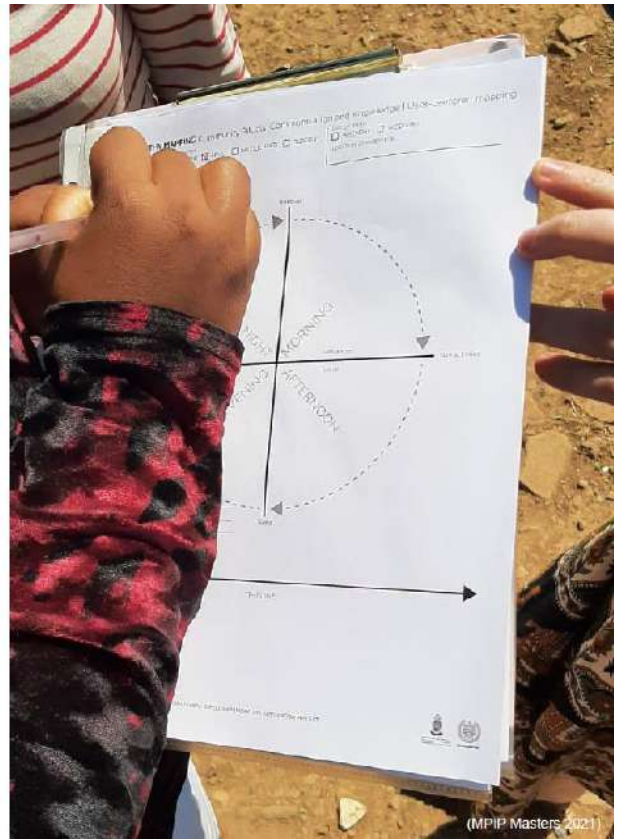
(MPIP Masters 2021)

Data Collection

Situated in the larger scope
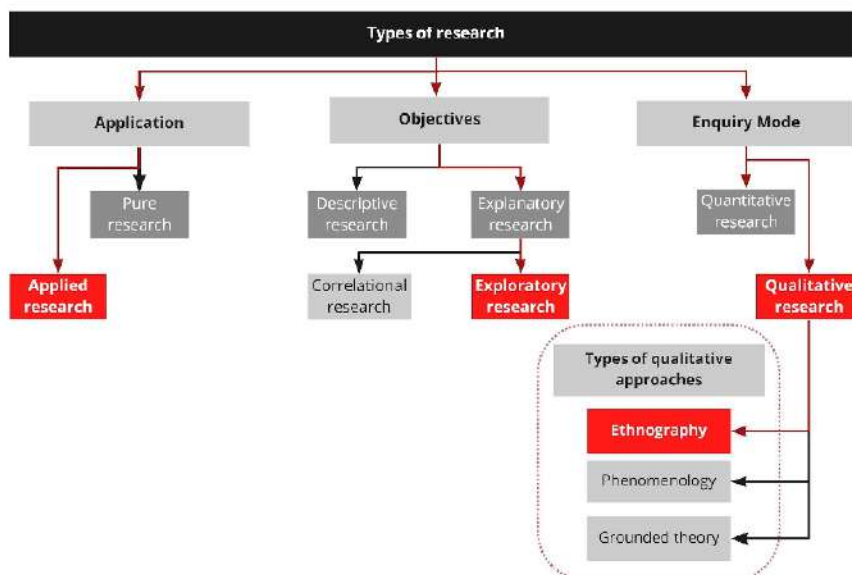
Figure 4.1 -The different types of research methods used in the project

Data Collection

Autoethnographic Research
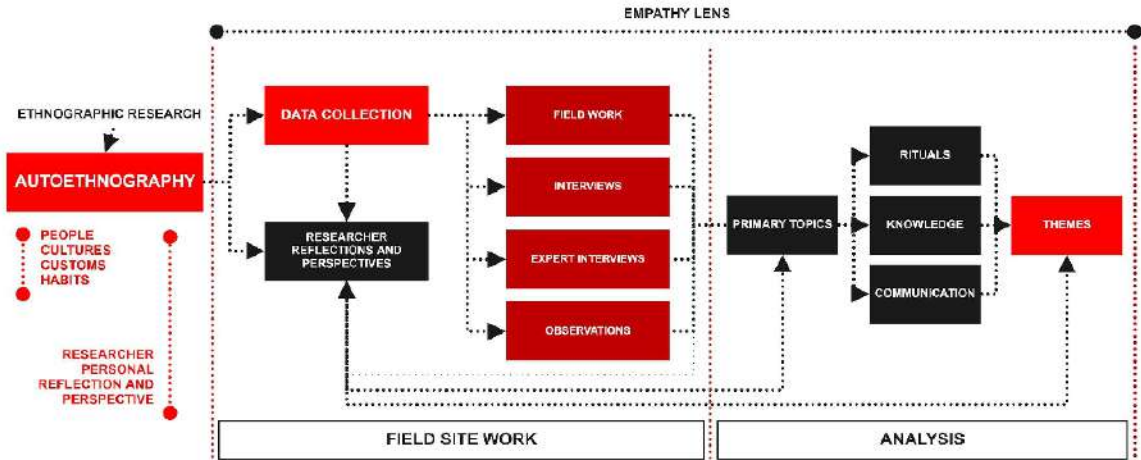
Figure 4.2 - Autoethnographic research methodology diagram (Reeves, et al. 2008)

Timeline

The process of this groups empathy mapping
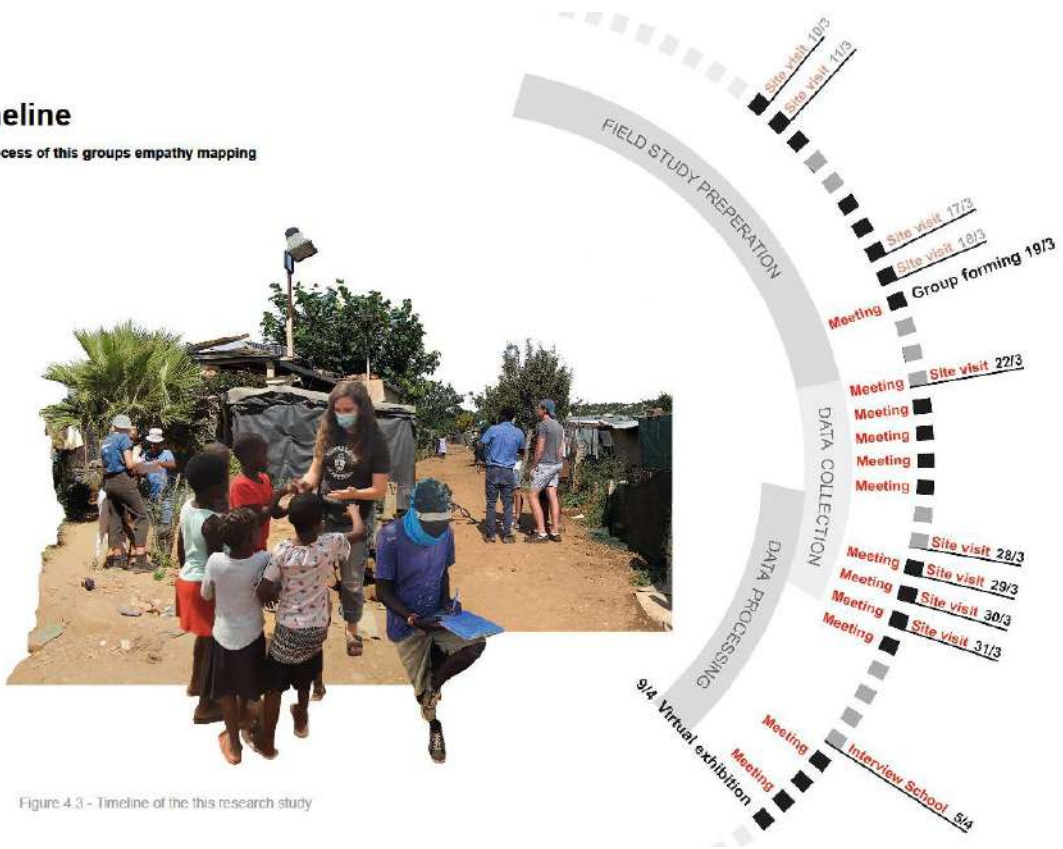
Figure 4.3 - Timeline of the this research study

(MPIP Masters 2021)

Rituals

🔊 - rituals
/ ˈrɪtʃuəl/

noun

1. Sequences of activities involving gestures, words, actions, or objects, performed in a sequestered place and according to a set sequence. Rituals may be prescribed by the traditions of a community

research

2. An investigation into the daily activities in an attempt to understand live as an inhabitants of Plastic View

Ritual understanding

In the streets, at home, in school, and at work, is where activities flourish, individuals with intent use actions, words, or gestures to perform a task that is part of their daily life.

Rituals in this study is used to understand the daily lives of the residents living within Plastic View to gain an insider perspective in challenges and barriers faced by residents, both the tangible and intangible.

For this study, an autoethnographic approach was taken to collect data. For rituals interviews and observations were used to understanding daily rituals and activities occurring on site.

Interviews:

Interviews with residents enquired on daily activities and actions required to complete a residents daily tasks. Interviews used a drawn clock on paper to allow interviewees to fill in their rituals from the morning to the evening and the challenges thereof.

Observations:

On site observations assisted in visually documenting with notes and photographs different activities happening. Through observation gender, activity and location were noted to compare this with interview answers.

The data was then categorized according to age groups and general activities.

(MPIP Masters 2021)

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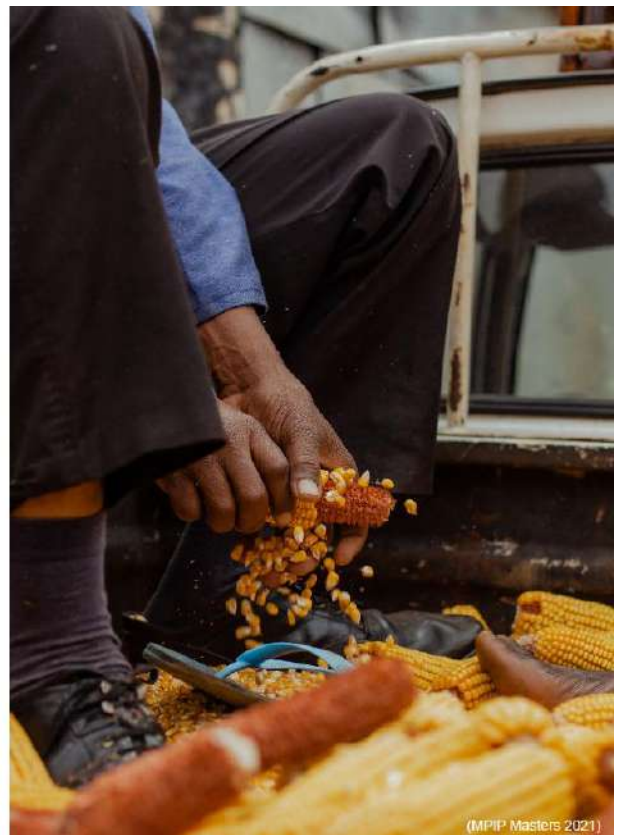
Rituals within the community

Rituals form the activities or actions that individuals take to complete their daily tasks. In Plastic View many rituals overlap and can be categorized into four main rituals:

- resources
- recreational
- occupation
- knowledge

Resources form the physiological needs required to live as humans. These could include essentials, cleaning, and collecting of resources.

Recreational rituals are any activities that are not seen as work or needs based, but rather an activity that brings joy to residents. This encompasses sports, social gatherings and any non work work community activities.

Occupation can be divided primarily into a residents time at a job or at school. This is considered as a society expected role in participating in social norms.

Knowledge can be defined during a process of learning or a transferal of personal experiences and knowledge. Knowledge activities can takes place during conversation, observation, or religious gathering.

Reflection:
The researcher found that the original assumptions of rituals lacked complexity and connections. It was later found that all the rituals were connected through space, place and scenario. There was a sense of daily routine and a self worth of identity through doing activities. Many activities such as sport, was a activity which gathered all age groups on a Sunday.
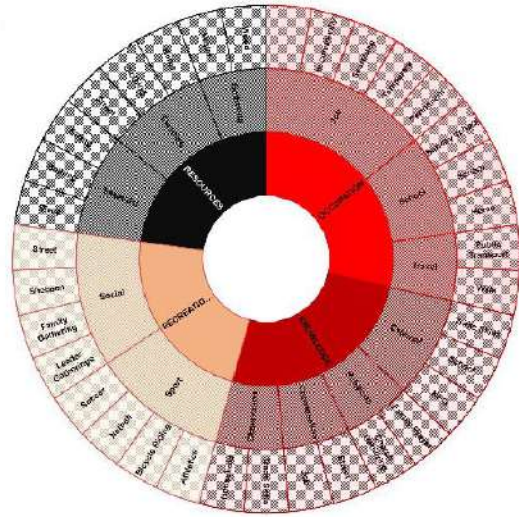
Figure 4.1.1 Rituals taking place within the community

Child rituals

Child activities
Children are seen at any time within the community, whether you are in the streets, by the soccer field, or by the dumping points. Children are curious and adventurous making Plastic View a hub for children engagement in all scenarios. On a typical weekend children ride bicycles through the streets, around the community, and gather at the soccer field to meet up for kicking balls; playing games and learning new skills from others.

After school during the week, children spend time socializing in the streets. Afterwhich chores such as firewood collection, making food, and cleaning need to be fulfilled.

Reflections:
It was insightful to see how many children there are, many children observed are below the age of 5, these children were most probably born within the community. There is a large number of children who do not attend school and are cared for by their mothers, or other cluster care workers.

This according to Pure Hope School principal, Riana Anderson, many are not able to attend their school due to placements and the lack of papers. In addition, 45% of the 350 pupils are Pure Hope are from community.
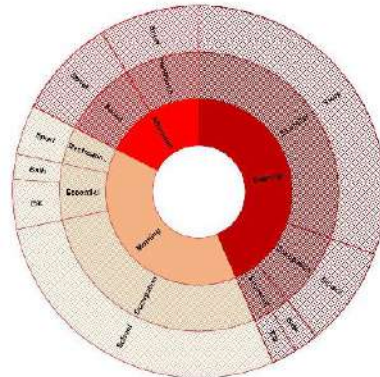
Figure 4.1.2 Rituals among children throughout the day
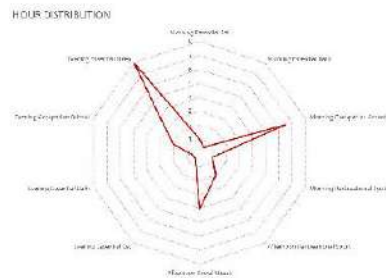
Figure 4.1.3 Rituals among children distributed hourly throughout the day

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Adolescent rituals

Adolescent activities
Adolescence are either in school or working. Many that are neither working or at school are seen to be socializing with friends in the streets outside houses or in shebeens. Pupils who travel to school often travel more than 4 hours in a day by foot, bus or a combination.

After school some socialise with others, or begin chores. Chores could include, washing, cleaning, collecting resources, or making food. At 19:00 the day starts to settle down and then school work needs to be completed. Without any electricity or battery operated lights, a fire or candle is used to do homework in a tightly congested bedroom, often without any space for work. In addition to this, the noise curfew ends at 22:00.

making challenging to sit and study with more than a 100 shebeens located in the community.

Reflections:
In the community, permanence is questioned with many residents coming and going in search of better opportunities. For many, Plastic View has become a permanent home, their children have also grown up in the community. These children are reaching the adolescent stage and will soon be the first generation to have fully reached adulthood from birth. This also raises concerns with the role of adolescence within Plastic View and the environmental influence on development of identity and role finding as they merge into society.
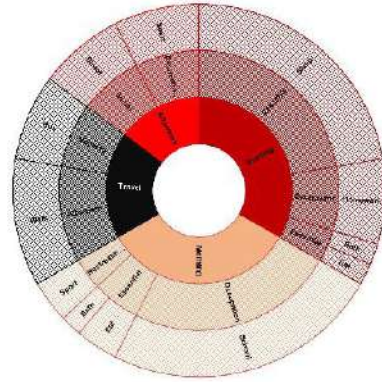
Figure 4.1.4 Rituals among adolescents throughout the day

HOUR DISTRIBUTION

Figure 4.1.5 Rituals among adolescents distributed hourly throughout the day

Adult rituals

Adult activities
In a country where joblessness is not uncommon, Plastic View clearly shows this national problem. Many residents stand in masses in the morning at the "market" in search of work for the day, success is only achieved once or twice a week. For the residents that are unable to find for the day socializing is a norm. Alternatively adults could be looking after their children, doing house work, fetching firewood and water.

Role in community:
Adults are the largest in demographic by observation. Their role is to provide for themselves or their young families, often assisting to taking care of other children, and potentially get paid to do so.

Reflections:
It was interesting to see the large number of adults. Interviews described that many only migrated to Plastic View in the last 5 years.

Many requested for jobs and assistance for that matter. When asked, many seeemed to have many trade skills which were learnt with from their home country or town, or were learnt working since in Plastic View.

Figure 4.1.6 Rituals among adults throughout the day

HOUR DISTRIBUTION
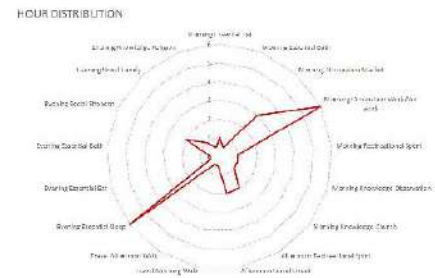
Figure 4.1.7 Rituals among adults distributed hourly throughout the day

Middle-Aged rituals

Middle-Aged activities
Simular to younger adults, getting work is a great challenge, labour markets place young against old, and often experience is not recognized or seem. Middle-aged members in the community are more often established within the community, having existing businesses such as shebeens, spaza shops, and salons.

These member offer a lot of insight into the community and understand the dynamics of many people. There are a higher level of skills and have many skills which were brought from home countries and have learnt many new skills from others within plastic view.

Leaders
Middle-aged members make up a large quantity of the leaders. Older leaders are more respected and are viewed as wiser. Most of the leaders have children and some are still in their home countries, which require finances to survive.

Reflections:
When conducting interviews, it was found that members of the community that were older know many more langauges that younger generations.This was also made clear when questions were being answered clearly and were understood easily.
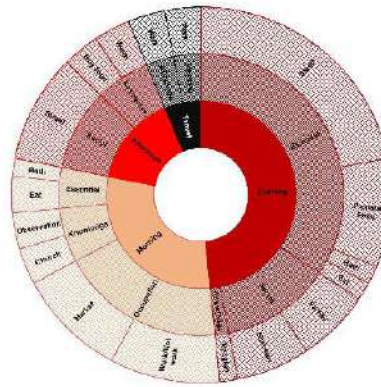
Figure 4.1.8 Rituals among middle-aged throughout the day

HOUR DISTRIBUTION
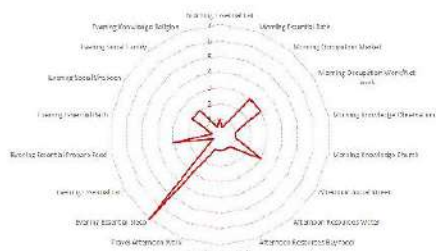
Figure 4.1.9 Rituals among middle-aged distributed hourly throughout the day

Elderly rituals

Elderly activities
Elderly members are seldomly seen doing many activities. The elder community members are culturally respected and are supported by their children and often look after their grandchildren during the day. Older members offer great insight into life and their experiences are taught to younger generations.

When social gatherings occur in the street, elders sit in a circle, playing games or drinking with other elders, children are often seen with elders, learning morals, religion, skills, and life lessons.

Reflections:
The researcher had pleasant interactions with elders, many could understand our questions which made interviews easier to conduct. There was interest in engaging with researchers, especially in expressing concerns and challenges. We were also questioned on the purpose and the results of the study, which showed a deeper level of understanding University presence.
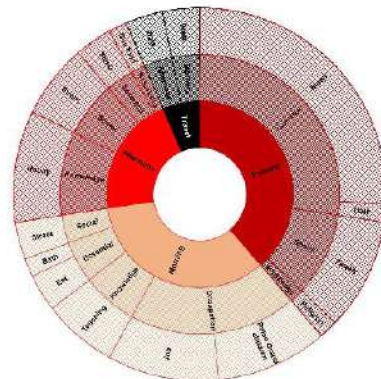
Figure 4.1.10 Rituals among elderly throughout the day
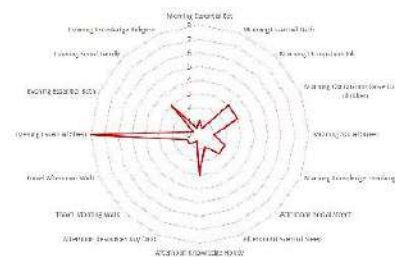
HOUR DISTRIBUTION

Figure 4.1.10 Rituals among elderly distributed hourly throughout the day

4.2

(MPIP Masters 2021)

Knowledge Systems

🔊 - knowledge systems
/ 'nɒlɪdʒ / ' sɪstəm/

noun

1. A system through which knowledge can be transferred
research

2. An investigation into the physical manifestation of epistemic diversity within the settlement as an extension of meaningful attachment and appropriated knowledge

Knowledge system understanding

During our initial site visits we were introduced to the many notions of sharing knowledge in the settlement. The willingness and enablement through knowledge sharing is an extension of the notion of *ubuntu* in the community.

There is an african proverb, "Oran a azu nwa"

"It takes a village to raise a child"

The manifestation of this became evident as we became more familiar with the inhabitants and their rituals. We exchange of knowledge happens freely and the settlement becomes a hub of epistemic transformation and enablement. It also became evident that there are layered appropriations of indigenous knowledge.

Each person brings with them everything they have learnt from their native countries and places f origin. This results in a mixed pot of information exchanges and appropriation to the current situation that creates a 'new' indeginous knowledge.

Refer to Group 3: Circularity and Resilience to further explore the current skills landscape of Plastic View and build on the notion of the settlement as a hub of knowledge exchange.

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Nearby Schools

Schools within a 5Km Radius

- 🔴 COLLEGE SCHOOL (GRADE 1 - 12)
- 🔵 SECONDARY SCHOOL (GRADE 8 - 12)
- 🟢 PRIMARY SCHOOL (GRADE 1 - 7)

🔴
1. RUE HOPE
   1200 SCHOLARS
2. WOODHILL COLLEGE
   1200 SCHOLARS
3. HATFIELD CHRISTIAN SCHOOL
   1300 SCHOLARS
4. MONTESSORI ACADEMY AND COLLEGE
   1300 SCHOLARS
5. REDDFORD HOUSE - THE HILLS
   1200 SCHOLARS
6. TYGER VALLEY COLLEGE
   1300 SCHOLARS

🔵
1. HOERSKOOL GARSFONTEIN
   1300 SCHOLARS
2. MARAGON MOOIKLOOF
   1300 SCHOLARS
3. THE GLEN HIGH
   1200 SCHOLARS
4. HOERSKOOL WATERKLOOF
   1300 SCHOLARS
5. ST ALBANS COLLEGE
   1300 SCHOLARS
6. PRO ARTE ALPHEN PARK
   1300 SCHOLARS
7. ABBOTS COLLEGE
   1200 SCHOLARS
8. HOERSKOOL WILGERS
   1300 SCHOLARS
9. WILLOWRIDGE HIGH SCHOOL
   1300 SCHOLARS

🟢
1. EASTSIDE SCHOOL
   1200 SCHOLARS
2. CONSTANTIA PARK LAERSKOOL
   1300 SCHOLARS
3. MARAGON SCHOOL OLYMPUS
   1300 SCHOLARS
4. HOERSKOOL WATERKLOOF
   1300 SCHOLARS
5. CONSTANTIA PR MARY
   1300 SCHOLARS
6. FRESCO PRIMARY
   1300 SCHOLARS
7. LAERSCHOOL CLARIDGEPARK
   1300 SCHOLARS
8. LAERSKOOL GARSFONTEIN
   1300 SCHOLARS
9. TYGERPOORT PRIMARY SCHOOL
   1300 SCHOLARS
10. TYGERPOORT LAERSKOOL
    1300 SCHOLARS
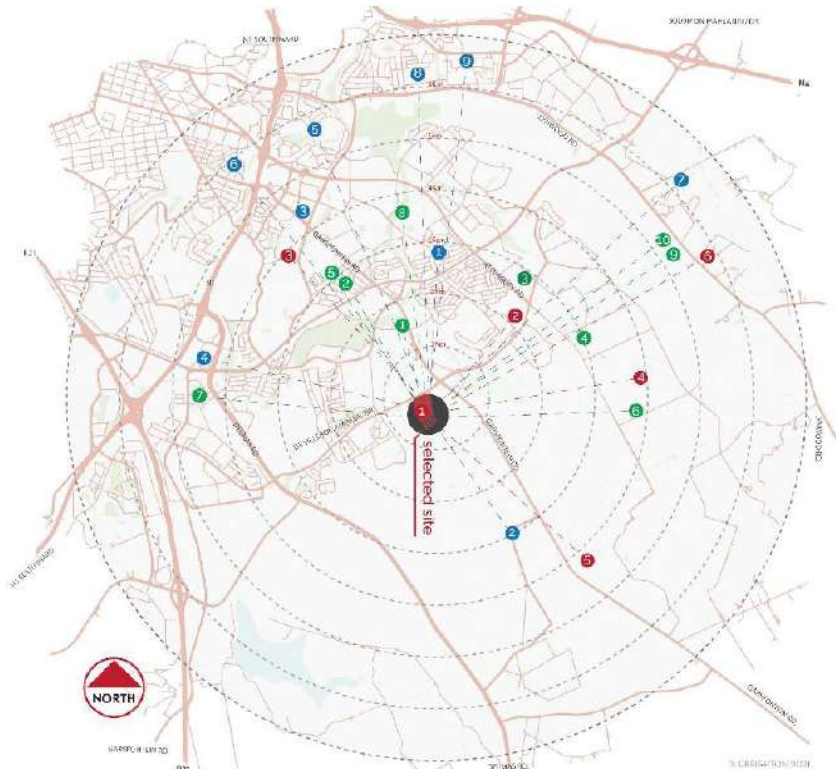
Figure 4.2.1 Nearby schools within a 5km radius of Plastic View

Scenarios of knowledge system sharing

Through outside knowledge gained from labour the expertise needed were appropriated to be built from available material with tools found on site.

The social interaction at a hairdresser's working station provides an opportune moment for knowledge exchange and teaching the profession.

Access to local TV shows and stories provides the platform for learning from an external point. This also becomes a powerful tool to learn languages from an external source.

Through practical application with some supervision handy work is taught through an experimental approach to construction.

On the outskirts of Plastic view are gardening efforts by residents, bags of sand were taught by Lift at NG Moreleta and has been appropriated by others.

Mothers do washing together in the streets and socialize, telling stories and experiences. Children learn from their mothers.

A trade, whose expertise were brought from her native homeland, is exchanged on the streets of the settlement.

Through engagement and interaction methods of communication are taught with external parties in the settlement.

(MPIP Masters 2021)

Children building a house in the streets enables a practical, hands-on, approach to learning. The cognitive and fine motor skills are developed through play.

Through practical application and previous experience a fence is built from materials found on site.

Street meals cooked by residents on open fires. The use old metal frames creatively to elevate their cooking.

A craftsman, working in the street building food shelves from reclaimed wood. Skills came from home, but have been advanced through time.

Games are a social convention in the settlement and provides many platforms for conversational learning and knowledge exchange.

A spaza shop provides the social space for learning, socialising and learning. Here a group of women can share tricks and tips of the trade.

Hair salon with a skilled hair braider who makes her own wigs and weaves from scratch, during the day she learns new languages from customers and teaches them her languages.

Home skills are taught inside homes, but also in the streets, mothers from multiple families share techniques and skills learn from work.

(MPIP Masters 2021)

Narrative Inquiry to Knowledge Transferal

Conversations on site
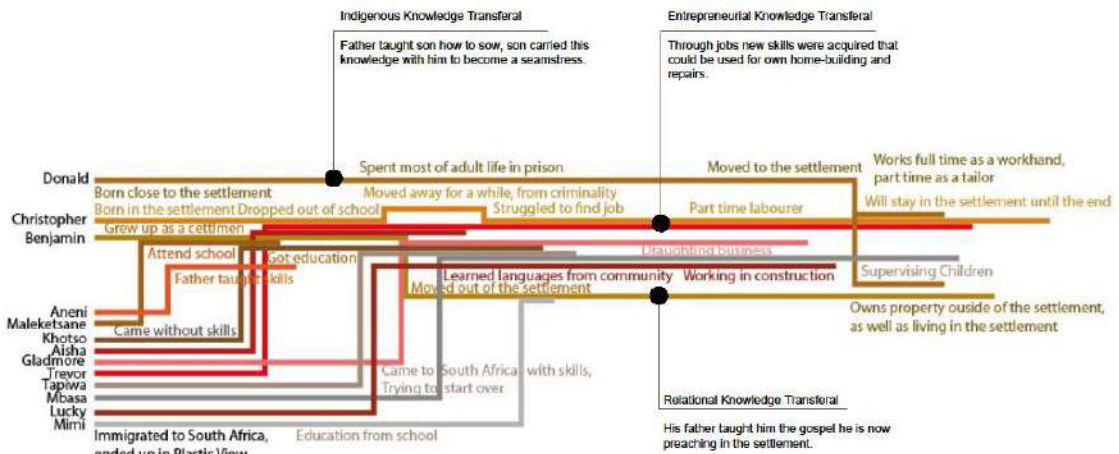
Figure 4.2.2 Narrative inquiry of knowledge Transferal throughout peoples life

Knowledge transferal hub

How individual knowledge becomes a shared bank of information

KNOWLEDGE TRANSFER
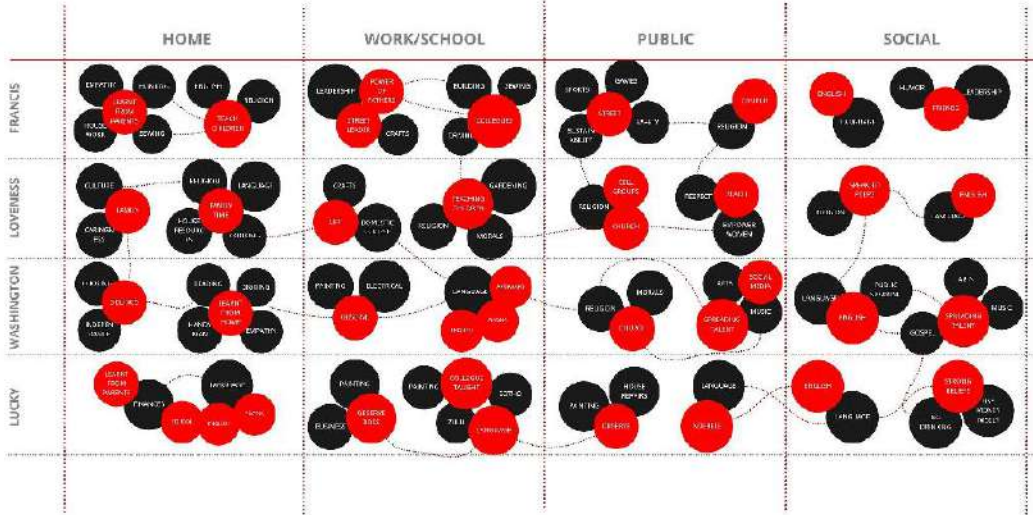
Figure 4.2.3 Knowledge transferal hub between people within the settlement

Communication

🔊 - communication
/kəmjuːnɪˈkeɪʃ(ə)n/
noun
1. The imparting or exchanging of information by speaking, writing, or using some other medium
2. The act of developing meaning among entities or groups through the use of sufficiently mutually understood signs, symbols, and semiotic conventions
research
2. An investigation into the role of language in the community's communication methodologies
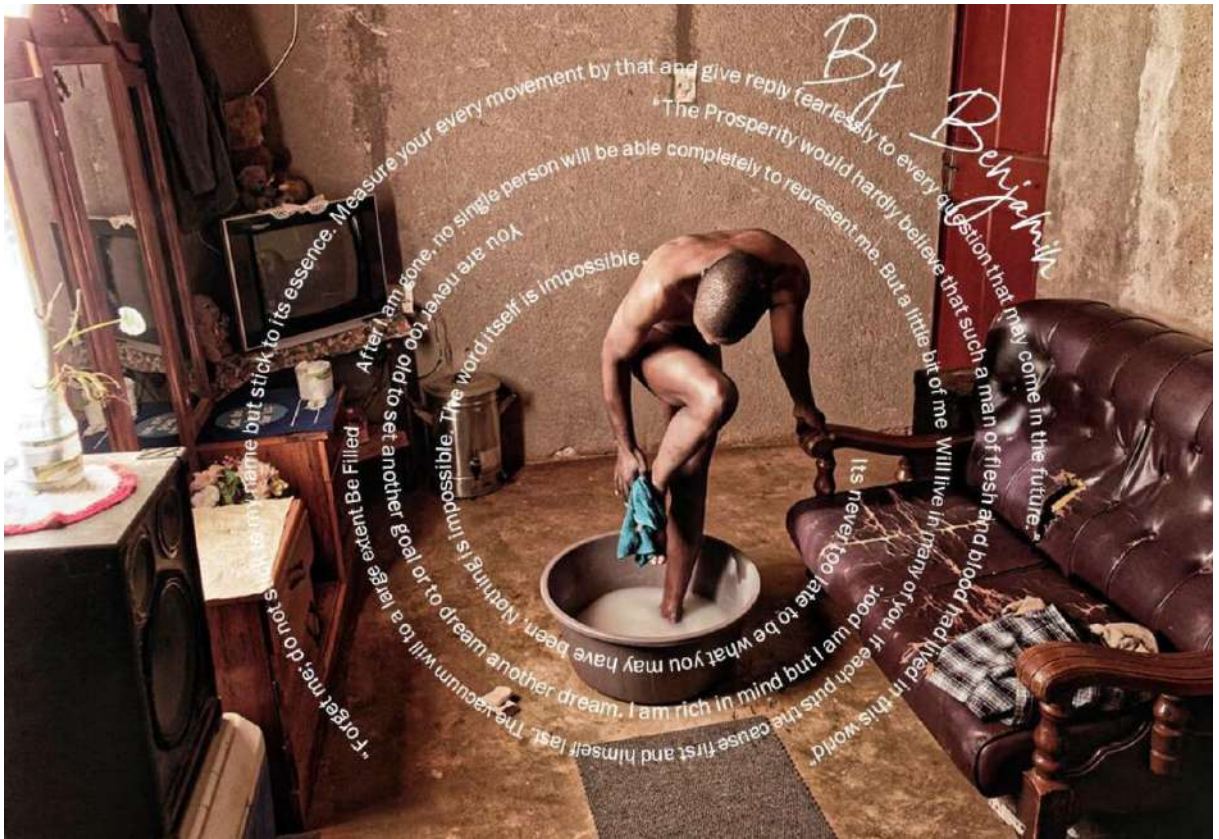
The Languages of Plastic View

The residents of Plastic View come from various countries all over Africa. This results in quite a significant compilation of cultures, languages and idiosyncrasies. The diversity found on site creates various schisms that manifest and affect daily life. This can also be seen in the methods of communication on site as the diversity in demographics reflect in the diversity of the languages spoken in Plastic View.

The numerous languages found on site often result in language barriers.

An investigation into the languages spoken on site was conducted to firstly get an indication of all the languages present and secondly to understand how language and communication barriers are overcome. The data was gathered through both questionnaires and conversation.

The data set is used to illustrate the languages spoken on site. It became clear that language is used as a trade: learnt and taught throughout Plastic View to further expand on job opportunities and enhance communication with fellow community members. It has also been noted several times that Plastic View serves as a hub of knowledge transferal and this becomes evident in the language landscape as majority of the interviewees also stated that they have learnt new languages after arriving in Plastic View.

Language 'scenarios' were used to illustrate the various languages spoken by a certain person on site.

English is referred to as the international language.

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Overcoming Language Barriers

Through Appropriation and Lingo

Immigrants and refugees from African countries as well as the locals all speak different mother tongue languages which does not always allow for fluent communication between residents.

When investigating the methods in which the residents overcome communication barriers raised the notion of an 'appropriated language' in the settlement. Residents try to find common words between languages to overcome situations where there are language barriers. The mixed use of language greatly contribute to the residents learning and teaching language through communication. Through appropriated conversation a 'common' lingo is derived and used throughout the settlement. In extreme cases of communication barriers an interpreter is called.

The possibility of finding common words to transcending language barriers is made possible by the shared branch-languages of the Bantu-Makua Languages. 9 of the 11 Constitutional languages of South Africa stem from the Batu-Makua Language group and then splits into the Nguni Languages and the Sotho-Twane Languages. These language groups have similar words that sifted through the adaptation and evolvement thereof. These common words enable residents to best communication obstacles that may present itself within the settlement. These notions are communicated and taught through social interactions and formal working environments. This further supports the impulse of Plastic View as a hub of knowledge transferal.
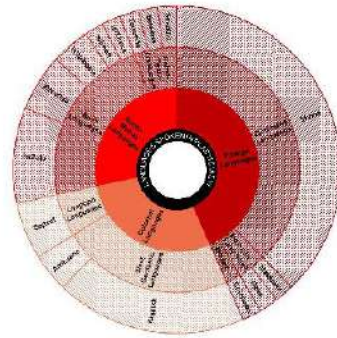
Figure 4.3.1 Languages spoken on site
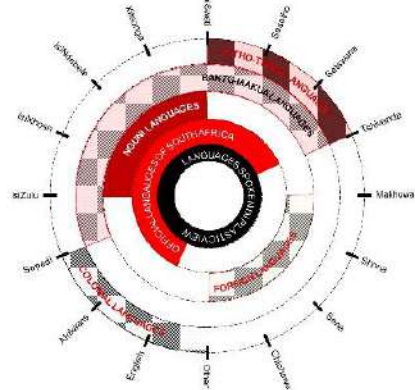
Figure 4.3.2 Origins of languages spoken in Plastic View
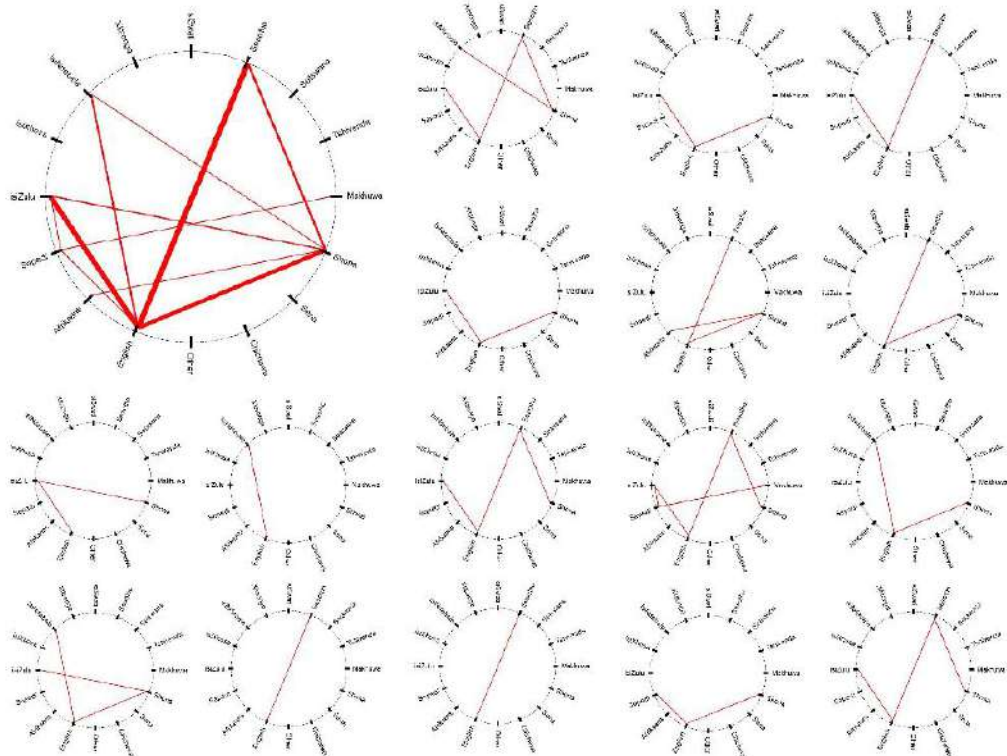
Figure 4.3.3 Language scenario mapping of the languages spoken on site and appropriations between languages

The Role of Communication

And the Community Leadership Structure

In a context of vaste diversity and possible conflict the role of communication becomes a crucial tool of mediation. Communication becomes a crucial aspect of life in Plastic View and manifests in various scenarios that ranges from dire need to pure recreation. In case of need there are methods of besting communication barriers: finding common words or relying on a translator. In many cases of violent anticipation the Community Leaders act as mediators and tranquilises the situation.

Like the appropriated communication system, the leadership structure offers clarity support to the in the settlement. Whenever there is a situation of distress in the community there are certain protocols, as developed by the community with input from the NGO SACaresForLife, to follow.

Within the Community Leadership Structure there are various tiers of members involved to offer support and aid in project development and execution. There are categories that were derived from ruling challenges on site. All Community Leaders are chosen by popular vote after a candidate has volunteered for the position.

The Community Leaders also liaise with external stakeholders to grow the settlement. Their long term aim is to provide a permanent place of residence for all the inhabitants of the settlement.

Even though the Community Leaders are faced with many challenges they beat on, boats against the tide, to ensure a safe environment for the residents.
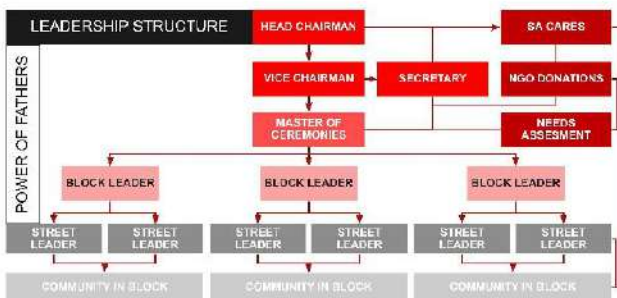
Figure 4.3.4 Leadership structure in Plastic View
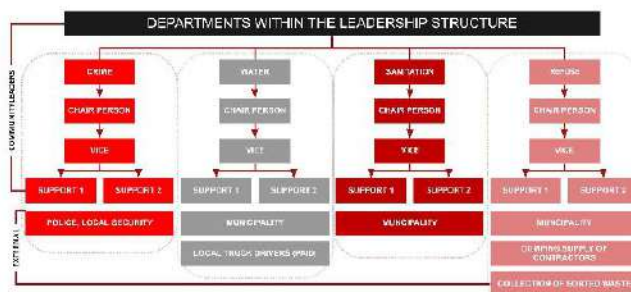
Figure 4.3.5 Diagram of the different departments within the leadership structure in Plastic View
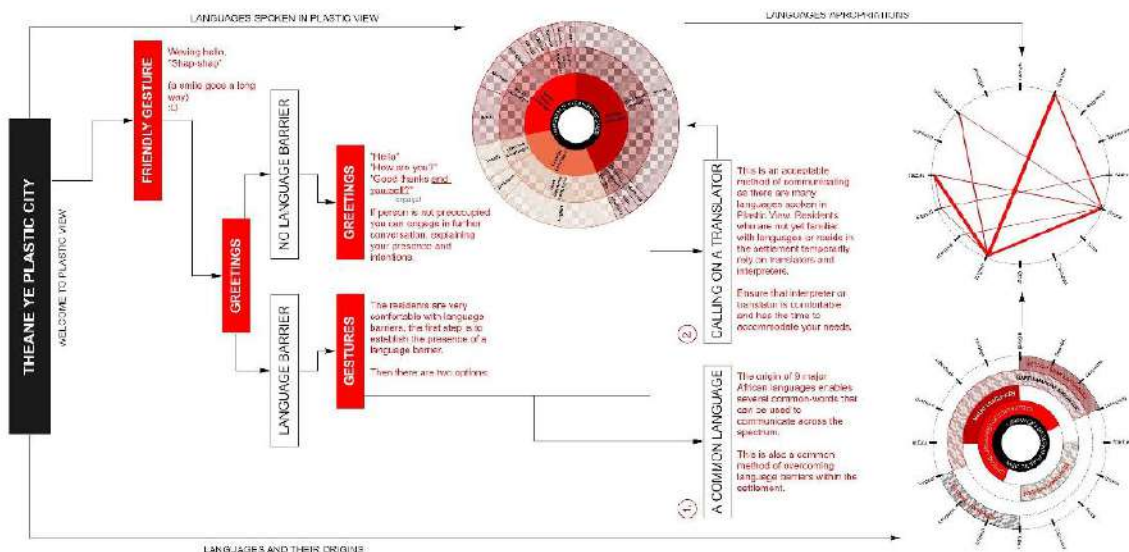
Figure 4.3.6 Diagram explaining the communication structure of Plastic View
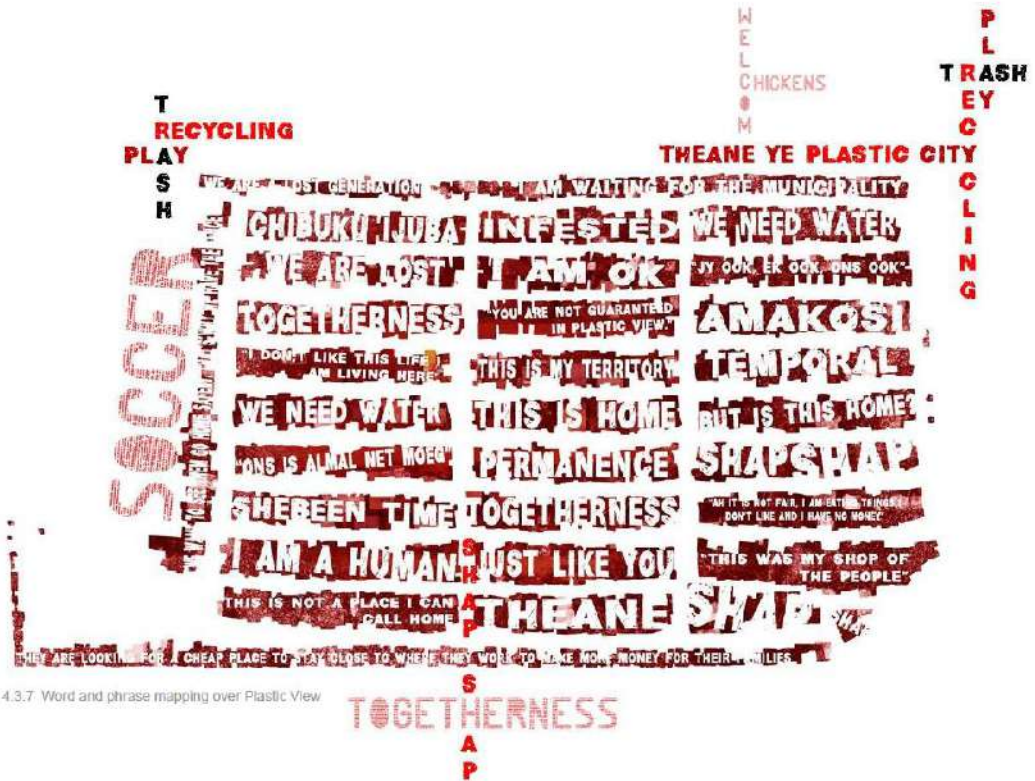
Figure 4.3.7 Word and phrase mapping over Plastic View

(MPIP Masters 2021)

Cross Theme Analysis

🔊 - cross theme analysis
/krɒs/ /θiːm/ /əˈnalɪsɪs/
noun
1. Data analysis that encompasses themes that have connection points that relate to each other research
2. A concluding argument and suggestions to ensure an empathetic lens going forward with the project

Empathy mapping lexicon

Rituals and in which way knowledge and communication is being transferred.
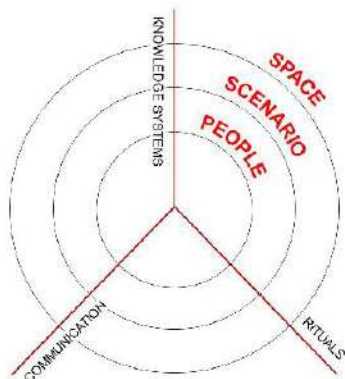
Figure 5.1.1 Conceptual diagram of the correlation between the different themes

Breeding animals:
The act of breeding animals is taught through a combination of verbal and visual communication, between people and actions.
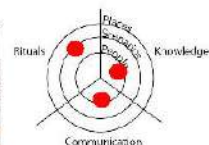
Planting:
Planting is a ritual mostly being taught through observation, but also involves some verbal communication.
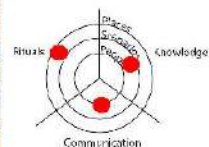
Working outside of the settlement:
Most jobs demands both a visual and verbal understanding and communication.
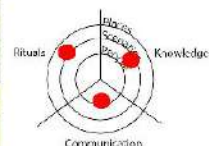
Braiding:
Braiding is predominantly a observational and ritual based skill, with little verbal communication.
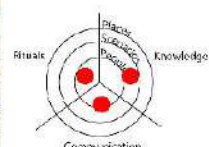
Playing games:
Playing is a combination between visual and verbal communication and knowledge exchange, where the interaction is between people.

School education:
Education is a combination between theoretical and practical knowledge, where it is being taught both visually and verbally.

Food processing:
Food processing is mostly transfer of knowledge through observation.

Plant preserving:
Preserving of food is knowledge that is passed on through both visual and verbal communication.

Cleaning:
Cleaning is mostly communicated and taught through observation.
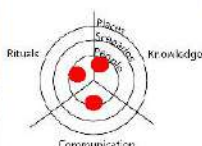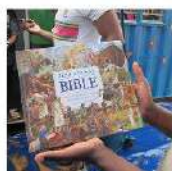
Washing clothes:
Washing clothes is mostly learned through observation, but also some verbal communication.
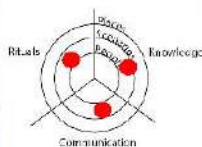
Throwing garbage:
Throwing garbage is mostly a observational and acting ritual.
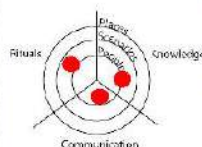
Installing:
Installations is a combination between visual and verbal communication, to gain the knowledge and understanding.
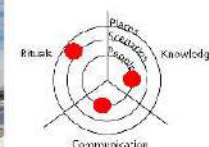
Carrying water:
Carrying water is an activity where knowledge is communicated through observation.
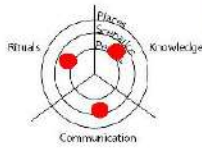
Repairing bike:
Bike repairing is mostly taught through visual communication and some verbal communication.
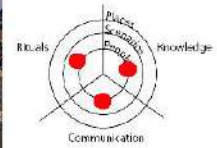
Hair cutting:
Hair cutting is taught through both verbal and visual instructions. The ritual is communication verbally about mutual understanding.
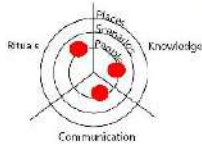
Socialising:
Socialising is an exchange between people.
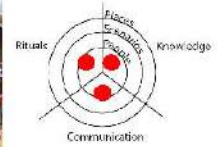
Collect water:
Water collection is a ritual taking place at a specific place, where knowledge is exchanged through observation.
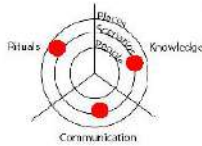
Hanging clothes:
Hanging clothes is predominantly a visual knowledge exchange
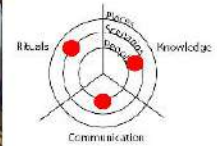
Building furniture:
Furniture building is a aknowledge passed of through observation and verbal communication.
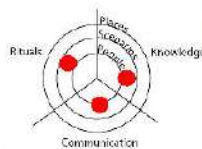
Poetry:
Poetry can be used in places to exchange knowledge and communication through visual observations.
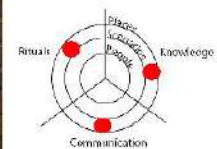
Watching TV:
Watching TV is a recreational activity, where knowledge and communication is shared through the screen (place).
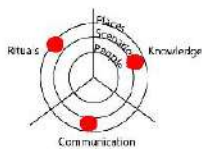
Community meeting:
The community meeting serves as a way of sharing information through verbal communication.
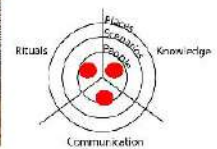
Fighting:
Fighting is a bodily expression that is then communicated through the scenario. The ritual takes place between people and the scenario.
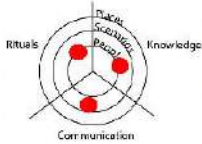
Market:
The market serves as social gathering where knowledge and communication is shared in both visually and verbally.
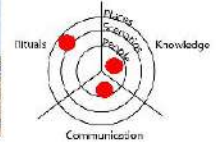
Recycling:
Recycling is a visual knowledge transfer, that can also be taught through verbal communication.
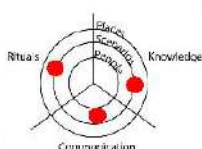
Informative signs:
Signs is used to exchange knowledge and communication in certain places.
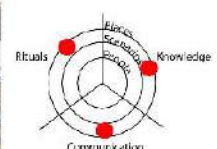
Community Clinic:
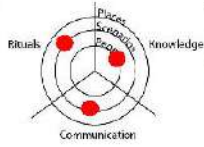The clinic serves a social gathering for people to communicate and exchange knowledge verbally.
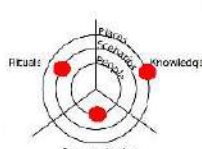
Collecting bottles:
Collecting bottles is a ritual taking place without much verbal communication.
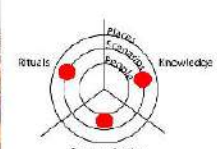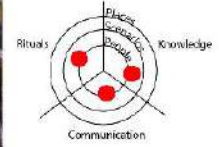
Braaing:
Braaing is a social ritual and is mostly communication between people, within a certain space.
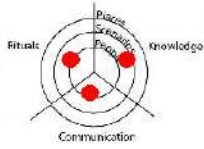

Building:
Construction is taught mostly through observation of rituals, while the communication is mostly verbal communication.
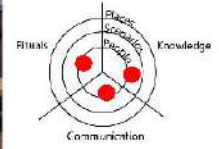

Selling:
The act of selling can be taught through both verbal and visual communication. This also applies to the ritual of selling and buying.
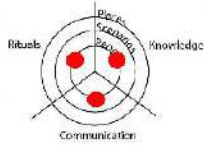

Playing board game:
Board games are communicated through verbal communication and observations of the other players.

Greeting:
Greetings can be both verbal and visual when it comes to communication.

Cooking:
Cooking is a skill that is taught down generations and a combination of verbal and observational communication.
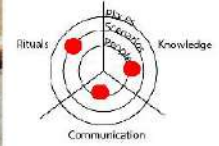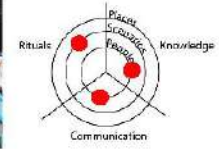

Repairing toy car:
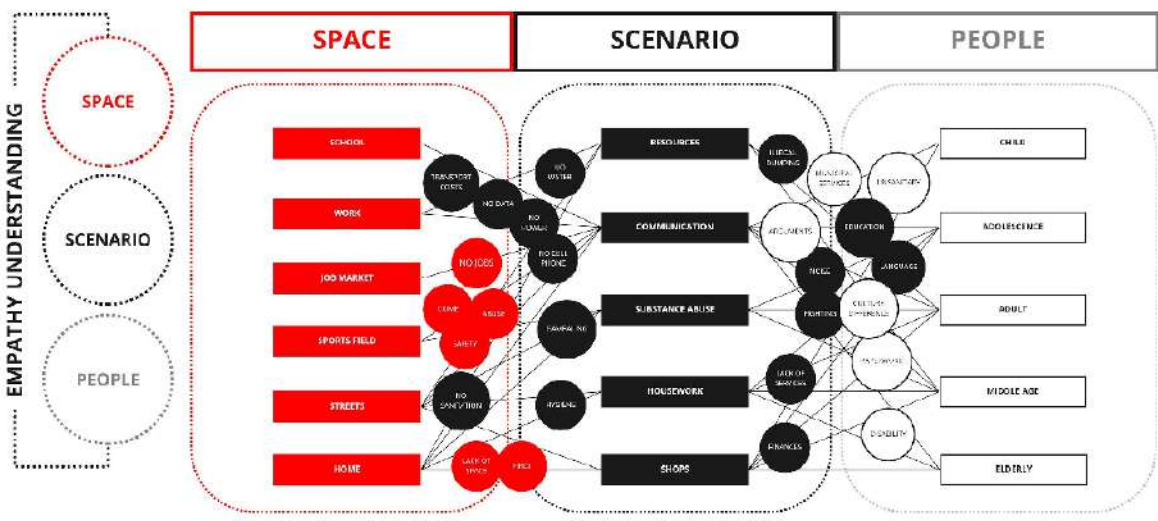A child repairing a car toy is mostly learned through observational communication.
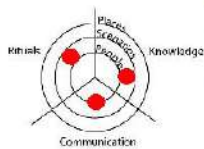
Washing dishes:
Washing clothes is mostly learned through observation, but also some verbal communication.

Empathy understanding

Focusing on the categories of Space, Scenario and People. Connections are found binding all people to a space during scenario, in this time, challenges might arise which cause blockages between connections, which reduce the functioning of the community.

Figure 5.1.2 Empathy understanding, in terms of people, scenario and places

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Conclusions drawn from empathy mapping lexicon

When looking at the empathy mapping lexicon it suggests that a combination of visual and verbal communication seems to be the most common way of communicating in Plastic View. Communicating using visual language such as hand gestures or showing using tools alone also seems to be quite common for commuting things, as well as only verbal communication between people.

Knowledge seem to be gained mostly by a combination of visual and verbal communication, the same way as people seem to communicate.

This suggests a multi scalar appropriation system, where knowledge and language is being used both visually and verbally, for each person's best understanding.

From this study we can suggest in which way communication seem to work and how most knowledge is being transferred.

For a design purpose this is extremely valuable. It indicates how participatory design could be used in a successful way, On how to communicate with the people and how to educate them for future purposes.

By combining a visual and verbal communication demonstration, you will get the most out of the knowledge and language transfer.

(MPIP Masters 2021)

Assumptions vs reality

ASSUMPTION	REALITY	PHASE
Hostile site, a sense of desperation which could cause safety of researchers.	The community was friendly and welcoming. The presence of outsiders was not uncommon, mostly due to the existing engagement of the church and NGO's like Sa Cares.	DISCOVERY-INTIAL SITE
There would not be many children in the streets because of health and safety.	The streets are a playground for children, groups of children are observed in every street, either with their mothers, or with other children.	FIELD WORK-OBSERVATION
Streets will be littered with garbage and houses would be clustered and there could not be space to walk through the streets.	Besides the channels for water waste, residents do keep the area outside of their homes clean. Trash is taken to the dumping site located in the eastern corner, where it is burnt away from the community.	FIELD WORK-OBSERVATION
Residents biggest challenges would be safety and fear of the streets.	The leadership has takes a lot of action in resolving conflict and crime within the community. Residents are more concerned with joblessness and finances to care for their families.	FIELD WORK-OBSERVATION
Many would be able to understand English and communicate easily for Interviews.	During interviews it was found that there was language barrier and this also made us change our interview questionnaire. A digital questionnaire was adopted into a flexible paper interview allowing for notes and adaptive use.	FIELD WORK-INTERVIEWS
The research gathered would be easily transcribed in a digital software.	The data set had to be transcribed, analyzed, themed, and visualized. A qualitative approach did not allow for any quick analysis.	DATA COLLECTION-ANALYSIS

Figure 5.1.3 Table of assumptions vs reality
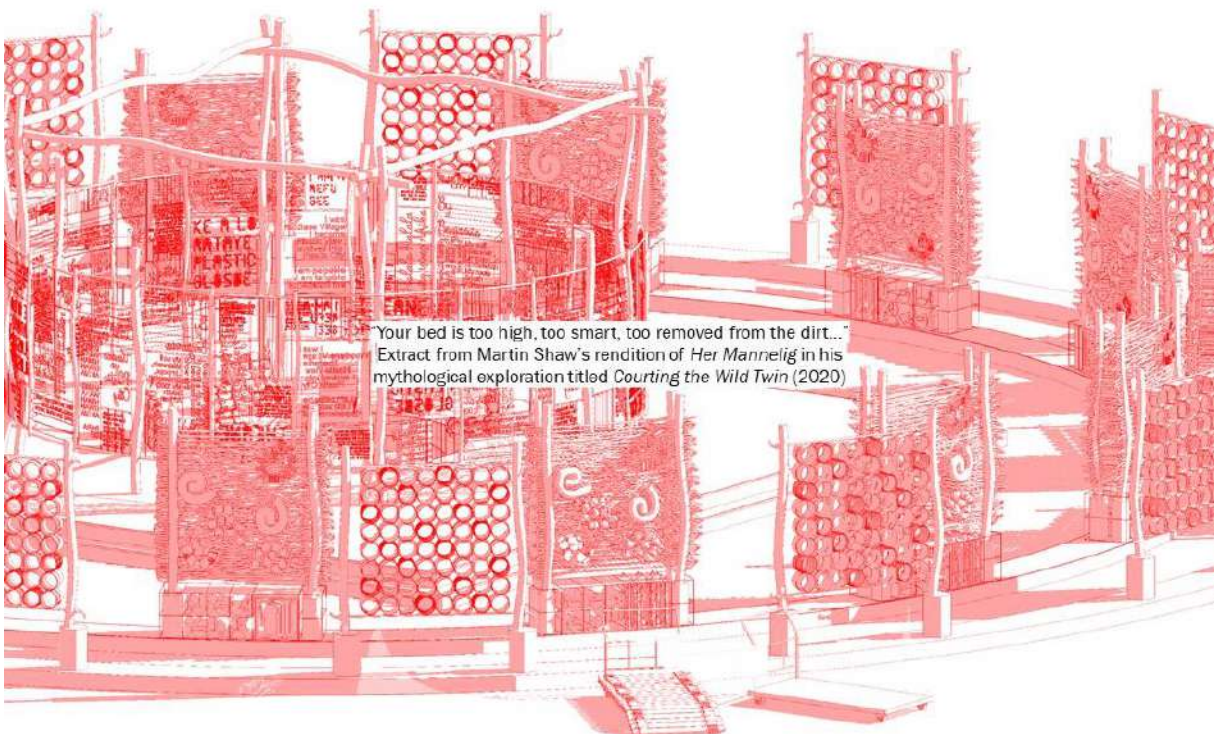
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(MPIP Masters 2021)

The next steps:

Testing the methodology, scenario testing and creating persona's

During this process we developed a methodology enabled us to engage with the data to reflect the inhabitants of the settlement. We acknowledge that this is a first draft and therefore the next step will be to test the methodology in another capacity. The process can definitely be iterated to be more relatable and responsive, the data gathered and communicated here can be used as a base to work from.

The document provides all the information needed to create personas for project specific needs that still reflect true narratives from the site and reflect the inhabitants rituals and everyday life challenges and opportunities.

The interlaced narratives provide a deeper understanding of the manner in which residents engage with spaces and how those spaces are linked to (and influenced by) daily life.

To further build on the information the use of personas and scenario testing can enable the researcher to develop more concise design-informants that speak to individual projects but includes a systemic understanding.

"Your bed is too high, too smart, too removed from the dirt..."
Extract from Martin Shaw's rendition of *Her Mannelig* in his
mythological exploration titled *Courting the Wild Twin* (2020)

Submitted in partial fulfilment of the requirements for the degree Master of Interior Architecture (Professional) to the faculty of Engineering, Built Environment and Information Technology.
Department of Architecture
University of Pretoria
2021

TITLE: Indexicality & Interiority: addressing the role of interior architecture in informal settlements.
PROGRAMME: "Disassemblable" Community Office with Deployable Interfaces and Objects.
SITE: Moreleta Park and Woodlane Village (referred to as Plastic View)
LOCATION: 25.8295 ° S, 28.3079 ° E
RESEARCH FIELD: Urban Citizenship & Inhabitation
CLIENT: SA Cares for Life NGO
THEORETICAL PREMISE: Semiotics, Meaning-making, multi-scalar spatial agency and Participatory Action Research
KEYWORDS: Indexicality, Linguistics, Interiority, Cultural Production, Semiotics, Meaning-Making, Collaborative Design, Spatial Agency, Informal Settlements
PROJECT INTENTION: Establishing a role for interior architecture in informal settlements as an agent of meaning-making.
STUDY LEADER & SUPERVISOR: Anika van Aswegen
CO-SUPERVISOR: Dr Carin Combrinck
YEAR CO-ORDINATOR: Anika van Aswegen

In accordance with Regulation 4(e) of the General Regulations (G.57) for dissertations and theses, I declare that this dissertation, which I hereby submit for the degree of Masters of Interior Architecture (Professional) at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.

I further state that no part of my dissertation has already been, or is currently being, submitted for any such degree, diploma or other qualification. I further declare that this thesis is substantially my own work. Where reference is made to the works of others, the extent to which that work has been used is indicated and fully acknowledged in the text and list of references.

Dhané Herbst

DECLARE
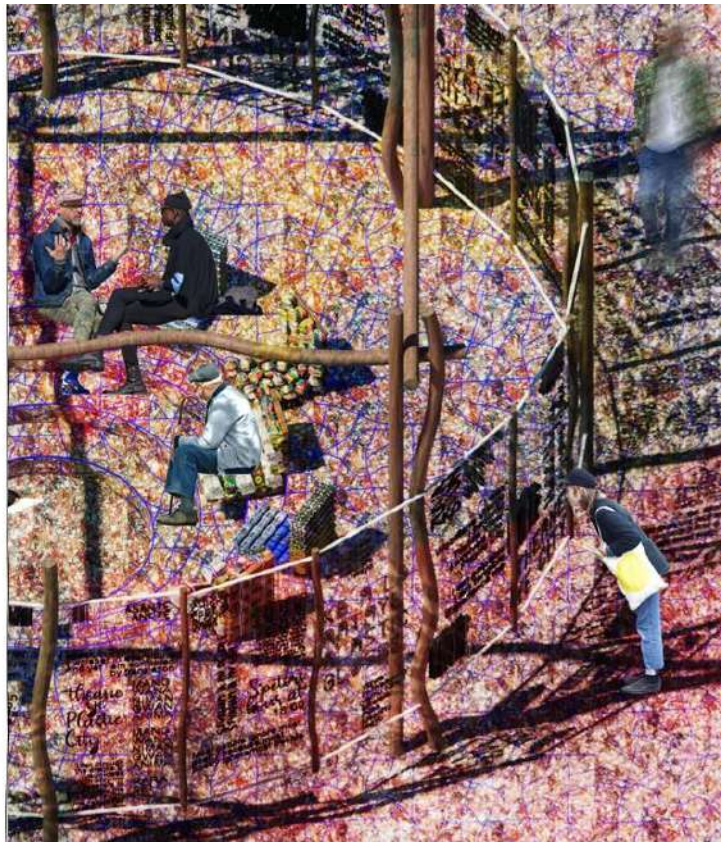
DEFINE

DISCOVER

DEVELOP

DESIGN

DELIBERATE

Addressing the role of interior architecture in informal settlements through a *semiotic approach to meaning-making* within a narrative inquiry to ethnographic research. A community office in Plastic View - a known space of mediation, knowledge transferal and expression - will serve as an intrinsic case study for this research. Through a collaborative process and on-site prototyping, the project aspires to evoke the subjective phenomena of *meaning-making* through a series of objects, interfaces and spatial compositions.

◀)) - indexicality
/ɪnˈdeksɪk(əl)/
noun
1. the phenomenon of a sign pointing to some object in the context in which it occurs
2. relating to or denoting a word or expression whose meaning is dependent on the context in which it is used (such as here, you, me, that one there, or next Tuesday (Dictionary, 2006).

◀)) - informal settlement
/ɪnˈfoːm(ə)l / ˈsɛt(ə)lm(ə)nt/
noun
1. a place, typically one which has previously been uninhabited, where people establish a community carried on by self-employed or independent people on a small scale, especially unofficially or illegally.
2. an approach to spontaneous urban strategy (Dictionary, 2006).

◀)) - disassemblable
/dɪsəˈsɛmb(ə)l/
adjective
1. a composition that can be taken apart or broken down into smaller pieces that assemble the larger composition (Dictionary, 2006).
2. in this project it refers to the spatial composition that can be broken down into a series of interfaces and deployable objects (Author, 2021).

◀)) - interiority
/ɪnˌtɪərɪˈɒrɪti/
noun
1. the quality of being interior or inward.
2. subjectivity in space in terms of the connotations, denotations and appropriations of its inhabitants.
3. inner life or substance : psychological existence (Dictionary, 2006).

◀)) - s'pitori
/s-pi-tawr-ee-uh/
lingua franca
1. a linguistic composition of lexical items from multiple recognised languages
2. an appropriation of terms, words and phrases that an agent of amalgamation where conflict arose between the various cultures and languages (Bornman et al, 2018:30).

◀)) - interface
/ˈɪntəfɛɪs/
noun
1. a point where two systems, subjects, organizations, etc. meet and interact (Dictionary, 2006).
2. a spatial device that enables an interaction between users, rituals, systems, and appropriations. in the project it serves as a mediator or touchpoint between concepts, people and phenomena (Author, 2021).

◀)) - ethnography
/sɛˈnɒɡrəfi/
noun
1. a branch of anthropology and the systematic study of individual cultures from the point of view of the subject of the study
2. the scientific description of peoples and cultures with their customs, habits, and mutual differences (Dictionary, 2006).

◀)) - meaning-making
/ˈmiːnɪŋ/- /ˈmeɪkɪŋ/
noun
1. the process of making or producing something significant that is not directly expressed, an object of importance or a worthwhile quality; purpose
2. the essential qualities needed for something to put parts together or combine substances (Dictionary, 2006).

◀)) - sit-thing
/sɪt/ - /θɪŋ/
noun
1. a mechanism that can be used as a sitting device. Building on the notion of a chair, a sit-thing becomes an adaptable element that can be used in various scenarios as an element of comfort (Author, 2021).

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![University of Pretoria logo]
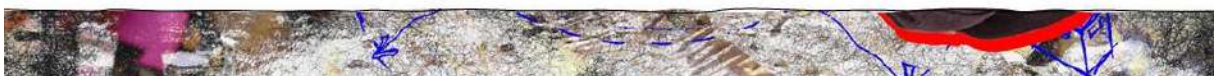
Ethical Declaration

ETHICAL CONSIDERATIONS

All sensitive imagery used are published and in the public domain. Images taken on site were done so with permission and used to depict the realities of life in the settlement. The intention is not to romanticise these scenarios nor to provoke. The project merely aims to respond to these realities. The research falls within the Urban Citizenship Studio's ethical clearance as an extension of the Department of Architecture of the University of Pretoria. The research conducted was done so in compliance with the University of Pretoria's code of ethics conduct.

All information gathered is stored safely and all published information was done so with the permission of the collaborators and participants. . When conducting the research on site participants were given a clear choice to participate and could terminate the conversation at any point during the process. The intent of the research was declared up front and the researcher tried to sustain a transparent relationship about the use of information and implications of participation. Please see the ethical addendum for further details.

Declaration

DECLARATION OF INTENTIONS AND BIASES

I am undertaking a professional masters in interior architecture as an attempt to create a platform for myself to continue working therein after completion of the year. I truly enjoy all that the industry has to offer and strive to contribute to that. I do not intend to ever stop learning but this year will serve as the pinnacle of my academic career, and I hope that it equips me with all the tools I need to voice my beliefs and amplify my views. I also hope to meet and engage with like-minded people in the strive to expand our industry. I'm confident that this masters will expand my knowledge, bring together some aspects and theories still floating around in my head and above all supplement my love for the creative integration of information taking form.

The projects' intention is to **ESTABLISH A ROLE FOR INTERIOR ARCHITECTURE IN INFORMAL SETTLEMENTS THROUGH AN INVESTIGATION OF A COLLABORATIVE DESIGN PROCESS THAT AIMS TO ENABLE AGENCY THROUGH A RESPONSIVE SPATIAL OUTCOME TO DEMONSTRATE A HUMAN-CENTERED NORMATIVE APPROACH TO POETIC PHENOMENON.**

To overcome potential biases presented by the project intentions there will be several intervals of critical reflection as well as continuous sessions with external parties, members of the community, professionals and peers.
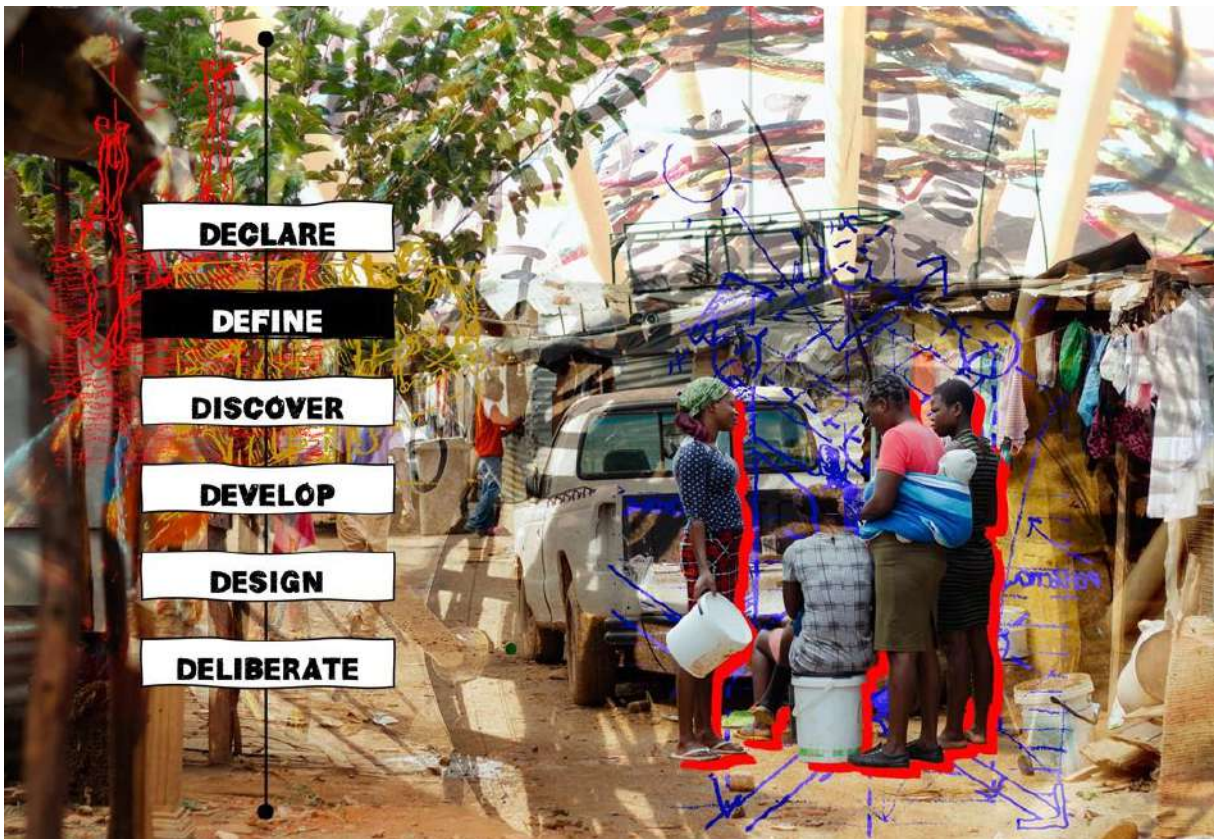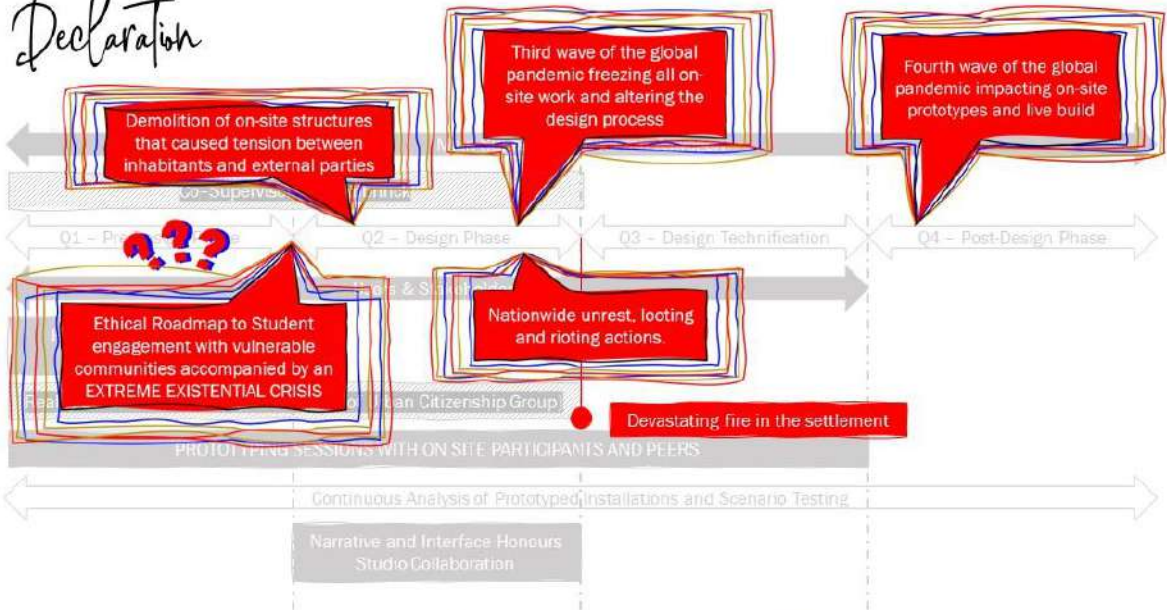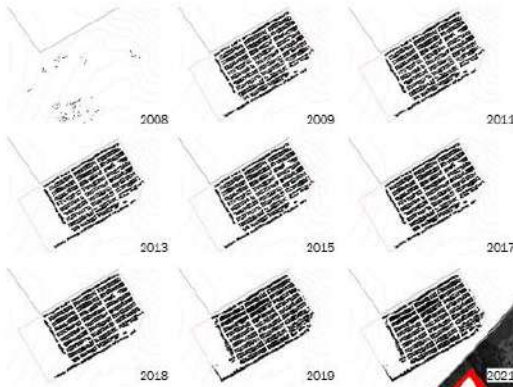
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Declaration

STAKEHOLDERS AND INVOLVED PARTIES

Declaration

COLLABORATORS AND PARTICIPANTS

Declaration

Demolition of on-site structures that caused tension between inhabitants and external parties

Third wave of the global pandemic freezing all on-site work and altering the design process

Fourth wave of the global pandemic impacting on-site prototypes and live build

Q1 – Pre-Design Phase

Q2 – Design Phase

Q3 – Design Technification

Q4 – Post-Design Phase

Ethical Roadmap to Student engagement with vulnerable communities accompanied by an EXTREME EXISTENTIAL CRISIS

Nationwide unrest, looting and rioting actions.

Devastating fire in the settlement

Co-Supervision with an Citizenship Group

PROTOTYPING SESSIONS WITH ON SITE PARTICIPANTS AND PEERS

Continuous Analysis of Prototyped Installations and Scenario Testing

Narrative and Interface Honours Studio Collaboration

DECLARE

DEFINE

DISCOVER

DEVELOP

DESIGN

DELIBERATE

Introduction to Site
PLASTIC VIEW, MORELETA PARK

2008 2009 2011
2013 2015 2017
2018 2019 2021

(Moreleta Park Integration Project, 2020)

Plastic View is a spontaneous urban settlement in Moreleta Park, Pretoria, that developed due to various complex systemic injustices. The settlement is currently home to various local and foreign inhabitants that rely on the settlement for jobs, shelter and basic resources. The settlement has a history of eviction and conflict with the surrounding communities but has since been legitimised. There are instances of inhabitants preferring the settlement as a home, with others merely using it as a solution. There are also both temporal and permanent settlers within Plastic View.
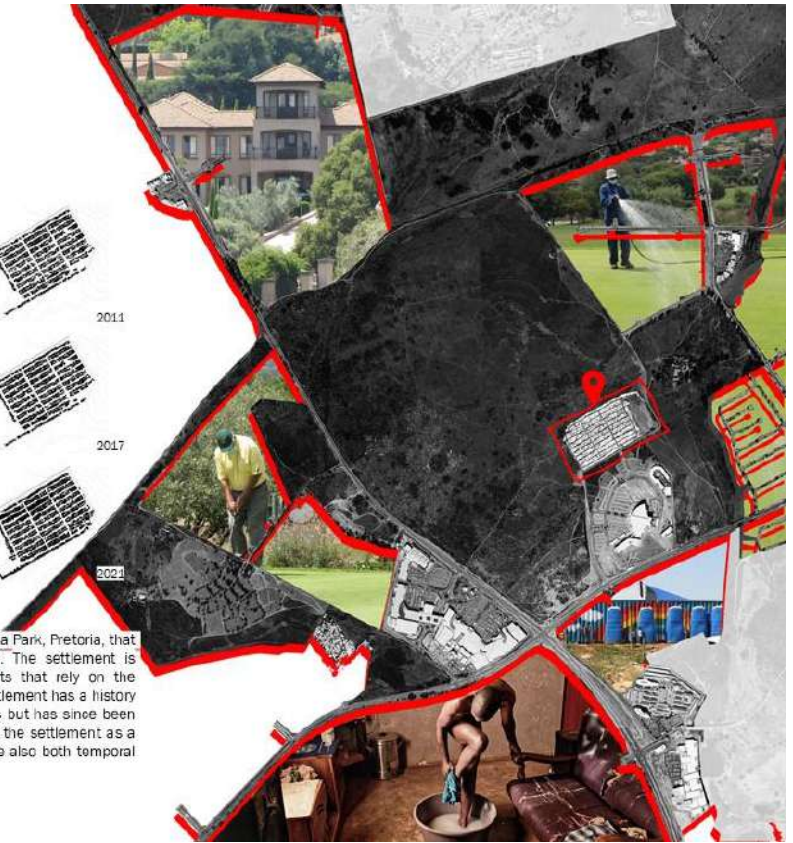
Lack of opportunity, work.
GENERAL ISSUE
Only living in plastic view as a **solution** to transport (high rates of transportation to work). Not home.

Method of **COMMUNICATION**. Language as currency.

SEMIOTIC approach to association and interpretation of space.

SPI TORI

MEANING MAKING
Doesn't empower spatial agency.

Refugees living in the area, tension between cultures.

URBAN ISSUE
The **integration** of refugees into the South African Rainbow Nation. The disconnect between Plastic View and Moreleta Park?

No threshold spaces, common grounds or places of expression

SPATIAL ISSUE
Spaces don't resonate or enable inhabitants. No platform for **meaning-making** to manifest. Focus on basic provision, nothing more.

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As a response to the contextual issues the informal settlement Woodlane Village was chosen. The site is ideally situated as a potential link between the various culture groups (much like the lingua franca, S'pitori) and provides opportunity for expanding into the communities.

Looking at the diagrammatic representation of the contextual issues there are clear overlaps between all the contextual issues and at the centre of it all is the lingua franca, S'pitori.

Bornman et al. (2018:30) defines S'pitori as a linguistic composition of lexical items from multiple recognised languages found in the South African constitution. A study conducted by the honours Urban Citizenship Studio in February 2020 brought to light the rich foundation for language within Mamelodi's educational landscape (Urban Citizen Studio Mamelodi, 2020). S'pitori acted as an agent of amalgamation where conflict arose between the various cultures and languages found in the school. The scenario in Plastic View becomes the case study wherein the research can be conducted. In this way the research proposal intends to tackle the contextual issues through a semiotic approach and provides an opportunity for interiority to manifest through indexicality by doing so.

The Apartheid regime's spatial planning of exclusion still holds various cultures and geographically placed groups on the outskirts of Pretoria's metropolis. This is a contributing factor to the establishment of informal settlements in Pretoria as people need to be closer to work and opportunities of work. This cumulates to the general issue as a large component of people living in Plastic View are only doing so as a solution or means to an end. Its not home or their dwelling but merely a space to survive.

The spatial issue links directly to both the urban- and the general issue that stems from the generalisation of informal settlements as a whole. The housing schemes, urban development and education was a generic response that does not take into the consideration the lively existence of the residents. There are no platforms for meaning to physically manifest or any provided notion of spatial agency (as an extension of interiority).

Woodlane Village, also known as Plastic View, is at present a mixed pot of various cultures that can become a point of tension on an urban scale. This seeps through their behaviour and takes form in acts of violence, exclusion, demolition, looting and creates social imbalance. There is also a large disconnect between the settlement and the surrounding area that booms with estates and lavish new developments. The platform for integration of both refugees and residents falls short of the richness and layered constitution that they sought refuge from.

Problem Statement

"WE RAN OUT HERE TO MAKE A LIFE. I MEAN THERE IS NO PLACE LIKE HOME. BUT IF HOME NO LONGER FEELS LIKE HOME, WE ARE LOST. WE ARE A LOST GENERATION."
(De Vos and Banda, 2019)

"A place of promise and heartache, a place of perseverance and faith, a place where personal histories reveal complex social truths."
(De Vos and Banda, 2019)

"To my compatriots, I have no hesitation in saying that each one of us is as intimately attached to the soil of this beautiful country as are the famous jacaranda trees of Pretoria and the mimosa trees of the bushveld.

Each time one of us touches the soil of this land, we feel a sense of personal renewal. The national mood changes as the seasons change.

We are moved by a sense of joy and exhilaration when the grass turns green and the flowers bloom.

That spiritual and physical oneness we all share with this common homeland explains the depth of the pain we all carried in our hearts as we saw our country tear itself apart in a terrible conflict, and as we saw it spurned, outlawed and isolated by the peoples of the world, precisely because it has become the universal base of the pernicious ideology and practice of racism and racial oppression.

We, the people of South Africa, feel fulfilled that humanity has taken us back into its bosom, that we, who were outlaws no so long ago, have today been given the rare privilege to be host to the nations of the world on our own soil."
(Mandela, 1994)

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SPACE AS DIALECT BETWEEN MEANING AND USER

SEMIOTIC APPROACH TO MEANING-MAKING

POWER STRUCTURES

IDIOSYNCRATIC INTERPRETATIONS

MEANING MAKING THROUGH PARTICIPATION

SWITCHING POWER TO GIVE ACCESS TO RESOURCES THAT GENERATE MEANING

CULTURAL PRODUCTION

INDEXICALITY AS AN INCARNATION OF INTERIORITY

SPATIAL AGENCY

Themes Emerging

HOW CAN THE SEMIOTIC/INDEXICAL NATURE OF S'PITORI INFORM THE PHYSICAL MANIFESTATION OF MEANING – MAKING THROUGH A COLLABORATIVE EXPLORATION OF SPATIAL AGENCY IN AN INFORMAL SETTLEMENT WITH ETHNOGRAPHIC VARIETY?

PUBLIC INTEREST DESIGN

EXHIBITION DESIGN

HAMDI'S SMALL CHANGE

MULTI-SCALAR SPATIAL AGENCY

INTERIORITY

CELEBRATIONS OF EPHEMERALITY

INTERIOR ARCHITECTURE AS AN AGENT OF CULTURAL PRODUCTION

DEFINING THE ROLE OF AN INTERIOR ARCHITECT

LIVED

PARTICIPATION?

PERCEIVED

MEANING → VISUAL/SPATIAL → DECODING → UNDERSTANDING ENCODING

CONCEIVED

MICRO	MESOS	EXOS	MACRO	CHRONO
DIRECT RELATIONS OF PEOPLE	RELATIONSHIPS BETWEEN MICRO-SYSTEMS	THE PHYSICAL SETTING	CULTURAL CONTEXT	TRANSITIONS AND SHIFTS OVER TIME

DISCOVERY

PEOPLE · SCENARIO · SPACE

MULTI-SCALAR INTERVENTION

GENERATION

SPATIAL INTERVENTION

PROCESS

GENERAL

SPECIFIC

SPECIFIC

PRODUCTION

TANGIBLE

INTANGIBLE

USER EXPERIENCE

PARTICIPATION

USER PARTICIPATION

OBJECT

DESIGNER AS FACILITATOR

APPROPRIATION

INTERFACE

SPACE

SYSTEM

Empathy

MEANING making

NARRATION

(Diagram based on theories by Bronfenbrenner (2005), Cronje (2020), Murray Gell-Mann (2014) and Castells (2011))

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Theoretical Framework

SITUATING WITHIN DISCOURSE AND BOUKUNDE'S FIELDS OF RESEARCH

DESIGN-LED

—URBAN CITIZENSHIP—

Hamdi's Small Change

Eco's *A Componental Analysis of the Architecture Sign*

Konigk's *An imaginal interpretation of Interior Design's methods of cultural production: towards a strategy for constructing meaning*

Mcarty's *Toward a Definition of Interiority*

Vaikla-Poldma's *Meanings of designed spaces.*

EXPERT MINDSET

Gottdiener's *Hegemony and Mass Culture: A Semiotic Approach*

Marschall's *Architecture as Empowerment: The Participatory Approach in Contemporary Architecture in South Africa*

PARTICIPATORY MINDSET

Eckert's *The limits of meaning: Social Indexicality, Variation and the Cline of Interiority*

Swiggers's *Semiotics and the Philosophy of Language*

Alexander's *Pattern Language*

— INHABITATION —

Participatory Action Research

Bosman's *Ownership and care in culturally significant architecture*

Bryman's *Social Research Methods*

Bornman's *Language Matters: Studies in the languages of Africa*

Ditsele's *Language contact in African urban settings: The case of S'pitori in Tshwane*

RESEARCH-LED

Theoretical Framework

SITUATING WITHIN DISCOURSE AND BOUKUNDE'S FIELDS OF RESEARCH

DESIGN-LED

—URBAN CITIZENSHIP—

Hamdi's Small Change

Eco's *A Componental Analysis of the Architecture Sign*

Konigk's *An imaginal interpretation of Interior Design's methods of cultural production: towards a strategy for constructing meaning*

The contribution of the research lies in the overlapping nature thereof that serves as a bridge between various theories, research fields and methodologies.

Mcarty's *Toward a Definition of Interiority*

Vaikla-Poldma's *Meanings of designed spaces.*

EXPERT MINDSET

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RESEARCH-LED

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Research Methodology
COMBINED METHODOLOGY – CONSTRUCTIVIST PARADIGM

The project is situated within a larger ongoing research project conducted by the University of Pretoria's Department of Architecture, Unit of Urban Citizenship called **The Moreleta Park Integration Project**. This project had the privileged of being apart of the annual Reality Studio as hosted by the Chalmers University of Technology in Sweden. The theme for this year's Reality Studio projects is 'Designing for Dignity' and encourages a collaborative design process to generate human-centered, responsive design outcomes.

Together with students from the Chalmers University of Technology , honours students from the University of Pretoria who take part in the Unit of Urban Citizenship and fellow masters students we undertook vigorous mapping with the intention of undertaking a **process of prototyping**. All the work done as a larger unit contributes to the individual project and provides a valuable platform for communal growth that stems from the **Participatory Action Research Methodology**.

Along with the group methodology, my individual methodology is based on work done by Teo Yi Siang & The Interaction Foundation (2020) that structures the design process as outlined alongside. This process becomes more rhizomatic than linear and allows a iterative design and technification process. The project required a deep immersion into site and context throughout and thus the research methodology might adapt based on the needs of the project. The research is situated within the constructivist paradigm as it focuses on phenomena and meaning.

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Research Methodology

MORELETA PARK INTEGRATION PROJECT GROUP METHODOLOGY
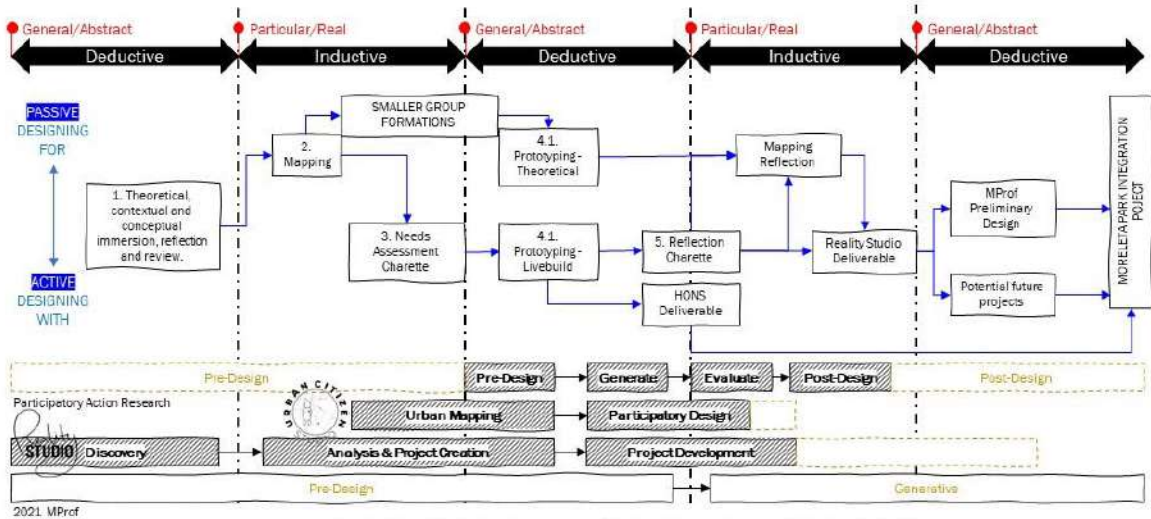
(Adapted from Howard and Somerville 2014, Sanders and Stapers 2014, Saldana 2013)

2021 MProf

Research Methodology

YEAR TIMELINE

(Diagram based on theories by Bronfenbrenner (2005), Cronje (2020), Murray Gell-Mann (2014) and Castells (2011).
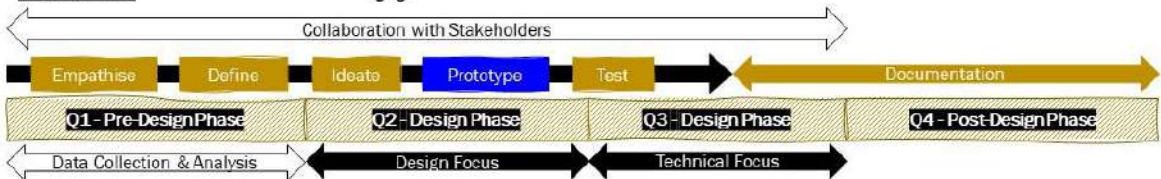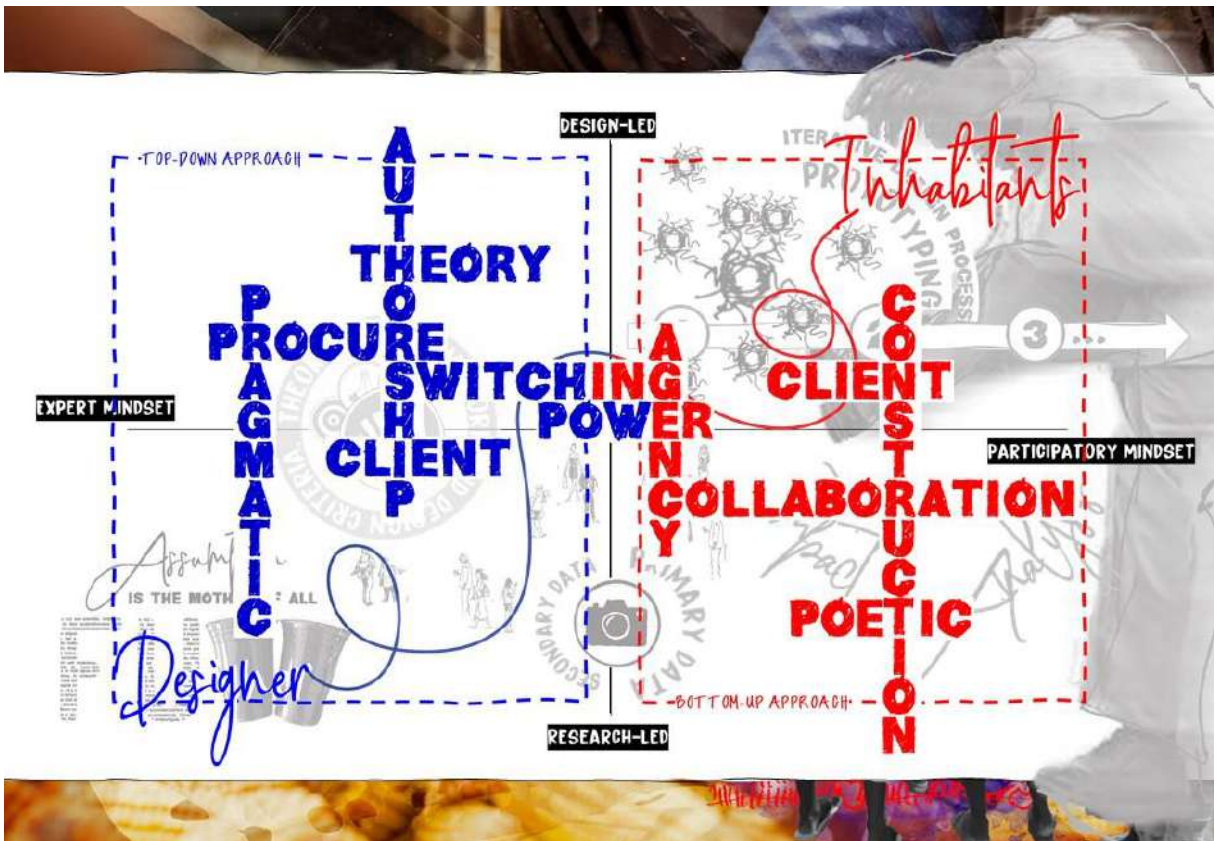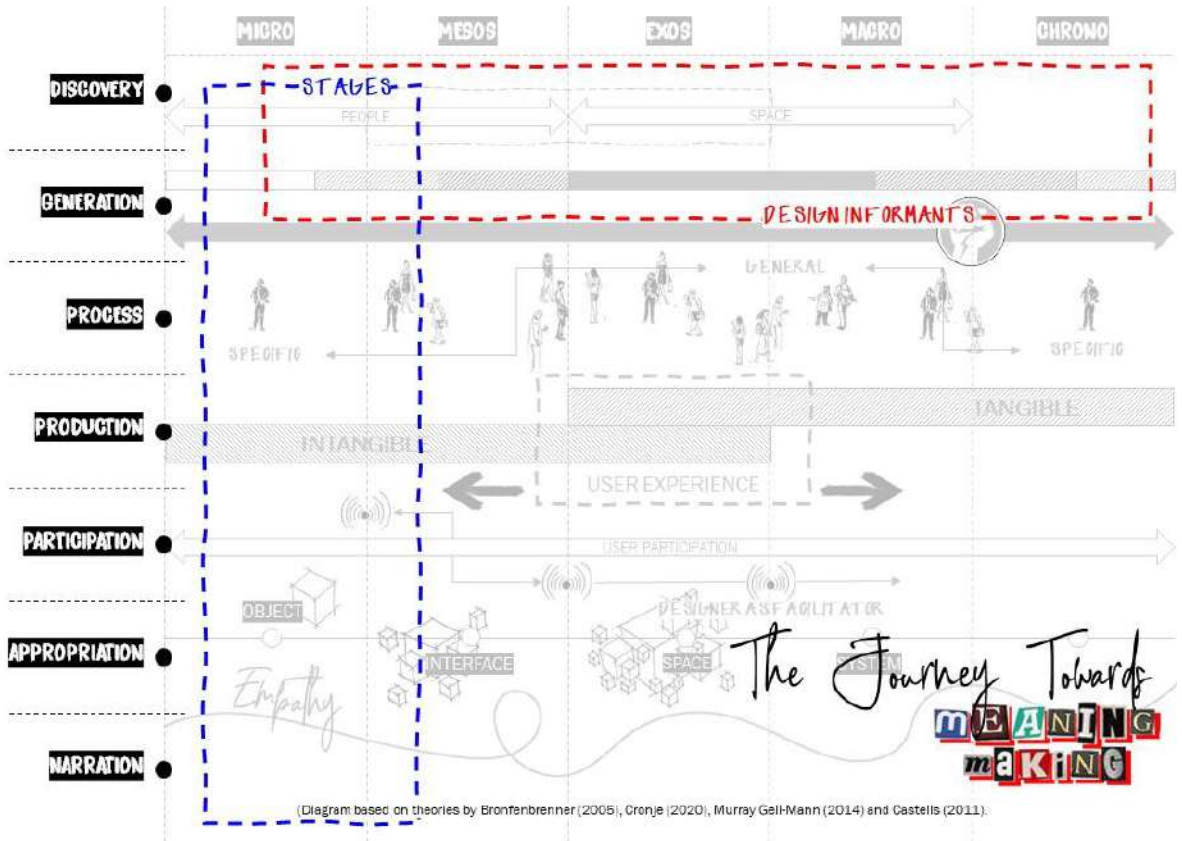
Delineation & Limitations

ON-SITE DATA COLLECTION

DIGITAL TECHNOLOGY

STRENGTHS
Fast
Effective
Pre sorted
Location-based
Multi-user

LIMITATION
Impersonal
Cant read body language
Privileged outsider

FIELD WORK

STRENGTHS
On site understanding
Immersed
Interact with community
Observations
Leave behind bias
Break assumption

LIMITATION
Safety within a unknown location
Covid-19 pandemic restrictions
Sanitation and air quality
Outsider

INTERVIEWS

STRENGTHS
Open and honest
Intention research
Conversation
Empathy
Data collection
In depth conversation

LIMITATION
Language barriers
Detailed questions
Formal interviews
Set interviews were not flexible to conversation making

DATA COLLECTION LIMITATIONS

DELIMITATIONS
INTERVIEWS:
Eppicollect interviews were changed to paper interviews after it was found that semi-structured interviews worked better. Allowing for a flexible conversation.

QUESTIONNAIRES

STRENGTHS
Privacy
Large quantities

LIMITATION
Language barriers
Lack of phones or data
No contact base

VISUAL RESEARCH

STRENGTHS
Photographic evidence
External review
Visual book

LIMITATION
Not all want photographs taken
Wrongly interpreted
Can be used against community

(Moreleta Park Integration Project, 2021)

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Data Collection
MORELETA PARK INTEGRATION PROJECT

Dhane Herbst
UP M(IntArch) Prof

Julina Lindqvist
Chalmers M(Arch)

Brendon Creighton
UP M(IntArch) Prof

Delani Kriek
UP M(Arch) Prof

Alexia Katranas
UP M(Arch) Prof

Lina Zachrisson
Chalmers M(Arch)

Nick Ramsey
UP M(Arch) Prof

Alexander Mbedzi
UP M(Arch) Prof

Chris De Bruin
UP M(Arch) Prof

EMPATHY MAPPING
1. People-Scenario-Space
Greater Ritual
Understanding
Knowledge Transferal
Language

SOCIO-SPATIAL CATALOGUING
2. Predicting the Future City
The inherent act of hyper-optimisation
Third Spaces and Places
Safety, Surveillance and (IN)security
Role and Potential of Architecture

CIRCULAR MATERIAL FLOW
3. Knowledge Capital
Augmented Built Forms
Potential for Upgrading
Spatial Recommendations

TO SEE OUR FULL GROUP MAPPING

VISIT OUR WEBSITE

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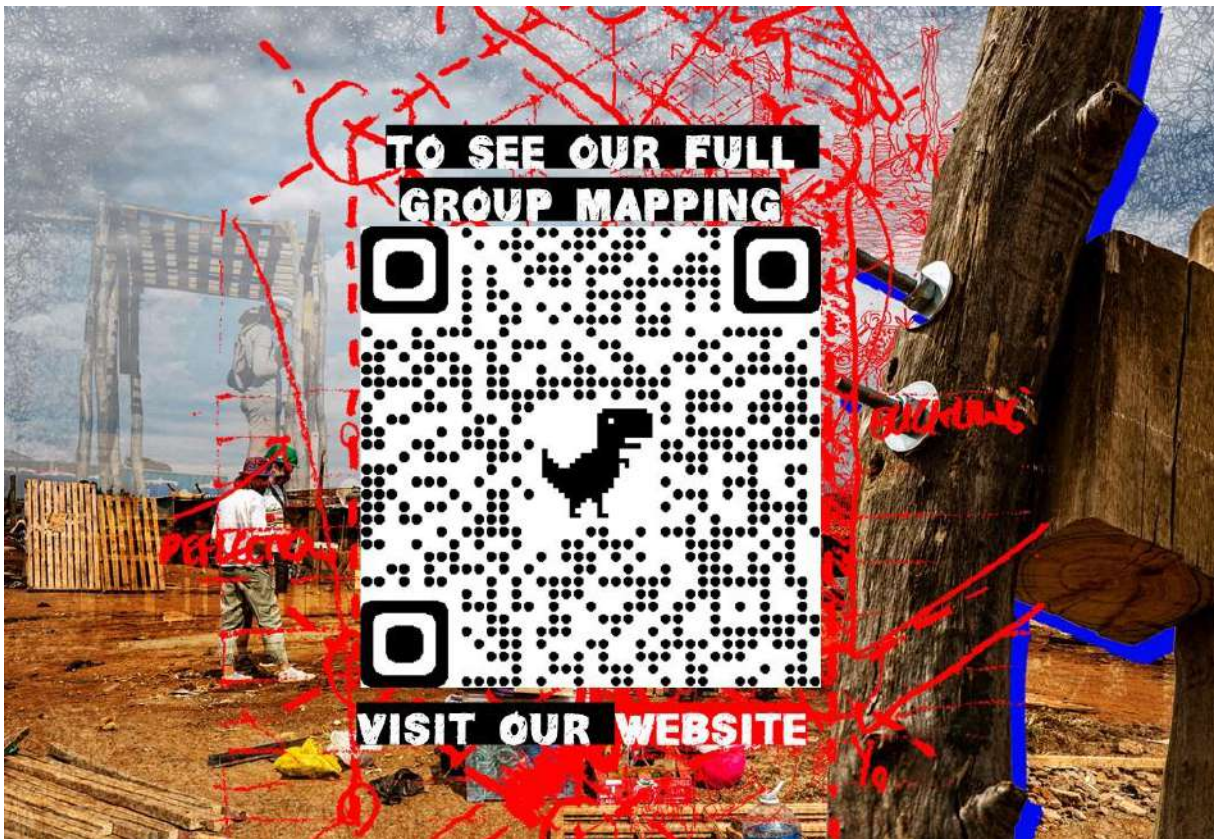
Data Collection & Analysis

TIMELINE

Big Group Data Collection				Small Group Data Collection				Prototyping and Livebuild			
Experiential Site Visits				On-site Data Collection				Data Analysis		Data Translation	Outcome Analysis
2020-03-04	2020-03-10	2020-03-11	2020-03-17	2020-03-18	2020-03-22	2020-03-26	2020-03-28	2020-03-30	2020-03-31	2020-04-18 2020-04-17	2020-04-21 2020-04-23
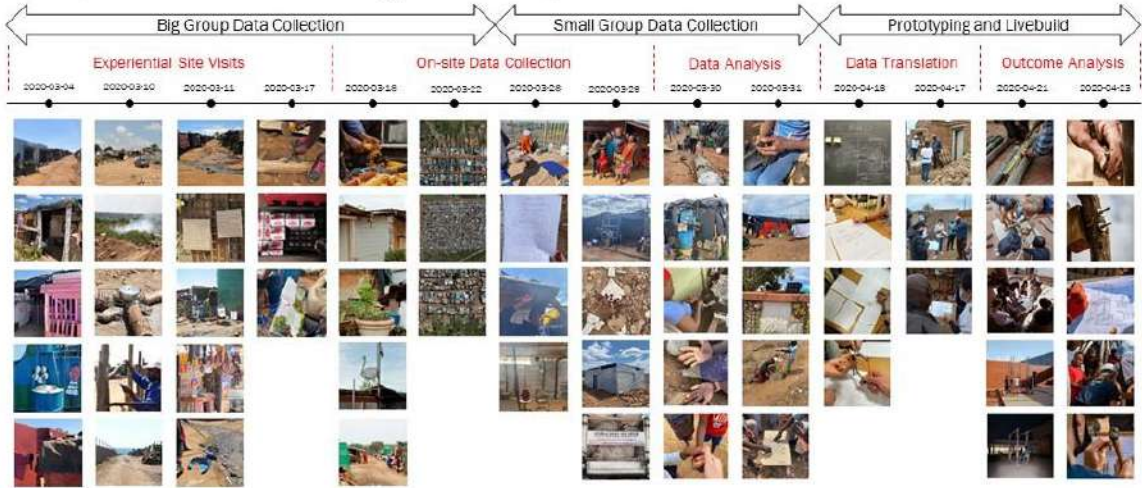
Prototyping Process

LIVEBUILD – PLATFORM FOR ENGAGEMENT

INFLUENCE	PRINCIPLES	EXECUTION
① PRACTICAL : TRANSPORT • MODULARITY / MOBILITY	DESIGN FOR DECONSTRUCTION	① • DESIGN OF CONNECTIONS • MATERIAL CHOICE
② • CONSTRUCTION RUBBLE FOUND ON SITE	USE AVAILABLE / AFFORDABLE MATERIALS	② • COST ESTIMATE • MATERIALS / TOOLS USED
③ • NOT ALLOWED TO BUILD PERMANENT STRUCTURES	ADDRESS TEMPORALITY / MOBILITY	③ • NO WET CONSTRUCTION • REPLACEABLE MATERIALS
④ • LACK OF SERVICES • FUTURE PLANNING	ACCOMMODATE FUTURE SERVICES	④ • RAISED PLATFORM
⑤ • RESIDENTS STORE THINGS ON THEIR ROOFS / IN FRONT / ALLEYS	ACCOMMODATE NEED FOR STORAGE	⑤ • RAISED PLATFORM
⑥ • DENSIFIES EACH YEAR • URBAN SPRAWL	ADDRESS DENSIFICATION	⑥ • STRUCTURALLY SOUND SECOND FLOOR
⑦ • SOLUTIONS ON SITE WITH WHAT THEY HAVE • RESILIENCE	DESIGN FOR APPROPRIATION	⑦ • MODULAR STRUCTURE • OPEN FOR INTERPRETATION

(Moreleta Park Integration Project, 2021)

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① PREDESIGN
Coming together as a large group to discuss opportunities and needs within the settlement.

② DESIGN
Designing a platform for engagement between community and researchers.

③ MATERIAL SOURCING
Sourcing local materials found in the settlement and surrounds to enable accessible construction.

④ CONSTRUCTION
Testing various methods of construction to ensure intentions can be materialised.

⑤ ASSEMBLY TESTING
Assembling the pavilion at Boukunde to ensure stability and test full scale implications.

⑥ DISASSEMBLY
Disassembling the structure to test the mobility and accessible deconstruction of the structure.

⑦ ON-SITE ASSEMBLY
Transporting the disassembled members to site and constructing the structure.

⑧ REFLECTION
Reflecting on the process as a whole as well as analysing the implications thereof.

(Moreleta Park Integration Project, 2021)

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(Moreleta Park Integration Project, 2021)

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Prototyping Process Reflection

IMPORTANT LESSONS LEARNT
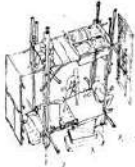
Co-Design vs Spatial Agency

As a large unit the intentions of the prototyping process was to include the community throughout but unfortunately circumstances didn't allow for such collaboration. There was a feedback session with community members that allowed for an iterative design process, but the end product remained a design that allowed for spatial agency. This provides a platform for engagement for us and the community throughout the year.
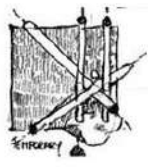
Design Intent vs Execution

The intention of the prototype was that is can easily be assembled, disassembled and reassembled but throughout the construction process we learnt saw that the joints were a lot more difficult to disassemble in reality than in theory. This becomes a crucial informant and also justifies the prototyping process to ensure that the human-centered aspect of the project gets pulled through to the execution thereof.

The story of Jacob's Pants

A member of the community made pants for Jacob as a birthday gift. When learning that the pants ripped at his birthday party the community member smiled and said, "we will design the next pants to rip". This serves as a precedent (and comparison to our on-site prototype) of an iterative design process that responds to the phenomena it addresses. It also highlights the significance of meaningful objects and the experiences it elicits.

Design Informants

KNOWLEDGE TRANSFERAL

The settlement is host to various nationalities, cultures and belief systems that create an opportunity for various scenarios of knowledge exchange. Depicted on this page are various examples of these scenarios of knowledge exchange.

Due to the diverse range of indigenous knowledge found in the settlement the various inhabitants started to combine parts of these indigenous knowledges and appropriated it to suit the needs and 'new' culture of the settlement itself.

Design Informants

COMMUNITY LEADERSHIP STRUCTURE

In a context of vast diversity and possible conflict the role of communication becomes a crucial tool of mediation. Communication becomes a crucial aspect of life in Plastic View and manifests in various scenarios that ranges from dire need to pure recreation. In case of need there are methods of besting communication barriers: finding common words or relying on a translator. In many cases of violent anticipation the Community Leaders act as mediators and tranquilises the situation.

Like the appropriated communication system, the leadership structure offers clarity support to the in the settlement. Whenever there is a situation of distress in the community there are certain protocols, as developed by the community with input from the NGO SACaresForLife, to follow.

Within the Community Leadership Structure there are various tiers of members involved to offer support and aid in project development and execution. There are categories that were derived from ruling challenges on site. All Community Leaders are chosen by popular vote after a candidate has volunteered for the position. Even though the Community Leaders are faced with many challenges they beat on, boats against the tide, to ensure a safe environment for the residents.
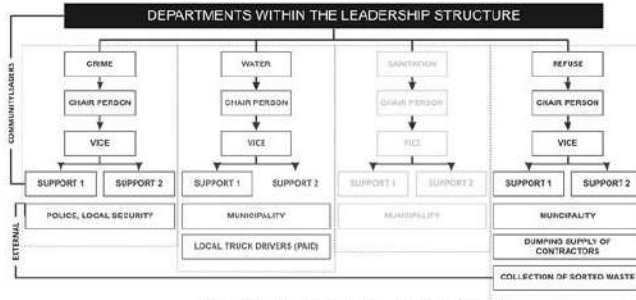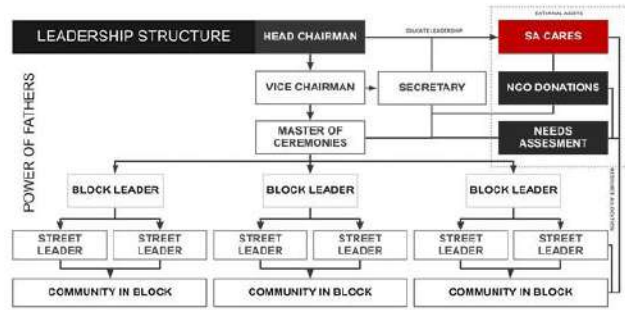
(Moreleta Park Integration Project, 2021)

The Language Model

INDEXICALITY AND INTERIORITY

The main lens that the project aims to adopt is a **semiotic approach to meaning-making**. The investigation into the language used (and appropriated) on site has contributed to the question of how language can be used as a model for semiotic design.

Plastic View is host to various nationalities and languages and in an attempt to overcome language barriers people have started learning words and sounds in an attempt to understand their co inhabitants. This lead to a language model that is based on appropriation and association. This is enabled by the origins of the various languages that have overlaps and the effort from the community to learn and teach language.
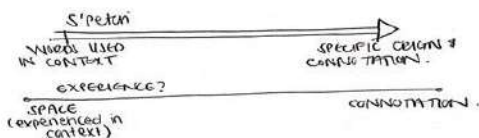

The intention is to use this model in the design process as a method of designing for idiosyncratic interpretation. This is still a very initial understanding of the language landscape in the settlement and will still expand and clarify with further investigation.
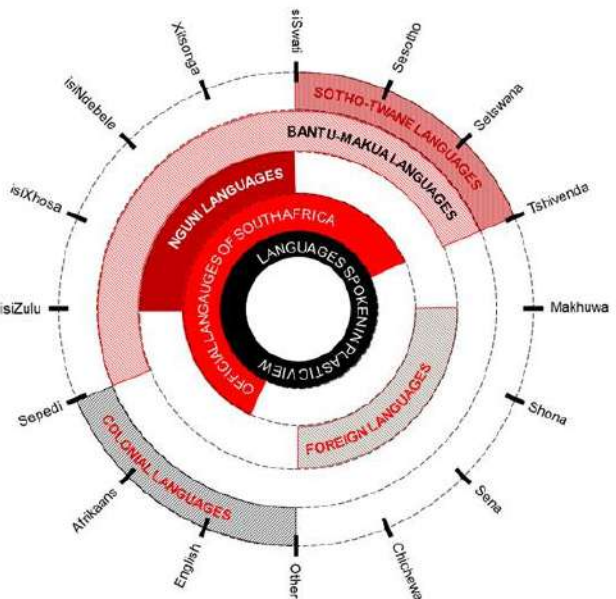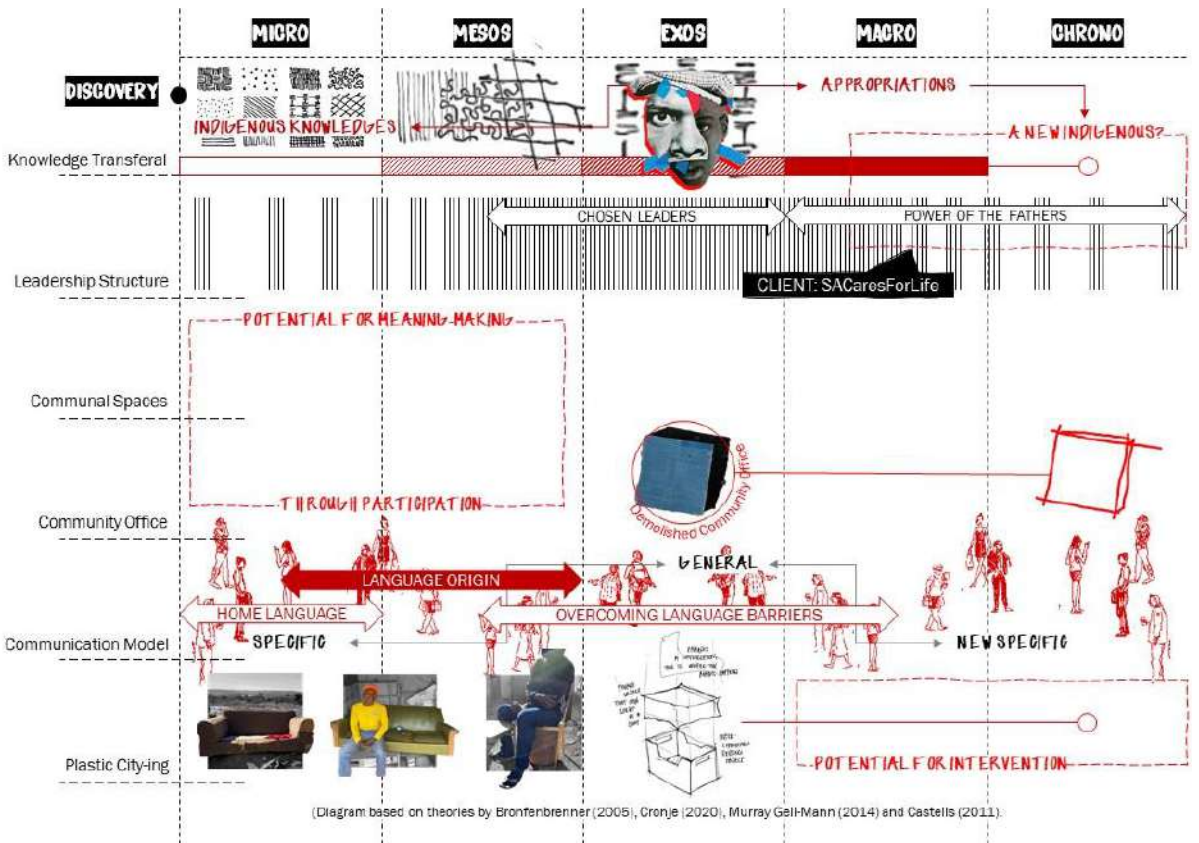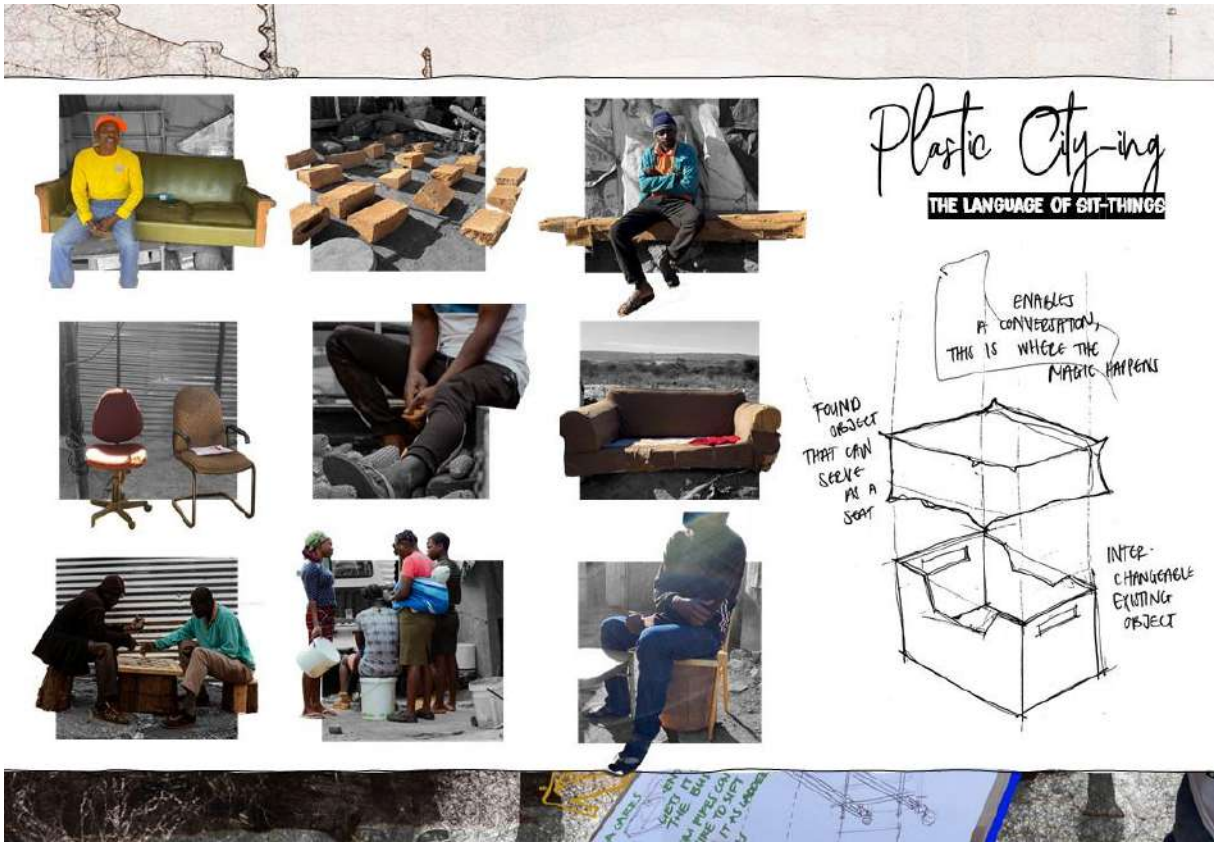
Plastic City-ing
THE LANGUAGE OF SIT-THINGS

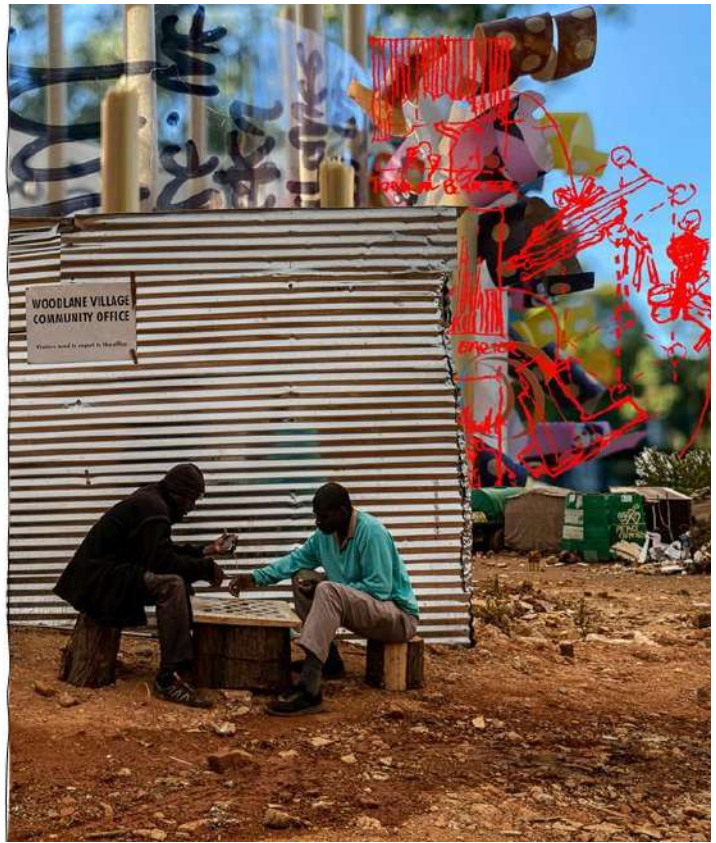(Diagram based on theories by Bronfenbrenner (2005), Cronje (2020), Murray Gell-Mann (2014) and Castells (2011))
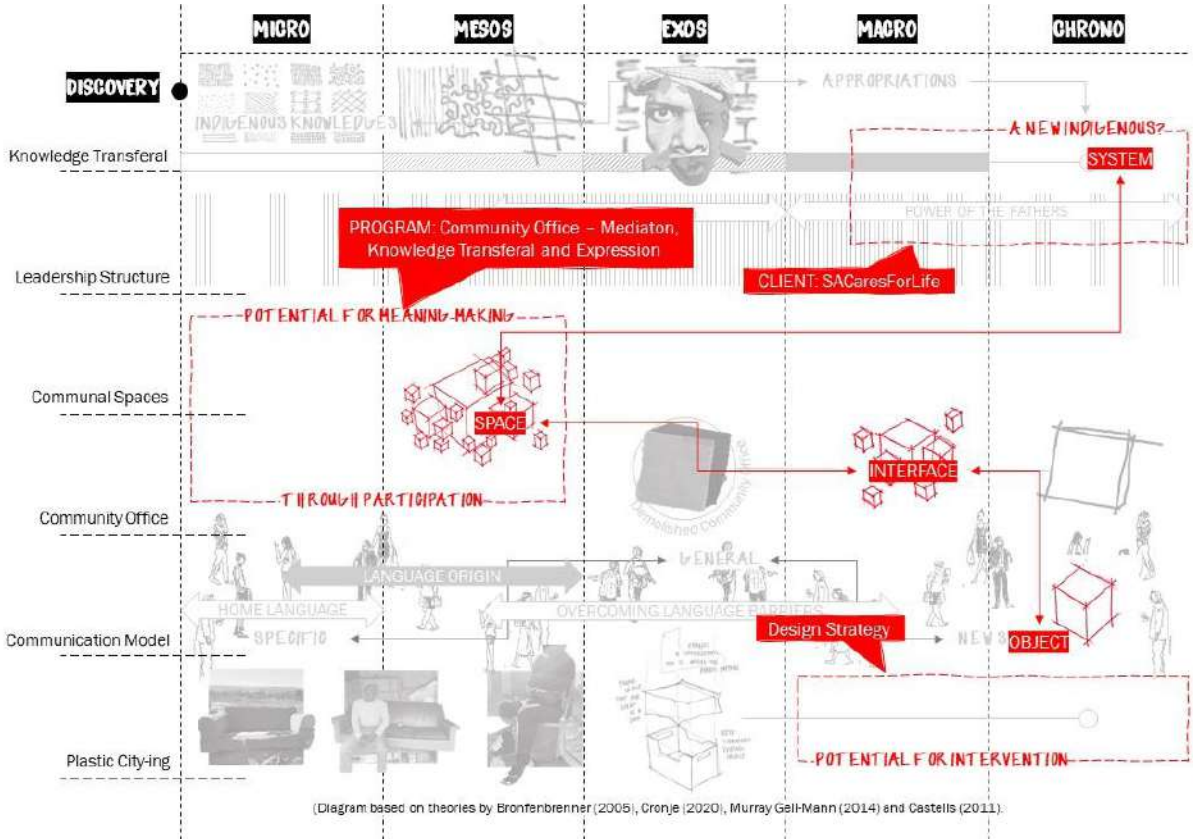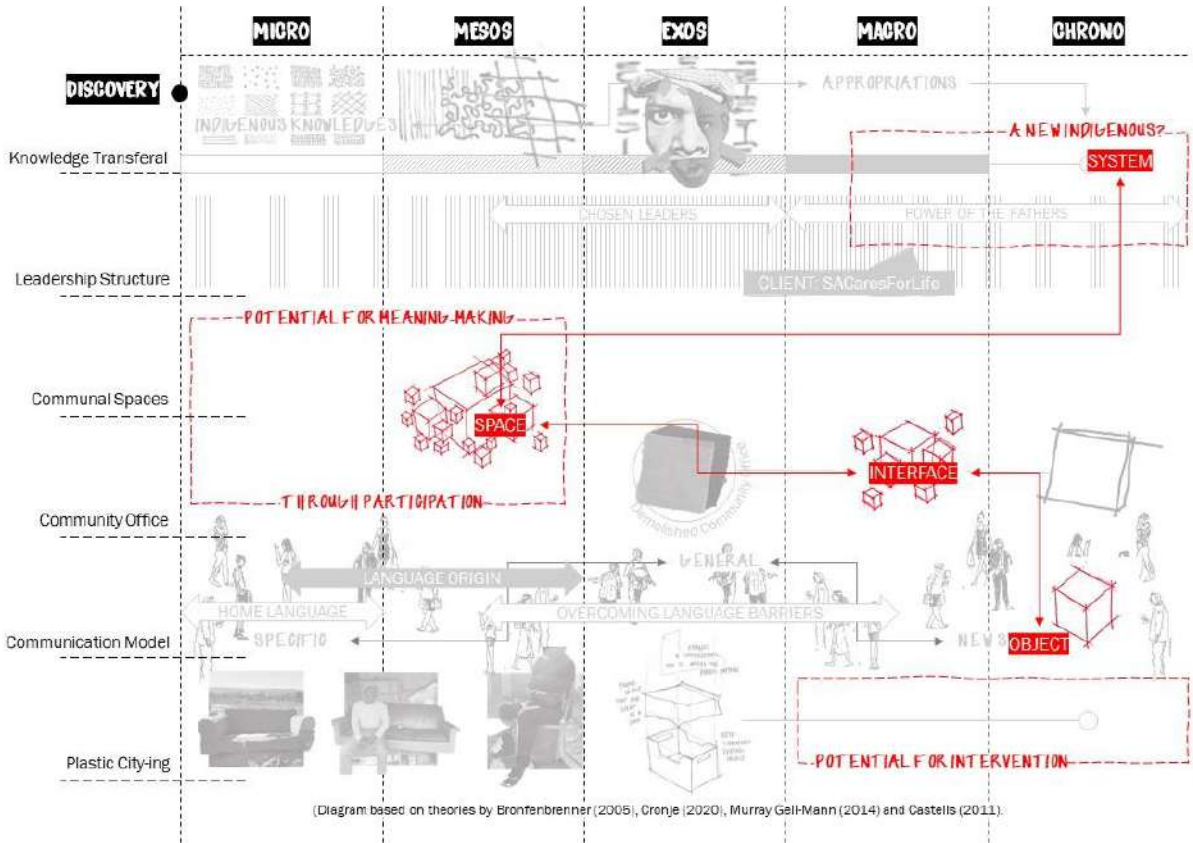
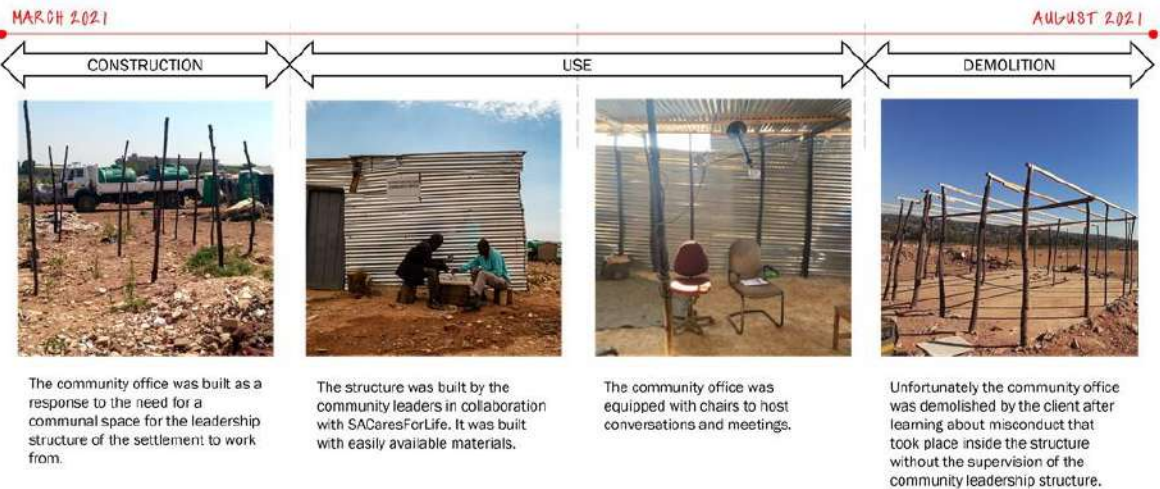# The Community Office
A CASE STUDY

As the settlement is host to a complex dynamic of the inhabitants and the project targets meaning-making, case studies will be used to analyse the self-made environment at the hand of existing meaning in the settlement. These will serve as key informants in the design process as it will give an insider's peek at how spaces in the settlement are composed and used and appropriated. The case studies were chosen throughout the first phase of the project whilst spending sufficient time on site by taking phenomena that is often repeated or found regularly throughout the settlement. This serves to represent the 'bottom-up' end of the spectrum in the design informants.
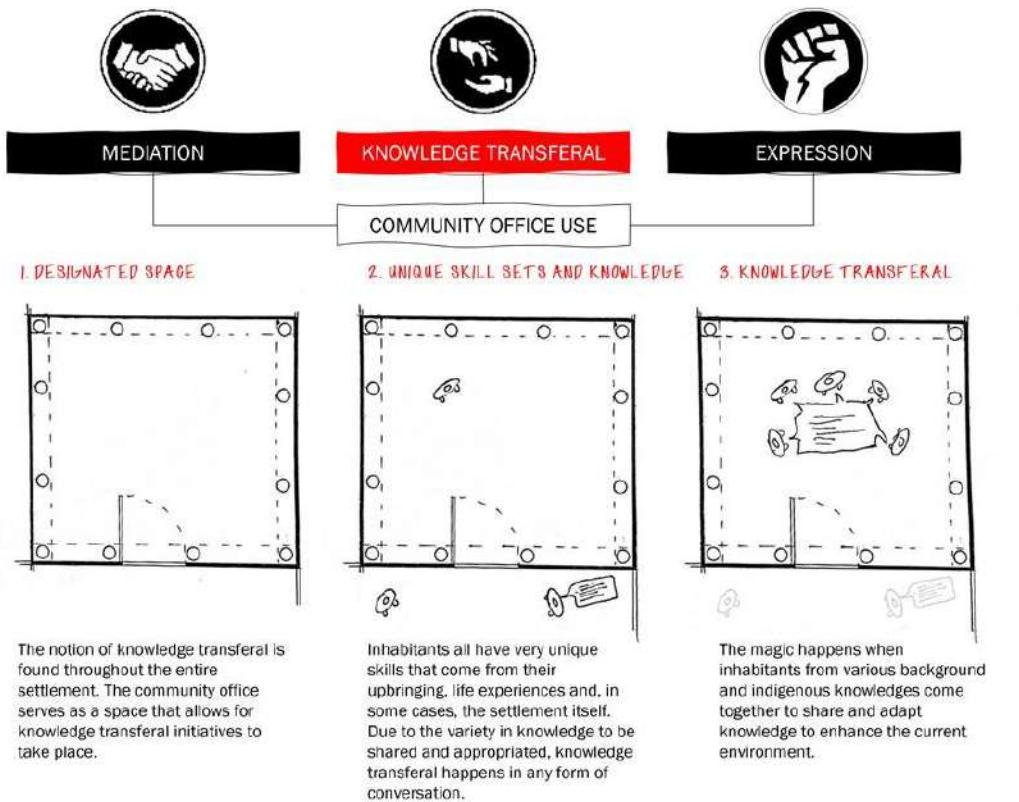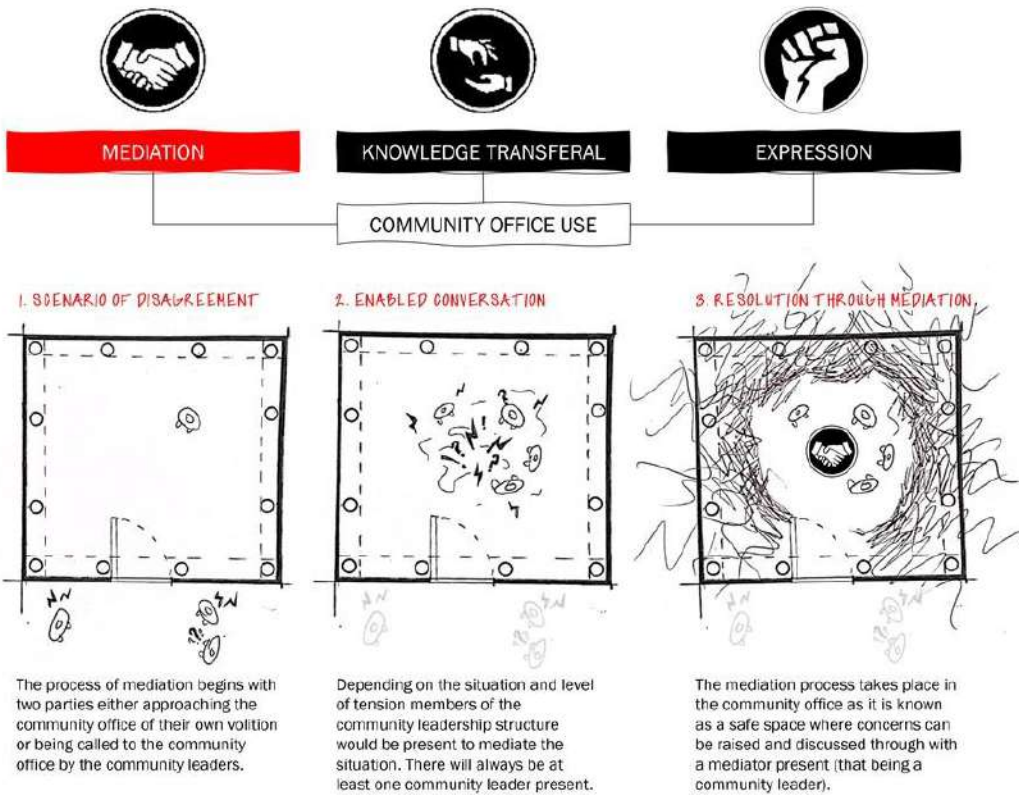
The community office is situated on the far end of the settlement next to a large open space that is used by the community for large gatherings and events. The structure serves as a base for the community leadership to conduct their business from. The leadership structure in the settlement developed as a response to problems faced by the community and has since become a beacon of familiarity and safety in the community.

The Community Office
A CASE STUDY

CONSTRUCTION | USE | DEMOLITION

The community office was built as a response to the need for a communal space for the leadership structure of the settlement to work from.

The structure was built by the community leaders in collaboration with SACaresForLife. It was built with easily available materials.

The community office was equipped with chairs to host conversations and meetings.

Unfortunately the community office was demolished by the client after learning about misconduct that took place inside the structure without the supervision of the community leadership structure.

| MEDIATION | KNOWLEDGE TRANSFERAL | EXPRESSION |

COMMUNITY OFFICE USE

1. SCENARIO OF DISAGREEMENT

The process of mediation begins with two parties either approaching the community office of their own volition or being called to the community office by the community leaders.

2. ENABLED CONVERSATION

Depending on the situation and level of tension members of the community leadership structure would be present to mediate the situation. There will always be at least one community leader present.

3. RESOLUTION THROUGH MEDIATION

The mediation process takes place in the community office as it is known as a safe space where concerns can be raised and discussed through with a mediator present (that being a community leader).

| MEDIATION | KNOWLEDGE TRANSFERAL | EXPRESSION |

COMMUNITY OFFICE USE

1. DESIGNATED SPACE

The notion of knowledge transferal is found throughout the entire settlement. The community office serves as a space that allows for knowledge transferal initiatives to take place.

2. UNIQUE SKILL SETS AND KNOWLEDGE

Inhabitants all have very unique skills that come from their upbringing, life experiences and, in some cases, the settlement itself. Due to the variety in knowledge to be shared and appropriated, knowledge transferal happens in any form of conversation.

3. KNOWLEDGE TRANSFERAL

The magic happens when inhabitants from various background and indigenous knowledges come together to share and adapt knowledge to enhance the current environment.

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MEDIATION

KNOWLEDGE TRANSFERAL

EXPRESSION

COMMUNITY OFFICE USE

The Communal Fire

A CASE STUDY

This spatial composition is present throughout the entire settlement. As there are very limited services in the settlement a fire becomes a key element in the daily domestic activities of the inhabitants such as cooking and heat production. It also demonstrated becoming a universal symbol of communal engagement. Social gatherings, talks, education, gameplay and many key moments in the settlements happens around a fire.

COLLECTING FIREWOOD

FIREWOOD STORAGE

COMMUNAL FIRE

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DECLARE

DEFINE

DISCOVER

DEVELOP

DESIGN

DELIBERATE

OBJECT

INTERFACE

SPACE
SYSTEM

SACares For Life NGO: Community Office
- MAIN PROGRAM: Mediation space
  - Knowledge Transferal Hub
  - Expression space
- Scenarios of Appropriation
  - Sit-things used at Church
  - Pubs & Restaurants
  - Sports Viewing etc.

Design Strategy
MULTI-SCALAR SPATIAL AGENCY

LOCATED WHERE COMMUNITY
OFFICE WAS DEMOLISHED

SITE
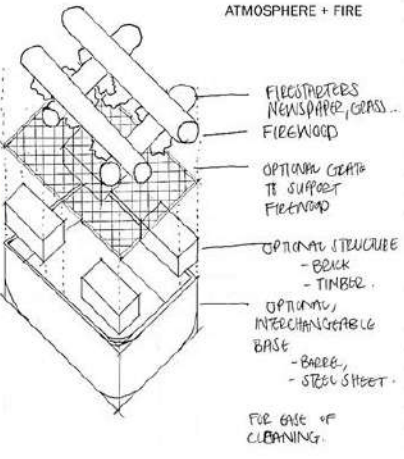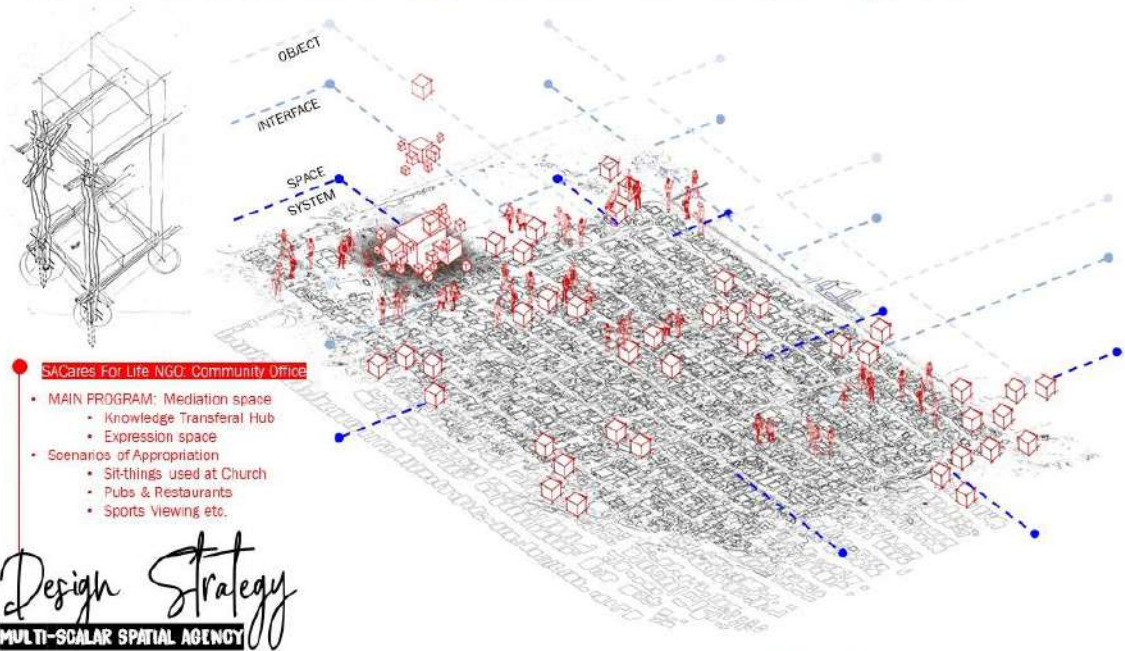
Design Criteria
A COMMUNITY OFFICE

Programming
A COMMUNITY OFFICE
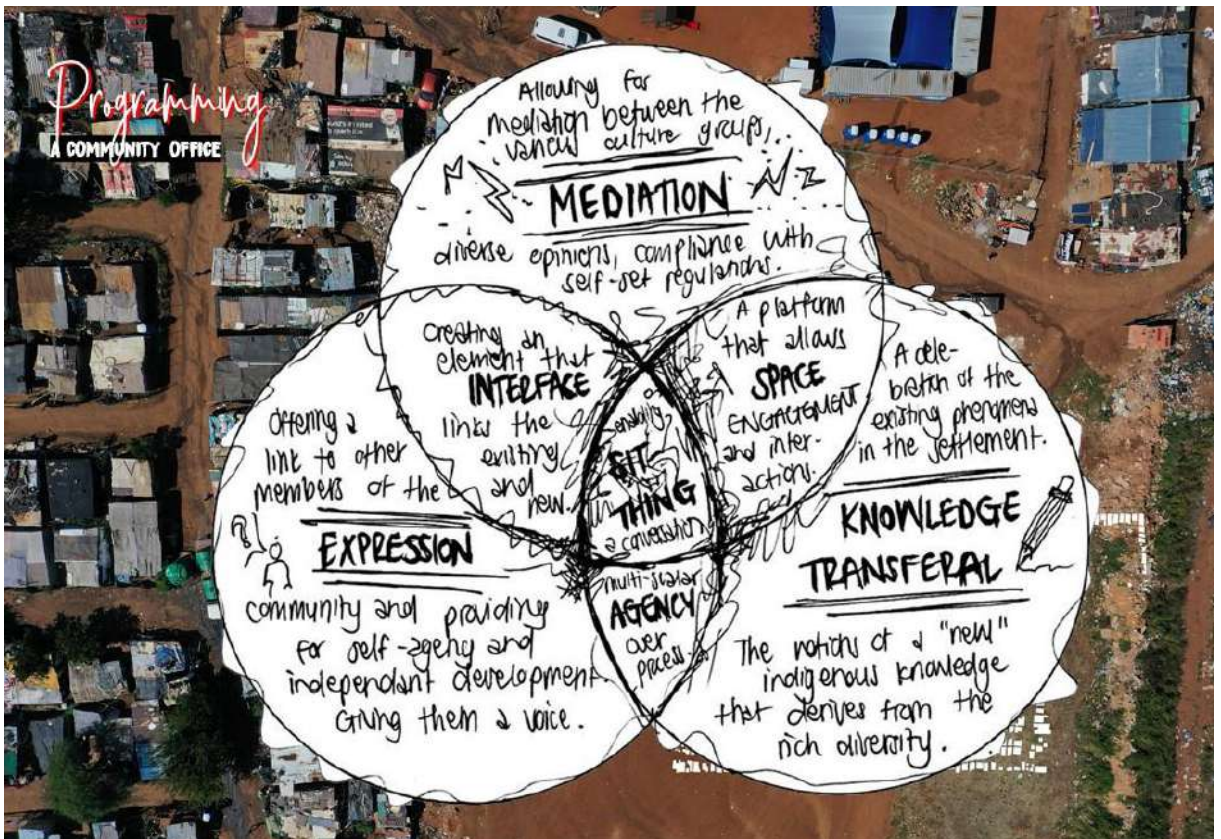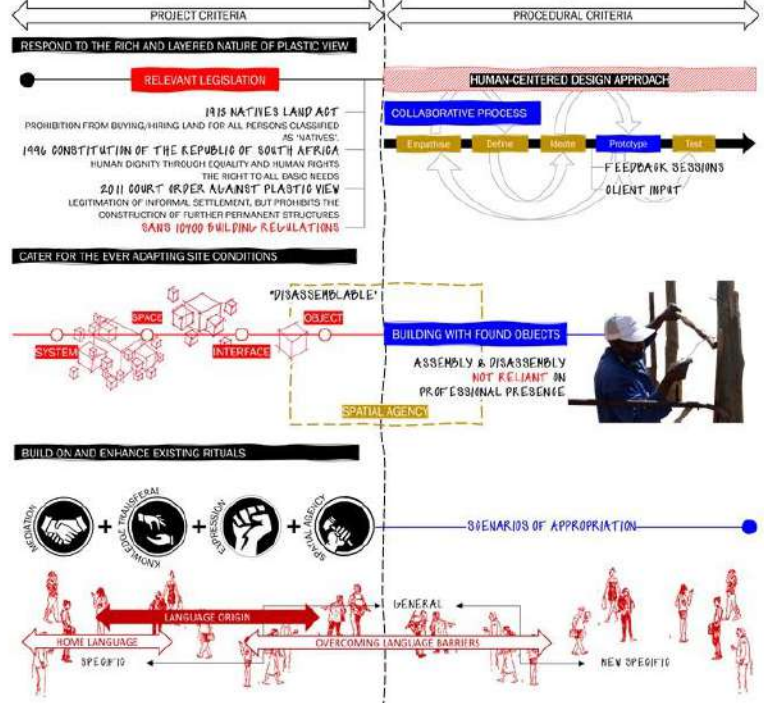
Design Strategy
ORIGINAL DESIGN PHASE TIMELINE
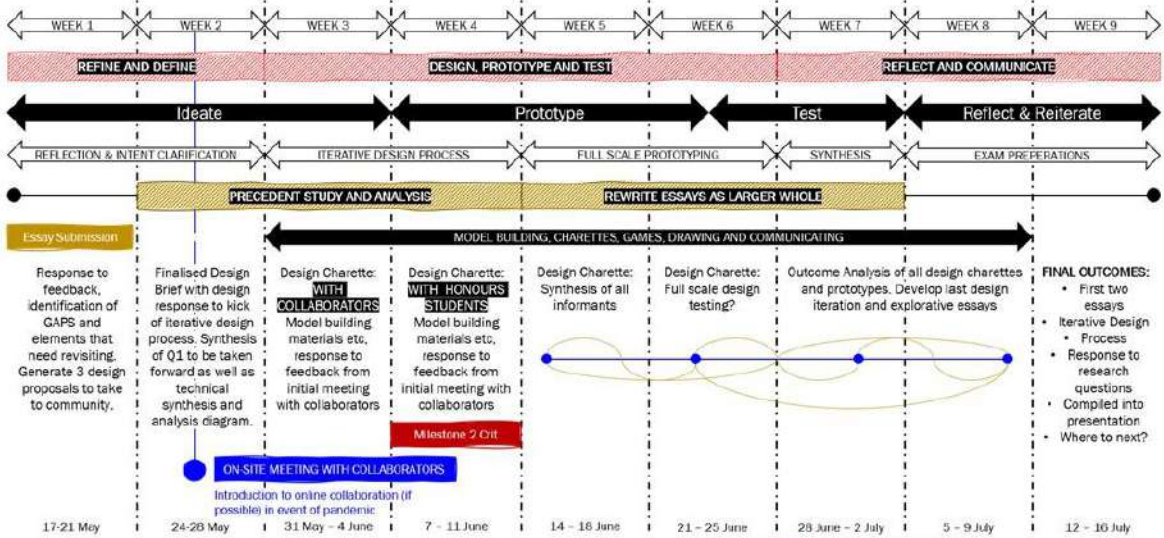
Design Strategy
ADAPTING TO CIRCUMSTANCES

Design Response

OBJECT-INTERFACE-SPACE-SYSTEM APPROACH
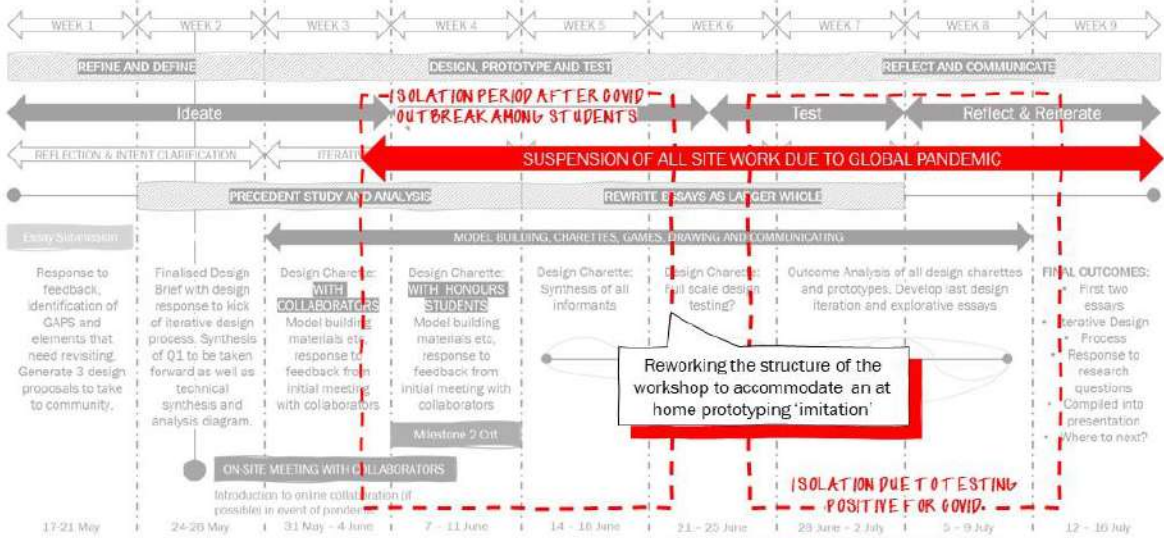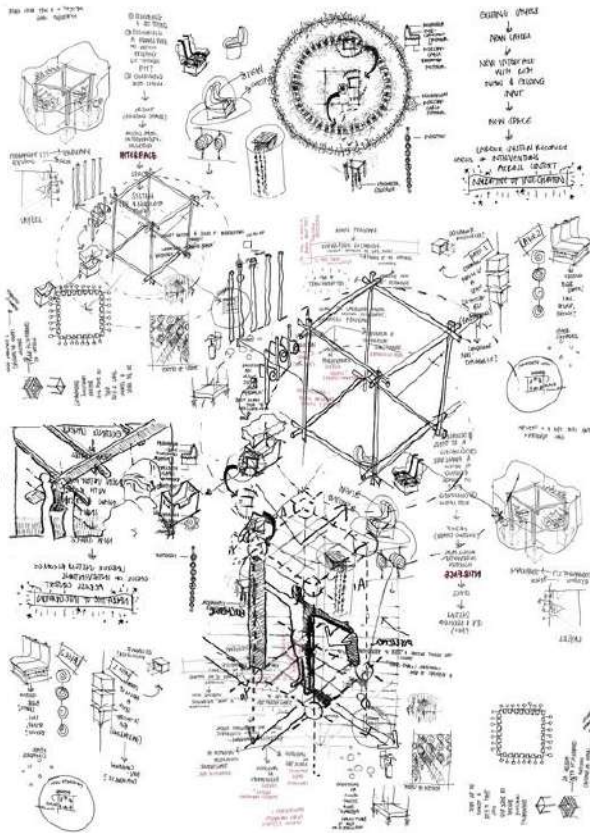
① DESIGNING A SIT THING
② DESIGNING A FRAMEWORK IN WHICH EXISTING SIT THINGS FIT?
③ COMBINING INTO LAYERS.

OBJECT (EXISTING CHAIRS)
↓
INSTALLATION, INTERVENTION, INSERTION
INTERFACE
↓
SPACE
↓
SYSTEM (PV & MORELETA PARK)
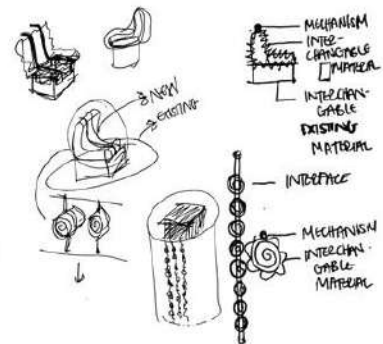
As a response to the object-interface-space-system approach to the proposed community office as well as the design informants the initial design response was creating a sit-thing that fits into an interface that makes up a pavilion that becomes the community office.

The community met the initial response with great enthusiasm and the design process continued with an at home 'mock' prototyping charette (due to circumstances) that serves as the second step in the iterative design process.

① IMITATING
Gathering materials that represent found materials on site to imitate the prototyping process.

② STRUCTURING
Creating a structure that responds to the various layers of the design.

③ EXPERIMENTING
Playing with various 'found objects' towards creating a conceptual response.

④ CONCEPTUALISING
Exploring notions of ephemerality, layered interfaces and expansion.

⑤ DEVELOPING
Investigating the notion of transparency as an inner sleeve of mediation.

⑥ TESTING
Building on the object-interface-space-system approach testing interfaces.

⑦ ITERATING
Playing with interchangeable mock interfaces and reiterating due to lack of stability.

⑧ APPROPRIATING
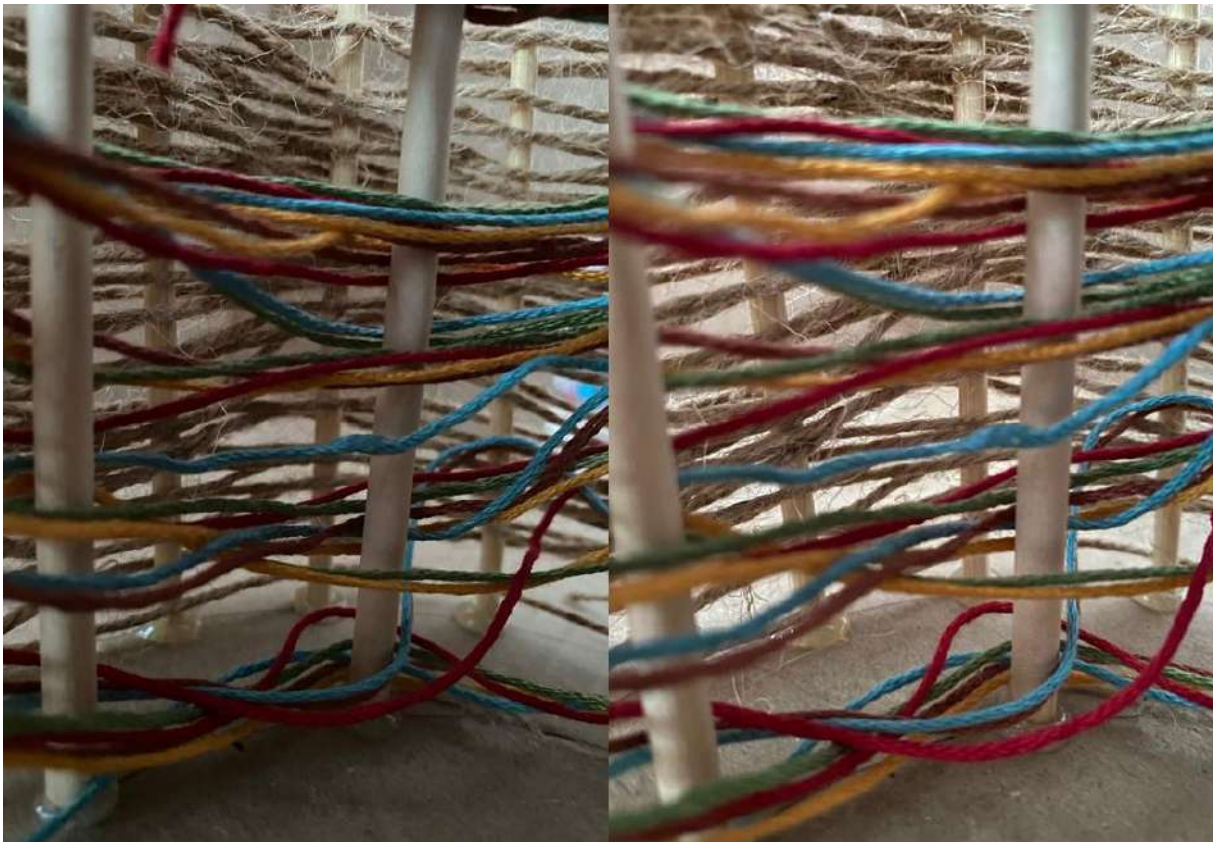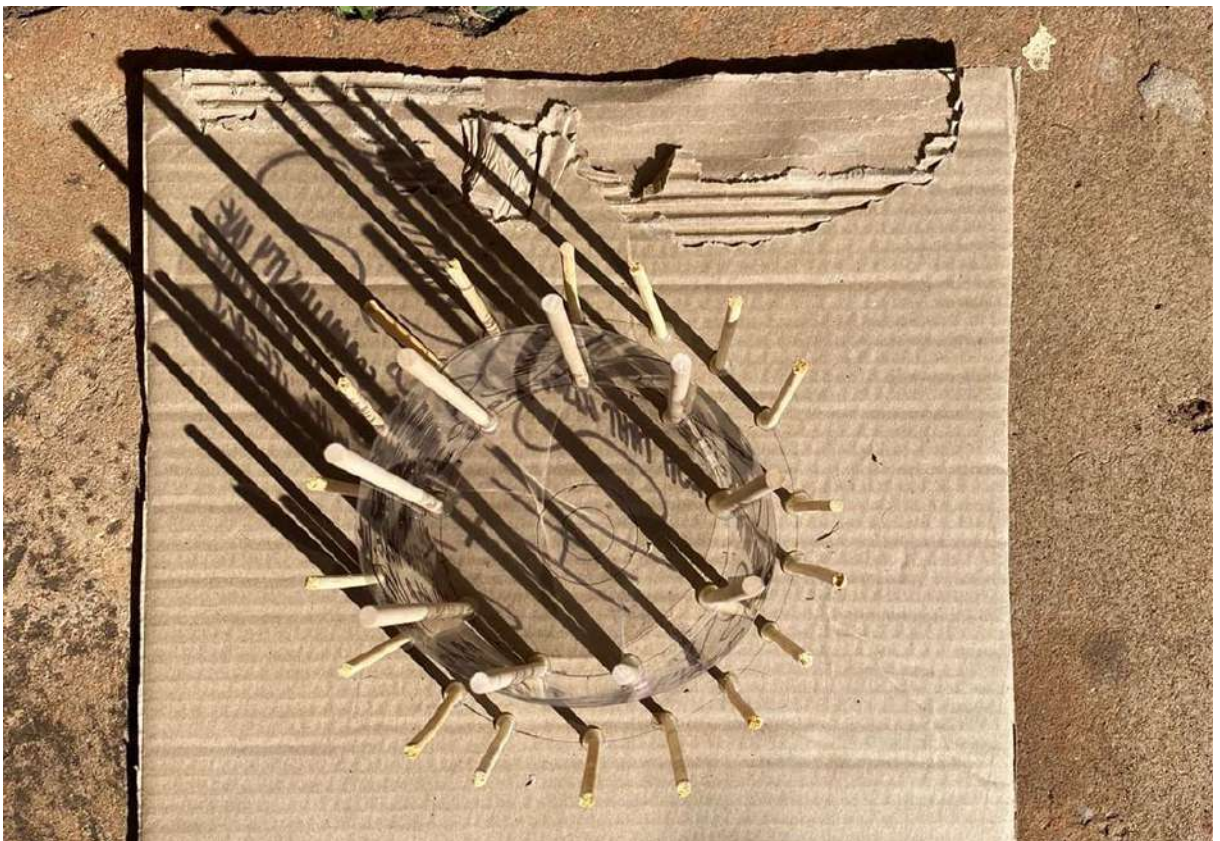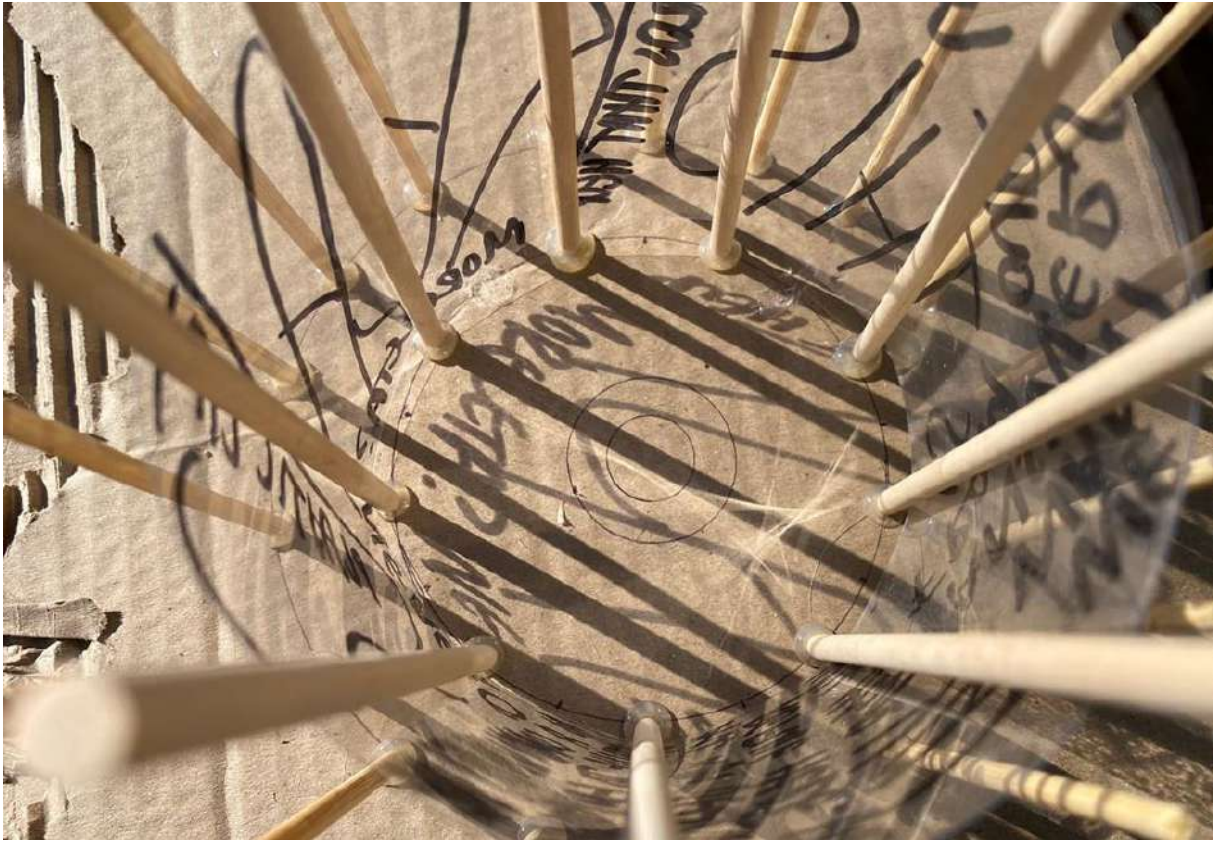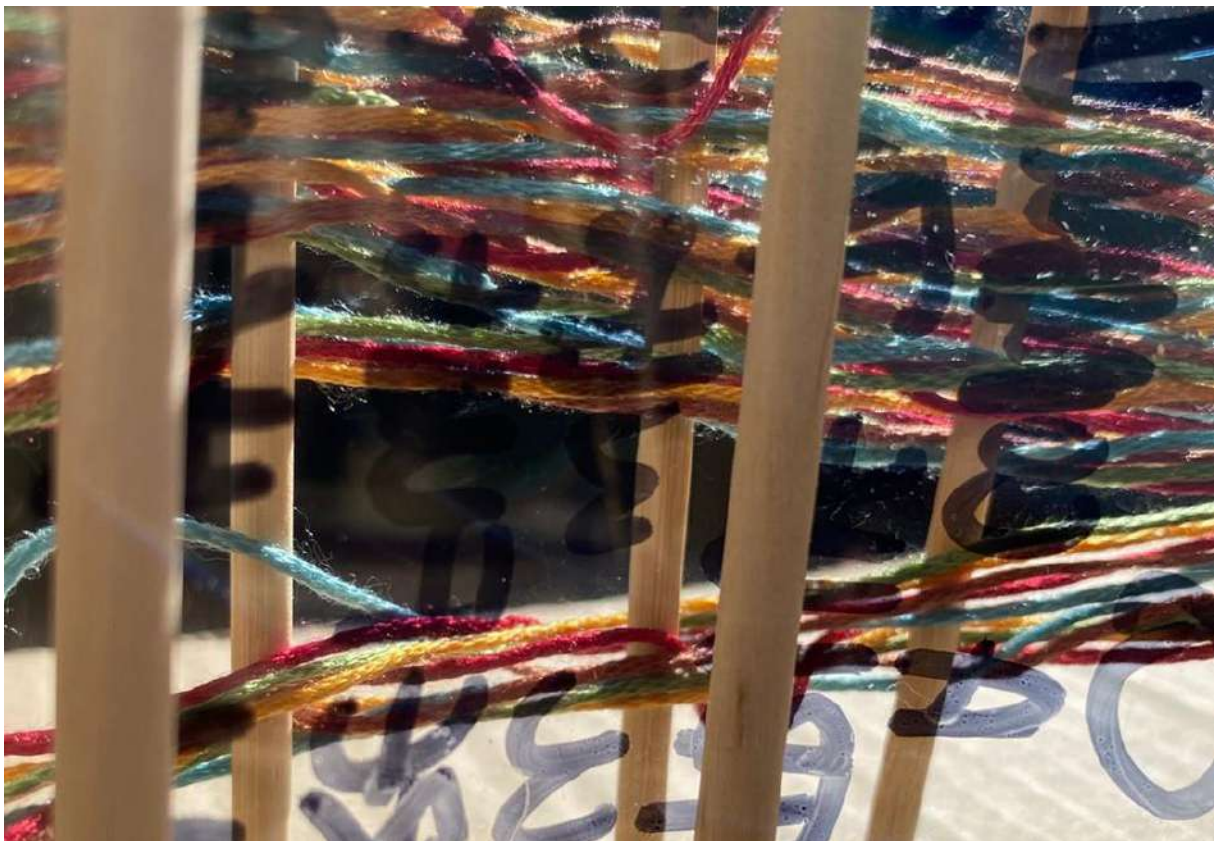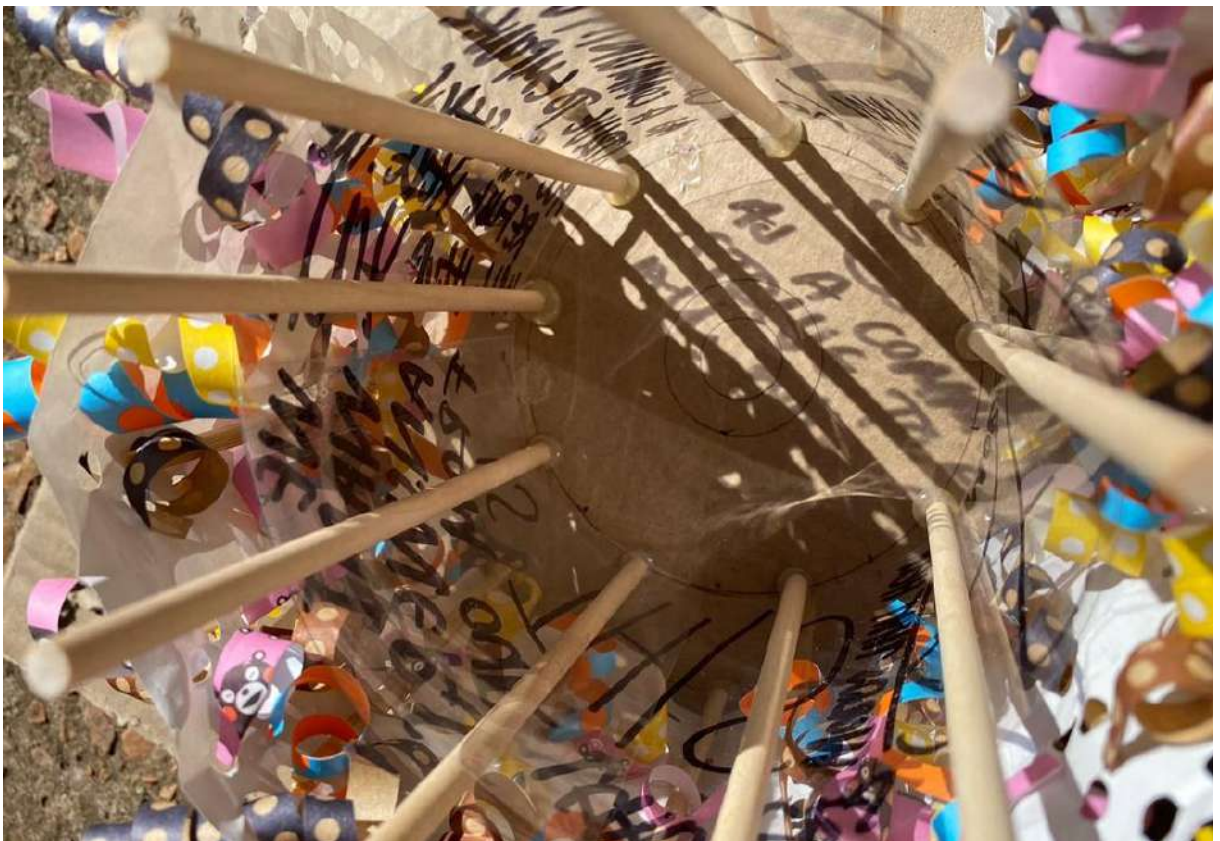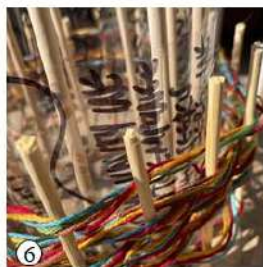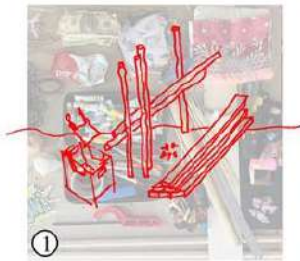Applying mock 'objects' into the interface as an extension of the design intentions.

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① IMITATING

Gathering materials that represent found materials on site to imitate the prototyping process.

② STRUCTURING

Creating a structure that responds to the various layers of the design.

③ EXPERIMENTING

Playing with various 'found objects' towards creating a conceptual response.

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Exploring notions of ephemerality, layered interfaces and expansion.

⑤ DEVELOPING

Investigating the notion of transparency as an inner sleeve of mediation.

⑥ TESTING

Building on the object-interface-space-system approach testing interfaces.

⑦ ITERATING

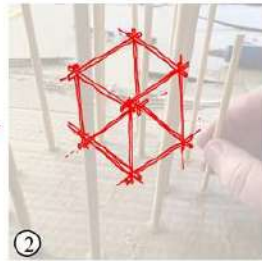Playing with interchangeable mock interfaces and reiterating due to lack of stability.

⑧ APPROPRIATING

Applying mock 'objects' into the interface as an extension of the design intentions.
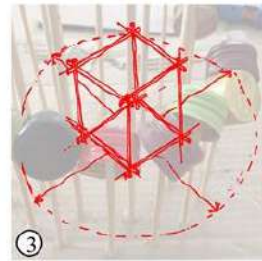
① FOUND OBJECTS
The design development begins with the collection of found objects to build with.
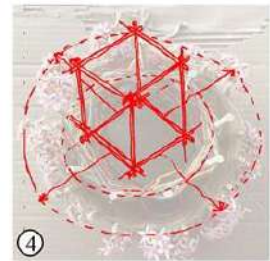
② TRANSPARENCY
The inner mediation layer resembles transparent communication.
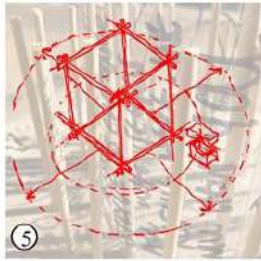
③ EQUALITY
From the inner layer the interfaces are set out in a radial sequence to reflect equality.
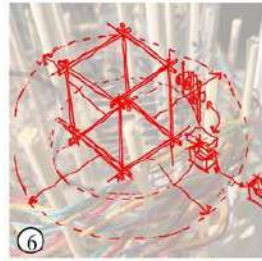
④ LAYERS
Exploring notions of ephemerality, layered interfaces and expansion.
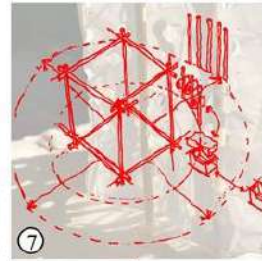
⑤ DEPLOYABLE OBJECTS
The sit-things become deployable objects that can be placed into a storage interface.
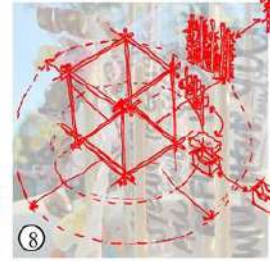
⑥ LINK WITH EXISTING
The deployable sit-things interfaces with existing objects such as beer crates and buckets.
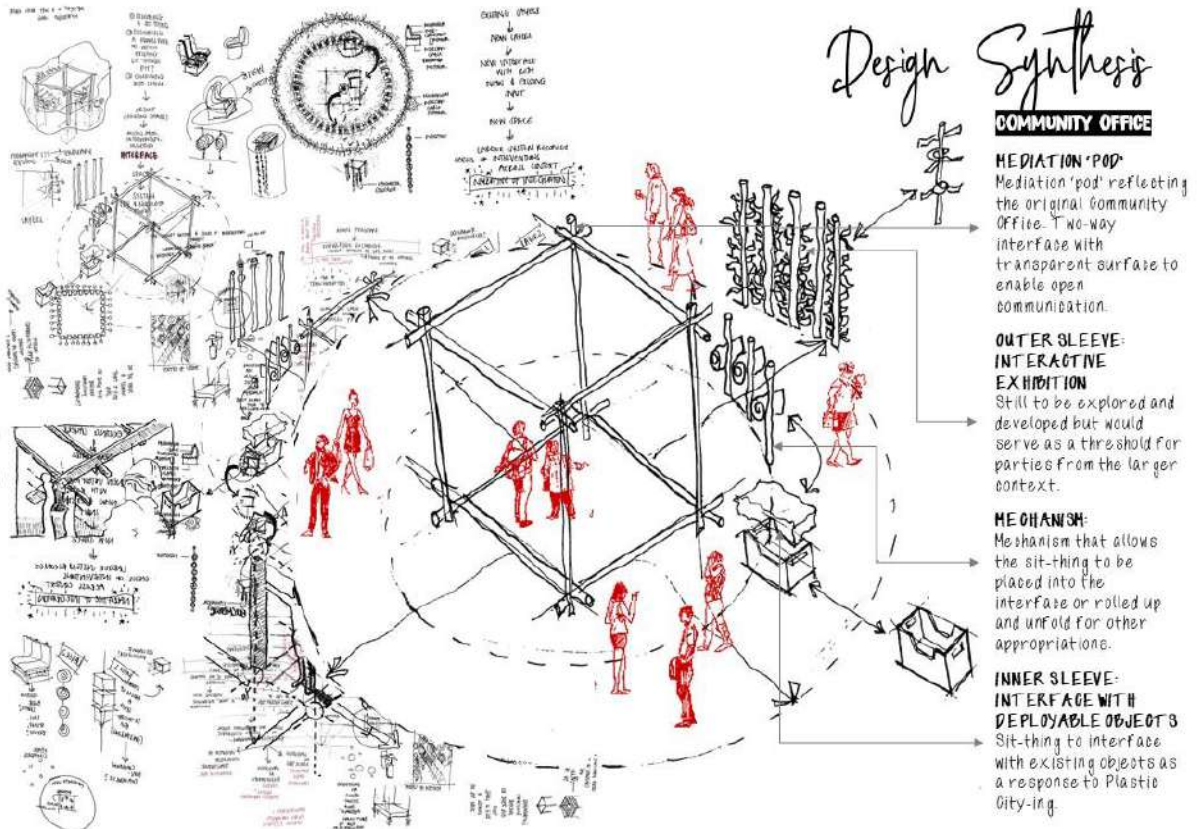
⑦ INTERFACES
The deployable objects all fit into interfaces that become interchangeable.

⑧ AGENCY
The mobility of the elements reflects the notion of spatial agency in the design intervention.

Design Synthesis

COMMUNITY OFFICE

MEDIATION 'POD'
Mediation 'pod' reflecting the original Community Office. Two-way interface with transparent surface to enable open communication.

OUTER SLEEVE: INTERACTIVE EXHIBITION
Still to be explored and developed but would serve as a threshold for parties from the larger context.

MECHANISM:
Mechanism that allows the sit-thing to be placed into the interface or rolled up and unfold for other appropriations.

INNER SLEEVE: INTERFACE WITH DEPLOYABLE OBJECTS
Sit-thing to interface with existing objects as a response to Plastic City-ing.

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COMMUNAL FIRE PIT

TRANSPARENT MEDIATION POD

SEATING INTERFACE WITH DEPLOYABLE OBJECTS

OUTER EXPRESSION INTERFACE

EXTERIOR INTERIOR EXTERIOR

SOCIAL COHESION.

Spatial Requirements
ANALYSING THE NEEDS OF THE COMMUNITY OFFICE

The spatial requirements of the existing community office mapped out across the various programmes and design approach of an object-interface-space approach to space making

	MEDIATION	KNOWLEDGE TRANSFERAL	EXPRESSION
OBJECT	✕	✕	✕
INTERFACE			✕
SPACE	✕	✕	✕

Programme Development
SUGGESTED PROGRAMMING FOR COMMUNITY OFFICE

The case studies informed the design intervention's proposed programme as extensions of the existing community office space. This is overlaid with the design approach of an object-interface-space-system approach to space making. The figure depicts the spatial requirements of each and spatial agency and potential for growth become possible expansions of the programme

	MEDIATION	KNOWLEDGE TRANSFERAL	EXPRESSION	APPROPRIATIONS
OBJECT	●	●	●	
INTERFACE	●	●	●	
SPACE	●	●	●	
SYSTEM				

SPATIAL AGENCY
SIT-THING: ENABLING A CONVERSATION
INTERACTIVE COMMUNICATION INTERFACE
DESIGN INTERVENTION: PROPOSED COMMUNITY OFFICE
POTENTIAL FOR GROWTH

(Diagram based on theories by Bronfenbrenner (2005), Cronje (2020), Murray Gell-Mann (2014) and Castells (2011)

(Diagram based on theories by Bronfenbrenner (2005), Cronje (2020), Murray Gell-Mann (2014) and Castells (2011)

MEANING - MAKING

Intended Meaning | Spatial Encoding | Decoding | Understanding

PERCEIVED | BRIDGING THE GAP THROUGH COLLABORATION | CONCEIVED

LOOSE

TAKE | MAKE | USE

SPATIAL AGENCY

Produce | Process | Participate | Narrate

FOUND OBJECTS | COLLABORATION | ADAPTAPTABILITY | APPROPRIATION

MEDIATION
KNOWLEDGE TRANSFERAL
EXPRESSION

Technical Question

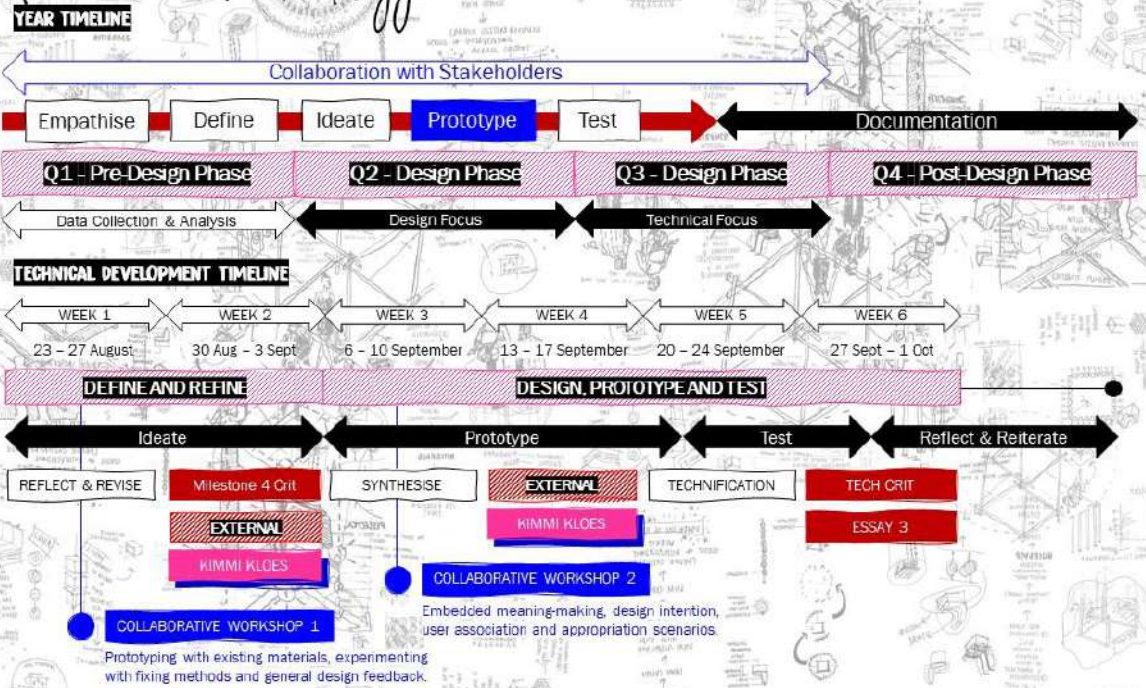HOW CAN AN ITERATIVE TECHNIFICATION PROCESS THROUGH PROTOTYPING AND ANALYSIS SERVE AS AN AGENT OF SEMIOTIC CULTURAL PRODUCTION BY INCLUDING THE USERS AS CONTINUOUS CORE INFORMANTS AND COLLABORATORS?

Research Methodology

YEAR TIMELINE

Collaboration with Stakeholders

Empathise | Define | Ideate | Prototype | Test | Documentation

Q1 - Pre-Design Phase | Q2 - Design Phase | Q3 - Design Phase | Q4 - Post-Design Phase

Data Collection & Analysis | Design Focus | Technical Focus

TECHNICAL DEVELOPMENT TIMELINE

WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 | WEEK 5 | WEEK 6

23 – 27 August | 30 Aug – 3 Sept | 6 – 10 September | 13 – 17 September | 20 – 24 September | 27 Sept – 1 Oct

DEFINE AND REFINE | DESIGN, PROTOTYPE AND TEST

Ideate | Prototype | Test | Reflect & Reiterate

REFLECT & REVISE | Milestone 4 Crit | SYNTHESISE | EXTERNAL | TECHNIFICATION | TECH CRIT

EXTERNAL | KIMMI KLOES | ESSAY 3

KIMMI KLOES

COLLABORATIVE WORKSHOP 2

Embedded meaning-making, design intention, user association and appropriation scenarios.

COLLABORATIVE WORKSHOP 1

Prototyping with existing materials, experimenting with fixing methods and general design feedback.

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Technical Criteria

MEANING-MAKING THROUGH PROTOTYPING AND PARTICIPATION

To ensure the prototyping process translates into a spatial design intervention, the basic spatial and technical requirements informed the technical criteria that will be used to iterate and refine each prototype accordingly so that the narrative continues into the final design intervention.

The prototypes were made on site with found materials and documented. The prototypes remains in the custody of the collaborators.

	OBJECT	INTERFACE	SPACE	SYSTEM
SCALABILITY				
STRUCTURAL INTEGRITY				
POSSIBLE USE				
PROCESS OF PRODUCTION				
EMBEDDED MEANING				

TOWARDS AGENCY
SERIES OF INTERFACES?
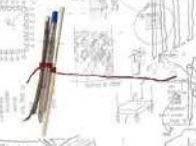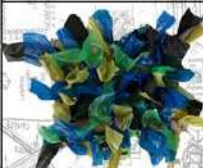
PROTOTYPE	MATERIALS	MEANING EMBEDDED	MEANING INTERPRETED	POSSIBLE USE
Prototype 1: Built by The Moreleta Park Integration Project (2021) in April. Demolished in July by the Tshwane Municipality.	100mmØ Timber gumpoles, procured on site. 100mm Timber spacer cut from a 228mm x 114mm timber batten M20 Bolts procured on site	The client, SaCaresForLife, has been involved in various built projects throughout the settlement. All of these are constructed with gumpoles as it is an easily procurable product and a known construction material on site.	Generic: The association of the gumpole construction with client involvement in the settlement as safe spaces of aid and resources. Specific: Construction that relies on found materials and speaks to indigenous methods of building.	The gumpole construction is very useful as a structural framework in which interfaces can be interchanged. The materials are easily accessible throughout the settlement.
Prototype 2: Built by the author as an at-home exploration of space making with found objects as representation of site conditions du to the pandemic.	Cardboard base Timber dowel sticks Different colour yarn and thread basket woven through the dowl sticks Flowers picked from the garden Bottle caps Glue	The intention of the conceptual model was to reflect the layered nature of the settlement by having different layered frameworks with interchangeable interfaces. The interfaces reflect indigenous methods of basket weaving and the flowers represent a temporary element as a celebration of ephemerality.	Generic: The maquette was interpreted by the community as a decorative element that makes use of familiar crafting methods and connected these methods with natural elements. Specific: This was a reminder of ancestral phenomena with craftmanship and being one with their environments (nature). The notion of transience was picked up after the flowers started to wilt and decay.	This series of explorative prototypes was intended to serve as design informants and possible design iterations.
Prototype 2.1: Built as an iteration on Prototype 2 as layers of interfaces. Starting with the inner sleeve as a layer of transparency with text to create a play on light	Cardboard base Timber dowel sticks Transparency paper Poems and quotes written on the transparency layer	The conceptual model developed into something more practical and with the focus of the first layer representing a possible interface the intended meaning was aimed at equality through transparency. The play on light through the interface manifested itself through the prototyping process and became a poetic outcome of the intended mediation process.	Generic: The concept of transparency was well received and the immediate association with the maquette was that of a spatial representation of a conversation where there are two sides to view from and perceptions change depending from the point of view. Specific: The specific interpretation lies in the words written and projected by the interface.	This series of explorative prototypes was intended to serve as design informants and possible design iterations.

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PROTOTYPE	MATERIALS	MEANING EMBEDDED	MEANING INTERPRETED	POSSIBLE USE
Prototype 2.2: Built as an iteration on Prototype 2.1 as layers of interfaces. Adding a layer of potential deployability and playing with light.	Cardboard base Timber dowel sticks Transparency paper Poems and quotes written on the transparency layer Different colour yarn and thread basket woven through the dowl sticks	An addition to the inner sleeve of transparency the notion of the basket weave from the conceptual model was reintroduced as a potential interface to host deployable objects. . The interfaces reflect indigenous methods of basket weaving	**Generic:** The maquette was interpreted as a maze of sorts that needs to be woven through as the threads were woven though the framework. **Specific:** The community immediately recognised the basket weave and interpreted the shadows as residue of their link to indigenous inheritance.	This series of explorative prototypes was intended to serve as design informants and possible design iterations.
Prototype 2.3: Built as an iteration on Prototype 2.2 as layers of interfaces. Alternating interfaces to adapt to structural and object needs.	Cardboard base Timber dowel sticks Transparency paper Poems and quotes written on the transparency layer Paper interface with holes cut-out to host potential objects	To iterate the initial concept of the outer sleeve as an interface that can host objects the meaning embedded was that of temporal intervention. The paper was intended to mimic an interface that is not structural and permanent but possesses characteristics of transparency in the sunlight.	**Generic:** The maquette was read as a spatial composition and was associated with an enclosed space. This was interpreted as a safe space. **Specific:** The weave of the paper element through the framework was n a clear reference to the indigenous crafting method and the notions of transparency and transience.	This series of explorative prototypes was intended to serve as design informants and possible design iterations.
Prototype 2.4: Built as an iteration on Prototype 2.3 with objects placed into the interface as representation of interface use.	Paper interface with holes cut-out to host potential objects Paper cut out rolled up to represent objects that can be folded and placed into the interface	The intention with the deployable object was to convey the notions of semiotics in design interventions: individual elements that are placed into an interface. The intended meaning was how diversity makes up a whole.	**Generic:** The community interpreted the maquette as a decorative element that could be used in a design intervention. The individual elements were read as one simultaneous element that makes up a whole.	This series of explorative prototypes was intended to serve as design informants and possible design iterations.

PROTOTYPE	MATERIALS	MEANING EMBEDDED	MEANING INTERPRETED	POSSIBLE USE
Prototype 2.5: Built as an iteration on Prototype 2.4 as layers of interfaces. Adding the interface with rolled up deployable objects	Cardboard base Timber dowel sticks Transparency paper Poems and quotes written on the transparency layer Paper interface with holes cut-out to host potential objects Paper cut out rolled up to represent objects that can be folded and placed into the interface	The maquette intended to convey the first iterative design: a space that reflects the semiotic nature of the language model on site by catering for idiosyncratic contributions.	The maquette was presented as a spatial composition and interpreted as a layered maze or exhibition space made up from different elements. "This even looks like Plastic View" - Collaborator 2 The only successful interpreted meaning was that of transparency and equality in communication. The notions of indigenous crafting methods were lost in translation.	This series of explorative prototypes was intended to serve as design informants and possible design iterations.
Prototype 3: Built by Collaborator 1 in Workshop 1 as an interface made with found objects.	Plastic bags found on site Filled with found objects like paper, grass, reeds, sponging and newspaper	The intended meaning spoke to the notion of making something beautiful from that which is disposed from everyday life. The author used trash to make something useful.	**Generic:** The model as is was interpreted as trash, or something that would be thrown away. **Specific:** Individuals interpreted the prototype as the beginning of a crafting process from available materials.	The stuffed bags were very spongy and yielding which gave it potential that if structured could serve as a cushioning device.
Prototype 3.1: Built by Collaborator 1 in Workshop 1 as an iteration on prototype 3.	Plastic bags found on site Filled with found objects like paper, grass, reeds, sponging and newspaper Old t-shirt used as base to combine loose elements into one interface	With the iteration the intentions remained the notion of making something beautiful from that which is disposed from everyday life. The author used trash to make something useful.	**Generic:** Once read as a single element the prototype was interpreted as a material to be used in construction of a structure or as an upcycling attempt with an unknown final product. **Specific:** The notion of crafting something with found objects was recognised and appreciated.	With a base to combine the individual stuffing elements

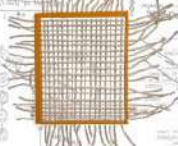| PROTOTYPE	MATERIALS	MEANING EMBEDDED	MEANING INTERPRETED	POSSIBLE USE
Prototype 4: Built by Collaborator 2 in Workshop 1 as an interface made with found objects.	Plastic bags found on site woven together with a basic weave	The prototype is an example of an indigenous craft taught to the author by their mother. The author tried to replicate a complex weave but was unable to remember the intricate details thereof. The intended meaning was a link back to indigenous crafting methods made relevant to the situation by building with found objects.	Generic: The notion of creating elements with found or available materials resonates strongly with the community as the majority of the settlement is self-made. Specific: The prototype was interpreted as a 'Plastic View' weave: something that developed from indigenous crafting methods made relevant by the materiality and execution.	The plastic weave can be used as a finish or cover. If the weave is left unfixed it is not waterproof but if it is to be fixed (either melted or simply stitched together) it can also be used as a waterproof surface.
Prototype 4.1: Built by Collaborator 2 in Workshop 1 as an iteration on prototype 4.	Decorative paper woven together with a basic weave	In an attempt to iterate the basic weave into something that speaks to the specific weave taught by the authors' mother the prototype was replicated with decorative paper.	Generic: The prototype was not well received as it was associated with an external creation that seemed irrelevant to the project and the context. Specific: The prototype was associated with a very decorative attempt and seemed distant from the other prototypes presented (intertextuality present here).	The concept of the prototype can be used as a patterned weave as iteration of the previous prototype but paper itself is not a very durable material for external use.
Prototype 5: Built by Collaborator 3 in Workshop 1 as an interface made with found objects.	Key rings found on site. Different colour yarn and thread woven through the key rings	The author of the prototype used the weaving and pattern as a homage to art his grandmother used to produce. It serves as a sentimental homage to his roots and homelands where this technique was a common indicator of craft and value.	Generic: The prototype was interpreted as a meaningful gesture to craft. It was clearly articulated that a lot of time and love went into the construction of the prototype and the community found beauty in the detail. Specific: The prototype spoke to the notion of self-taught craft and love embedded in the objects people of the settlement make.	The prototype itself does not possess very structural properties but the method in which it was fixed becomes a valuable option for binding methods. The notion of using keyrings also creates opportunities for possible fixing methods.

PROTOTYPE	MATERIALS	MEANING EMBEDDED	MEANING INTERPRETED	POSSIBLE USE
Prototype 6: Built by Collaborator 4 in Workshop 1 as an interface made with found objects.	Cut plastic bottles found on site. Industrial cable ties	The prototype was made as an expression of individual elements bound together with a unanimous detail and becomes a pattern.	Generic: The prototype was associated with an upcycling project conducted by the client. Specific: Inhabitants who have attempted crafting with found objects acknowledged the intuition and creativity behind the prototype and pondered the possible functions thereof.	The prototype was created to demonstrate a possible binding elements between found objects. The binding method becomes an option but is restricted by the nature of the elements that it binds.
Prototype 7: Built by Collaborator 1 in Workshop 1 as an interface made with found objects.	Found objects like timber sticks, broken pens, plastic forks and dowel sticks. Different colour yarn and thread basket woven through the found objects.	The prototype was intended to reflect the essence of making in the settlement. The found objects are bound together with a non-conventional knotting device.	Generic: The prototype resonated with the inhabitants as a 'Plastic View Construction' and was associated with the methods used to build structures throughout the settlement. Specific: The domestic elements featured in the prototype was associated with the process of building from available materials that resonates on a very personal level of home-building and space making.	The prototype had potential with binding methods and if iterated can showcase structural characteristics. The prototype also needs to be developed to demonstrate scalability to ensure an intervention with found objects is still possible.
Prototype 7.1: Built by Collaborator 1 in Workshop 1 as an iteration on prototype 7.	Found objects like timber sticks, broken pens, plastic forks and dowel sticks. Different colour yarn and thread basket woven through the found objects.	The prototype was intended to reflect the essence of making in the settlement. The found objects are bound together with a non-conventional knotting device. After developing from the previous iteration the prototype demonstrates the self-constructed and hand-crafted methods used across the settlement.	Generic: The prototype resonated with the inhabitants as a 'Plastic View Construction' and was associated with the methods used to build structures throughout the settlement. Specific: The development from the previous iteration was acknowledged and the objects in the prototype were recognised as everyday domestic objects.	After iteration the prototype has more structural abilities and can be used as both binding element and base structure to which other interfaces can be fixed to become a design element.

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PROTOTYPE	MATERIALS	MEANING EMBEDDED	MEANING INTERPRETED	POSSIBLE USE
Prototype 8: Built by Collaborator 3 in Workshop 1 as an interface made with found objects.	Plastic bags found on site News papers found on site Magazine papers found on site Different colour yarn and thread basket woven through the found objects Old t-shirt used as base to combine loose elements into one interface	The objects commonly associated with waste was interpreted as an attempt to reuse the waste and turn it into something useful in the settlement by incorporating indigenous methods and combining it with more site-specific objects.	Generic: The basket weave as generic crafting method was immediately recognised and associated with the familiar indigenous crafting methods. Specific: The notion of combining indigenous methods with relevant materials creates an site-specific response to crafting methods.	The interface creates a cushioning element that could be used in the intervention as an element of comfort.
Prototype 9: Built by Collaborator 4 in Workshop 1 as an interface made with found objects.	Plastic bags found on site and cut to pieces Old t-shirt used as base to combine loose elements into one interface: cut plastic pieces tied to base	The prototype was made with upmost care and consideration as an artistic expression of the potential beauty that can stem from what is considered as waste.	Generic: The effort put into creating the prototype was recognised and appreciated as a labour of love. The notion of crafting with available materials was interpreted as an expression of the settlement. Specific: Inhabitants who have attempted crafting with found objects recognised the method and reflected on the process and outcome thereof.	This prototype doesn't possess very structural characteristics but is rich in meaning. It can be used as a surface treatment or expression of individual collaboration and speak to the notion of the beauty that stems from the mundane.
Prototype 10: Built by Collaborator 2 in Workshop 1 as an interface made with found objects.	Timber dowel sticks found on site Different colour yarn and thread basket woven through the found objects	The basket weave is a very familiar indigenous crafting method used by many inhabitants of the settlement as a binding method. The meaning embedded in this prototype is a form of unity between various cultures with various backgrounds and methods of construction that all make use of a binding element such as the basket weave.	Generic: Majority of the inhabitants recognise the crafting method as a link to indigenous crafting. Specific: It exhibits the notion of indigenous traits that have been domesticated and surrounds everyday phenomena. The presence of an intangible link to heritage that is still unanimous amongst the inhabitants of the settlement.	The basket weave is a core binding method that can easily be translated into a structural element. It has been used by many inhabitants as much more that just a binding method but as a structural base for objects.

PROTOTYPE	MATERIALS	MEANING EMBEDDED	MEANING INTERPRETED	POSSIBLE USE
Prototype 10.1: Built by Collaborator 2 in Workshop 1 as an iteration on prototype 10.	Timber sticks, reeds and grass found on site basket woven into a basket for domestic use. Built to show the flexibility and strength of the basket weave	The basket weave is a very familiar indigenous crafting method used by many inhabitants of the settlement as a binding method. The meaning embedded in this prototype is a form of unity between various cultures with various backgrounds and methods of construction that all make use of a binding element such as the basket weave.	Generic: Majority of the inhabitants recognise the crafting method as a link to indigenous crafting. Specific: It exhibits the notion of indigenous traits that have been domesticated and surrounds everyday phenomena. The presence of an intangible link to heritage that is still unanimous amongst the inhabitants of the settlement.	In this iteration of the basket weave prototype the collaborator demonstrated the very structural potential of the weave if combined with a framework. Depending on the materials used the basket weave can serve as both structure and binding elements in a design intervention.
Prototype 11: Built by Collaborator 2 in Workshop 1 as an interface made with found objects.	Rope found on site made into a netting device	The prototype was built as a demonstration of skills gained through professional experience. The embedded meaning represents the knowledge transferal that is ever present in the settlement and how it can uplift daily life.	Generic: Specific: The prototype represents a larger system of knowledge transferal in the settlement where inhabitants can use skills learnt to enable themselves.	The rope netting becomes a very valuable construction method that can be used as a fixing device or structural device for more tensile structures. It has potential to act as a binding agent and the technique can be easily adapted to accommodate more project specific needs.
Prototype 12: Built by Emile Cronje (external collaborator) in in movement dedicated to building materials from waste that can be used in the built environment.	Recycled plastic bags woven together to create a 7 strand woven rope	The intended meaning of the prototype is the possibility of self agency through construction with recycled objects and to create accessible resources for the built industry.	Generic: The community interpreted the prototype as a construction mechanism made from accessible materials. Specific: The prototype was associated with a very familiar method of construction that individuals have used to construct their own homes that speaks to hand-made self sustained construction.	The seven strand woven rope possesses various characteristics that makes it ideal for construction purposes. It is very strong, has tensile abilities, is flexible and adaptable in terms of scalability and can be used in various elements in the design intervention.

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PROTOTYPE	MATERIALS	MEANING EMBEDDED	MEANING INTERPRETED	POSSIBLE USE
Prototype 13: Built by the author to test materials that mimic transparent materials found on site for interface testing.	Gameboard cut-outs Transparent plastic bag	The intended meaning is that of transparency and equality in conversation. By allowing for written text on both sides of the ideal process of mediation becomes a spatial interface that allows two different perspectives to meet and consolidate.	Generic: As with prototype 2.1 the concept of transparency was well received and the immediate association with the maquette was that of a spatial representation of a conversation where there are two sides to view from and perceptions change depending from the point of view. Specific: The specific interpretation lies in the words written and projected by the interface.	This prototype was built to test the viability of material choice to serve a specific purpose in the design intervention. The surface is writable as intended but distorts the cast shadow of the words.
Prototype 13.1: Built by the author to test materials that mimic transparent materials found on site for interface testing.	Gameboard cut-outs Transparent plastic sheet (to mimic Perspex sheeting)	The intended meaning is that of transparency and equality in conversation. By allowing for written text on both sides of the ideal process of mediation becomes a spatial interface that allows two different perspectives to meet and consolidate.	Generic: As with prototype 2.1 the concept of transparency was well received and the immediate association with the maquette was that of a spatial representation of a conversation where there are two sides to view from and perceptions change depending from the point of view. Specific: The specific interpretation lies in the words written and projected by the interface.	This prototype was built to test the viability of material choice to serve a specific purpose in the design intervention. The surface is writable as intended casts a crisp and clear shadow of written texts.
Prototype 13.2: Built by the author to test materials that mimic transparent materials found on site for interface testing.	Gameboard cut-outs Transparent lined plastic sheet (to mimic reinforced Perspex sheeting)	The intended meaning is that of transparency and equality in conversation. By allowing for written text on both sides of the ideal process of mediation becomes a spatial interface that allows two different perspectives to meet and consolidate.	Generic: As with prototype 2.1 the concept of transparency was well received and the immediate association with the maquette was that of a spatial representation of a conversation where there are two sides to view from and perceptions change depending from the point of view. Specific: The specific interpretation lies in the words written and projected by the interface.	This prototype was built to test the viability of material choice to serve a specific purpose in the design intervention. The surface is writable as intended casts a crisp and clear shadow of written texts.

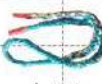| PROTOTYPE	MATERIALS	MEANING EMBEDDED	MEANING INTERPRETED	POSSIBLE USE
Prototype 13.3: Built by the author to test materials that mimic transparent materials found on site for interface testing.	Gameboard cut-outs Transparent plastic sheet folded to mimic corrugated plastic sheeting	The intended meaning is that of transparency and equality in conversation. By allowing for written text on both sides of the ideal process of mediation becomes a spatial interface that allows two different perspectives to meet and consolidate.	Generic: As with prototype 2.1 the concept of transparency was well received and the immediate association with the maquette was that of a spatial representation of a conversation where there are two sides to view from and perceptions change depending from the point of view. Specific: The specific interpretation lies in the words written and projected by the interface.	This prototype was built to test the viability of material choice to serve a specific purpose in the design intervention. The surface is not writable as intended and distorts the written text but can still serve as a transparent 'window' to view the rituals from the exterior.
Prototype 14: Built by the author to test iterated interface design that hosts deployable objects	Gameboard cut-outs Yarn fixed between the gameboard cut-outs	The notion of yarn and thread became a prominent feature during the prototyping process and the intention of the prototype was to speak to all the potential meanings that can be interpreted by the members of the community. The storage unit attempts to speak to the notion of indigenous techniques made contextually relevant.	Generic: The prototype was interpreted as an adaptation of prototype 2.2. The maquette was interpreted as a craft of sorts that needs to be woven through though the framework. Specific: The community still resonated with the notion of the shadows as residue of their link to indigenous inheritance.	This prototype was built to test the viability of design and material choice to serve a specific purpose in the design intervention. The weave is intended to give spacing and triangular support opportunities for deployable objects of various sizes.
Prototype 14.1: Built by the author as an iteration on prototype 14	Gameboard cut-outs Yarn fixed between the gameboard cut-outs	The notion of yarn and thread became a prominent feature during the prototyping process and the intention of the prototype was to speak to all the potential meanings that can be interpreted by the members of the community. The storage unit attempts to speak to the notion of indigenous techniques made contextually relevant.	Generic: The prototype was interpreted as an adaptation of prototype 2.2. The maquette was interpreted as a craft of sorts that needs to be woven through though the framework. Specific: The community still resonated with the notion of the shadows as residue of their link to indigenous inheritance.	This prototype was built to test the viability of design and material choice to serve a specific purpose in the design intervention. The weave is intended to provide structure and support to host deployable objects.

PROTOTYPE	MATERIALS	MEANING EMBEDDED	MEANING INTERPRETED	POSSIBLE USE
Prototype 14.2: Built by the author as an iteration on prototype 14.1.	Gameboard cut-outs Yarn fixed between the gameboard cut-outs	The notion of yarn and thread became a prominent feature during the prototyping process and the intention of the prototype was to speak to all the potential meanings that can be interpreted by the members of the community. The storage unit attempts to speak to the notion of indigenous techniques made contextually relevant.	Generic: The prototype was interpreted as an adaptation of prototype 2.2. The maquette was interpreted as a craft of sorts that needs to be woven through though the framework. Specific: The community still resonated with the notion of the shadows as residue of their link to indigenous inheritance.	This prototype was built to test the viability of design and material choice to serve a specific purpose in the design intervention. The weaves are combined and another iteration is needed to test if the interface could host deployable objects.
Prototype 14.3: Built by the author as an iteration on prototype 14.2.	Gameboard cut-outs Yarn fixed between the gameboard cut-outs	With the addition of the objects into the interface the indigenous aspects hosts the 'new' elements that have developed from the settlement. It serves as a metaphor for the past elements that inform and support the present phenomena in the settlement.	Generic: The storage unit with deployable objects as part of the proposed community office was interpreted as the community leaders catering for the community as the unit caters for the deployable objects. Specific: The interface host all the individual projections of the members of the community.	This prototype was built to test the viability of design and material choice to serve a specific purpose in the design intervention. The combined weaves provided enough structure and support to host deployable objects.
Prototype 15: Built by the author as a design response to the sit-things.	Offcuts of swe-swe material given to the author by collaborator 2 Yarn used to bind the weave together	The single author design sit-thing is intended to represent the unique identity and craftsmanship that developed in the settlement. The appropriated indigenous techniques of basket weaving and value in material is combined to create both structure and comfort.	Generic: The prototype was interpreted as a homage to traditional cloths used by a collaborator to make clothing. Specific: The identity of the material was greatly appreciated as it speaks to traditional African prints and the sentimental associations thereof.	This prototype was built to test the viability of design and material choice to serve a specific purpose in the design intervention. The sit-thing will be used as informant to the final iteration of the single-authored sit-thing.

Prototype Analysis

TRANSLATING INDIVIDUAL PROTOTYPES INTO A SPATIAL INTERVENTION

The prototypes all demonstrate the rich process of meaning-making through participation and narrate the extensive levels of interpretation and idiosyncratic associations linked with objects. These initial prototypes serve as informants for certain design elements and set the scene for the iterative design process and final design intervention.

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Proposed Intervention
COMMUNITY OFFICE PROGRAMMING

MEDIATION
THROUGH A COMMUNAL FIRE AND AN ENABLED
CONVERSATION (SIT-THINGS)

KNOWLEDGE TRANSFERAL
THROUGH A DESIGNATED SPACE OF EXPRESSION
AND AN ENABLED CONVERSATION (SIT-THINGS)

EXPRESSION
THROUGH A TRANSPARENT COMMUNICATION
INTERFACE AND AN ENABLES CONVERSATION (SIT-
THINGS)

APPROPRIATIONS

COMMUNITY SCHOOL

EXISTING STRUCTURES

COMMUNITY OFFICE
NEW INTERVENTION FITTED ONTO
EXISTING CONCRETE SLAB
CLIENT: SACaresForLife NGO

OPEN FIELD

SITE PLAN
SCALE 1: 100

ORIGINAL COMMUNITY OFFICE

DEMOLISHED COMMUNITY OFFICE

PROPOSED COMMUNITY OFFICE

COMMUNITY OFFICE
NEW RAISED FLOOR @340mm AFFL

INNER SLEEVE
NEW FLOOR FINISH @170mm AFFL
36m² CUSTOM COMPOSITE
FLOOR TILES

OUTER SLEEVE
NEW FLOOR FINISH @170mm AFFL
43m² CUSTOM COMPOSITE FLOOR TILES

COMMUNITY OFFICE

NEW RAISED FLOOR @340mm AFFL

112m² CUSTOM COMPOSITE FLOOR TILES

INNER SLEEVE

NEW FLOOR FINISH @170mm AFFL

36m² CUSTOM CONPOSITE FLOOR TILES

OUTER SLEEVE

NEW FLOOR FINISH @170mm AFFL

43m² CUSTOM COMPOSITE FLOOR TILES

GENERAL LAYOUT
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

The Plastic View Community Office, a familiar safe space, was demolished during the year (MPIP, 2021).

The initial response was a design that reflected the layered nature of the settlement as a celebration of ephemerality.

The design salutes the heritage of the previous community in geometry and program.

Design response to fire-safety includes a deployable fire-kit equipped with waterless firefighting methods.

FIRE SAFETY AND WATER RETICICATION KEY

→	DIRECTION OF WATER RUN-OFF
◼	DEPLOYABLE FIRE KIT EQUIPPED WITH: 2X 4.5KG FIRE EXTINGUISHER 1X FIRE BLANKET 1X BUCKET FOR SAND EXTINGUISHING
→	SHORTEST EMERGENCY EVACUATION ROUTE

CONBUSTABLE MATERIAL TREATMENTS
ALL TIMBER GUMPOLES TO RECEIVE FIRE RETARDANT TREATMENT AS PER CLIENT SPECIFICATION.

ALL RECYCLED PLASTIC AND FOUND OBJECTS TO LEAVE AS IS - FIRE RETARDANT TREATMENT AFFECTS MATERIAL INTEGRITY AND WILL INFLUENCE THE CRAFTMANSHIP OF THE FINAL DESIGNS. MAJORITY OF THE COMBUSTABLE OBJECTS ARE DEPLOYABLE. THE FIRE KIT ALSO PROVIDES WATERLESS FIRE FIGHTING METHODS TO COMPENSATE FOR THE COMBUSTABLE MATERIALS.

COMMUNITY OFFICE

WATER RETICULATION, EMERGENCY EVACUATION AND FIRE SAFETY PLAN

BASED ON SANS 10400 PART F & P
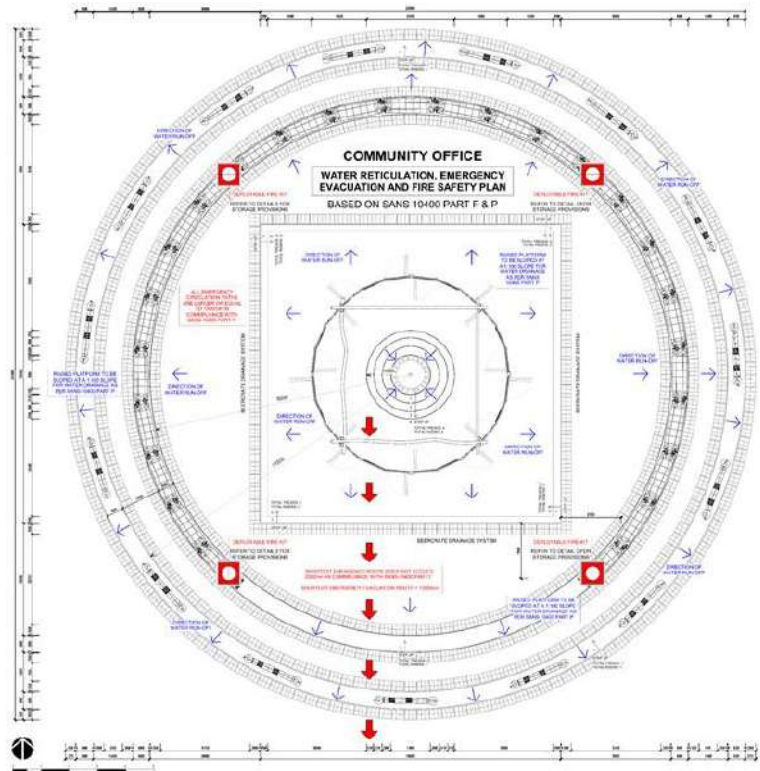
SERVICES PLAN: WATER RETICULATION AND FIRE SAFETY
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

309
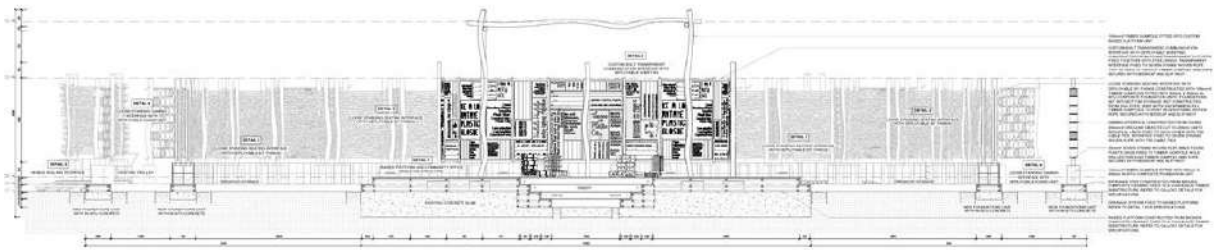
SECTION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

SECTION 1 ARTISTIC INTERPRETATION

Individual Components

STATIC SPATIAL COMPOSITION

COMMUNITY OFFICE SKELETON STRUCTURE

TRANSPARENT COMMUNICATION INTERFACE

STORAGE INTERFACE WITH DEPLOYABLE SIT-THINGS

GAMING INTERFACE

A MOVEMENT MECHANISM
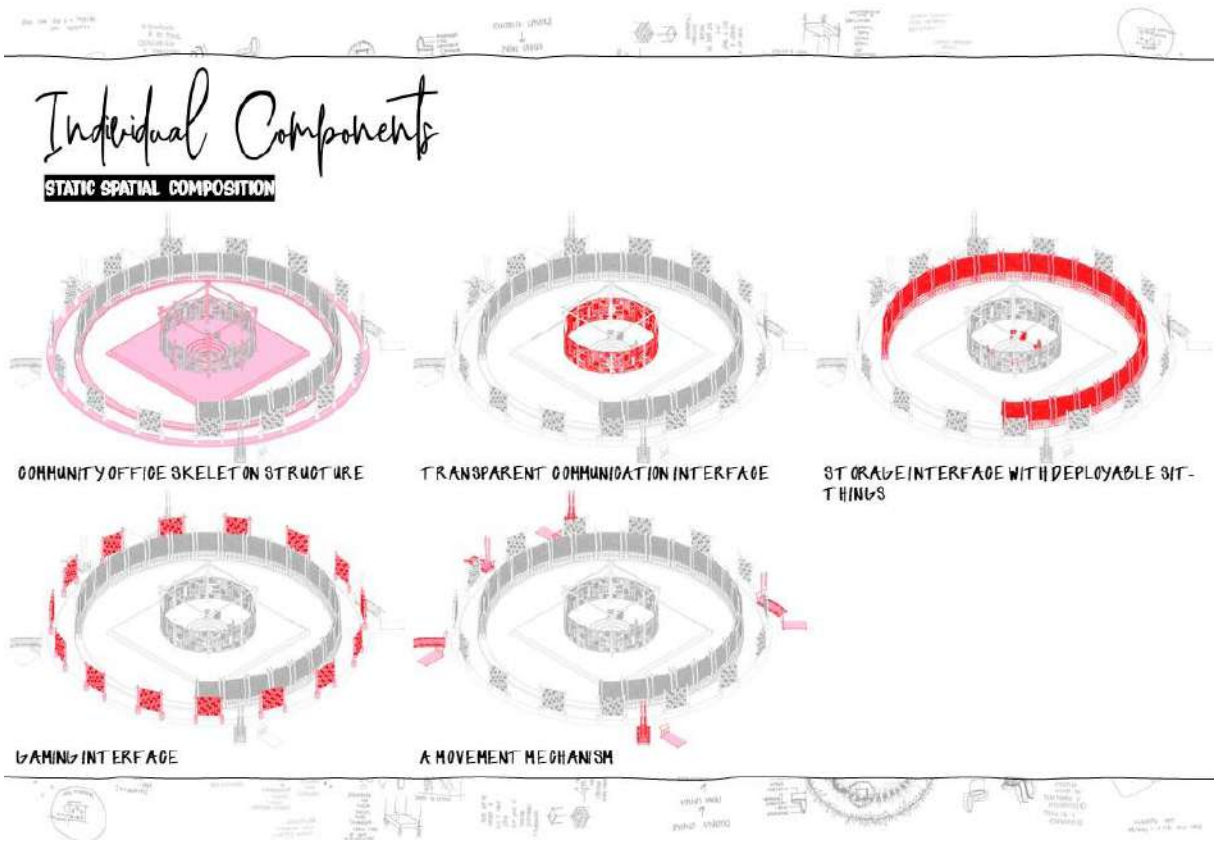
Detail 1

COMMUNITY OFFICE SKELETON STRUCTURE

A HOMAGE TO HISTORY:
IMMEDIATE CONNOTATION TO
PREVIOUS COMMUNITY OFFICE

19 1m² CERAMIC COMPOSITE TILE
MADE ON SITE

INNER SEATING CAN HOST MAX 12
SIT-THINGS AND 1 x DEPLOYABLE
FIRE PIT.
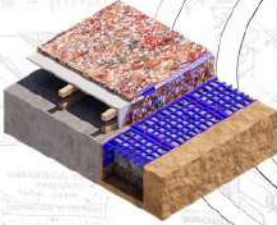
RAISED PLATFORM TO INCLUDE
DRAINAGE DETAIL TO ALLOW
FOR SUFFICIENT WATER
RETICULATION.
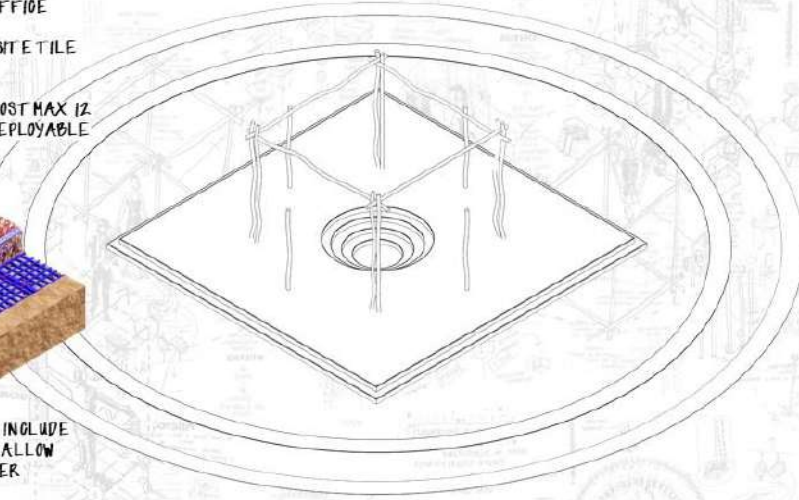
Detail 2

FOLDING TRANSPARENT COMMUNICATION INTERFACE

INTERCHANGEABLE
TRANSPARENT INTERFACE
THAT ALLOWS USERS TO WRITE
FROM BOTH SIDES OF THE
INTERFACE: INTERIOR AND
EXTERIOR VIEWS CAN BE
EXPRESSED AND OFFERS
TRANSPARENT COMMUNICATION
AND HONEST USE.

INTERFACE CAN BE FOLDED TO
ALLOW OR RESTRICT CIRCULATION
AS NEEDED. 8 x PANELS NEEDED
TO ENCLOSE THE SPACE

311
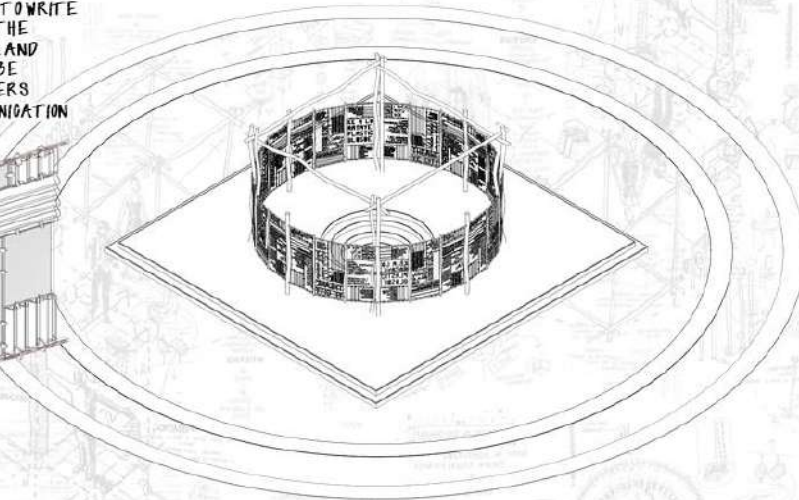
Detail 3

STORAGE INTERFACE WITH DEPLOYABLE SIT-THINGS

A STORAGE UNIT THAT CAN
HOST UP TO 7 DEPLOYABLE SIT-
THINGS AS WELL AS FIREWOOD
AND SIT-THING STRUCTURES OR
A DEPLOYABLE FIRE-KIT.
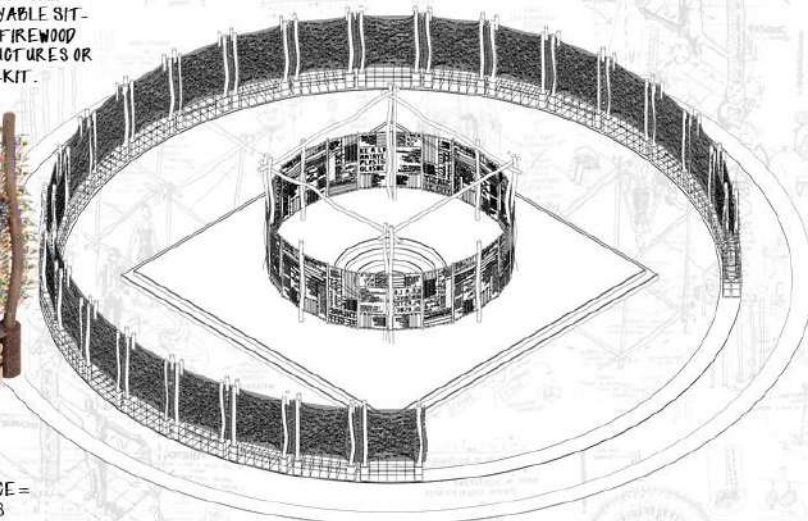
1 STORAGE INTERFACE =
    7 x SIT-THINGS
    1KG FIREWOOD
    7 x SIT-THING STRUCTURES
    OR
    1 x DEPLOYABLE FIRE KIT

Detail 3-1 — 3-5

DEPLOYABLE SIT-THINGS

THE STORAGE INTERFACE
HOSTS INDIVIDUAL SIT-THINGS
THAT REPRESENTS THE
CREATORS THEREOF IN THE
SPACE. THERE ARE 'FILLER' SIT-
THINGS THAT FILL THE NEED
FOR ANYONE WHO DOES NOT HAVE
A SIT-THING YET.

DETAIL 3-1

DETAIL 3-2

DETAIL 3-3

DETAIL 3-4

DETAIL 3-5

312
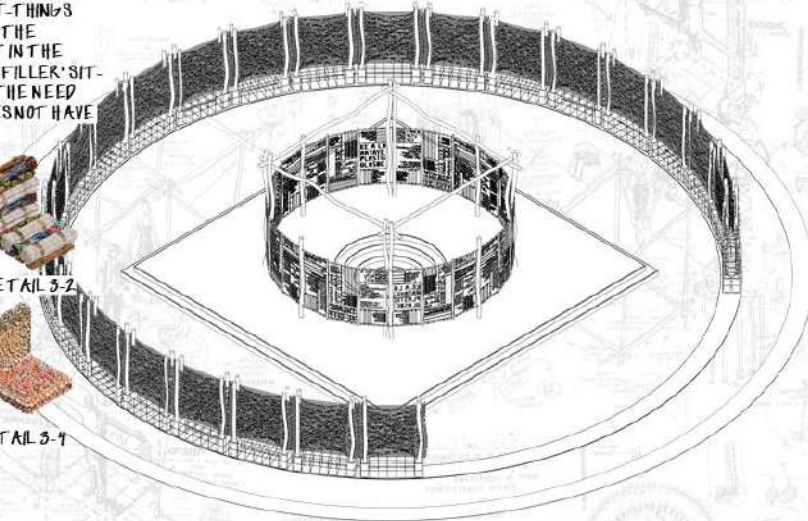
Detail 3a & 3b

DEPLOYABLE SIT-THINGS STRUCTURAL ELEMENTS

THE SIT-THING STRUCTURES
ALLOW INTERCHANGEABILITY FOR
THE SIT-THINGS AND CAN BE
STORED IN THE SEATING
STORAGE INTERFACE.

DETAIL 3a

DETAIL 3b

THE AMOUNT OF SIT-THING
STRUCTURES WILL CORRELATE
WITH THE AMOUNT OF SIT-THINGS
THAT EACH SIT-THING HAS A
STRUCTURE IF NEEDED.
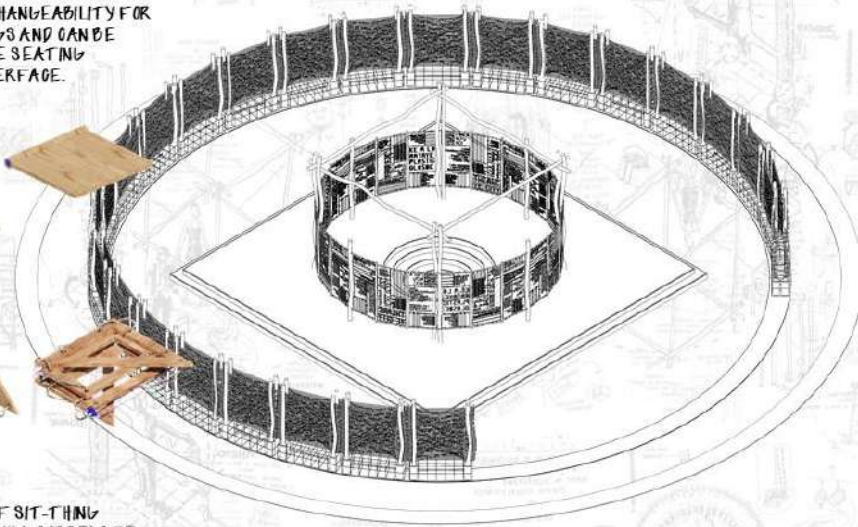
Detail 4

GAMING INTERFACE

A GAMING INTERFACE THAT
REFLECTS A 8 x 8 CHEQUERED
GAME BOARD.
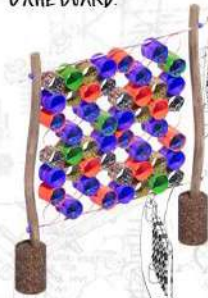
THE INTERFACE ALSO HOST A
DEPLOYABLE INFILL ELEMENT
THAT ALLOWS CHILDREN AND
SHORTER USERS TO USE A 4 x 4
BOARD AND TRANSFORM IT INTO A
8 x 8 BOARD.

INFILL DETAIL
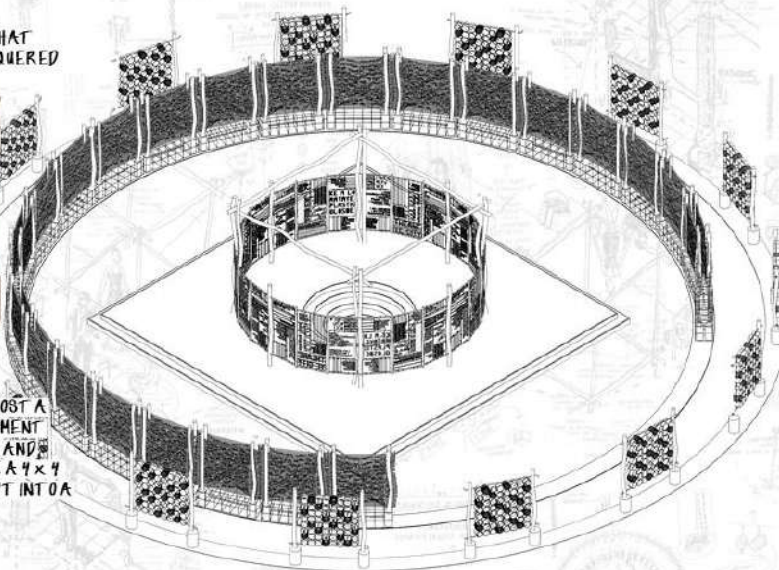
Detail 5

A MOVEMENT MECHANISM

THIS MECHANISM LINKS WITH EXISTING TROLLEYS FOUND THROUGHOUT THE SETTLEMENT TO AID IN THE RECONFIGURING AND ADAPTING OF THE SPATIAL COMPOSITION.
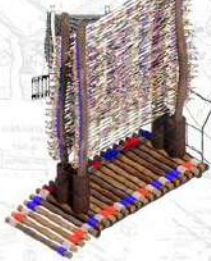
THERE IS NOT A SPECIFIED AMOUNT OF MECHANISMS AS IT CAN BE USED THROUGHOUT THE ENTIRE SETTLEMENT.
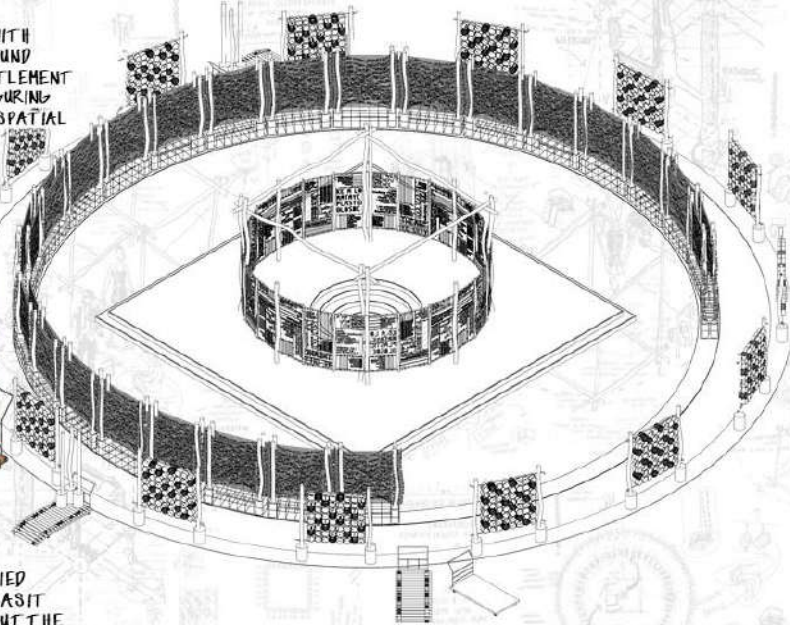
Scenarios of Appropriation

ACHIEVING SPATIAL AGENCY THROUGH ADAPTABILITY

PROPOSED STATIC COMPOSITION (ALSO USED FOR ALL THE TECHNICAL DOCUMENTATION) HAS LIMITED CIRCULATION OPTIONS AND ENCLOSES THE INNER SLEEVE TO ALLOW FOR A SEMI-PRIVATE GATHERING.

THE OPENING FACES THE OPEN FIELD ADJACENT TO THE COMMUNITY OFFICE.
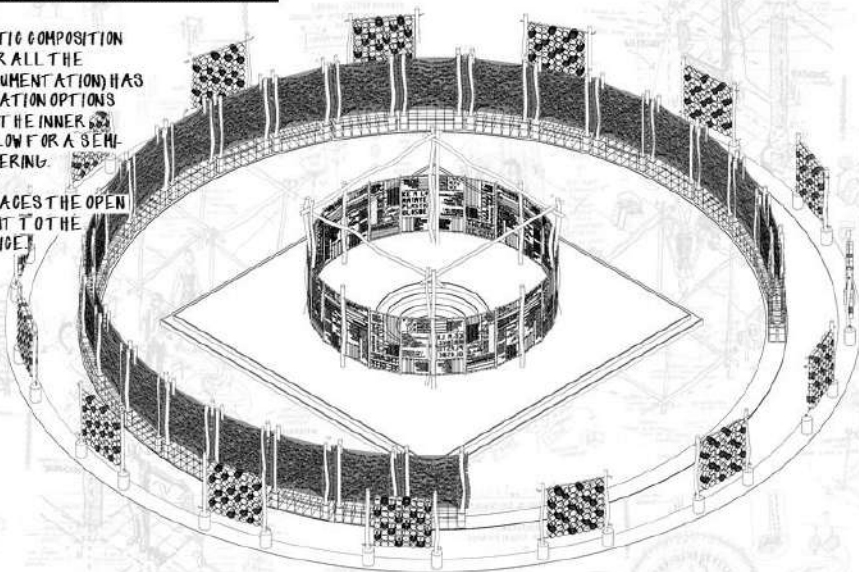
SCENARIO 2

THE SPACE BECOMES MORE
ACCESSIBLE AND OPEN ALLOWING
FOR MORE PUBLIC ENGAGEMENT
WHILST STILL MAINTAINING AN
INTIMATE INTERIOR.
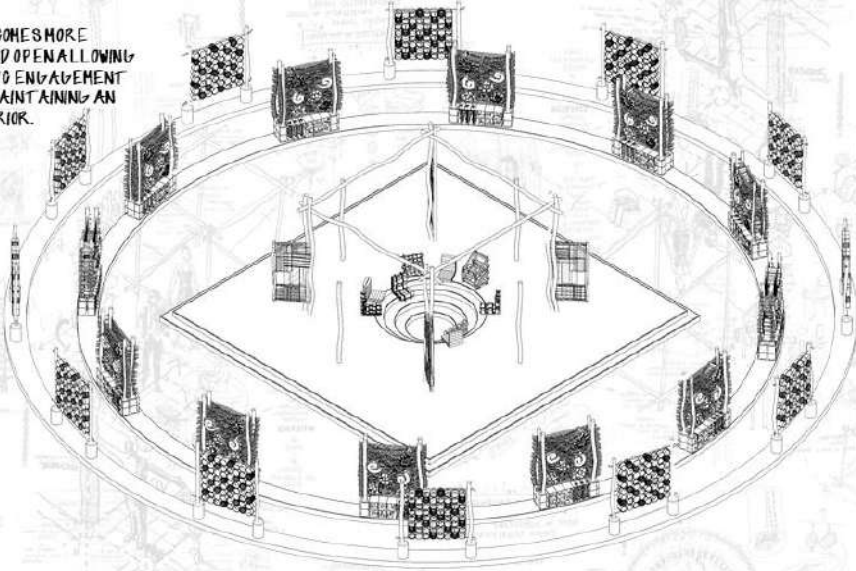
SCENARIO 3

THE SPACE IS COMPLETELY OPEN
TO THE FIELD SIDE FOR LARGE
COMMUNITY GATHERING OR
DISTRIBUTIONS. THE INTERFACE
STILL CREATE A SINCE OF A
DESIGNATED SPACE.
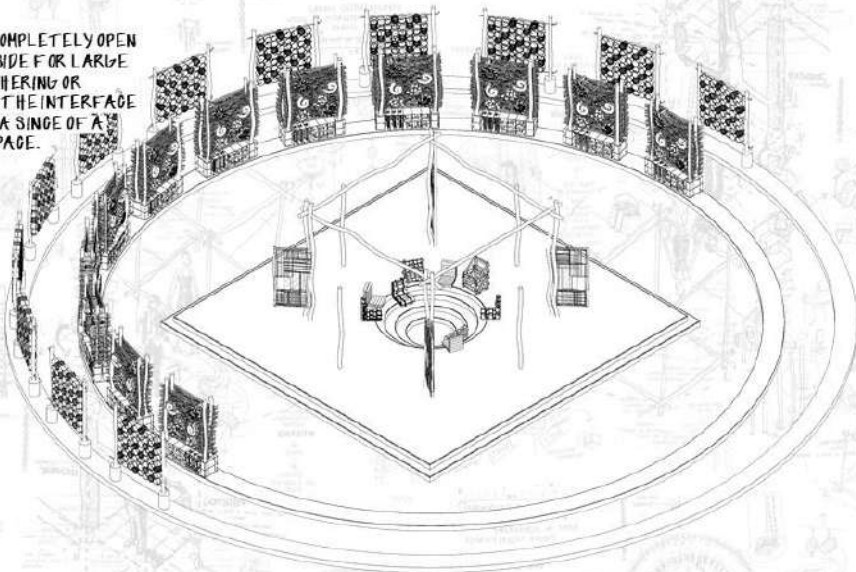
SCENARIO 4

THE SPACE IS ENCLOSED AGAIN
TO ALLOW FOR A MORE INTIMATE
MEETING OR MEDIATION SESSION.
THE INTERFACES ARE COMPOSED
SO THAT ONE MUST WALK AROUND
(PERHAPS A MOMENT OF
CONTEMPLATION) BEFORE
ENTERING THE INNER MEDIATION
SPACE.
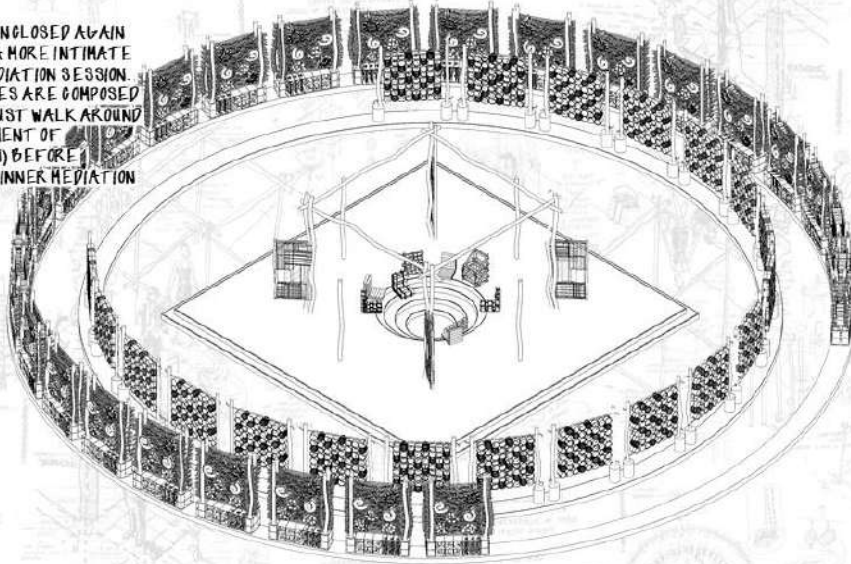
SCENARIO 5

THE SPACE BECOMES DYNAMIC AS
IT IS BEING TAKEN APART WITH
THE TROLLEY MECHANISMS AND
THE INTERFACES RELOCATED
ACROSS THE SETTLEMENT IN
VARIOUS OTHER SCENARIOS OF
APPROPRIATION.

316
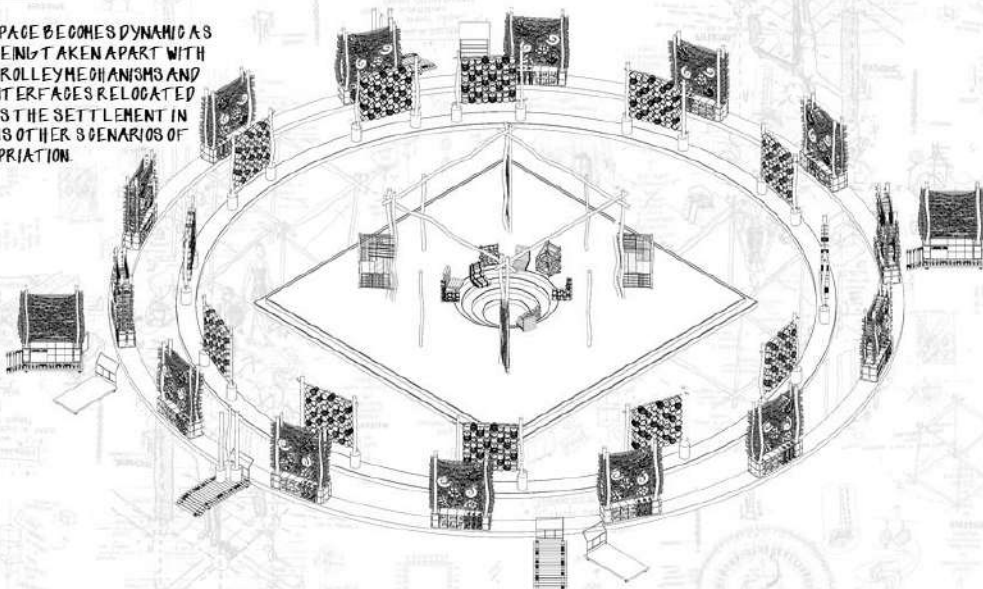
SCENARIO 6

ALL THE MOVABLE INTERFACES
AND DEPLOYABLE OBJECTS ARE
REMOVED AND ONLY THE IN-
PLACE COMMUNITY OFFICE
SKELETON STRUCTURE REMAINS.

Detail 1
COMMUNITY OFFICE SKELETON STRUCTURE

OUTER SLEEVE
NEW FLOOR FINISH @140mm AFFL
43m² CUSTOM COMPOSITE FLOOR TILES

COMMUNITY OFFICE
NEW RAISED FLOOR @340mm AFFL
112m² CUSTOM COMPOSITE FLOOR TILES

INNER SLEEVE
NEW FLOOR FINISH @140mm AFFL
36m² CUSTOM COMPOSITE FLOOR TILES
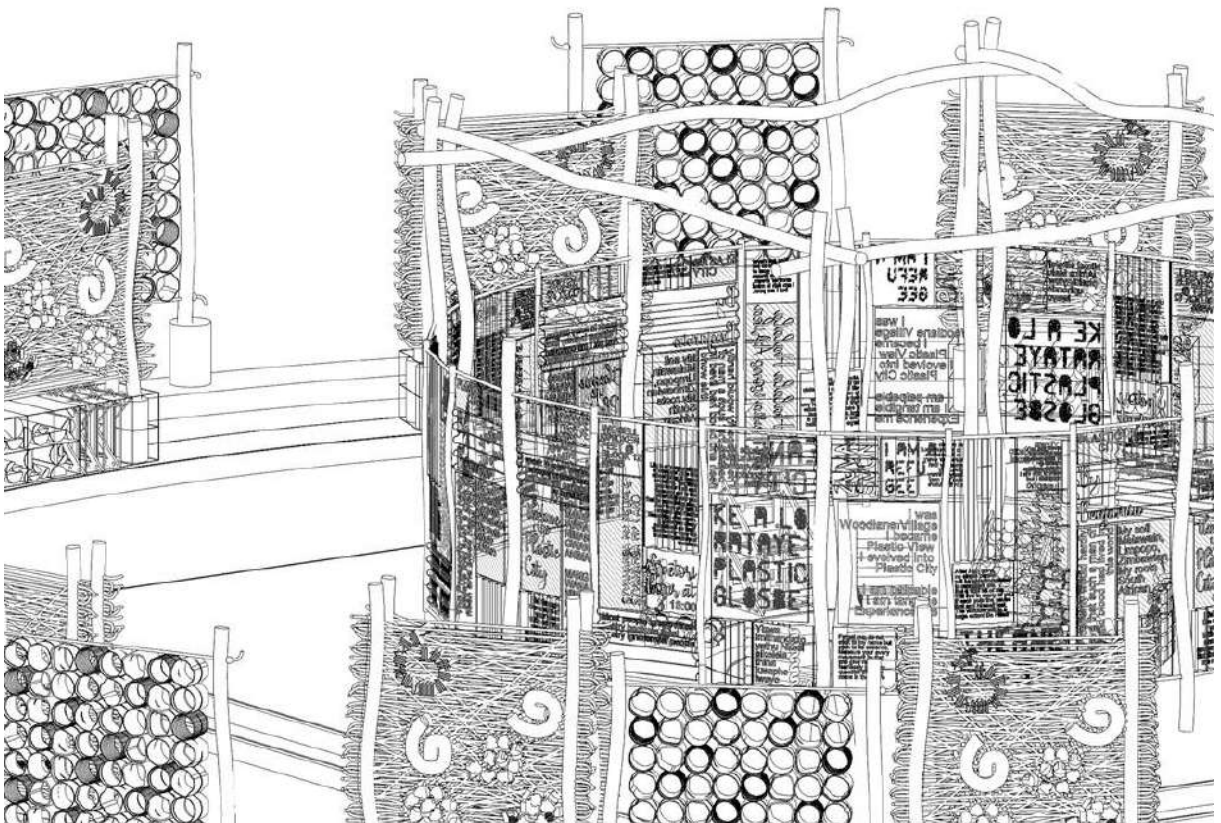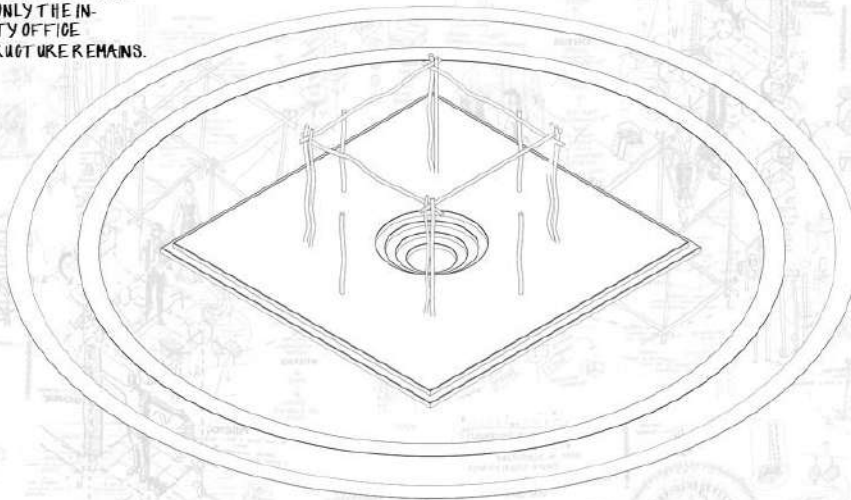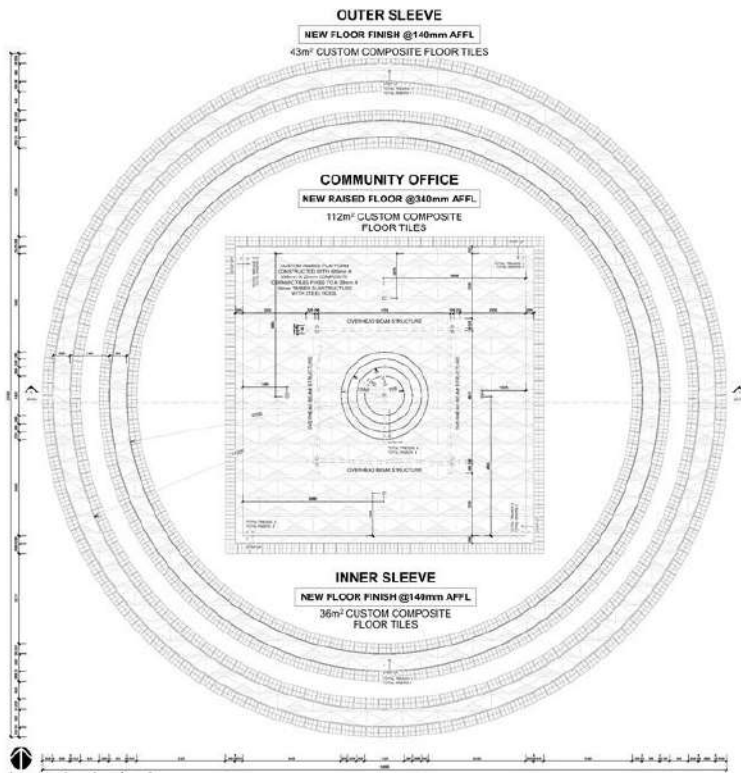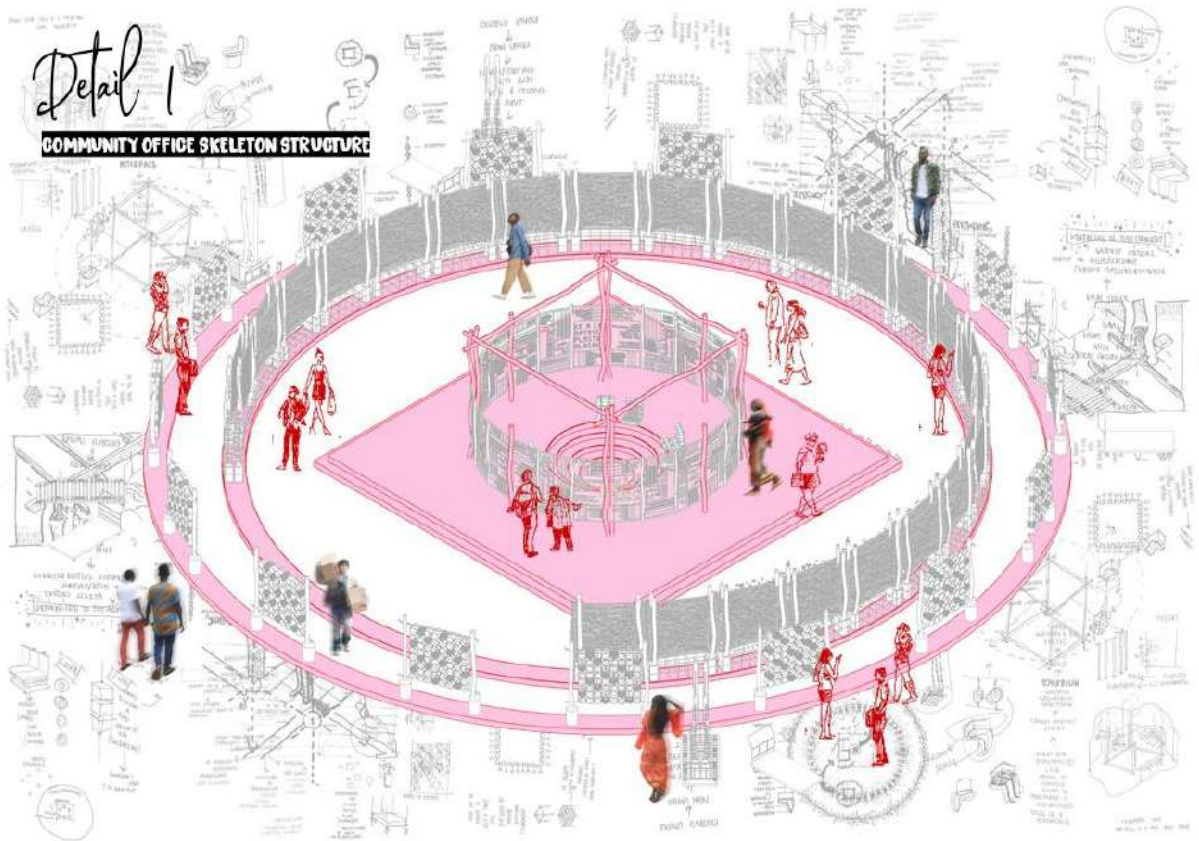
DETAIL 1 PLAN
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

WOODLANE VILLAGE COMMUNITY OFFICE
Visitors need to report to the office

Detail 1 represents a skeleton figure of the old Community Office to continue the narrative of the meaning of the space.

A prototype built by the Moreleta Park Integration Project to develop a method of constructing with uneven elements (MPIP, 2021).

Testing the ease of disassembly to comply with legislation for structures on site (MPIP, 2021).

CAST IN-SITU?

→ PLASTIC MELT
   AS SEALER. (SEALANT)

→ CLAY COMPOSITE
   BAKED IN SUN

→ EXISTING CONCRETE SLAB

OPTION 1.
SCALE 1:20

BUILDING BLOCKS: SITE-MADE BRICKS

→ GLAZED USING GLASS
   BOTTLE MELTS.
→ CLAY COMPOSITE
   BAKED IN SUN
→ MAGNETS?
→ EXISTING CONCRETE SLAB

OPTION 2.
SCALE 1:20

OTHER OPTIONS EXPLORED

DETAIL 1 SECTION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

DIRECTION OF
WATER RUN-OFF →

C4

CUSTOM TIMBER TRIM GROUTED INTO PLACE. TIMBER
TO RECEIVE REFLECTIVE MOSAIC FINISH GROUTED TO
TIMBER TRIM IN SECURE MANNER.

REFLECTIVE MOSAIC TO CONSIST OF BROKEN PIECES
OF MIRROR, CUT CANS AND PIECES OF GLASS. THE
GROUT WILL SERVE AS FIXING METHOD AS WELL AS
CONCEALER FOR ANY SHARP EDGES.

CUSTOM RAISED PLATFORM CONSTRUCTED WITH
BROKEN COMPOSITE CERAMIC TILES GROUTED TO
MARINE PLY BOARD.

ALL LANDINGS AND TREADS TO BE SLANTED AT A 1°
ANGLE TO ALLOW WATER RETICULATION AND
ADEQUATE DRAINAGE.

16mm MARINE PLY BOARD FIXED TO 38mm X 38mm SA
PINE TIMBER CONCEALED SUBSTRUCTURE. MARINE PLY
BOARD TO HOST THE MOSAIC TILE FINISH.

COPPER PLATE FIXED TO MARINE PLY BOARD AND BEER
CRATE AS THRESHOLD BETWEEN DRAINAGE AND RISER
FOR THE RAISED PLATFORM.

350mm X 438mm X 270mm STANDARD PLASTIC
BEERCRATE FILLED WITH A LAYER OF ROCKS AND
GRAVEL TO SERVE AS A FILTER FOR WATER DRAINING
INTO SOIL. BEER CRATES TO BE ZIPTIED TOGETHER
AND RECESSED FLUSH WITH THE EXISTING GROUND
LEVEL.

EXISTING CONCRETE SLAB

DETAIL 1 CALLOUT 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

CUSTOM TIMBER TRIM GROUTED INTO PLACE. TIMBER TO RECEIVE REFLECTIVE MOSAIC FINISH GROUTED TO TIMBER TRIM IN SECURE MANNER.

REFLECTIVE MOSAIC TO CONSIST OF BROKEN PIECES OF MIRROR, CUT CANS AND PIECES OF GLASS. THE GROUT WILL SERVE AS FIXING METHOD AS WELL AS CONCEALER FOR ANY SHARP EDGES.

CUSTOM RAISED PLATFORM CONSTRUCTED WITH BROKEN COMPOSITE CERAMIC TILES GROUTED TO MARINE PLY BOARD.

ALL LANDINGS AND TREADS TO BE SLANTED AT A 1⁰ ANGLE TO ALLOW WATER RETICULATION AND ADEQUATE DRAINAGE.

16mm MARINE PLY BOARD FIXED TO 38mm X 38mm SA PINE TIMBER CONCEALED SUBSTRUCTURE. MARINE PLY BOARD TO HOST THE MOSAIC TILE FINISH.

COPPER PLATE FIXED TO MARINE PLY BOARD AND BEER CRATE AS THRESHOLD BETWEEN DRAINAGE AND RISER FOR THE RAISED PLATFORM.

350mm X 438mm X 270mm STANDARD PLASTIC BEERCRATE CUT IN HALF AND FILLED WITH A LAYER OF ROCKS AND GRAVEL TO SERVE AS A FILTER FOR WATER DRAINING INTO SOIL. BEER CRATES TO BE ZIPTIED TOGETHER AND RECESSED FLUSH WITH THE EXISTING GROUND LEVEL.

DIRECTION OF WATER RUN-OFF

DETAIL 1 CALLOUT 2
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

DIRECTION OF WATER RUN-OFF

NEW CONCRETE SLAB CAST IN-SITU

DETAIL 1 CALLOUT 3
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

DETAIL 1 CALLOUT 4
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

DETAIL 1 CALLOUT 4 AXONOMETRIC
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

CUSTOM TIMBER TRIM GROUTED INTO PLACE. TIMBER TO RECEIVE REFLECTIVE MOSAIC FINISH GROUTED TO TIMBER TRIM IN SECURE MANNER.

REFLECTIVE MOSAIC TO CONSIST OF BROKEN PIECES OF MIRROR, CUT CANS AND PIECES OF GLASS. THE GROUT WILL SERVE AS FIXING METHOD AS WELL AS CONCEALER FOR ANY SHARP EDGES.

CUSTOM RAISED PLATFORM CONSTRUCTED WITH BROKEN COMPOSITE CERAMIC TILES GROUTED TO MARINE PLY BOARD.

ALL LANDINGS AND TREADS TO BE SLANTED AT A 1° ANGLE TO ALLOW WATER RETICULATION AND ADEQUATE DRAINAGE.

COPPER PLATE FIXED TO MARINE PLY BOARD AND BEER CRATE AS THRESHOLD BETWEEN DRAINAGE AND RISER FOR THE RAISED PLATFORM.

16mm MARINE PLY BOARD FIXED TO 38mm X 38mm SA PINE TIMBER CONCEALED SUBSTRUCTURE. MARINE PLY BOARD TO HOST THE MOSAIC TILE FINISH.

350mm X 438mm X 270mm STANDARD PLASTIC BEERCRATE FILLED WITH A LAYER OF ROCKS AND GRAVEL TO SERVE AS A FILTER FOR WATER DRAINING INTO SOIL. BEER CRATES TO BE ZIPTIED TOGETHER AND RECESSED FLUSH WITH THE EXISTING GROUND LEVEL.

DETAIL 1 CALLOUT 3 AXONOMETRIC
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

A PREVIOUS ITERATION EXPLORED THE POSSIBILITY OF AN ALTERNATING FLOOR MATERIALS TO SERVE AS INDICATORS FOR THE LOOSE-STANDING INTERCHANGEABLE INTERFACE UNITS.
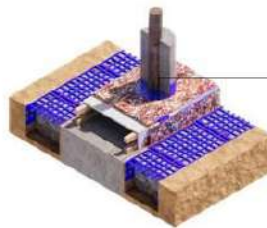
THIS WAS OVERRULED AS THE SETTLEMENT SHOWCASED SELF-AGENCY AND IT WOULD BE TOO DICTATING. THE FLOOR FINISH WAS LEFT OPEN FOR INTERPRETATION TO ALLOW FOR AGENCY AND AUTONOMY.

OTHER OPTIONS EXPLORED

Potential Scenario of Appropriation
DRAINAGE SYSTEM THROUGHOUT THE SETTLEMENT

There are no municipal services throughout the settlement, including water- and drainage provisions. This leaves all the water and excrement to drain according to natural slopes and mixes with all the waste already on site.

The drainage detail proposed for the community office can serve as a base for possible drainage throughout the site that can be built with on-site materials.

After sufficient iteration (and appropriation) the detail can become part of a larger system throughout the whole settlement that tangibly links the proposed community office to the streets which it aims to serve.

DETAIL 1 CALLOUT 5
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

100mmø TIMBER GUMPOLE FITTED INTO CUSTOM RAISED PLATFORM UNIT. GUMPOLE SUPPORTED BY 500mm X 500mm X 200mm IN-SITU COMPOSITE FOUNDATION UNIT AS PER SANS REGULATIONS.

GUMPOLES SPACES 100mm APART IN FOUNDATION UNIT WITH 100mm X 100mm X 100mm TIMBER SPACER FIXED INBETWEEN GUMPOLES TO ALLOW CROSSBEAMS TO BE FITTED IN BETWEEN THE TIMBER STRUCTURE.

TIMBER GUMPOLE TO BE FITTED WITH HOOK FOR INTERCHANGEABLE INTERFACE FIXING MECHANISM.

100mmø TIMBER CROSSBEAM FIXED TO TIMBER STRUCTURE WITH M20 BOLTS IN SECURE MANNER AS PER SANS REGULATIONS.

(MPIP, 2021).

DETAIL 1 CALLOUT 6
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

100mmø TIMBER GUMPOLE FITTED INTO CUSTOM RAISED PLATFORM UNIT. GUMPOLE SUPPORTED BY 500mm X 500mm X 200mm IN-SITU COMPOSITE FOUNDATION UNIT AS PER SANS REGULATIONS.

TIMBER TO RECEIVE 25mm DRILL HOLE @2335mm ABOVE FINISHED FLOOR LEVEL TO HOST ROPE MECHANISM.

20mmø SEVEN STRAND WOVEN ROPE MADE FROM RECYLCED PLASTIC BAGS FOUND ON SITE, SECURED TO TIMBER GUMPOLE WITH BOTTLE-CAP DETAIL.

Detail 2
FOLDING TRANSPARENT COMMUNICATION INTERFACE

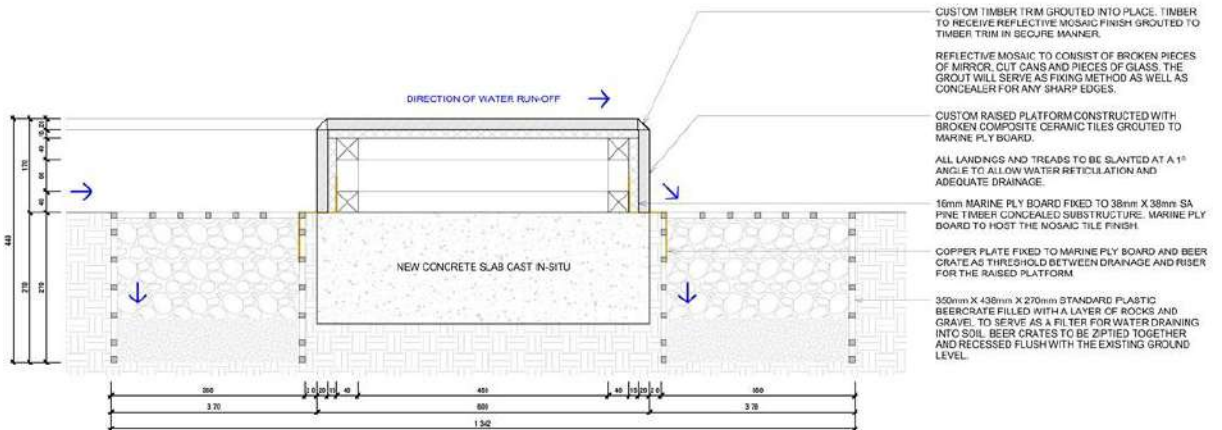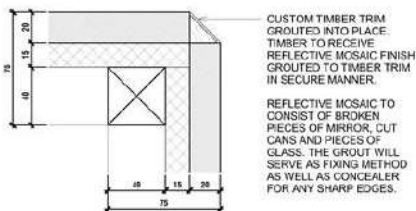COMMUNICATION INTERFACE CONSTRUCTED FROM FOUND TRANSPARENT MATERIALS

ELEVATION 1
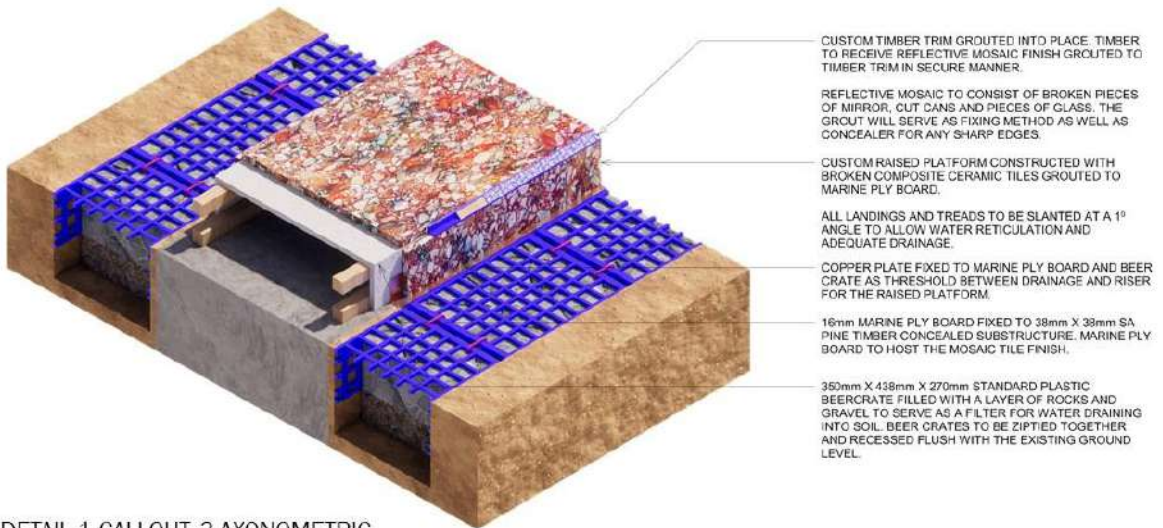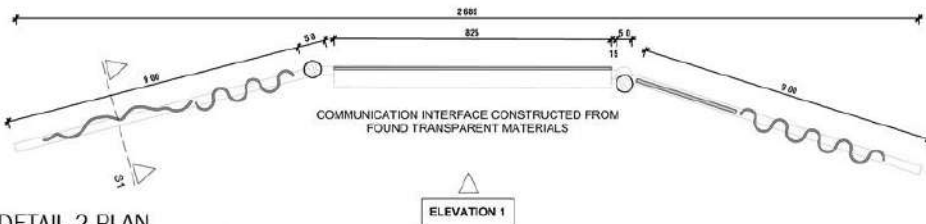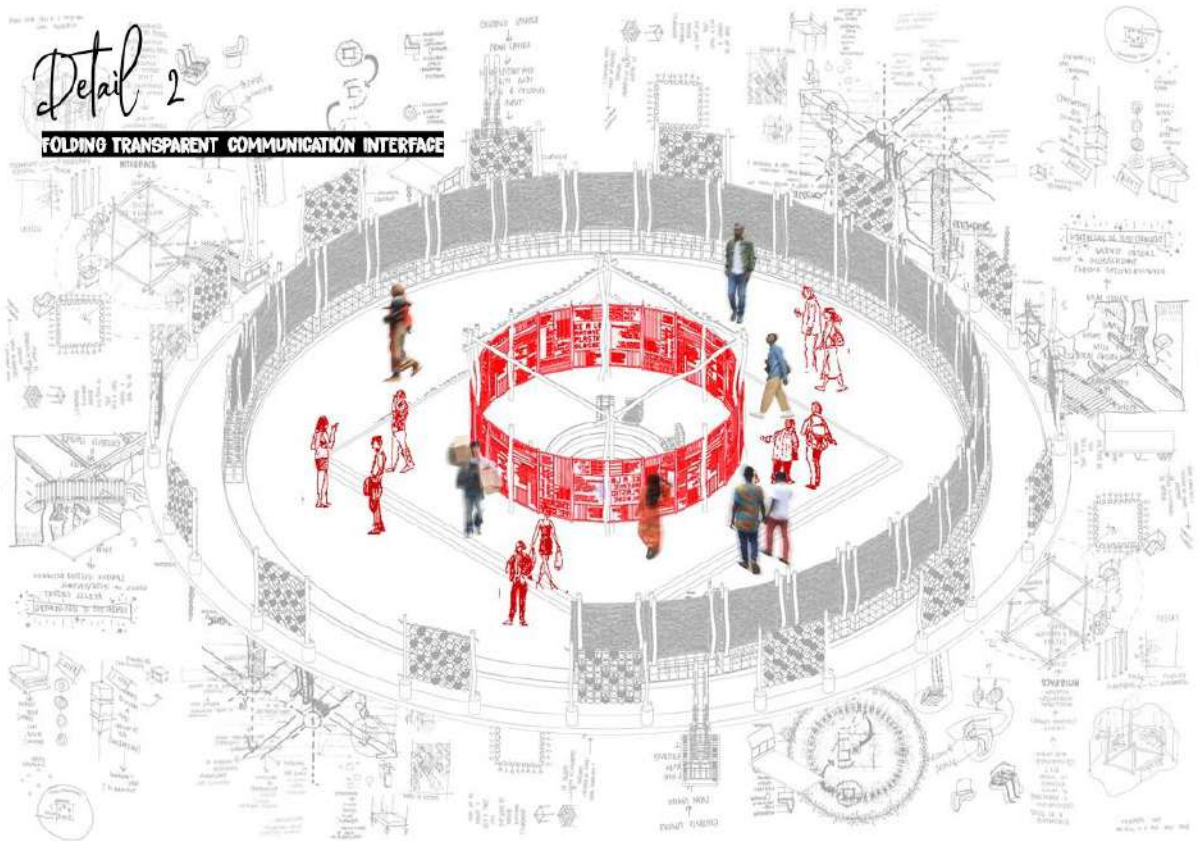
DETAIL 2 PLAN
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS
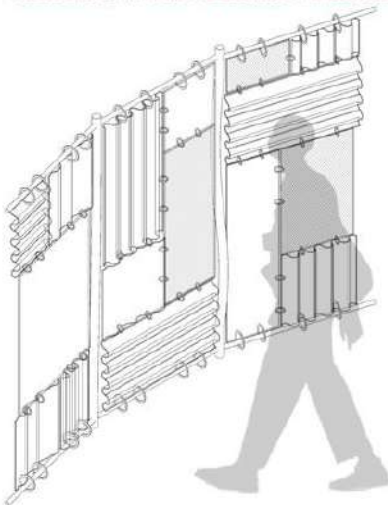
DETAIL 2 AXONOMETRIC
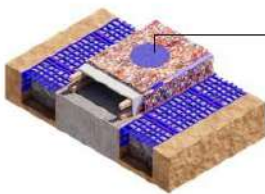PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

PROTOTYPES
TESTING WRITABILITY AND STRUCTURE OF MATERIALS

INTERFACE IN USE

ITERATIONS

50mmø TIMBER GUMBOLE SUSPENDED WITH 25mmø SEVEN STRAND WOVEN PLASTIC ROPE

FOUND PANEL 2 OF 4: TRANSPARENT PLASTIC BAG STRETCHED TO FORM A SHEET FIXED TO PANELS WITH STEEL RING DETAIL. PLASTIC BAG TO RECEIVE EMBROIDED DETAIL TO AVOID METAL RING TEARING THE PLASTIC SHEET.

FOUND PANEL 1 OF 4: CORRUGATED PLASTIC SHEETING CUT TO 900mm X 450mm PANEL FIXED TO PANELS WITH STEEL RING DETAIL.

FOUND PANEL 3 OF 4: TEXTURED PERSPEX SHEETING CUT TO 900mm X 450mm PANEL FIXED TO PANELS WITH STEEL RING DETAIL.

FOUND PANEL 4 OF 4: CLEAR PERSPEX SHEETING CUT TO 900mm X 450mm PANEL FIXED TO PANELS WITH STEEL RING DETAIL.

50mmø STEEL RING USED AS FIXING MECHANISM FOR INTERCHANGEABLE FOUND TRANSPARENT PANELS. PANELS TO BE CAREFULLY CUT TO ACCOMODATE FIXING MECHANISM.

20mmø SEVEN STRAND WOVEN PLASTIC ROPE MADE FROM RECYCLED PLASTIC BAGS FOUND ON SITE. ROPE TIED TO INTERCHANGEABLE TRANSPARENT PANELS WITH A STEEL RING DETAIL. ROPE TO BE FIXED TO TIMBER GUMPOLES IN SECURE MANNER AND SECURED WITH A SLIP KNOT.

DETAIL 2 ELEVATION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

50mmø STEEL RING USED AS FIXING MECHANISM FOR INTERCHANGEABLE FOUND TRANSPARENT PANELS. PANELS TO BE CAREFULLY CUT TO ACCOMODATE FIXING MECHANISM.

50mmø TIMBER GUMBOLE SUSPENDED WITH 25mmø SEVEN STRAND WOVEN PLASTIC ROPE

ELEVATION 1

FOUND PANEL 1 OF 4: CORRUGATED PLASTIC SHEETING CUT TO 900mm X 450mm PANEL FIXED TO PANELS WITH STEEL RING DETAIL.

30mmø STEEL RING USED AS FIXING MECHANISM FOR INTERCHANGEABLE FOUND TRANSPARENT PANELS. PANELS TO BE CAREFULLY CUT TO ACCOMODATE FIXING MECHANISM.

FOUND PANEL 3 OF 4: TEXTURED PERSPEX SHEETING CUT TO 900mm X 450mm PANEL FIXED TO PANELS WITH STEEL RING DETAIL.

FOUND PANEL 4 OF 4: CLEAR PERSPEX SHEETING CUT TO 900mm X 450mm PANEL FIXED TO PANELS WITH STEEL RING DETAIL.

20mmø SEVEN STRAND WOVEN PLASTIC ROPE MADE FROM RECYCLED PLASTIC BAGS FOUND ON SITE. ROPE TIED TO INTERCHANGEABLE TRANSPARENT PANELS WITH A STEEL RING DETAIL. ROPE TO BE FIXED TO TIMBER GUMPOLES IN SECURE MANNER AND SECURED WITH A SLIP KNOT.

TRANSPARENT COMMUNICATION INTERFACE TO JOIN TO 100mmø TIMBER GUMPOLE AND SECURED WITH BEERCAP DETAIL AND SLIP KNOT WITH 20mmø SEVEN STRAND WOVEN ROPE MADE FROM RECYCLED PLASTIC FOUND ON SITE.

ALL TIMBER GUMPOLES TO RECEIVE FIRE RETARDANT TREATMENT.
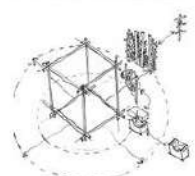
REFER TO DETAIL 1 FOR DETAILS.

DETAIL 2 JOINT DETAIL

TRANSPARENT COMMUNICATION INTERFACE JOINT TO CONSIST OF FOUND KEYRING FIXED TO SEVEN STRAND WOVEN ROPE. PLASTIC SHEETS TO RECEIVE EMBROIDERY DETAIL TO STRENGTHEN THE SHEET AND PREVENT KEYCHAIN FROM RIPPING THE PLASTIC.

ALL TRANSPARENT PANELS TO RECEIVE BLUE PAINTED EDGES TO AID VISIBILITY.

DETAIL 2 SECTION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

DETAIL 2 KEY RING JOINT DETAIL

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DETAIL 2 IN USE: CLOSED | DETAIL 2 IN USE: OPEN

Detail 3
STORAGE INTERFACE WITH DEPLOYABLE SIT-THINGS

DETAIL 3 PLAN
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

INTERFACE IN USE

RESIDUE OF OBJECTS

DETAIL 3 ELEVATION
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

DETAIL 3 AXONOMETRIC STATIC AND IN USE
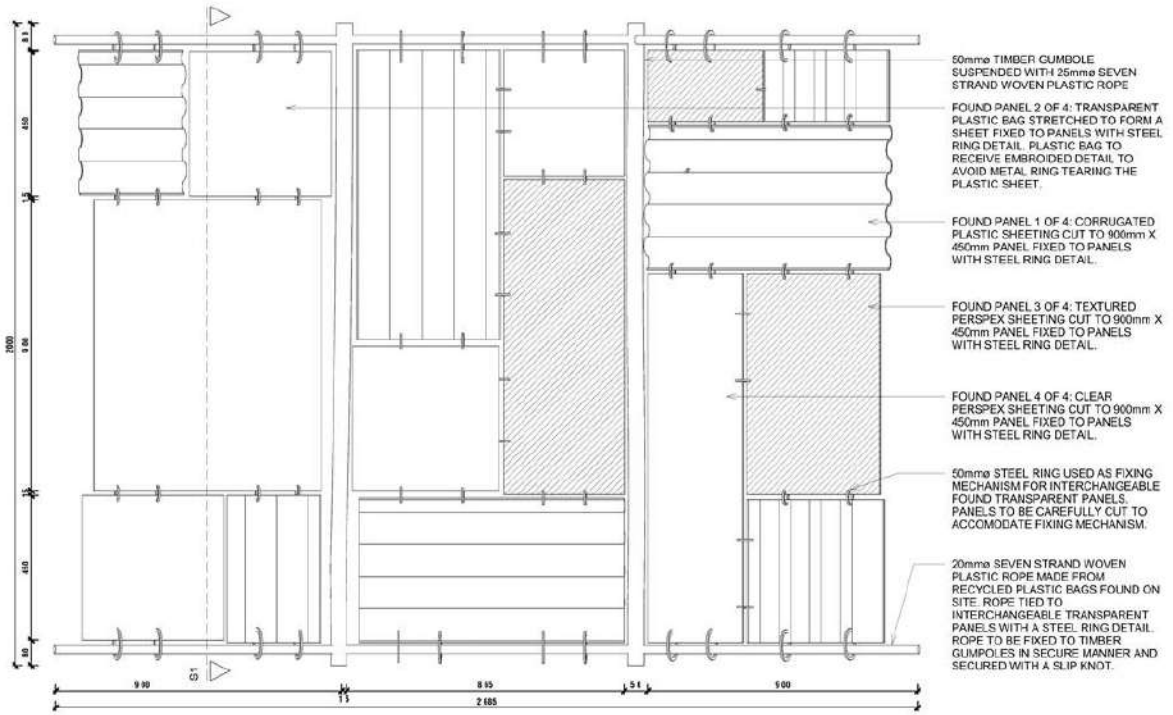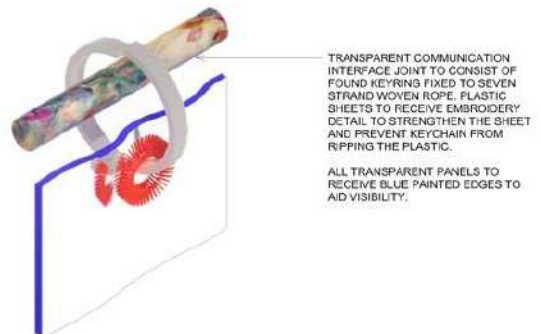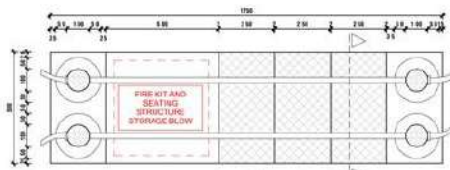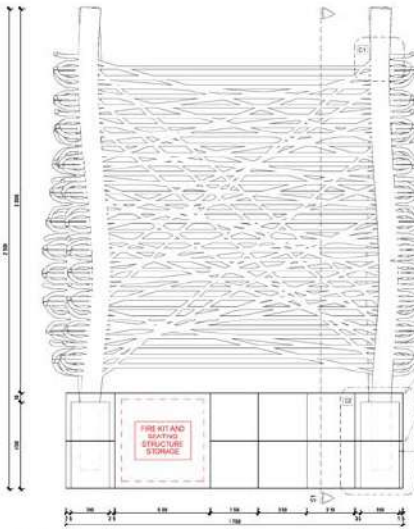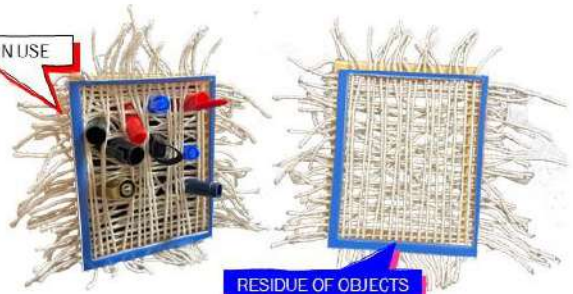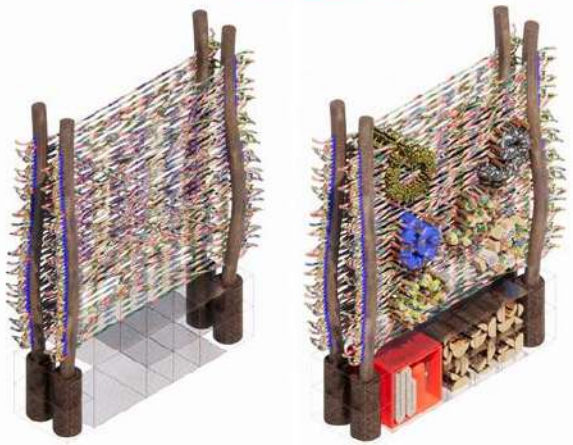PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

Iterative Prototyping Process

STRUCTURE + STRENGTH

DETAIL 3 CALLOUT 1

100mmø TIMBER GUMPOLE SUPPORTED BY FOUNDATION UNIT. GUMPOLE TO RECEIVE DRILL HOLES TO HOST ROPING STORAGE DEVICE.

ALL TIMBER GUMPOLES TO RECEIVE FIRE RETARDANT TREATMENT.

CUSTOM ROPING STORAGE DEVICE CONSTRUCTED FROM 20mmø SEVEN STRAND WOVEN ROPE MADE FROM RECYCLED PLASTIC FOUND ON SITE. WOVEN ROPE SECURED TO 100mmø TIMBER GUMPOLE AND SECURED WITH BEERCAP DETAIL AND SLIP KNOT.

DETAIL 3 CALLOUT 2

100mmø TIMBER GUMPOLE SUPPORTED BY FOUNDATION UNIT. GUMPOLE TO RECEIVE DRILL HOLES TO HOST ROPING STORAGE DEVICE.

ALL TIMBER GUMPOLES TO RECEIVE FIRE RETARDANT TREATMENT.

200mm X 450mm COMPOSITE FOUNDATION UNIT CAST IN-SITU AND SET INTO INTERFACE TO HOST AND SUPPORT THE 100mmø TIMBER GUMPOLE.

ELEVATION 1

CUSTOM ROPING STORAGE DEVICE CONSTRUCTED FROM 20mmø SEVEN STRAND WOVEN ROPE MADE FROM RECYCLED PLASTIC FOUND ON SITE. WOVEN ROPE SECURED TO 100mmø TIMBER GUMPOLE AND SECURED WITH BEERCAP DETAIL AND SLIP KNOT.

CUSTOM ROPING STORAGE DEVICE TO HOST DEPLOYABLE SIT-THINGS. REFER TO DETAILS 3.1-3.5 FOR SPECIFICATIONS.

100mmø TIMBER GUMPOLE SUPPORTED BY FOUNDATION UNIT. GUMPOLE TO RECEIVE DRILL HOLES TO HOST ROPING STORAGE DEVICE.

ALL TIMBER GUMPOLES TO RECEIVE FIRE RETARDANT TREATMENT.

REFER TO DETAIL 3 CALLOUT 1 FOR FURTHER DETAILS.

STORAGE UNIT CONSTRUCTED FROM 2mmø STEEL WIRE WELDED TOGETHER ON-SITE.

STORAGE UNIT TO RECEIVE WIRE MESH INFILL FIXED TO WELDED STEEL WIRE FRAMEWORK.

200mm X 450mm COMPOSITE FOUNDATION UNIT CAST IN-SITU SET INTO INTERFACE TO HOST AND SUPPORT THE 100mmø TIMBER GUMPOLE.

REFER TO DETAIL 3 CALLOUT 2 FOR FURTHER DETAILS.
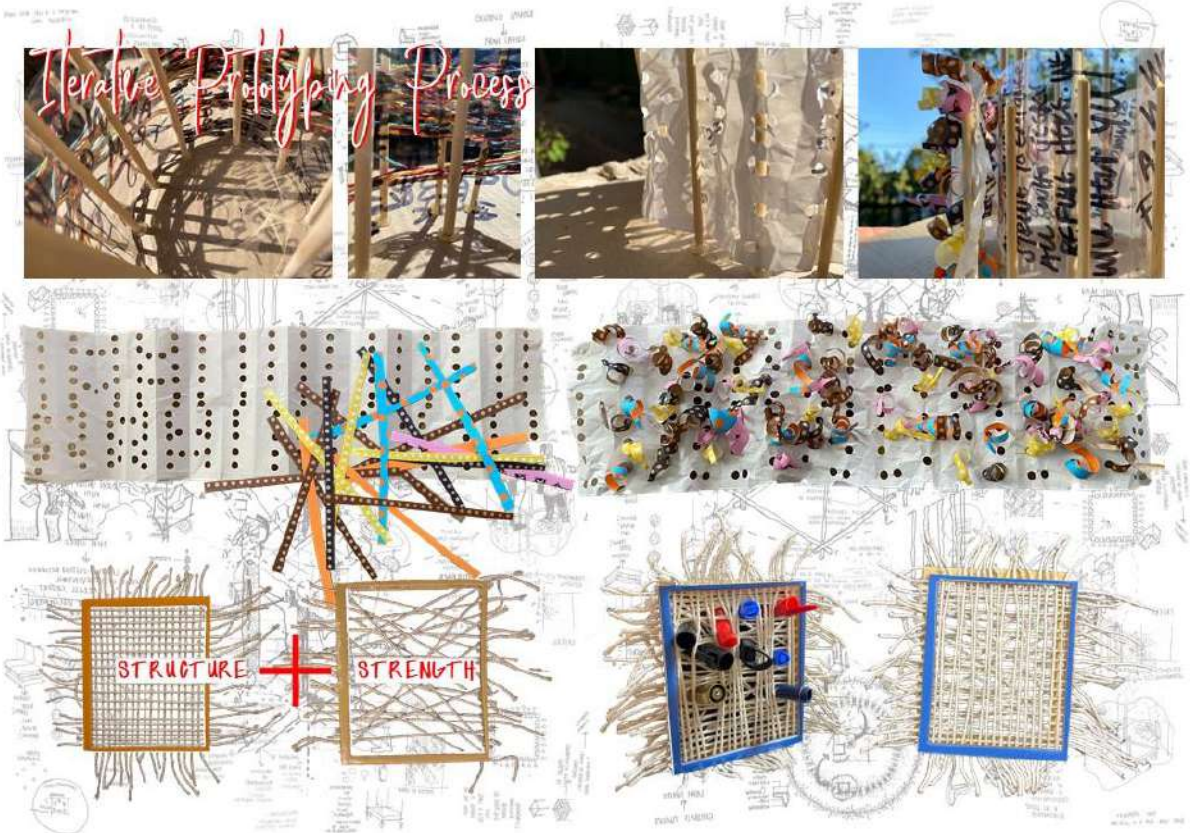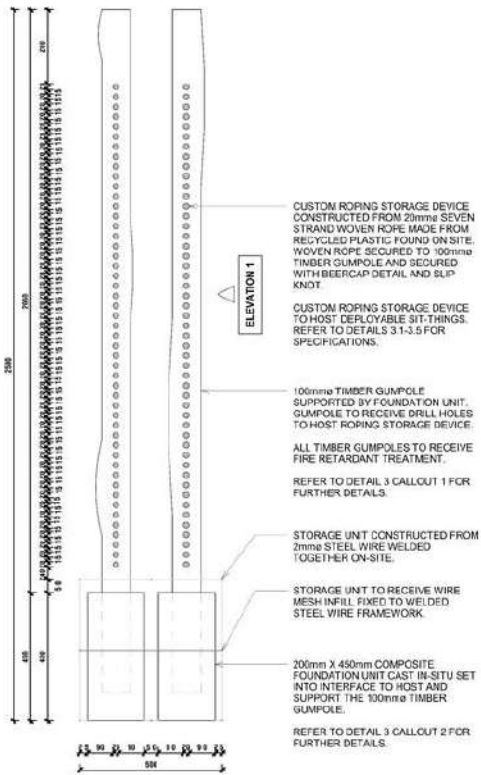
DETAIL 3 SECTION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS
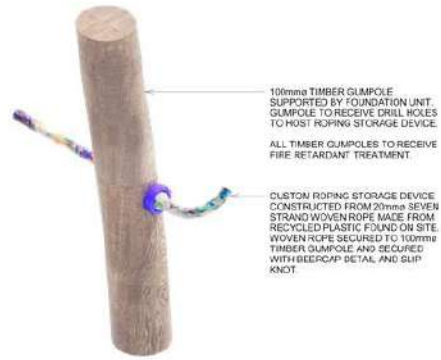
Collaborative Sit-thing #1

DETAIL 3-1

327

COLLABOATIVE SIT-THING DESIGN 1: CONSTRUCTED FROM FOUND TIMBER STICKS AND TIMBER DOWEL STICKS BASKET WOVEN TOGETHER TO FORM THE BASE STRUCTURE. THE CUSHIONING FILL IS CONSTRUCTED FROM RECYCLED PLASTIC BAGS FILLED WITH FOUND CUSHIONING, GRASS AND PAPER AND TIED TO THE BASE STRUCTURE.

DETAIL 3-1 PLAN
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

COLLABOATIVE SIT-THING DESIGN 1: CONSTRUCTED FROM FOUND TIMBER STICKS AND TIMBER DOWEL STICKS BASKET WOVEN TOGETHER TO FORM THE BASE STRUCTURE. THE CUSHIONING FILL IS CONSTRUCTED FROM RECYCLED PLASTIC BAGS FILLED WITH FOUND CUSHIONING, GRASS AND PAPER AND TIED TO THE BASE STRUCTURE.

DETAIL 3-1 ELEVATION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

DETAIL 3-1 PROCESS OF USE

ROPE TO BE WRAPPED AROUND AT TOP TO ALLOW JOINT WITH SIT-STRUCTURES.

FOUND TIMBER STICKS AND TIMBER DOWEL STICKS BASKET WOVEN TOGETHER TO FORM THE BASE STRUCTURE.

BASKET WEAVE TO CONSIST OF FOUND ROPE, REED OR YARN AS IS FOUND ON SITE.

CUSHIONING FILL TO CONSIST OF RECYCLED PLASTIC BAGS FILLED WITH FOUND CUSHIONING, GRASS AND PAPER AND TIED TO THE BASE STRUCTURE.

PLASTIC BAG TO BE FILLED AND CARRY-HANDLES USED TO TIE TO BASKET WOVEN STRUCTURE.

DETAIL 3-1 SECTION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

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Collaborative Sit-thing #2
DETAIL 3-2

ELEVATION 1

400

538

S1

DETAIL 3-2 PLAN

COLLABOATIVE SIT-THING DESIGN 2: CONSTRUCTED FROM FOUND TIMBER BATTENS BASKET WOVEN TOGETHER TO FORM THE BASE STRUCTURE. THE CUSHIONING FILL IS CONSTRUCTED FROM RECYCLED PLASTIC BAGS FILLED WITH FOUND CUSHIONING, GRASS AND PAPER INCLUDED IN THE BASKET WEAVE TO SECURE TO THE BASE STRUCTURE.

PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

DETAIL 3-2 ELEVATION 1

COLLABOATIVE SIT-THING DESIGN 2: CONSTRUCTED FROM FOUND TIMBER BATTENS BASKET WOVEN TOGETHER TO FORM THE BASE STRUCTURE. THE CUSHIONING FILL IS CONSTRUCTED FROM RECYCLED PLASTIC BAGS FILLED WITH FOUND CUSHIONING, GRASS AND PAPER INCLUDED IN THE BASKET WEAVE TO SECURE TO THE BASE STRUCTURE.
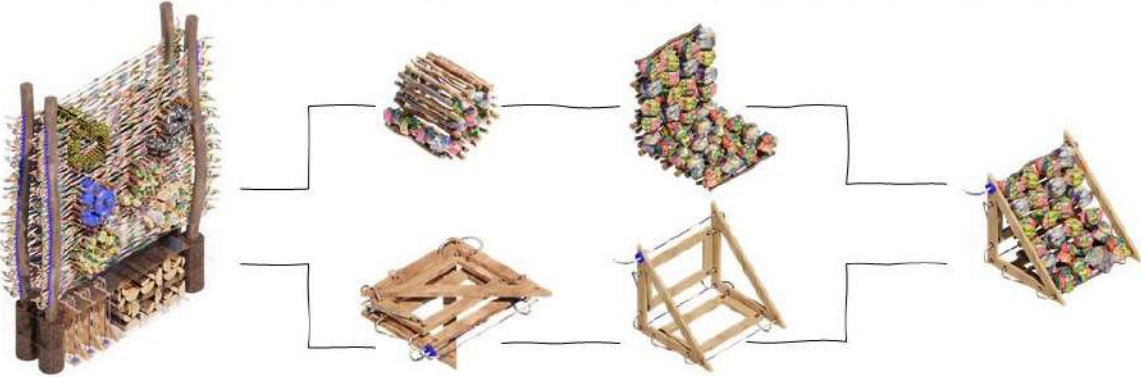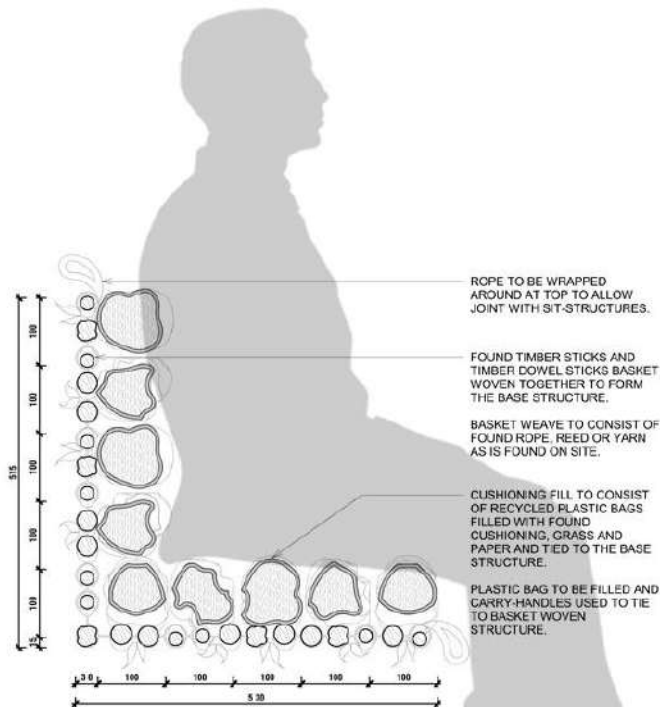
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

DETAIL 3-2 PROCESS OF USE

ROPE TO BE WRAPPED
AROUND AT TOP TO ALLOW
JOINT WITH SIT-STRUCTURES.

76mm X 38mm X 400mm TIMBER
BATTENS, BASKET WOVEN
TOGETHER, TO FORM THE BASE
STRUCTURE OF THE SIT-THING.

BASKET WEAVE TO CONSIST OF
FOUND ROPE, REED OR YARN
AS IS FOUND ON SITE.

THE CUSHIONING FILL IS
CONSTRUCTED FROM
RECYCLED PLASTIC BAGS,
SHWE-SHWE MATERIAL AND
PLASTIC COMPOSITES FOUND
ON SITE. CUSHIONING FILLED
WITH FOUND CUSHIONING,
GRASS AND PAPER.

CUSHIONING ELEMENTS TO BE
INCLUDED IN THE BASKET
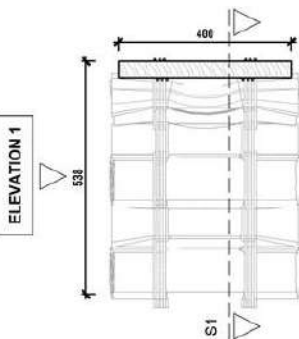WEAVE THAT BINDS THE
STRUCTURE.

DETAIL 3-2 SECTION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

Collaborative Sit-thing #3

DETAIL 3-3

ELEVATION 1

471

490

S1

COLLABOATIVE SIT-THING
DESIGN 3: CONSTRUCTED
FROM FOUND TIMBER STICKS
BASKET WOVEN TOGETHER TO
FORM THE BASE STRUCTURE.
THE CUSHIONING FILL IS
CONSTRUCTED A SWESWE
MATERIAL COMPOSISTION
FIXED TO BASE WITH LOOSE
ROPE WEAVE. SWESWE COVER
TO RECEIVE FOUND OBJECT
INFILL AS CUSHIONING.

DETAIL 3-3 PLAN
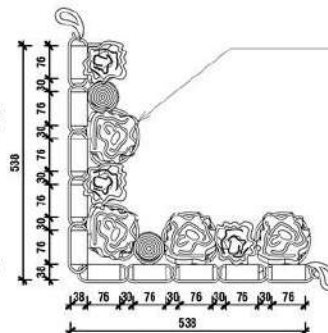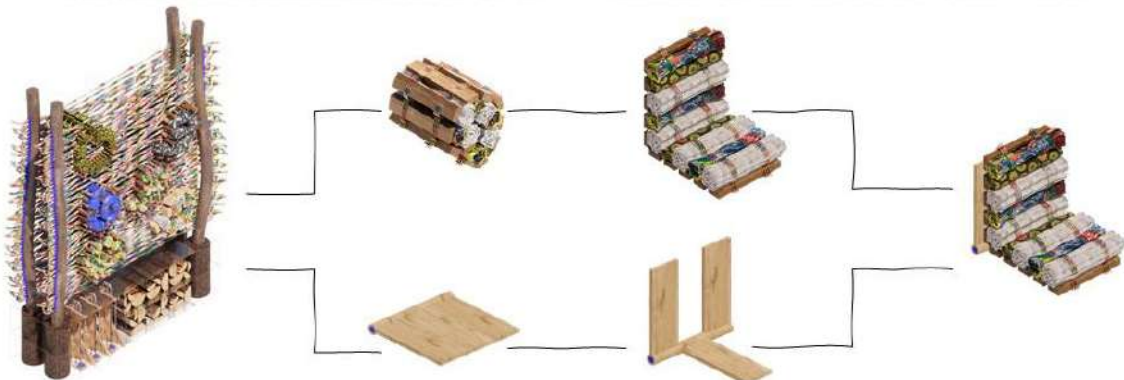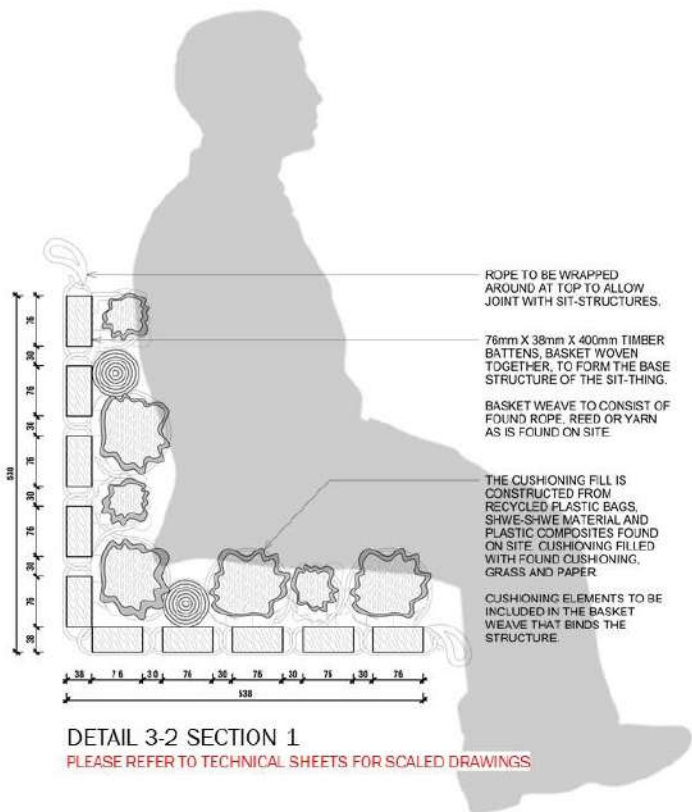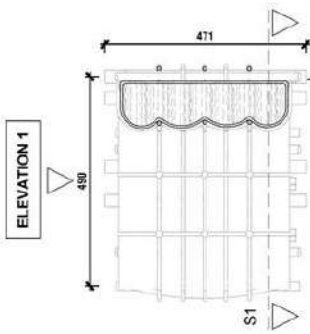PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS
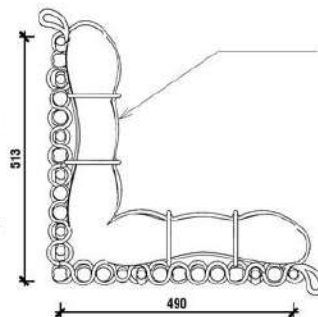
513

490

COLLABOATIVE SIT-THING
DESIGN 3: CONSTRUCTED
FROM FOUND TIMBER STICKS
BASKET WOVEN TOGETHER TO
FORM THE BASE STRUCTURE.
THE CUSHIONING FILL IS
CONSTRUCTED A SWESWE
MATERIAL COMPOSISTION
FIXED TO BASE WITH LOOSE
ROPE WEAVE. SWESWE COVER
TO RECEIVE FOUND OBJECT
INFILL AS CUSHIONING.

DETAIL 3-3 ELEVATION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS
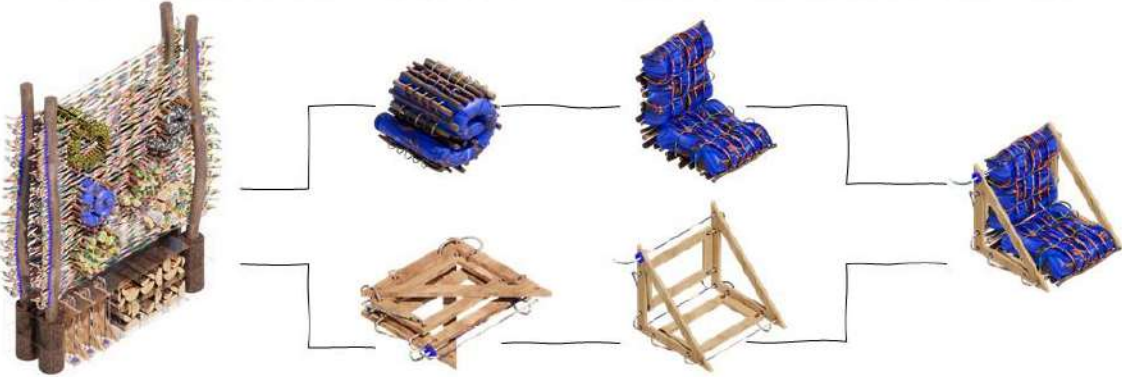
DETAIL 3-3 PROCESS OF USE
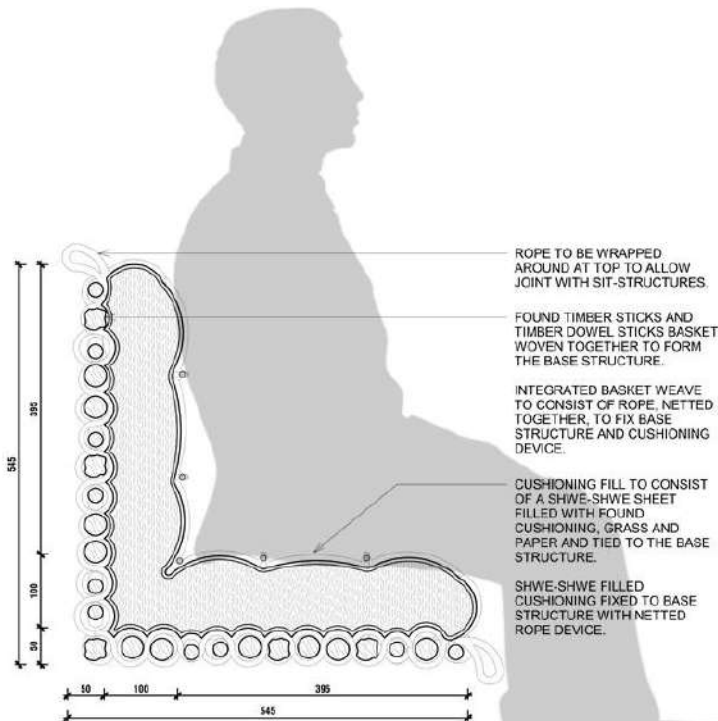
545

395

100

50

50   100   395

545

ROPE TO BE WRAPPED
AROUND AT TOP TO ALLOW
JOINT WITH SIT-STRUCTURES.

FOUND TIMBER STICKS AND
TIMBER DOWEL STICKS BASKET
WOVEN TOGETHER TO FORM
THE BASE STRUCTURE.

INTEGRATED BASKET WEAVE
TO CONSIST OF ROPE, NETTED
TOGETHER, TO FIX BASE
STRUCTURE AND CUSHIONING
DEVICE.

CUSHIONING FILL TO CONSIST
OF A SHWE-SHWE SHEET
FILLED WITH FOUND
CUSHIONING, GRASS AND
PAPER AND TIED TO THE BASE
STRUCTURE.

SHWE-SHWE FILLED
CUSHIONING FIXED TO BASE
STRUCTURE WITH NETTED
ROPE DEVICE.

DETAIL 3-3 SECTION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

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Collaborative Sit-thing #4

DETAIL 3-4

DETAIL 3-4 PLAN

COLLABORATIVE SIT-THING CONSTRUCTED FROM TIMBER BATTENS BASKET WOVEN TOGETHER AND CONNECTED TO CUSHIONING ELEMENT. CUSHIONING ELEMENT MADE UP FROM CUT PIECES OF PLASTIC BAG KNOTTED AROUND A BASE TEXTILE FILLED WITH FOUND CUSHIONING, GRASS AND PAPER.

PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

DETAIL 3-4 ELEVATION 1

COLLABORATIVE SIT-THING CONSTRUCTED FROM TIMBER BATTENS BASKET WOVEN TOGETHER AND CONNECTED TO CUSHIONING ELEMENT. CUSHIONING ELEMENT MADE UP FROM CUT PIECES OF PLASTIC BAG KNOTTED AROUND A BASE TEXTILE FILLED WITH FOUND CUSHIONING, GRASS AND PAPER.

PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

DETAIL 3-4 PROCESS OF USE

ROPE TO BE WRAPPED AROUND AT TOP TO ALLOW JOINT WITH SIT-STRUCTURES.

76mm X 38mm X 400mm TIMBER BATTENS, BASKET WOVEN TOGETHER, TO FORM THE BASE STRUCTURE OF THE SIT-THING.

BASKET WEAVE TO CONSIST OF FOUND ROPE, REED OR YARN AS IS FOUND ON SITE AND TO SERVE AS JOINT BETWEEN CUSHIONING DEVICE AND BASE STRUCTURE.

CUSHIONING ELEMENT MADE UP FROM CUT PIECES OF PLASTIC BAG KNOTTED AROUND A BASE TEXTILE FILLED WITH FOUND CUSHIONING, GRASS AND PAPER.

DETAIL 3-4 SECTION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

Design Sit-thing #1

DETAIL 3-5
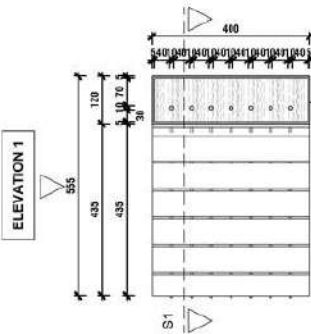
DESIGNER SIT-THING CONSTRUCTED FROM 30mm THICK FILLED SHWE-SHWE TEXTILE COMPOSITE. TEXTILE FILL TO BE BASKET WOVEN WITH 5mmØ ROPE THAT SERVES AS STRUCTURAL BINDING MECHANISM.

THE END OF THE ROPE IS TO BE TIED DOWN AND SECURED WITH A SLIP KNOT.

DETAIL 3-5 PLAN
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS
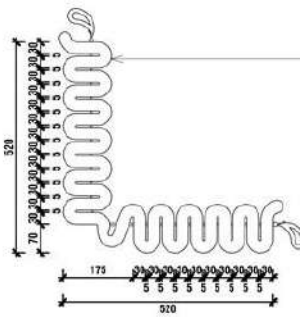
DESIGNER SIT-THING CONSTRUCTED FROM 30mm THICK FILLED TEXTILE COMPOSITE. SHWE-SHWE TEXTILE FILL TO BE BASKET WOVEN WITH 5mmØ ROPE THAT SERVES AS STRUCTURAL BINDING MECHANISM.

THE END OF THE ROPE IS TO BE TIED DOWN AND SECURED WITH A SLIP KNOT.

DETAIL 3-5 ELEVATION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS
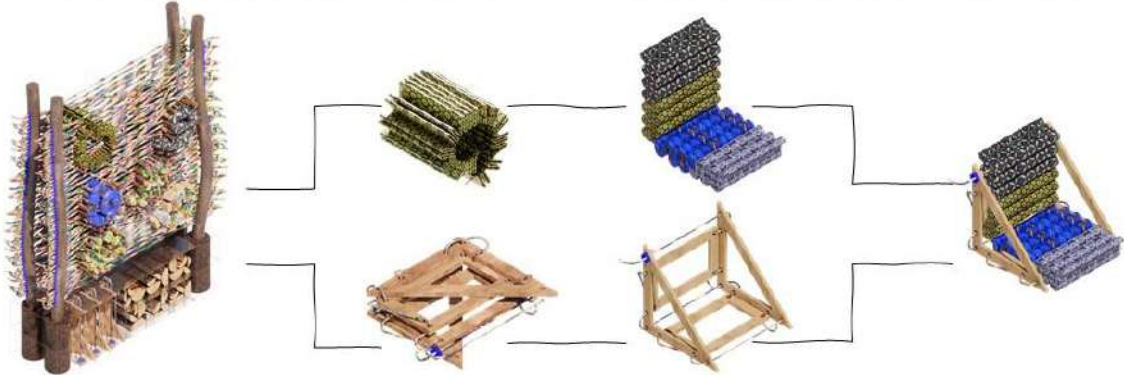
DETAIL 3-5 PROCESS OF USE
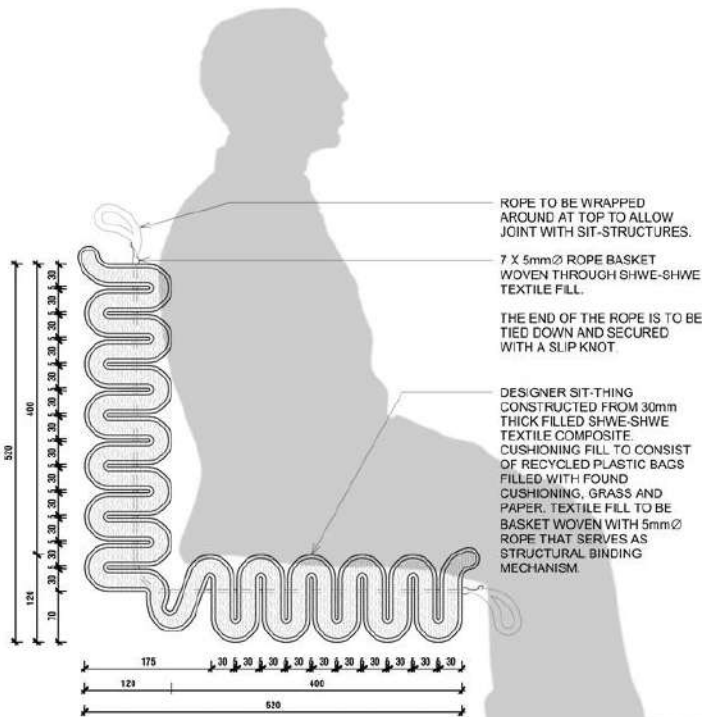
ROPE TO BE WRAPPED AROUND AT TOP TO ALLOW JOINT WITH SIT-STRUCTURES.

7 X 5mmØ ROPE BASKET WOVEN THROUGH SHWE-SHWE TEXTILE FILL.

THE END OF THE ROPE IS TO BE TIED DOWN AND SECURED WITH A SLIP KNOT.

DESIGNER SIT-THING CONSTRUCTED FROM 30mm THICK FILLED SHWE-SHWE TEXTILE COMPOSITE. CUSHIONING FILL TO CONSIST OF RECYCLED PLASTIC BAGS FILLED WITH FOUND CUSHIONING, GRASS AND PAPER. TEXTILE FILL TO BE BASKET WOVEN WITH 5mmØ ROPE THAT SERVES AS STRUCTURAL BINDING MECHANISM.

DETAIL 3-5 SECTION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

ELEVATION 1

FOLDABLE PANEL

S1

CUSTOM SEATING SUPPORT CONSTRUCTED FROM 3 X 150mm X 450mm X 20mm TIMBER PLANKS WITH AN INTERNAL HINGE MECHANISM TO SUPPORT THE SIT-THINGS AT AN 100° ANGLE.
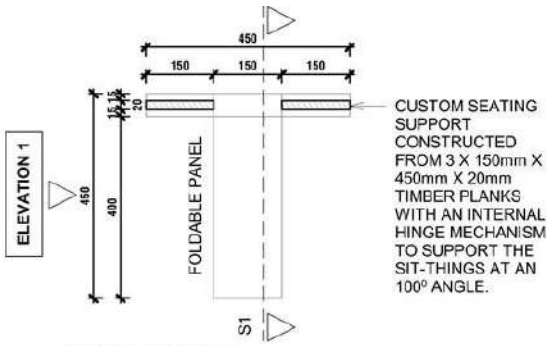
DETAIL 3A PLAN
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

CUSTOM SEATING SUPPORT CONSTRUCTED FROM 3 X 150mm X 450mm X 20mm TIMBER PLANKS WITH AN INTERNAL HINGE MECHANISM TO SUPPORT THE SIT-THINGS AT AN 100° ANGLE.
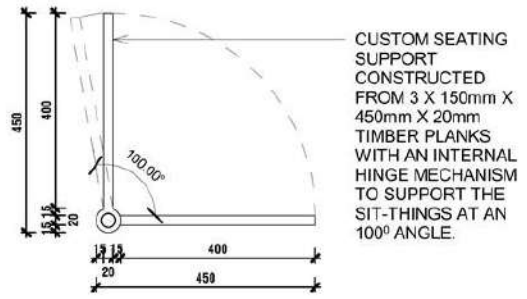
DETAIL 3A ELEVATION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

DETAIL 3A PROCESS OF USE

10mmø CUT-OUT TO HOST ROPE FIXING DETAIL TO SECURE SIT-THINGS TO STRUCTURE.

CUSTOM SEATING SUPPORT CONSTRUCTED FROM 3 X 150mm X 450mm X 20mm TIMBER PLANKS WITH AN INTERNAL HINGE MECHANISM TO SUPPORT THE SIT-THINGS AT AN 100° ANGLE.

CONCEALED BARREL HINGE FIXED TO THE OUTER PANELS TO ALLOW INNER PANEL TO FOLD DOWNWARD.

C1

DETAIL 3A SECTION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

150mm X 450mm X 20mm TIMBER PLANKS TO HOST CONCEALED BARREL HINGE TO ALLOW INNER PANEL TO FOLD UPWARD AND DOWNWARD AT AN 100° ANGLE.

DETAIL 3A CALLOUT 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

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CUSTOM FOLDABLE
SEATING SUPPORT
CONSTRUCTED
FROM CUT
PLYWOOD PANELS,
WOVEN TOGETHER
WITH 10mmø SEVEN
STRAND WOVEN
ROPE MADE FROM
RECYCLED
PLASTIC.
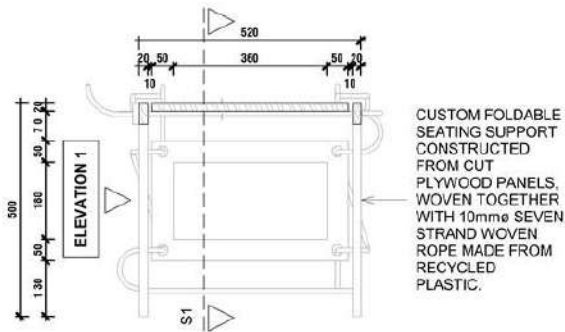
DETAIL 3B PLAN
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

CUSTOM FOLDABLE
SEATING SUPPORT
CONSTRUCTED
FROM CUT
PLYWOOD PANELS,
WOVEN TOGETHER
WITH 10mmø SEVEN
STRAND WOVEN
ROPE MADE FROM
RECYCLED
PLASTIC.
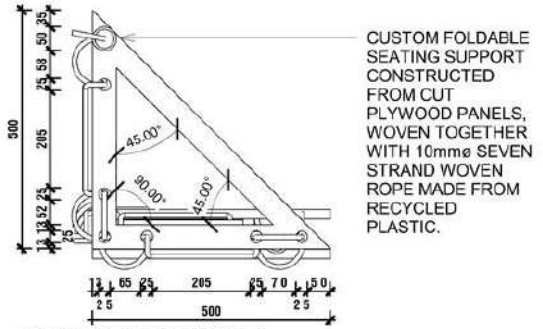
DETAIL 3B ELEVATION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

DETAIL 3B PROCESS OF USE

10mmø SEVEN
STRAND WOVEN
ROPE MADE FROM
RECYCLED PLASTIC
WOVEN THROUGH
CUT TIMBER
PANELS AS FIXING
METHOD. ROPE TO
BE TIED AT END
AND SECURED
WITH A BOTTLE CAP
DETAIL.

CUSTOM FOLDABLE
SEATING SUPPORT
CONSTRUCTED
FROM CUT
PLYWOOD PANELS,
WOVEN TOGETHER
WITH 10mmø SEVEN
STRAND WOVEN
ROPE MADE FROM
RECYCLED
PLASTIC.
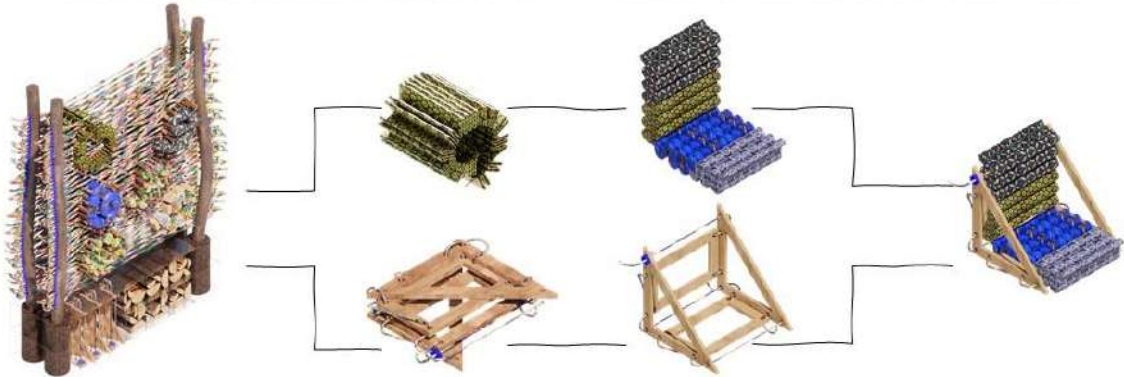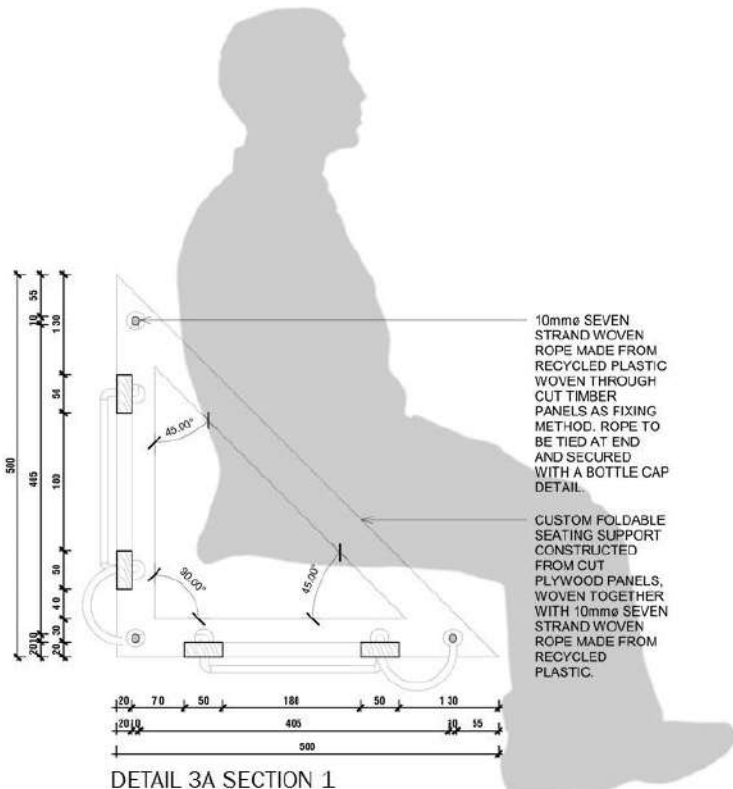
DETAIL 3A SECTION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

Sit-things & Structure Combinations

VARIOUS SCENARIOS OF SETTING UP THE SIT-THING

EXISTING
OBJECT.
(BEER CRATES, BUCKETS, STAIRS)
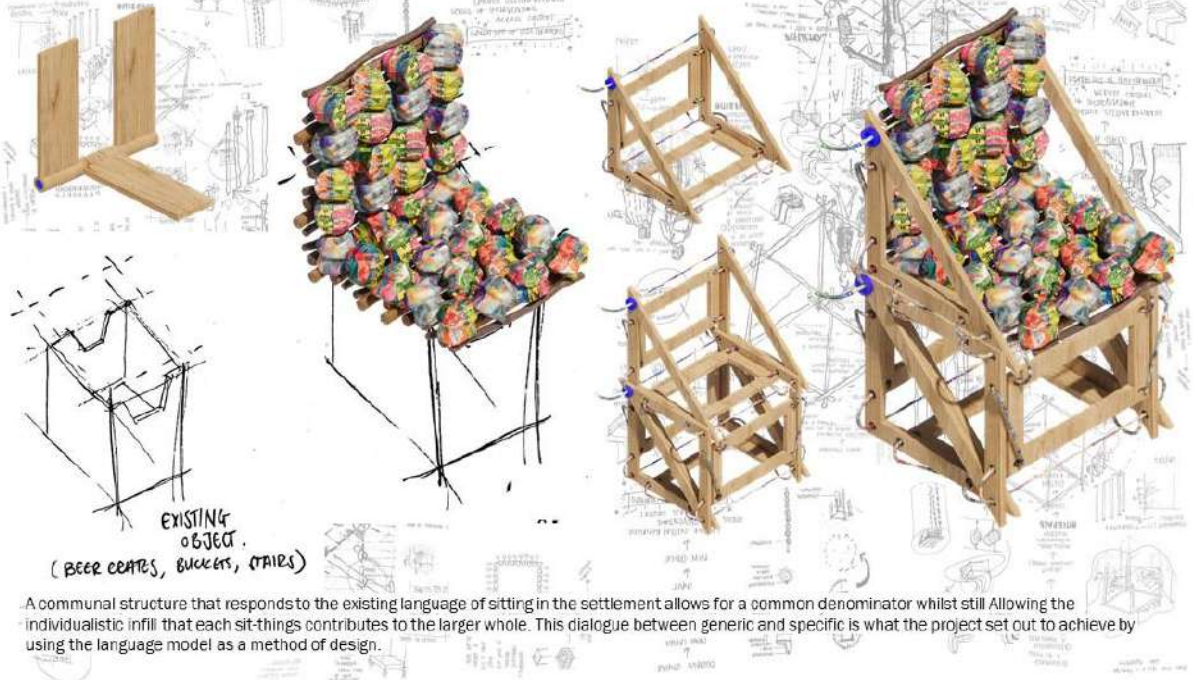
A communal structure that responds to the existing language of sitting in the settlement allows for a common denominator whilst still Allowing the individualistic infill that each sit-things contributes to the larger whole. This dialogue between generic and specific is what the project set out to achieve by using the language model as a method of design.

Potential Scenario of Appropriation

DRAINAGE SYSTEM THROUGHOUT THE SETTLEMENT

Seating is a common phenomena that enables all the proposed programmes and can be used in many more scenarios across the settlement. To illustrate all the potential scenarios, just one will be discussed.

The loose-standing storage interface can be moved across the settlements to bars and shops (like the one illustrated above) to serve as deployable seating and firewood storage.

These allow a larger network of programme enablement and speaks to the nature of Plastic City-ing.
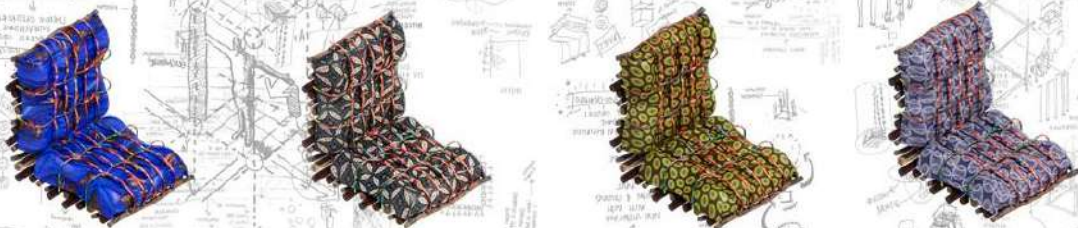
The individual sit-thing designs also becomes a method of expression and appropriation as each individual start to prototype a sit-thing.
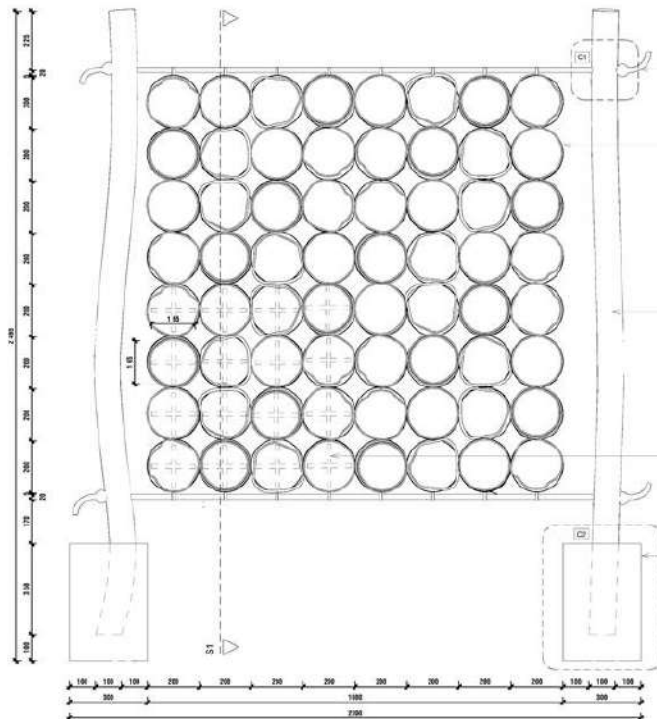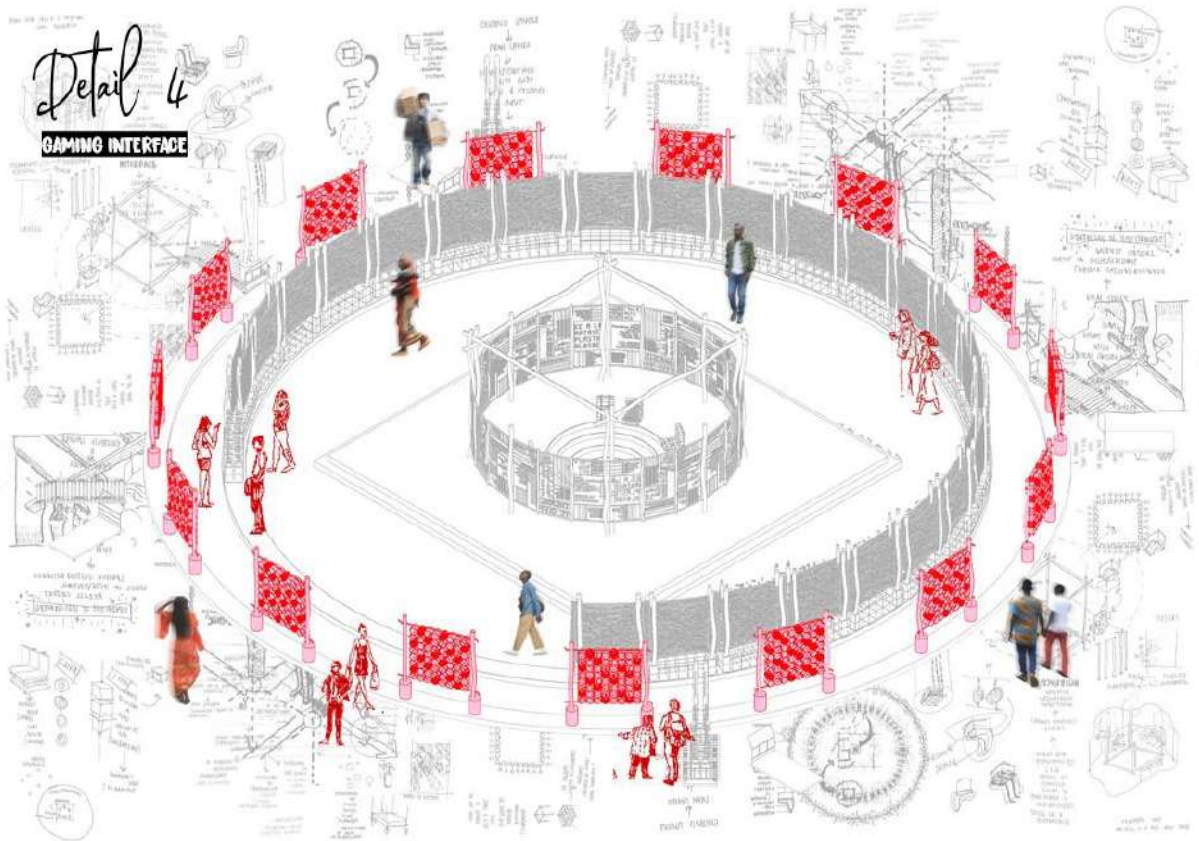
337

Detail 4
GAMING INTERFACE

20mmØ SEVEN STRAND WOVEN
ROPE MADE FROM FOUND
PLASTIC BAGS FIXED TO
TIMBER GUMPOLE. ROPE
SECURED WITH BEERCAP AND
SLIP KNOT.

GAMING INTERFACE
CONSTRUCTED FROM FOUND
200mmØ CIRCULAR OBJECTS.
CUT TO 200mm UNITS.
INDIVIDUAL UNITS FIXED TO
EACH OTHER WITH T50I CABLE
TIES. INTERFACE FIXED TO
SEVEN STRAND WOVEN ROPE
WITH T50I CABLE TIES.

CHECKERED SHWE-SHWE
INFILL AT EVERY SECOND UNIT.
SHWE-SHWE INFILL TO BE
GLUD TO INNER LINING OF
UNIT.

100mm TIMBER GUMPOLE
SUPPORTED BY FOUNDATION
UNIT. GUMPOLE TO RECEIVE
DRILL HOLES TO HOST ROPING
STORAGE DEVICE.

ALL TIMBER GUMPOLES TO
RECEIVE FIRE RETARDANT
TREATMENT.

REFER TO DETAIL 4 CALLOUT 1
FOR SPECIFICATIONS.

DEPLOYABLE INNER DIVISION
ELEMENT CONSRTUCTED FROM
150mm X 150mm X 16mm
TIMBER BOARD CUT AND FIXED
TOGETHER TO FORM DIVIDING
ELEMENT. EDGES OF BOARD TO
RECEIVE SPONGE FINISH TO
ADJUST TO SIZE OF HOST.

300mm X 450mm COMPOSITE
FOUNDATION UNIT CAST IN-
SITU SET INTO INTERFACE TO
HOST AND SUPPORT THE
100mm TIMBER GUMPOLE.

REFER TO DETAIL 4 CALLOUT 2
FOR MORE DETAIL.

DETAIL 4 ELEVATION
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

(MPIP, 2021).

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100mmø TIMBER GUMPOLE SUPPORTED BY FOUNDATION UNIT. GUMPOLE TO RECEIVE DRILL HOLES TO HOST ROPING STORAGE DEVICE.

ALL TIMBER GUMPOLES TO RECEIVE FIRE RETARDANT TREATMENT.

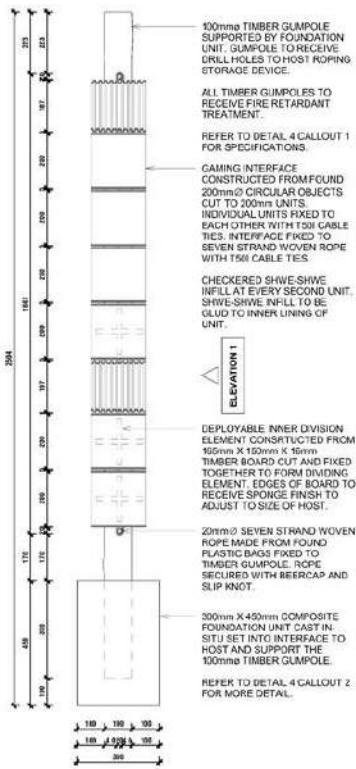REFER TO DETAIL 4 CALLOUT 1 FOR SPECIFICATIONS.

GAMING INTERFACE CONSTRUCTED FROM FOUND 200mmø CIRCULAR OBJECTS CUT TO 200mm UNITS. INDIVIDUAL UNITS FIXED TO EACH OTHER WITH T50II CABLE TIES. INTERFACE FIXED TO SEVEN STRAND WOVEN ROPE WITH T50II CABLE TIES.

CHECKERED SHWE-SHWE INFILL AT EVERY SECOND UNIT. SHWE-SHWE INFILL TO BE GLUD TO INNER LINING OF UNIT.

DEPLOYABLE INNER DIVISION ELEMENT CONSTRUCTED FROM 165mm X 150mm X 15mm TIMBER BOARD CUT AND FIXED TOGETHER TO FORM DIVIDING ELEMENT. EDGES OF BOARD TO RECEIVE SPONGE FINISH TO ADJUST TO SIZE OF HOST.

20mmø SEVEN STRAND WOVEN ROPE MADE FROM FOUND PLASTIC BAGS FIXED TO TIMBER GUMPOLE. ROPE SECURED WITH BEERCAP AND SLIP KNOT.

300mm X 450mm COMPOSITE FOUNDATION UNIT CAST IN SITU SET INTO INTERFACE TO HOST AND SUPPORT THE 100mmø TIMBER GUMPOLE.

REFER TO DETAIL 4 CALLOUT 2 FOR MORE DETAIL.

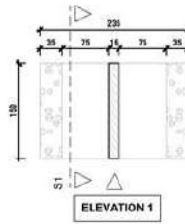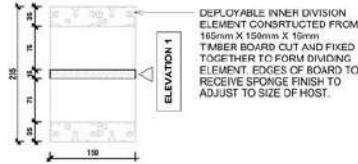**DETAIL 4 SECTION 1**

ELEVATION 1

DETAIL 4 INFILL PLAN

DEPLOYABLE INNER DIVISION ELEMENT CONSTRUCTED FROM 165mm X 150mm X 15mm TIMBER BOARD CUT AND FIXED TOGETHER TO FORM DIVIDING ELEMENT. EDGES OF BOARD TO RECEIVE SPONGE FINISH TO ADJUST TO SIZE OF HOST.

DETAIL 4 INFILL SECTION

DETAIL 4 INFILL AXONOMETRIC

100mmø TIMBER GUMPOLE SUPPORTED BY FOUNDATION UNIT. GUMPOLE TO RECEIVE DRILL HOLES TO HOST ROPING STORAGE DEVICE.

ALL TIMBER GUMPOLES TO RECEIVE FIRE RETARDANT TREATMENT.

CUSTOM ROPING STORAGE DEVICE CONSTRUCTED FROM 20mmø SEVEN STRAND WOVEN ROPE MADE FROM RECYCLED PLASTIC FOUND ON SITE. WOVEN ROPE SECURED TO 100mmø TIMBER GUMPOLE AND SECURED WITH BEERCAP DETAIL AND SLIP KNOT.

DETAIL 4 CALLOUT 1

100mmø TIMBER GUMPOLE SUPPORTED BY FOUNDATION UNIT. GUMPOLE TO RECEIVE DRILL HOLES TO HOST ROPING STORAGE DEVICE.

ALL TIMBER GUMPOLES TO RECEIVE FIRE RETARDANT TREATMENT.

CUSTOM ROPING STORAGE DEVICE CONSTRUCTED FROM 20mmø SEVEN STRAND WOVEN ROPE MADE FROM RECYCLED PLASTIC FOUND ON SITE. WOVEN ROPE SECURED TO 100mmø TIMBER GUMPOLE AND SECURED WITH BEERCAP DETAIL AND SLIP KNOT.

DETAIL 4 CALLOUT 1

100mmø TIMBER GUMPOLE SUPPORTED BY FOUNDATION UNIT. GUMPOLE TO RECEIVE DRILL HOLES TO HOST ROPING STORAGE DEVICE.

ALL TIMBER GUMPOLES TO RECEIVE FIRE RETARDANT TREATMENT.

300mm X 450mm COMPOSITE FOUNDATION UNIT CAST IN-SITU AND SET INTO INTERFACE TO HOST AND SUPPORT THE 100mmø TIMBER GUMPOLE.

DETAIL 4 CALLOUT 2

100mmø TIMBER GUMPOLE SUPPORTED BY FOUNDATION UNIT. GUMPOLE TO RECEIVE DRILL HOLES TO HOST ROPING STORAGE DEVICE.

ALL TIMBER GUMPOLES TO RECEIVE FIRE RETARDANT TREATMENT.

200mm X 450mm COMPOSITE FOUNDATION UNIT CAST IN-SITU AND SET INTO INTERFACE TO HOST AND SUPPORT THE 100mmø TIMBER GUMPOLE.

DETAIL 4 CALLOUT 2

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Scenarios of Appropriation
PLANTERS THROUGHOUT THE SETTLEMENT
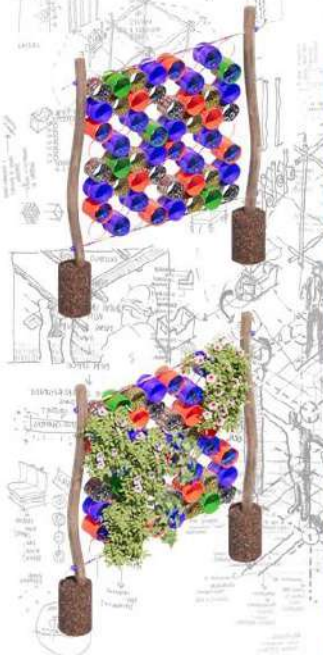
Detail 5
A MOVEMENT MECHANISM

DETAIL 5 PLAN
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

TROLLEY DEVICE
CONSTRUCTED FROM 70mmØ
TIMBER GUMPOLES FITTED
INTO FOUND 100mmØ CIRCULAR
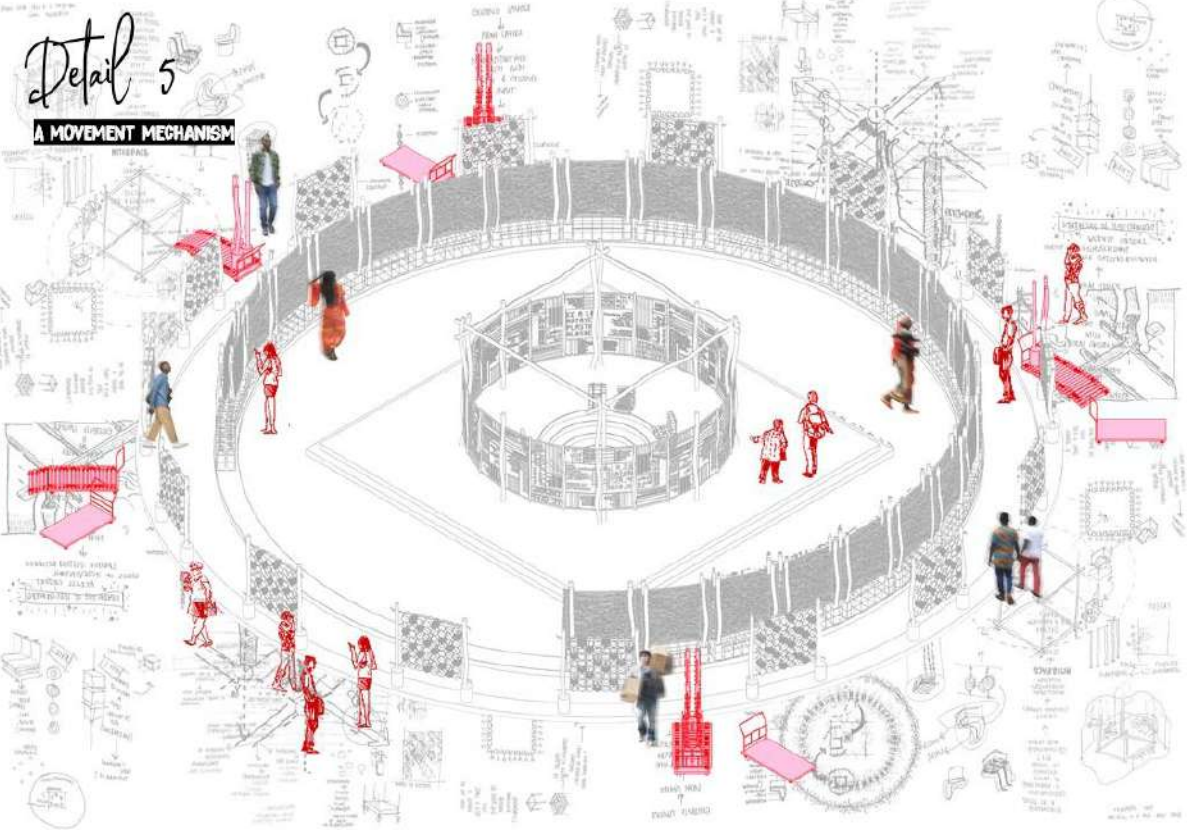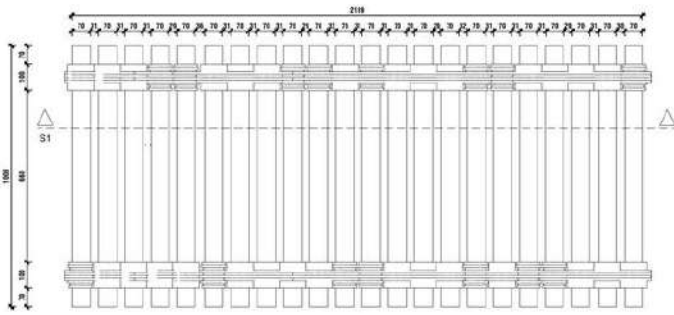OBJECTS CUT TO 200mm UNITS.
INDIVIDUAL UNITS BASKET
WOVEN TOGETHER WITH ROPE.

20mm ALNICO ALLOY MAGNETS
FIXED TO CIRCULAR OBJECTS
TO SERVE AS JOINT BETWEEN
MECHANISM AND TROLLEY.
ALNICO ALLOY MAGNETS WILL
FIX TO ANY ALLOY THAT
CONTAINS IRON- WHICH ALL
STEEL TROLLEYS DO.
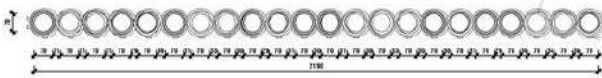
DETAIL 5 ELEVATION 1
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

TROLLEY DEVICE
CONSTRUCTED FROM 70mmØ
TIMBER GUMPOLES FITTED
INTO FOUND 100mmØ CIRCULAR
OBJECTS CUT TO 200mm UNITS.
INDIVIDUAL UNITS BASKET
WOVEN TOGETHER WITH ROPE.

20mm ALNICO ALLOY MAGNETS
FIXED TO CIRCULAR OBJECTS
TO SERVE AS JOINT BETWEEN
MECHANISM AND TROLLEY.
ALNICO ALLOY MAGNETS WILL
FIX TO ANY ALLOW THAT
CONTAINS IRON- WHICH ALL
STEEL TROLLEYS DO.
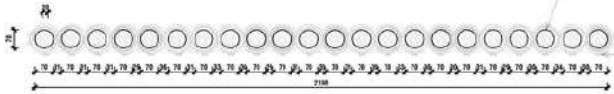
DETAIL 5 SECTION 1
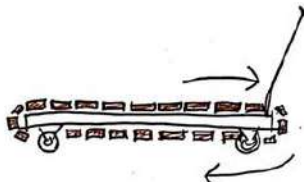PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS

"ROLLEY" SYSTEM THAT
HOOKS ONTO TROLLEY.

VS.
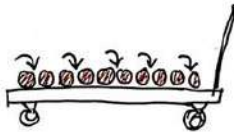
INDIVIDUAL ELEMENTS
TURNING ON THEIR
OWN AXIS

OTHER OPTIONS EXPLORED
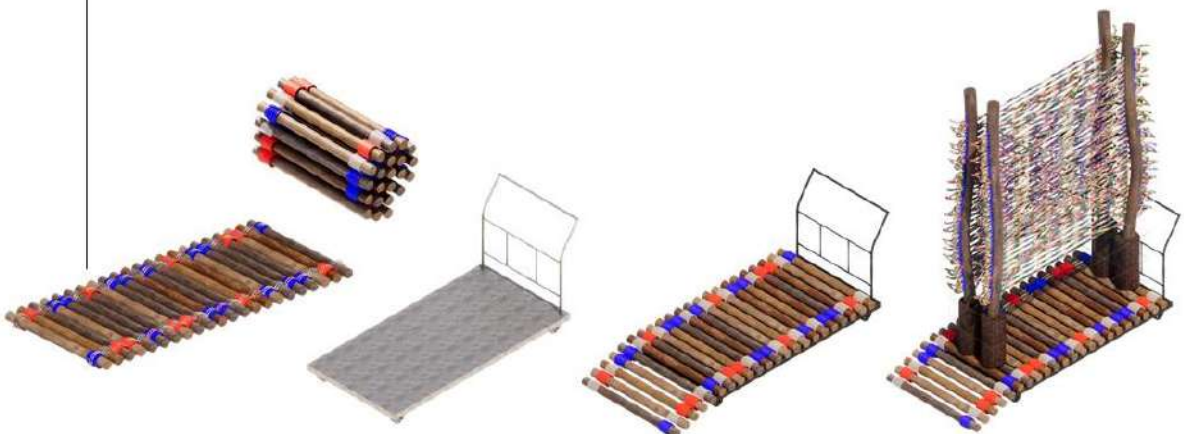
DETAIL 5 SEQUENCE OF USE
PLEASE REFER TO TECHNICAL SHEETS FOR SCALED DRAWINGS
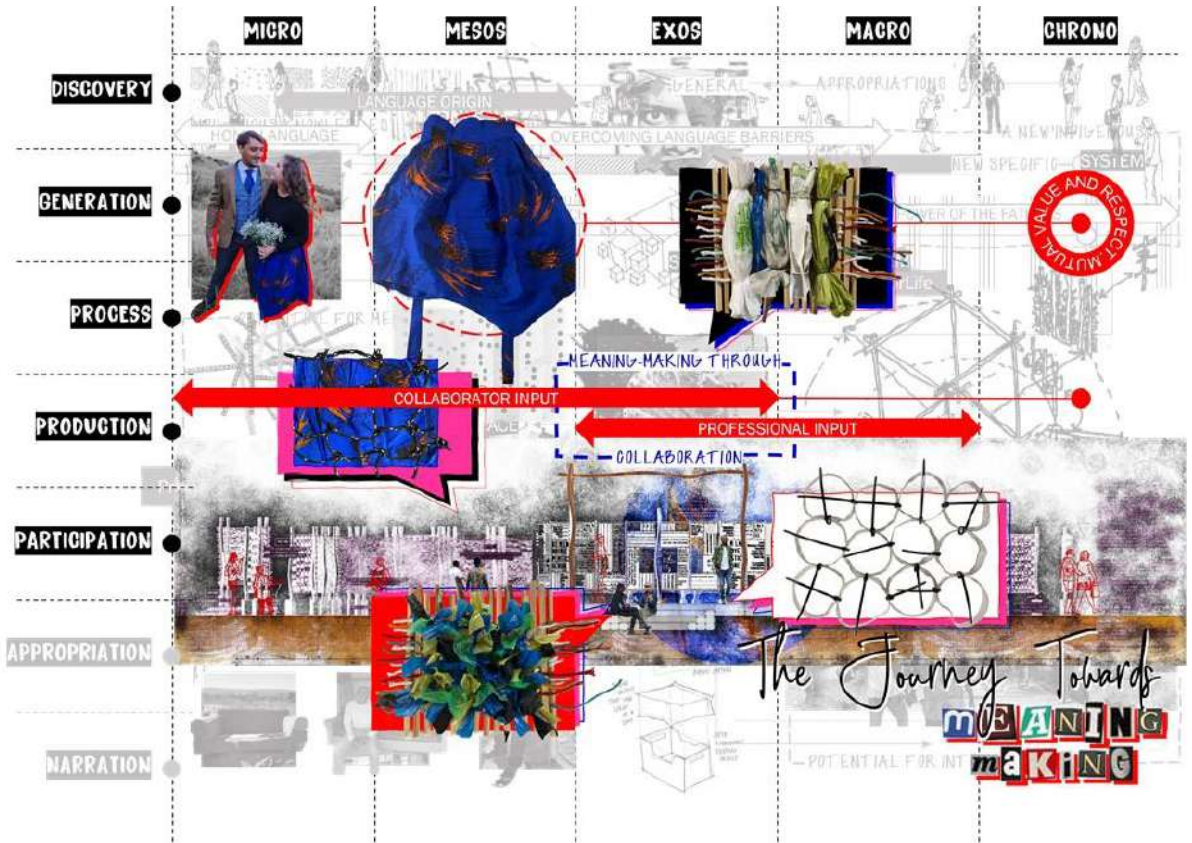
Results Discussion

The research project set out to define a role for interior architecture as a vessel of cultural production in informal settlements. Due to the various stages of prototyping and collaboration, the analysis of the meaning embedded and interpreted through the design interventions becomes the conclusive discussion for the argument. In this reflective session the design project will be analysed according to the base diagram to evaluate the attempted semiotic approach to meaning-making. The findings will be discussed at the hand of a critical reflection of the project and process as a whole, changes in practice as well as contributions to discourse.

The individual components that make up the design intervention will be mapped across the base diagram as an evaluation of the meaning embedded and interpreted by the designer, collaborators and inhabitants of the space. The diagrammatic representations of these elements will serve as deliberation of the role of interior architecture in informal settlements.

The Journey Towards Meaning Making

	MICRO	MESOS	EXOS	MACRO	CHRONO
DISCOVERY	THROUGH COLLABORATION				
GENERATION	**Embedded Meaning** INDIGENOUS CRAFTING METHODS				
PROCESS		**Generic Association** SPATIAL APPLICATION			
PRODUCTION	**Idiosyncratic Interpretation** SENTIMENTAL LINK TO HERITAGE				
PARTICIPATION		INTERTEXTUALITY			
APPROPRIATION	**Spatial Agency** APPROPRIATIONS AND ADAPTATIONS – SITE AND CIRCUMSTANCE SPECIFIC			A NEW INDIGENOUS IDENTITY	
NARRATION					

Reflection
FROM AUTHOR AND COLLABORATORS

The project was challenging at various stages and required constant reiteration and adaptation to not stray from the original intentions. At times the clash between what is required for a professional masters degree and what is required on site became a point of tension and made me question the relevance of a project, such as this, in a setting where more pressing matters reign. I was comforted by the sole fact that at this moment in time, this project, and its outcomes, was all I as an individual could contribute to the circumstances. This did blur the lines between research and personal involvement but in a project aimed at subjective interpretation a touch of personal involvement goes a long way.

"the process made us visible"

"Ekhet myself leer ken as heidinerias n hond"
-Amanda Strydom & Stef Bos, Die Taal van My Hart

"Throughout the year we have rekindled relationships and I am so happy that we have had the opportunity to do this. We have had weddings, and tea and games and workshops and conversations about difficult things but we talk as humans. Not as researchers and subjects."

"...wait for me, I still have work to do"
- Dr Thomas Light, before embarking on a journey against robots that he created (from the ethically complex rock opera album *ACT II: The Father of Death* by the Protomen).

"a still more glorious dawn awaits."
- Carl Sagan

THANK YOU

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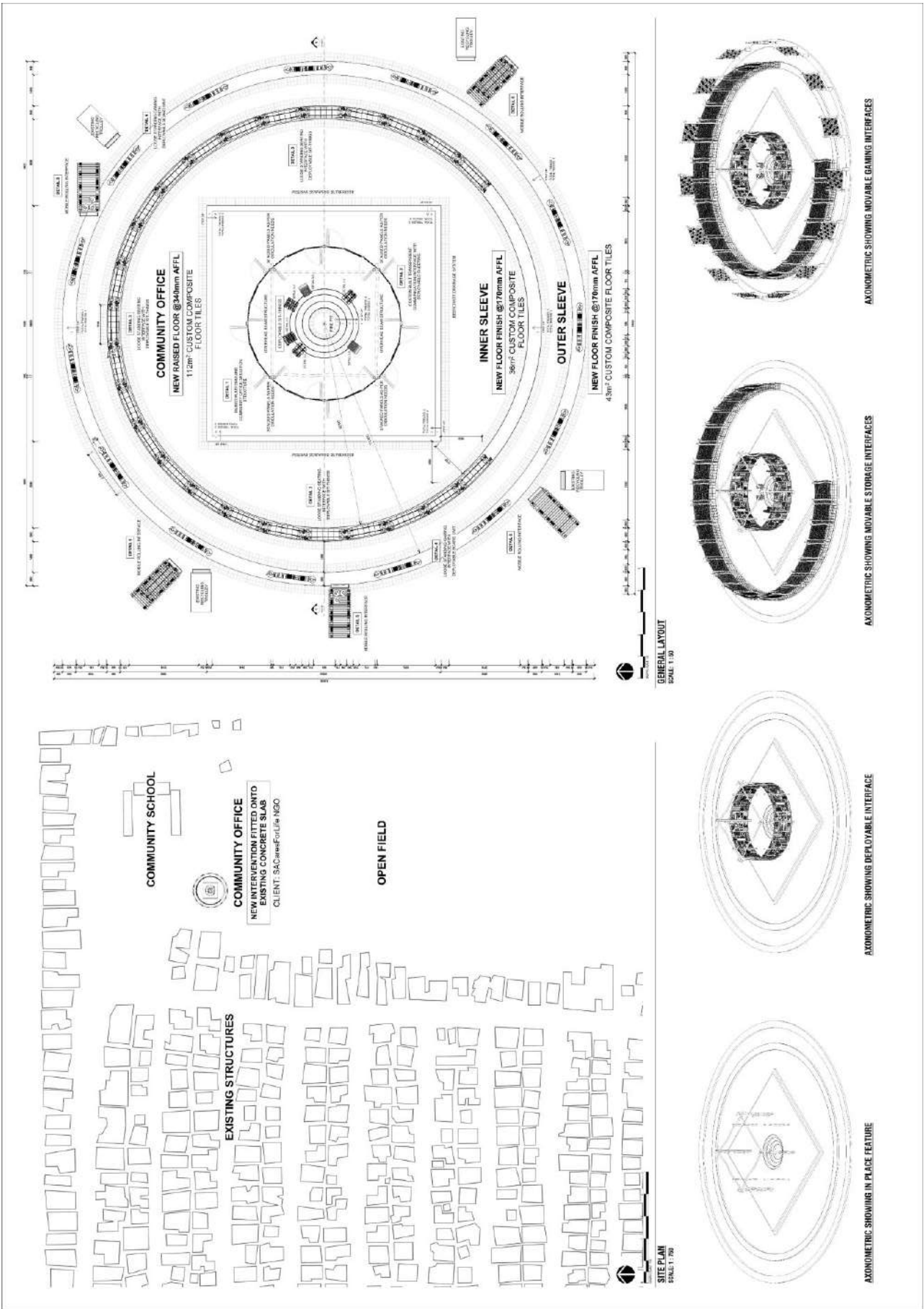Urban Citizen Studio Mamelodi. 2020. Epistemic Diversity. (Univeristy of Pretoria).

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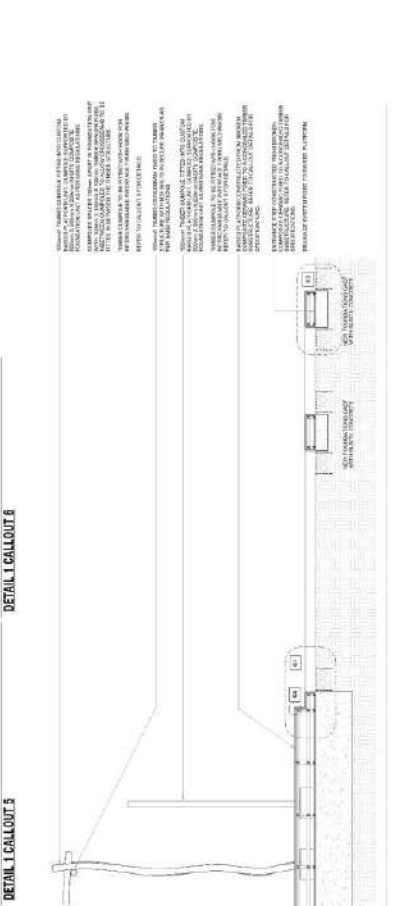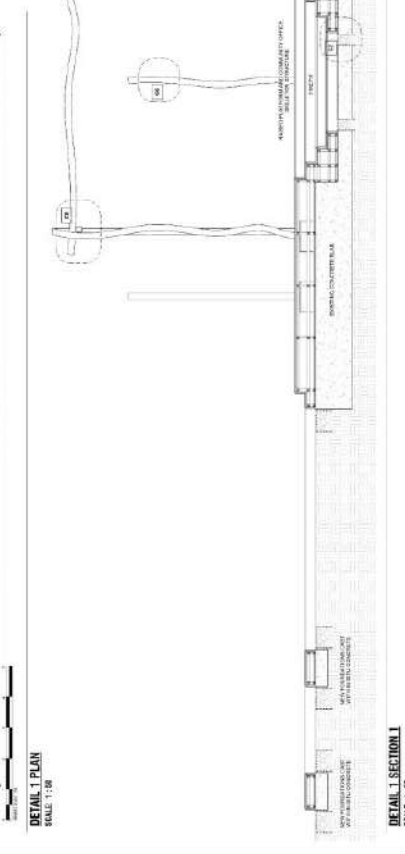Vitruvius, Cesariano, C. & Bruschi, A., 1981. De Architectura. Milano: Il Polifilo.

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COMMUNITY OFFICE
NEW RAISED FLOOR @340mm AFFL
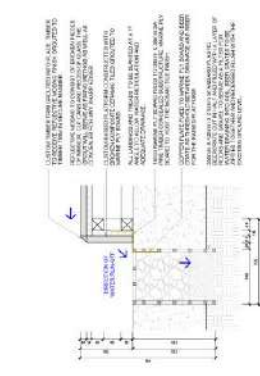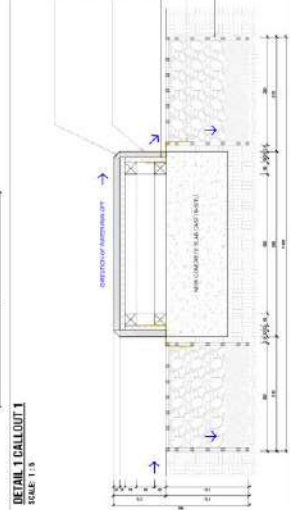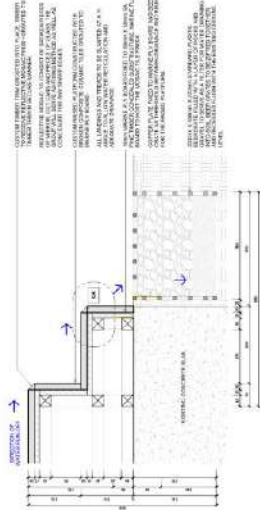112m² CUSTOM COMPOSITE FLOOR TILES

INNER SLEEVE
NEW FLOOR FINISH @170mm AFFL
36m² CUSTOM COMPOSITE FLOOR TILES

OUTER SLEEVE
NEW FLOOR FINISH @170mm AFFL
43m² CUSTOM COMPOSITE FLOOR TILES

GENERAL LAYOUT
SCALE 1:50

COMMUNITY SCHOOL

COMMUNITY OFFICE
NEW INTERVENTION FITTED ONTO
EXISTING CONCRETE SLAB
CLIENT: SACaresForULife NGO

OPEN FIELD

EXISTING STRUCTURES

SITE PLAN
SCALE 1:750

AXONOMETRIC SHOWING MOVABLE GAMING INTERFACES

AXONOMETRIC SHOWING MOVABLE STORAGE INTERFACES

AXONOMETRIC SHOWING DEPLOYABLE INTERFACE

AXONOMETRIC SHOWING IN PLACE FEATURE

DETAIL 2 AXONOMETRIC

DETAIL 4 AXONOMETRIC

DETAIL 1 AXONOMETRIC

DETAIL 3 AXONOMETRIC

DETAIL 5 AXONOMETRIC

D1 HATCHING LEGEND
SCALE: 1:25

D2 SERVICES KEY
SCALE: 1:15

COMMUNITY OFFICE
WATER RETICULATION, EMERGENCY
EVACUATION AND FIRE SAFETY PLAN
BASED ON SANS 10400 PART F & P

SERVICES PLAN
SCALE: 1:50

SECTION 1
SCALE: 1:25

DETAIL 1 CALLOUT 1
SCALE 1:5

DETAIL 1 CALLOUT 2
SCALE 1:5

DETAIL 1 CALLOUT 3
SCALE 1:5

DETAIL 1 CALLOUT 4
SCALE 1:2

DETAIL 1 CALLOUT 5

DETAIL 1 CALLOUT 6

OUTER SLEEVE
NEW FLOOR FINISH @140mm AFFL
43m² CUSTOM COMPOSITE FLOOR TILES

COMMUNITY OFFICE
NEW RAISED FLOOR @340mm AFFL
112m² CUSTOM COMPOSITE FLOOR TILES

INNER SLEEVE
NEW FLOOR FINISH @140mm AFFL
36m² CUSTOM COMPOSITE FLOOR TILES

DETAIL 1 PLAN
SCALE 1:50

DETAIL 1 SECTION 1
SCALE 1:25

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DETAIL 3 CALLOUT 1
SCALE: 1 : 5

DETAIL 3 CALLOUT 2
SCALE: 1 : 5

DETAIL 3 CALLOUT 1 AXONOMETRIC

DETAIL 3 CALLOUT 2 AXONOMETRIC

DETAIL 3 SECTION
SCALE: 1 : 10

DETAIL 3 AXONOMETRIC IN USE

DETAIL 3 PLAN
SCALE: 1 : 10

DETAIL 3 ELEVATION 1
SCALE: 1 : 10

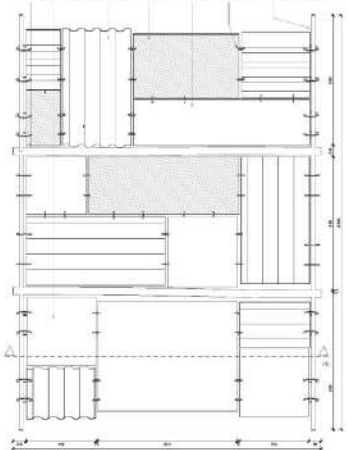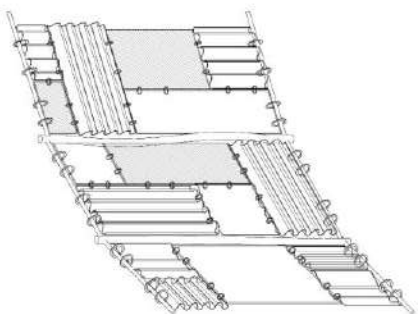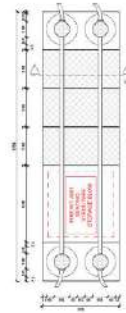DETAIL 3 AXONOMETRIC

DETAIL 2 AXONOMETRIC
SCALE:

DETAIL 2 KEY RING JOINT

DETAIL 2 PLAN
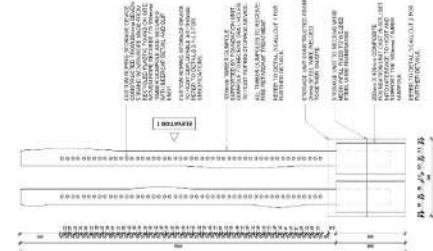SCALE: 1 : 10

DETAIL 2 ELEVATION 1
SCALE: 1 : 10

DETAIL 2 SECTION
SCALE: 1 : 10

DETAIL 2 ROPE JOINT

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DETAIL 4 AXONOMETRIC
SCALE:

DETAIL 5 AXONOMETRIC IN USE
SCALE:

DETAIL 4 CALLOUT 1
SCALE: 1:5

DETAIL 4 CALLOUT 2
SCALE: 1:5

DETAIL 4 SECTION
SCALE: 1:10

DETAIL 4 INFILL AXONOMETRIC
SCALE:

DETAIL 5 AXONOMETRIC
SCALE:

DETAIL 5 SECTION
SCALE: 1:10

DETAIL 4 PLAN
SCALE: 1:10

DETAIL 4 ELEVATION 1
SCALE: 1:10

DETAIL 4 INFILL SECTION
SCALE: 1:5

DETAIL 4 INFILL ELEVATION 1
SCALE: 1:5

DETAIL 4 INFILL PLAN
SCALE: 1:5

DETAIL 5 PLAN
SCALE: 1:10

DETAIL 5 ELEVATION 1
SCALE: 1:10

DETAIL 3A ELEVATION 1
SCALE: 1:10

DETAIL 3A AXONOMETRIC FOLDED
SCALE:

DETAIL 3B ELEVATION 1
SCALE: 1:10

DETAIL 3B FOLDED AXONOMETRIC
SCALE:

DETAIL 3A PLAN
SCALE: 1:10

DETAIL 3A AXONOMETRIC
SCALE:

DETAIL 3A SECTION
SCALE: 1:5

DETAIL 3A CALLOUT 1
SCALE:

DETAIL 3B PLAN
SCALE: 1:10

DETAIL 3B AXONOMETRIC
SCALE:

DETAIL 3B SECTION
SCALE: 1:5

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