

**ways of remembering**

*the restoration of an urban landscape  
and community in Mabopane*

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Site of Intervention, Mabopane

## introduction

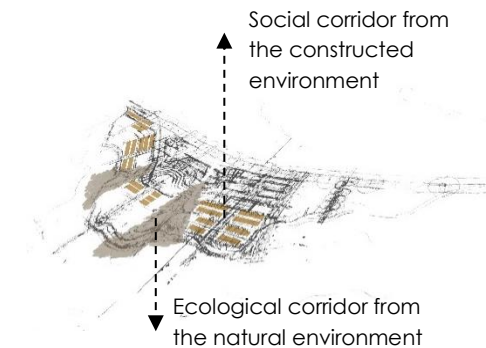
Remembering as a healing modality is a concept that is investigated via the medium of landscape architecture in the design project; *Ways of Remembering; the Restoration of a Landscape and Community in Mabopane*. This concept was inspired by the pairing of words, 'Ancient Futures', the name of a workshop on landscape narratives and cultivating sustainable relationships with the land. This pairing of words, particularly in the context of the workshop themes, suggests that there is a synergetic connection between the past and the future. Going back in time, memory and ritual can be a way to propel forward.

So then, how does this relationship manifest within the realm of landscape architecture? How can the remembering within a landscape propel it and its context forward? Through rehabilitation and restoration, as the return from its current ecologically degraded state to its original ecologically thriving state is a way in which it is healed, offering an abundance of ecosystem services to its context.

The rapid infrastructural developments in urban environments underway are encroaching on and degrading existing green spaces (Wessels et al., 2021). To reduce this ecological degradation, recommendations in literature have been made for the conservation and implementation of more green spaces in cities (Ahern et al., 2014). This pursuit would bring environmental benefits; such as amplifying the ecological resilience of a place while enhancing the health and wellbeing of its people (Ahern et al., 2014; Liu et al., 2021).

In this regard, this design project seeks to restore a place ecologically and socially, its landscape and its people. A green

space in Mabopane, along which the Tolwane River Tributary flows, and which the City of Tshwane has identified as a site in need of a 'green space upgrade, is where this proposed ecological and social restoration will manifest. An analysis of the ecological and social conditions of the site illustrates a relationship between spatial typology and rituals taking place within them. Natural spaces, such as the river tributary, host spiritual rituals such as prayer and baptisms, whereas constructed spaces, such as sidewalks, host functional and economic activities such as trading of food and medicine. These findings shaped the program proposal and spatial design strategy; a threshold from the natural environment to the constructed environment that serves as a platform that cultivates sustainable human-nature relations through river restoration and urban agriculture.



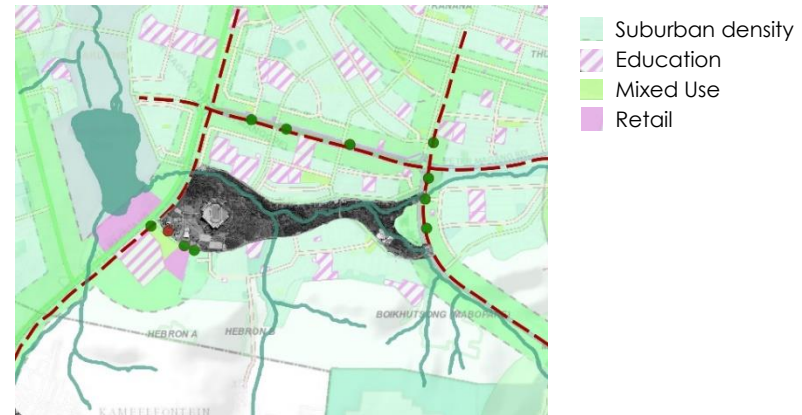
Restoration of an urban landscape and community

## project brief:

The green space in Mabopane, which sits in between, M21, Morula Street, Loveday Street and Monareng Street, presents a number of challenges, the most pertinent being the polluted river and degraded green space. Broken infrastructure, sewage leakages, alien invasive plant species, eroded soils and sedimentation are some of the poor environmental conditions that have been observed. Additionally, the ODI Stadium, a landmark on site, which used to host a wide range of local and national sporting events, and which was described by one of the Mabopane residents as 'the face of Mabopane', is now dilapidated, underutilized and a site of vandalism. Moreover, this green space stands in isolation from its surrounding context, which is predominantly residential and also includes a number of education institutions, economic nodes and activities.



2 ecologically degraded river tributary



The challenges presented by the site as well as the concept and its supporting make way for a project proposal for rehabilitation and restoration of the Tolwane River Tributary as well as a designed green space that offers therapeutic value to the user profiles of the context. The dynamic urban context of active vehicular and foot traffic, public and private institutions of education and of healthcare, sporting events and activities, as well street trade and services, could also be filtered into the site in such a way that socially activates it and allows it to be of greater service to the Mabopane community. The ways in which people currently engage the landscape and others in proximity, were used as tools to shape the spatial design concept and the programmes it would host.

### Rituals on and in Proximity to Site:

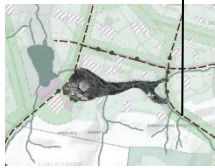
Key Definitions:

\*Ancient space: a space that has existed for a very long time

\*Contemporary space: a space that has come into existence within the current period of time

\*Ritual: Activities in performed in similar ways each time

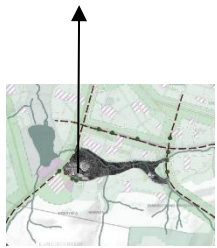




Ancient and naturalistic spaces:  
Tolwane River Tributary and Ridge:  
Baptisms, prayer, cleaning, walking  
and foraging medicines are some  
of the rituals performed by priests,  
church members, residents and  
traditional healers.



Cultivated Green Spaces:  
Small scale urban food agricultural  
gardens have been established  
along open natural spaces within  
proximity to the site. Urban farming  
and trading of food produce are  
the activities that take place there.



### Contemporary and Constructed Spaces

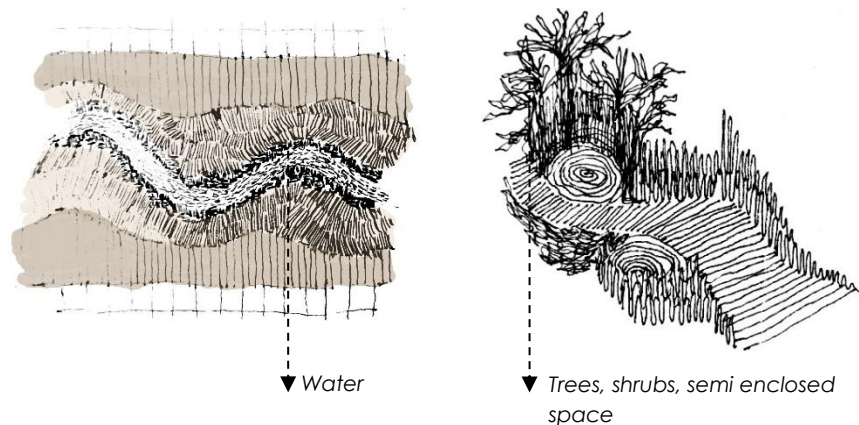
Some of the rituals observed that take place on the more hardscaped and contemporary spaces include walking, across a bridge or along pathways, as well as trading of goods, such as fresh produce and medicine, on street edges, particularly along Morula Street.



The observations reveal that the more spiritual rituals take place on the ancient, natural and more secluded spaces of the site context while the functional and economic rituals happen on the more contemporary, constructed spaces in the public realm. This relationship between ritual and spatial typology is also used as an informant for the spatial design concept and programme.

### Theoretical Concepts

Liu et al., 2021 investigate the spatial characteristics of landscapes that allow for the physiological and psychological restoration of its visitors. The study finds that natural and biodiverse green spaces have greater therapeutic effects than constructed and less biodiverse spaces. The natural elements of significant therapeutic value include water, shrubs, trees, and semi enclosed green spaces (Liu et al., 2021). Similar findings are echoed in Cocks et al., (2016). Study participants expressed that observing the aesthetic qualities of water and trees, as well as listening to their sounds are sensory experiences that instil feelings of peace and relaxation (Cocks et al., 2016).



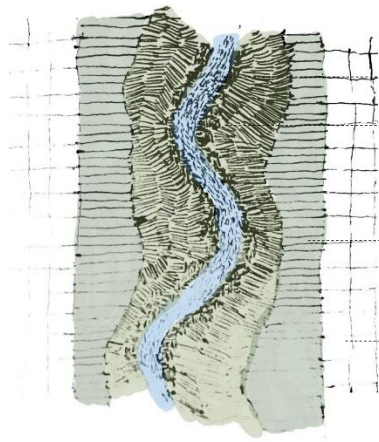
Conradson, (2005), contributes to this discourse of therapeutic landscapes by stating that the spatial characteristics of landscapes as well as the ways in which a landscape is engaged, are what inform therapeutic landscape experiences. This study found that interactions such as bird watching and gardening contributed to

one's sense of peace and inner freedom (Conradson, 2005). Another study shows that visiting natural settings and observing ecosystems are interactions that reduce stress and enhance mental wellbeing (Russel et al., 2013).

### **Design and Programme Strategy**

The design and programme strategy derives from the project concept, site analysis as well as supporting theory. The heart of the design and programme strategy is the restoration of the Tolwane River Tributary. Alongside the river tributary therapeutic green spaces, in the form of medicinal and food gardens, will be designed, transitioning from naturalistic gardens, closer to the watercourse, and more designed gardens, closer to the constructed built environment.

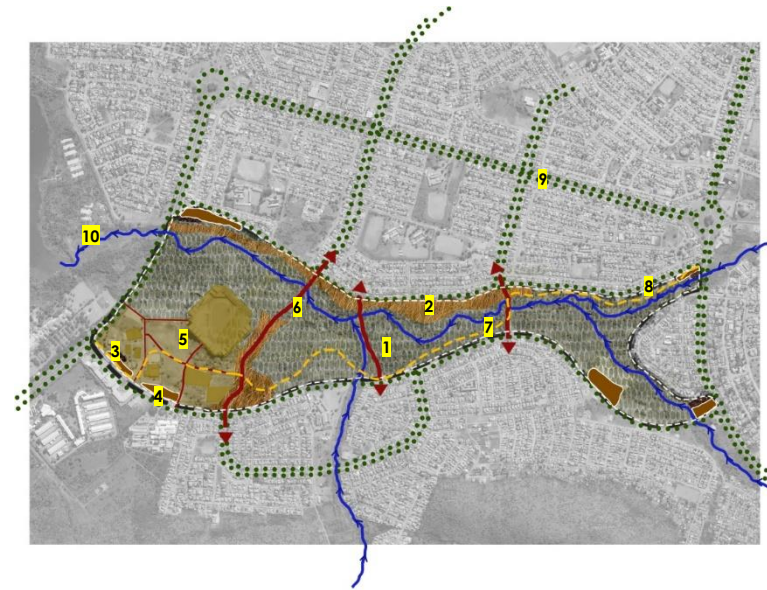
This strategy is sensitive to the ecological conditions of the site, the riparian zone being more ecologically sensitive than the edge of the site, which has largely been interfered with and ecologically degraded by people. In addition to the ecological sensitivity of the strategy, the gradual transition from the ancient and natural body, the river tributary, through the naturalistic medicinal gardens, cultivated food gardens to the contemporary constructed space, supports existing spiritual, functional, and economic rituals that take place on site.



- River
- Designed Green Spaces  
Medicinal Gardens  
(More naturalistic)
- Designed Green Spaces  
Foods Gardens  
(Less naturalistic)
- Supports Surrounding  
Context: Street Trade  
Education zones  
Residents

natural space  
private (secluded) space  
spiritual space  
ancient space

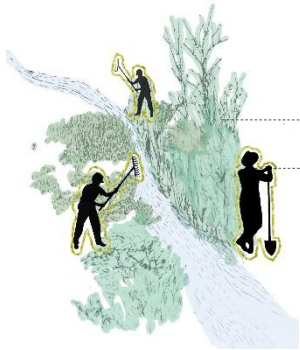
constructed space  
public space  
functional space  
contemporary space



## design Iterations

### Framework Objectives

Restoration (healing) of Land and People



→ **Restoration of River and Land**



→ **Restoration of People**  
(Physical, Psychological and  
Spiritual Wellbeing)



**Restoration of People**  
(Social and Economic  
Empowerment):



Foster stronger human-  
nature relationships

1. Nature Conservation
2. Medicinal Gardens and  
Agricultural Lots
3. Street Vendors
4. Recreational (Social) Zone



strengthened  
local food  
economy

5. Sports Zone
6. Access Routes
7. Hiking Trail
8. Running Track
9. Green Corridor
10. Tolwane River Restoraion



Movement zones

Eg: hikes lead by  
We Gives Thanks  
Nursery



**sketchplan objectives**

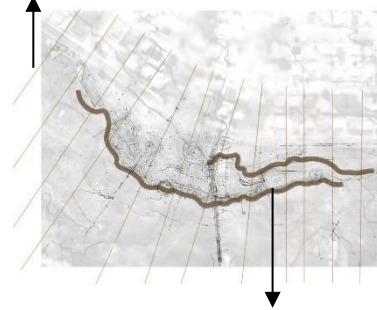


Sketch plan area

Restoration(healing) of Land and People

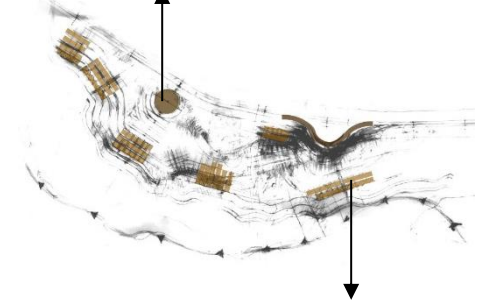
- through designed thresholds from natural space to constructed space
- together with ecologically restorative and socially empowering programmes

grid of constructed environment



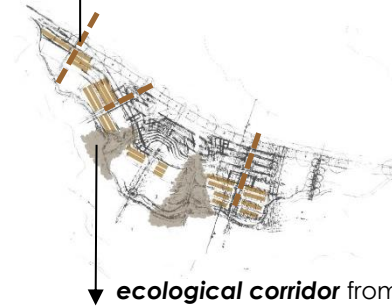
contours of natural environment

gathering nodes overlaid in between



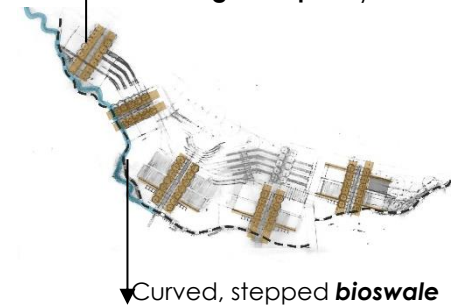
agricultural nodes

social corridor from the constructed environment



ecological corridor from the natural environment

Orchards and Hedges (Partially enclosed green space)



Curved, stepped bioswale  
Therapeutic Landscape



**Legend:**

- 1 Pedestrian Pathway
- 2 Main Access Route
- 3 Social Corridor
- 4 Ecological Corridor
- 5 Meandering Route
- 6 Water Channel
- 7 Agricultural Lot
- 8 Terraced Gardens
- 9 Compost
- 10 Lawn
- 11 Amphitheatre
- 12 Storage Room
- 13 Ablutions

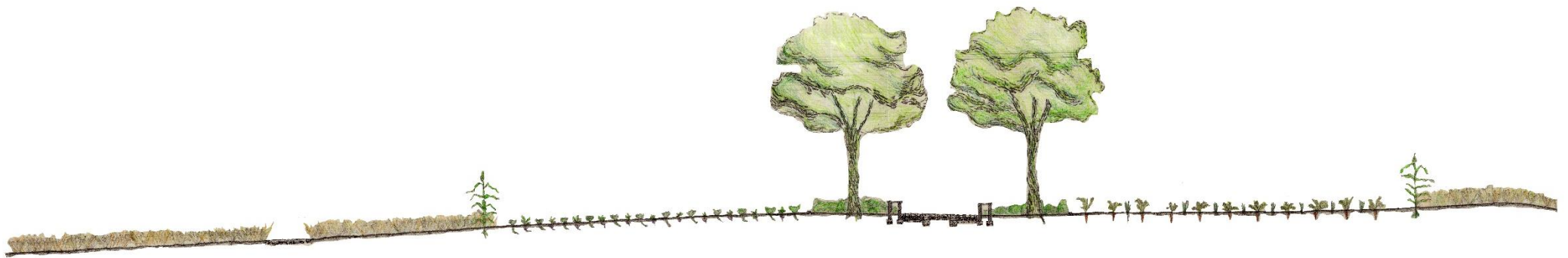
1:200 

Sketch Plan  
1:200 on A0

A



Section AA  
1100 on A0



Section BB  
1:50 on A0



## Planting Strategy

This project focuses on plant systems, as in the context of the intervention, they articulate the project concept best. The revegetation of the Central Sandy Bushveld plant species along the riverbanks and surrounding disturbed land, together with cultivation of vegetable crops, closer to the street edge, allow for the restoration of the landscape and the community.

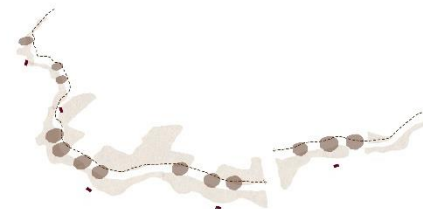
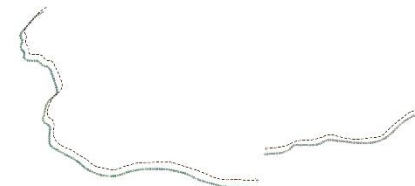
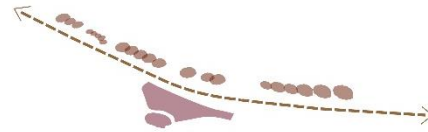
### Restoration of Landscape

The restoration of the natural environment enhances its ecological resilience and increases the number of ecosystems services it offers. The restorative process includes removing alien plant species, rehabilitating riverbank profiles and replanting native plant species (the Central Sandy Bushveld).

### Restoration of Community

The urban agriculture scheme is socially restorative as it enhances food security, strengthens the local economy, and fosters stronger social and nature connections.

### Planting Scheme



### Primary access route and social nodes along and in between Street Trees



### Social corridors in between Orchards and Agricultural Lots



### Meandering Route and Places of Pause along South African medicinal plants



### and Central Sandy Bushveld Ecological corridors



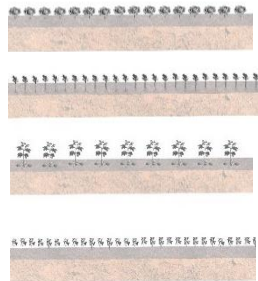


## Permaculture Strategy

Permaculture strategies have been proposed to enhance the sustainability of the urban agriculture scheme.

### Crop Rotation

Rotate crops sequentially, after harvest mitigates nutritional deficiencies of soil as each has nutritional requirements. Further, this strategy mitigates pests and diseases.

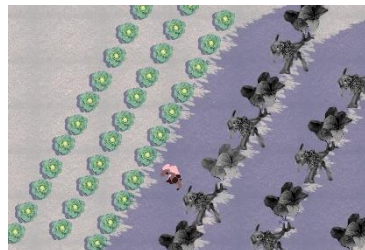


For example: cabbage, carrots, potatoes and common beans in rotation

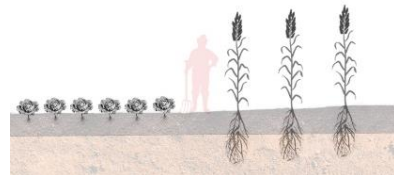
### Companion Planting

The growth of plants near each other that benefit one of or both plants.

Eg; soil fertility, shade regulation and pest mitigation.



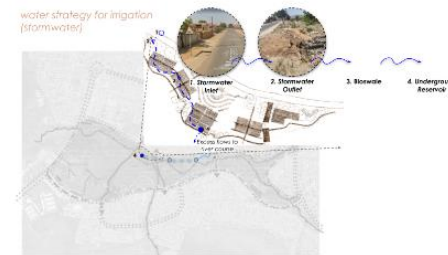
Sorghum bicolor and Vigna unguiculata (living trellis) as boarder along agricultural lots



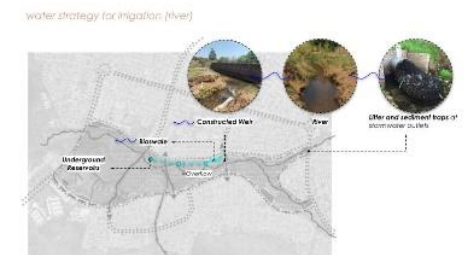
## Water Strategy

Primary Water Strategy: The main water strategy is to harvest and purify stormwater runoff for the irrigation of the landscape

### Strategy Iterations



Water source: storm water outlet

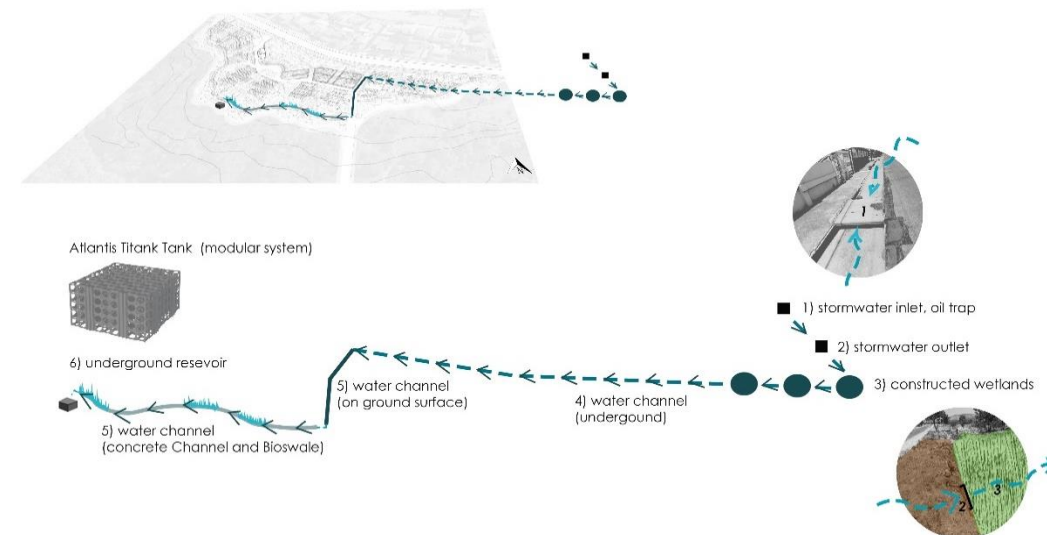


Water source: river

### Final Strategy

#### Water Strategy

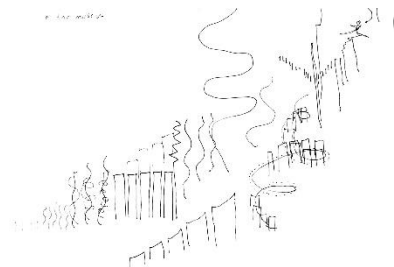
Stormwater Harvest → (Drip) Irrigation



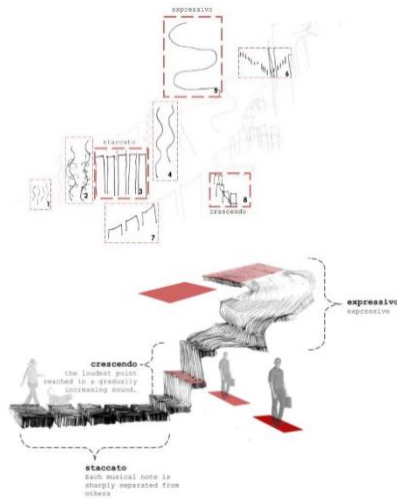
## critical Reflection 1 – impact of Mini-Project

Landscape Expressions is a project that investigates the rhythms that make up a composition of a landscape and how they elicit sensory experiences. What was first explored were 'alternative' ways in which the making of a spatial composition can unfold, for instance and in this case, music analogy. Music analogy: the mapping of the rhythms of a musical composition to then translate them into a spatial composition.

What is achieved in this translation? Perhaps insight that the energy that sound carries is one that can be embodied by a landscape. And if the landscape architect intends on creating space that arouses particularly feelings, perhaps music analogy is a tool that can be employed.

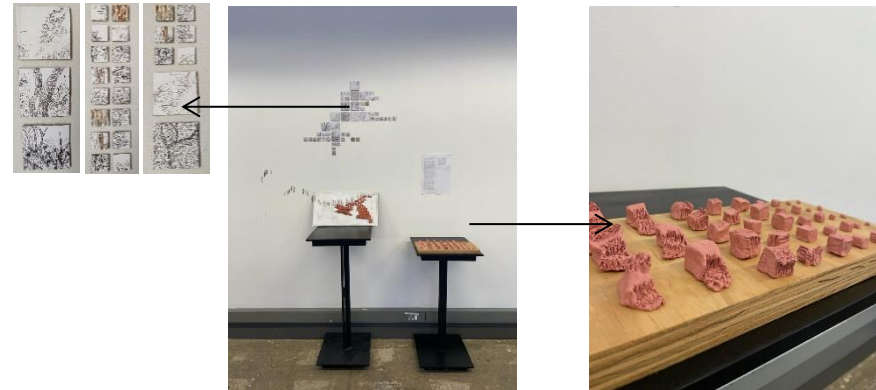


*rhythms of a musical composition*



*translated into a spatial composition*

At a more detailed scale, the textures of the elements of a landscape, also shape sensory experiences, illiciting particular feelings. This investigation is what emerged most strongly in the work exhibited, as seen in the photographs below.



*Landscape Expressions; textures of space*

Ways of remembering, the restoration of a landscape and urban community, in Mabopane, aims to design landscapes that allow for therapeutic experiences. The landscape expressions, such as the rhythms of the spatial composition and textures of plant and material palette, that are psychologically restorative, can inform the spatial qualities of this design project.

## **major project outcome reflection**

There are many ways in which to approach the making of a landscape and the body of work produced by the 2023 Mprof Landscape Architecture Class shows this. Proposing a programme that addresses critical global issues, such as regenerative food production, is a way. Gaging the sense of place and carefully listening to its spatial needs is another. And in the case of my major project, Ways of Remembering, the restoration of an urban landscape and community in Mabopane, a guiding philosophy, and as the title suggests, remembering as restoration, was the chosen approach to steer and shape the making of spatial intervention.

Landscape Architecture is widely described as a tool and platform in which to design and create green spaces, most of which are intended for public use. This Major Project contributes to this general "knowing and understanding" by acknowledging what landscape architecture is while proposing what it could be. Landscape Architecture; a tool and platform in which to unpack, interrogate, repack, and make meaning of theoretical concepts. Remembering as a method to restore, going back as a way to move forward, are the theoretical ideas investigated, with landscape architecture as the tool of investigation and Odi green space in Mabopane, as the site of inquiry.

How can the natural and built fabrics of the site be engaged through a spatial intervention that allows for the restoration (healing) of the landscape and community?

And what role does the remembrance of this ecological and social landscape play in this pursuit?

The sketch plan was shaped by this engagement of existing natural and built space and addressing their respective spatial requirements. As communicated earlier in this paper, the contours of an ecological corridor growing from the natural environment together with the grid spatial arrangement of, and social corridor extending from the built environment, are some elements that had a significant role in developing the form of the spatial intervention. The proposed programmes, namely river and land restoration, as well as urban agriculture, address the ecological needs, of the ecologically degraded site as well as the social needs of the community and their local economic network.

To what extent has the landscape and community been restored?

At a framework scale more than 50% of the site has been reserved for nature restoration and thereafter conservation, this covers the Tolwane River tributary as well as natural bodies, both terrestrial and aquatic, surrounding it. These environmental efforts, which include rehabilitating the riverbank profile and the revegetation of the Central Sandy Bushveld plant species, would restore the landscape, and its ecosystems and make way for greater biodiversity. Furthermore, this restoration would increase the ecosystem services offered, such as cleaner water supply, natural medicines, and healthier soils, aiding cultivation, and thus enhancing the community's livelihood and wellbeing.

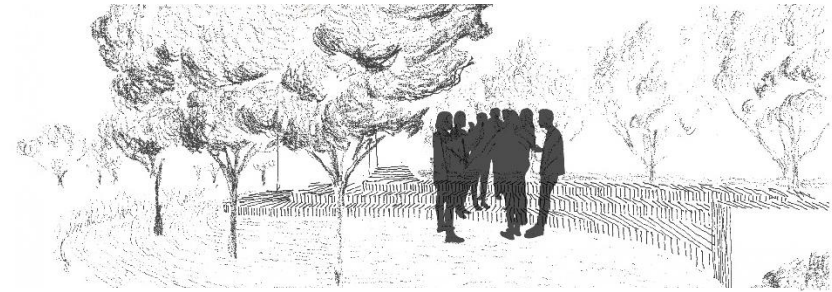
## **conclusion**

The concept; Remembering as a method to restore, together with literature, articulating the need for green space interventions in urban environments for ecological and social wellbeing, is the foundation from which the design project, "Ways of Remembering, the restoration of a landscape and urban community in Mabopane", emerges.

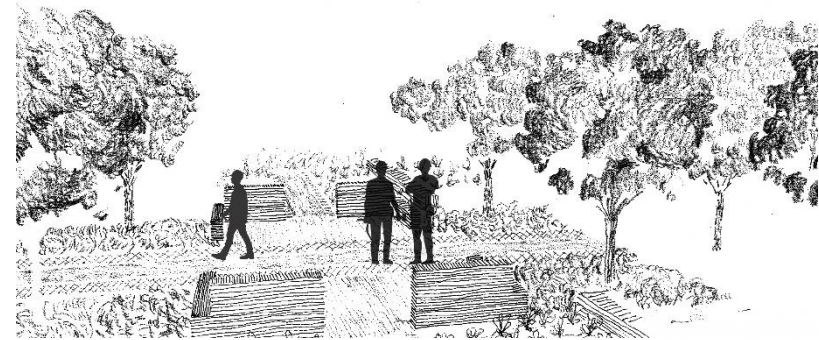
### **Main Findings**

The ways in which the spatial typologies of the site are engaged, spiritual rituals in natural spaces, functional rituals in cultivated and constructed spaces, reveal the relations the community has with the spaces of their environment. With the intentions of creating spatial interventions sensitive and appropriate to the context, these relations became critical design informants.

The restoration of a landscape and the restoration of people, in this case, of the Tolwane River Tributary and of the community in Mabopane, are processes that unfold simultaneously and in synergy. The removal of rubble, repairing of stormwater infrastructure, replanting of native plant species in the place of exotic invasive species are laborious tasks requiring human effort. These laborious, tangible, and intimate engagements with nature restore the ecological integrity of the landscape while enhancing the psychological and physiological well-being of the participants involved. In the same manner, the cultivation of vegetable lots, is socially restorative through food security, economic empowerment and therapeutic encounters, and additionally, as in the case of this project, nutritionally enriching soils, vegetation and land habitat that was once degraded.



Amphitheatre, primary social and gathering node,  
spatially defined with indigenous street trees



Social corridors in between orchards and vegetable lots.



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