

CHAPTER

06

CONCLUSIONS

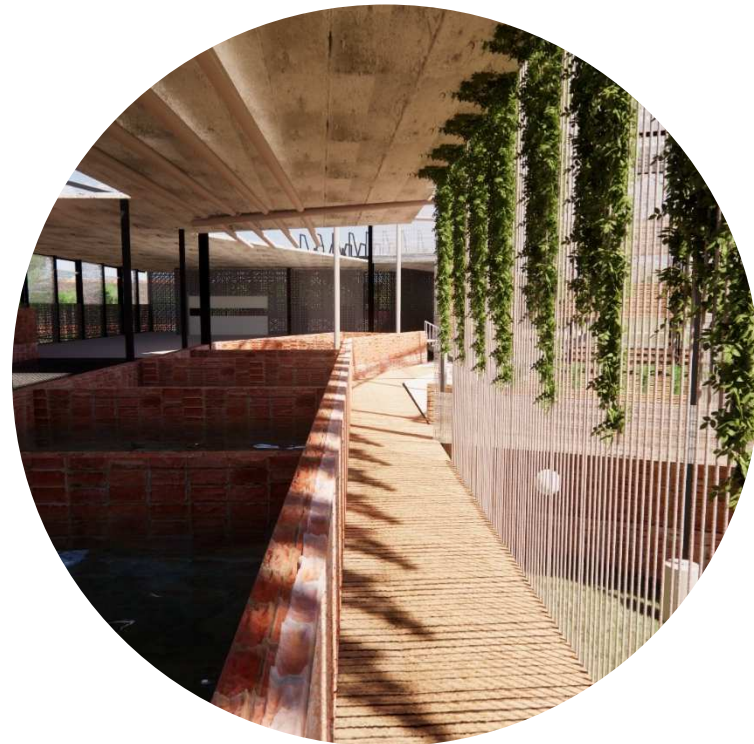


Figure 6.1: Concluding aquaponic render (Author 2021).

A Theoretical Framework

D Framework analysing Melusi Waterfront

B Value added to the Architectural profession

C Personal reflection

This mini-dissertation's main intention is to act as a Catalytic Nexus. The catalytic aspects of the project manifested through community engagement and co-design workshops as well as through the theoretical framework developed by the author on how to have a balanced approach to establish co-evolution towards self-efficiency in informal settlements chapter 4. It is important to understand that the project needs both the *Catalyst* (momentum) and the *Nexus* (bridging) to be self-sustaining and not dependent on external resources. Ultimately contributing to an emerging city such as Melusi.

The Nexus manifested itself through the process of community engagement and co-design workshops, bridges multiple stakeholders to establish stronger relationships through the proposed five phased upgrading process based on group work from the Reality Studio and stakeholder evolution (see chapter 3). Furthermore it developed to bridge and repair the relationship between the socio landscape and the ecological landscape. The intervention's intention is to physically bridge between the community and the existing quarry hole. The second intention is to supply the community with a healthy, safe, and resourceful public space.

The technical intention was inspired by the definition of the name Melusi. The name means "Leader" or "Shepard" in the Zulu language. The COPC researchers showcased a psychological connection towards the community during informal interviews which idealizes Melusi as a space of refuge and safety which is contradicting due to the physical hazards visible and experienced on site, especially around the existing quarry hole. The architectural intention aims to restore the invisible boundary and tends to repair the relationship with the quarry through introducing Piet Vosloo's (2018) theory of rehabilitate post-industrial abandoned quarry holes into healthy open public space which will enhance co-existence between Melusi dwellers and the rehabilitation of the existing polluted quarry edges. This process will include activating the edges with programs which will reduce the pollution and transform the current edge from dumping site to resource. The National Environmental Act 107 of 1998 states that "Everyone has the right to have the benefit of present and future generations." (Burmeister 2014:2-3). Karina Landman (2018:2) also raised the challenge of rapid urbanisation experienced by cities in South Africa and therefore open public spaces are limited and are increasingly needed. Every post-industrial abandoned landscape has the potential to be rehabilitated to add more value towards healthy public spaces for informal dwellers.

VALUE ADDED TO THE ARCHITECTURAL PROFESSION

To achieve the following intentions, the project was implemented the following theories such as resilience thinking, biophilic design, as well as Maslow's hierarchy of needs (Maslow 1943). This manifested as the technical structure which personified as a *Leader* or *Sheperd*. It has the following qualities:

PROVIDER- Which is manifested in the programs – Aquaponic farm, sanitation services and a water filtration system.

PROTECTOR- Translates into three categories namely the physical, psychological, and environmental. The physical protector is translated into the form imitating a spine wrapping around the dangerous quarry edge. The second implementation of protector is visible in the biophilic architecture principle- Prospect and Refuge. Prospect and Refuge refers to the phenomena where one obtains information of the environment while being in a protective shelter, which has positive health and well-being results, leading to a reduction in stress, boredom, irritation, fatigue, and perceived vulnerability (Browning et al, 2014).

TEACHER / LEARNER- Manifests through the technical language of exposing systems such as mechanical systems inspired by Olson Kundig project- Gallery 242 State Street (ArchDaily n.d). Another exposed system is the Aquaponic farm based on the process and principles of The Karoo Kafee in Lynwood, Pretoria. The exposure of the systems implements experimental learning through observation and improves community participation through mechanical systems.

PROCESS- COMMUNITY PARTICIPATION- Translates through the material choices of using recyclable materials into the design process. Community members participates in the construction process when using recyclable materials, this will improve community participation and the transference of ownership towards a sustainable community.

In conclusion by evaluating the success of this intervention by using the theoretical framework the project is in balance and addresses both the Socio and Ecological principles as defined in chapter 4. Through analysing previous informal upgrading projects, it was evident to ensure success a more balanced approach is necessary when working in vulnerable communities. This project adds to the Architectural profession in terms of how to approach emerging cities in South Africa by applying the balanced approach towards co-evolution and community independence. This project also contributes by defining the project intentions through community engagement and co-design workshops. This mini dissertation also discovered the importance of the child's perspective in public design processes, where children have been previously ignored as important stakeholders in community upgrading projects. Finally, the Architectural contribution lies in the circular system and defining symbiotic programs that function in a bigger eco-system. The value of this intervention lies in the possibility of providing an income for the community by allowing them to improve personally by acquiring new skills and taking ownership of a project to achieve self-actualization.

PERSONAL REFLECTION

This mini dissertation has been such an inspiring process. This project widened my horizons and challenged me by placing myself outside my comfort zone. The COVID-19 pandemic and social distancing have been challenging by not have as much personal contact with study leaders and peers. As well as getting COVID-19 myself in September which placed physical and mental stress on myself. COVID-19 fatigue is a reality and took me some time to get back into my usual work pace. This was a very big mental obstacle for me which led to scaling down on my design. While I struggled at the beginning of the year to scale down on my design, because it was too ambitious and on a design level not that successful, it came naturally after contracting COVID-19.

I am truly thankful that I could pursue my master's degree in this difficult time. I grew personally and mentally to be stronger and to reach out from my circumstances.

I will be able to reapply the skills I learned through the year in practice and in my professional career. I learned how to work remotely and to collaborate with teams online. The second skill I will be able to reapply is to define a brief, specifically in informal communities where language barriers are challenging. In these contexts, my exposure to community engagement, co-design activities and by playing games has been beneficial.

FRAMEWORK ANALIZING THE FINAL PRODUCT

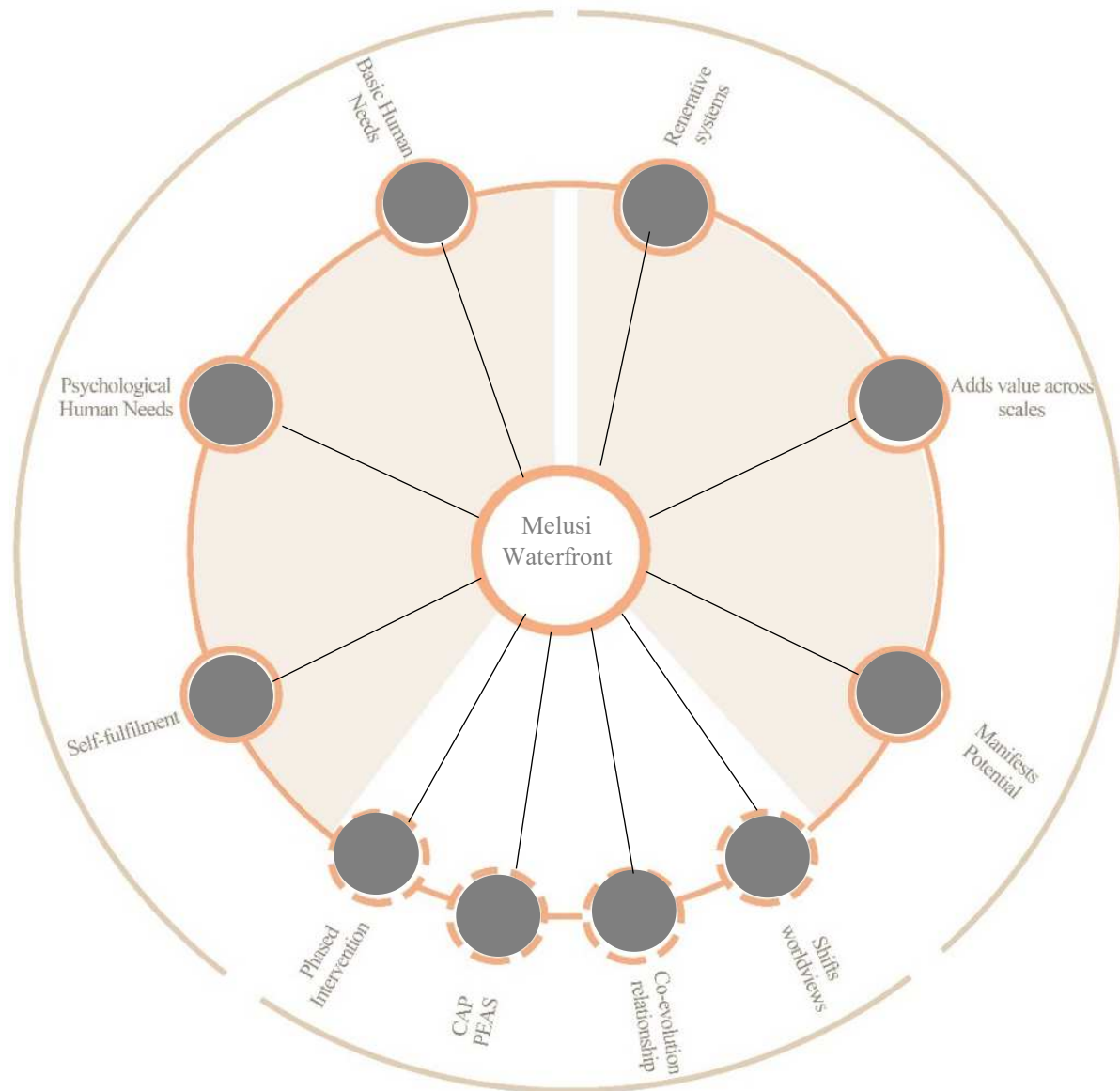


Figure 6.2: Theoretical framework assessing Melusi waterfront (Author 2021).

The Melusi Waterfront is a balanced upgrading intervention and entails the potential to manifest a sustainable community towards self-efficiency and independence.

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