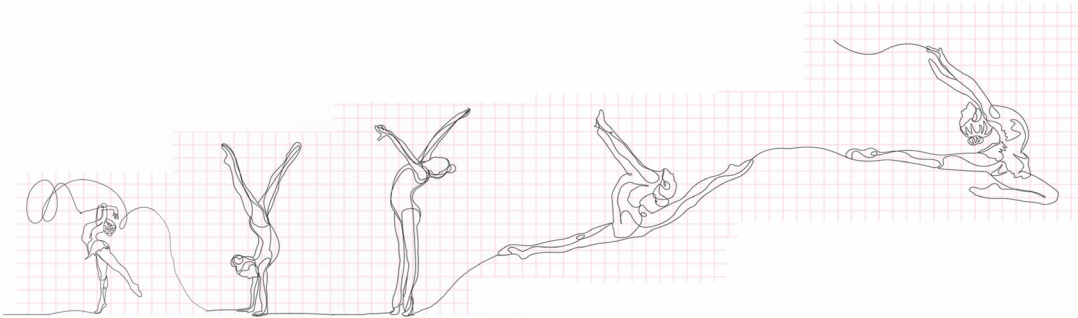


gymnastics as a tool for social cohesion

_ reimagining the Sports Facility along Klipfontein Road

University of Cape Town



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acknowledgements

An immeasurable thank you to my family and friends who have consistently been pillars of support during this year. To my supervisor, Simone Le Grange thank you for your guidance and care. The biggest and most important thank you is to my mom, your support in everything I do is all any child could ask for. And lastly, this thesis is an ode to my gymnastics teacher of 13 years.

"it takes a village to raise a child"



figure 0 | representing the Western Province, Level 3 gymnastics competition 2003



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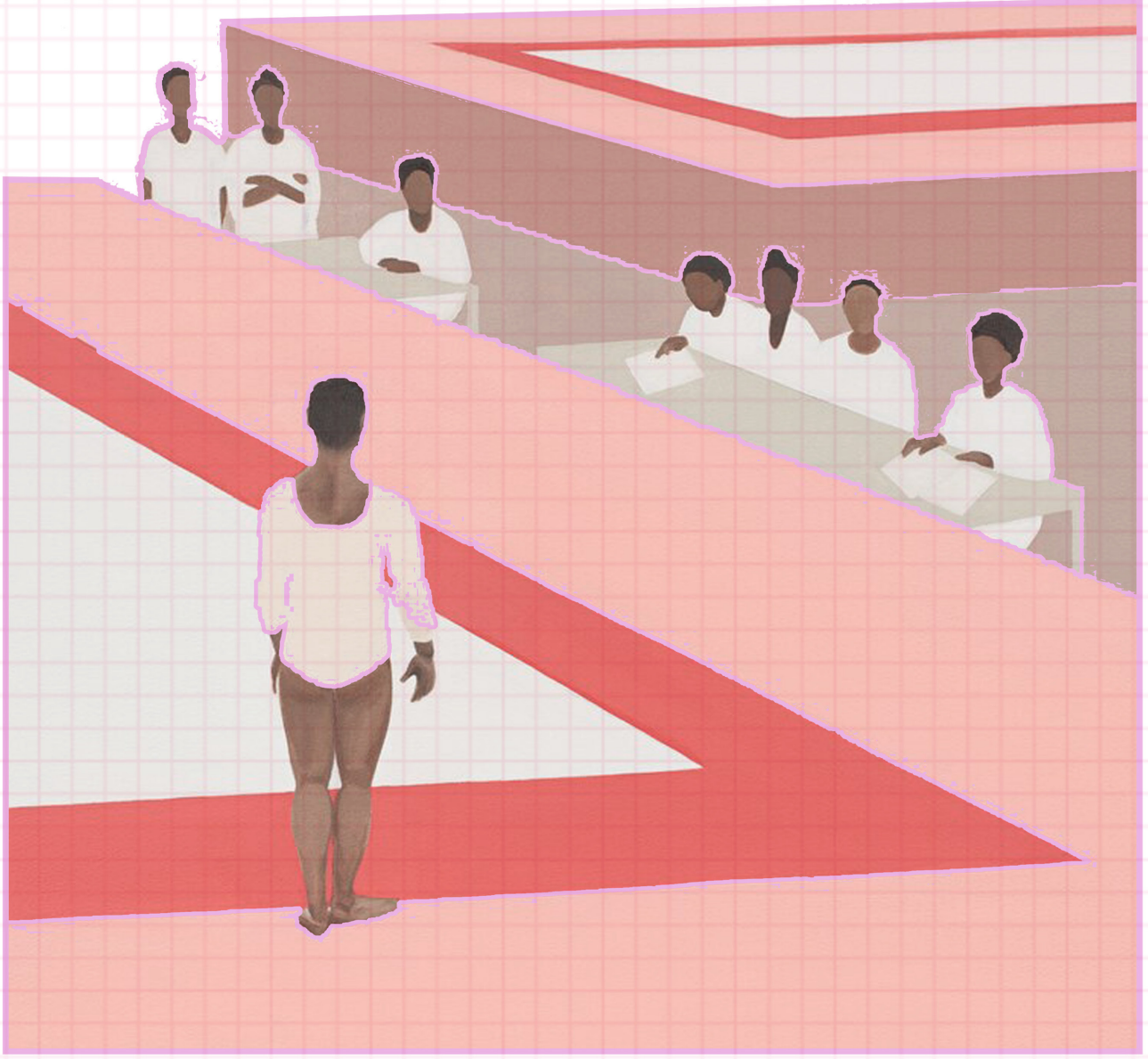
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This dissertation sets to explore and interrogate the role of well-integrated public social space and reimagining the sport facility in a post-Apartheid city. It highlights an issue of access to well-resourced sport facilities as a result of apartheid spatial planning affecting marginalised communities. It will investigate the role of sport and social space in an urban context. This thesis aims to highlight the significance of sport and public space which is integrated into the urban fabric – and use a national gymnastics school as a part of this social integration through an architectural response. The outcome of this research will look to an appropriate architectural response which can promote connections between residents, school goers and commuters through Athlone. It will contribute to a reimagined intensified edge of Klipfontein Road with mixed-uses as an urban proposal. I will explore how a national sports facility can positively add to the urban landscape as a landmark whilst being incorporated into a carefully designed public precinct. My response to the architectural and social aspects of social revitalisation through sport will be developed through the exploratory study of concepts, literature, theories, relevant precedents, case studies and technical studies will justify the appropriate design development.



preface

My design dissertation starts from a personal entry point, thinking of aspects which changed and shaped the trajectory of my life. As a 28-year-old woman of colour who has grown up in Cape Town South Africa, which is still firmly shackled by the remnants of Apartheid. Struggles of racial inequalities in the spatial landscape of the city was something I was personally affected by. I can thus empathise with the deeper struggles faced by people throughout Cape Town as a result of this.

In primary school, I was encouraged to join a gymnastics club as I was very energetic kid who loved being in the spotlight. On reflection, it was around this time that my eyes were subconsciously opened to the realities of my living situation in comparison to those of my peers. The long commute to and from gymnastics training to the leafy suburbs of Rondebosch become somewhat of an escape. A temporary dream world escape for training sessions which lasted around 3 hours for three days a week.

As I grew older this became my daily routine. The gymnastics club I attended was situated next to an “ex-model C” school. Under apartheid the city was segregated geographically in terms of race, and class. Schools were also segregated. “Model C” schools were schools that were formerly for whites only. This also meant that most of my fellow gymnasts were from the surrounding schools and walked across after school. Most gymnastics schools were near former “white” schools in former “white” areas. Subsequently, a large demographic of coloured and black children was excluded (and remain so) from equal access to these facilities. The sport is also extremely expensive, from fees, apparatus and leotards to name a few. It was not accessible to the poor.

For years I was the only girl of colour in the class.

On the positive side, taking part in the sport provided me with great opportunities of travel and access throughout the country during competition season. This broadened my goals and perspective on life and grounds the work in this thesis. My notion is that sports is a great tool for development of the personal, the community and the country at large- and that equal access should be the standard.

This dissertation aims to explore ways in which architecture can aid in social cohesion using sports as a tool to empower youth in safe, cultivating and nurturing spaces. On an urban scale it will aim to reimagine a sports typology which is well-integrated into the new and ever-changing urban fabric of Cape Town. It will deal with issues of equity, access and rights to the city. I will also ground this dissertation in an imagining of the experience that I would have loved during my time as a gymnast.

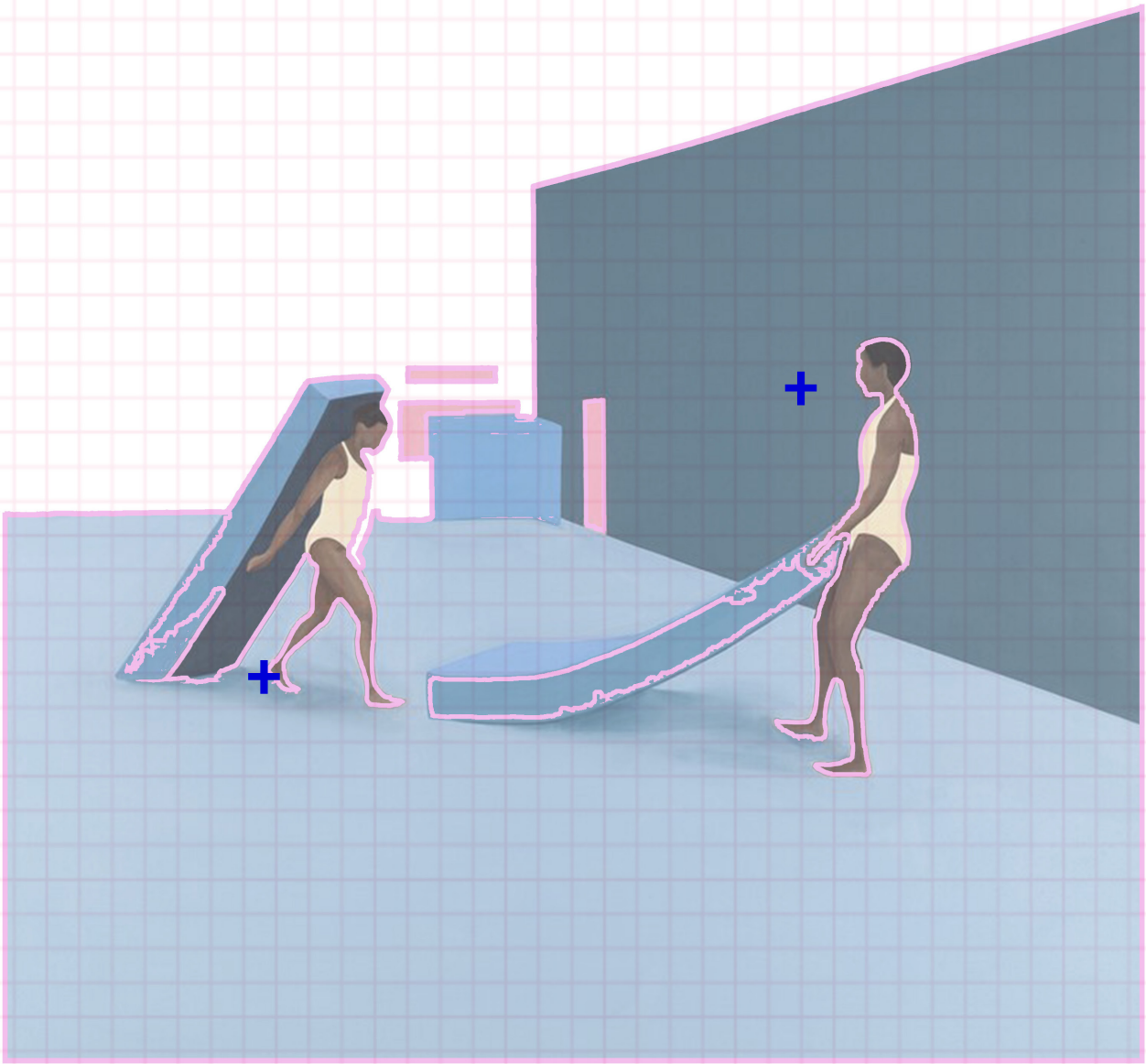


figure 02 | gymnastics in community_ *By Author*

1. introduction

Architecture and sport have existed for centuries. They both continue to have an important role within contemporary society. Similarly, sport has remained a subject of academic inquiry for its economic, cultural and political significance (Flowers, 2018). Sport can be noted as a social phenomenon. A phenomenon of patterned behaviour, social structures and institutional links that present unique lenses to view the complexities of society. Sport as an intuition is one which requires complex primary and secondary involvement (Luschen 1990:59). There are many opportunities which sport can present in a society. It can assist in overall physical and mental wellbeing, develop careers and hobbies and aid in social cohesion of communities through the participation as well as spectatorship of sport. This research holds the notion that sport can unify people from different cultures and backgrounds using one common interest and goal that may not have existed outside of that sport.

Presently there is an emergence of gymnastics in South Africa with Caitlin Rooskrantz making history by becoming the first South African gymnast to qualify for the Olympic Games through an international competition. This research begins at a subjective level sparked my personal experience with gymnastics but aims to extend beyond the subjective into a broader South African context that acknowledges the emerging gymnastics scene. It will however sometimes refer to sport and gymnastics interchangeably as some research will be on sport as a broader term.

This thesis aims to understand how the remnants of Apartheid spatial planning which racially segregated South Africans and displaced non-white people to the outskirts of the city, has impacted the potential of thriving communities with integrated sporting systems. This research will study ways in which sport can facilitate peacebuilding and community. Therefore, it will investigate ways which sport can revitalise impoverished communities on an urban scale to improve on the relationship of people and space in aims to promote socially cohesive communities and cities.

To promote social cohesion and inclusive communities, this thesis identifies sport as an appropriate medium to facilitate this process. Sport can create diverse and catalytic social relationships. Through these relationships this thesis will research ways in which existing inequalities which manifest in impoverished communities can be addressed. Siting itself in Athlone, Cape Town this research proposal will highlight Athlone's significance as a sporting capital of Cape Town which has been lost over the years and interrogate the reasons behind this and propose a reimagining of the sports facility in Athlone.

These studies will be foregrounded through theoretical and technical studies and will question the relationship of architecture, the role of sports in society and how the human experience can be centred in design. As a methodology this thesis will unpack the history of gymnastics in South Africa. It will then research the physical, emotional, cultural and social role gymnastics can play in South Africa and challenges it may face. Theoretically, concepts of "Body and Building" (Dodds, Tavernor and Rykwert, 2005) will be explored and how the body inhabits space. It will look at ways in which the body experiences the building at different scales. The technical studies will use gymnastics science of the body defying gravity and hiding its stress structurally-conceptually as an architectural expression.

The concluding study will speculate a reimagined Klipfontein Road at an urban level, which combines mixed-use development, neighbourhood business corridors and middle to high density residential as an appropriate urban response. Architecturally it will look at a new Sport Facility as a typology which can be applied to the existing

in Athlone through a proposed national gymnastics complex which combines sport, residential, commercial and public space.

Through the analysis of this research it will highlight the importance of sport as a tool for social revitalisation in its influence socio-economically and the urban landscape and why it is an appropriate expression to promote an optimal usage of public space.

1.2 definition of the problem, aims and objectives

1.2.1. Definition of the problem

The socio-economic borders and segregated cities are still a prevalent issue in a post-apartheid South Africa (Massey & Denton, 1993). In Cape Town, public space had been central to its' colonial spatial order. It became marginalized in the twentieth century under apartheid governance. As the apartheid governance ended, urban planners and architects started to highlight public space to address the social issues the country was left with. City policies were derived and public space was framed as "humanist device and vehicle for democracy" (Tomer, S. 2020). This gave rise to the Dignified Places Programme which was a pilot programme to test the impact of integrated projects on areas in the city which have been left degraded (Southworth, 2003). An innovative urban and architectural response would need to be explored, in order to facilitate social revitalization and development in Cape Town through sport.

1.2.2. Aim

This research will aim to identify how sports and architecture can be used as a means to promote social cohesion on an urban scale. It will explore the social relevance of sport in communities to determine an architectural typology which will engage with the social realm of the built environment.

1.2.3. Objectives

- The primary objective for this research paper is to explore the role in which architecture can engage in social revitalization of cities.
- It will also look to research the relationship between sport and the city.
- This research will identify gymnastics as one sport which has the potential to bridge the gap of cultural, social and economic barriers
- It will aim to create a framework of key themes which were successful in this integration and how they can be implemented in the design proposal.

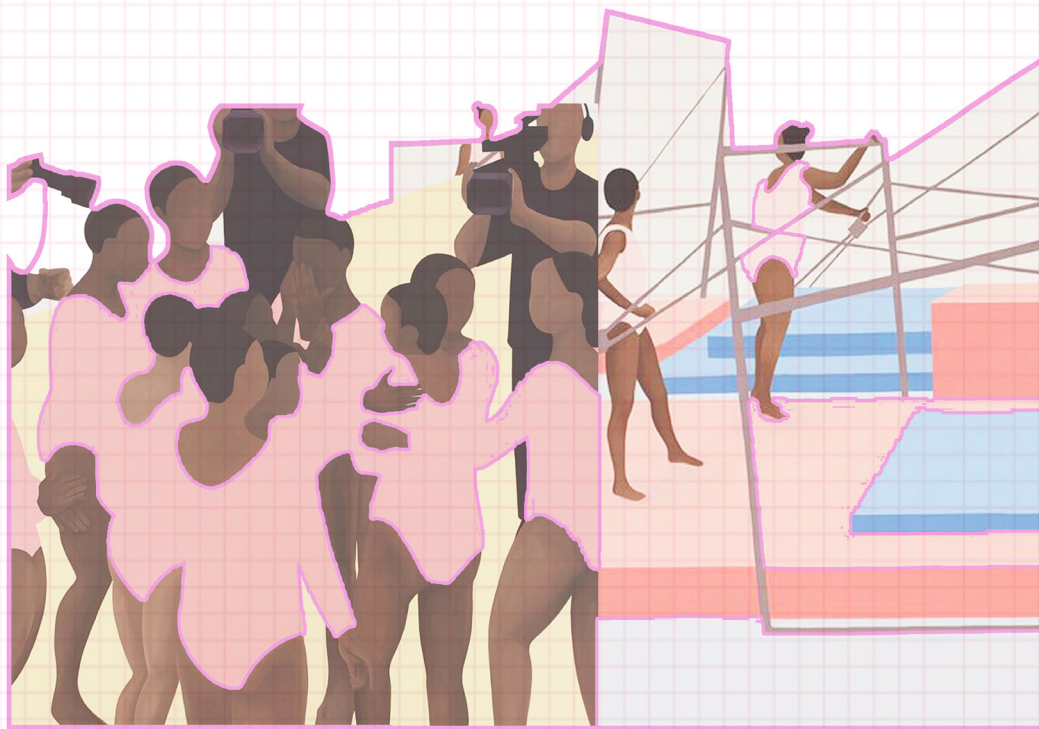
1.3 Setting out the Scope

1.3.1. The research problem

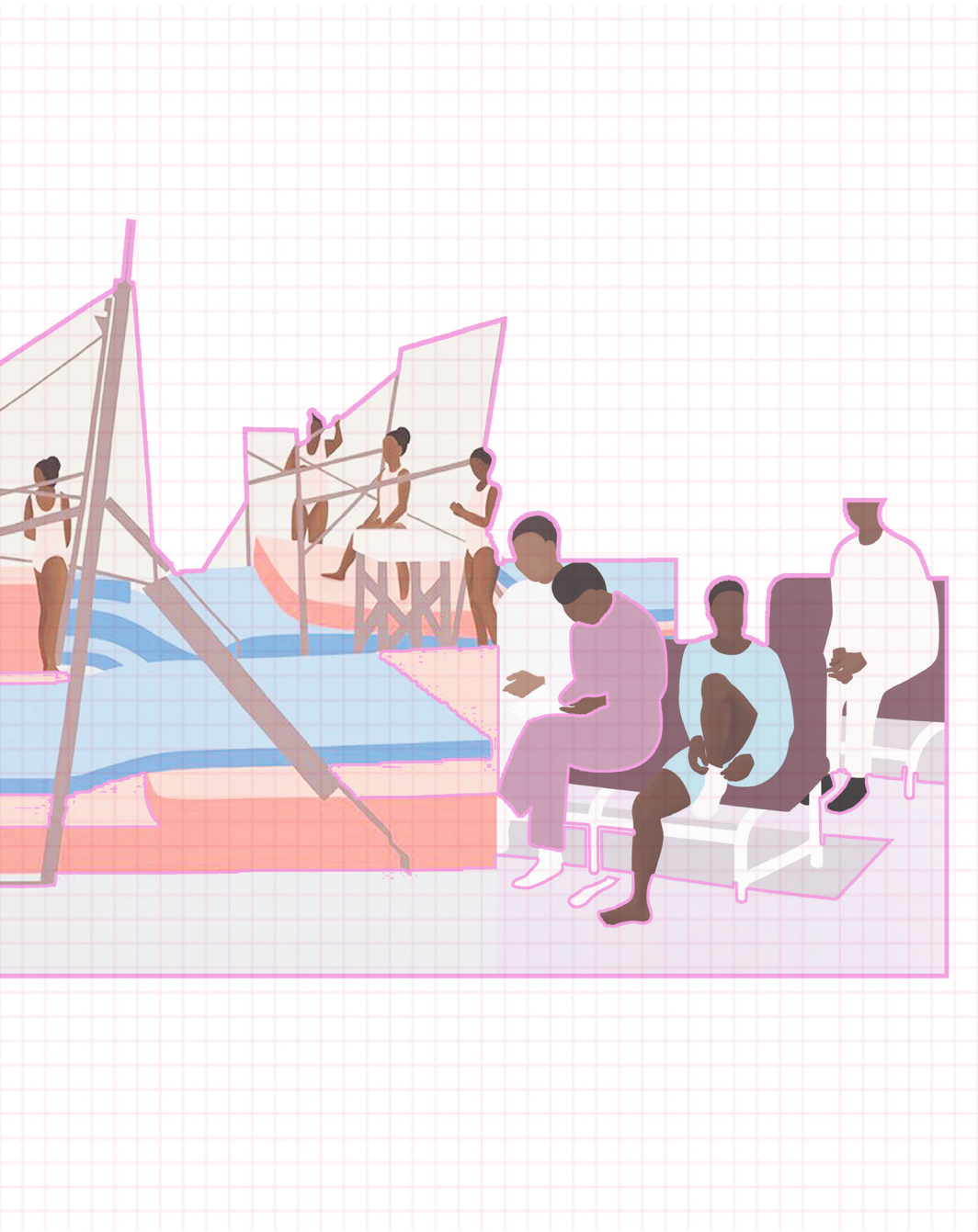
This paper highlights that there is still a social divide in South Africa even 28 years post-apartheid. The country has not since achieved well integrated cities, especially in areas which were formed through the Group Areas Act (Mackenzie, M. 1209). Public spaces such as community halls, religious buildings, sport fields and malls contribute positively to the social fabric of city. Many parts of Cape Town which lack sustainable urban social space suffer from issues of urban decay. This is not prevalent in areas of Cape Town where active social spaces have been implanted and maintained. Cities which lack active recreational spaces are prone to suffer from many social issues (Freund, 2007:117). The socio-economic borders and segregation in the Cape Town are as result of many issues. This thesis will research what social role sport can play in minimizing said barriers. Sport and gymnastics specifically will be researched in order to identify its current and potential capacity to promote social cohesion beginning at a community level in attempts to revitalize areas of Cape Town which lack these spaces. This research will look to theory to understand the current social climate of Cape Town and ways in which gymnastics can be used as a social tool to promote the urban revitalization and encourage social cohesion through the built environment. On a human scale it will look at theory exploring the body in architecture and how these theories can influence change at an architectural scale.

1.3.2. Delimitation of gymnastics

This thesis will explore ways in which gymnastics specifically is an appropriate sport to address the research problem. Although this research was prompted by a personal experience, it will investigate the personal in relation to other experiences by means of studies and readings. Gymnastics is an all-inclusive sporting code which uses physical activity to develop basic motor skills coordination and the opportunity to express identity through dance moves and music selection. In a multicultural society such as South Africa this is important. It also provides its participants a chance to develop social skills (Sands W.A,1999). The workings inside of the gymnastics club could be seen as microcosm of a socially cohesive community. This research will explore ways in which this microcosm can spill out into a community and positively aid in social cohesion.



+ figure 03 | stages of gymnastics _ *By Author*



theoretical studies

2. introduction

In this literature I will research and discuss the contextual issues. It will also be used to identify relevant background information. This literature will seek to provide a broad range of theory which will discuss the relationship of architecture to its environment, social and socio-economic topics in the contemporary context. In order to formulate key tools and principles to select applicable precedent studies. By developing a set of principles from this combined research it will aid in formulating tools to take into the design dissertation to follow.

2.1 The Segregated Urban City

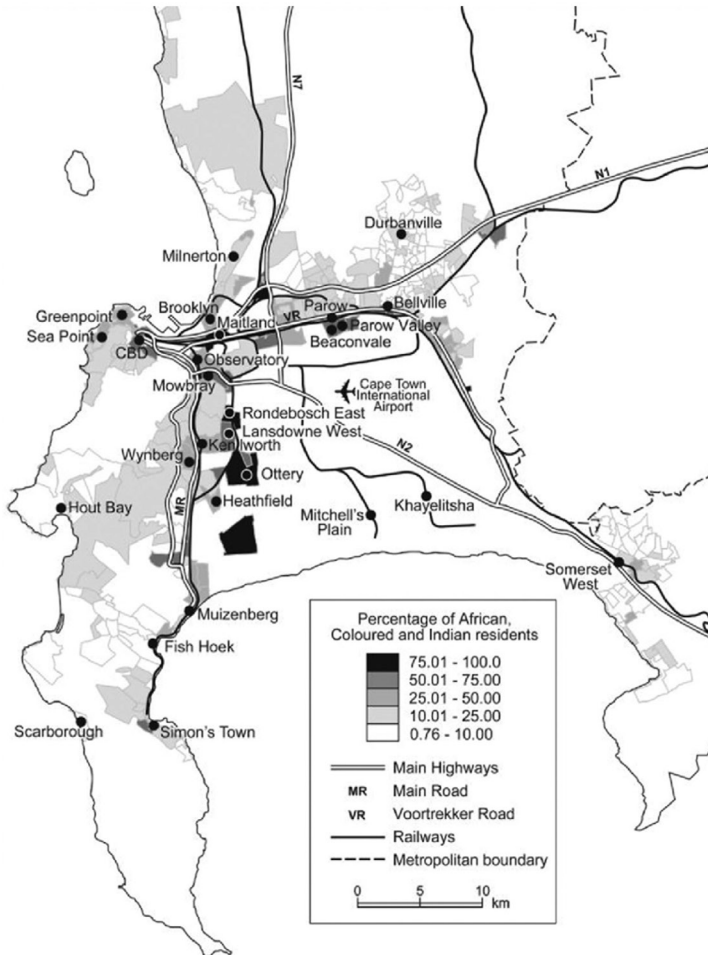
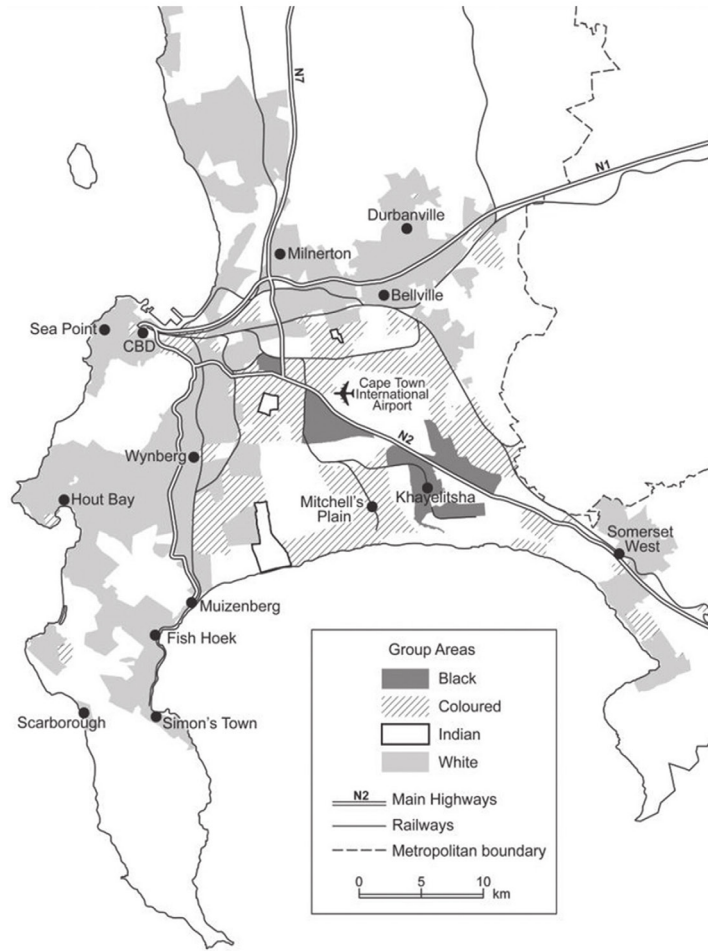
2.1.1 Cape Town as a Segregated City

This research sites itself within Cape Town, South Africa. The urban fabric of Cape town has been dramatically formed during the Apartheid regime. "The entire structure of the apartheid city was governed by the racially based demarcation of urban space through the Group Areas Act" (A., C., F., J., Chand, L. and Alberto, C., 2002). In 1966, The Group Areas Act consolidated earlier acts aimed at enforcing policies of racial segregation. This policy enforced the reservation of classified areas for residence and occupation for specific racial groups (Group Areas Act | South Africa [1966], 2022). This resulted in white people being afforded the privilege to live near the city centre, its infrastructure and public amenities. People of colour were then forced to live and work on the outskirts of the city. This division created peri-urban areas categorized as the Cape Flats and Townships. These areas were insufficiently provided for and lacked infrastructure and thus was disregarded as spaces of social interest or importance in Cape Town (Harrison et al. 1997). Figure 1 is a map representing the Group Areas Act segregation policy.

The results of the 1996 census showed that there was a general decline in urban segregation since apartheid legally ended in 1991. It noted that white South Africans remained segregated and less open to change as opposed to the other racial groups. It noted that while most other South Africans have become more integrated, they are still limited to where they live due to different levels of poverty. The census also noted that Asian and Coloured people have witnessed the greatest changes in the decline of racial segregation. Segregation levels in South Africa remain high and rapid integration would require urgent intervention from government (Christopher, AJ. 2001). Figure 2 is the map representing the movement of the black population who have since moved back into areas which they were previously forcibly removed from.

2.1.2 Rights to the City

The physical divided enforced created social divisions. The areas where people of colour resided were characterized as areas of poverty, high unemployment rates and poor economic development. These peri-urban areas were considered functional as opposed to areas of public interest and very little government buy in. The CBD (Central Business District) in Cape Town comprised of all the important public facilities for a well interrogated city. Well maintained public facilities such as schools, hospitals, religious places of worship, sports fields, markets and other recreational spaces are all present within the CBD and are in scarcity within the peri-urban areas. This meant that people from these peri-urban settlements migrated daily into the city to access these facilities due to public transport systems directly linking to the CBD. As a result, it prompted social interaction to occur at higher levels in the city centre. However, there was still a level of segregation within the CBD (Harrison et al. 1997).



+

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figure 04 | The percentage of blacks (African, coloured, and Indian) residents in the formerly whites-only neighbourhoods of Cape Town, 2001. (Cranshaw, O. 2010)

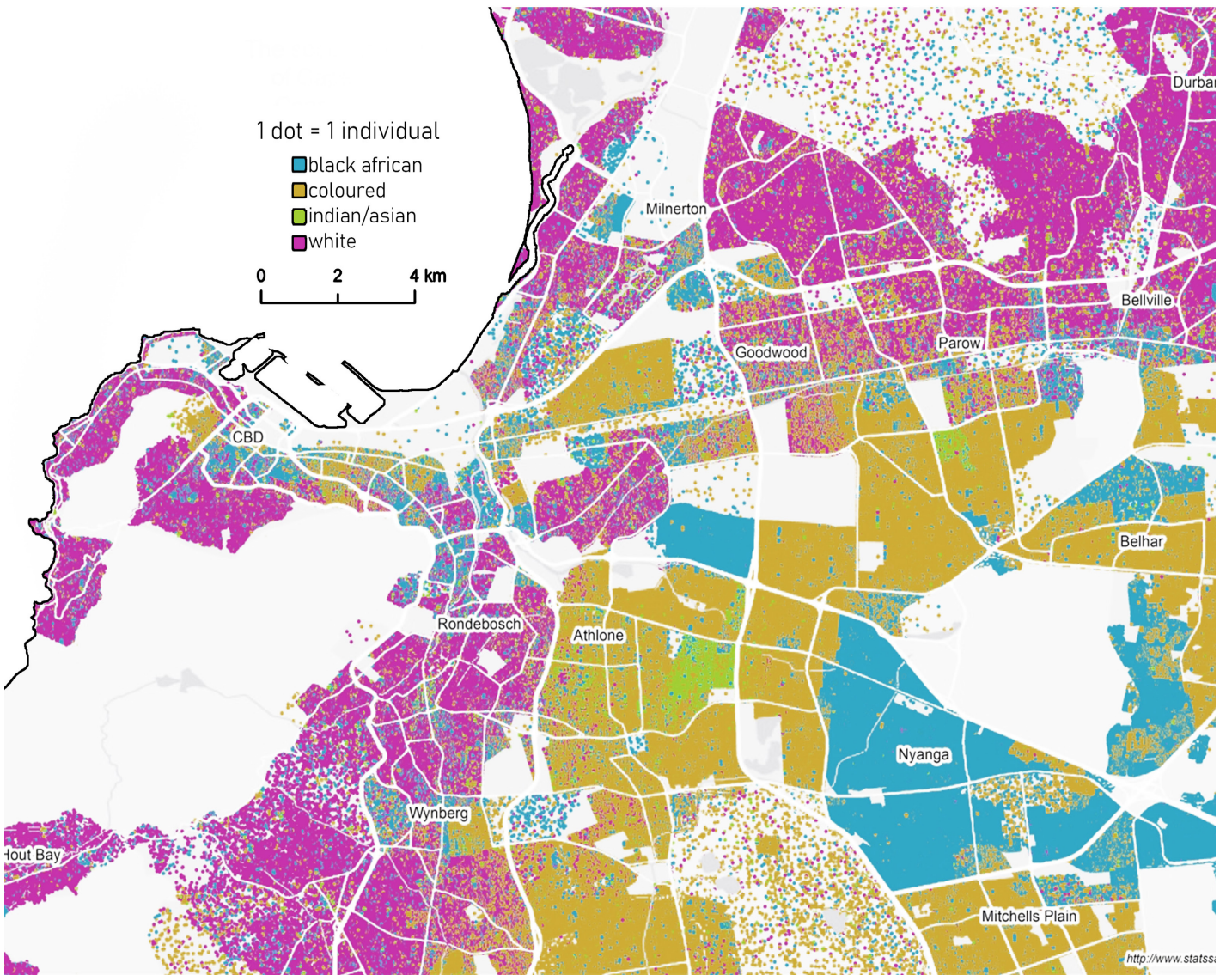
2.1.3 Sport facilities + the Segregated Cape Town

In the book *Nation-Building at Play – Sport as a tool for Social Integration in Post-apartheid South Africa* (Keim 2003), Keim notes that sport was a critical role player as in the battle against the apartheid regime. It maintains the stance that through well-organized sporting codes, South Africans can learn to play together with respect. It would require a level of teamwork which could in turn contribute to building a unified post-apartheid South Africa (Keim 2003). During the years 1994 and 2010 leading politicians emphasized the importance of sport for the political, social, and cultural transformation of South Africa (Maralack, D. 2010). When speaking at the first Presidential Sports Award post-apartheid, Nelson Mandela who was the first democratically elected president, highlighted the importance of a “non-racial and politically vigorous sports community” (Maralack, D. 2010) as a key generator in a sustainable process of transformation in a post-apartheid society (Hendricks, 2000). Historically social public space was a space to mobilize protest action against the apartheid government. Sport fields and facilities were a space where people of colour could interact, assemble, seek “recreational liberation” and simply play sport (Govinden, W. 2018). While these social spaces provided relief to its immediate context, it also provided the opportunity for social nodes in these peri-urban areas.

2.1.4. The Segregated Democratic Country

With the transition of the country into a democratic nation, the physical divides of apartheid regime were no longer legal. Hypothetically this afforded people the opportunity to be a part of social integration (Keim, 2003). However, there are still tensions present due to a current high level of social inequality, unemployment, land and access, lack of resources and the provision of housing. In 2013 during the State of the Nation Address, President Jacob Zuma notes that “... (A)partheid spatial patterns still persist in our 9 towns and cities” and that “(W)e need a national approach” (The Presidency, 2013) in order to address the problem. This statement acknowledges that the ideal post-apartheid country is not yet the reality. It also is an indicator of the role government should play in providing the necessary facilities and opportunities for integration of a rapidly urbanising population. Cape Town was a relatively mixed city during apartheid and has since idealised its reputation as a “racially tolerant city” (Keim 2003).

In attempt to address the inequality faced in South Africa, local governments were assigned as “agents of transformation” (ANC, 1994) in readdressing the current apartheid spatial landscape independently (Seekings, et al. 2005). This independent local approach resulted in a country as an entity did not have the same level of spatial and cultural integration. It resulted in very little urban migration and cities still suffered from the racial divide that was present during apartheid (Doyle 2004: 12). Figure 05 shows a recent census map of the current social and racial divides which still exist in Cape Town.



+ figure 05 | *The social tapestry of Cape Town Census, 2011. (Census | Census 2022, 2022)*

2.2 social cohesion and revitalisation through sport

Introduction

The multi-disciplinary scholarship on social cohesion is inspired by Emile Durkheim in the late 19th century. Socially cohesive societies were theorised to be morally supportive, rather than an individualist approach. Durkheim theorised it as a concept which instead of handing an individual their own resources, they should share it collectively while also supporting themselves when exhausted (A. Kearns & R. Forrest, 2000). This explanation inferred that a community which is socially cohesive is one that is absent of conflict and high in social capital. The social capital referred to is one of "social organisation, networks, trust, and facilitate coordination and cooperation for mutual benefit" (Lamb, G. 2019). Most definitions of social cohesion imply a high level of connection, trust among all social populations, solidarity and a tendency for contribution among social groups.

Revitalisation can be applied physically, socially, culturally and economically. In relation to architecture, Holland refers to revitalisation to bring newness, vitality and strength to neighbourhoods and areas (Holland. S 2014:2). The concept of revitalization is to balance out rapid urban development by protecting urban culture, traditions and identity. Samadi et.al (2011:17) notes the process of revitalisation to be a praxis of urban conservation. In the acknowledgement of urban history, generalisation is avoided and therefore issues of globalisation are also avoided. The idea of revitalisation is linked to public social spaces in the city, particularly of deprived and derelict peri-urban areas (Spandou et.al. 2010:3).

2.2.1 Social cohesion and public space

The role of social public spaces should be aimed at bringing together "intercultural social communities" (Bagwell et.al, 2012:37). It should be a representation of a contemporary society and a space where the "catalytic process of revitalisation of cities occurs, enforcing the identity of place" (Okolo et.al, 2010:126). Remezani et.al (2009:2) notes that recreational public place should be the epicentre in attempts to revitalising a city as it hosts the social atmosphere of a city. He states that these recreational public spaces encourage a sense of community by prompting activity that celebrates urban heritage. This literature prescribes recreational public space as key driver in social cohesion and urban revitalisation.

2.3 Social Revitalization with sport

2.3.1 "The impact of sport on society"

Due to sports significant global presence, it is also a global symbol of unified global culture (Kreft. L, 2018). Einberg notes that the success of sport is that it can be played in a trialectic model. Sport as a competitive field, exercise and sport for health or as a means for recreational activity. Fundamentally sport begins at a cultural level starting with social engagement. Competitive sport brings the desire to compare, compete and to measure results. The palpable atmosphere is created by the emotions of winning or losing (Eichberg 2010: 2).

Social health and well-being are stimulated through group involvement in sport. This brings a sense of unity and promotes social engagement (Ministry of Culture, 2010). Davies states that sport was able to transcend from only been considered as a recreational activity and has been acknowledged for its "social and economic influence in contemporary society" (Davies, 2005

As a society, McPherson notes that we use sport to escape daily stresses and engage in community activities (McPherson,1989). Sport in contemporary society has the ability effect our comprehensions of gender norms and socio-economic issues. It can aid in framing a city and this encourage a healthy national identity. Sport can break the barrier of language, race and nationality and focuses on skill and talent. Its competitive nature instils core values of courage, perseverance, self-control, and independence (McPherson1989).

2.3.2. Sport and culture

As a result of the prescribed set of rules which govern sporting codes, it is able to transcend specific cultures (Keim, M. 2003). The commonality which exists in sport qualify it as preeminent code for intercultural integration (Harms, 1982). South Africa, however, faces many other hurdles in achieving peacebuilding and community. These obstacles include racism, colourism and ethnic discrimination because of the apartheid regime in the country previously and persist as issues in a post-apartheid state even years later. This is compounded by the fact that a sporting teams' success is not dependent on interpersonal connections or friendships between members in the South African context as often prejudices are reinforced by players amongst their teammates (Coakley, 1990). It has been observed that the cultural integration on the sports field can sometimes harder the existing prejudices (Bröskamp,1993). There are some inherent problems which contribute to the complexities of the South African sporting landscape. These factors prove the complexity of the South African sporting context and the problems which fail to understand the broader challenges of peacebuilding and social cohesion. If these are not managed, they run the risk of reinforcing stereotypes, prejudices and social divides (Keim, M. 2003).

The priorities of sport in South Africa needs to be realigned in order to meet need of the South African people for transformation and healing. Until this is done from a governmental to community level, it is certain that conflicts as a result of lack of resource, poverty, violence, aggression and corruption will continue.

2.4 delimitation of gymnastics

Introduction

This literature will research and delimit gymnastics as an appropriate response to the social and contextual issues raised in this thesis. It will explore ways in which gymnastics can address the social, cultural and economic problems faced in Cape Town. As a grounding to this, it will research the history of the sport in the country. It will also discuss social factors the social factors which influence participation in the sport. The research findings of this theory will aim to highlight the potential of gymnastics in South Africa as one tool which can promote social cohesion.

2.4.1 History of gymnastics in South Africa

Gymnastics is an all-inclusive sporting code. It establishes and develops basic motor skills, hand and eye coordination and presents the opportunities for gymnasts to build social connections with peers, coaches, and fellow competitors (Sands, W.A, 1999). The oldest international sports federation is the Fédération Internationale de Gymnastique (FIG) established in 1881. The FIG has gone on to participate in the Olympic games since 1896. Presently, the FIG governs the seven disciplines of gymnastics

Locally, the Port Elizabeth Gymnastics Club was the first gymnastics club in South Africa in 1876. Prior to this date its noted that British Soldiers practised the sport recreationally in Cape Town.

This was then ceased due to the outbreaks of the Anglo-Boer war and revived in 1904. This gave birth to the South African Gymnastics Union, which would be the first national federation of gymnastics in the country. It was around this time that the federation became affiliated to the FIG (Fédération Internationale de Gymnastique). This was an integral affiliation for the country to compete at the Olympic Games. At that stage it was the second African country after Egypt to receive its membership. This was an integral affiliation for the country to compete at the Olympic Games. South Africa then continued to participate in the Olympic Games until 1966 when international boycotts were in place in response to Apartheid. South Africa made a return to the internal competitive scene in 1994 after 25 years. In 2004 the country made re-entered the Olympic Games in Athens after an absence of 44 years. Currently the SAGF is an active member of the FIG and UAG participating in all disciplines of gymnastics (Burger, 2022)

Currently, the participation in gymnastics has been on the rise over the past twenty years in South Africa (see figure 07 & 08). In the 2020 Olympic Games, it was a significant year for Gymnastics South Africa. Caitlin Rooskrantz and Naveen Daries become the first pair to represent the country in the Women's Artistic Gymnastics competition without the wild card submission.



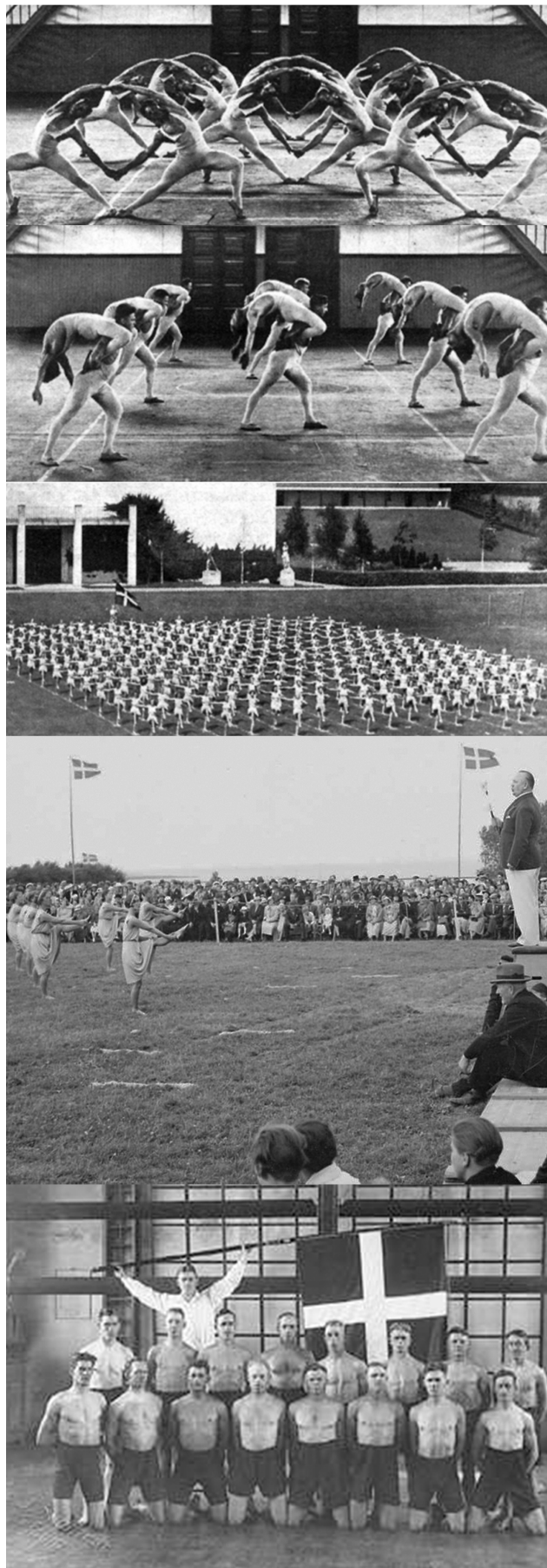


figure 06 | *Niels Bukh's displaying gymnastics in South Africa (Niels Bukh's Functional Body Architecture – Gymnastics between Avant-Garde and Popular Culture, 2019)*

2.4.2 Current statistics of gymnastics in the Western Cape

As this research sites itself in Cape Town, it will look at the statistics of Western Cape gymnastics. As per the records of the Western Cape Gymnastics Association, the tables and graphs represent the rates of participation per discipline, per district. These exclude gymnasts who participate recreationally and only note the gymnasts who have registered competitively. Figures 07 & 08 conclude that there has been an increase in gymnastics participation during 2014-2015 in the Western Cape. It is also reported that the most participants are from Cape Town. (Lucas et al, 2016).

This research will use these statistics as justification for using gymnastics as a tool for revitalising certain areas in Cape Town as the presence and ever-growing interest in the sport already exists and can be built on.

I spent many years as a gymnast and then also went on to coach and co-own a gymnastics club in Cape Town. Over the years I saw first hand the growth in the sport as it started to reach school programmes in the Cape Flats and the diversity at competitions I began to see was really inspiring. I hold this thesis very dearly as a realisations of my younger.

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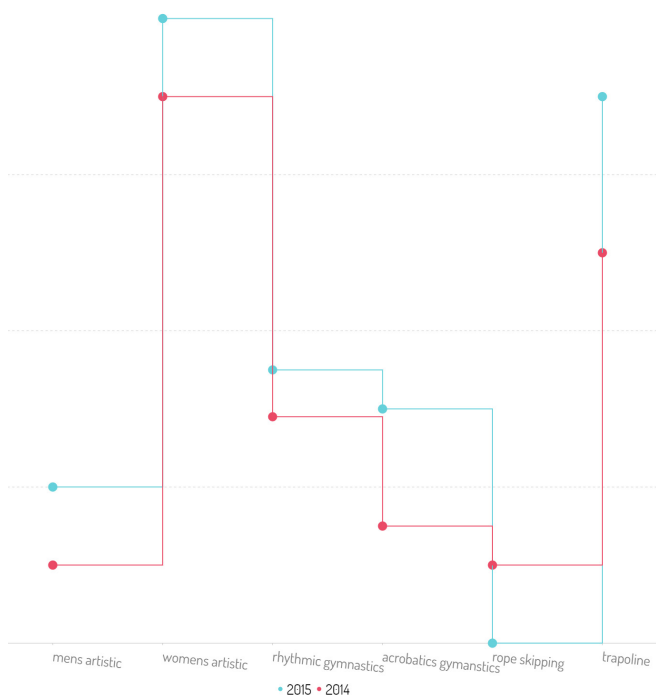


figure 07 | participation in gymnastics per discipline in the Western Cape (Lucas et al. (2016))

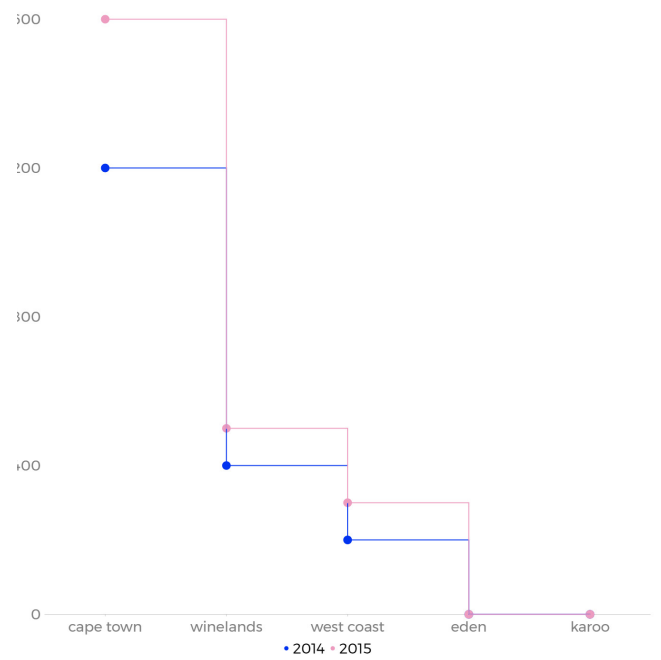


figure 08 | participation in gymnastics per district in the Western Cape (Lucas et al. (2016))

2.4.3 Social factors that influence participation of gymnastics in the Cape Town

Social and environmental factors can have a big influence on the participation or lack thereof in sport. Some factors include geographic location, family environment, gender and identity, socioeconomic status of the person or educational history (Bailey et al., 2010). Other factors also include culture, access to facilities, information about the sporty and time (Young et al, 2011). Resources, facilities, apparatus, home situations, and socioeconomic statuses are key factors in the level of participation in sport, and therefore gymnastics in Cape Town.

In contrary to some other sports, participation in gymnastics requires a household to have a sufficient disposable income. The sport calls for membership fees, individual apparatus, apparel and usually independent transport to training or competition venues.

A key benefit of gymnastics which separates itself from other sport is that the gymnasts body perform unique shapes, patterns and spatial changes

There are many critical factors to consider when researching the reasons behind the participation or lack thereof in gymnastics. As a young child, participants are solely reliant on their parents or guardians to provide for them. One main factor is access and availability. If the sport is easily accessible, i.e. close to schools children can get to them without too much hassle. Lukas also notes that it known amongst poorer communities, that inactivity and boredom often result in bad behaviour, substance abuse and criminal activity for kids (Lucas, W 2016).

mindset. One gymnast in the study expressed that they used to be a negative person and that shifted once the participant started gymnastics. Another gymnast in the study stated that they used to be a selfish person and the sport encouraged them to become someone more helpful to others. Gymnastics is also a sport which aids in building self-confidence and self-esteem. Parents who took part in the study also stated that gymnastics was good for social inclusion of all its participants. The clubs were also said to be a great place for gymnasts to form friendships. This meant that the club was a healthy space to develop important social skills through the interactions with other peers during training. A coach in the study noted that the training clubs were good spaces to “manifest and model a future for themselves through the learning of skills.” Coaches also noted the aspiration and inspirational aspect of partaking in the sport. It may become a positive influence on the gymnasts especially in comparison to what may be surrounding them in their communities such as seeing people doing drugs, committing crime and smoking. Overall, the study showed that through these ways the sport was able to create a place which could become a second home to the gymnasts and the coach and teammates as a second family.

This has been my experience of the sport too. Gymnastics training was physically and emotionally straining but the rewards reaped inside and outside of the competition floor. I made lifelong friendships with coaches and my peers. This is something which this research will aim to facilitate.

27



Socio-emotional benefits experienced through gymnastics participation

Through a study gymnasts expressed positive shifts in their emotions, expressions and behaviour directly related to their participation in the sport. The study also notes that socioemotional development is a promoted in sport and aid in a young person's



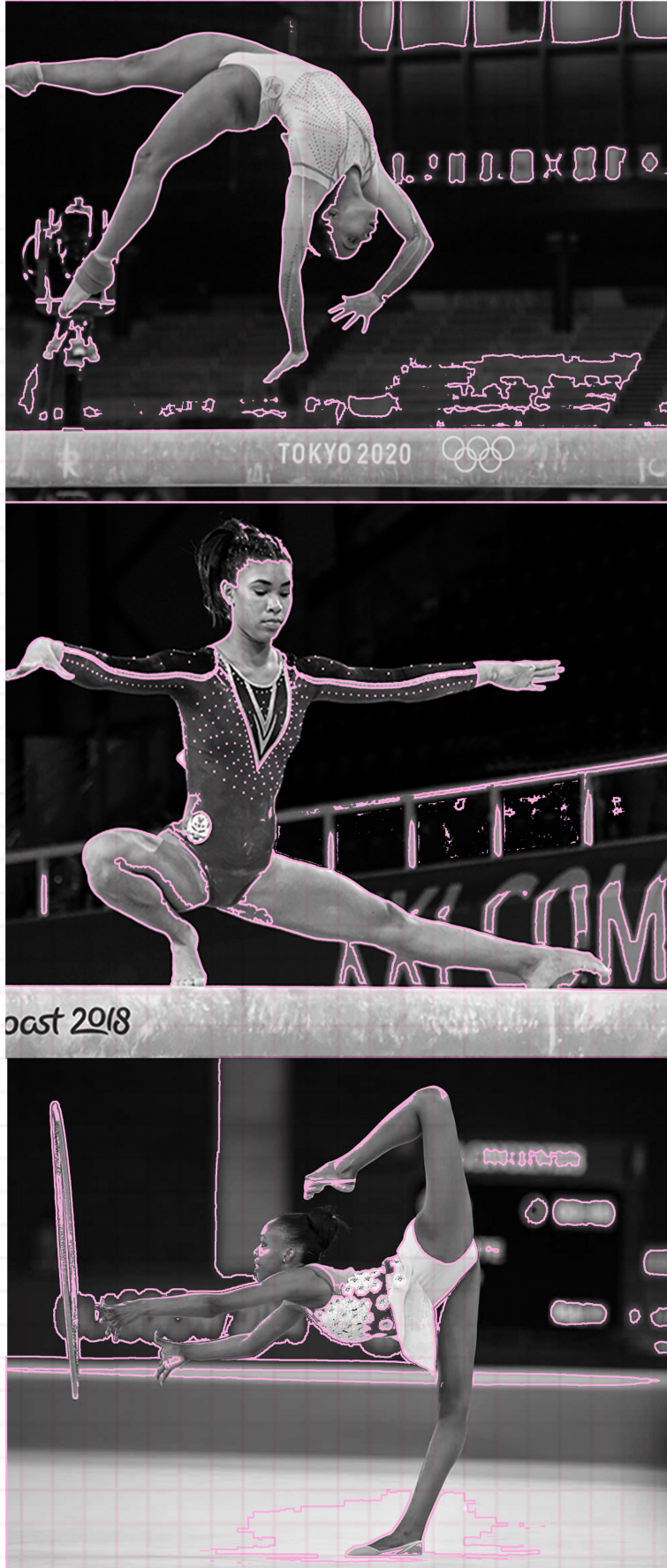
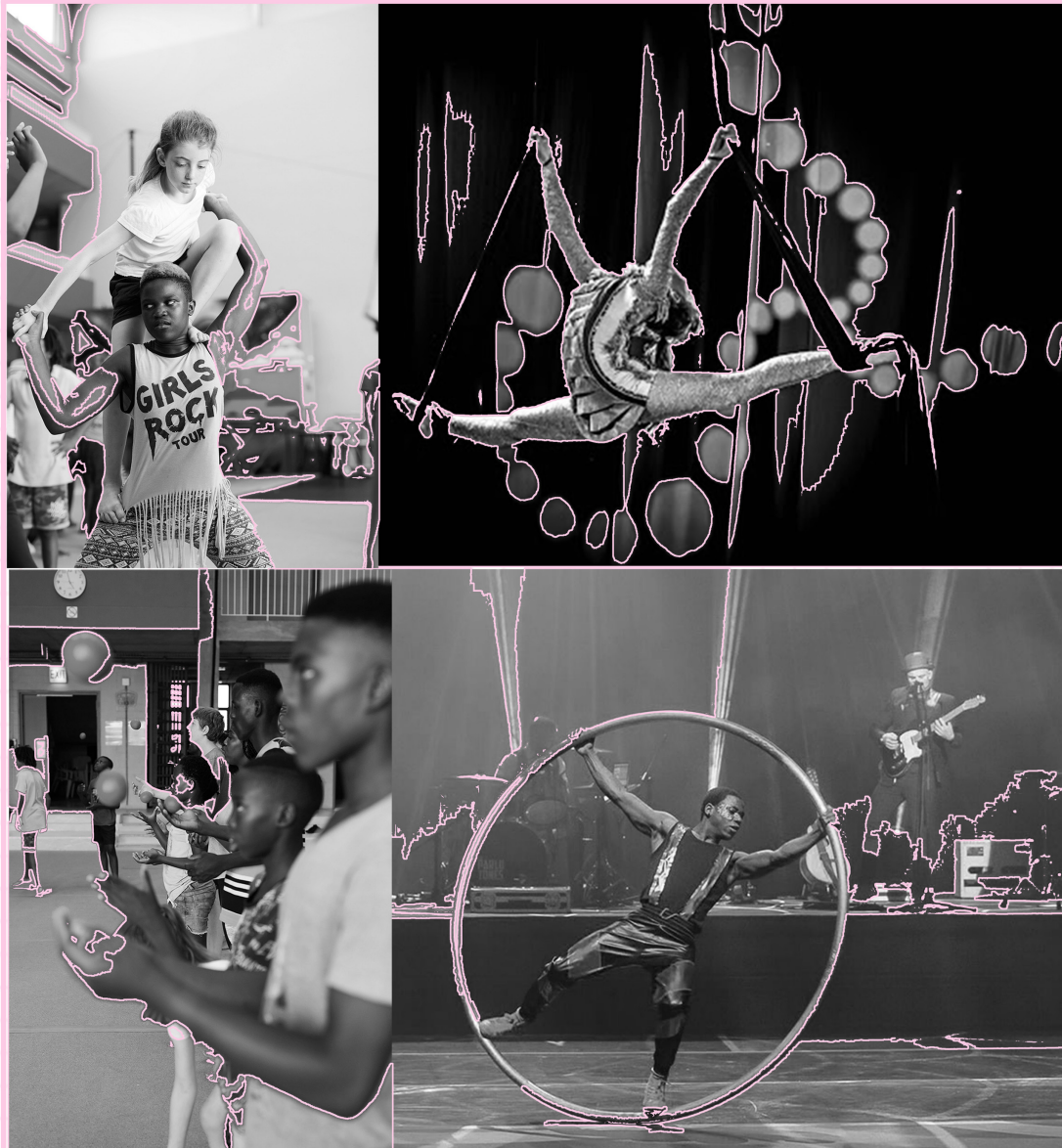


figure 09 | gymnasts of south africa - from top: caitlin rooskrantz, naveen daries, grace legote competing at international levels. (Lemke, 2022)



+ figure 10 | ZipZap performers and classes in session (ZipZap, 2020)

2.5 precedent of working models

According to the ZIP ZAP website, the circus school was founded in Cape Town in 1992. Its' aims where to use circus art as a medium to inspire young people and facilitate a "new culture of peaceful co-existence in South Africa" (Ferreira, A. 2002). The programmes offered at Zip Zap are all for free of charge for its participants. The 10 programmes offered are funded through public performances, fundraisers by the academy, government grant and donations from individuals and corporations. Zip Zap has set up programmes which allow for growth within the establishment. These steps start at an outreach level. Each outreach programme responds and facilitates different needs.

The UBUNTU programme

- established in 2012, in partnership Doctors Without Borders and the Khayelitsha clinic
- innovative and alternative patient support
- sessions are aimed to create a sense of belonging and show support
- create a positive memory while receiving treatment and thereby promotes treatment adherence.
- Relieves staff and caregivers while in training

THE 2ND CHANCE programme

- 2nd Chance programme was established in 2009 in partnership with The City of Cape Town, in partnership with the HCI Foundation and the Western Cape Education Department (WCED).
 - engage beneficiaries from primary schools, high schools, NGOs, orphanages, and children's homes in the most underserved areas across Cape Town
 - Safe transport is provided for the children to the academy's facility in Foreshore, Cape Town.
 - develop an expanded awareness about career opportunities through circus art
- (Zip Zap, 2022)

These outreach projects then culminate into the second tier of youth programmes. The youth programmes intend to further participants circus art skills while rooted in Zip Zap's core values of social cohesion, teamwork and discipline. The "Zappers" programme then aims to identify and nurture talent within the existing programmes. This programme focuses on training participants at an advanced level to potentially join the company, as employed circus acts.

The core values of Zip Zap Academy are also at the core of this research. The values of creating opportunity in poorer communities, providing a social and physical outlet for children and creating a sustainable model which can lead to employment in the academy. On an urban scale, the academy has also successfully integrated into communities as well as the Salt River community where it is sited thus being a catalyst for revitalisation in Salt River using physical activity a method. The Academy has successfully reached young and vulnerable especially from underserved communities and provided a safe space for learning, fun and potential for future employment.



+ figure 11 | Jazzart performers and classes in session (Jazzart, 2020)

2.5.2 Jazzart Dance Theatre

Jazzart is noted to be the oldest contemporary dance company in Cape Town founded in 1973. It has pioneered the development of contemporary dance within the South African context. As a means of democratic practice, Jazzart seeks to serve marginalised communities in Cape Town. As a company they have been instrumental in the preservation and sustainability of dance, choreography and performance in South Africa (About Us - Jazzart Dance Theatre, 2022). Through outreach, training and performance programs Jazzart uses dance as a transformation tool to integrate social awareness and cultural inclusiveness that embodies the nature of South Africa's Bill of Rights (About Us - Jazzart Dance Theatre, 2022).

The dance theater's training and performances includes inter-disciplinary collaboration with diverse role-players. They aim to develop skilled performers who can use the skills learned throughout life while promoting excellence, innovation and social change.

Training

Jazzart offers a three-year full time training programme. Similarly to the Zip Zap Academy participants are chosen through auditions or are identified as potential talent through the outreach programmes. The training is rooted in the Jazzart philosophy of a social justice framework. It intends to build the participants dance training both creatively and technically and create career paths for the young.

Outreach

Jazzart also provide outreach dance programmes. The interventions are done in partnership with community groups, schools and other institutions. The sessions use dance performance, art, therapy and creativity to affect change and provide healthy safe spaces for its participants. These outreach programmes are partly subsidized by government. In some instances, instructors travel into the communities to host the programmes. Alternatively, safe transport is provided to get participants to their facilities.

Performance
Jazzart challenges the dance status quo through transformative practices. Jazzart provides a platform to develop contemporary dance skills, dialogue and performance excellence for professional dancers, performers and practitioners. Annually Jazzart hosts shows which allow for all participant to experience an on stage perform.

2.5.3 Takeaways + Framework

Exploring the working models of the Zip Zap Circus Academy and Jazzart Dance Theatre, this research will extract key ideas and tools which these programmes have used in achieving social cohesion and revitalisation in Cape Town through formalised physical activity.

- Outreach programmes allow for vast amounts of children to be included
- Safe and reliable transport methods are critical especially when working with poorer communities
- Opportunities for growth and employment within the programmes
- Both use sports and physical activity as a means to promote social justice and cohesion

3 body + building

Introduction

Gymnastics participation provides a unique form of movement dissimilar to any other human activity. It is a sport in which the gymnasts' body experiences a unique variety of movement patterns, shapes, spatial changes and load shifts (Dowdell, 2011). This research thus finds importance to explore the relation of the human body to architecture. To theoretically understand the experience of the human body in relation to spaces, it looked to the literature of *The Eyes of the Skin: Architecture and the Senses* by Juhani Pallasmaa (Pallasmaa, J. 1996) and *Skin, Clothing, and Dwelling* by Max von Pettenkofer (EKICI, D. 2016). Findings in this research could be taken into the design dissertation which would host a sport of movement and fluidity and to grasp what architecture could aid in a full bodily experience for the end users.

My research argues that the body is one of the most significant factors of architecture. At its core architecture is to house a body or bodies. External climatic factors are mediated through architecture to provide relief and comfort for the human experience. Overtime architecture has started tending less to the human need but rather to abstract ordering principles and aesthetically driven articulation. One of the oldest architectural theories relates the building as the body, how I argue that this notion is flawed as it removes the actual body of the dweller from the design process. If this is redirected instead of the "building as body" to "building about the body" brings the focus back to the true body and building relationship. This theory grounds the research to create architecture as synergetic shelter "of the body, by the body, for the body" (Carlson. J, 2011).

3.1 Body and Building theory:

3.1.1 The eyes of the skin – Juhani Pallasmaa

The Body in The Centre

"I confront the city with my body; my legs measure the length of the arcade and the width of the square; my gaze unconsciously projects my body onto the facade of the cathedral, where it roams over the mouldings and contours, sensing the size of the recesses and projections; my bodyweight meets the mass of the cathedral door, and my hand grasps the door pull as I enter the dark void behind. I experience myself in the city, and the city exists through my embodied experience. The city and my body supplement and define each other. I dwell in the city and the city dwells in me."

The literature sets the scene of sensing space primarily through out bodies. It notes that things we sense are mostly measure as a reference to oneself and body and else a result our bodies are the measure of spatial understanding.

Pallasmaa also refers to sensory systems as opposed to senses which are separate from one another as a delineation of all our senses often obscure the fact that the senses are used together in most cases. The author is apprehensive about the vision-centric approach which architecture has fallen into, He expresses the embodied human experience through the beauty of each sense while noting the necessity of "several realms of sensory experience which interact and fuse into each other" as a way to create architecture which furthers the embodied human experience.

Ocular centrisism

Pallasmaa does not reject vision, he is however apprehensive towards the dominance of eyes and their acknowledgment of art and architecture as they may cause a detachment to the embodied experience. This is further examined through the link of pictorial representation. It is expressed that sight has caused us to live in a present which is flattened by speed of the day to day. The author warns that contemporary "superficial architectural" representation is often void of materiality, tectonics, and empathy and that this is not in fact architecture. The reading emphasizes that the role of architecture should be to reconstruct the experience of the interior world one in which we are not solely spectators but are inseparably apart of.

Five senses

Pallasmaa expresses the need to see our senses as a sensory system rather than things which stand alone. He argues that architecture should be multi-sensory as a means to immerse oneself in a space. It notes that architecture cannot be a group isolated visual imagery but rather a full sensory experience. By looking at the five senses in isolation dilutes the complexity of the human condition.

- Touch
The one sense which brings spatial depth and can experience density, texture, and weight.
- Hearing
Articulates the understanding of space but remains as an unconscious background embodied experience.
- Smell
Noted to be the most vivid memory of a space.
- Taste
The mouth's interior as where our sensory experience of the world starts from.

I conclude these theories with noting that Pallasmaa's stance on foregrounding architecture with the embodied human experience is crucial. The reading serves as a invitation to not only see our context visually but rather our body in its entirety.

These conceptual ideas will ground the work as a design principle. I will hold close the actual human experience in the urban and architecturally responses. Gymnastics as a sport requires a specific type of architecture to facilitate the juxtaposition of movement, fluidity, and precision while the gymnasts sprint up and somersault off beam.



+ figure 12 | depictions of emodied space (Jenn Strickland, 2022)

technical studies

4. precedent studies

Precedents studies are explored to understand how existing built forms have developed a relationship with people and space according to their surrounding context. By researching information in the form of precedents knowledge of what has been previously done can be gathered and applied to the proposed design. The precedents will be analysed and understood according to its significance in regard to the principles established in the literature review through findings and conclusions.

4.1 The Zip Zap Circus School

Architects:	Tsai Design Studio
Location:	Salt River, Cape Town
Program:	Education, Social
Client:	Zip Zap Circus School
Team:	Y Tsai, Cathy Skillycorn
Contractor:	NMC Construction
Engineer:	Sutherland Engineers
Status:	completed
Area:	2000sqm

Introduction

This research will look at the Zip Zap Academy's building in Cape Town. Completed in 2017, the new premises of the Zip Zap Circus aims to allow for growth of the academy.

"The design of the new Zip Zap Academy, located in the semi-industrial Salt River, Cape Town, embodies three distinct architectural typologies to meet the spatial requirements: the circus, the theatre and the school" (Zip Zap Circus School – Tsai Design Studio, 2022).

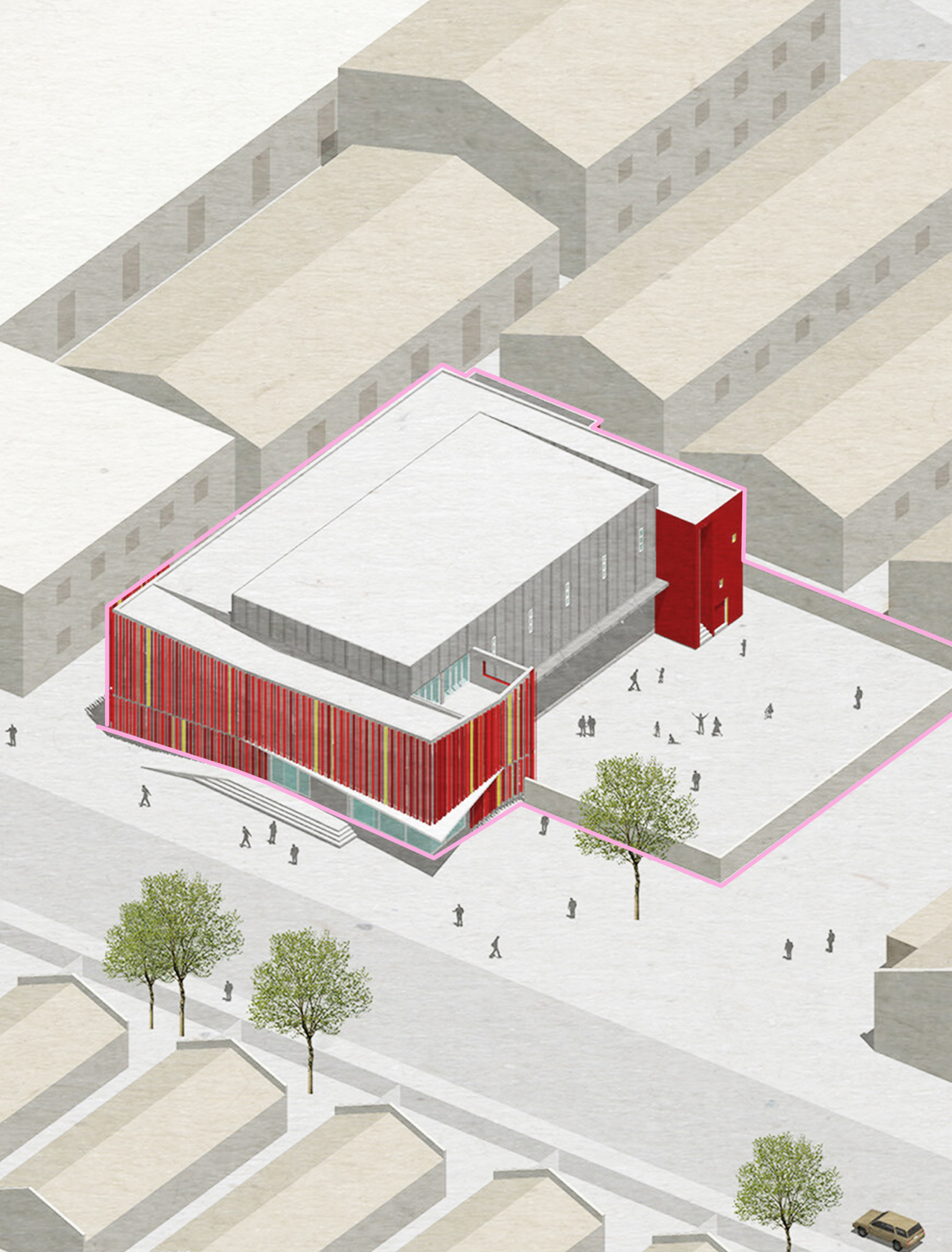
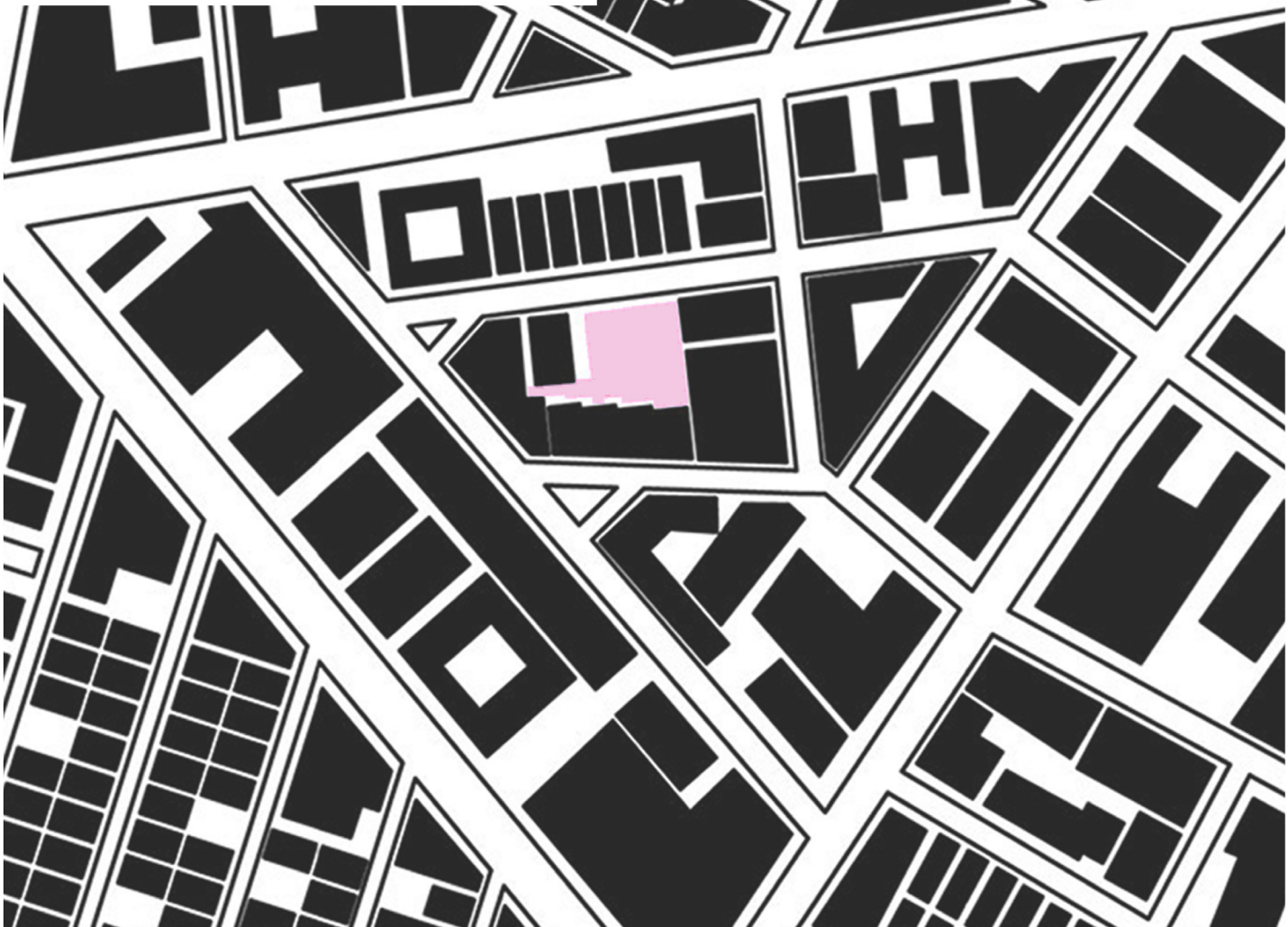


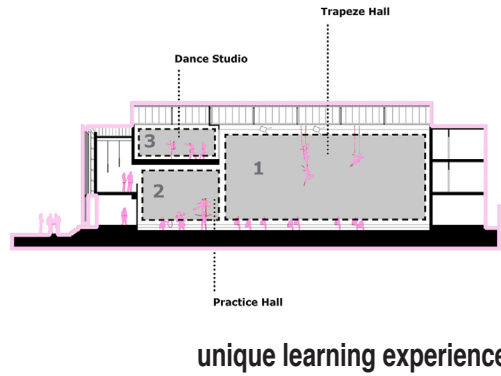
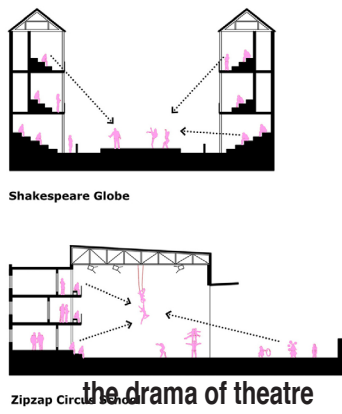
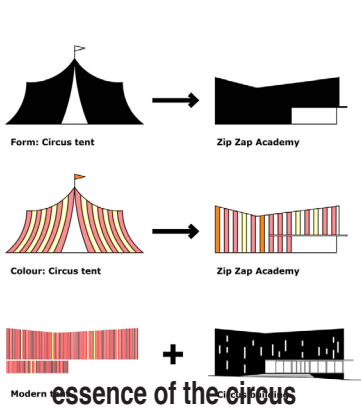
figure 13 | *The Zip Zap Academy (Zip Zap Circus School — Tsai Design Studio, 2022)*

Siting

The academy was moved from its former venue in Founders Garden at Artscape on the foreshore to Salt River, where it is believed that a greater capacity will be accommodated, allowing for the growing outreach and youth programmes.

Work is conducted in varied communities with children and the aim is to develop a need for a “dare to dream” mindset, whilst fostering children to achieve the impossible. With the new building at 6 Shannon Street, Zip Zap Circus Academy will be able to enhance the programmes for the kids by awarding them the opportunity to participate in a state-of-the-art environment.

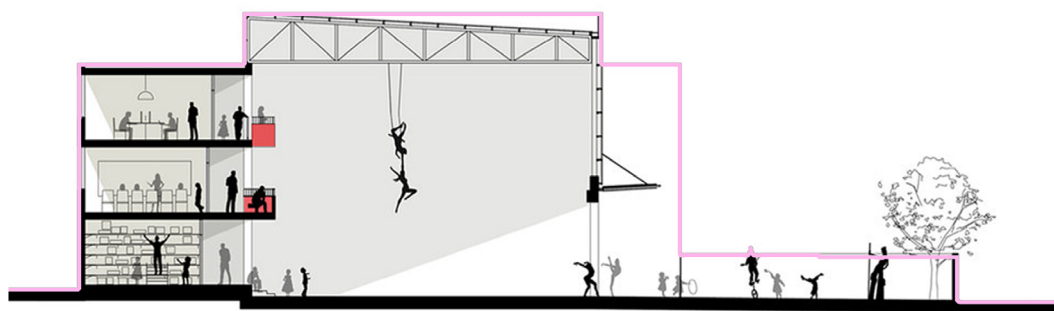
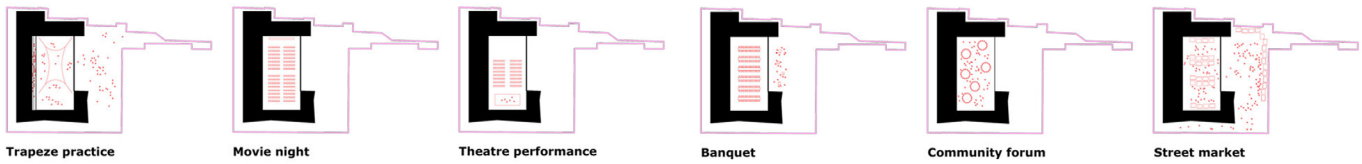




Drawing inspiration from the iconic traditional big-top circus tents, the street facade is designed to inspire the kids to explore and discover their love of performance.

The building is arranged like a theatre, with the Trapeze Hall as the center stage, to highlight the drama and excitement of circus training.

Zip Zap's goal is to provide an alternative learning opportunity that will empower children through physical activities and self-discovery. The layout of the building included many spatially distinct training spaces and classrooms for this purpose



Section A-A

figure 14 | The Zip Zap Academy Diagrams (Zip Zap Circus School — Tsai Design Studio, 2022)

4.2 conceptual technology studies

Gymnastics as a technical concept

Introduction

The next series of studies I will look at using the sport of gymnastics as a design tool to build a set of technical principles. This research will analyse two different buildings which are both National gymnastics facilities.

Gymnastics is a complex sport. It requires incredible physical and mental agility. Two key concepts I will interpret is the concept of gymnasts defying gravity and gymnasts hiding its stresses, and research buildings which do this conceptually.

Defying gravity

The appearance that something or someone is levitating with no gravitational force.

While the gymnast is doing a backflip, the body appears to defy gravitational forces even if only for a few seconds.

The Ariake Gymnastics Centre | Nikken Sekkei + Shimizu Corporation

Architects: Nikken Sekkei, Shimizu Corporation

Area : 39194 m²

Year : 2019

Also called "A wooden vessel floating in the Bay Area" the Ariake Gymnastics Centre is one technical study that will be explored as a building which displays a roof appearing to float.

As in gymnastics, there is a supporting element which the body or building relies on to make it seem as though it is floating. In the Ariake Gymnastics Centre the ceiling is supported by a timber frame design which reduces the stresses of the structure.

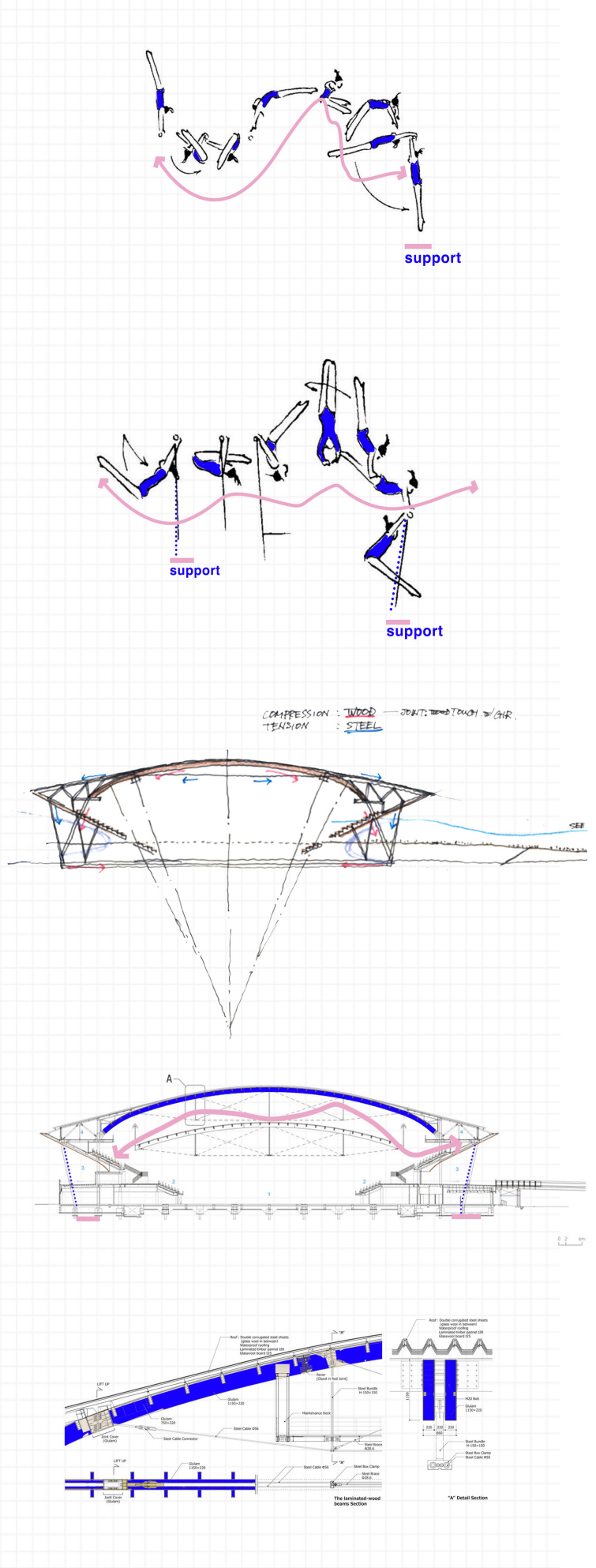
Structure:

Extensive Timber roof spans 90 meters

The design incorporates the use of timber to the lessen the weight of the structure which also is suitable for a building with poor soil conditions.

The building uses a simplifies its structure by using large glued laminated timber to achieve its structural strength. The timber roof beams are constructed without any steel framework. This allowed for expansive open space internally while the columns carrying the weight of the building is on the exterior.

These structural concepts are insightful in creating a gymnastics training centre which require large open floor space as well a high ceiling heights.



✚ figure 15 | the roof hiding structural stresses (*Studies and Gymnastics, 2022*) diagrams_ By Author

Irina Viner-Uzmanova Rhythmic Gymnastics Center in Luzhniki

Hiding structural stresses

"The force of resistance per unit area, offered by a body against deformation is known as stress" (Sharma, 2022).

This technical study will look at a building which conceals its structural stresses, as opposed to expressing it. It will interpret the gymnasts' body which while performing routines they have been trained to hide the bodies stresses to make it seem effortless even when the body is under extreme stress.

Structure

The Center for Rhythmic Gymnastics collects all its function under one unique roof inspired by the flow of the ribbon in rhythmic gymnastics.

The roof design serves a symbol of the sporting code and brings presence to the national scale of the building. Starting with a vertical wall in the east, from its peak, the undulating form slowly fades in the west.

The roof was designed using Parametric design with the aim of concealing the roofs' structure. It is a steel framed system which is cladded and reads as one externally. The building also uses its circulation cores as another bearer of the roofs' loads.

This proposal looks to this as precedent for its methods in concealing building stress as well as an example of using the roof structure as an element which is symbolic and creates a landmark with its presence.

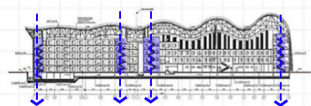
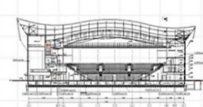
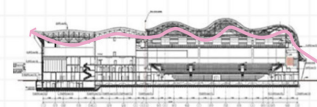
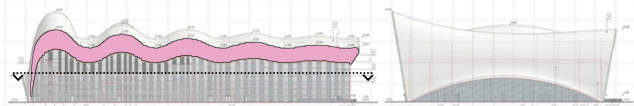
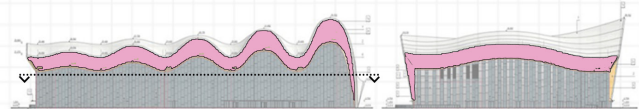
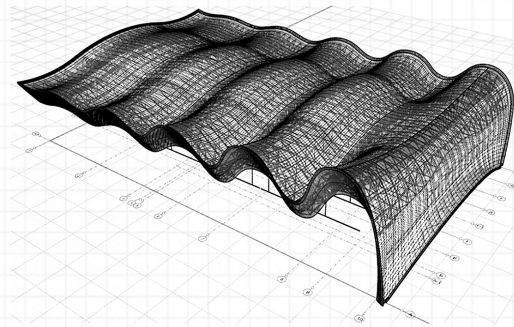
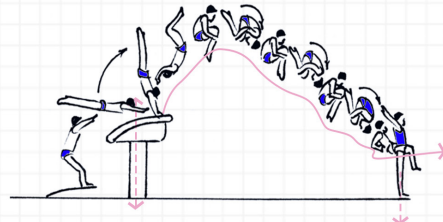
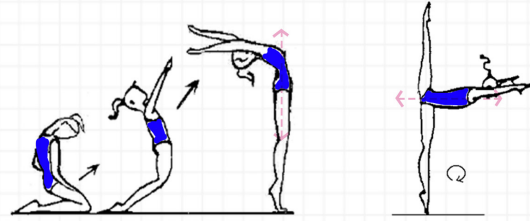
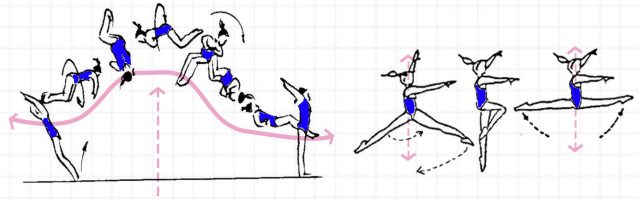
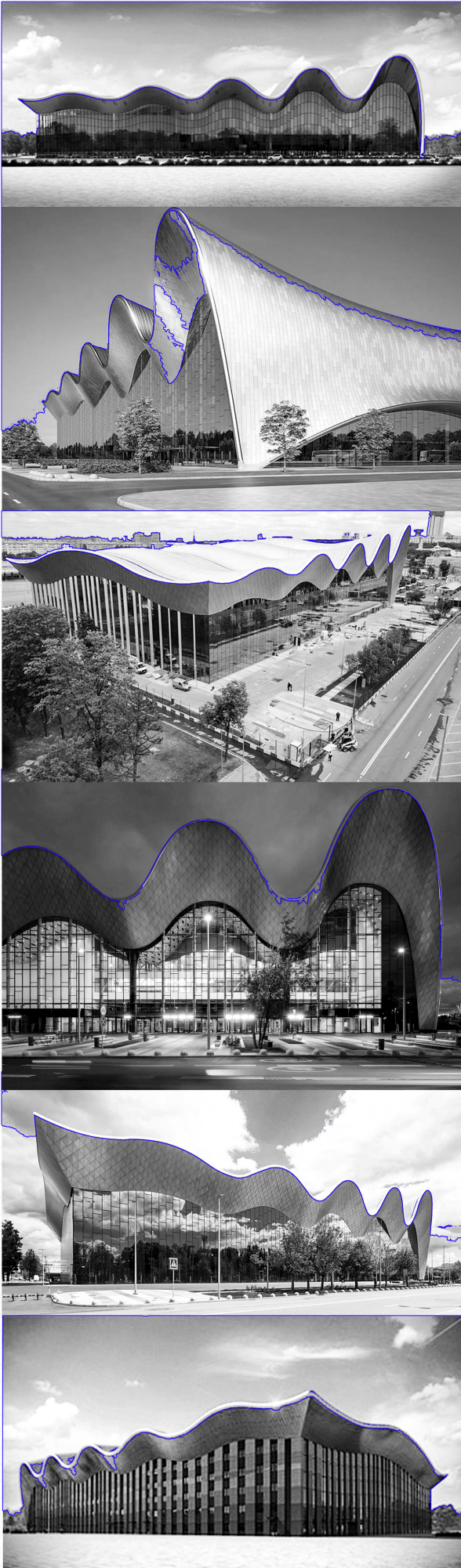


figure 16 | the roof defying gravity (The Ariake Gymnastics Centre / Nikken Sekkei + Shimizu Corporation, 2022)

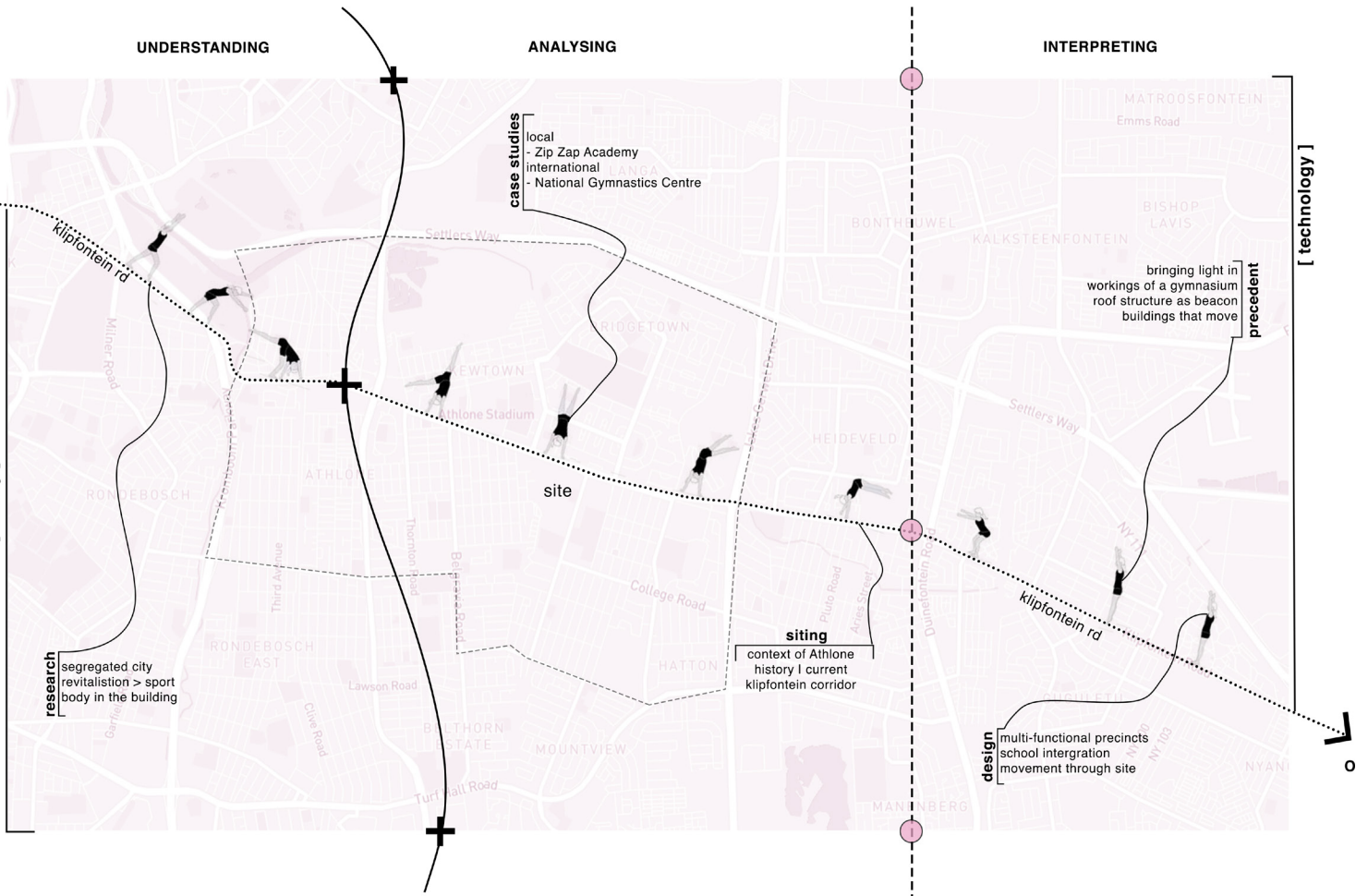
conceptual framework

At this point of the research the dissertation looks to its findings in theory and technological studies to move forward.

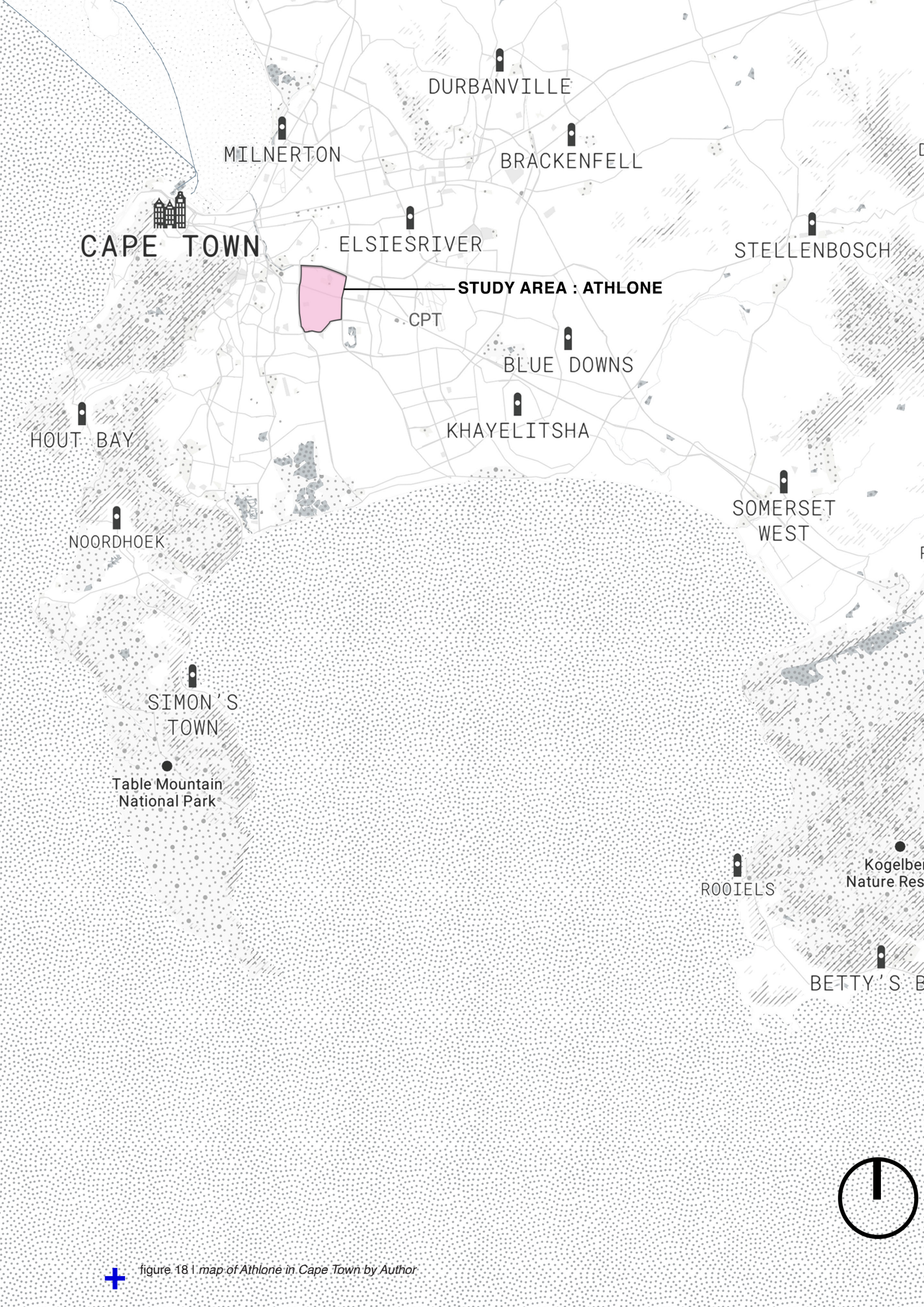
It will use the literature which supports the decision to create a sports facility as an appropriate tool to revitalize a community. It will also use the literature to create principles to emphasize and foreground the embodied human experience throughout the design approach.

This research will use conceptual technical ideas and examples as design drivers for form and land marking.

Lastly, it will site itself in an area which has been affected by apartheid spatial planning as a way to reclaim pride in that area while looking at why and how.



+ figure 17 | *theoretical framework diagram*



CAPE TOWN

DURBANVILLE

MILNERTON

BRACKENFELL

ELSIESRIVER

STELLENBOSCH

STUDY AREA : ATHLONE

CPT

BLUE DOWNS

KHAYELITSHA

HOUT BAY

SOMERSET WEST

NOORDHOEK

SIMON'S TOWN

Table Mountain National Park

ROOIELS

Kogelberg Nature Res

BETTY'S B



figure 18 | map of Athlone in Cape Town by Author

siting

5.1 athlone as site

Introduction

The dissertation sets to locates its architectural proposal in an area which was still suffers from the remnants of apartheid in attempt to investigate the framework set out.

Intuitively, I thought of Athlone as an appropriate siting for this research proposal. On reflection it may be that as a coloured person who grew up in the Cape Flats this was my perception of the sporting home of the city as I remember travelling to Athlone Stadium and Vygieskraal alike for inter-school sports days fondly. Through research I will unpack the significance of Athlone as the sporting hub not only in my perception but in reality, too.

The suburb is situated on the Cape Flats to the east of Cape Towns' city centre. It forms part of the historical Cape Flats which got its name from the natural flat and sandy landscape on the periphery of Cape Town.

which hosted jazz lounges, ballet performances, plays, poetry night in community halls. The sporting culture of Athlone was also one which held a significant role historically. While a lot of the sport and culture facilities still exist many of them have become white elephants due to a lack of governmental interest in the upkeep of an area which this research positions are important to the current landscape of Cape Town.

The racially fragmented suburban landscape of Athlone provides opportunity for an urban proposal which realizes the potential of its context through positive urban linkages.



figure 19 | athlone currently (Athlone , Cape Town | UCT Libraries Digital Collections, 2022)



figure 20 | athlone historically (Athlone, Cape Town | UCT Libraries Digital Collections, 2022)

5.2 existing sports facilities in athlone

Introduction

A primary analysis of two of Athlone's main sport facilities will be conducted through case studies. In this research I take the position that Athlone holds great significance as an important sporting hub in Cape Town, but it has fallen due to neglect as a symptom of its past. This analysis will research two main stadiums in Athlone to help understand how the current Sport Facility can be improved and revitalized in Athlone.

5.2.1 Athlone Stadium

The Athlone Stadium is a multipurpose stadium commonly called the "Home of Football" locally. Its primary use is for local, national, and international soccer matches. It was one of the training venues during the 2010 FIFA World Cup and hosted a series of matches during the African Nations Championship in 2014. It also sometimes hosts music concerts and community events.

Historically Athlone Stadium was the place to mobilize before rallies against the Apartheid regime. In an interview the Stadiums' manager Shahied Adams state that many great footballers have made names for themselves at the Stadium for their football as well as their role in the political fight which was intertwined into South Africa's sporting scene during the early 1970s. He notes that during apartheid people from the surrounding areas played SACOS (South African Council of Sport) sport at the stadium. SACOS was an integral body for black sport organisation during the apartheid era. Its' agenda was that there was "no normal sport in an abnormal society." (Booth. D, 1997). It was led by Hassan Howa who successfully mobilized a moratorium on white South African teams who were still competing in international matches. Adams says "That is why it

hurts that Athlone is not a World Cup venue. This stadium is the home of nonracial sport and nonracialism in Cape Town. If you wanted the World Cup to reflect South Africa, its history and where we are now, then Athlone should have been used." (A tale of two stadiums, 2022). It seemed that the rows of council housing in Athlone were too prosaic for FIFA's vision.

Before the 2010 World Cup Athlone Stadium was to undergo a complete renovation costing over R300 million, however it was never fully completed leaving some parts of the stadium uncovered. This could be assumed to be a continued symptom many governmental facilities in the Cape Flats face as it not seen as the tourist attractions and thus given less importance in the Cape Town landscape. My research positions itself in bringing back or highlighting the significance of areas such as Athlone as integral to Cape Town and South Africa at large to receive equal treatment that areas such as the Atlantic Seaboard in Cape Town do.

52



figure 21 | locating Athlone Stadium in relation to proposed site_ *By Author Map Source (Google Earth,2022)*

Urban Analysis

In a broad urban design assessment to local authority, MLS Urban Design Studio made a proposal for the redevelopment of Athlone Stadium precinct. Key things it noted:

Issues and Opportunities:

- Poor access to stadium from Klipfontein road and a lack of sense of arrival
- Commercial strip of Klipfontein road is dissociated with the stadium
- Opportunity to activate stadium precinct edges with perimeter block development
- Opportunity to form a cohesive precinct with more activity between zones
- Opportunity to rationalize parking on site for development

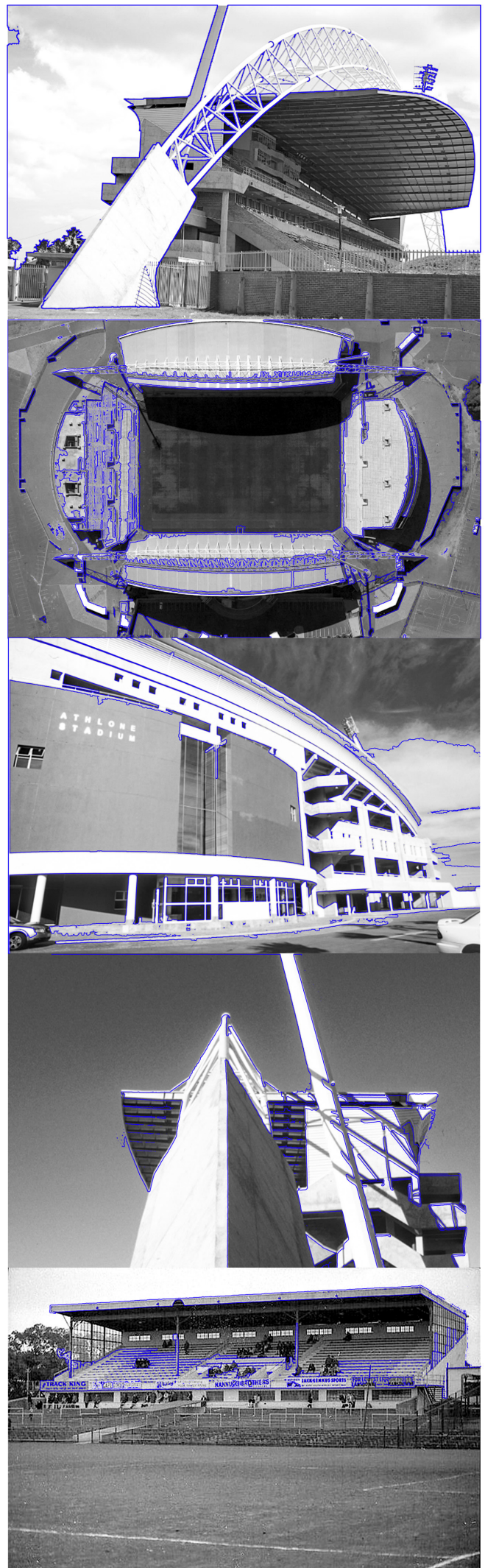
Actions

- Integrate the stadium and associated facilities with school sports ground into a shared sports complex- precinct
- Reclaim parking space for other uses such a sports courts
- Activate stadium edges with thin mixed use building with active street interface

Klipfontein Commercial Strip

- Improve landscape and environmental quality
- Promotes intensification of commercial strip
- Introduce high intensity residential above commercial to create a mixed use street edge

This proposal aids in the understanding of how the Athlone Stadium precinct can be improved is one which will help building a framework for the design to follow.



5.2.2 Vygieskraal Stadium

Vygieskraal Stadium is also situated in Athlone, while pushed further back off Klipfontein road than Athlone Stadium. It used to host athletic meets and competitions. Many talented black and coloured athletes were given rise at this stadium. This stadium holds historical significance in Cape Town especially during apartheid as home to non-racialised sporting meets. In reading through recent reviews of Vygieskraal Stadium many noted that the facilities have not been well-maintained and the area is unsafe especially at night.

In 2020 an inter-school athletics meet was scheduled but the Western Province High Schools Athletics chairperson made a statement that it would need to be cancelled due to the facilities not being compliant with building regulations for events (Cape Argus,2020). Similarly to Athlone Stadium the Vygieskraal become yet another white elephant in Athlone- being underutilized and unkept by local authority.

54



figure 23 | locating Vygieskraal Stadium in relation to proposed site_ By Author Map Source (Google Earth,2022)

Urban Analysis

Issues and opportunities

- Not present from Klipfontein road
- Architecturally it lacks the presence as a landmark
- Surrounded by large public open fields making it unsafe

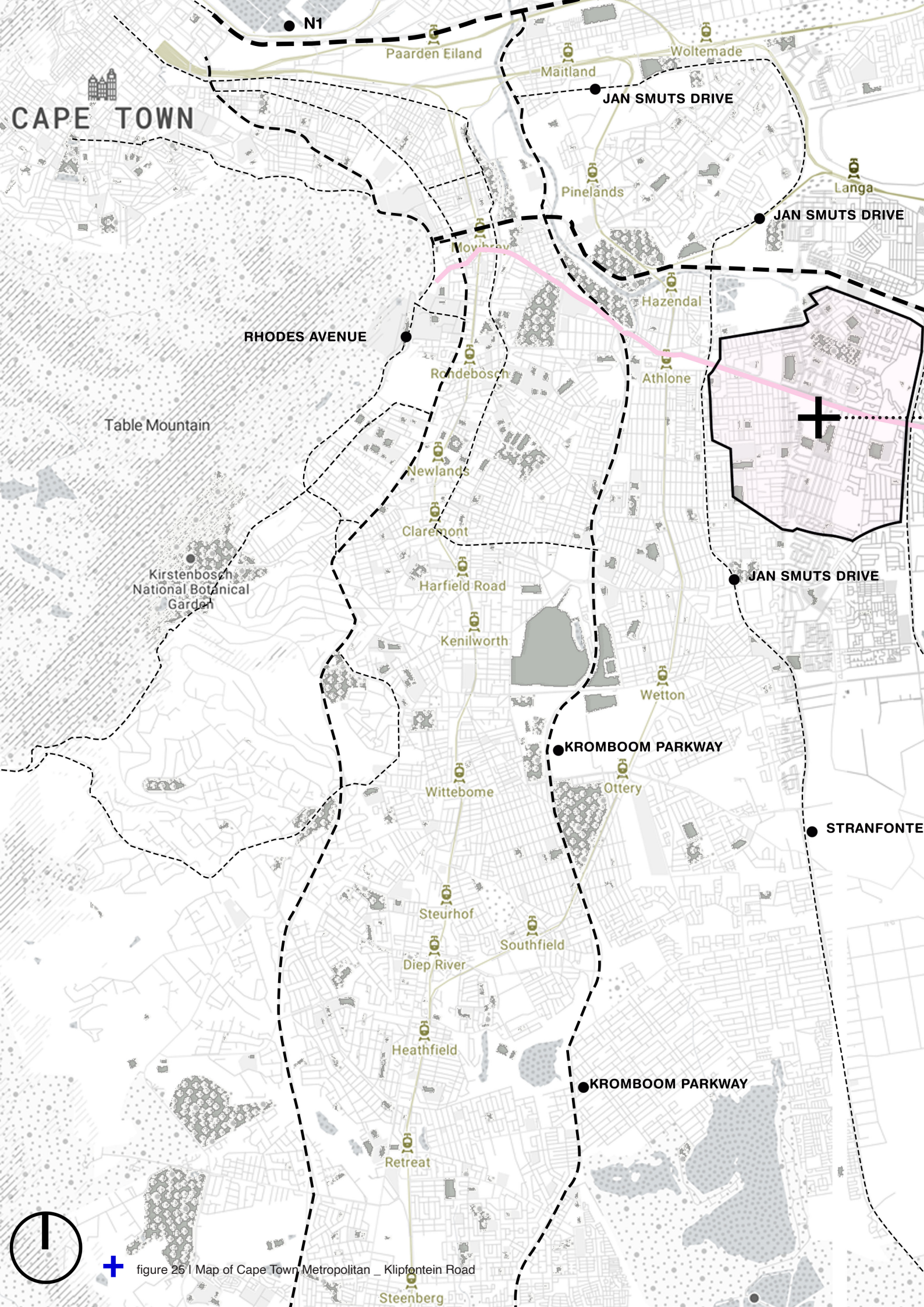
Actions

- Develop surrounding open fields to bring a sense of security on site
- Renovate the facilities to incorporate features which highlight the scale and presence of the stadium
- The facility should not only be home to one club/sporting code as this makes it monofunctional and thus overtime becomes underutilise.
Promote school sport programmes which use the facility during the day outside of event and training hours

The analysis of Athlone and Vygieskraal Stadium brings an understanding of the existing sport facility in Athlone. It will aid my research to develop a design response which acknowledges these issues and reimagine a sport typology which can be applied to the existing with a design response which use sport to promote these urban linkages.



+ figure 24 | Vygieskraal Stadium today (Athlone , Cape Town | UCT Libraries Digital Collections, 2022)



+ figure 25 | Map of Cape Town Metropolitan _ Klipfontein Road



ELSIERIVER

Bonteheuwel

Lavistown

Belhar

Unibell

Pentech

Sarepta

KUJ

SETTLERS DRIVE

STUDY AREA: ATHLONE

Heideveld

CPT

KLIPFONTEIN ROAD

N2

Nyanga

Stock Road

Philippi

Nolonqile

N2

Nolonqile

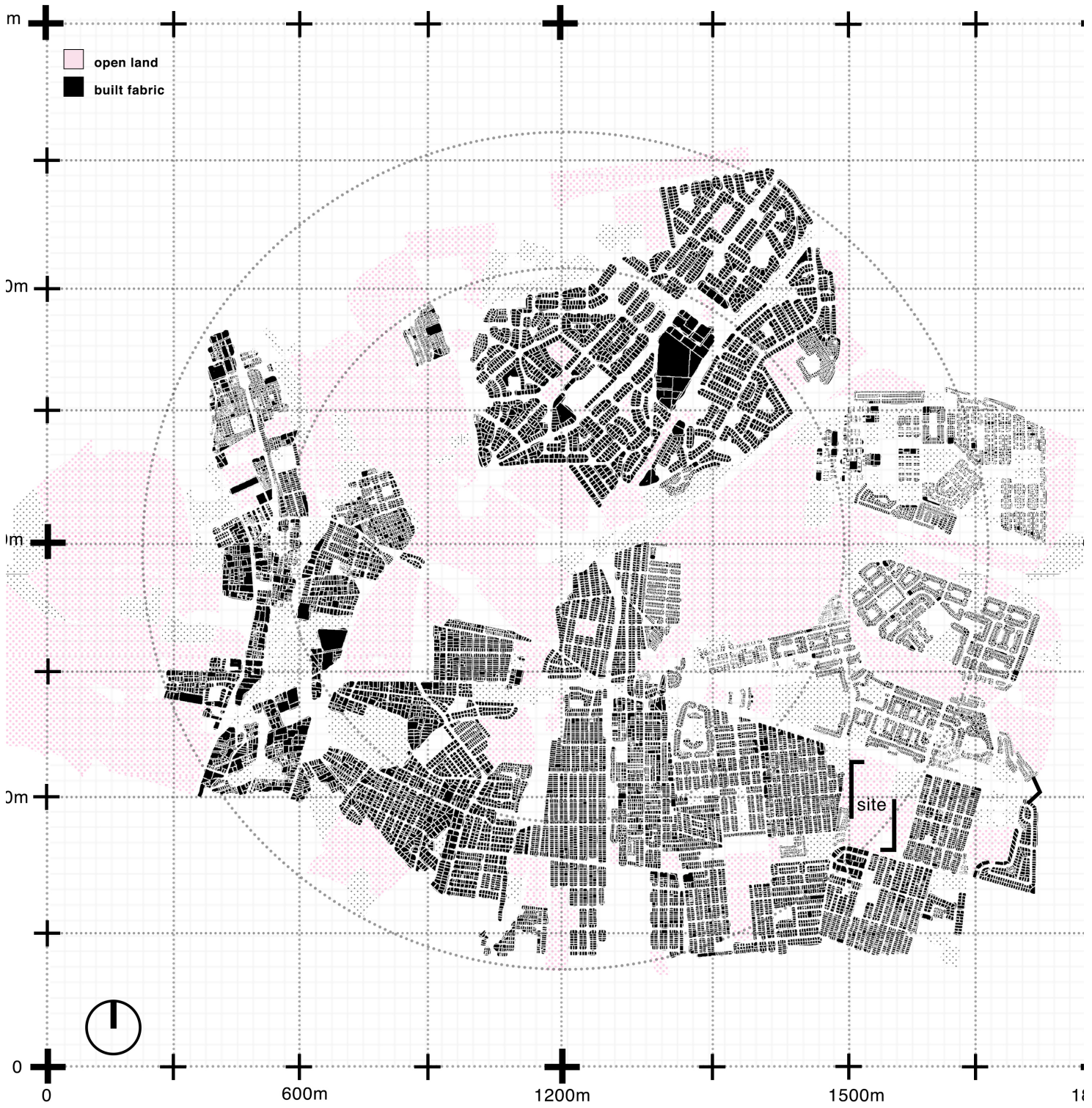
IN ROAD

Nonkqubela

KHAYELITSHA

Khayelitsha

MITCHELLS PLAIN



58



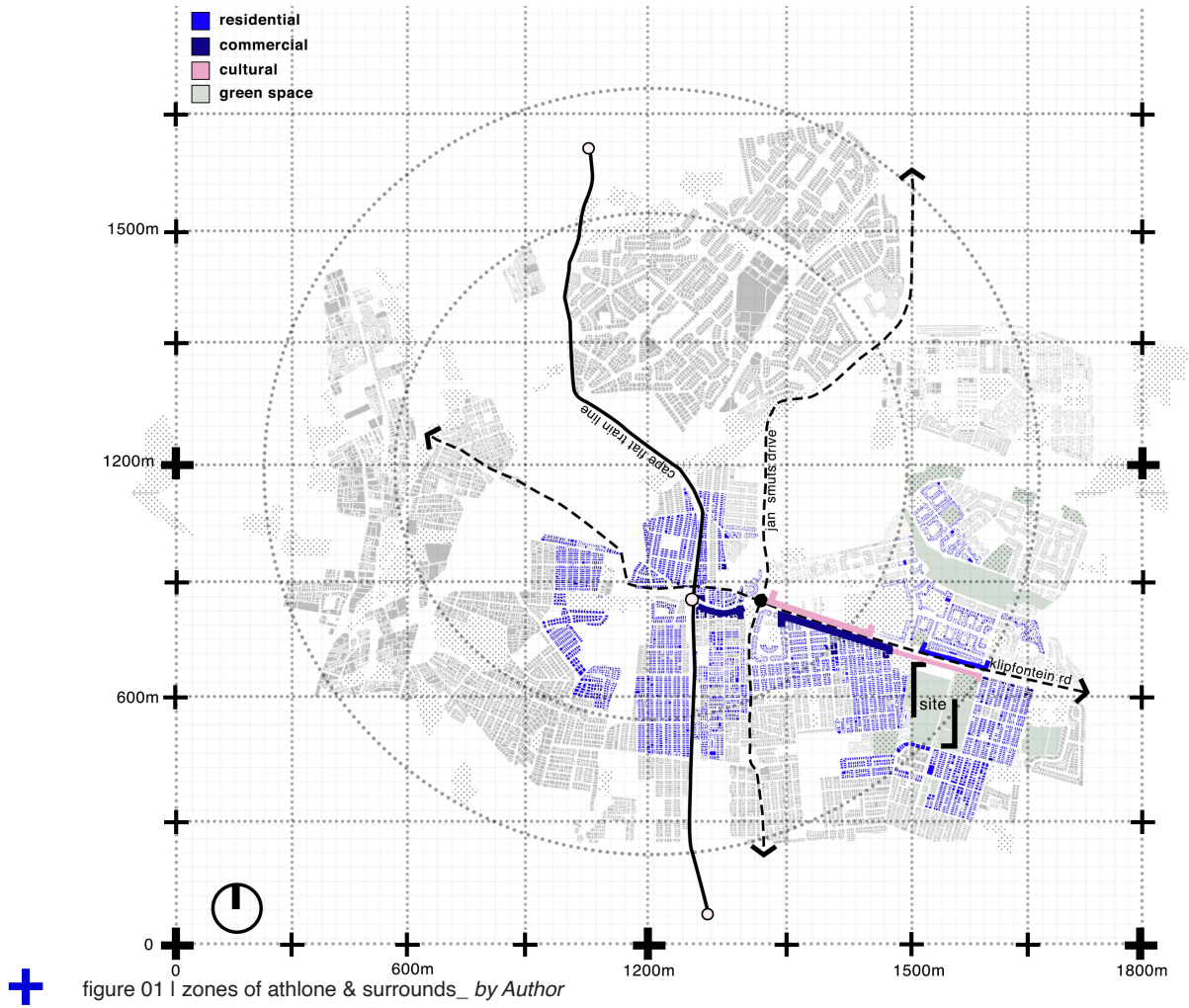


figure 01 | zones of athlone & surrounds_ by Author

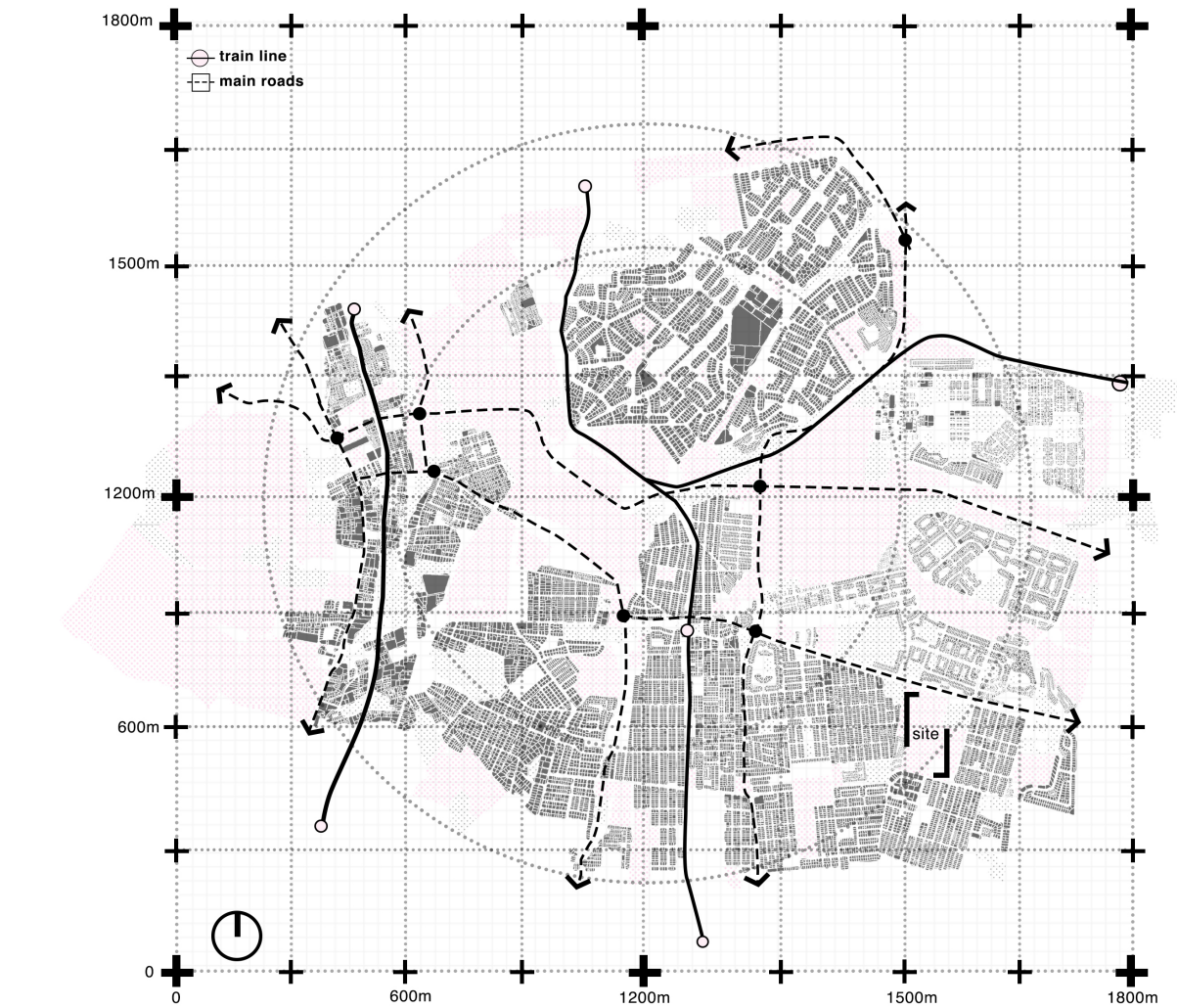


figure 01 | route networks of athlone & surrounds_ by Author

5.3 klipfontein road_athlone

Klipfontein is Athlone's main road which runs all the way from Khayelitsha to the Cape Town CBD. This proposal highlights the role of Klipfontein in the metropolitan Cape Town as one of the key routes many people travel daily. There is a well-established bus and taxi route along this road.

As this design proposal will be located along Klipfontein it will look at existing proposals of the 'Klipfontein Corridor' made by the City of Cape Town. Klipfontein Road was identified to be South Africa's first TOD (Transit-oriented development) corridor. This set out a framework for "public transport corridors that integrated mixed land uses and higher densities" (Wood, 2021). It aimed to use BRT (Bus Rapid Transit System) to remodel the current 20km corridor into an economic hub. It proposed that the BRT would run in the middle lane and underdeveloped programme along the edge should be redeveloped with mixed uses to promote activity along the Corridor and serve the commuters of the BRT (City of Cape Town and Provincial Government of Western Cape, 2005).

Tasneem Essop, the provincial Minister of Transport at the time spoke of the Corridor becoming a destination. She said that City hoped it would aid in returning Athlone into a social and cultural hub again.

The Klipfontein Corridor was unfortunately never realized yet due to many political and technical challenges which arose.

However, there are valuable lessons which this design research can pull from this proposal. It is a positive sign that there is governmental interest in the revitalizing of Athlone and one which this design dissertation will fit into. The reimagination of Klipfontein Road will background the design proposal.



figure 1 reimagined pedestrianised Klipfontein Corridor_ by Author

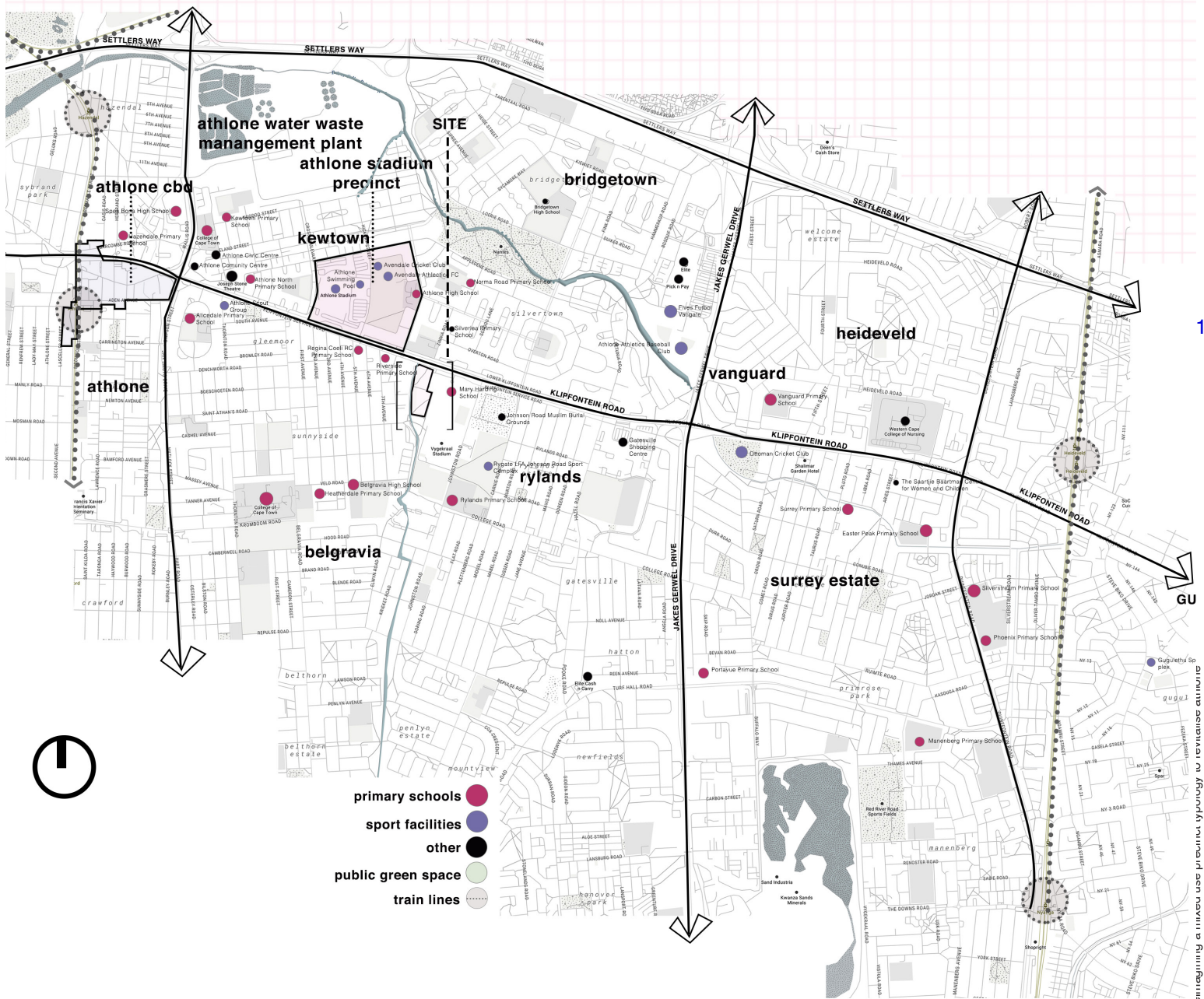
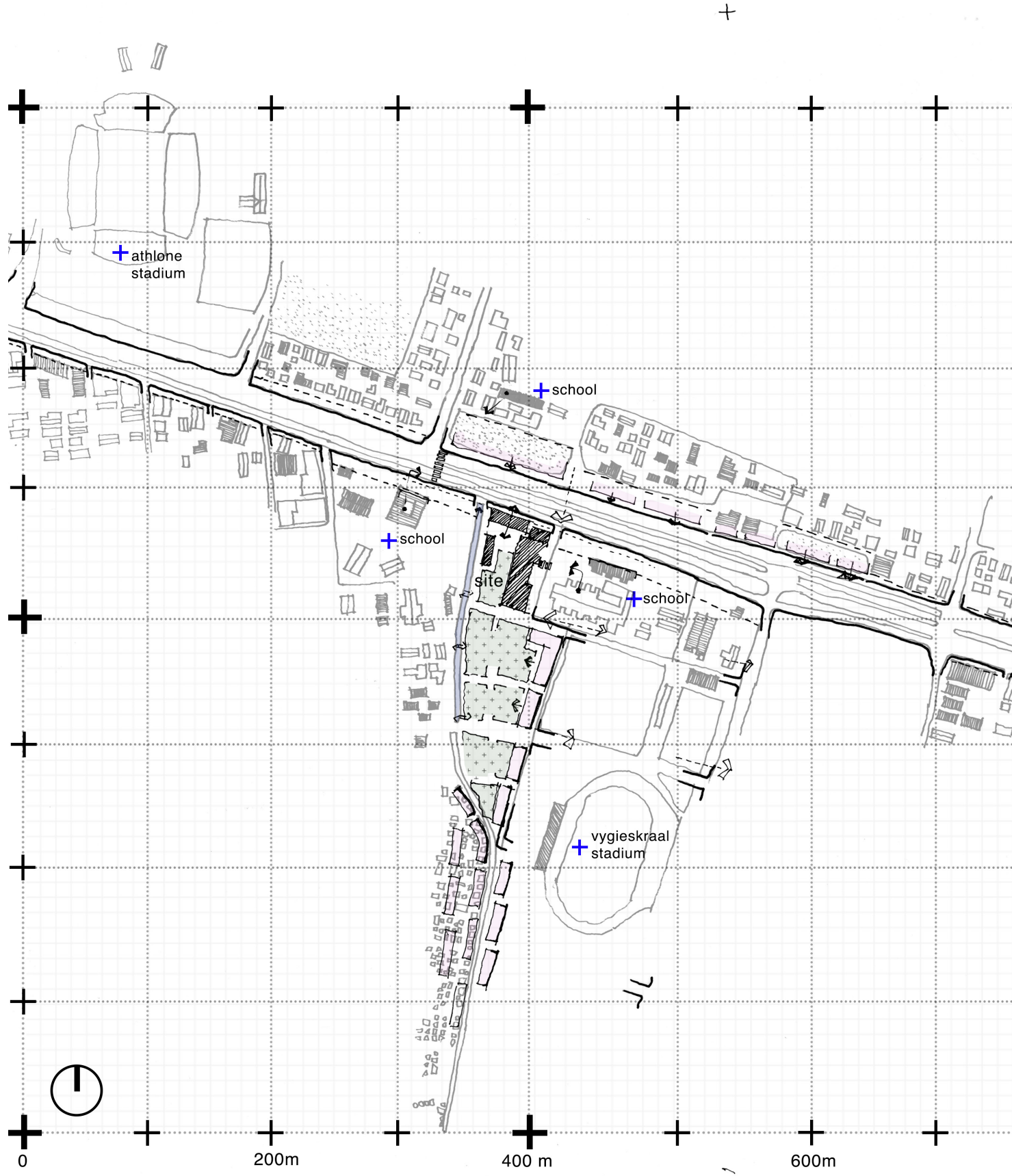


figure 26 | Map of Athlone & surrounds _ 1:5000 @ A1 by Author

5.4 urban response along klipfontein road

62



+ figure 27 | urban response_ by Author

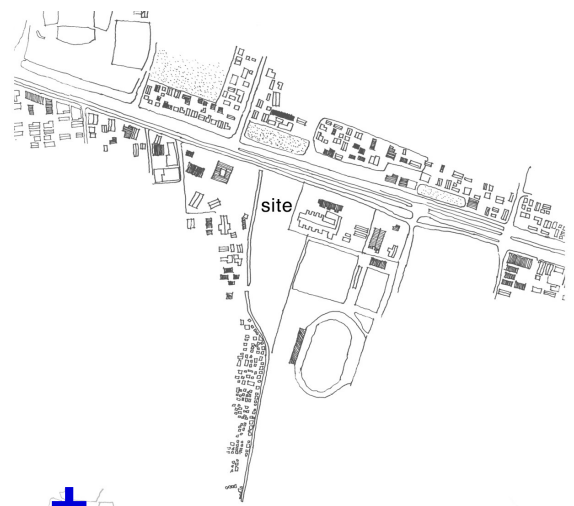
Urban response

The siting of the proposed national gymnastics centre will be sited along Klipfontein road. On an urban scale it will attempt to create a reimagined Sport Facility which could be applied to other sporting complexes in Athlone.

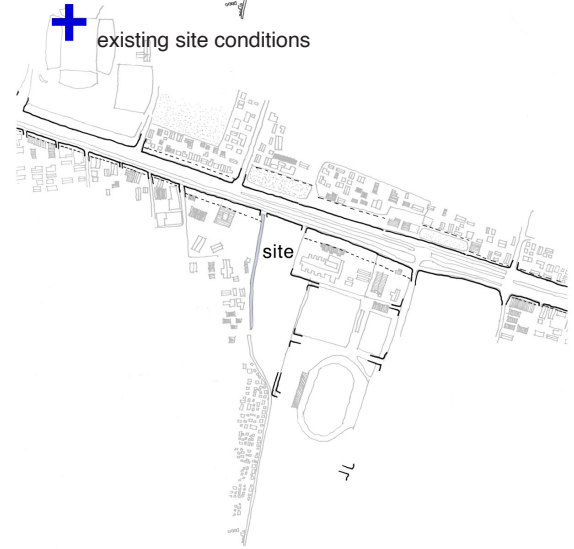
An urban framework I will work towards will:

- Have a presence on Klipfontein road of national scale and importance
- Link into Klipfontein road's transit system
- Be closely situated to schools in the area to promote a relationship between schools and the precinct
- Incorporate medium to high density mixed use commercial and residential to promote activity along the Corridor as well as serve as security.
- The gymnastics school should be integrated into a precinct with supporting function around to avoid becoming a "white elephant"
- Public sport courts and parks should be integrated into the site to promote foot traffic and liven the context with recreational sport
- It will propose a housing scheme as secondary phases to continue along the precinct as it is currently open land, and not being utilized.
- A green corridor can be incorporated along the canal edge to act as a retention measure as well as buffer the canal from pedestrians

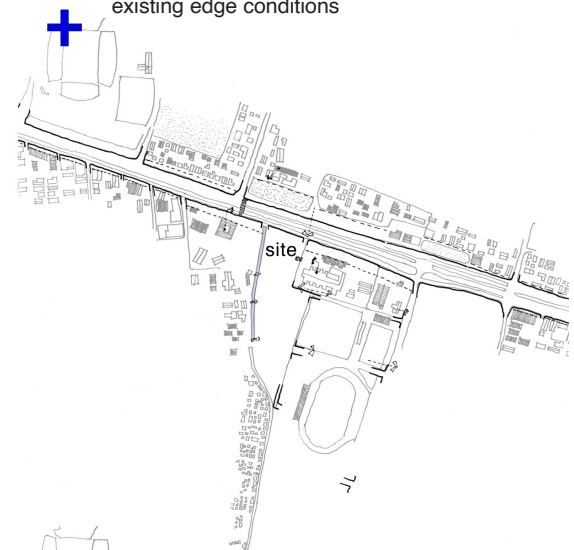
The urban studies below looked at the existing edges of Klipfontein road and ways of expanding that. On an urban scale it will propose the densification of the Corridor with mixed uses. The urban proposal will be the grounding for the architectural response of this project.



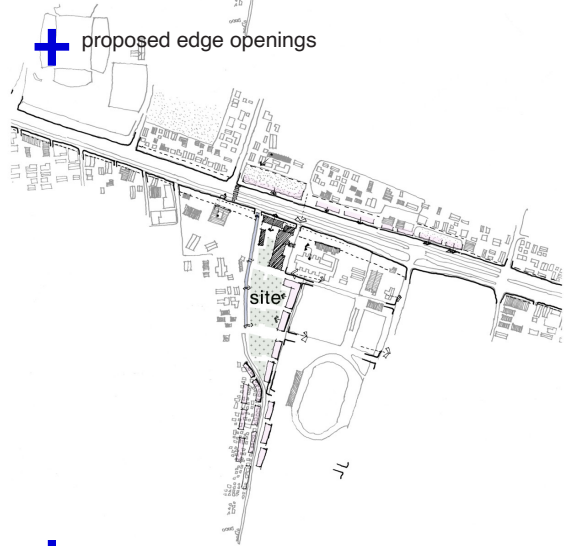
existing site conditions



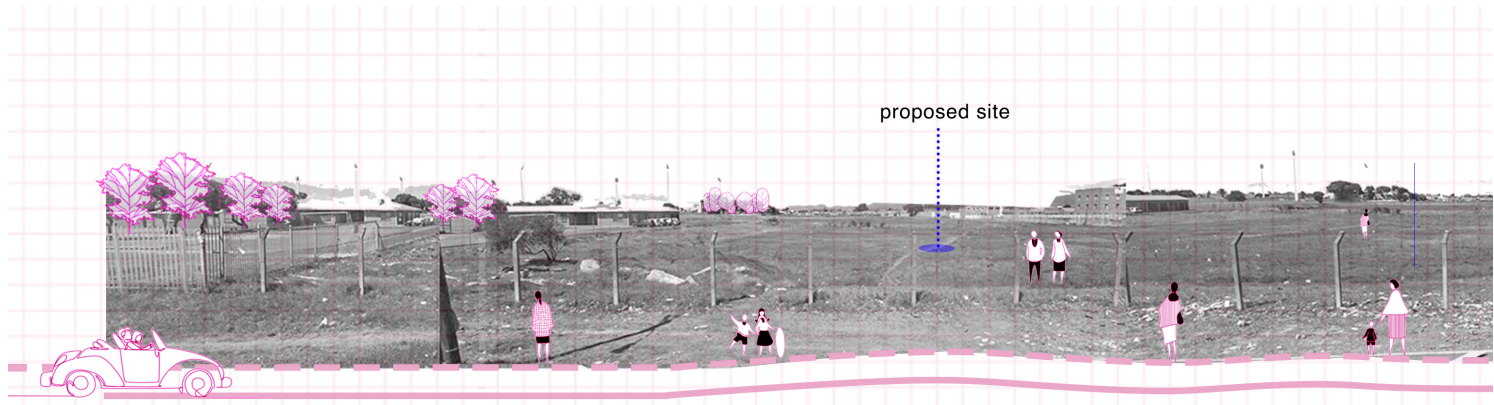
existing edge conditions



proposed edge openings



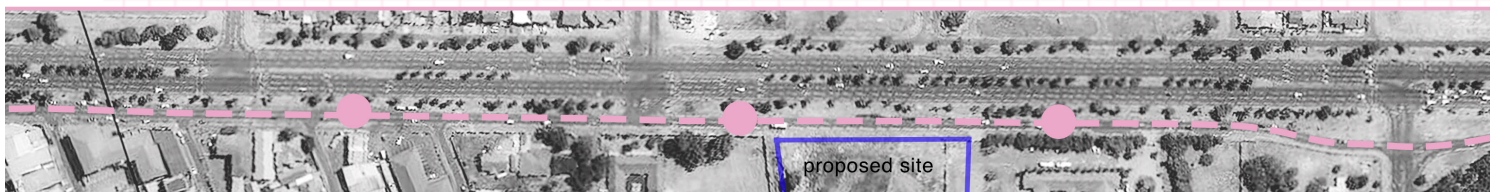
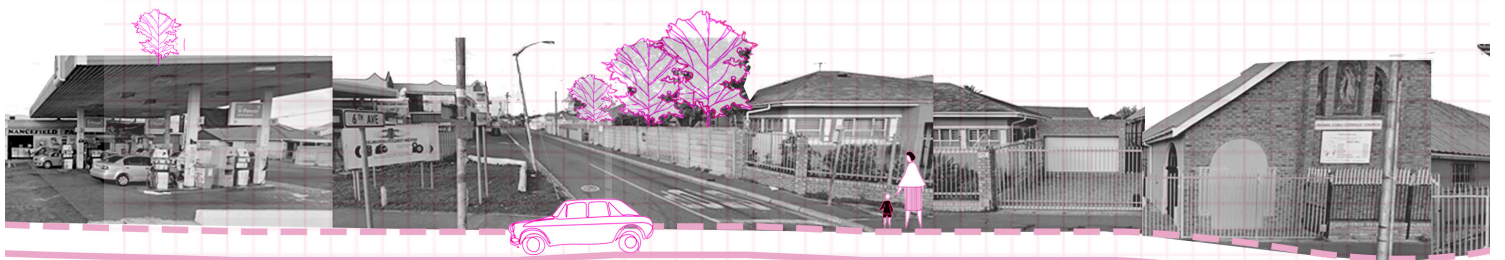
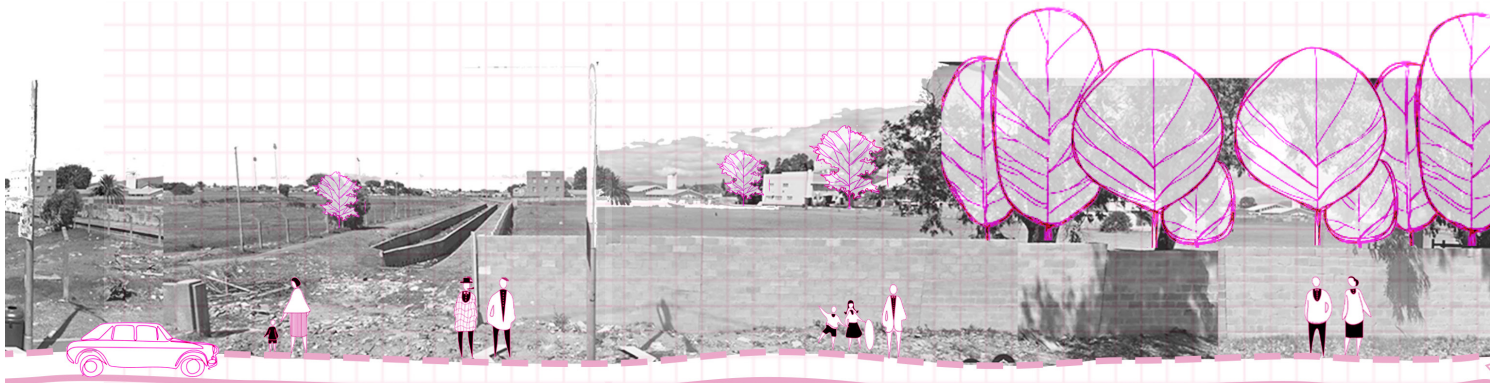
proposed built and green space



Klipfontein road



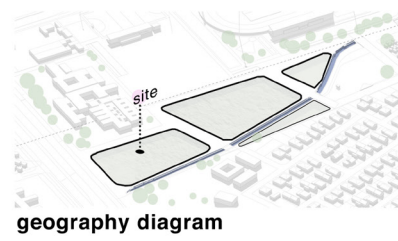
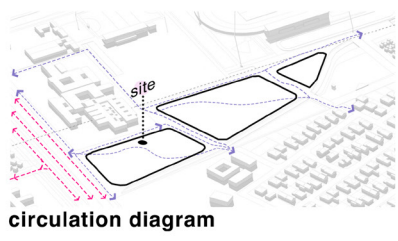
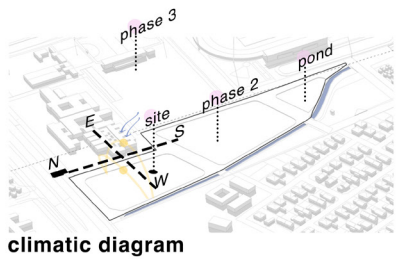
+ figure 28 | plan walk through klipfontein road_ by Author



5.5 site analysis

The site also referred to as Vygieskraal stadium, is situated purposefully on an open plot of land which is surrounded by a close network of primary schools. It is also in proximity of Athlone Stadium and Vygieskraal Stadium to its South.

The direct land use surrounding the site is a combination of schools, churches, sport and commercial. The site is large in scale and for the purposes of this thesis I will focus on the front portion while working within a proposed precinct plan of the site.



+ figure 29 | site analysis diagrams_ by Author

5.6 site plan

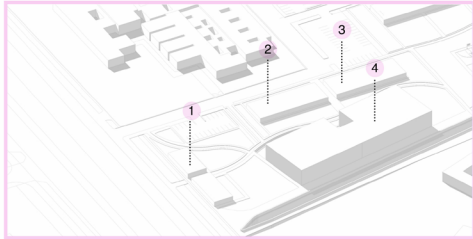
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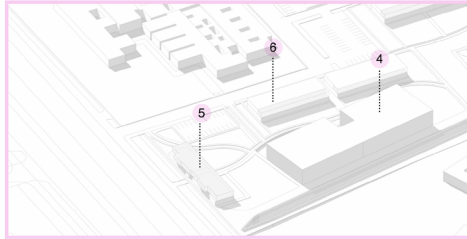
1. **gymnastics training facility**
2. **public**
retail - cafe, book store, mini market
3. **semi public**
training centre, site manager, equipment store
4. **student accommodation**
housing provided for gymnasts
5. **residential**
proposed housing scheme along edges
6. **public park**
urban park, outdoor performance area, outdoor gym
7. **proposed parking**



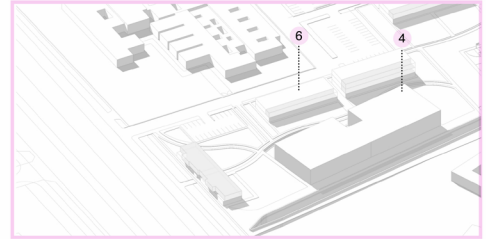
figure 30 | proposed site plan 1:2000@ A4 by Author



ground floor



first floor

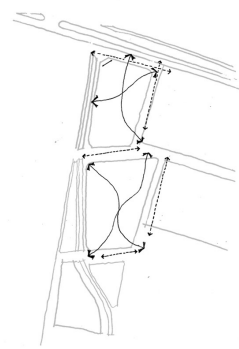


second floor

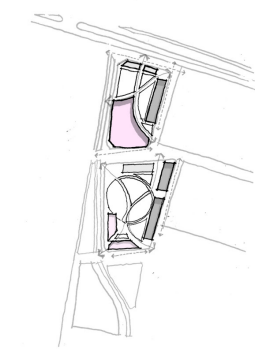
- 1. **public**
retail - cafe, book store, mini market
- 2. **semi public**
training centre, equipment store
- 3. **residential units**
building manager / family unit
- 4. **gymnastics training facility**
- 5. **smaller gymnastics rooms**
smaller scale rooms for specialised training, smaller classes, other dance activity
- 6. **residential units**
proposed housing scheme along edges



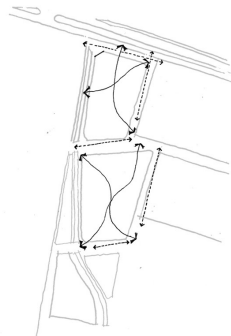
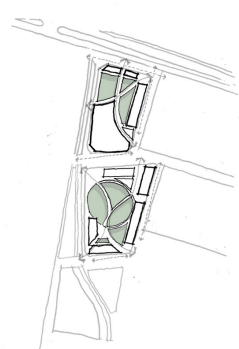
+ accomodation diagrams [to be updated as per new site plan] *by Author*



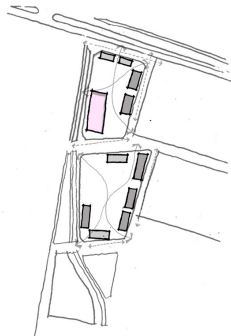
existing desire lines



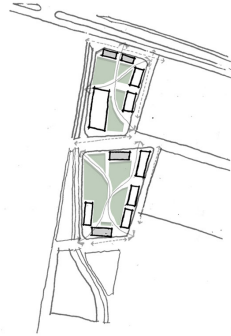
intergrating desire lines + for green public space along desire lines



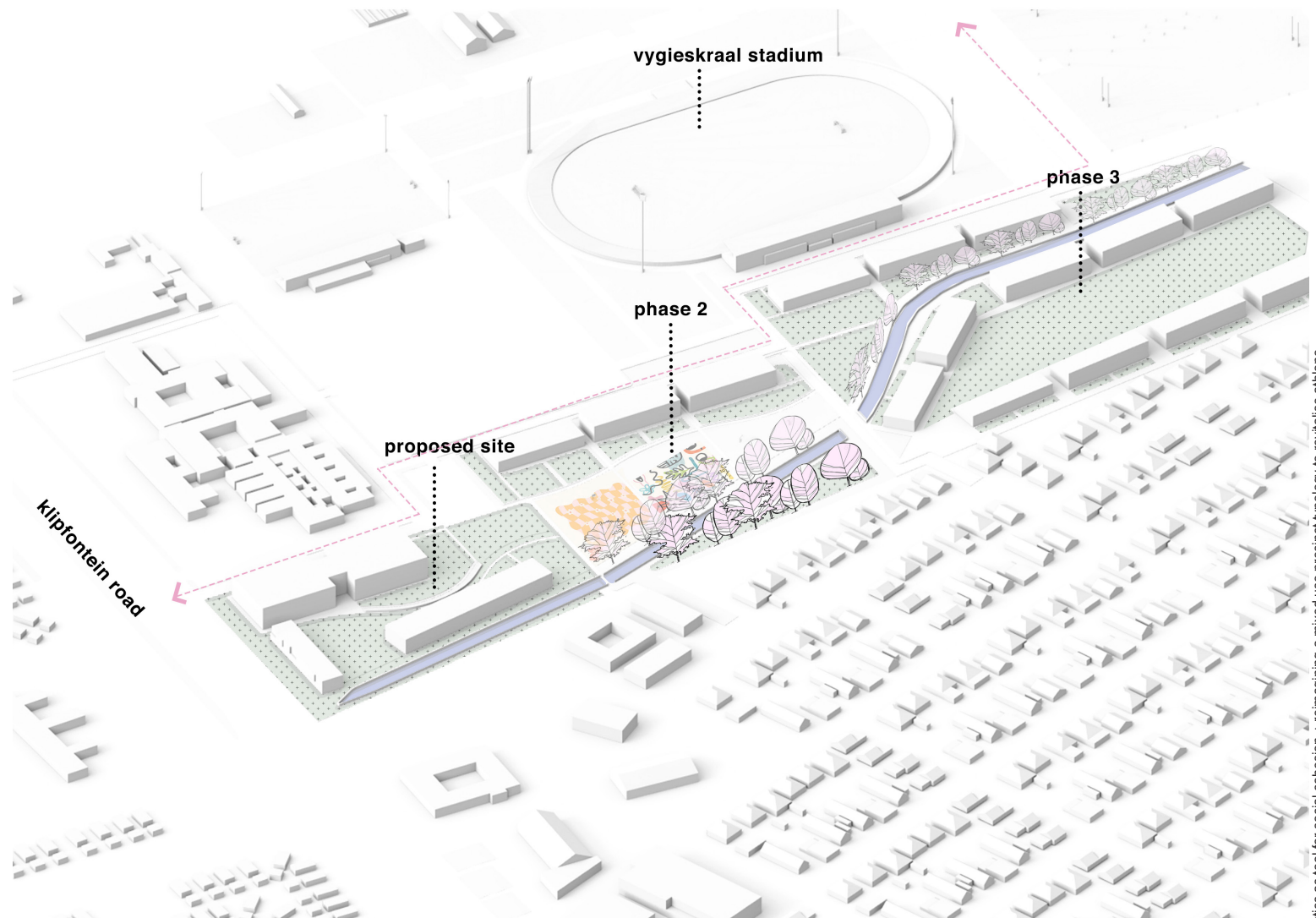
existing desire lines



rationalising form

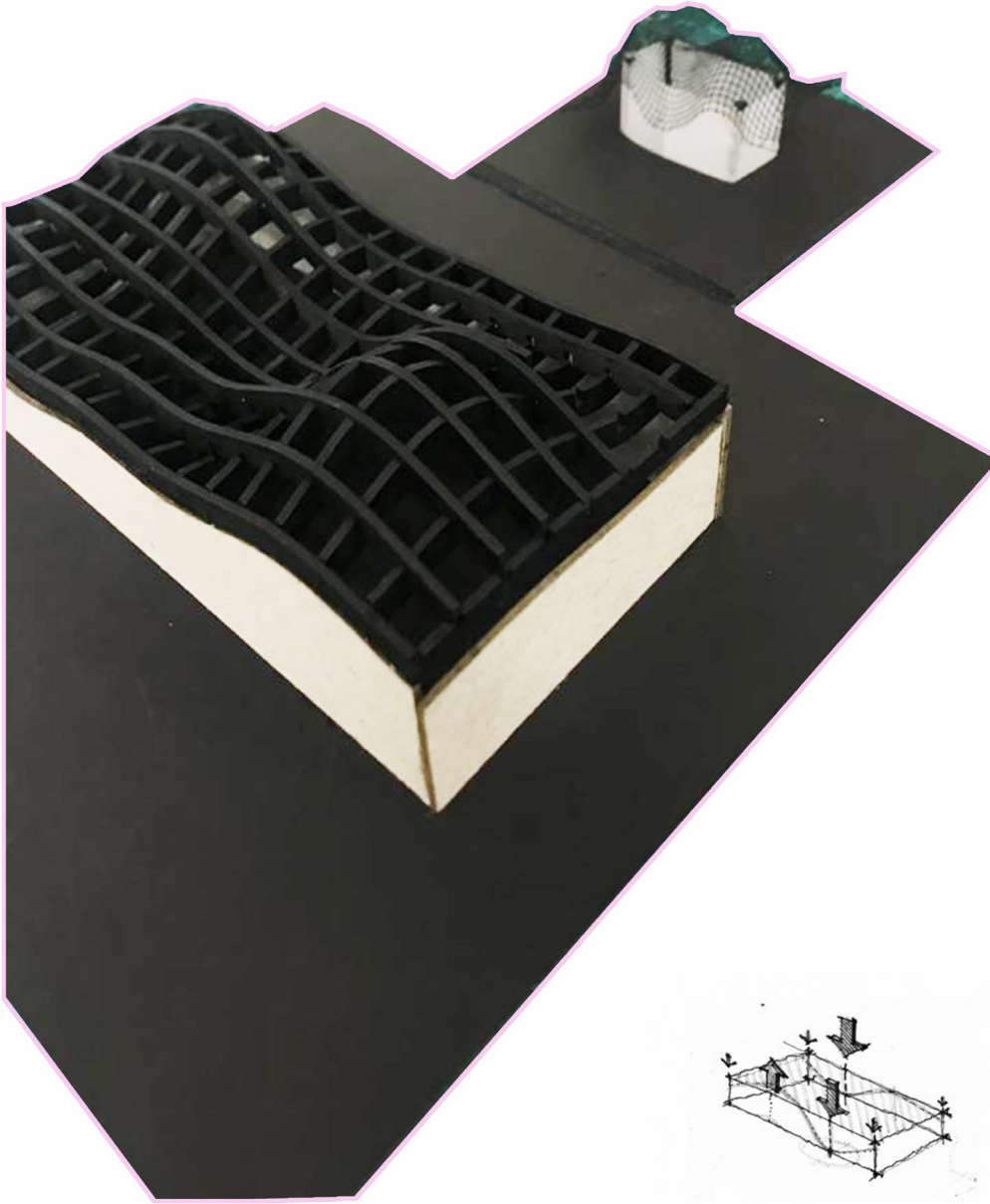


green public space

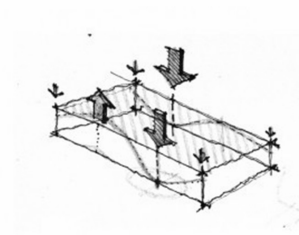


+ figure 31 | proposed site plan 3d by Author

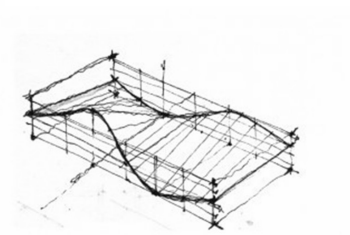
5.7 roof



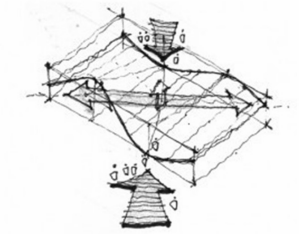
72



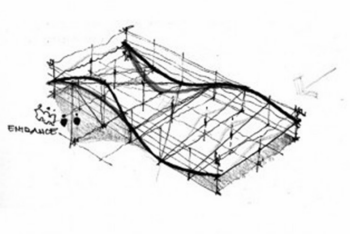
manipulating form



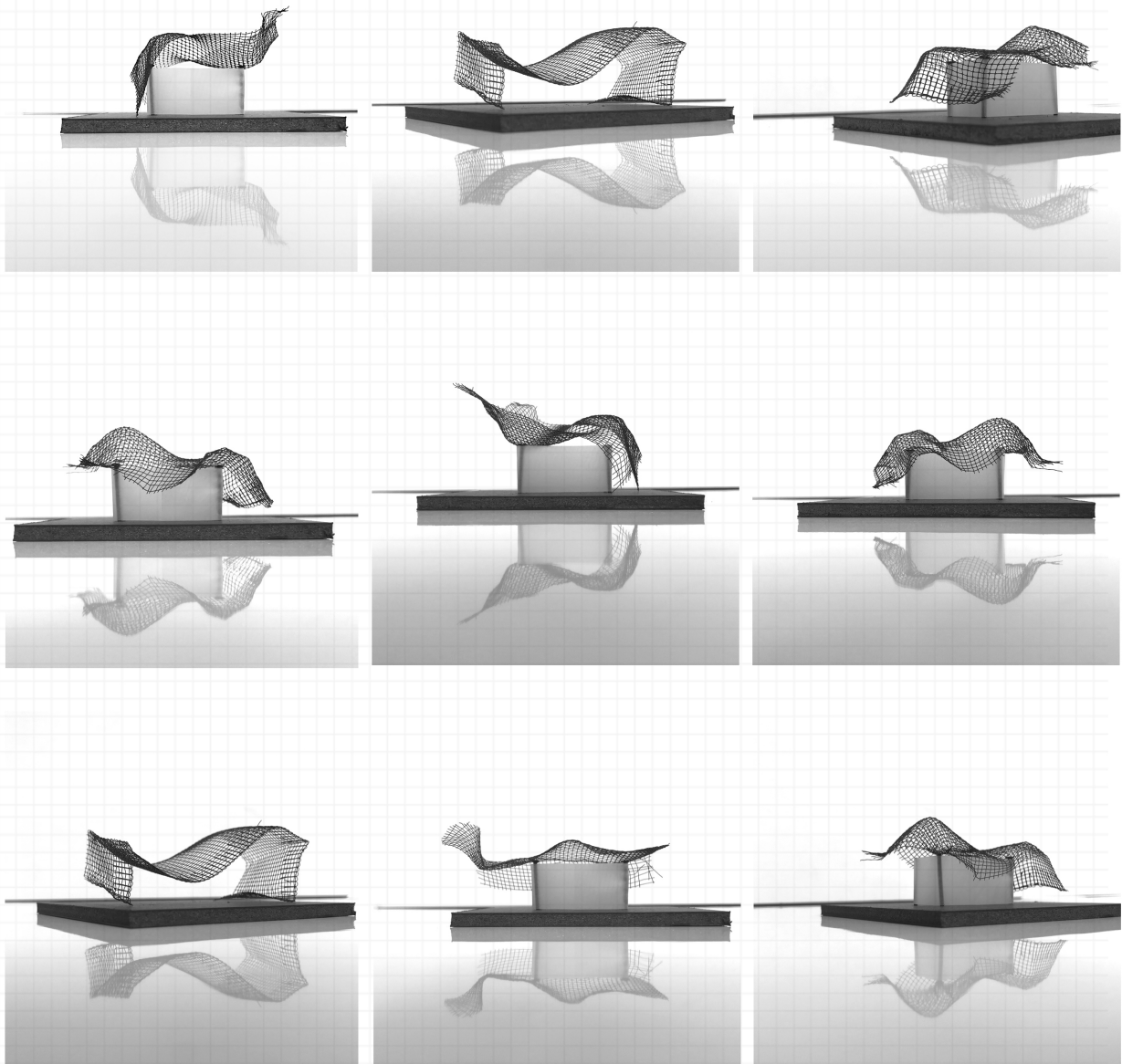
form as highlighting function



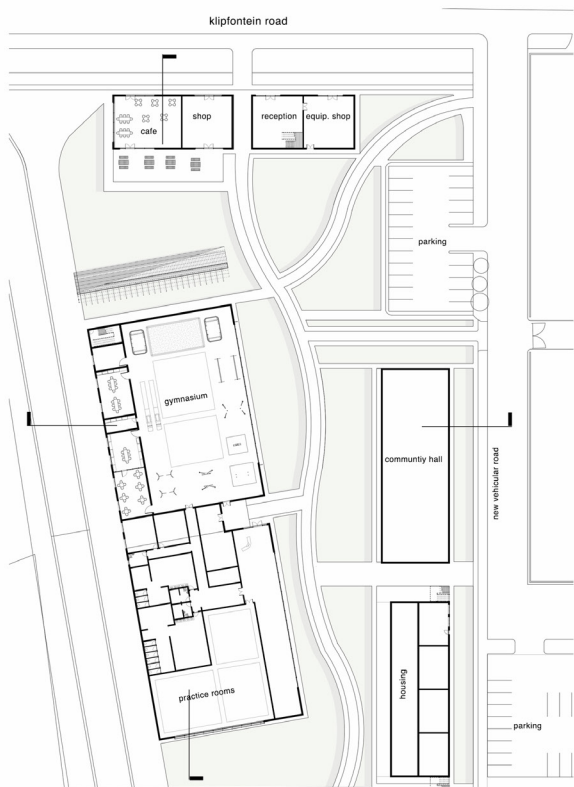
throughways



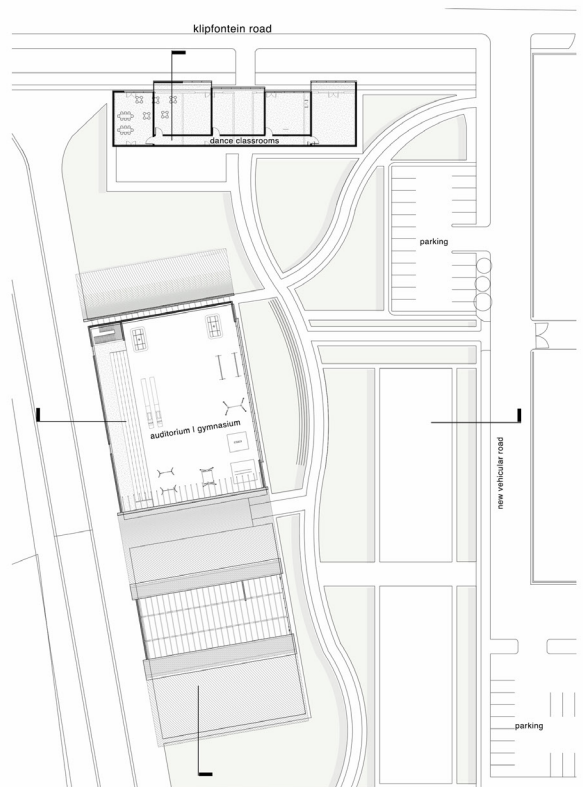
form as highlighting function



+ figure 33 | roof development by Author



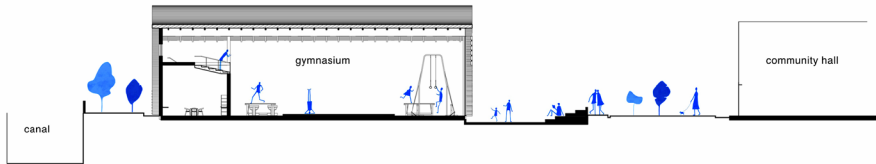
ground floor plan
1:200 @A1



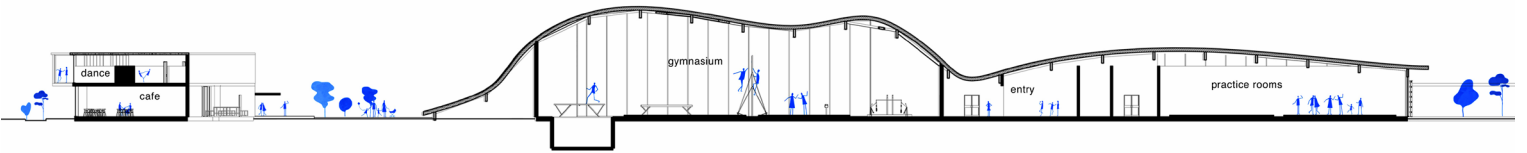
first floor plan
1:200 @A1



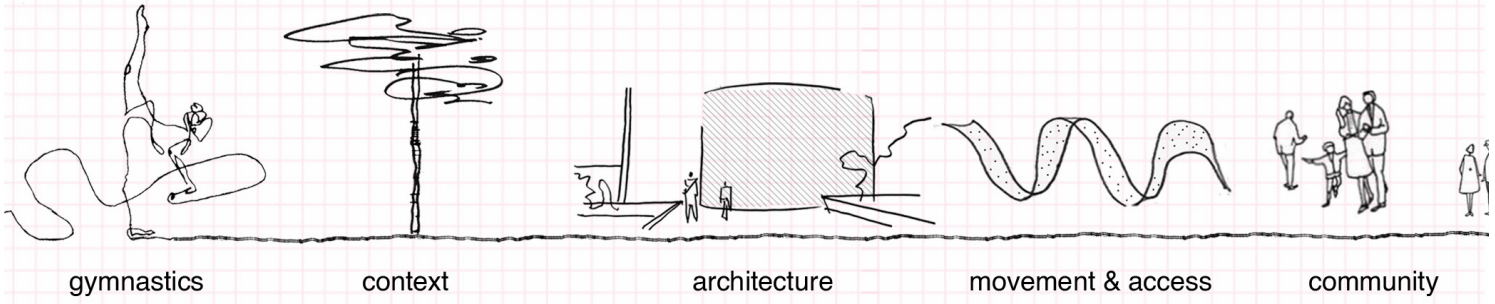
+ figure 34 + 35 proposed site plan and section (drawings to be updated as per new site plan) by Author



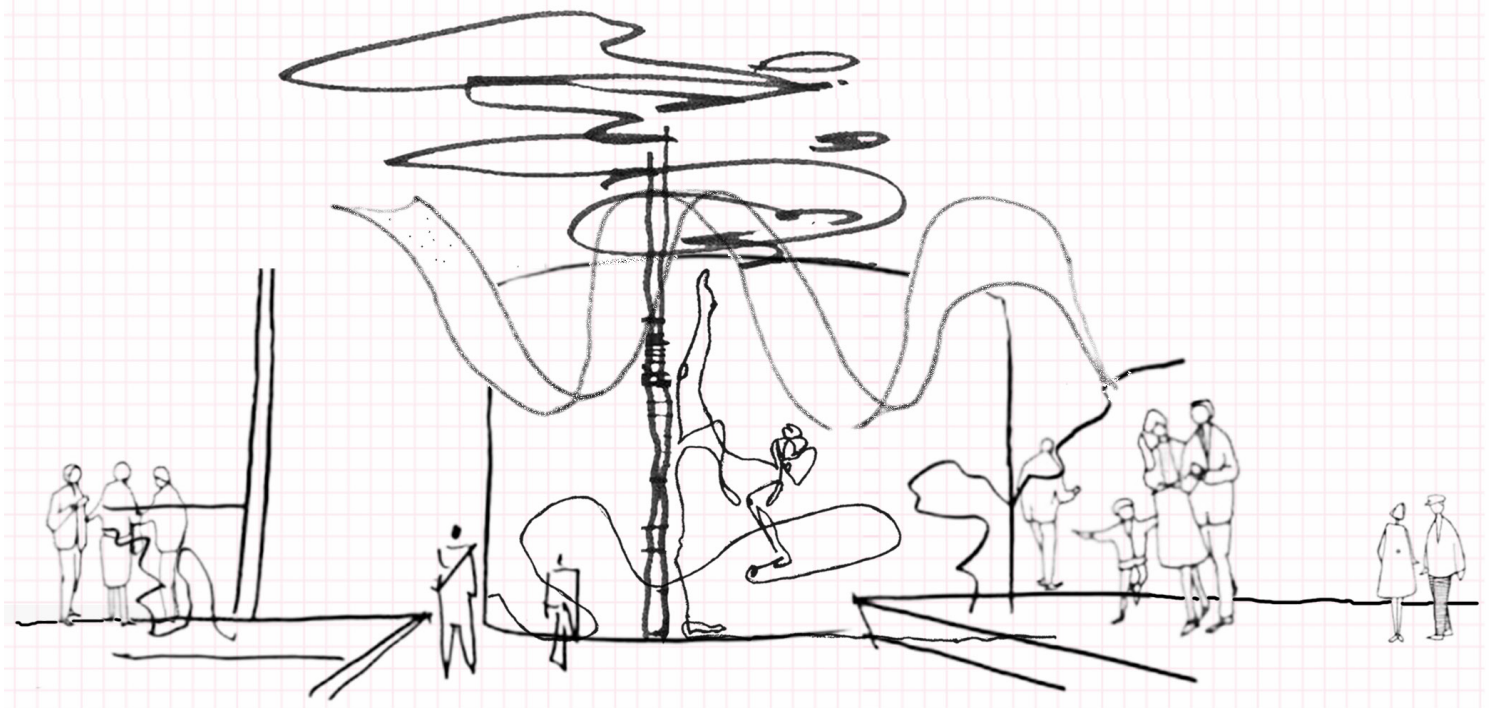
section 1
1:200 @A1



section 2
1:200 @A1



76



+ figure 34 | conceptual design drivers _ by Author

conclusion

Through the exploration of the research analysed in the literature review it is understood that there are still issues of social segregation in Cape Town even years after the demise of apartheid. The social issues of the past still exist in the current state of the city through the lack of formalized social urban space.

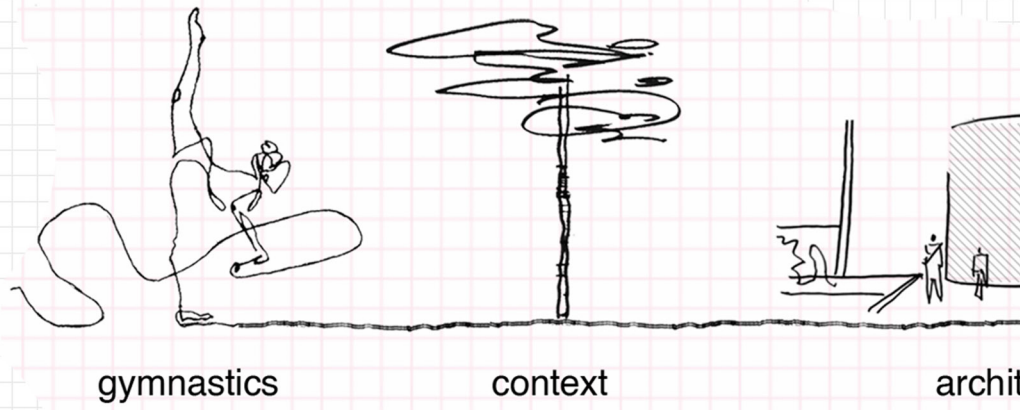
In order to address issues of social segregation and the multiple social issues that it causes the proposed architectural typology must include of a complexity of functions that has social relevance within the urban framework in attempts at achieving social cohesion and revitalisation in communities.

This literature review observed that recreation social activity promotes and encourages the process of social cohesion and revitalisation in communities. It is further understood that through the exploration of the literature that social participation in sport provides the tools needed to influence the social and architectural response within the urban environment (Goviden, W 2018). Sport has the social characteristics that facilitate relationships and stimulate the development of community.

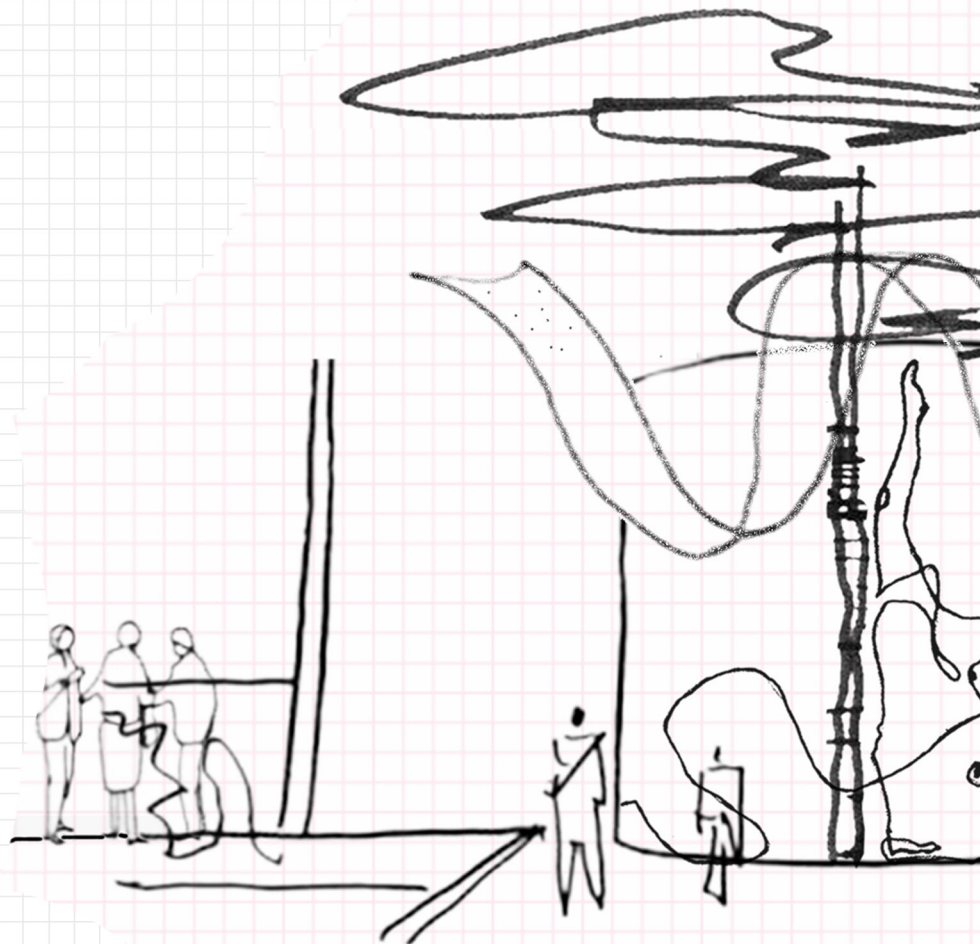
This thesis identifies Athlone, Cape Town as an appropriate site for an investigation on a new Sport Typology in the area. It holds a notion that Athlone is in fact the sporting city of Cape Town and that this should be revitalized through sensitive and practical urban design methodologies. The framework the projects sets for itself is to create a new mixed use precinct typology and although this research delimits itself to a gymnastics centre, the set of principles should be able to be applied throughout. These principles will guide the approach to reimagine Klipfontein Road through a sports facility which is well integrated into its urban fabricate.

A personal conclusion on an ever-developing project. This project aims to be the gymnastics school I would have always wanted to attend. It would be within a well-established transit route, close to schools so that children may walk over to gymnastics class and sit within a precinct which promotes movement through the site.

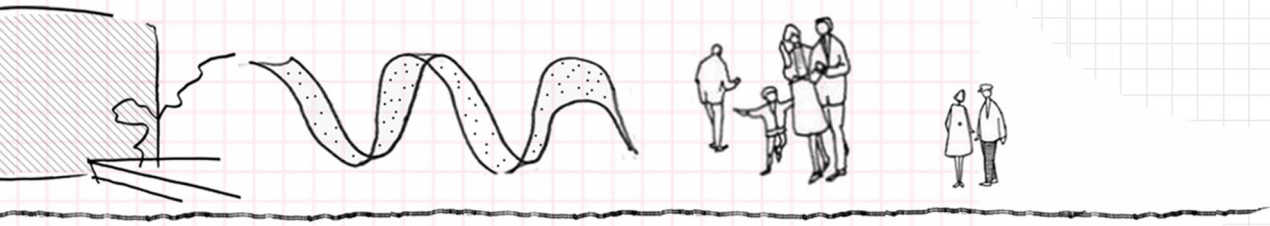
final drawings



78



key ideas

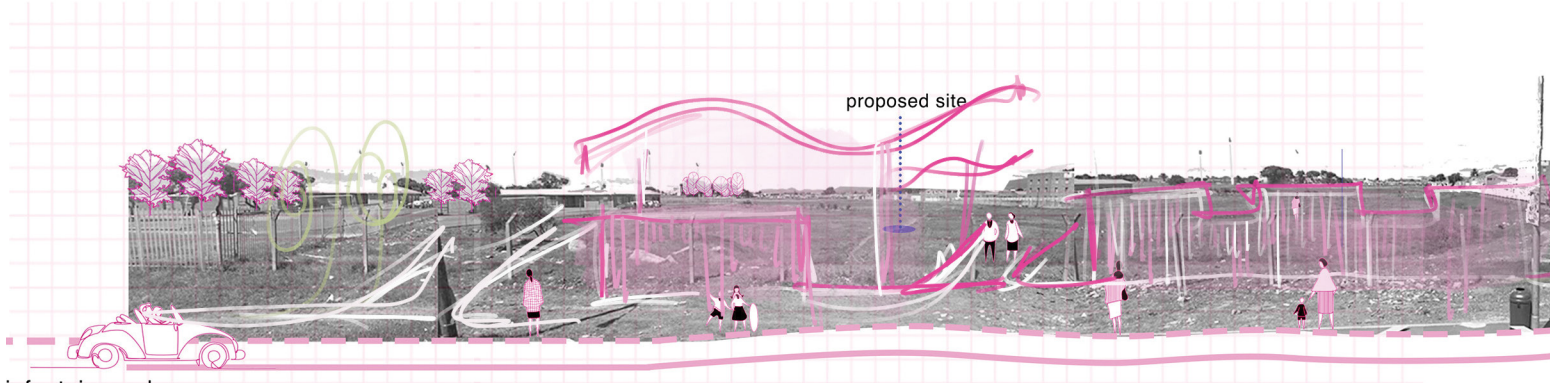


ecture

movement & access

community





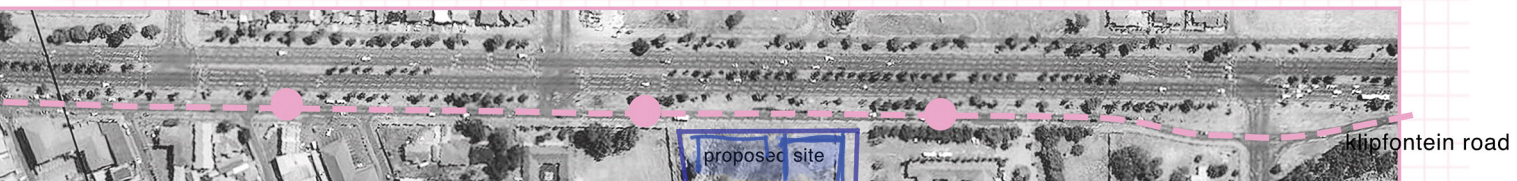
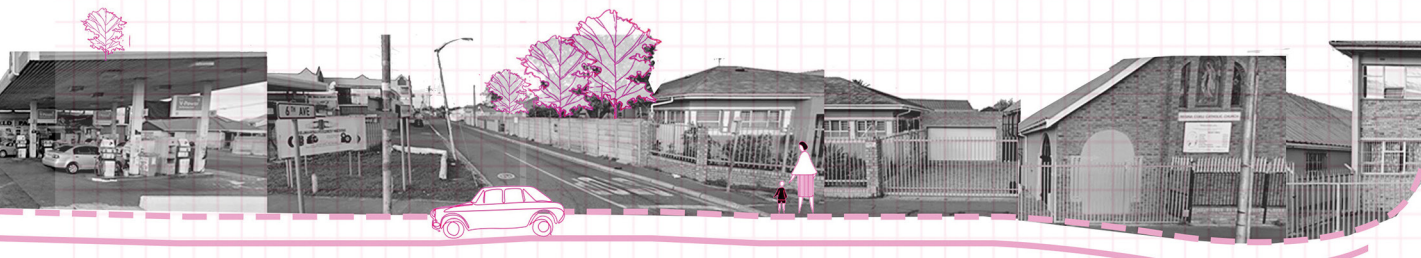
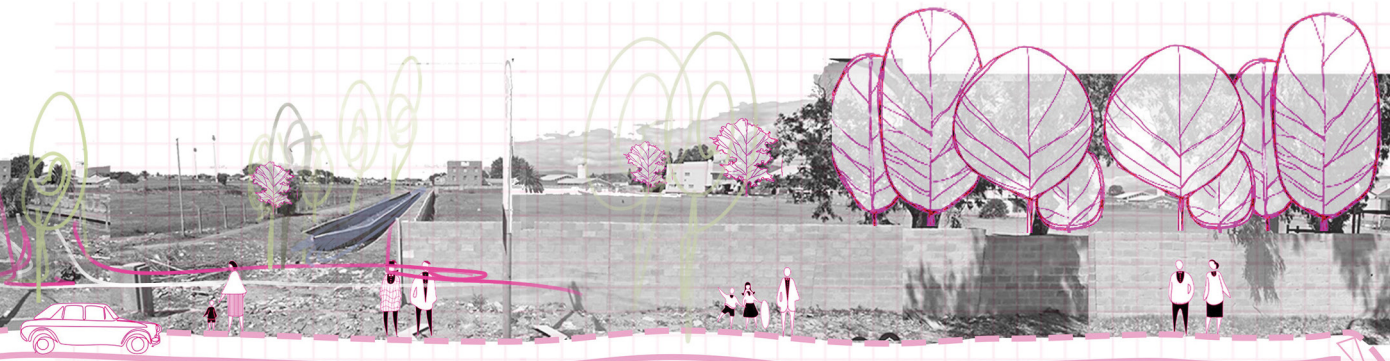
ipfontein road

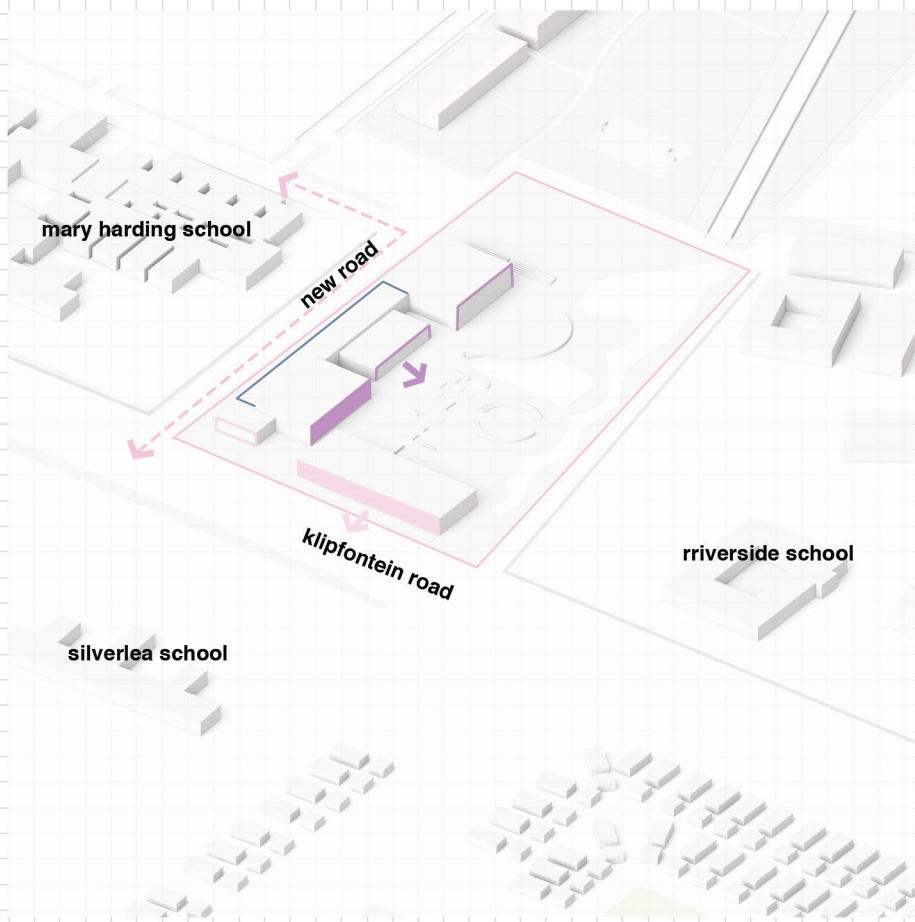


80

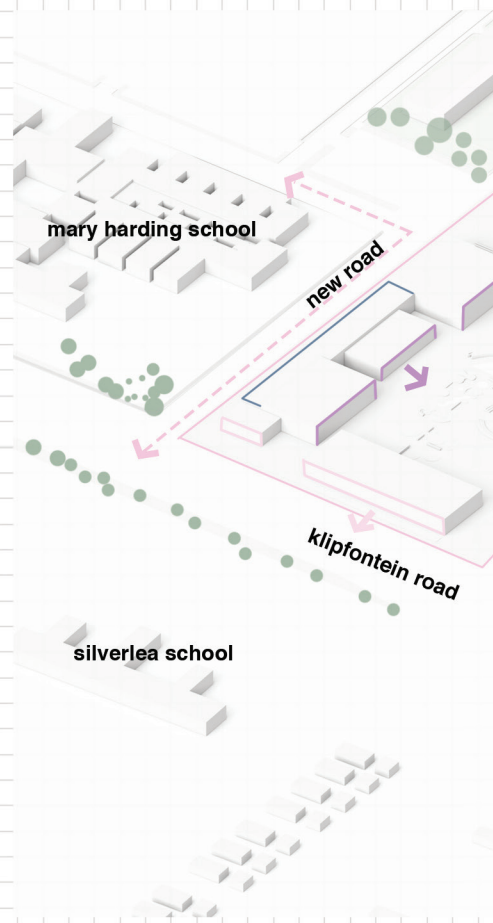


street walkthrough along klipfontein road

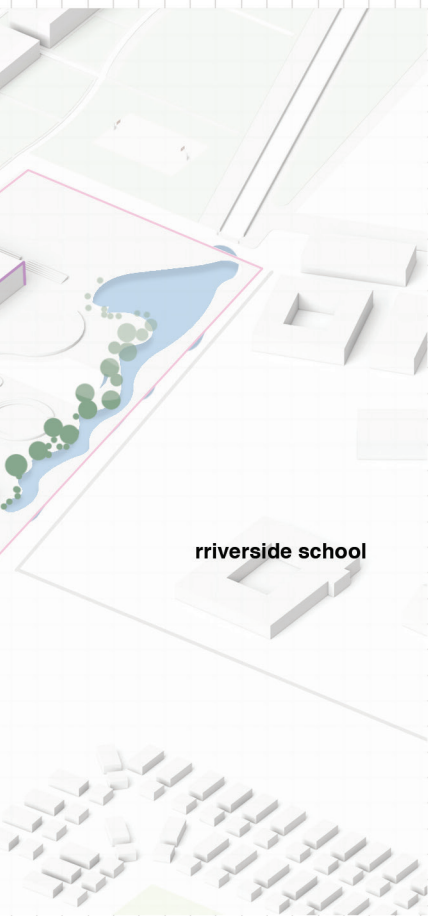




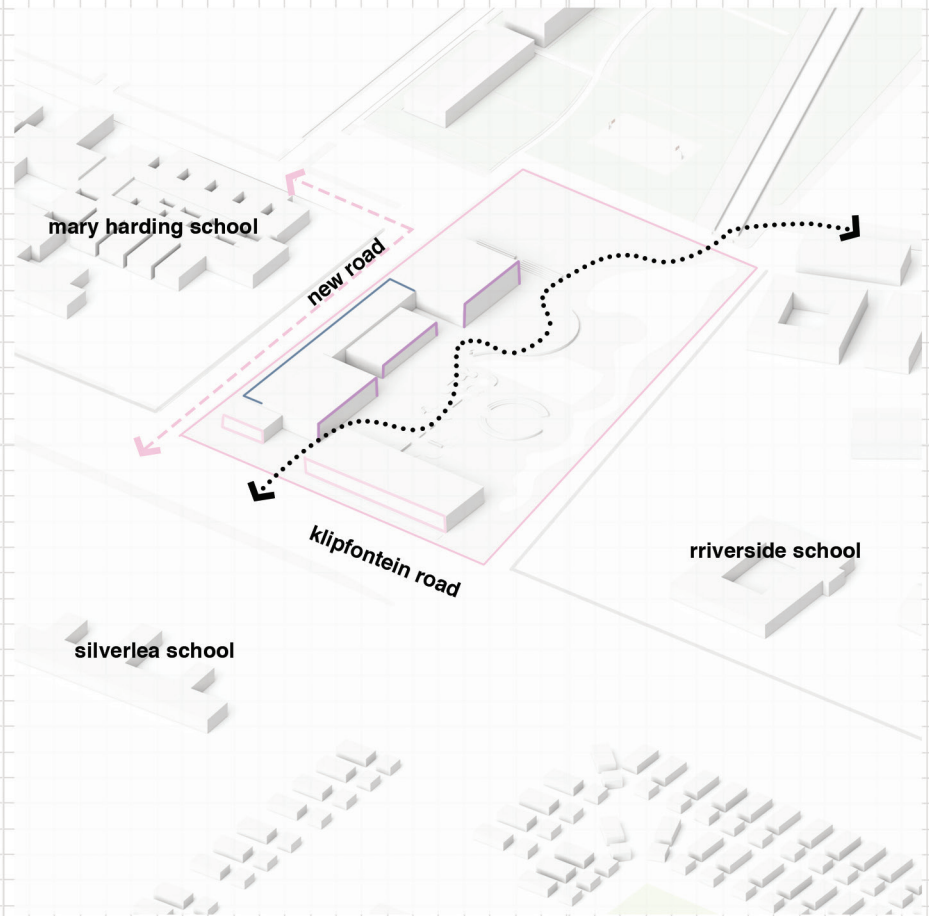
activating road edge



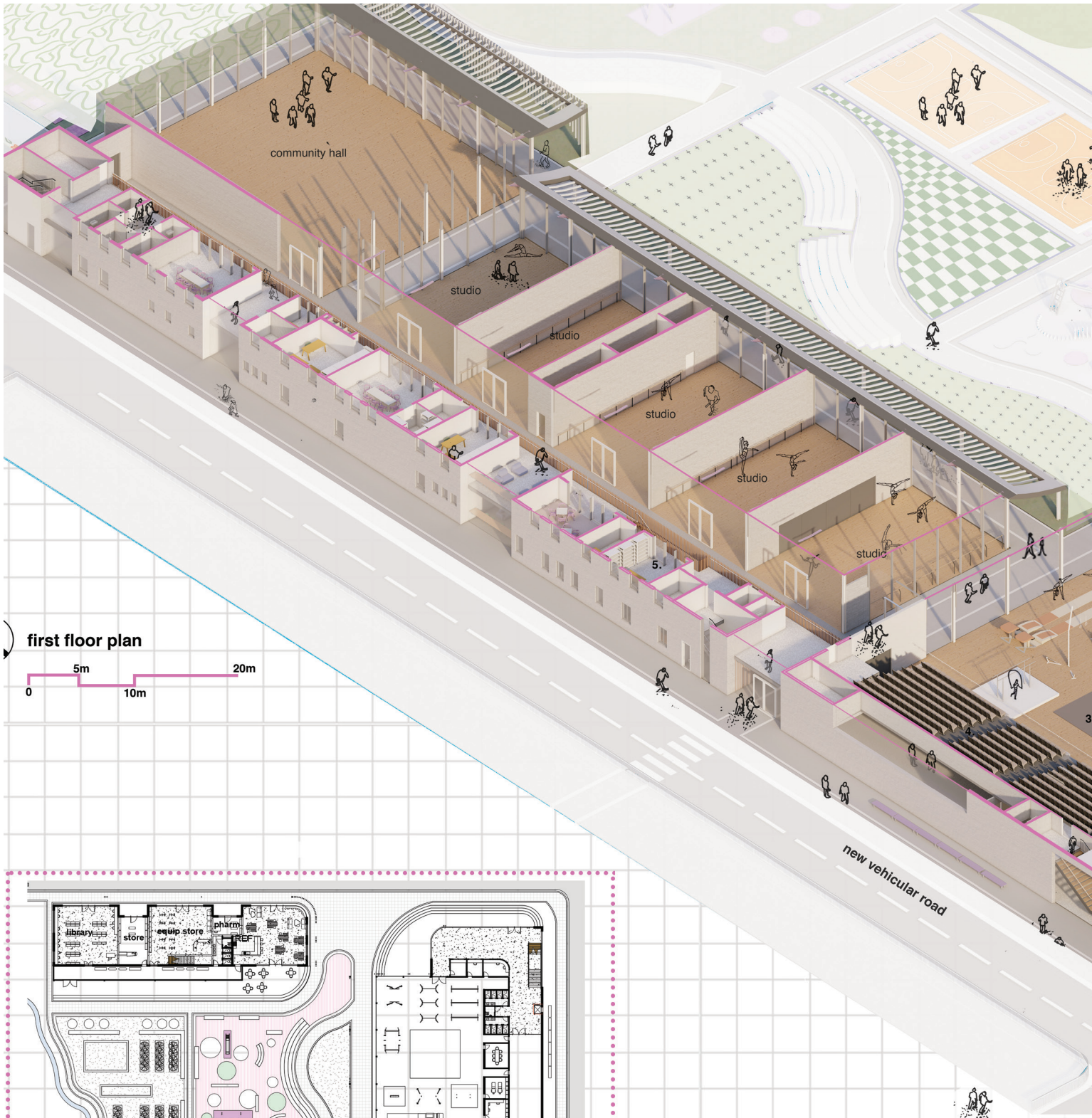
ecological res



response to canal

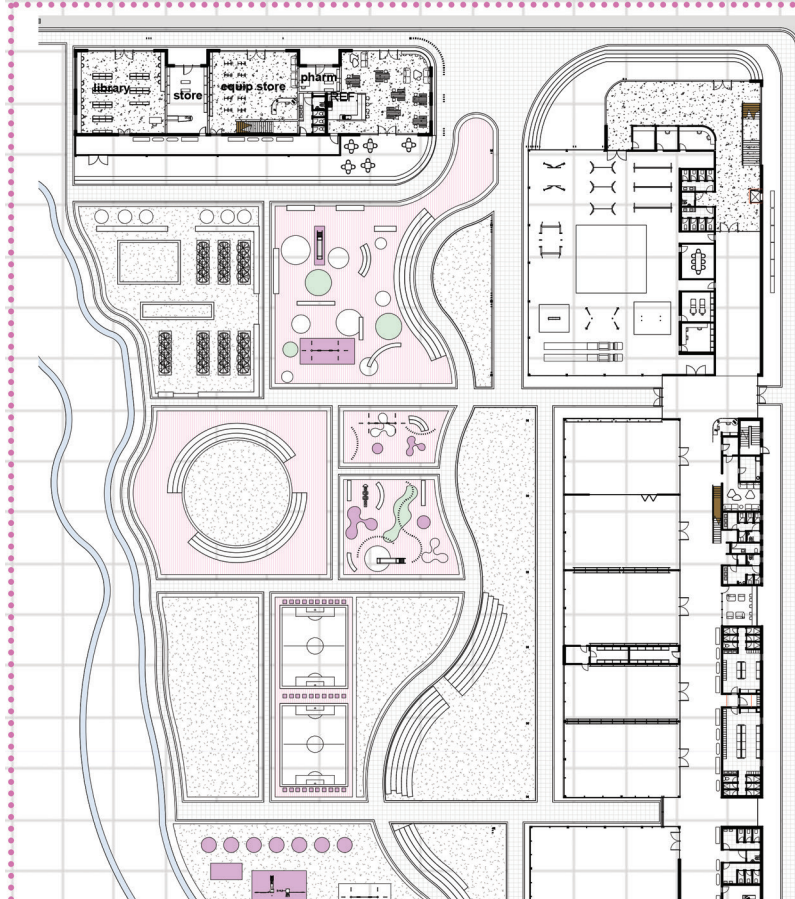
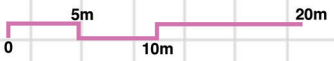


ribbon pedestrian route

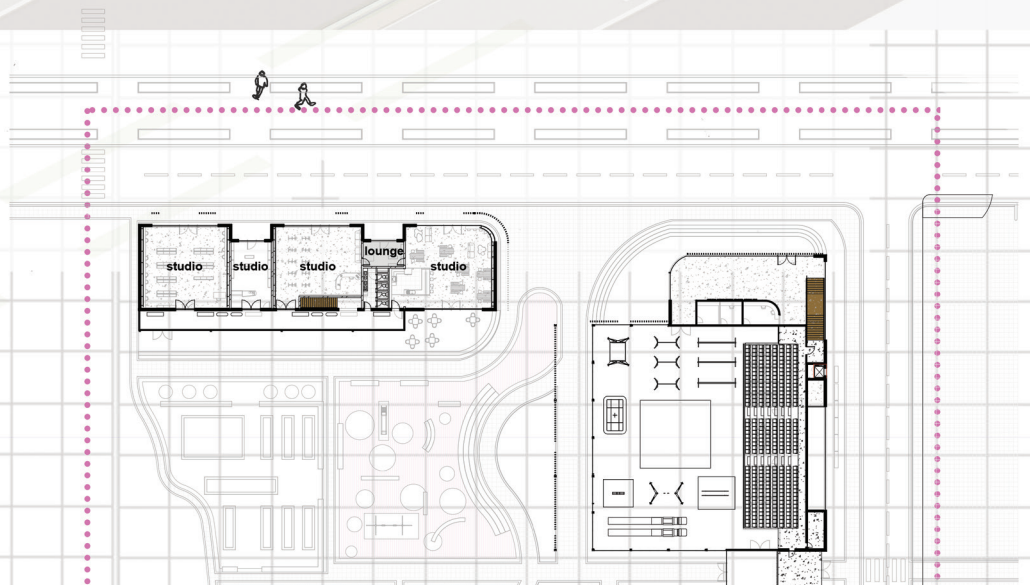


84

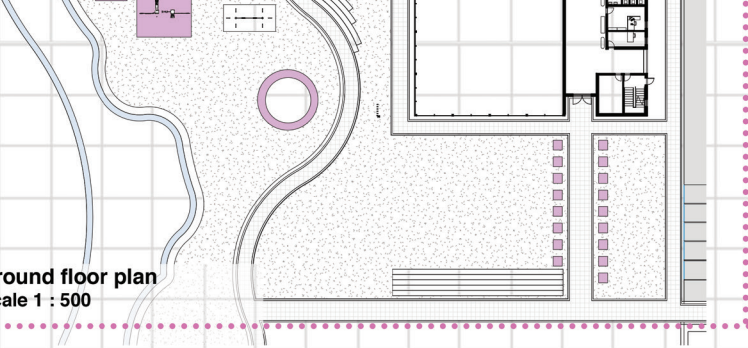
first floor plan



- 1 | public studios
- 2 | ablutions
- 3 | gymnasium
- 4 | spectator seating
- 5 | admin offices



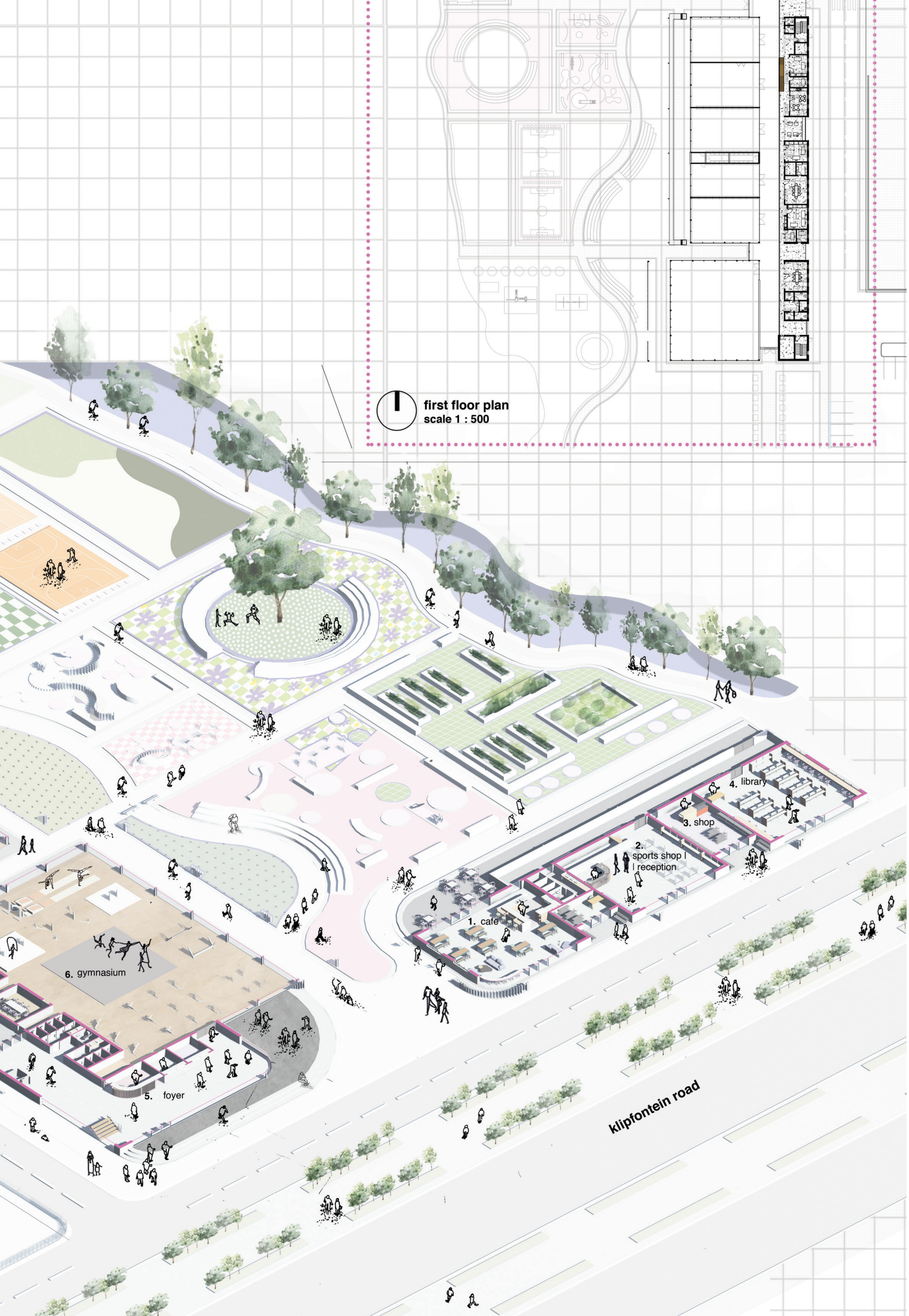
ground floor plan
scale 1 : 500



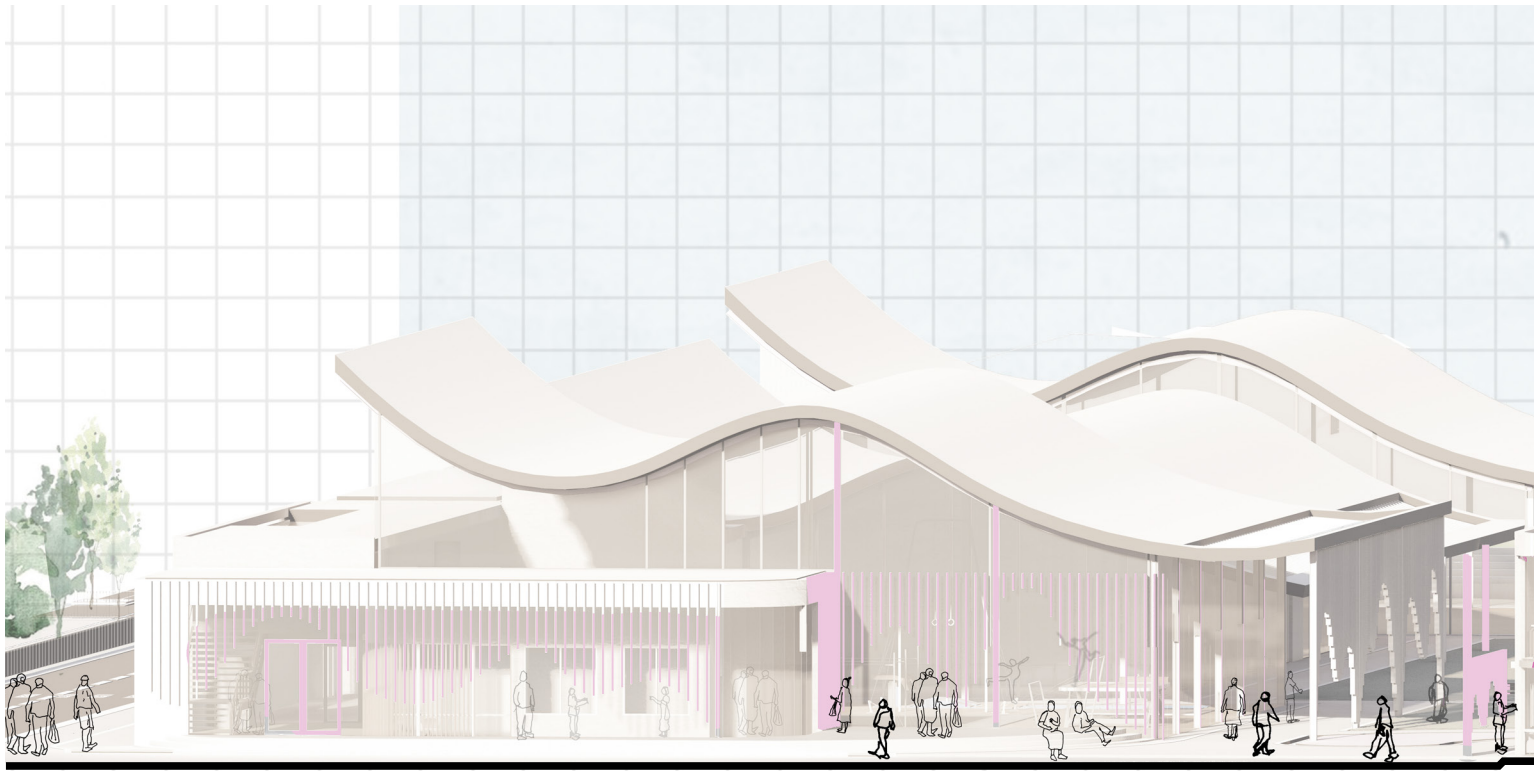
ground floor plan key :

- 1 | cafe
- 2 | sports equipment shop and reception
- 3 | convenience store
- 4 | library
- 5 | foyer
- 6 | gymnasium
- 7 | support rooms
- 8 | rehearsal studios
- 9 | community hall
- 10 | changerooms and lounge

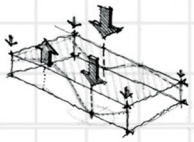
ground floor plan



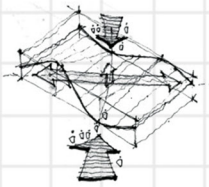
first floor plan
scale 1 : 500



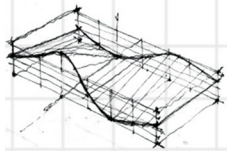
section a
 0 2.5m 5m 10m



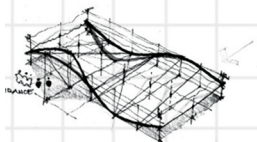
manipulating form



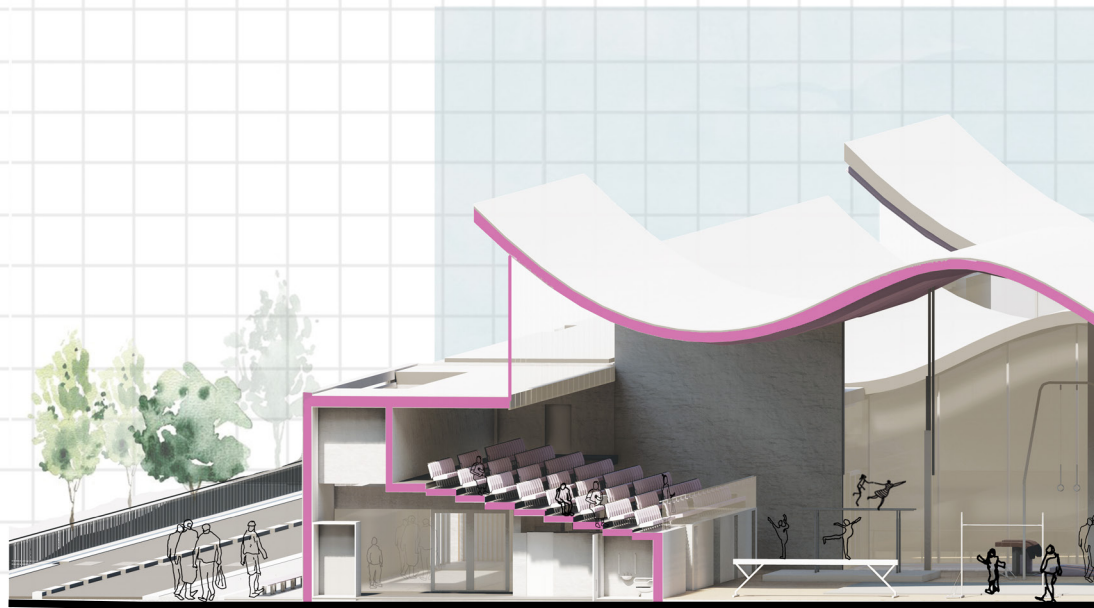
throughways



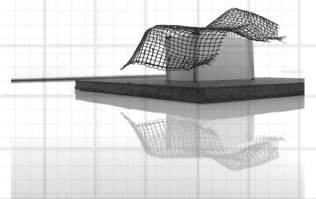
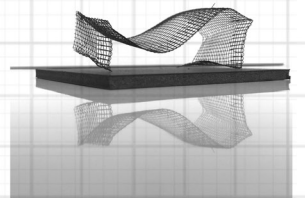
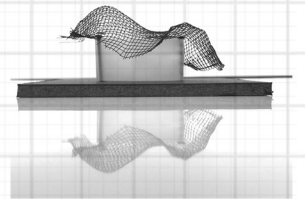
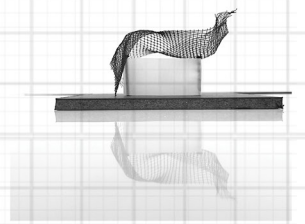
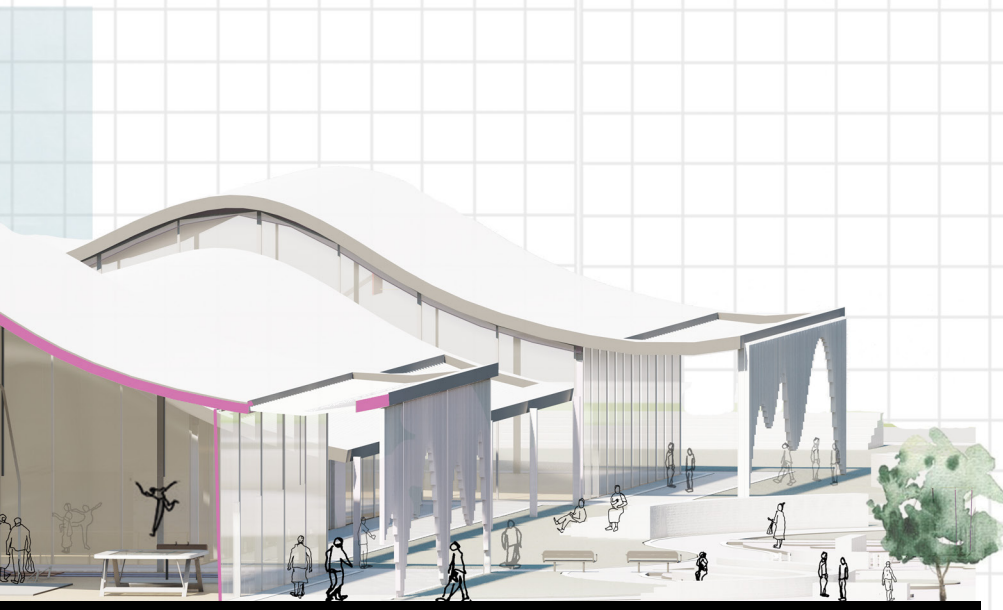
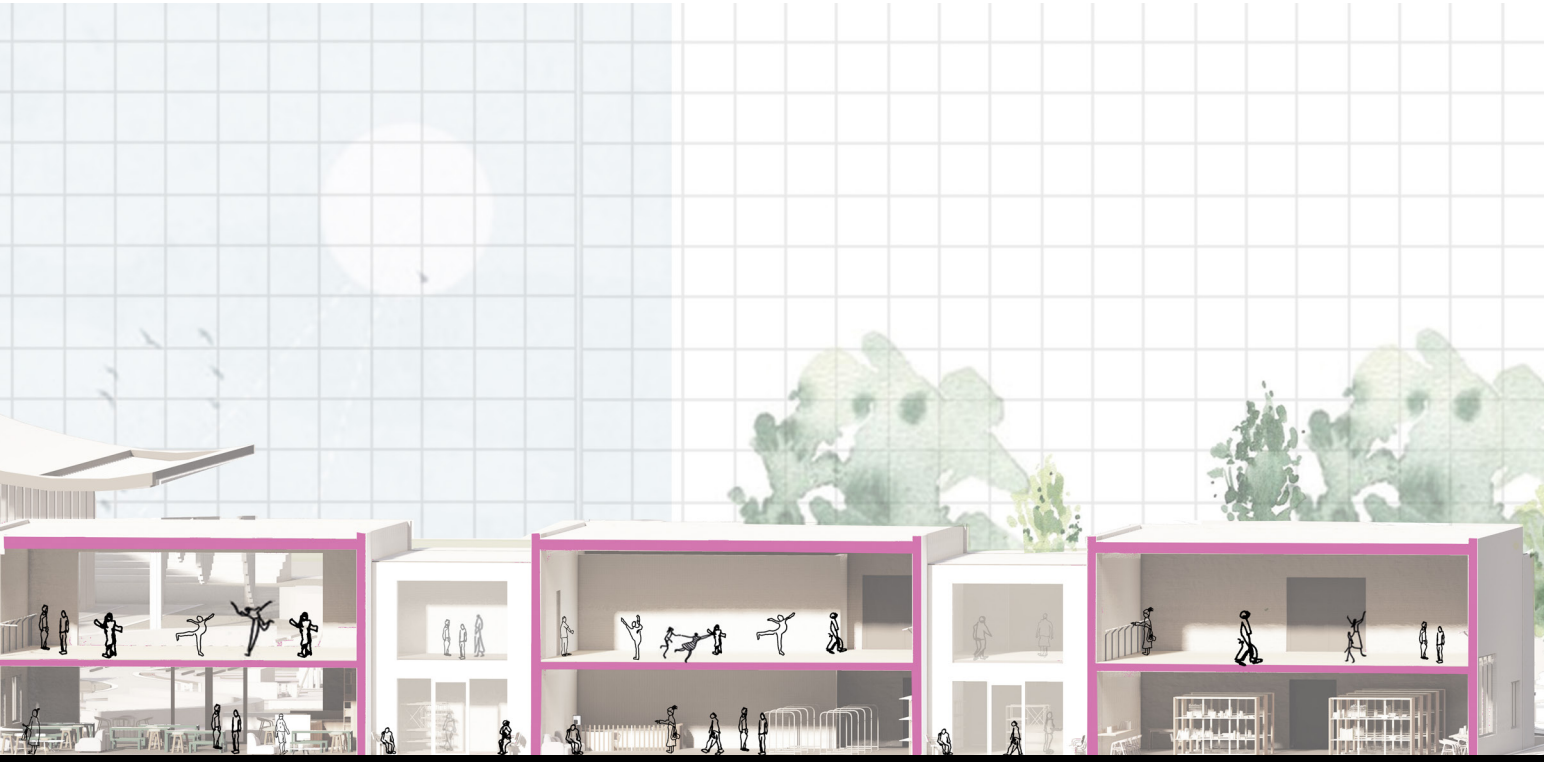
form as highlighting function

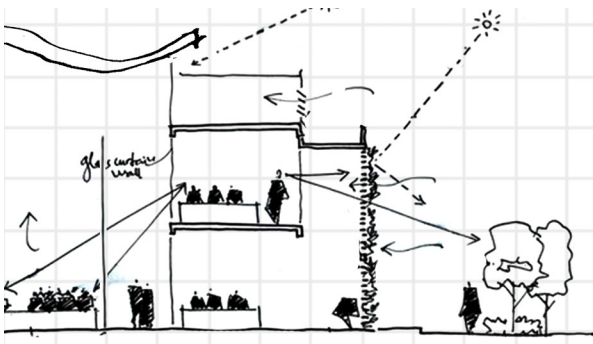


form as highlighting function

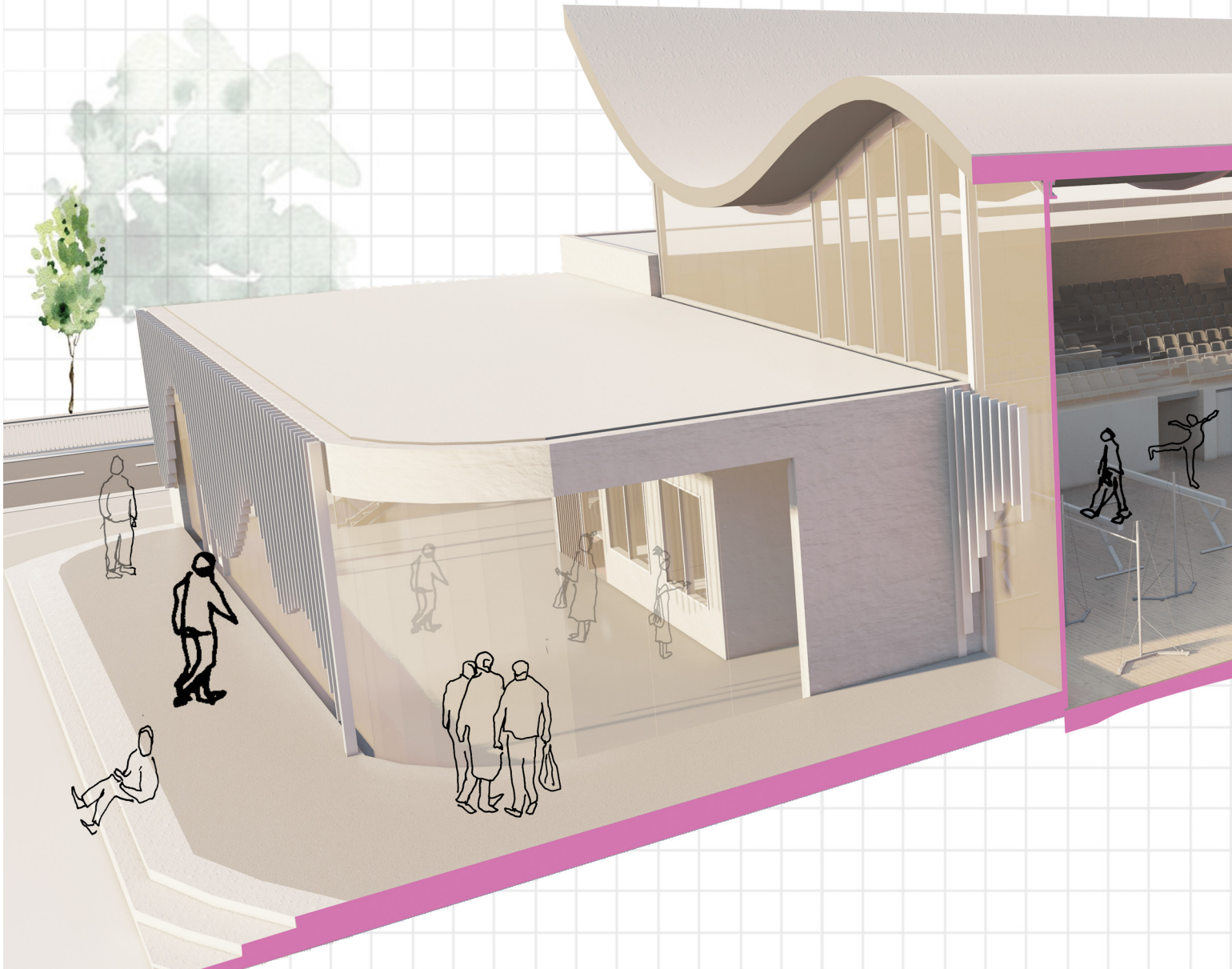


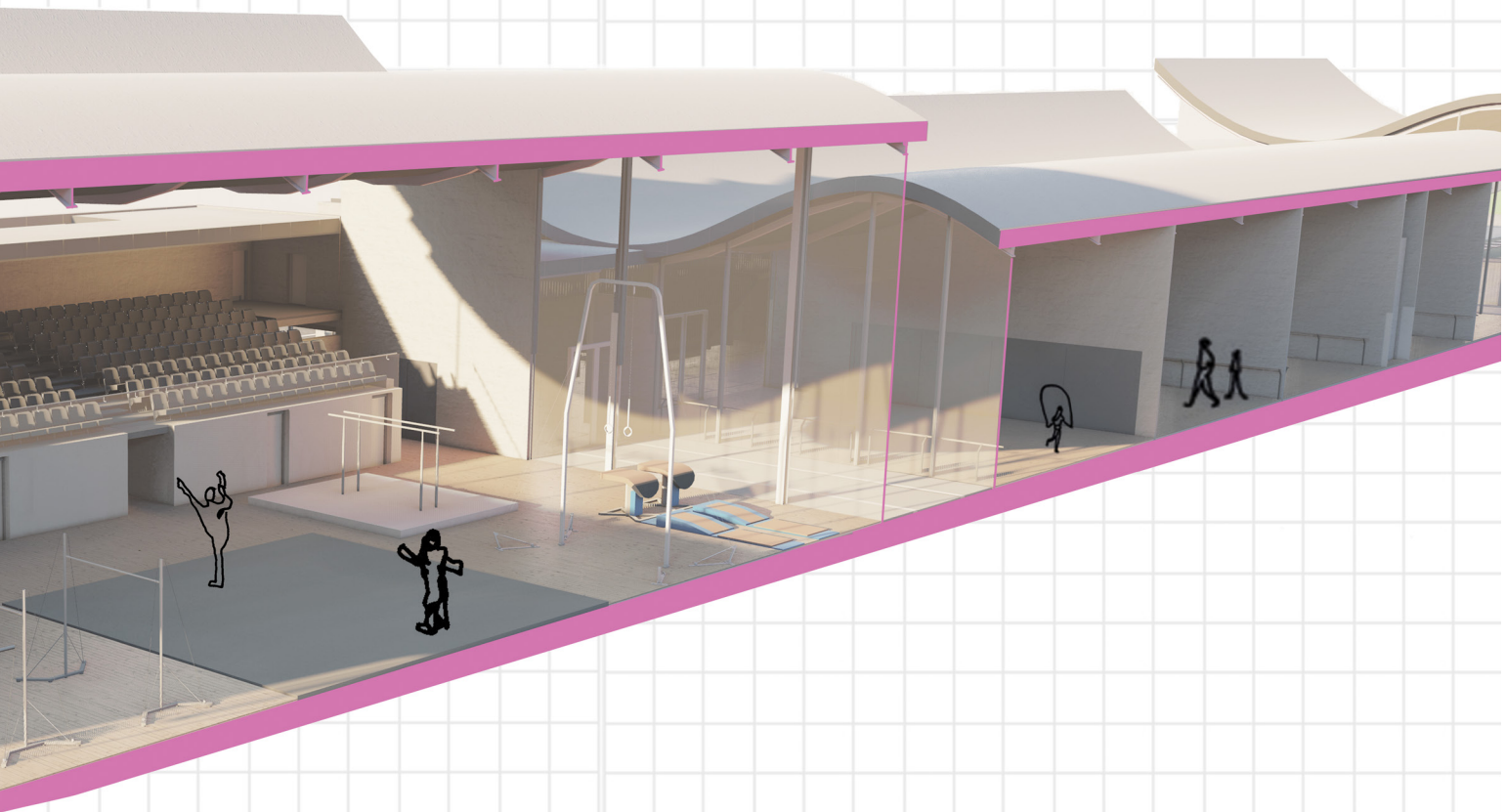
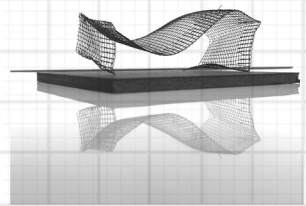
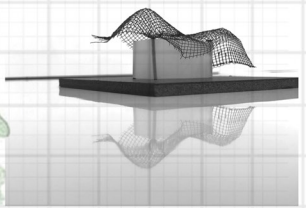
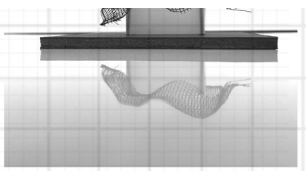
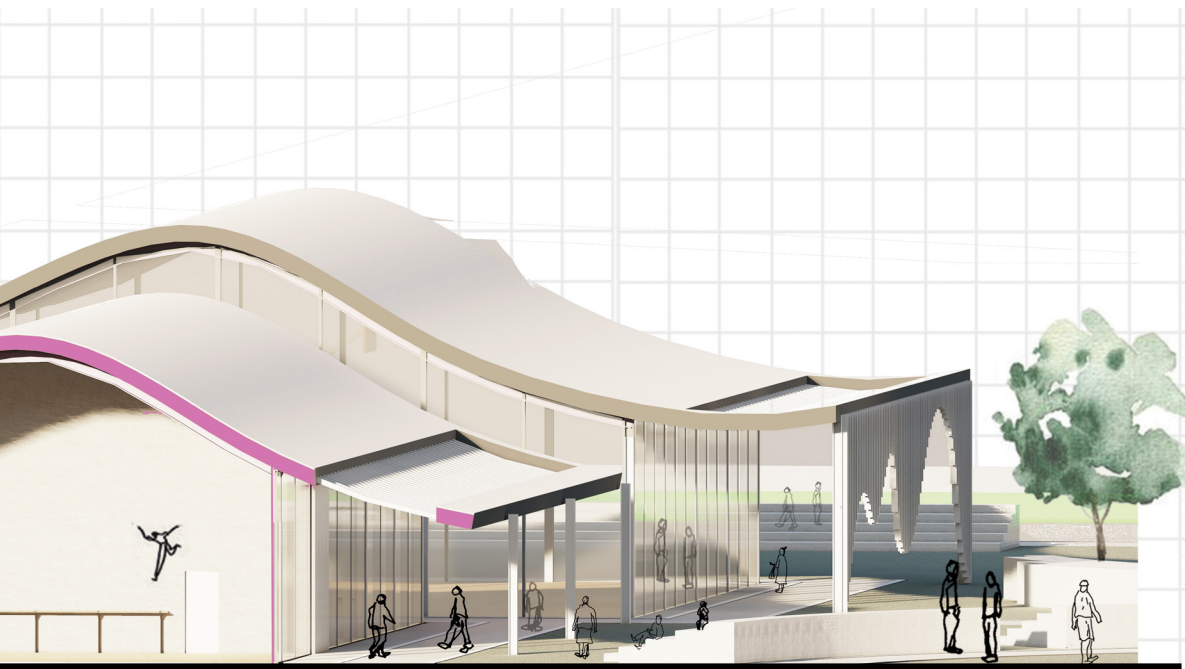
section b
 0 2.5m 5m 10m

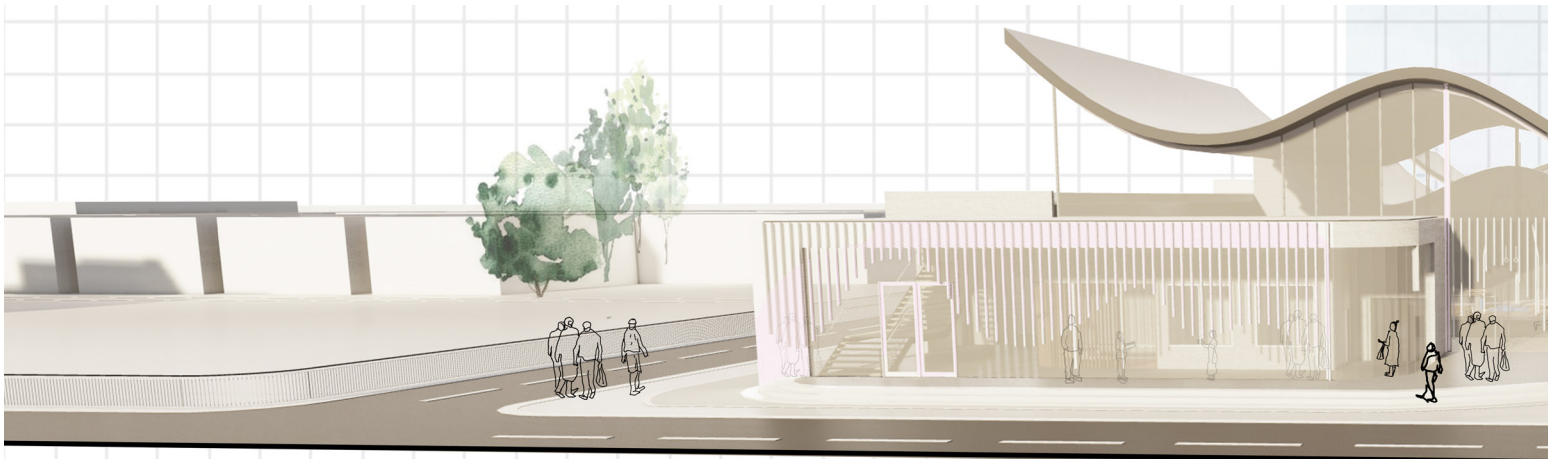




section b
0 2.5m 5m 10m

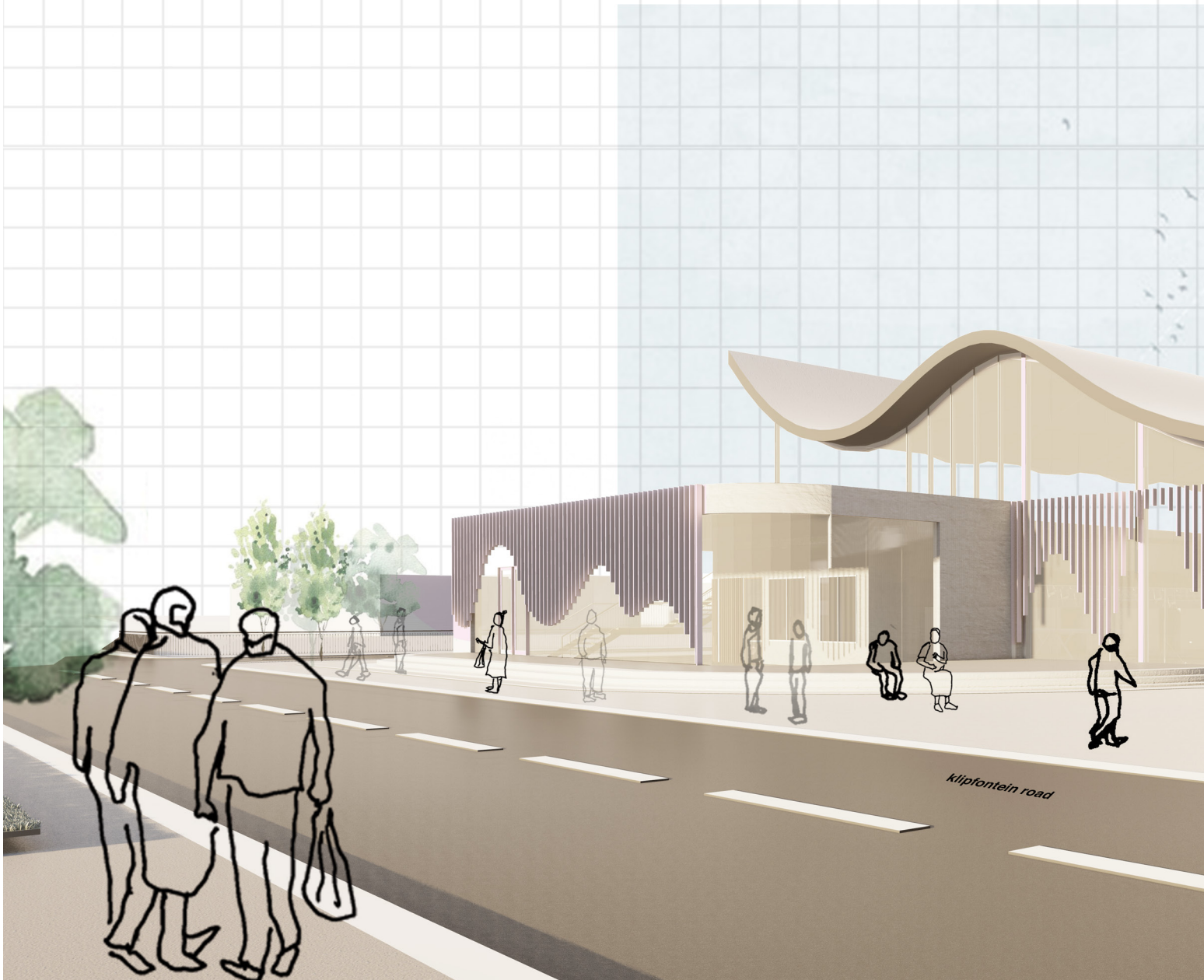


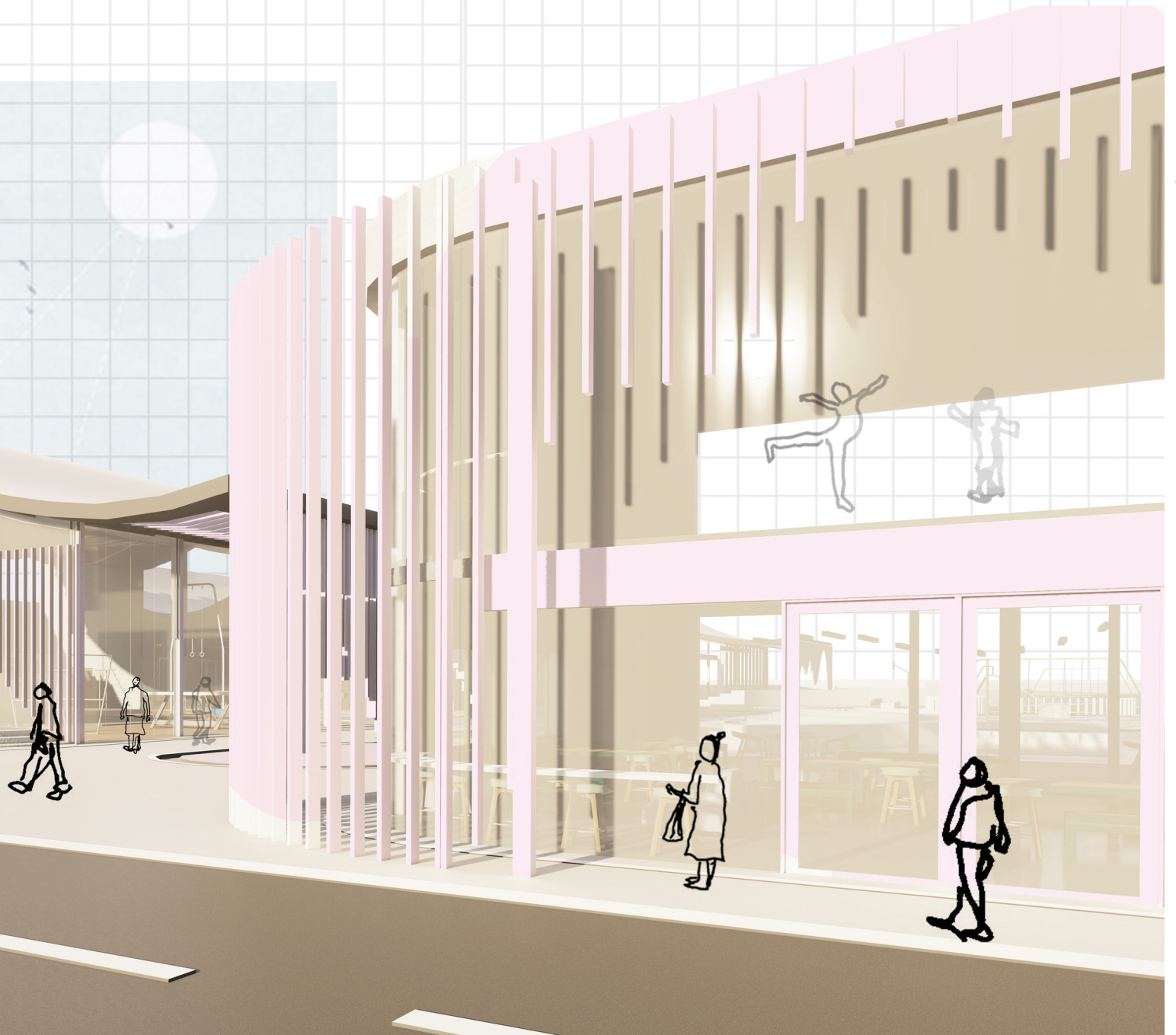


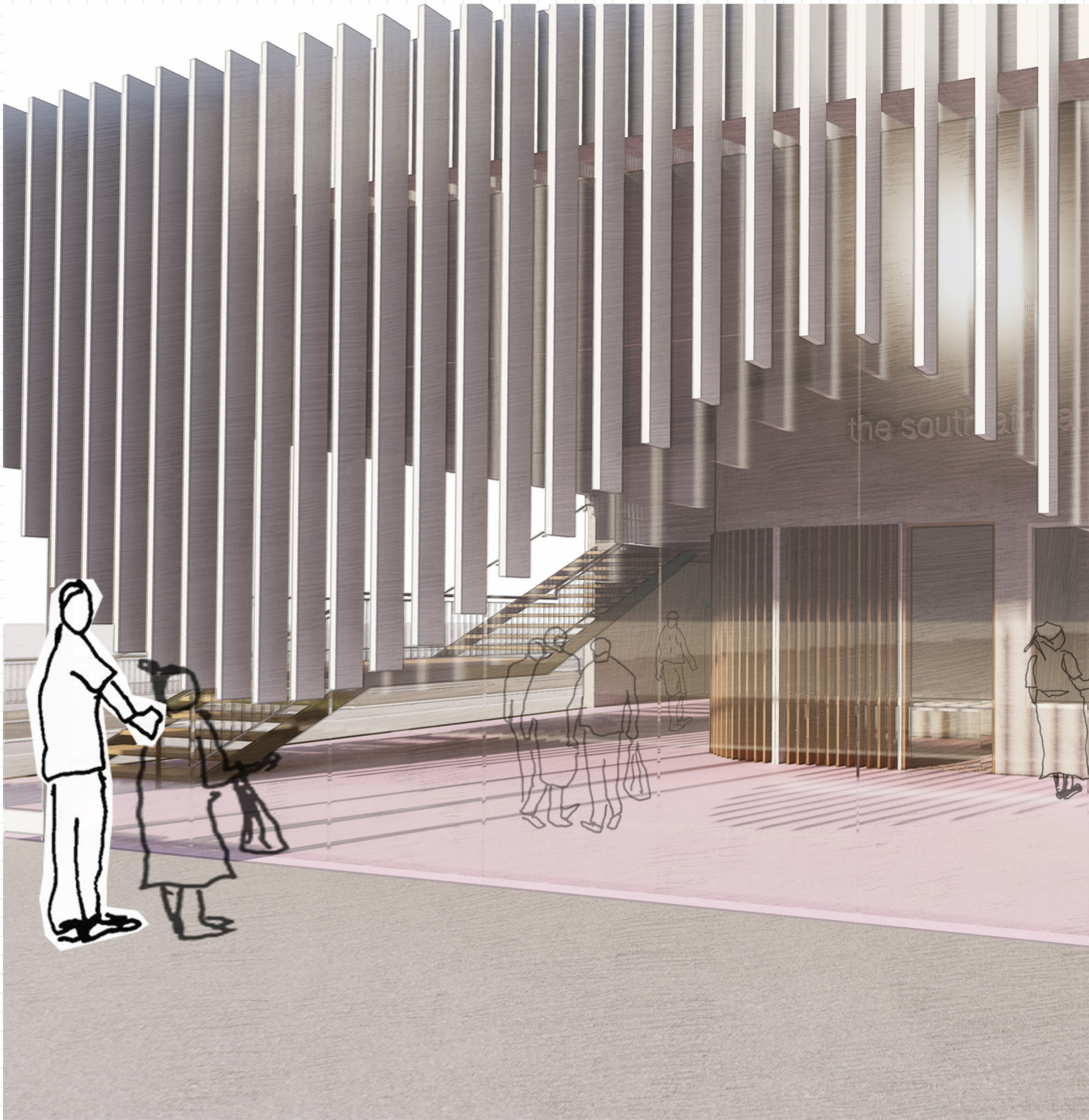


elevation from klipfontein road 0 2.5m 5m 10m

92





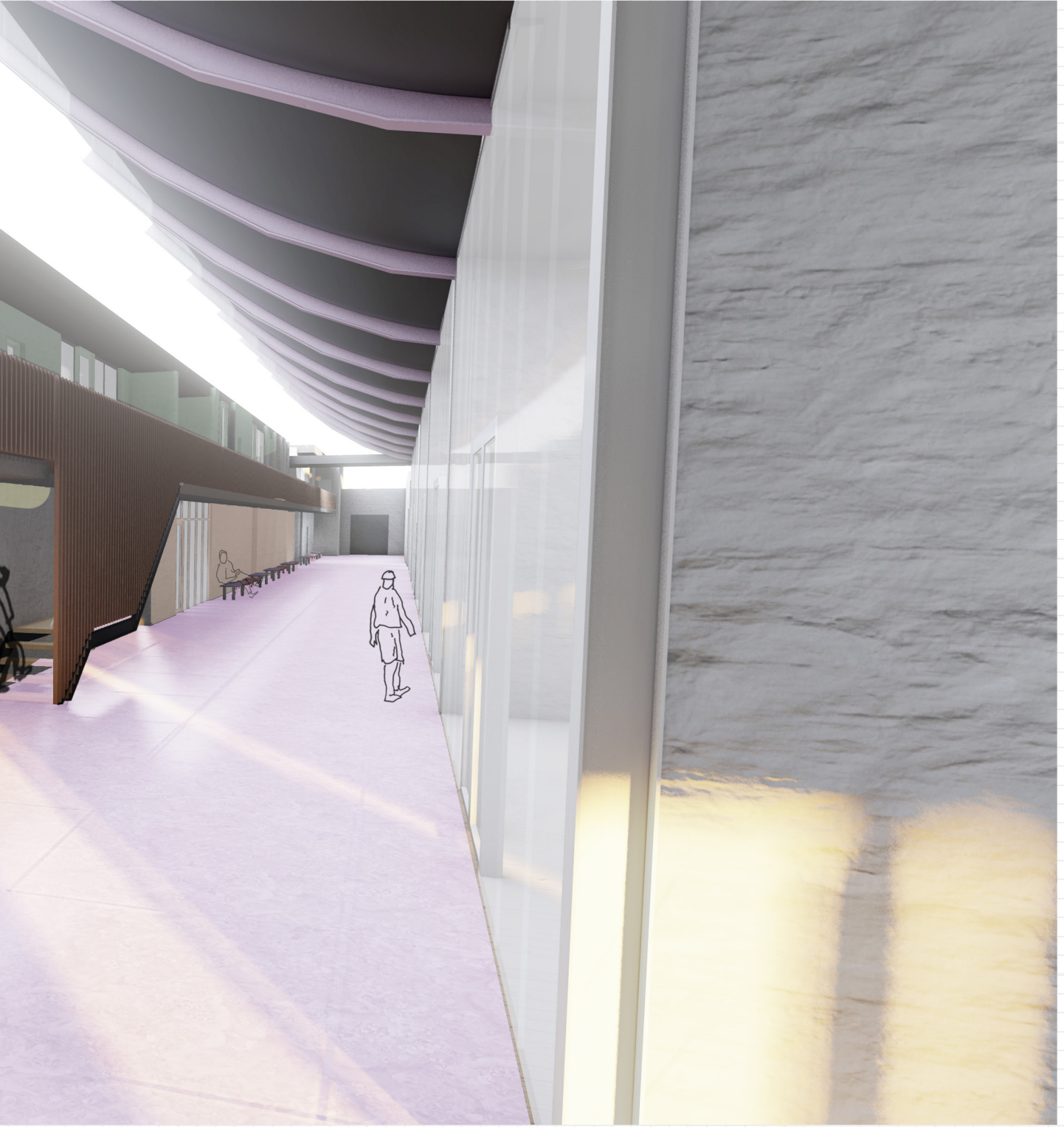


perspective from entrance





perspective in the walkway





perspective from gymnasium



100

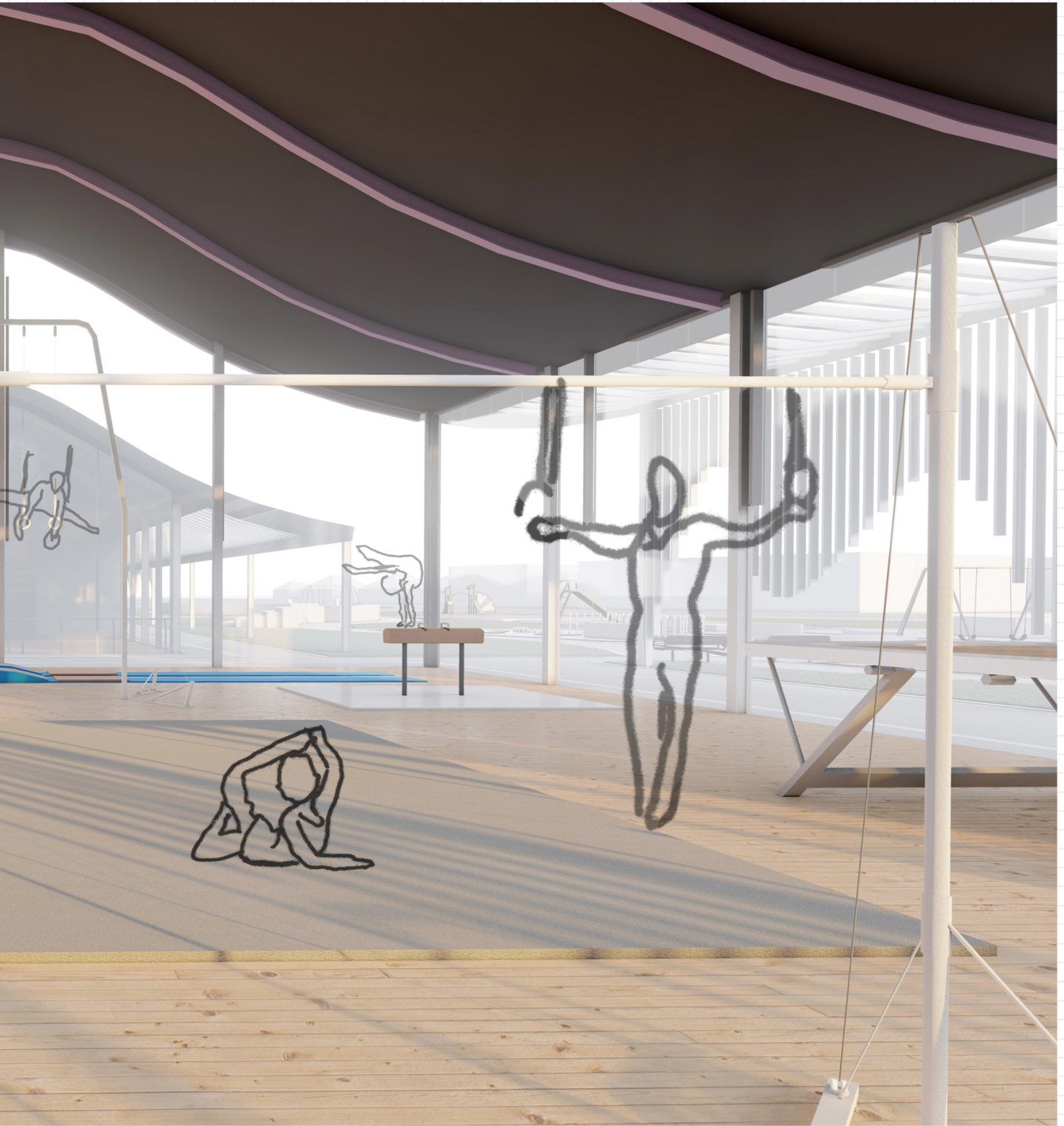


perspective from walkway into studios





perspective in the gymnasium



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