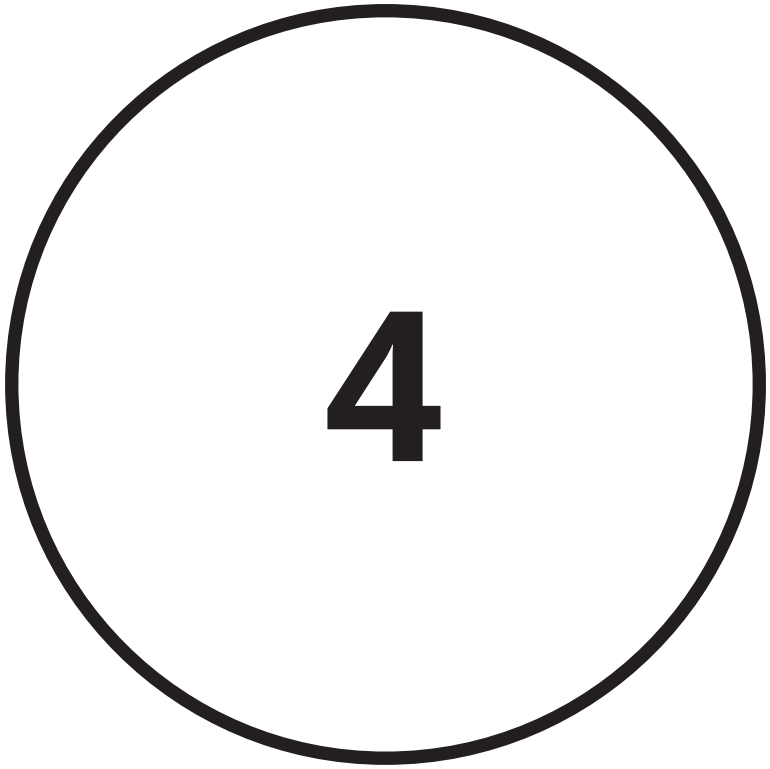

REFLECTION

A SUMMARY

Figure.205: DATA CENTRE NORTH FACADE(AUTHOR 2021)

4.1 INTRODUCTION

The fourth and final chapter reflects on the dissertation with a brief summary. Unpacking what the intentions were, why it is important, the site, and how it was approached. This chapter concludes by discussing the architectural contribution to the discourse.

4.2 APPROACH

The dissertation and project proposes an architectural intervention within the abandoned De Villa Bois structure, where humans and nature are reconnected, live in symbiosis and co-evolution through the development of an interface. This interface allows for interaction and exposure of the ecological system to the human occupants of the space, whilst providing various co-benefits.

These co-benefits include; ecosystem services, with the capacity to improve and benefit various aspects of a space (Wohlitz et al 2016), reduced blood pressure (Laumann, Gärling & Stormark 2001), increased attention span (Tennessen & Cimprich 1995) and an increase in biodiversity of the site, etc.

This interface between of the human-nature relationship will exist as a series of systems placed within the structure these systems (natural and man made) will be exposed to the public. One such system is the “living wall”, which acts as a sun shade, working with other systems to cool and heat the structure at the appropriate times. The living wall will constitute various species of plants, attracting insects and birds and providing more habitat and shelter as they grow.

These systems and the benefit they provide are developed from the deep ecological framework from Arne Naese and George Sessions (1985) and the Biophilia hypothesis by of Edward Wilson (1993). Deep Ecology states that all organism have intrinsic value, or value irrespective of their use to humans, as such they are just as important as the human species.

The Biophilia Hypothesis assert that human happiness and a fulfilling existence is inherently dependent on our relationship with the natural world, as such the natural world and inclusion of it within our human systems are of paramount importance.

The project proposes to implement these theories into the structure to allow for the reconnection of the human-nature relationship by exposing various ecological systems to the occupants.

4.3 REASONING

The importance of the introduction of an ecosystem into human development cannot be understated. Globally there is a dramatic decline in the number of fauna and flora, on a scale never seen before (Stokstad 2019). The reason for the decline is directly caused by human impact on the natural world which includes: changes in land use, pollution, direct misuse of species, climate change, and invasive alien species (Corvalan, Hales & McMichael 2005).

The sad fact is that these problems are only expected to increase (European environment agency 2015) as humans continue to develop into natural areas and strip away at habitat.

The built environment and architecture in general find ourselves in the sphere of changing land use to other function, where once it was a functioning ecosystem, it is now a building. It is therefore important to adapt our approach to design, by taking into account the needs of an ecosystem and planning for it appropriately, to allow a natural system to thrive within a human environment.

Furthermore, rethinking our approach to development will highlight the need to reuse abandoned and decaying spaces. This should be much more important than breaking new ground.

In such a way one can protect existing natural spaces whilst improving abandoned ones.

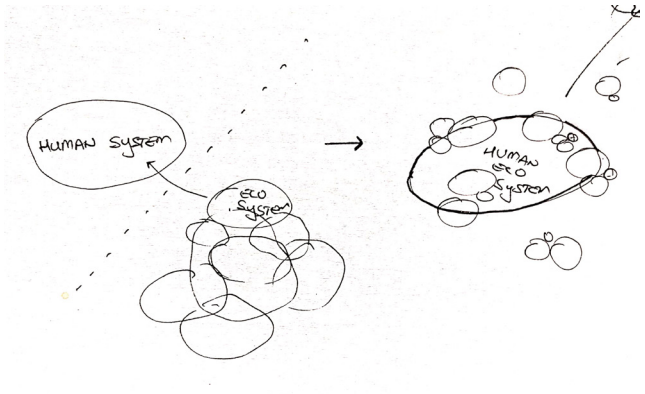

Figure.206: CONCEPTUAL APPROACH (AUTHOR 2021)

4.4 SITE

The abandoned De Villa Bois structure is found in the South East of Pretoria. In Wingate Park, in the larger Garstkloof area, on the corner of Delmas Road and De Villa Bois Marieuil drive.

Its history has caused it to have a bad reputation within the community, as a result of the failed investment group, losing its assets and the subsequent discontinuation of construction.

This meant the loss of substantial amounts of capital for the community who invested in the project. Furthermore, the building, an eyesore, remains dormant with no change in sight

The approach for the site included the larger Garstkloof site as part of a intervention to connect green space within the area in a approach known as Island Biogeography. This states that green areas within an area should be seen as connected entities and not separate spaces (Davis & Glick 1978). By planning for these spaces in such a way makes them more robust to change and improves upon diversity (Handel 2017).

The rehabilitation of the greater Garstkloof site will cause an improvement for the biodiversity and ecological health of the site and the larger Garstkloof site.

4.5 ARCHITECTURAL CONTRIBUTION

The architectural contribution that this project/ dissertation suggests is a new approach towards design. One where human needs and ecosystem needs are not seen as separate but rather as equally important and both having intrinsic value.

By integrating the natural world with our human systems, ecosystems can thrive whilst human function can still continue with both providing a benefit and a service to each other, in symbiosis and co-evolution. This means the health and flourishing of ecosystem can continue, together with human development.

This approach and theory can be implemented in any space, be it an abandoned/existing structure or a new development.

By following this approach one can improve biodiversity within an area, creating a system where species thrive and become more resilient and robust, whilst allowing humans to interface and exchange with that system, as humans have done for millennia.

In doing so there can be a change in approach to how humans see the ecological world, not as a separated from humans in any way, but rather

as but rather as a interconnected web of life (Capra 1997), that humans are a part of.

The project had various limitations, that made it difficult to firstly develop the design but also to implement the discussed theory.

The built environment and architecture are rarely taught to understand the workings of an ecosystem. This is somewhat out of our scope of work except if you are perhaps a landscape architect. The profession in general should have knowledge on how to approach such systems. In this way the natural world and human can integrate better than we are doing now. When architects are at the forefront of development it is imperative that we understand these systems and design for them.

Other obstacles exist, if our modus operandi was the betterment of the natural world, our hands are tied by what the client "wants". Causing the professional to give up on certain points or approaches.

This must change. A change in mindset and worldview is required for everyone (not just architects). Implementation of legislative changes from SACAP and our respective city councils could act as a guideline and "force" clients, developers and architects to make better choices and have better approaches.

In this way the developer and/or client has no say in the matter and it can guide better strategy and action that in turn protect, conserve and regenerate natural systems.

4.6 AIMS ACHIEVED

Research question;

"How can an ecological system be introduced into a human system at the De Villa Bois structure through the development of an architectural intervention?"

Through the implementation of the various theories, the specific site/programme chosen and the design developed, the method is clear. I do however worry that the intervention in regards to ecological introduction might be seen as "green washing", which is not the case.

The ecosystem introduction should be seen as an integral part of this symbiotic system (human-nature). This system works with the human programme in certain instance but also is allowed to functions and flourish on its own.

A deeper change in thinking is required on a societal level to reconnect humans with nature, with interventions and approaches like Deep Ecology, regenerative sustainability and the others discussed, this can be achieved.

4.7 REFLECTION

My normative position changed and adapted throughout this year with the further reading and new found theory that I investigated. I believe this position and theory will continue to guide my life within architecture and beyond (it will most probably evolve and adapted as time goes on).

The masters year of 2021 was one of mixed emotions or two halves.

With project inception the project was progressing, although I had to change site almost 3 times.

The proposal crit caused me to solidify De Villa bois as the site for my masters project. This came with various unforeseen challenges; The building is currently in a legal dispute and information/ plans and so was difficult to acquire as it is under non-disclosure. I got very lucky in how I finally obtained building plans (this was only after the mid year crit).

My mid-year crit was disastrous and hands down the worst crit of my academic career within this department and probably my lowest point in the masters year.

This was the point in the year where I moved into studio and started working extremely hard (spending an enormous amount of time in studio. If lock-down regulations allowed for it). This effort paid off and a few months later the tech crit happened and it went (a lot) better than the mid-year.

From there it has been a non-stop “graft” in studio to get things done and I can attribute my relative success to this space.

This space filled with like-minded individuals, all on their own path to the end of the year and all willing to take 10minutes to speak to you (project related or not). The studio culture, in my opinion, saved my year.

I will admit that it has been a very tough year, I have never had so many setbacks on a project but I assume every masters student that has come through this department feels that way.

I have learned a lot about myself in this year; patterns I fall into, strategies I use to work better and become more productive, the list goes on. This new find knowledge and work ethic will stay with me, probably for the rest of my life.

The masters year was a difficult task but I am proud of myself (although I still believe that I could’ve done more) and what I have achieved.

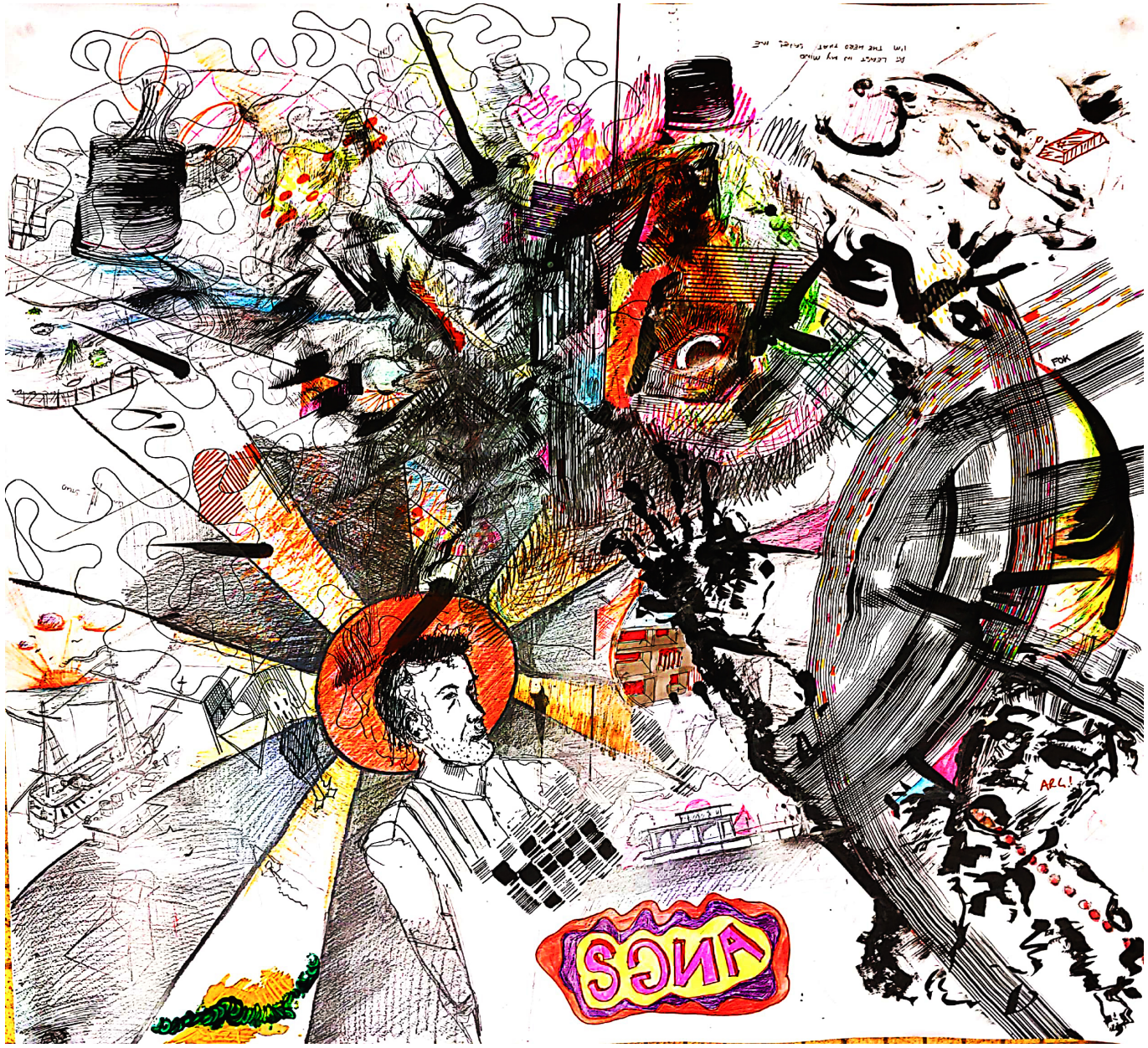

Figure.207: UNNAMED (MASTER CLASS 2021)

Figure.208: DEEP ECOLOGY

Figure.209: LOWVELD, EASTERN TRANSVAAL (PIERNEEF 1928)

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