



BONANG

A centre for the African Girl Child in The Old Pretoria Fire Station: an investigation into the role of Interior design as an agent in the empowerment of the African Girl Child.

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KAKARETŠO

Mo sengwaleng, šedi le hlokomelo di beilwe godimo ga ngwana wa mosetsana wa mo-Afrika. Yena o tloga a tletše ka pshišegelo le bokgoni bja go kgotsofatša. Eupša, go a nyamiša le go hlaba pelo go lemoga gore o hloka hlahlo, tsebo le maele a a tseneletšego ka ga setšo le bokgwa bja gagwe bjalo ka lekgarebe la mo-Afrika. Nyakišišo ye e kgonthišiša le go tshedimoša ka ga lekgarebe leo, ka go laetša le go šišinya mekgwana ya setšoyeo e tlogo go le matlafatša gore le kgone go ba le seabe, khuetšo le hlohleletšo mo setšong sa ma-Afrika. Teori yeo e dirišitšwego bjalo ka thekniki ya sengwalwa se, e agilwe godimo ga ditherišano tša sebjalebjaletše o di tlišago kgahlego le lesedi ka ga lekgotla la “BOSADI” mo setšong sa ma-Afrika le ka moo ditherišano tše o di lego maleba le go fetoga le mehla le mabaka ge matšatši a hlabaka go šiedišana. Gapegape, sengwalwa se, se amanya dinyakišišo go lebeletšwe lefelo le tikologo ya boikgetho, elego “Old Pretoria Fire station”. Tikologo ye e tšwelela bjalo ka boganetši bja lekgotla leo le šišintšwego go ema sekgobeng sa basadi bohle. Le ge go le bjalo, lekgotla le na le maatlakgogedi ebile ke mothopo wa go matlafatša lekgarebe le la mo-Afrika. Seo se tšweletšwa ke ditiro tša go swana le go ithuta ka tša maphelo, mekgwana ya hlahlo le kopano tše o di laetšago bokgabo le bothakga bja setšo mola ka lehlakoreng le lengwe di le thuša ka dikarolo tše dingwe bjalo ka mafelo a go direla meriri, diaparo le bokgabo, ge išita le dijo tša ma-Afrika.

Tšitšinkelo ya “BOSADI” bja ma-Afrika go ya ka mekgwana le melao ya dinaga tše šele e hlola bofokodi le leuba ge go lebeletšwe bokgwa bja rena le ka tsela yeo bo fetogago ka gona. Ditlamorago tša kamano ya mapheko a a mabedi di fihlelela go matlafatša mosetsanayowa mo-Afrika.

ABSTRACT

At the root of this dissertation is the African girl child, abundant in innate potential but lacking in affirmative girl friendly spaces that are suited to her African heritage. The study considers the design of an interface that will empower the African girl child in a traditionally patriarchal African culture. A theoretical review is conducted on the current state of African feminism and how it is realised within its African context being both dynamic and relevant.

The discourse links the theoretical findings with the chosen context, the Old Pretoria Fire Station, which stands in contrast to the proposed progressive feminine intervention. The intervention is defined as being a Centre for the African girl child, incorporating activities such as teaching life skills, facilitating workshops, which centre on arts and culture while at the same time re-establishing the building's relevance to its immediate context by including functions such as an African hair salon, fashion designer and tailor and a restaurant.

The inquiry into the physical expression of African feminism into a building that represented a colonial patriarchal society presents design challenges with regards to respecting the existing heritage fabric while introducing a new function. The architectural and spatial resolution of how these two issues integrate with one each other ultimately contribute to the empowerment of the African girl child.

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CHAPTER 1

I N T R O D U C T I O N

"We are the ones we have been waiting for"
(Walker 2006)

1.1 BACKGROUND

Alice Walker's book title propels one to action in seeking self-empowerment and self-realisation that it is and/or has the power and choice to effect change. The We represents a collective that has a shared identity and motivated by a common interest. Within this collective is the personal identity which "is the glue that maintains the structure and cohesion of social groups" (Webb 2003:2).

The African girl child has been identified by Agbemabiese (2011: 1) as being in need of empowerment with regards to how she is "repressed by male dominance, controlled by traditional perceptions of a woman, and abused by the time-honoured customs of her community". The African girl child is at an age where she is forming an identity on her way to womanhood within a society that is lenient towards patriarchy (Hooks 1981:2). The African girl child referred to in this study refers to girls between the ages of 12-17. She is considered to be going against the dominant ideologies of a patriarchal system and conventional traditional norms when she seeks self-empowerment and self-actualisation (Agbemabiese 2011: 3). The unconventional path she chooses is considered to be un-African and inspired by the West (Agbemabiese 2011: 3). Burdensome traditional laws deny the African girl child power, and consign her to an inferior status resulting in her becoming an African woman who passes on her lack of skills to her children, and especially her daughters.



1.2 REAL WORLD PROBLEM

A result of the discrimination toward the African girl child (AGC) is lack of access to girl-friendly, safe, and supportive spaces that aid in her self-empowerment and self-actualisation. The provision of affirmative spaces allows for her to develop into “a leader in her community and be more prepared to make better, well-informed decisions” (Agbemabiese 2011:8,11).

Pretoria's Central Business District (CBD) is a vibrant, multicultural community of people, made up of people who are residents, business people, civil servants, schoolgoers, and formal and informal traders among so many others. The AGC currently identifies as a scholar and in some cases a resident in central Pretoria. Given the theory on the African girl child, assumption may be made that school and home environments do not necessarily provide for positive affirmation, and therefore, a third space is needed whereby she can be acknowledged and empowered. This space can offer her a sense of belonging and identity within a tangible context and the intangible patriarchal context within which she finds herself.

This dissertation investigates the African girl child, establishes her current identity, her traditional roles and how these can be redefined. Moreover, it seeks to show how interior design can act as agent of empowerment for the African girl child.

The site identified for intervention is the Old Pretoria Fire Station, corner of Bosman and Minaar Streets, central Pretoria. The building is located within a museum complex which contains the cultural, natural and scientific history of South Africa. The cultural production and representation that occurs in the host building will stand in contrast to these museums which contain history which is at an arm's length to the African girl child. The African girl child centre seeks to offer her an opportunity to learn from history within the museum complex and reapply these lessons in a manner that is appropriate and representative of her, be it through the arts, science, mathematics or/and technology.

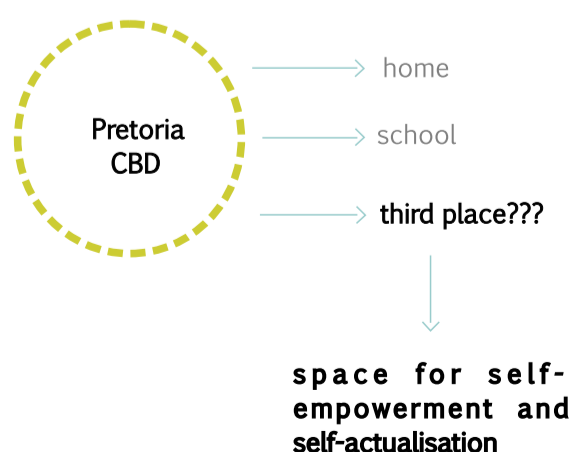


Figure 1.1: Possible affirmative spaces in the Pretoria CBD (Author 2015)

1.3 PROBLEM STATEMENT

There is a system of inequality that is favourable to the male sex in South African society, as with the African man and boy, in African culture, (even though they were discriminated against in a previously white supremacist society). The African woman and African girl child experience a dichotomy of oppression: firstly, within a previously white supremacist society, and secondly, within their own family with regards to traditional gender roles and patriarchal-based systems. Despite various organisations created to aid the African girl child and laws amended to aid in empowering her, she is still found disadvantaged within the South African society. The traditional gender roles which are passed on to her by her mother have left the African girl child deprived of opportunities for achieving her full potential and independence.

The African girl child needs a platform to facilitate her empowerment. The lack of girl child spaces, and specifically African girl child place and spaces in the CBD results in her not being an active participant in the urban environment and social context in which she finds herself.

Agbemabiese (2011:11) identifies four strategies that would aid in empowering the African girl child:

1. Creation of safe and supportive girl-friendly spaces;
2. Building girls' social assets;
3. Provision of education, information and skill-building for girls; and,
4. Creating channels for girls' participation in decision-making processes in their communities.

In summary, three main issues have been identified:

- The lack of opportunities for the African girl child in Pretoria's CBD due to a patriarchal society and its limitations;
- The absence of physical spaces that cater to the African girl child in Pretoria's CBD; and,
- The repercussions of a previously white supremacist society that lacks an aesthetic with which the African girl child can identify.

1.4 RESEARCH QUESTIONS

This argument has given rise to the following research questions:

- 1 What theory exists that supports the African girl child and her three areas oppression namely; race, gender and power? **AFRICAN FEMINISM**
- 2 Is there any identifiable historical significance in the host building and its context that may be used to empower the African girl child? **HISTORICAL SIGNIFICANCE**
- 3 What precedents can be investigated to aid the intervention in the host building? **PRECEDENTS**
- 4 Can a design aesthetic be generated that speaks of the African girl child and serves to empower her? **DESIGN AESTHETIC**

1.5 AIM

The aim of this design dissertation is to investigate how empowerment can be relayed through interior design to the African girl child by means of representation of an African aesthetic, thereby altering her perception of what being a proud African woman is in a dominantly patriarchal society.

1.6 DELIMITATIONS

The study is limited to:

- Investigating existing traditional norms and cultural activities within the African community that could inform the initial intervention, which will be rolled out in a selected building on site and allow for a phased approach that will include the entire site.

The study will not:

- Investigate formalised educational spaces with regards to empowerment of the African girl child.

1.7 DESIGN RESEARCH METHODS

The following research methods have been identified as the means by which a substantial conceptual approach will be formulated.

1.7.1 Interpretive Historical Research

Due to the historical significance of the Old Pretoria Fire Station an additional research method will be utilised, namely Interpretive-Historical Research. This research methodology entails investigating “...social-physical phenomena...” in its past condition and so “...explaining those phenomena in narrative form” (Groat & Wang 2002:136).

A strategy to achieve this entails on-site familiarity, use of extant documents, visual inspection, material evidence, comparison with conditions elsewhere, use of local informants and identification of remaining questions (Groat & Wang 2002:136).

The interpretive-historical method can be used in conjunction with Scott's (2008:108) process of stripping back, namely, removal of rotted fabric, making good and enabling works. The application of these methodologies will guide in strengthening the argument in terms of the proposed intervention and how it will impact the historical significance of the Old Pretoria Fire Station. Scott's method of stripping back is discussed in detail in Chapter 2.

Listed below are the research techniques that have been identified as a means of carrying out the investigation of the topics at hand:

1. Literature Reviews

Hanington & Martin (2012:112) state that the literature review is intended to distil information from published sources, capturing the essence of previous research or projects as they might inform the current project. The literature review to be investigated relates to African feminism and how it manifests itself and heritage guidelines both locally and internationally that will inform the intervention.

2. Case Studies

Hanington & Martin (2012:28) state that case studies are useful in exploratory research for understanding existing phenomena for comparison, information, or inspiration, but can also be used to study the effects of change, new programmes, or innovations. Case studies will be investigated in terms of informing the interior design of a restorative environment whilst also investigating an efficient programme that could be implemented in the African Girl Child Centre. The case studies to be used in the investigation will look at existing international examples and one within the local, South African context.

1.8 DESIGN INTENT

The proposed design is to add value both creatively and culturally whilst simultaneously empowering the African girl child. The proposed design is that of a Centre for the African Girl Child in central Pretoria that will act as an interface for the African girl child to become empowered through different avenues, skills training and educational spaces. The interior design of the Centre for the African Girl Child is to have restorative qualities that foster an atmosphere of empowerment, engagement and conversation on traditional norms that may have alienated the African girl child. The aesthetics of the interior are to resonate with and should instil pride in the African girl child about her African heritage. The programme connects with the urban context and serves to support existing social and economic activity.

1.9 OUTLINE OF STUDY

Chapter 1 introduced the research topic at hand and the constituent issues that will be discussed in detail in the chapters that follow.

Chapter 2 will consist of a theoretical investigation of the heritage of the building and African feminism.

Chapter 3 interrogates the macro context, the host building and its historical background. An urban framework is identified to support the intervention. The chosen site is documented and assessed and the interior spatial quality of the host building analysed. The Chapter concludes with a statement of significance and heritage strategy.

Chapter 4 documents case studies, and reviews precedents relevant to the study.

Chapter 5 introduces the space user, client, programme, conceptual approach and design development of the proposed intervention.

Chapter 6 is to be a summation of the preceding chapters in that it will discuss the design's technical development.

Chapter 7 concludes the study.

1.10 CONCLUSION

The study proposal looks at the African girl child and her stand within society, where she is lacking and how she can be empowered. *The designed intervention is to be an interface that grants the African girl child access to opportunities that can be catalysts to her enablement.*

The Old Pretoria Fire Station is identified as the site from which to address the real world problem. It identifies an absence of spaces within the CBD in which the African girl child is welcome.

Delimitations have been set out. The research methodologies are Qualitative Research; and Interpretive Historical Research; as well as literature reviews and case studies are described as tools for investigation.



The Feminist Stokvel Presents

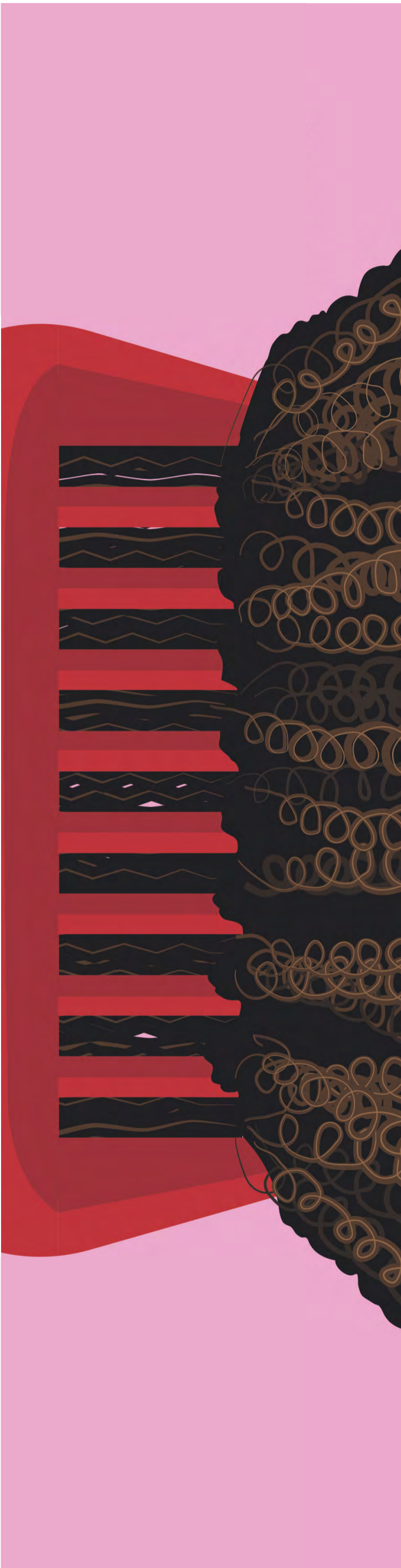
Texture Discrimination:
THE PROBLEM WITH
~~'*FEMINISM'~~

CHAPTER 2

THEORETICAL FRAMEWORK

2.1 INTRODUCTION

The theoretical framework is the point of departure for the context and site analysis, as well as a conceptual generator. While not listed the Old Pretoria Fire Station OPFS is older than 60 years; a review of local and international heritage legislation and charters form the basis for the statement of significance and heritage strategy. African feminist writings are surveyed and support the argument for empowerment of the African Girl Child by means of the Centre for the African Girl Child and its interior design.



2.2 LOCAL HERITAGE LEGISLATION AND INTERNATIONAL HERITAGE GUIDELINES.

2.2.1 Local Heritage Legislation: National Heritage Resources Act

The National Heritage Resources Act (NHRA) is the legislation utilised by the South African government as a means of managing national heritage resources. The NHRA facilitates healing and material and symbolic restitution, and it promotes new and previously neglected research into our rich oral traditions and customs (South Africa 1999: 2). The inherent historical cultural value of the Old Pretoria Fire Station is thoroughly documented and a Statement of Significance and Heritage Strategy is generated, which will guide the design process (Chapter 3 Context and Site). The NHRA (South Africa, 1999: 18) provides a general Heritage assessment criteria and grading which is as follows:

Grade I: Heritage resources with qualities so exceptional that they are of special national significance;

Grade II: Heritage resources which, although forming part of the national estate, can be considered to have special qualities making them significant within the context of a province or a region; and,

Grade III: Other heritage resources worthy of conservation.

The building in question, Old Pretoria Fire Station, which has been identified for intervention, has to date not been graded, it has no qualities so exceptional nor special that have been identified by the NHRA (South Africa, 1999: 20). The building was constructed in 1912, therefore, it is subject to Section 34 of the NHRA (25 of 1999) because the building is older than 60 years but no further information on the heritage status of the building is available. However, the documentation (Chapter 3 Context and Site) of the building indicates that while not graded the building does indeed embody a historical cultural narrative worthy of recognition and responsible treatment

2.2.2 International Heritage Guideline: ICOMOS

This process of alteration is not a linear projection of activities but may require one to be involved in various steps at the same time. The process of alteration includes various activities one of which being conservation. Australia ICOMOS (2013:6) states that conservation may, depending on circumstance, include the processes of: retention or reintroduction of a use; retention of associations and meanings; maintenance, preservation, restoration, reconstruction, adaptation and interpretation; and will commonly include a combination of more than one of these.

The process of conservation is one where the Burra Charter states that the approach should do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained (Australia ICOMOS 2013:1) This approach ties in to the NHRA viewpoint that heritage should not only benefit the present but also future generations. The change to be incorporated should be appropriate in relation to the cultural significance of the building.

Adaptation of the building to suit this new use and new works will be of importance whilst considering the preservation of identified elements that may be of historical significance.

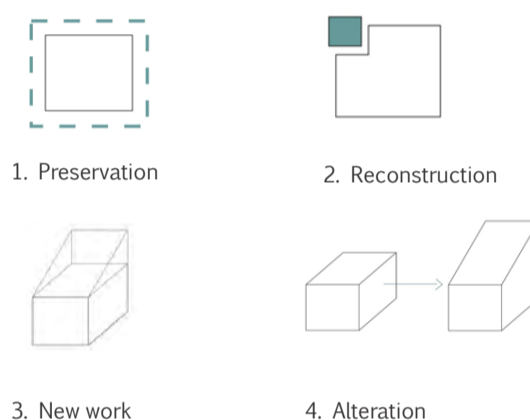


Figure 2.1: Diagrammatic depiction of the Burra charter conservation processes (Author 2015)

Foster (2010:93) states that there are three philosophical viewpoints: The first being the Purist view, ...“the idea that there can be alternative philosophical approaches. The second is the Pragmatist's view, a sound philosophy is one which points in the right general direction – that of truthfulness. Its precise application must depend on the building and its circumstances, ...“If I am in command of all the facts, then the building itself will tell me what to do”. The third view is the Cynic's view, ...“conservation is a completely artificial procedure, interfering with natural processes of decay of absolute. Conservation philosophies are therefore necessarily artificial”.

The view that best guides the approach to conservation of the Old Pretoria Fire Station is that of the pragmatist, a well-balanced and researched approach. This approach is applied in the context and site analysis.

The steps taken to identify inherent value of the site will be adapted from the Burra Charter Process for heritage management (Australia ICOMOS 2013:10):

1. Identify the historic heritage place.
2. Gather information and investigate the place.
3. Assess and determine the place's level of significance.
4. Develop a statement of significance.
5. Identify obligations arising from the significance of the place.
6. Develop policy and manage place with policy.
7. Monitor and review.

2.3 AFRICAN GENDER STUDIES.

2.3.1 Why the African Girl Child?

The African girl child is perceived to be at a disadvantage in a society that is pro patriarchy, a society that deems her to be of lesser value than her male counterpart (Iversen & Nyamakanga 2012: 10). Her standing in society is one of uncertainty and insecurity. Various non-governmental organizations (NGO's) and initiatives have been formed to aid and empower the African girl child. The empowering of the African girl child can occur on many levels which aid her in finding resources that could help in her academic progress, acquiring life skills, social skills and, physical and emotional well-being. Initiatives such as the Girl Education Movement (GEM) train girls in peer education and life skills (International Institute for Capacity Building in Africa 2005: 3). GEM provides the girls with access to skills and information and guides them in mobilising the movement within their community. An initiative that forms part of GEM is Technogirls mentorship programme. The programme aids high achieving, disadvantaged girls aged between 15-18 years of age in making informed career choices with focus on science, technology and engineering. The mentorship programme creates a link between what the girls learn at school and what is required within the professional world.

Initiatives such as GEM cater to the African girl child and incorporate her male counterpart. These initiatives are located in various places within South African and Africa but no physical centre can be found within Pretoria that specifically caters to the girl child that allows for her to network with organisations, mentors and with fellow girl children.

2.3.2 African feminism

Being born female in Africa could be considered a disadvantage because women are "...treated like merchandise, passing from a father's to a husband's stewardship..." (Fall 2007:1), where women can pursue their career but as long as it does not "...interfere with their duties as mothers and wives" (Fall 2007:1). It is this kind of mentality that led to an African feminist movement that was largely a silent struggle, characterised by women becoming "financially autonomous" (Fall 2007:2). The silent struggle transitioned to an African feminism in the 1950's which is "...political, pragmatic, reflexive, and group oriented" (Mikell 1995: 405). African feminists are not seeking equality as a means of proving themselves stronger than their male counterparts but rather to showcase their strengths as individuals and as a collective.

The complexities of African culture and the mind-sets of its people results in a feminism that is different to western feminism. African feminism fights for the basics, a woman's right to be (Kanyogo 2015:1).

Lebohang Masango and Chimamanda Ngozi Adichie are two examples of contemporary African feminists. Lebohang Masango is a feminist writer and poet. She bares her tattoos proudly, dresses how she feels comfortable and is not afraid to speak her mind (Black Bold Voice 2014).

Chimamanda Ngozi Adichie is an award winning novelist whose family called her a man for speaking her mind (Wagner 2015). Her books are an outlet for her creative genius and feminist standings, with strong female voices taking the lead in her books such as "Kambili in Purple Hibiscus, Olanna in Half of a Yellow Sun, Ifemelu in Americanah" (Wagner 2015). Chimnanda is depicted in photographs as calm, collected and elegant. Her portrayal of feminism may not be as bold as that of Lebohang Masango but that does not mean that one is more legitimate than the other. Both Lebohang Masango and Chimamanda Ngozi Adichie believe feminism should be about empowering women, "...equality of the sexes as it pertains to human rights, equal pay and sexuality" (Wagner 2015).

2.3.2.1 The Feminist Stokvel

The Feminist Stokvel is a collective of women who have come together to table and discuss openly about social issues facing the black, South African woman. The collective comprises of Pontsho Philane, Millisuthando Bongela, Danielle Bowler, Lebo Mashile,

Panashe Chigumadzi, Lebohang 'Nova' Masango, Wisaal Anderson and Kavuli-Nyali Binyase (not pictured), as depicted in figure 2.3.

Monthly events are hosted where black women come together to deliberate on how black women are represented, intersectional feminism to hair and beauty matters that concern the black women. The gatherings currently occur in the form of talk shops, film screenings, panel discussions, readings and online content. The event takes place in various venues in Johannesburg with the aim to have the monthly events in more provinces within South Africa. A place like the Centre for the African Girl Child would be able to host such events.

The posters used to market the events, as depicted on the chapter introduction page are bold and unapologetic given the African aesthetic that the Feminist Stokvel stands for.

The gatherings create a safe space for black women to share their experiences that form part of their lives, good and bad. Such sharing within a collective is vital to the African girl child in forming an identity that she can carry daily. Weisman (1992: 2) states that "space, like language, is socially constructed; the spatial arrangements of our buildings and communities reflect and reinforce the nature of gender, race and class relations in society". The proposal in this study is to design this safe space where the African girl child can share her experiences, be empowered and empower other African girl children. The aforementioned safe space is pivotal in a society that bolsters white male power and dominance and the inferiority and subservience of women and minorities

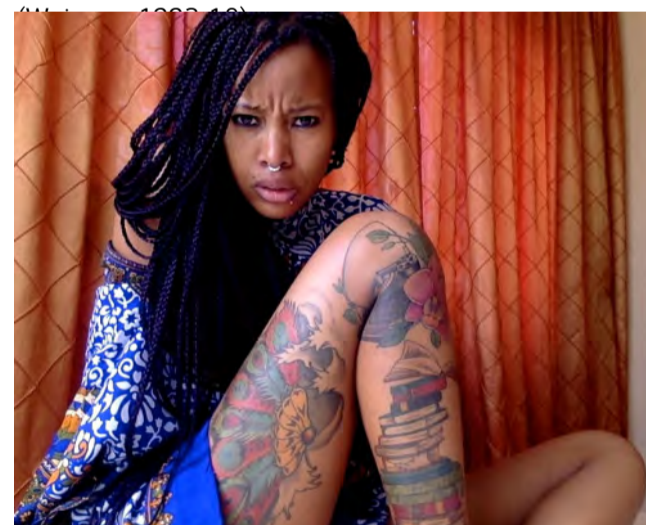


Figure 2.2: Lebohang Masango and Chimamanda Ngozi Adichie (Masango 2015 & Wagner 2015)



Figure 2.3: The Feminist Stokvel collective (Chigumadzi 2015)

2.4 AFRICAN REPRESENTATION

The representation of the African girl child within the space she occupies is of importance. Weisman (1992:9) states that both the world out there and the world inside ourselves depend upon and conform to our socially learned perceptions and values. By representing the African girl child and the African aesthetic a sense of African pride is instilled in her. She need not cower from opportunities and empowerment that was customarily available to her male counterparts, and even white male counterparts.

The representation of the African girl child will to be discussed under three themes, namely; race, gender roles and the concept of power, within the African family and where in this power struggle she currently fits.

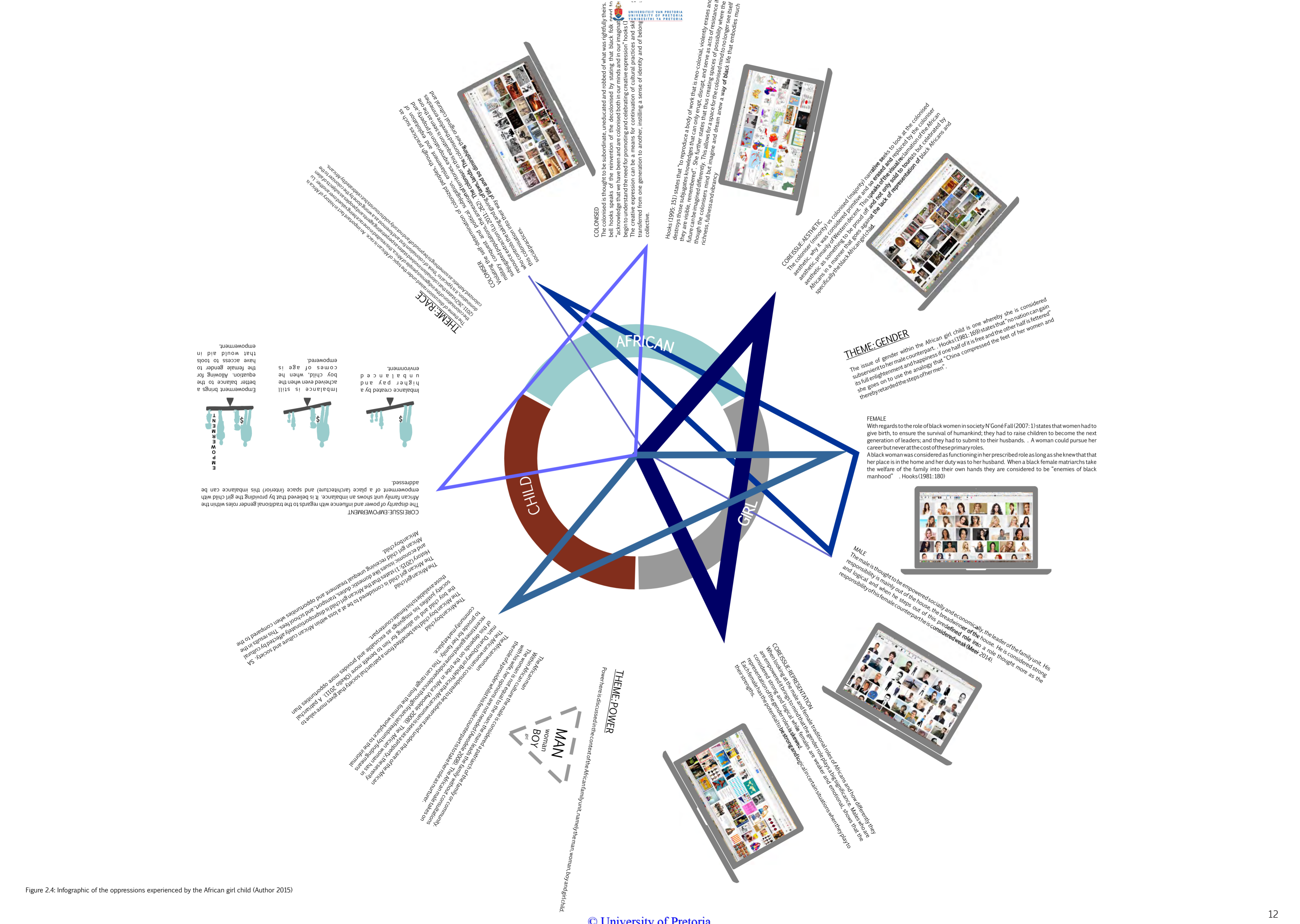


Figure 2.4: Infographic of the oppressions experienced by the African girl child (Author 2015)

2.5 CONCLUSION

This chapter investigated existing local and international heritage guidelines that are available as tools in the approach of intervening within a heritage building. The interpretation of these guidelines will be highlighted in the design development chapter (Chapter 5).

The theoretical investigation defends the need for feminism that is relevant within the African context, which is that we cannot settle for the “at least’s” - such as: at least we have a few female ministers and legislators, at least women can now have white-collar jobs (Kanyogo 2015: 2) African feminism manifests itself differently within African, black cultures. African feminism plays an important role in the creation of a collective identity in which the African girl child can feel safe.

In conclusion, the representation of the African girl child and her African creative expression are identified as the main generators of an aesthetic for the Centre for the African Girl Child. The intervention and aesthetic are to instil a sense of dignity and delight in her African heritage within a patriarchal, previously white supremacist society.

Date: Saturday 27 June 2015

Venue: Constitution Hill

Time: 12.00 - 2.00

**Cost: R150 - includes lunch, drinks and a free tour of
Constitution Hill!**

Tickets available on Quicket

RSVP to feministstokvel@gmail.com



CHAPTER 3

C O N T E X T S T U D Y

3.1 INTRODUCTION

The selected site for this study, the Old Pretoria Fire Station (OPFS), is found on the corner of Bosman and Minaar Street in the South West corner of the Pretoria CBD. This chapter addresses the context in which the OPFS is located. Relevant urban frameworks pertaining to the design investigation are identified. The history of the site is documented and a statement of significance is included. Further, the OPFS is documented and analysed in terms of spatial organisation, materials, systems and services.

The following criteria were used to identify and select a site for investigation:

- Be located close to educational facilities;
- Be in proximity to major transport routes; and,
- Be within the vicinity of organisations and companies that can play a part in empowering the African girl child.



3.2 MACRO CONTEXT

The chosen site is located within the context of the City of Tshwane Inner City Development and Regeneration Strategy. This strategy seeks to “...celebrate the national capital and reposition the inner city as a vibrant cultural and government centre” (CultMatrix, 2009:8).

The strategy identified a number of interventions:

- Announcing the destination: Design of gateways into the Inner City, e.g. at Paul Kruger Street Station;
- Cultural Circle: Town Hall Station near Museum Park;
- Capital Precinct;
- Mandela Development Corridor and Apies River Precinct;
- Tshwane Crossing;
- Zone of Urban Regeneration: Marabastad;
- Movement: BRT and other modes; and,
- Exceptional Public Environment: Improvement of public spaces.

The selected site is situated within the Cultural Circle intervention, which is concerned with the “...identification of all existing cultural landmarks and facilities and the enhancement thereof, as well as the development of new, contemporary cultural landmarks” (City of Tshwane 2005). The proposed design delves into the representation of the African Girl Child and African feminism which form part of cultural issues within both the South African and African context. This strategy will aid in identifying cultural activities within the micro and macro context.

The strategy entails less formal cultural zones such as markets, street performances and small businesses (City of Tshwane 2005).

3.2 MACRO SITE ANALYSIS

The macro site analysis seeks to investigate what is happening within the greater context that applies to the design investigation.

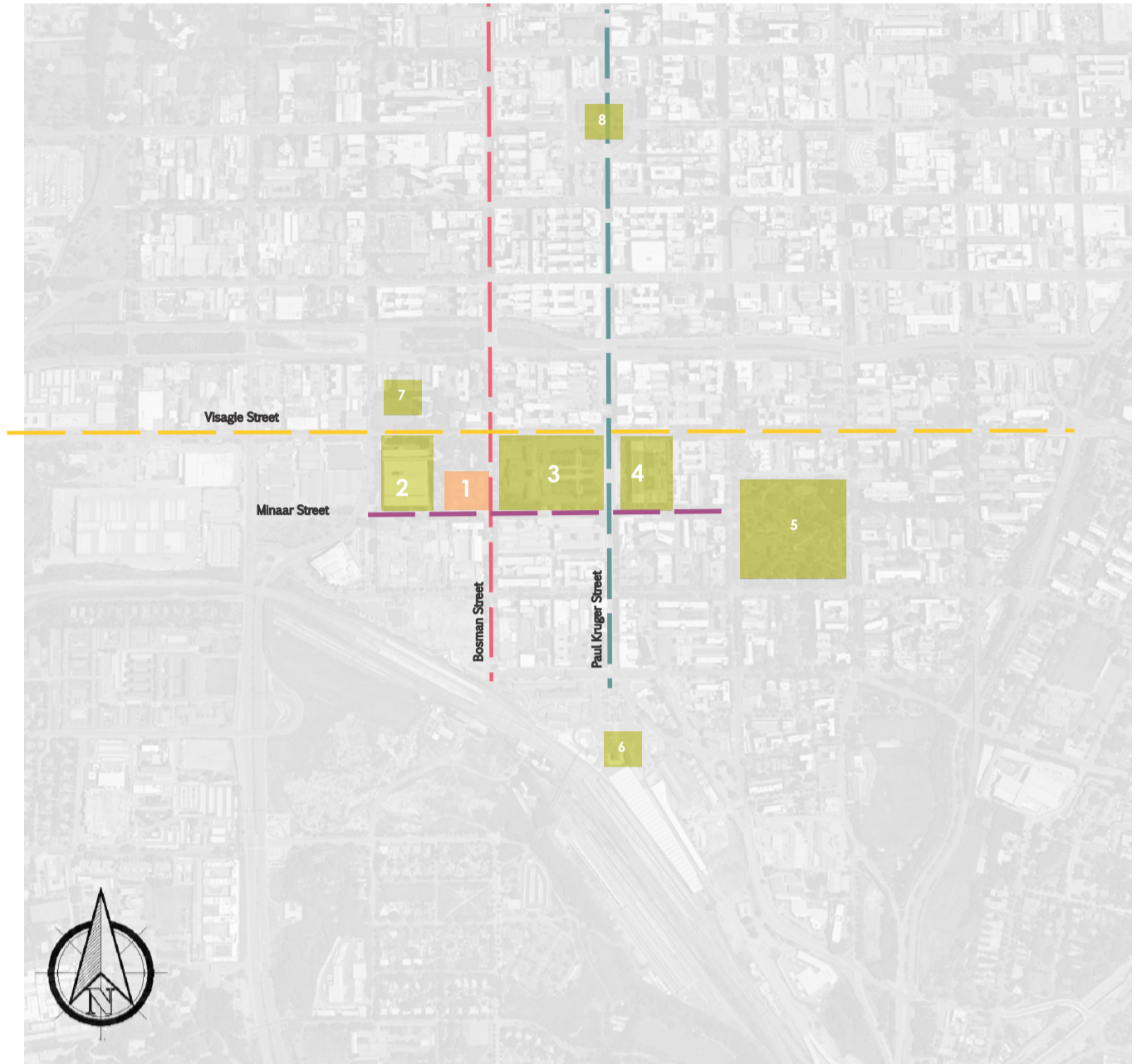


Figure 3.1: Visagie and Minaar Street as access routes to the formal historical and cultural spine (Author 2015)



- Less formal cultural zones (Markets, street performances, small businesses).
- ⊕ Axis of expression
- Pedestrian routes connecting major places of interest

Figure 3.2: Cultural Circle intervention (City of Tshwane 2005, edited by author 2015)

3.2.1 Transport

The Old Pretoria Fire Station, found on the corner of Bosman and Minaar Streets (figure 3.2), is located along major transport routes, indicated in figure 3.3. There are a number of Gautrain bus stops found on Bosman street which run parallel to Paul Kruger Street, whilst Minaar street was upgraded by closing off the west end resulting in less vehicle movement on the street. Visagie and Minaar act as access routes to the formal historical and cultural spine located between them.

Pedestrian movement along Paul Kruger Street depicts it as a primary route due to its connection with the Pretoria Station, while Bosman Street acts as secondary route, feeding out or into the primary route. The accessibility and ample provision of public transport will aid in the movement of the African girl child to and from the site.

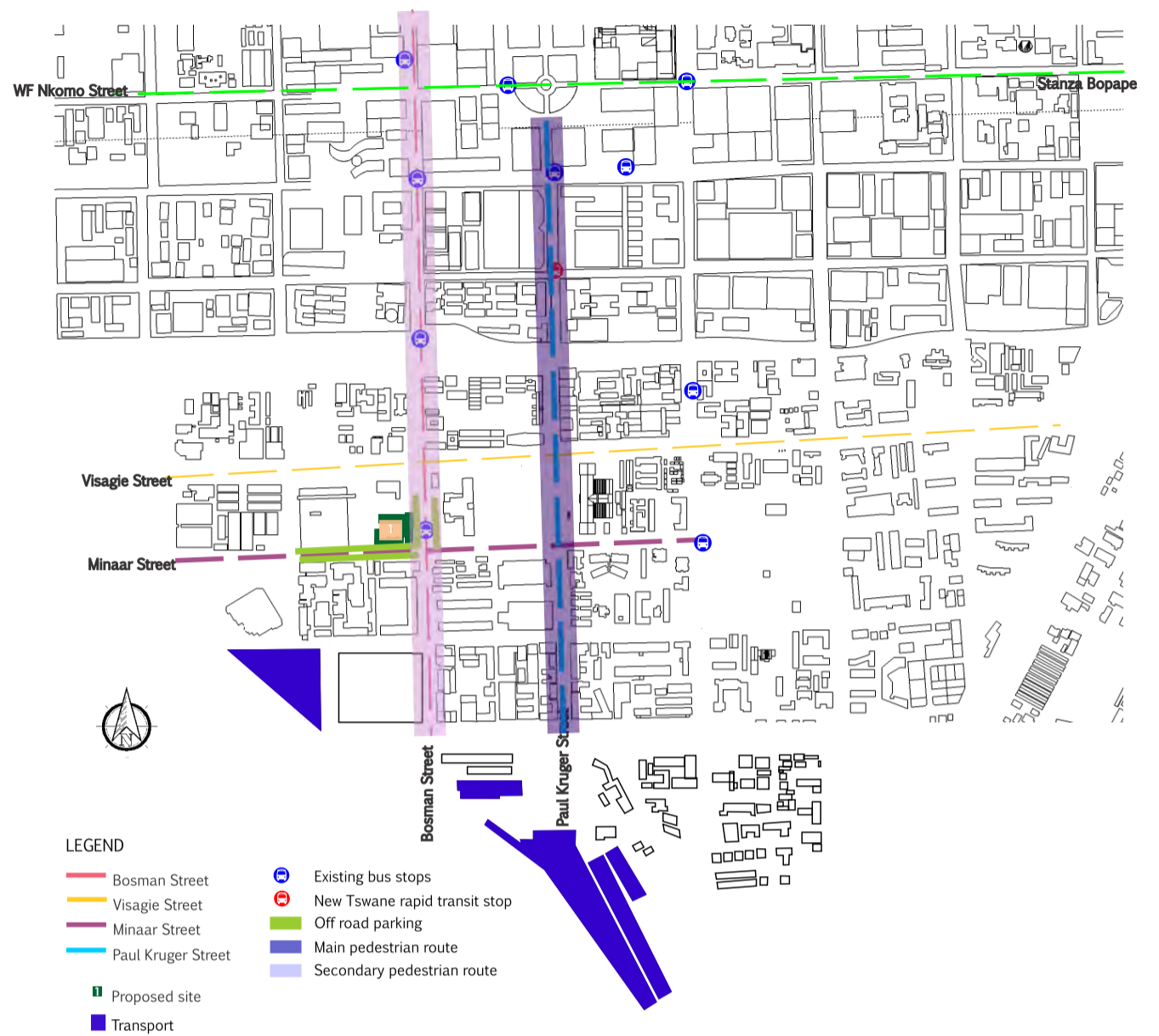


Figure 3.3: Transport mapping within close proximity to the proposed site (Author 2015)

3.2.2 Use zones

The use zone mapping reveals that the proposed building is surrounded by a variety of uses: to the west of the building there are industrial and governmental uses, to the north is mixed-use facilities, educational facilities and offices. To the south there are commercially zoned buildings and transport nodes, and east of the site has majority residential use from where the centre's African girl child will come.



Figure 3.4: Use zones in the greater context (Author 2015)

3.2.3 Educational Facilities

Educational facilities within the greater context reveal that the current target age group for the African Girl Child Centre are educationally catered for within the city centre and she will therefore be looking for study or recreational facilities afterschool.

The facilities indicated in figure 3.5 are in close proximity and cater for the formal education of students in the city centre while the African Girl Child Centre will aid in the informal education and empowerment of the African girl child.

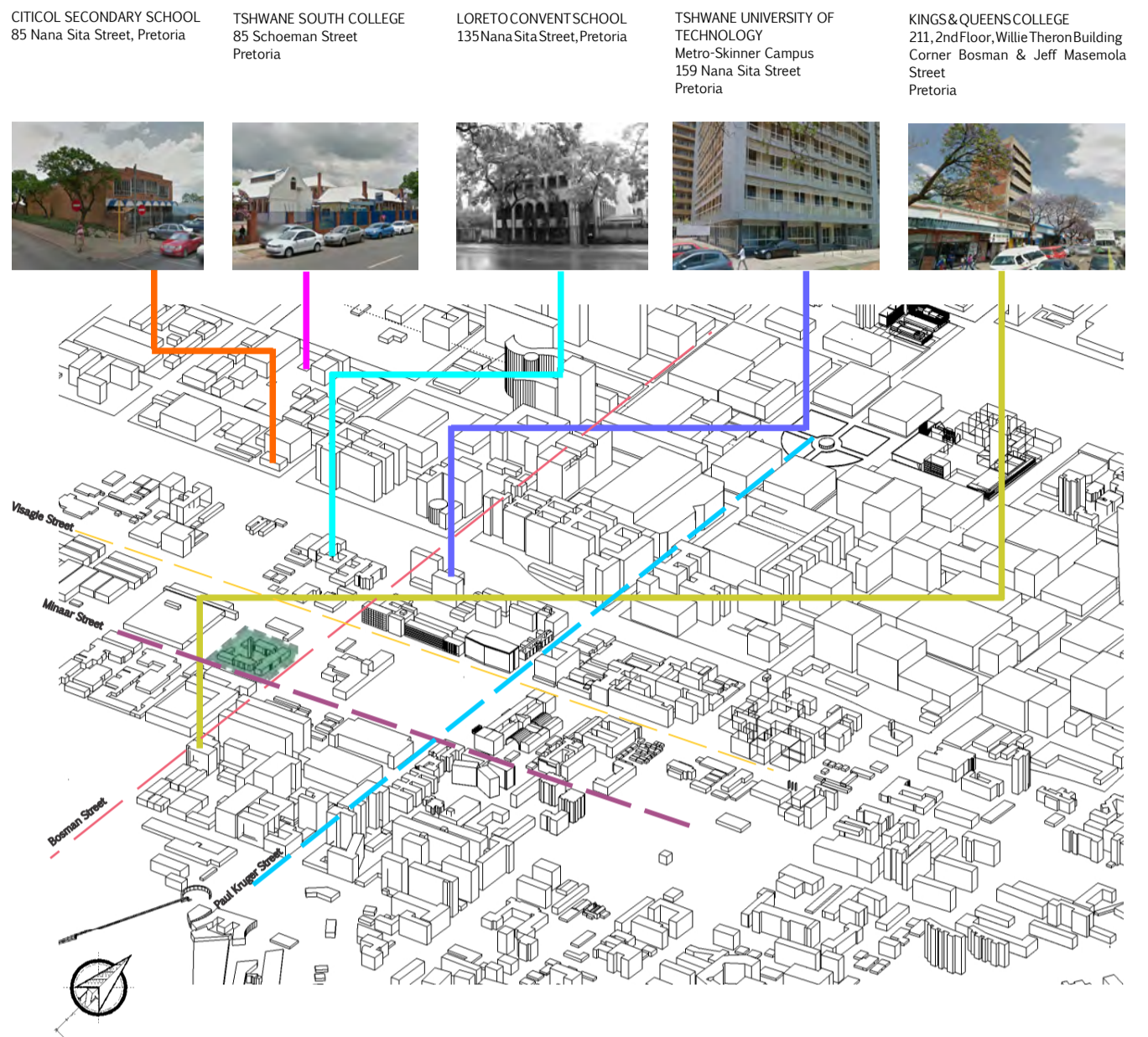


Figure 3.5: Mapped educational facilities (Author 2015)

3.2.4 Existing informal cultural activities

The informal activities found within the context (figure 3.6) are a means for the community within the CBD to express and consume what is of cultural importance to the community.

Functions such as cafes and restaurants, hair salons, tailoring, pottery and herbal doctors can be found. These existing activities will provide guidance in the choice of programme that is relevant to the context, thus tying in with the Cultural Circle strategy that the City of Tshwane seeks to implement. These existing informal cultural activities will act as inspiration for the programme of the centre.

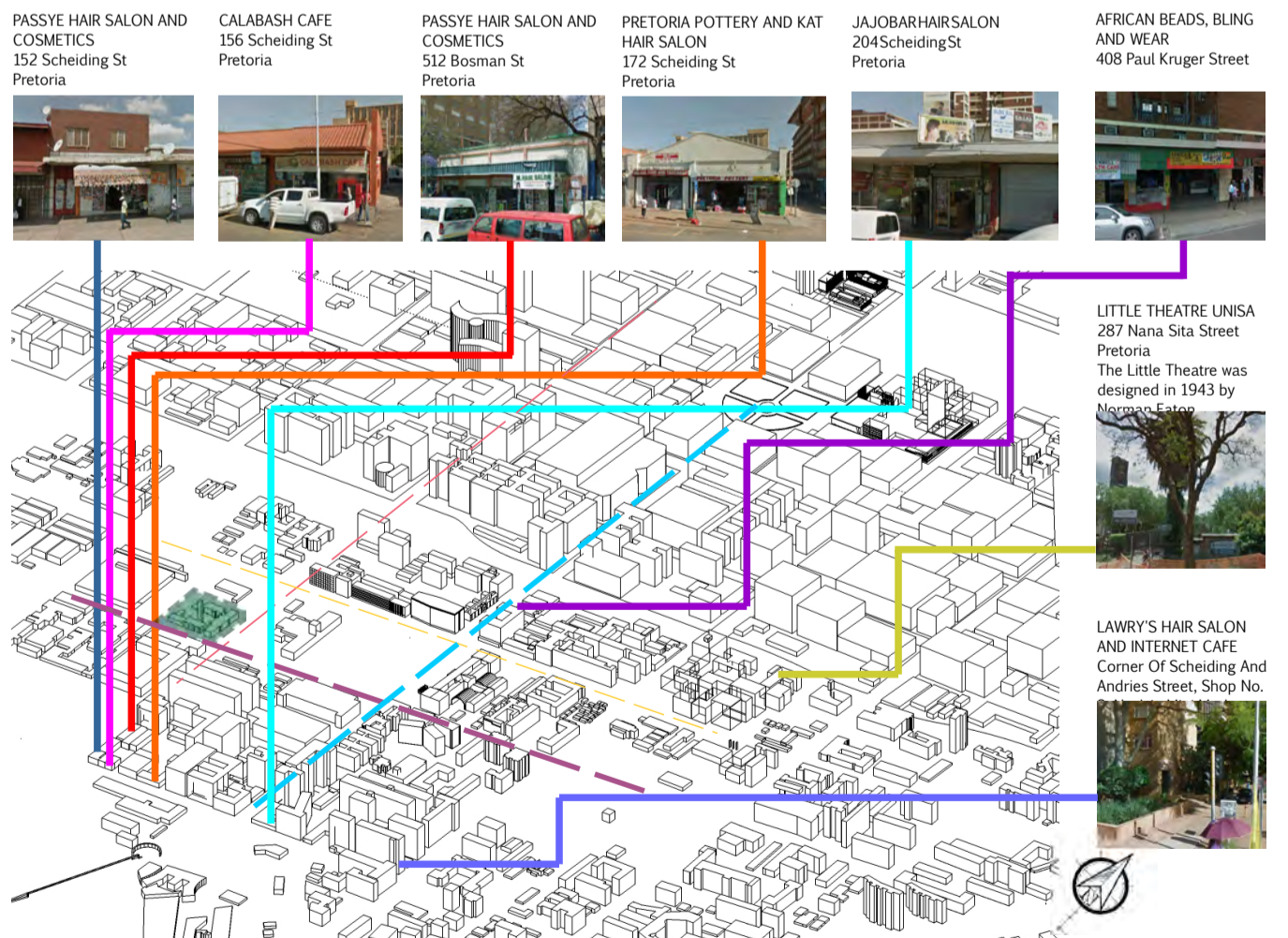


Figure 3.6: Existing informal cultural activities (Author 2015)

3.2.5 Historical Context

Pretoria was founded in 1855 and named after General Andries Pretorius, and in 1890 Sunnyside was incorporated as a part of Pretoria and subsequently what is now known as Pretoria West (South African History Online 2015).

In 1856 the first church was established on what is presently Church Square. Formerly named Market square, the area is the central point from which Pretoria grew the city's social and commercial core. Notable buildings that were established before the Old Pretoria Fire station include Loreto Convent (1878) and Ditsong National Museum of Natural History (1892). In 1912, the Old Pretoria Fire Station was built, after which African Window / National Museum of Cultural History (1921) and City Hall with Pretorius Square (1931) were built.

A second layer of historical context, shown in figure 3.10, has been investigated from the point of view of African feminism focusing on specific moments in relation to women in South Africa.

Shortly before the Old Pretoria Fire Station was built in 1912, Charlotte Maxeke, a school teacher, became the first South African Black woman to receive a Bachelor's degree. In 1918, the Bantu Women's League of the South African Native National Congress (SANNC) was formed under the leadership of Charlotte Maxeke. Another woman, Mary Fitzgerald, soon took a notable leadership role in 1921 as the first female City Councillor in Johannesburg. In 1956, 9 August, 20 000 women under the banner of the Federation of South African Women (FEDSAW) marched to the Union Buildings in Pretoria to protest against passes for black women (figure 3.9). Whilst the city of Pretoria was growing, expanding and taking new territory, so were women of South Africa.



Figure 3.7: Charlotte Maxeke (Parliament of the Republic of South Africa 2015)



Figure 3.8: FEDSAW protest, Pretoria 1956 (Women's History Network Blog 2010)



Figure 3.9: Members of FEDSAW present petitions protesting the pass laws at Union Buildings in Pretoria on the 9th of August 1956 (Women's History Network Blog 2010)

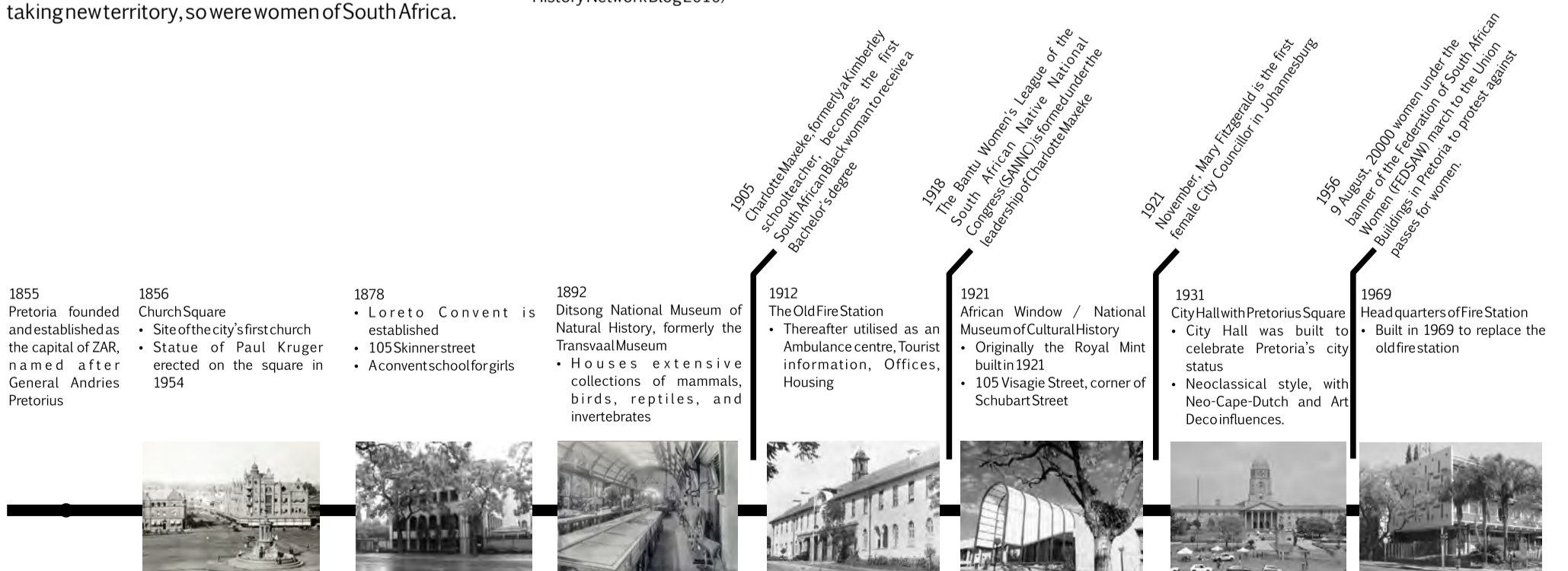


Figure 3.10: Timeline of contextual buildings and women's history in South Africa (Author 2015)

3.3 SITE ANALYSIS

The Old Pretoria Fire Station is located on the south end of Bosman street with its one way, four lane, high traffic road, and on the west end of Minaar street which is quieter in comparison with its two lane, two way road as shown in figures 3.12 and 3.13 respectively. Both streets offer a means for greater public interface between the building and the street users.

The building was designed by Cowin & Powers Architects, built in 1912 and is thought to be of an early South African Edwardian style. It was to be utilised as a fire station, which later relocated to the building opposite it.

It was later used as an ambulance centre, but when management was approached by the City suggesting that the building be incorporated into the museum park precinct refused and therefore resulted in the building becoming an island within the cultural and heritage precinct.

The proposed building defines the corner of Minaar and Bosman Street. The u-shaped building, depicted in figure 3.14, has an inner courtyard which is completely isolated from view when one stands looking in from the street. The chosen building for the first phase intervention is located on Bosman Street, in order to make the most of the high foot traffic that occurs on this street. The building is currently occupied by the Museum Park Administrators, Tshwane Leadership Foundation and Housing. This phased intervention is a reminder of the original phased intervention in which the buildings on the site were built. The initial building is the eastern building on Bosman Street, followed by the building on Minaar Street, and lastly, the northern building.

- Bosman Street
- Visagie Street
- Minaar Street

- CULTURAL AND HERITAGE CONTRIBUTORS
1. Proposed site
 2. National Cultural History Museum
 3. Pretoria City Hall and Pretorius Square
 4. Loreto Convent
 5. New Fire Pretoria Station



Figure 3.11: Site conditions around the OPFS (Google Earth 2015, edited by author)



Figure 3.12: Bosman street elevation (Author 2015)

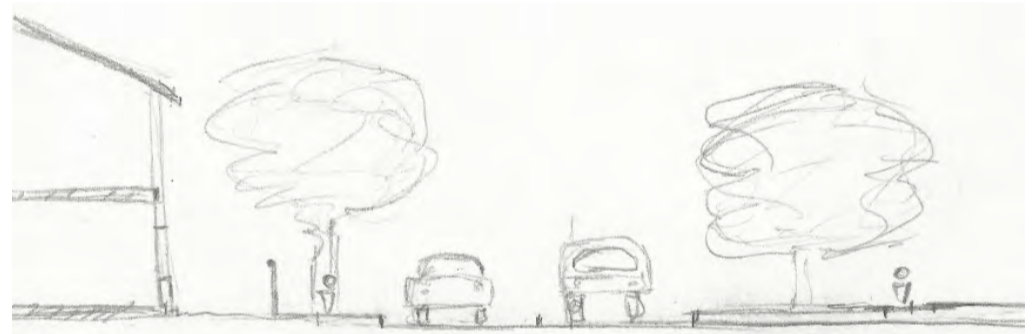


Figure 3.13: Minaar street elevation (Author 2015)



Figure 3.14: Old Pretoria Fire station floor plan and sections (edited by author, not to scale)

The site currently has a number of mixed uses, shown in figure 3.15, which do not correlate nor support one another. The existing privacy gradient does not work in aiding a public interface for the African girl child and the greater community to interact with. The gradient will be looked at on plan and in section, regarding how the gradient can move from public to private in order to accommodate the various uses.

The figure shows a brick training tower, six storeys high, with projects beyond the roof level that can be seen from the street. The main entrance to the site defined by a tower on the roof was intended to be on the eastern side of the building, located on Bosman Street. Due to the various businesses and variation in programme, the building no longer makes use of this entrance. Instead, it makes use of the entrances found on Minaar Street.

The white plaster finished building which was designed to be asymmetrical has had additional structures added on for storage and parking. The original clay tile roof was replaced with corrugated iron sheeting, whilst the wooden vehicle entrance doors were replaced with rolling steel doors and these three doors lead into the fire truck parking.

The building consists of a ground and first level. The buildings have housed various functions over the years. The wooden framed windows and doors are still in place, original fire places intact, and the timber flooring and ceiling are still in use.

The building's structure has a rectangular plan which consists of load bearing brick walls, which could present a possible challenge in terms of the spatial layout of the centre. Furthermore, concrete beams and columns can be found in the fire truck parking garage.

The existing floor plan reveals extensive use of load bearing walls, ducts and service spaces as well as circulation areas. A consideration that will be proposed is the inclusion of an elevator to make the first floor accessible.

The interior spatial quality of the OPFS reveals that the fire truck garage does not receive natural light due to the roller steel doors located on both walls. The drill room, directly above fire truck garage has windows and a balcony that permits natural light and cross ventilation into this space. This space also has a wood sprung floor, in good condition, thus presenting the ideal location for a dance / drama studio. The space has the original timber flooring and ceiling intact, made of dark timber which absorbs light, and as a result is a dark space.

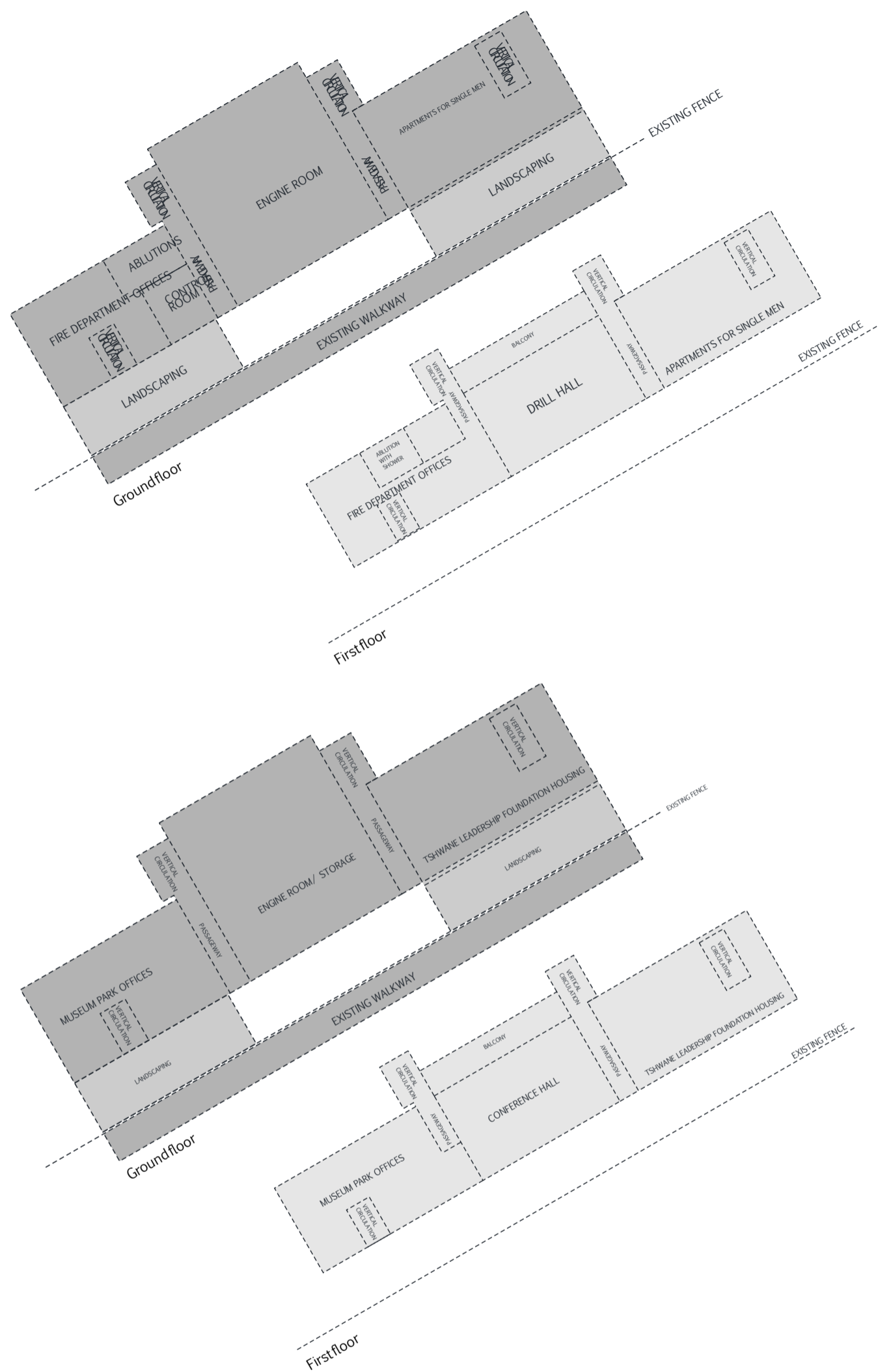


Figure 3.15: Original and existing uses within the proposed building for intervention (Author 2015)

The existing timber staircases, with wooded balustrading and handrail, and used to circulate the buildings are structurally sound despite the dark spaces of transition. Passageways are spacious enough to accommodate two people walking past each other, with the floor to ceiling height being 4480mm and the first floor is at 3770mm. The ceiling height in the passageways creates narrow, dark transition spaces with no view into the rooms, making it difficult to understand the layout of the building.

The original chimneys are still located within the space, depicted in the image below, and as mentioned before, some are still in use.

During a site visit, a basement level was discovered in the office indicated in figure 3.17 as "E". This space could be incorporated into the new intervention. It is not apparent what the space was originally used for but it is currently standing empty due to water damage caused by rain storms.

BUILDING STRUCTURE ANALYSIS

Useviability

The building in question is **currently in use, habitable, and structurally sound**, this is not to say that the building is fulfilling its purpose in a manner that is enriching to the user.

The current programme in the number of buildings on site is varied and not unified. There is no common purpose or goal.

In projects such as this which requires adaptive reuse the designer is to question what is existing and look ahead and design for the future betterment of the building. The assessment of the building with regards to the theory in question, practicality of use and available spatial qualities reveals that the building would be able to accommodate the proposed use in a manner that create a restorative space for the African girl child.

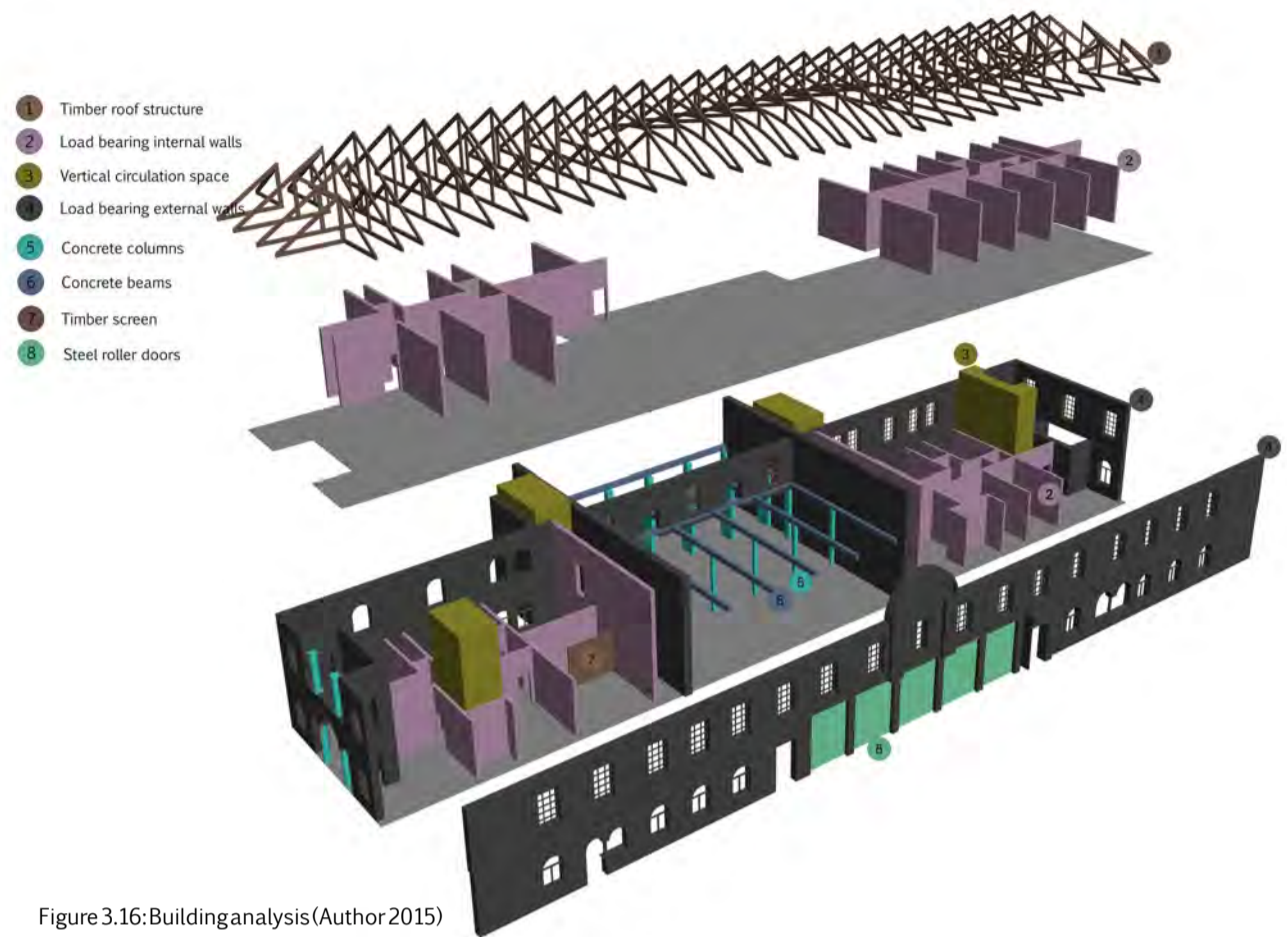


Figure 3.16: Building analysis (Author 2015)

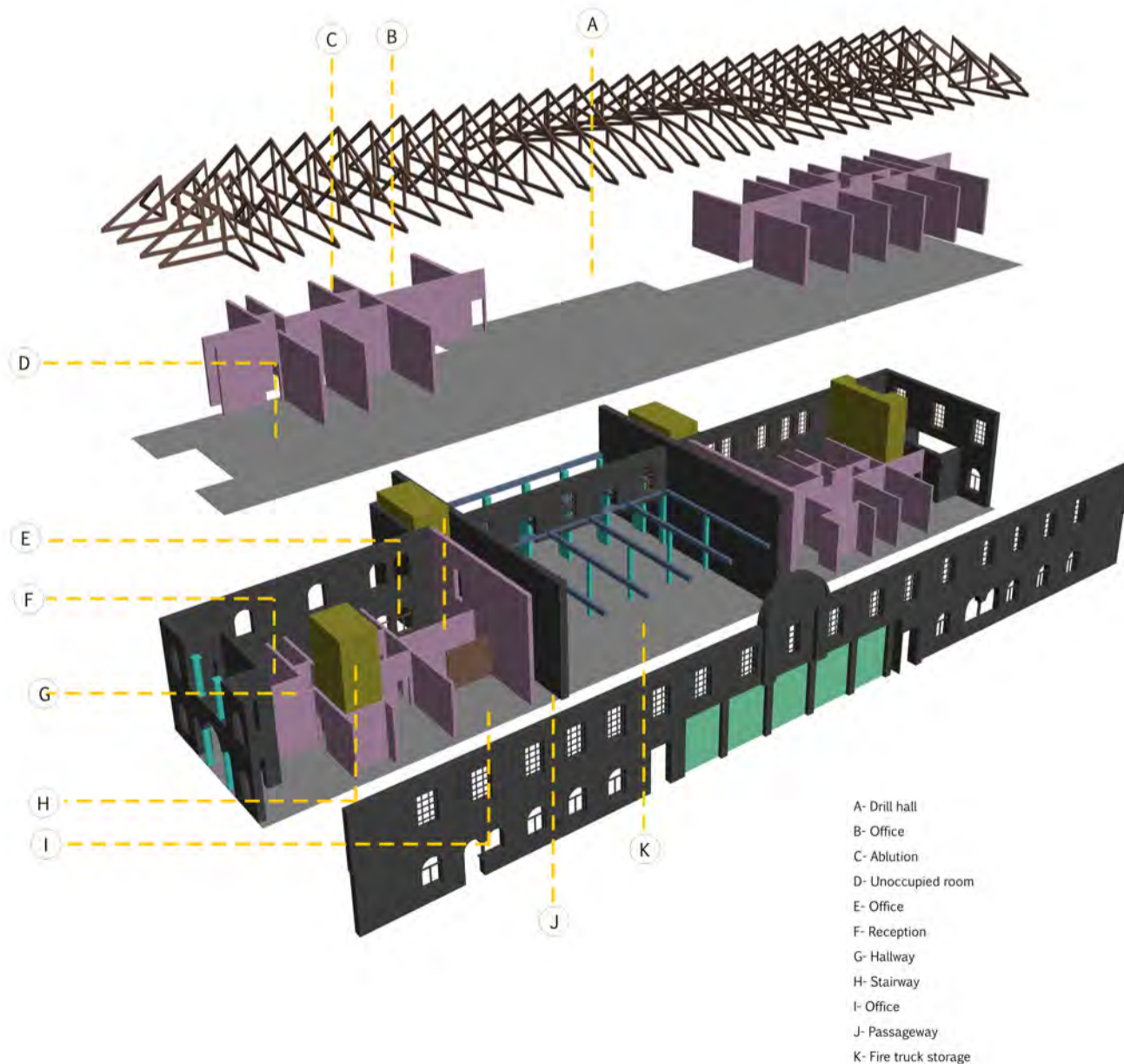
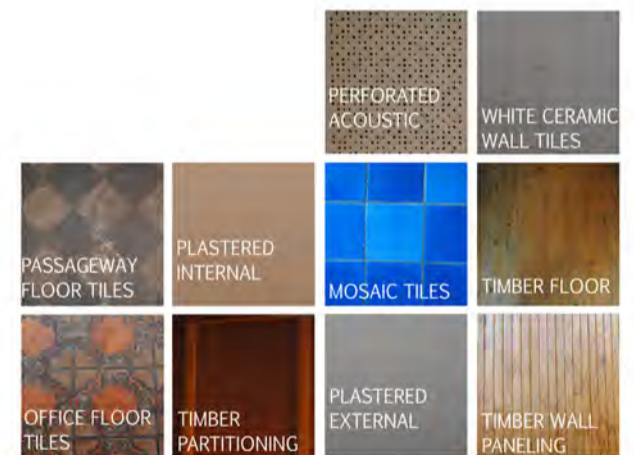


Figure 3.17: Spatial analysis of the chosen building (Author 2015)

SURFACE TEXTURE ANALYSIS

The existing surface materials within the building are of a durable nature. Existing finishes range from timber and timber based boards, stone such as slate, ceramic tiles to metal gates and glass glazing.



SPATIAL ANALYSIS

The current floor plan is not being utilised to its full potential. There are offices, function rooms, training rooms and accommodation within the PHASE 1 building.

The sectional elevations reveal that a multi use programme is a viable option in this building. The ground floor, floor to ceiling height is 4480mm and the first floor is 3770mm. Kincaid (2002:36) states that for uses D2 AND B1, of which the building would fall under that the slab height can be between 2300-2750mm and 2750-3650mm respectively. The building therefore meets this guideline.

The interior spatial quality is lacking in adequate electrical and day lighting as the internal load-bearing walls do not permit ample light into the cellular office spaces and accommodation spaces, furthermore this results in passageways being dark and cold transition spaces.

The original fire truck parking is currently being used as storage space, the steel roller doors do not permit daylight into the space, making it a dimly lit space even with electrical lighting. The numerous columns and high ceiling display potential for a striking spatial intervention.

Figure 3.18: Images of the interior spatial quality (Author 2015)



3.4 STATEMENT OF SIGNIFICANCE

The Old Pretoria Fire station as previously stated was built in 1912 by Cowin & Powers Architects, making it older than 60 years old and therefore is subject to Section 34 of the NHRA (25 of 1999) (Le Roux & Botes 1993:39).

Not much remains as a reminder of the fire station except for the training tower that to this day still stands proud and sturdy in the inner courtyard. Another architectural element that is a reminder of its previous use is the fire engine truck entrance gates on Bosman Street. The internal courtyard character of the building is to be retained.

Internally there are three steel moulded fire places (figure 3.18 inside offices that need to be considered as part of the original character of the building due to their workmanship as well as timber framed windows, timber flooring and ceiling. The original timber doors leading into the fire truck entrance and parking area have been replaced by steel roller doors. The initial clay tile roof has been replaced with corrugated iron sheeting. The existing façade is symmetrical in nature, with two niches in the façade that allow people into and out of the building. Elements such as the building corner keystone, Art Nouveau influences in fire places, bare floor boards indicate that the building is of an Early Edwardian style.

These identified elements are to be retained where needed or removed and reused elsewhere with the memory of them retained where necessary.

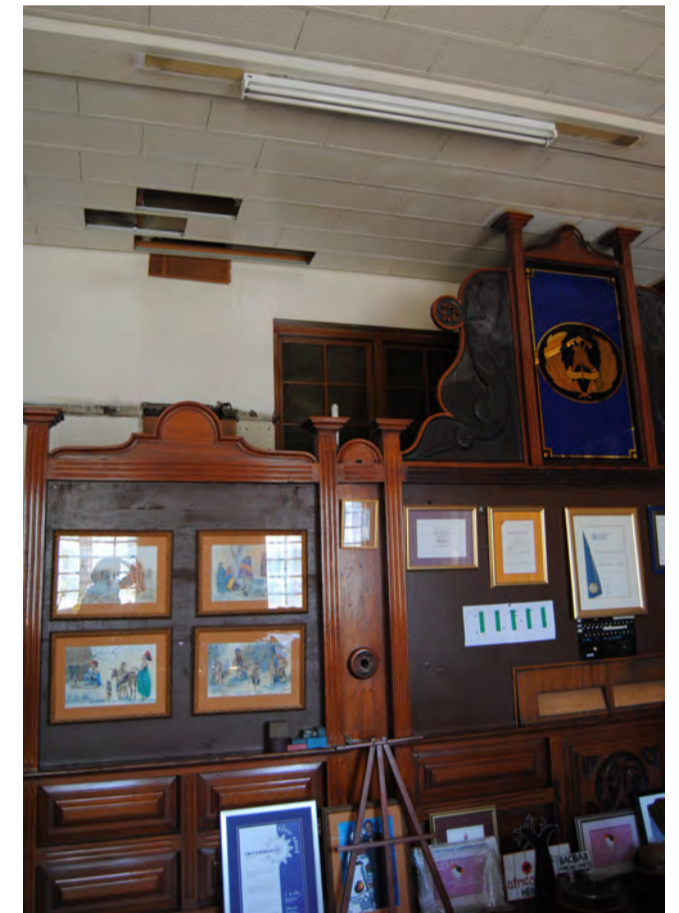


Figure 3.19: Steel moulded fireplaces (Author 2015)

3.5 HERITAGE STRATEGY

The heritage strategy for the intervention in the Old Pretoria Fire Station, depicted in figure 3.19, is one of integration, retaining the memory of its past whilst incorporating the new use and future into the building and site. New work is to be incorporated in a manner that is complimentary, and where demolition has been carried out the preservation of its foot print within the building and site is to be expressed with newly integrated elements.

This integration of the past, present and future aims to render the OPFS, its history, physical and metaphysical, accessible to African girl child. By exposing the building in this manner the African girl child should be able to identify with and feel empowered by it.

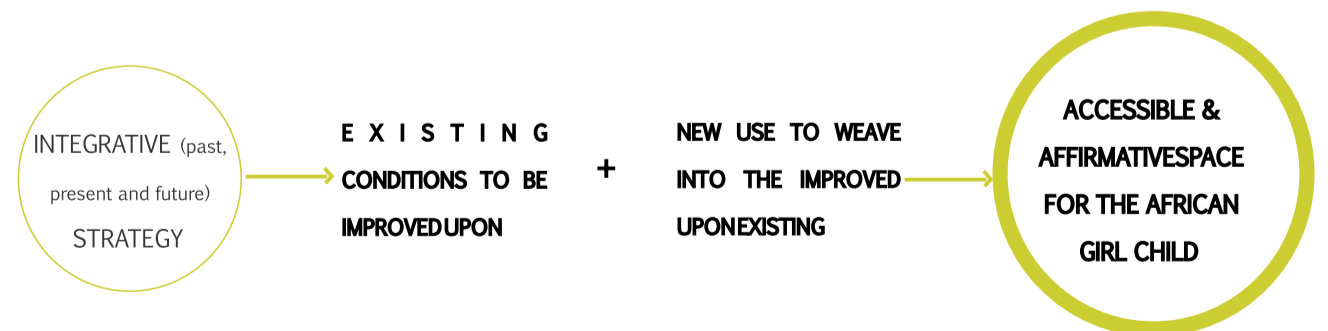


Figure 3.20 Heritage strategy diagram (Author 2015)

3.6 CONCLUSION

In conclusion, the analysis has served to highlight characteristics of the context which will aid the African girl child in her endeavour for self-empowerment. Notable observations are the educational, transport and informal activities happening in the city centre. The informal cultural activities will be drivers for the programme within the proposed centre. The Cultural Circle framework will be a great point of connection so that the proposed building does not stand alone in relation to typology within its context. The formalisation of the informal cultural activities will be of importance, the relevance of which, relating to the African girl child, will be discussed in detail in Chapter 5.

The existing building is structurally sound. However, it is neither currently utilised to its full potential nor is it managed well as some of the walls reveal damp that has not been resolved. The current users have taken occupation of the building without alteration or renovation. The proposed design will require changes to the building to accommodate the programme. The building ought to be suitable for use and so accommodating the new use in a manner that respects the heritage of the building but also looks to render the building functional.





CHAPTER 4

PRECEDENT STUDIES

4.1 INTRODUCTION

This chapter investigates relevant precedents and how they will influence the outcome of the design proposal. The precedents were chosen based on the following criteria: spatial layout and heritage intervention; programme and African aesthetic. The criteria refer to heritage intervention, community centre design, and the existing African aesthetic within South Africa. Each study heading is concluded with what the precedent contributes to the development of the design.



4.2 SPATIAL LAYOUT AND HERITAGE INTERVENTION

The precedents discussed focus on how an intervention in a heritage building can be used to announce new use in the existing building, spatially and on the floor plan.

4.2.1 Museum of Contemporary Art of Rome (MACRO)

Architects: Studio Odile Decq

Location: Piazza Orazio Giustiniani, 4, 00153 Rome, Italy

Area: 12000.0sqm

Year: 2007

The Museum of Contemporary Art of Rome (MACRO) designed by Studio Odile Decq sought to change the introverted site into a more open site. The integration of Contemporary Art Gallery in an ancient mixed industrial building proved to be challenging but resulted in an intervention that is striking.



Figure 4.1: Façade of Museum of Contemporary Art of Rome (Filetici 2014)

FACADE:

A prominent corner of the façade, shown in figure 4.1, has been removed and replaced with contemporary materials that stand in contrast to the host building, permitting light into the building and connecting space users within the host building with the context.

The entrance canopy, depicted in the image below, allows for a gathering space within the entrance. This would not have been possible with the original façade.

CIRCULATION:

The new circulation route is fluid in its transition from space to space, between the different levels, and from public to private. The circulation path, depicted in figure 4.2, is not as linear as the host building would have dictated but instead is dynamic, offering various viewpoints along the route.

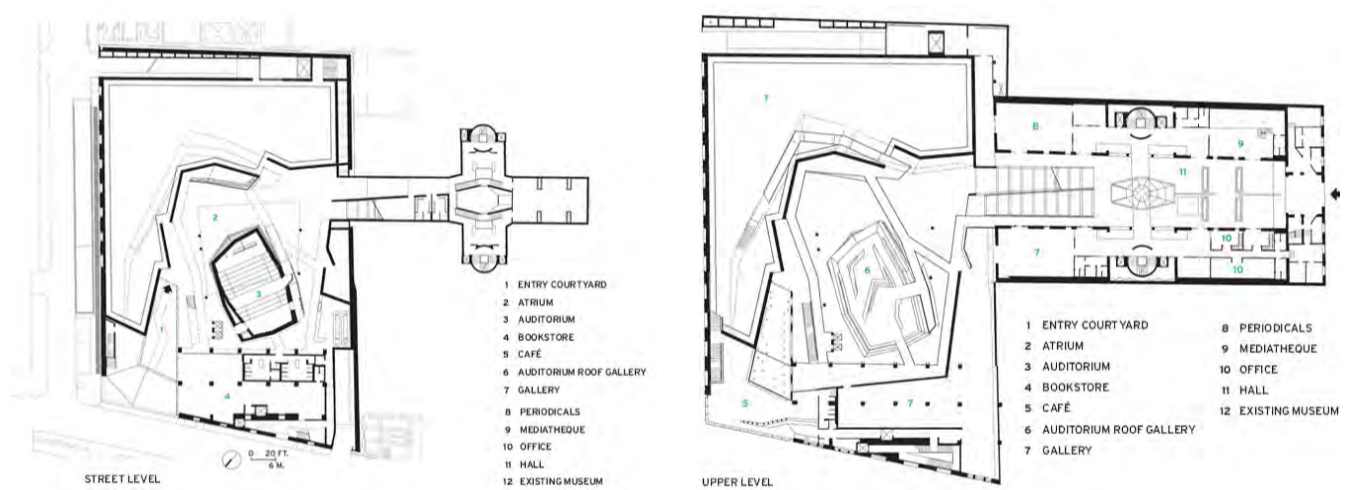


Figure 4.2: Circulation within the museum (Filetici 2014)

SPATIAL ORGANISATION:

The spatial organisation is not limited to the static orthogonal planes dictated by the original layout of the building but rather pulls away from a formal, static plan and section to form angled horizontal and vertical planes.



Figure 4.3: Spatial organisation within the museum (Filetici 2014)

The orthogonal nature of the building was rejected and a diagonal line was used to form new spaces as depicted in the image above. Thus a parti analysis (figure 4.4) reveals that the stable horizontal line is changed to an unstable line, resulting in the static nature of the space becoming dynamic.

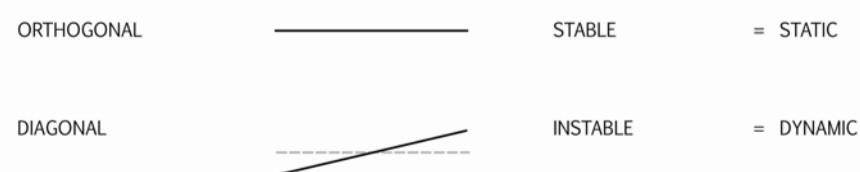


Figure 4.4: Analysis of floorplan arrangement and spatial organisation within the museum (Author 2015)

4.2.2 Fortress of Fortezza

Architects: Markus Scherer with Walter Dieltl

Location: Franzensfeste, Italy

Area: Unknown

Year: 2009

This was a military fortress built in 1838, used as gunpowder depot in the 19th century, and in 1918, Franzensfeste came under Italian rule and was used by the army until 2003. This former fortress has become a place for meetings and cultural exchange (Chemollo 2011).

FACADE

Elements such as the retained existing brickwork (figure 4.5) keep the memory of the past in a manner that is literal whilst the new addition attempts to complete the form of the building with missing parts.



Figure 4.5: Façade interventions at the military fortress (Chemollo 2011)

CIRCULATION:

Of particular interest is the existing tunnel (figure 4.6) which was extended to 22 meters, to connect the lower- to the middle fortress. A lift and black concrete stairway was added with a golden handrail. The extension of the tunnel is of importance because it extends the memory of the history of the building. The architects used the opportunity to maximise the fortress' spatial potential.

SPATIAL ORGANISATION:

The use of the horizontal organisation of space could have produced a predictable design but the architects sought to move away from this and rather use the vertical axis that existed to some degree. This shift from existing axis provides an intriguing spatial product.



Figure 4.6: Section through the extended tunnel (Chemollo 2011)

4.2.3 Moritzburg Museum Extension

Architect: Nieto Sobejano Arquitectos, S.L.P.

Location: Halle, Saale, Germany

Year: 2008

Area: Unknown

The castle of Moritzburg in the city of Halle is an example of Gothic military architecture, from the end of the 15th Century in Germany (Halbe 2011). The building has undergone a number of alterations but some main architectural features remain, namely: the surrounding wall, three of the four round towers at the corners, and the central courtyard. The north and west wings were partially destroyed in the Thirty Years War.

FACADE

The facade intervention loudly announces a new entrance (figure 4.7). The superimposed new intervention peaks out of the ruin, with an angular pitched roof that stands as a memory of the host building. The new materials stand in contrast to the ruin, highlighting that which is old and the new.

CIRCULATION:

The existing buildings were kept as intact as possible whilst the intervention was inserted within the host, retaining its ruined state as far as was possible.

SPATIAL ORGANISATION:

Due to the removal of the existing roof, the floor was completely rid of its walls, to allow for a more open plan as shown in figure 4.8.

In summary, the interventions discussed in this section highlight the need to activate heritage buildings in a manner that need not continue the original intention but rather introduce the new intervention in a manner that is contrary yet complimentary to the site, thereby reactivating the building not only in programme but form and space. The extension and reinterpretation of existing or past elements serve to enrich the design intervention.



Figure 4.7: Façade the castle of Moritzburg (Halbe 2011)

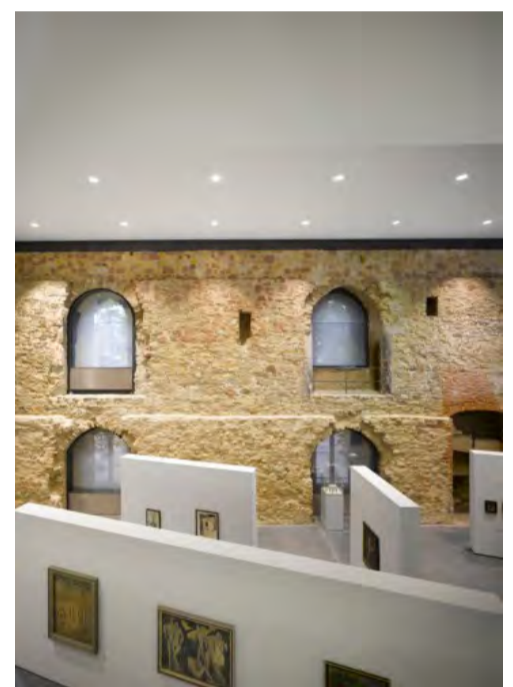
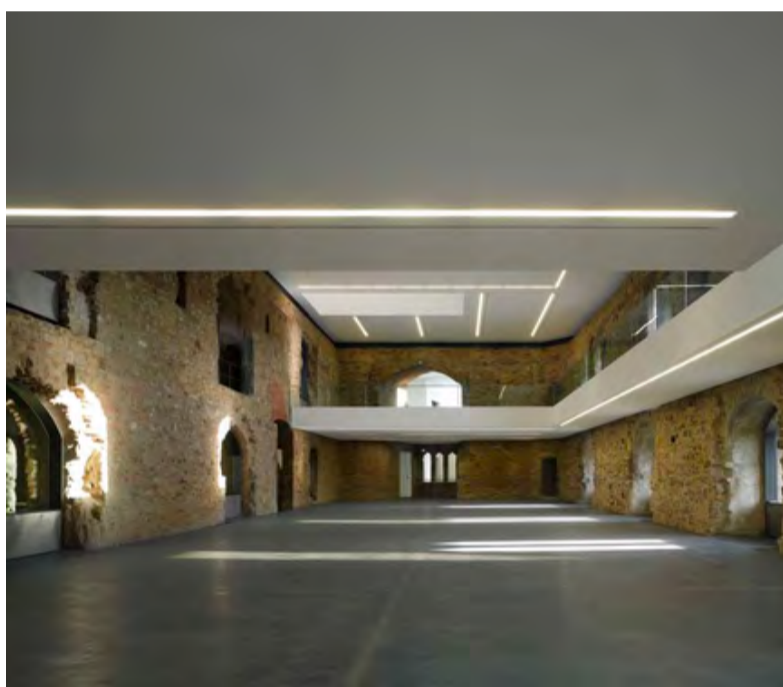


Figure 4.8: Interior, open plan view in the castle of Moritzburg (Halbe 2011)

4.3 PROGRAMME

The following precedent has been investigated due to its successful nature as a community centre within the South African context.

4.3.1 Ubuntu Centre

Architect: Field Architecture

Location: 5 Qe Qe Street, Zwide, 6200, Port Elizabeth, South Africa

Area: 1951 m²

Year: 2011

Programme: Mixed use: community centre and commercial spaces

The Group Areas Act of 1950 resulted in racial groups within South Africa being re-settled which resulted in suburban areas flourishing and growing while the informal settlements grew but did not flourish. Many of the informal settlement communities were left to their own devices, with very little to no formal infrastructure or planning. Field (2011:2) states that this resulted in communities lacking basic housing, community centres and even schools.

The Ubuntu Centre is located in Zwide in Port Elizabeth and is an example of how architecture and education can be used to empower a community. Field Architecture and John Blair Architects in association with NOH Architects completed and handed over the building to the Ubuntu Education Fund in September 2010. Field Architecture (2011:1) states that "...it [The Ubuntu Centre] provides access to a state-of-the-art facility in a beleaguered post-apartheid community. The design is a model for sustainable development that begins with the environment and extends to the preservation of life. The centre contains facilities for paediatric HIV testing and treatment, education, counselling, and community empowerment".

The multiple functions that the building contains (figure 4.9) address the needs found in the community. The building becomes an answer to the community instead of being imposed upon them. This was done by looking within the community to provide an answer or alternatives to social ills, educational dilemmas and the need for creative expression and enjoyment.

Field Architecture (2011:2) notes that rather than entrances being punctured in the facades, the voids are a continuation of the township pathways. This creates a critical sense of community ownership which allows this building to survive in the township context. The buildings have also been designed to seem as if they are leaning on each other, as shown in figure 4.10, thus creating a reference to the notion of Ubuntu where people can lean on one another. The programme for the building accommodates spaces such as a resource



- | | |
|--------------------------------------|--|
| 1 Resource/ Computer Learning Centre | 6 Pharmacy |
| 2 Multi-Purpose Hall | 7 Reception/ Entrance Hall |
| 3 Community Kitchen | 8 Flexible/ Expandable Meeting Rooms |
| 4 Staff Lounge | 9 Parking |
| 5 Paediatric HIV/TB Clinic | 10 Garden Court/ to Rooftop Vegetable Garden |

Figure 4.9: Floor plan of the Ubuntu Centre (Field 2011:1)

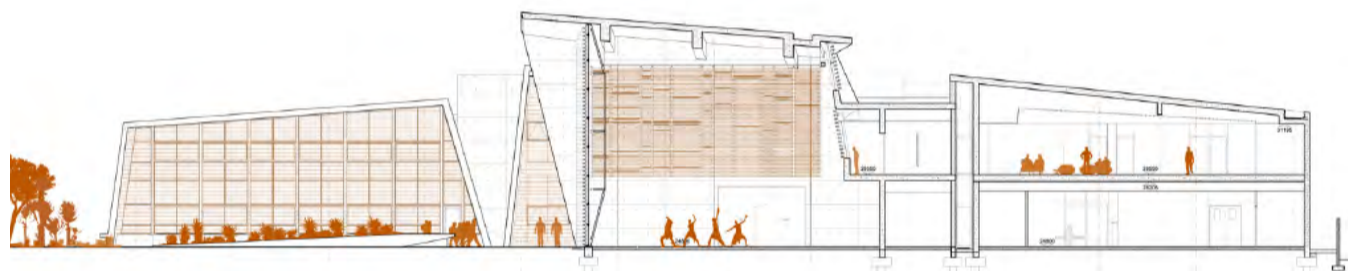


Figure 4.10: Section through the building showing use of double volume (Field 2011:3)



Figure 4.11: Multi-purpose hall (Riordan 2011)

centre, multi-purpose hall, community kitchen, paediatric HIV/ TB clinic, pharmacy, flexible meeting rooms, reception/entrance hall, staff lounge, offices, playschool, and a rooftop garden.

The variation in programme allows for the centre to cater for young and old within the community at different times of the day. As a result the centre is not flooded all at once with foot traffic but instead it is broken into a moderate flow throughout the day. This ingenious use of programme to prompt different users at different times can aid in accommodating more functions with less but more flexible space. It also ensures a continual use of the centre. The multi-purpose hall, depicted in figure 4.11, is an example of this continuous use.

The hall can accommodate a lecture in the morning, a community engagement meeting in the afternoon, and a concert in the evening.

In conclusion, the community centre is successful due to its integration within the community. This integration is brought about by providing a programme that addresses the needs, and at times wants, of the community. The variation in programme speaks to the varied interests within the community; the building is therefore designed to be a dynamic place, to suit varying spatial needs.

4.4 AESTHETIC and CONCEPTUAL FRAMEWORK

The following precedents were chosen in an endeavour to identify an aesthetic that the design intervention would need in order to successfully represent the African girl child through interior design. Two precedents were identified, namely; the Constitutional Court of South Africa, and examples of shack interiors, from the photographic documentary “Shack Chic” (2002) by Craig Fraser.

The two precedents represent the formal and informal interiors that can be found within the South African context. The formal interior is primarily constructed by skilled labour applying sophisticated mass produced materials, while the informal interior is created by unskilled individuals applying found and/or recycled materials.

4.4.1 Constitutional Court of South Africa

The Constitutional Court (2015: 1) brief was “...to create a building rooted in the South African landscape, physically and culturally, without overemphasising the symbols of any section of the South African population, or making a pastiche of them all”. This brief resulted in a space that is visually stimulating and representative of its Southern African context.

The theme of the design focused on “justice under a tree”. The foyer (figure 4.12) of the court depicts this by incorporating slanted columns which represent the trees under which villagers and leaders would traditionally gather to deal with arguments and qualms. This speaks of the court being accessible to all citizens and is further reinforced in the décor of the foyer space. The principal materials used: timber; concrete; glass; steel and, black slate “...infuse the court with an African feel” Constitutional Court (2015:2). The materials are relevant within the South African context as space users can identify with their everyday use.

THE FORMALISED AESTHETIC: THE MACHINED ARCHITECTURALELEMENTS

The Constitutional Court can be considered to be a space that has been machined, meaning that the majority of the building was built commercially and using various machinery.

The art, crafts and sculptures within the building represent the hand-crafted elements, formed and crafted to suit and decorate the building, and communicate the concept, whilst elements such as concrete columns and slabs represent the machined architectural elements.

COLOUR

Colour usage with the various spaces is limited to a specific palette of colours: orange, green, yellow and brown, which maintain the theme of justice under a tree. Colour is also incorporated by allowing the inherent colour of architectural elements and furniture material. The use of colour is not overwhelming; rather, it compliments the spaces, and results in a unified look of the Foyer space (figure 4.13).

TEXTURE

Textures used in the spaces, range from the very smooth and polished to rough and coarse as seen in figure 4.14.. Texture on surfaces and in the incorporated art and crafts all work harmoniously together. The formalised African aesthetic is seamless in that all the elements are carefully thought through before they are placed within a space. It makes use of more commercial means to deliver the aesthetic. Colours and textures are chosen to be complimentary in how they appear within the space. This stands in contrast to the organisation of spatial quality in informal spaces with an African aesthetic.

4.3.2 Shackchic

Shack chic is a photographic documentary of the dignity to be found in the dusty streets of South Africa’s shacklands, and is described as “...an exhibition of cultural creativity in real life contexts” (Fraser 2002: 15).

THE INFORMAL AESTHETIC: HAND-CRAFTED FOUND OR RECYCLED MATERIALS

Shack chic serves to celebrate making the best of what is affordable and available. The interiors and built structures showcased in Shack Chic depict handmade elements more as a necessity rather than a luxury. The built structures are built according to what the creators could afford or find resulting in materials being recycled. For example, a method of wall papering the interior of a shack to keep the cold out, as depicted in figure 4.16 is labeling paper from household and food items receiving a new use, the results of which are an intriguing pattern and colours within a given space; a collage of materials.

COLOUR

Colour is used in varying tone, usually bold and contrasting as seen in figure 4.15. The colour usage is unconventional as it may not be premeditated, such as in formally design spaces, but a result of a collage of found materials and readily available elements. This adds character and intrigue to the spaces and surfaces.

TEXTURE

The texture that can be seen is from a multimedia collage of materials such as Lucky Star make-shift wallpaper, vinyl floor carpets to painted timber pallet walls (figure 4.17).

In summary, the formalised African aesthetic is primarily deliberate in that there is a concept, a specific colour palette, and predetermined materials. The spaces are realised through the use of machinery and commercialised elements. In contrast, informal spaces with an African aesthetic are unplanned in that what is available and affordable is used. There is no concept in the makeup of a space, rather there are layers of materials and textures which are organically layered and completed, which result in each space being unique in its aesthetic.

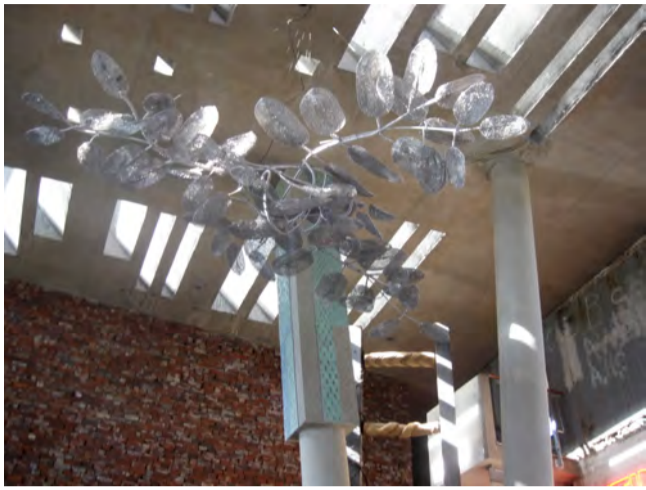


Figure 4.12: Crafted element within the Constitutional court (Mushahary 2012)



Figure 4.13: Use of colour in the Constitutional court (Mushahary 2012)



Figure 4.14: Use of texture in the Constitutional court (Mushahary 2012)



Figure 4.15: Re-use of packaging wrappers as wallpaper (Fraser 2002)

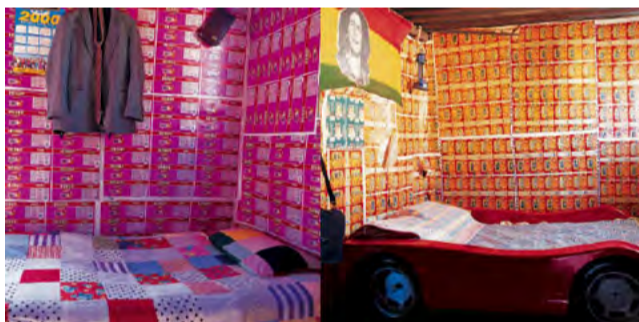


Figure 4.16: The use of colour in the interior (Fraser 2002)



Figure 4.17: The use of texture in the interior (Fraser 2002)

4.5 CONCLUSION

This chapter provides national and international precedents, which are relevant to the design of the African girl child centre. The precedents were chosen as reference points for spatial layout and heritage intervention, programme and aesthetic and conceptual framework. The heritage interventions provide an opportunity to examine how existing and new interventions can be integrated to produce a new interface that is relevant and accessible to the space user. The programme precedent contributes by displaying how a multi-functional building can allow for organic programme growth, that as the centre grows so does the programme, along with its community's needs. The aesthetic and conceptual framework precedents bring to the fore an African aesthetic that is vibrant in colour, rich in texture and has hand-crafted quality in both a large scale and small scale setting. The gathered information will guide the design development of the Centre for the African girl child and further extend the possibilities of the design.





CHAPTER 5

DESIGN DEVELOPMENT

5.1 INTRODUCTION

The conceptual approach is an outcome of the investigations executed in the preceding chapters and aims to express an identity of the African Girl Child through the interior design of the Centre for the African GirlChild.

The client, user group and programme are deliberated upon. The proposed design intervention is introduced briefly; thereafter the design concept is argued and expanded upon.



5.2 USERGROUP

The user group for the centre will be primarily black African girls from/between the ages of 13 to 17. The male counterparts are also welcome to the centre to help foster a healthier relationship between the two sexes of African children and so helping them to grow in understanding each other.

The African Girl Child Centre will be open all day but will mainly be in use by the girl child after school hours or on weekends. During school hours the centre will be in use by the centre staff, NGO'S and the general public.

5.3 CLIENT

The clients for the centre will be organisations and businesses that will cater for the African girl child, offering her opportunities and empowering her in the process. The centre is to act as an interface that facilitates the transfer of information from the relevant parties to the African Girl Child.

The client body (figure 5.2) is to consist of:

- Department of Women, Children & People with Disabilities;
- Breakthrough;
- South African Girl Child Alliance;
- Girl Education Movement;
- Children's Movement South Africa;
- Businesses that would empower the African girl child;
- Girls not brides;
- Tshwane Leadership Foundation;
- Cell C Girl Child initiative; and,
- Zazi.

5.4 PROGRAMME

The programme for the African girl child (figure 5.4) is a phased, mixed use programme relating to the contextual allocation whilst providing innovative means of providing empowerment through interior design. The African Girl Child will be empowered in sectors such as business, science and technology and the creative arts. These sectors will fit into the play, work, and learn groupings of spaces.

“Half a mind is a terrible thing to waste” (STEAM not STEM 2015:1). STEAM encourages a well-rounded approach to education. STEAM not STEM (2015) states that STEM is based on skills generally using the left half of the brain and thus is logic driven. Much research and data show that activities like the Arts use the right side of the brain which supports and fosters creativity, and is essential to innovation. This approach ties into the informal cultural activities such as traditional food restaurants, tailoring shops and hair salons, which allow for the creation,

expression and consumption of culture. This is a step further in from the cultural museums within the precinct which do not allow the physical consumption or creation of culture. This offers the African girl child an opportunity to create and express her culture in a manner that is true to her.

The programme is to be rooted in the Arts as a means of creating a more public intervention that will announce new use, and offer many more opportunities of interaction which will lead to other interventions, namely; Science and Technology, Engineering and Mathematics (depicted in figure 5.5, 5.6 and 5.7)

The programme will encourage self-empowerment through creating and expressing an African aesthetic with which the African girl child can identify.

Public activities such as the restaurant, hair salon, auditorium, bookshop and library are located on the ground floor allowing for easy access and broader social interaction. The first floor is organised to have a quieter atmosphere with administration spaces, a dance studio, rehearsal rooms, a music studio and a multi-functional space that allows for flexibility of use.

5.5 BRANDING

The Centre for the African girl child is a space that allows her to be actively involved in her empowerment whilst providing a platform for her to showcase the fruits of her empowerment. The name chosen for the centre is Bonang, a Sotho word that means “to look, to behold” (African languages. 2015).

The logo draws inspiration from vibrant, geometric accents in African patterns (figure 5.8) and the dynamic circulation and forms that are to be introduced in the centre. This stylistic adaptation of the font is to be applied to the various identities of functions within the centre. As depicted in figure 5.8.



Figure 5.1 African geometric print (Design Inspiration 2015)

African girls between the ages of 13 to 17.



Figure 5.2. Students at a Protestant secondary school in Mbandaka, Congo (Eisofon 1972)

Figure 5.3: CLIENT BODY (Author 2015)

The client body is to consist of:

1. Department of Women, Children & People with Disabilities (Nelson Mandela Children's Fund 2013)
2. Breakthrough (PRWEB 2014)
3. South African Girl Child Alliance
4. Girl Education Movement (Girl Education Movement Uganda 2011)
5. Children's Movement South Africa
6. Businesses that would empower the African girl child
7. Girls not brides (Care 2014)
8. Tshwane Leadership Foundation (Tshwane Leadership Foundation 2015)
9. Cell C Girl Child initiative (Cell C 2015)
10. Zazi (Zazi 2015)



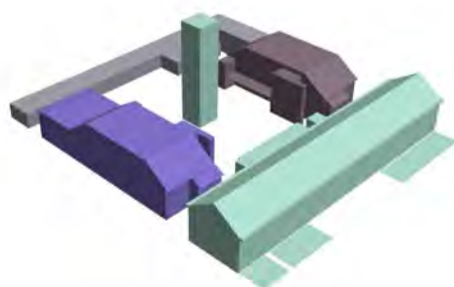
5.4.1 PROGRAMME FOR BONANG: CENTRE FOR THE AFRICAN GIRL CHILD

The programme for the African girl child is to be mixed use, relating to the contextual location whilst providing innovative means of providing empowerment through interior design. The African Girl Child is to be empowered in sectors such as Business, Science and Technology and the Creative arts. These sectors will fit into the play, work, learn grouping of spaces.

Half a mind is a terrible thing to waste

STEAM encourages a well rounded approach to education.

STEAM not STEM (2015) states that STEM is based on skills generally using the left half of the brain and thus is logic driven. Much research and data shows that activities like Arts, which uses the right side of the brain supports and fosters creativity, which is essential to innovation.



- PHASED INTERVENTION
- PHASE 1
 - PHASE 2
 - PHASE 3
 - STORAGE AND CARE TAKER

Figure 5.4. Phased intervention (Author 2015)

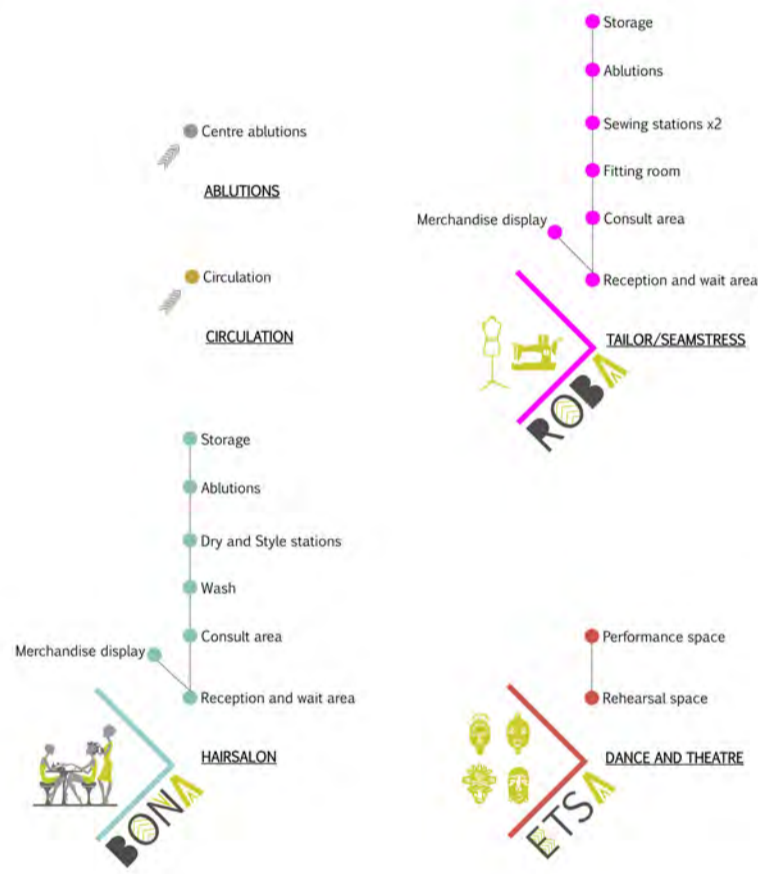
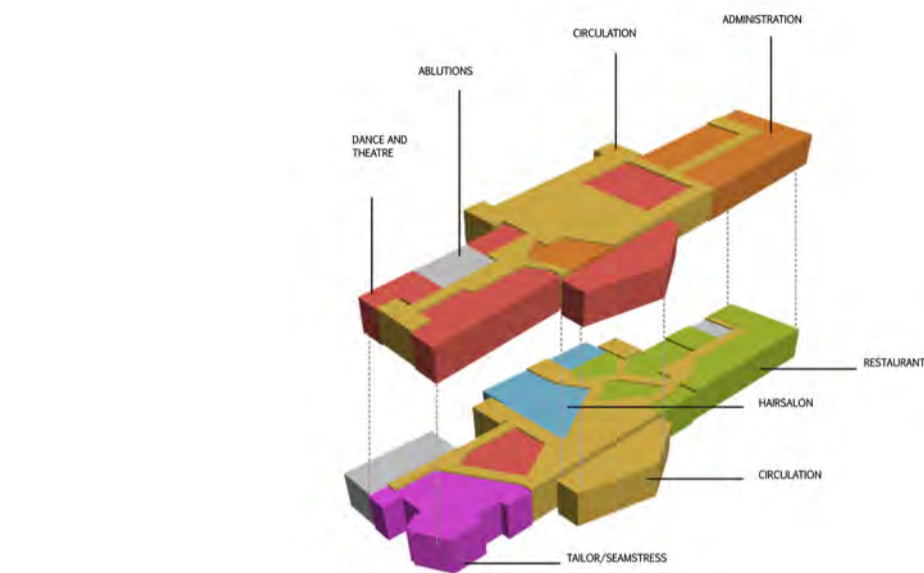


Figure 5.8. Programme distribution at Bonang (Author 2015)

PHASE 1: Arts and Cultural

The intervention is to activate the building and build awareness to the general public, concerned organisations and specifically the African girl child about the centre. The chosen building for PHASE 1 was chosen due to its positioning on a more public road and a more frontal and direct entrance to the building.

PHASE 2: Science and Technology

This will build on to PHASE 1 and so broadening the range of interests for the African girl child. The phase will incorporate knowledge transfer spaces such as laboratories and house offices for professionals to work from so the girl child can be exposed to the career and trained in a hands on manner

PHASE 3: Engineering and Mathematics

The third phase will be of a more educational nature, offering a "clinic" for subjects that pertain to the Engineering and Mathematics field, allowing the girl to be a step ahead.

Figure 5.5: African girls dancing (BareThreads 2012)



Figure 5.6: Young girl child in lab (Fablabtigulio 2015)



Figure 5.7: Young girl child learning robotics (Fablabtigulio 2015)



5.5 DESIGN INFLUENCES

5.5.1 Theoretical findings

The theoretical findings on African feminism highlighted that African feminism bears cultural awareness within its context. It does not seek to pull down the male gender but rather seeks to break down the mental and physical hold that has been instilled by a patriarchal, previously white supremacist culture. This brand of feminism is both strong and nurturing; it does not stick to traditional gender roles and instead embraces its strengths. This bold and daring character of African feminism will be incorporated when designing an intervention with the mind to introduce an African feminist use of the space.

5.5.2 Contextual findings

Profusion and variety of informal hair salons, restaurants and tailoring shops found within the immediate context is significant. Of importance to the African female community is the issue of hair. The hair salon becomes a monthly ritual that is introduced to the African girl child as soon as she becomes aware of her femininity or when her mother decides it is time.

Hair salons are a place of conversation, sharing anecdotes and transformation. The hairstyles that transform an African woman's hair vary in their technique and how they are applied to her hair; from a mixture to alter hair texture to temporarily attaching braids.

5.5.3 Conceptual approach

The conceptual approach for the intervention draws inspiration from the methods of alteration that black women will apply to their hair. The main forms of hair alteration and their level of alteration are discussed in figure 5.9.

The forms of hair alteration illustrate that there are differing levels of integration between the hair and the alteration. This aspect may be considered when designing the intervention and how it interacts with and integrates the existing host building.

These methods and their applications will be highlighted in Chapter 6 (Design development).

The ritual of hair alteration is also linked to Fred Scott's process of Stripping back (Chapter 2.2.2). The link is depicted in figure 5.10

The significance of hair and its treatment in the black African woman's community is documented as early as 15th Century Africa, "... hairstyles were used to indicate a person's marital status, age, religion, ethnic identity, wealth and rank within the community..." (Thompson 2009:1).

The alteration of hair is a means to change one's appearance but the ritual of visiting the hair salon is also about being part of a collective of women who go through this on a monthly or weekly basis, "...black hair is not just about hair it is about identity..." (Thompson 2009:4).

The design and interventions within Bonang are to instil pride in the African girl child with regards to her heritage, and as a black girl child, that the tripartite oppression she experiences are opportunities for her to engage her strengths and overcome the said oppressions by being actively involved in her empowerment.

Hair fixing methods, hair patterns and the deviation from the traditional African norms are major factors influencing the design of Bonang.

The following mood boards were developed as design generators for Bonang.

The initial mood board (Figure 5.11) was a variation of spaces and accessories that were envisioned as being applicable to the proudly African aesthetic that Bonang could embody. This mood board was not successful in that it did not address the African aesthetic as aptly as it could have.

The second mood board (Figure 5.12) selects fewer but more direct visuals that are a more appropriate to the vision for Bonang. Visuals that display pattern, hand crafts, beaded and woven elements appear. An image of the fire station is apparent in this mood board to keep in mind the contrast of the site to the new intended use.

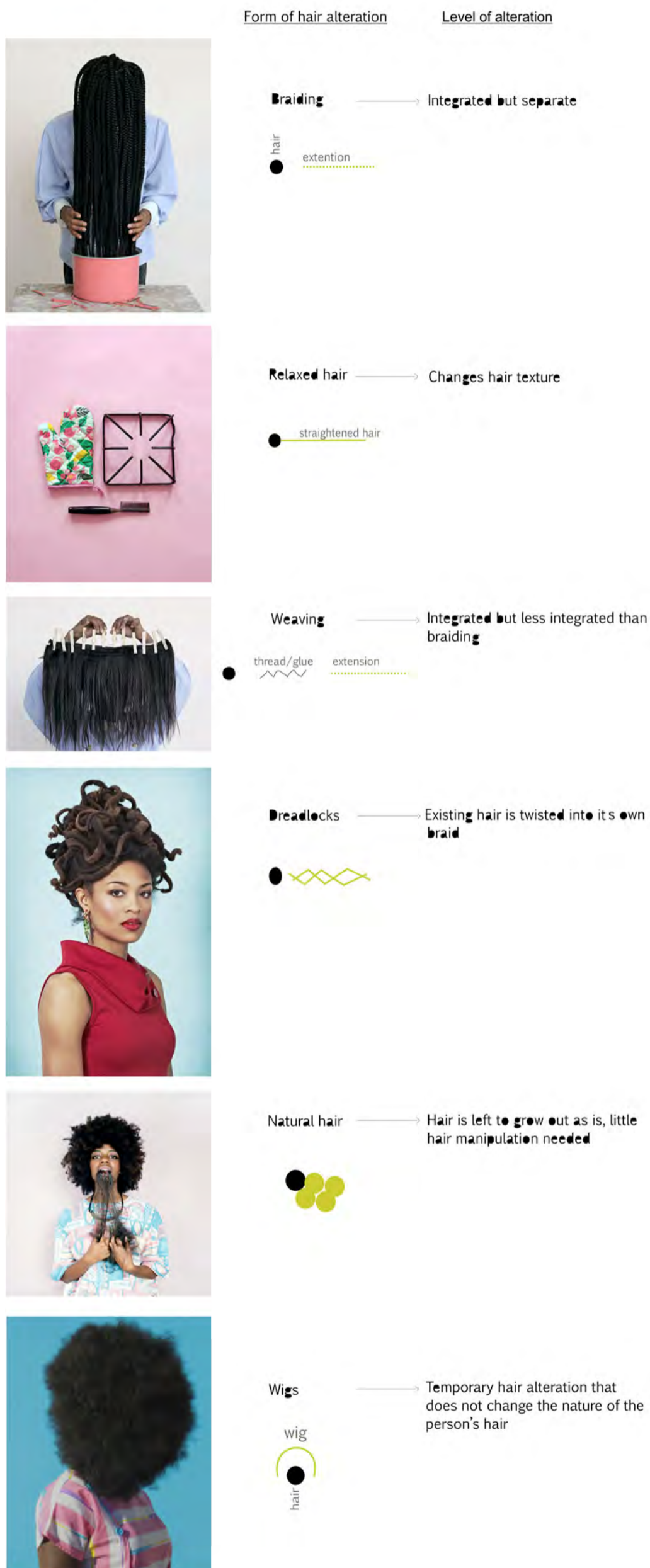


Figure 5.9: Forms of hair alteration (Author 2015)

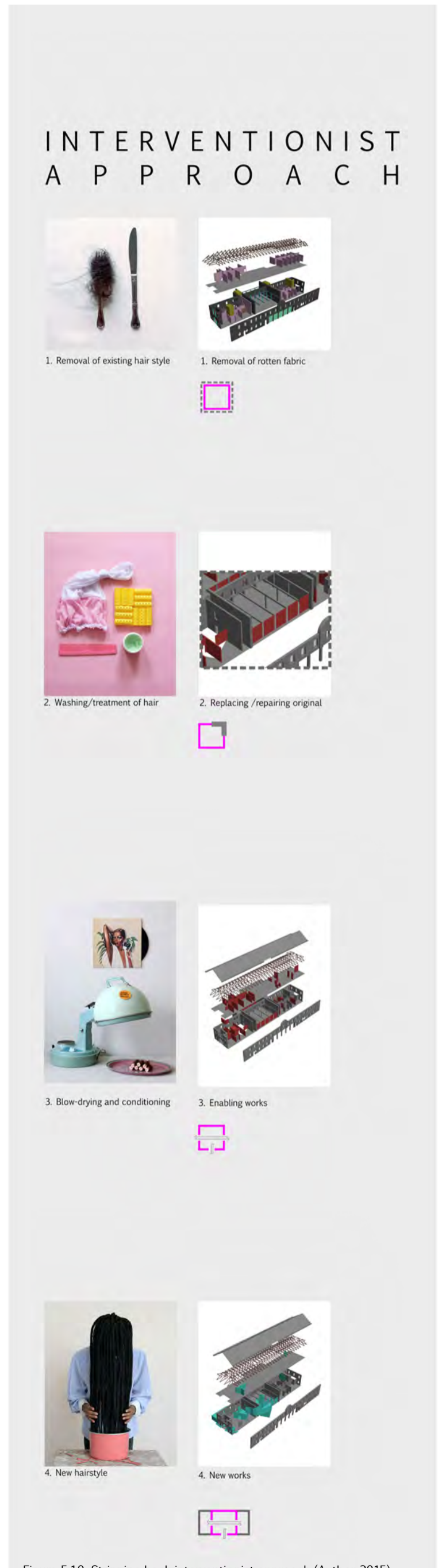


Figure 5.10: Stripping back interventionist approach (Author 2015)

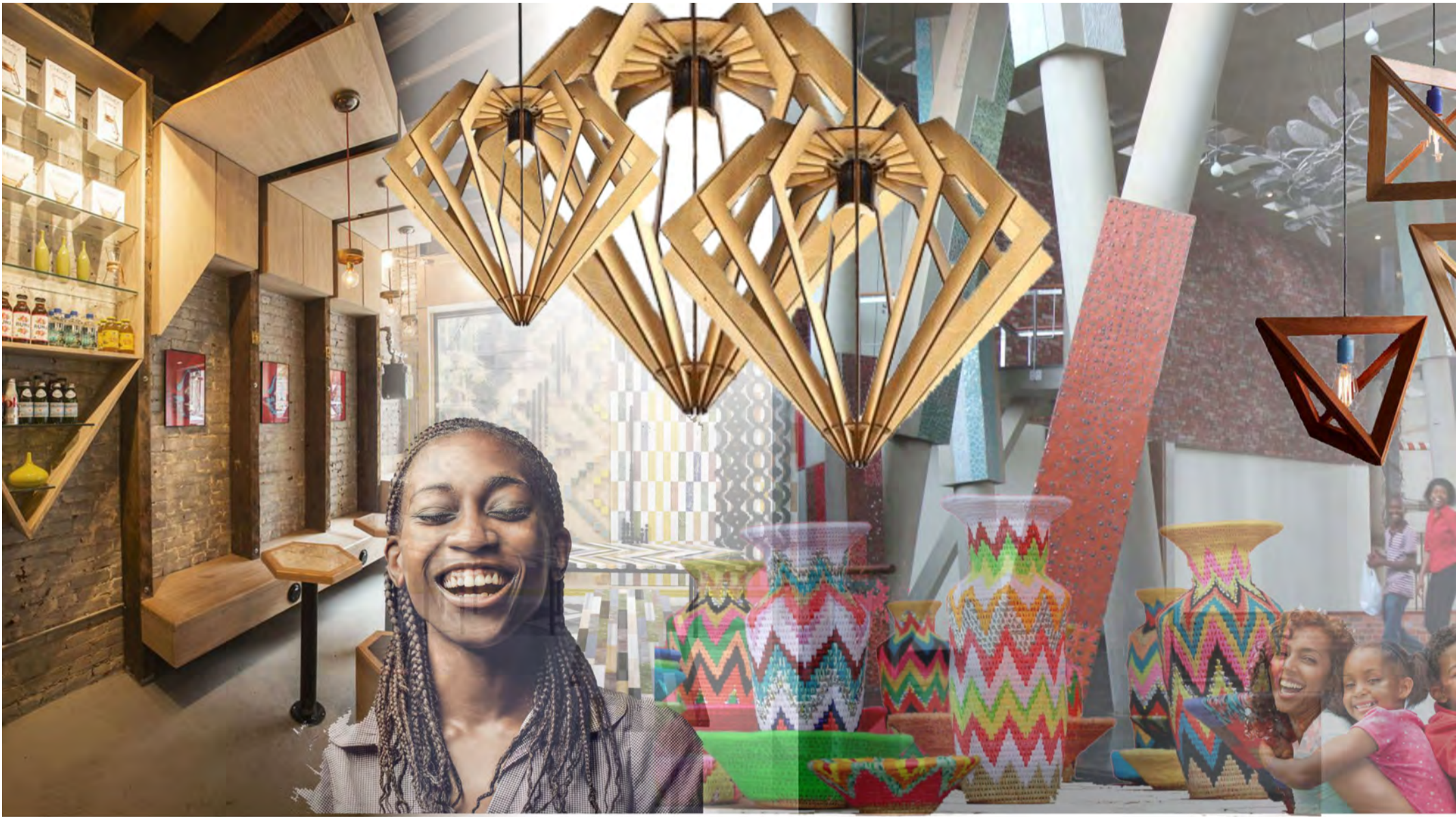
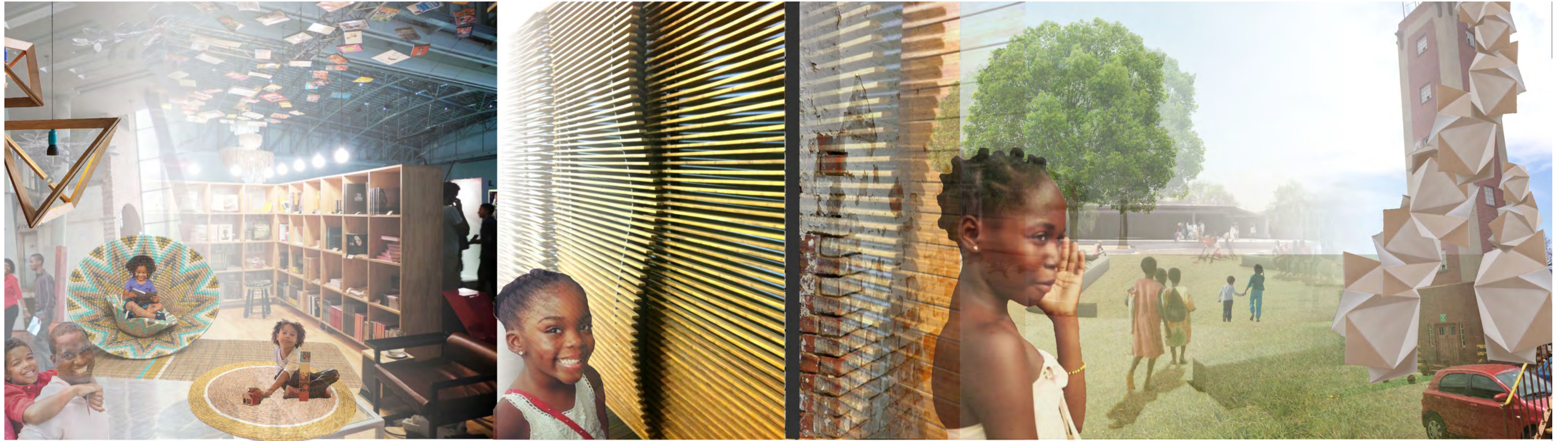


Figure 5.11: Mood board June (Author 2015)





1. Afro bead pendant light (Mr Price Home 2015)
2. African basket wall decor (Shead 2015)
3. Sikholwani decor pots
4. Timber frame chair with basket weaving (Shead 2015)
5. African geometric print (Design Inspiration. 2015)

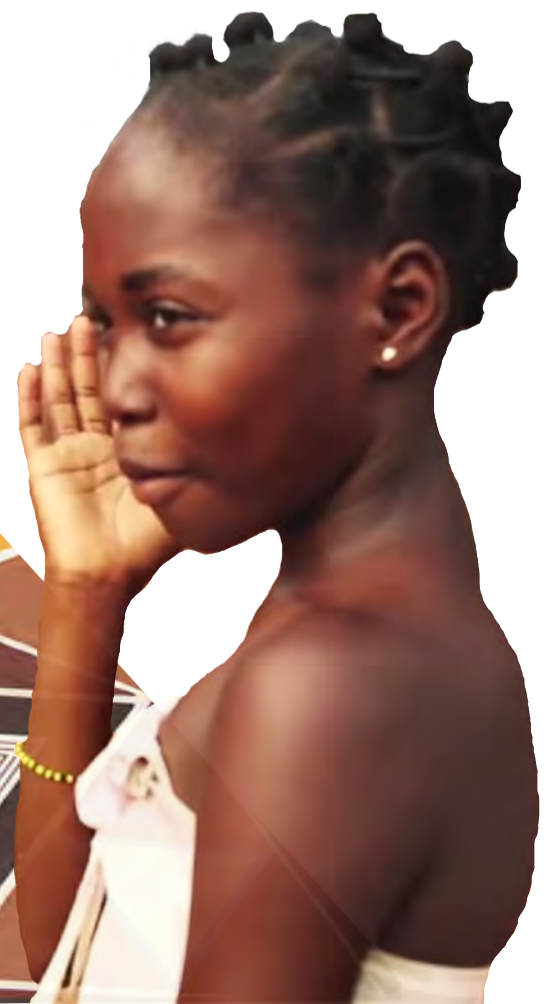


Figure 5.12: Mood board October (Author 2015)

5.6 PROPOSED INTERVENTION

The historical significance of the building can be found in both the tangible and intangible aspects of the building. The masculine history of the building gave rise to a contrasting new narrative of African feminism, which is to integrate with the host building, both tangibly and intangibly. The tangible will express the physical connection and transitions between the old and the new whilst the intangible expression looks at creating a programme that challenges the phrase “...Children should be seen and not heard...” (Festial 2015). At Bonang, the girls are encouraged to be seen and heard. The adaptive re-use of the building will be achieved by making use of Fred Scott's interventionist approach by removing rotten fabric, repairing original fabric, conducting enabling works such as demolition, and then installing the new works (Scott 2008:108).

Three major interventions are highlighted as means of expression for the new narrative in the host building. The interventions are a new foyer that punctures out of the Old Pretoria Fire station visibly altering the existing conditions, a lecture auditorium which encourages conversations that are pertinent to the AGC to be held there, and a staircase that steps away from the conventional staircases that are already within the interior of the building.

The three interventions are all transitional spaces, the foyer and staircase representing physical space, whilst the auditorium focuses more on a mental transition.

5.7 PLAN DEVELOPMENT

The site is currently accessed from Minaar Street for both private and public users; the new intervention proposes reinstating the original entrance way that is located on Bosman Street. This relocation of the main entrance will reactivate the façade and draw in more people.

The existing circulation within the building is of a linear type with solid brick walls guiding the user through a maze of spaces that cannot be perceived from the outside. The closed, linear nature of the interior environment is to be challenged by introducing dynamic circulation routes through the interior environment, placing fewer limits on how the centre user moves through the spaces. Walls are to be demolished to make way for these activating circulation pathways. The pathways are inspired by informal foot paths that over time become a formalised route due to continuous use.

The circulation paths are arranged as a consequence of furniture arrangement and appear informal in nature as they do not relate to the rectangular geometry of the building.

The deviation of circulation from the linear to dynamic is also a reference to African feminism and its divergence from a previously white, supremacist, patriarchal society.

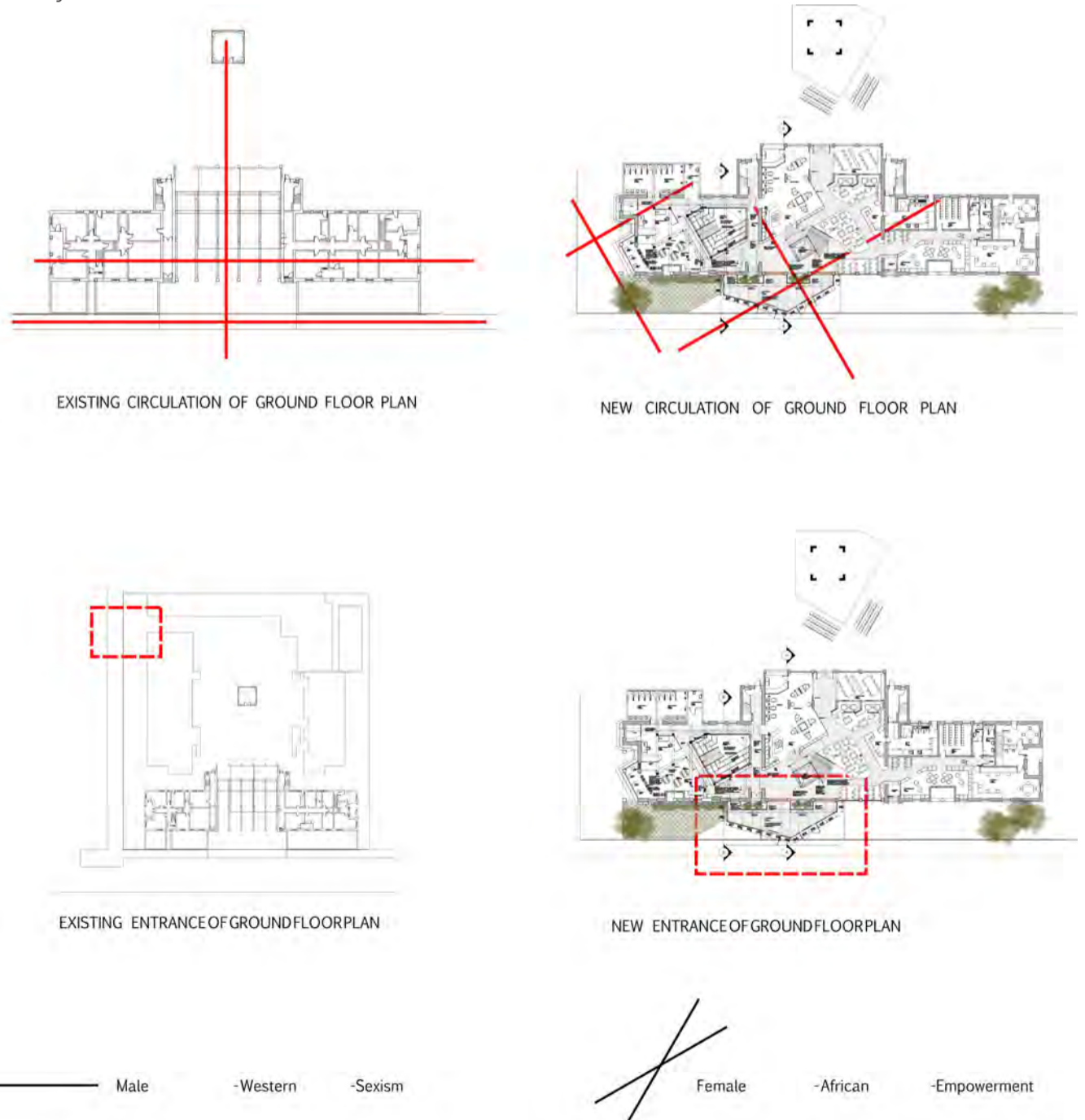


Figure 5.13: Existing and proposed entrance at circulation at OPFS (Author 2015)

5.7.1 Design draft– June 2015

The design of the floor plan at this stage (June 2015) sought to activate the façade by extending the foyer space out of the existing façade. This intervention (figure 5.14) was mimicked on the façade found on Minaar Street, extending the covered entrance and balcony. The central space in which the restaurant and hair salon are located is extended into the courtyard space. The extension of the building is intended to signify the African girl child making her mark and pushing boundaries within the city centre.

The chosen intervention was achieved by means of computer aided modeling of the building, whereby the scale of the intervention was tested against the existing facade of the building.

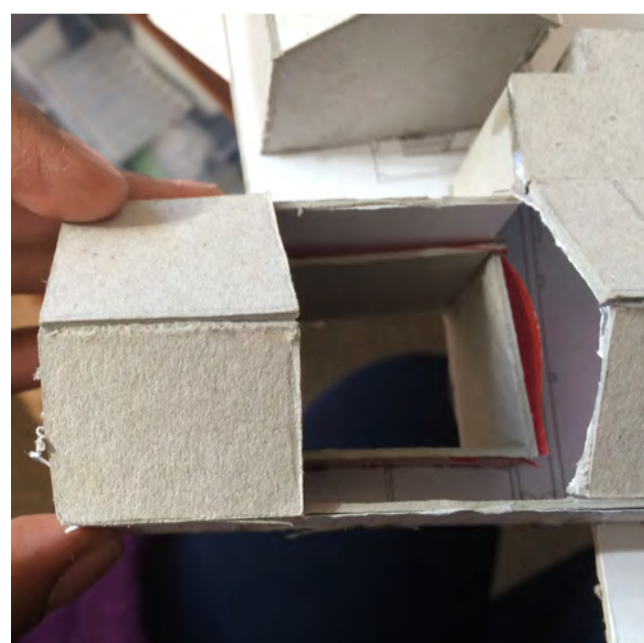
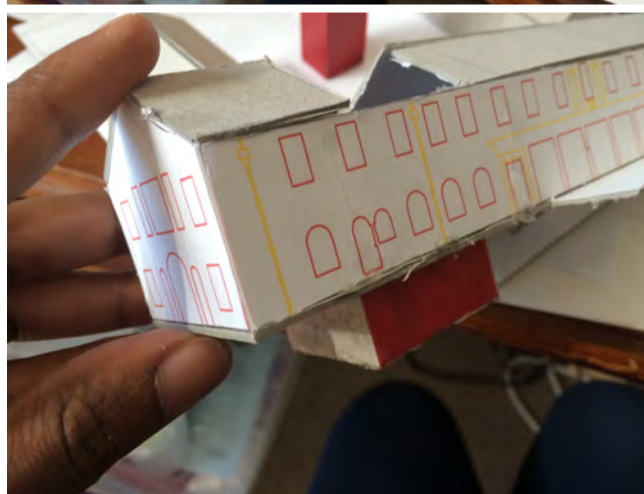
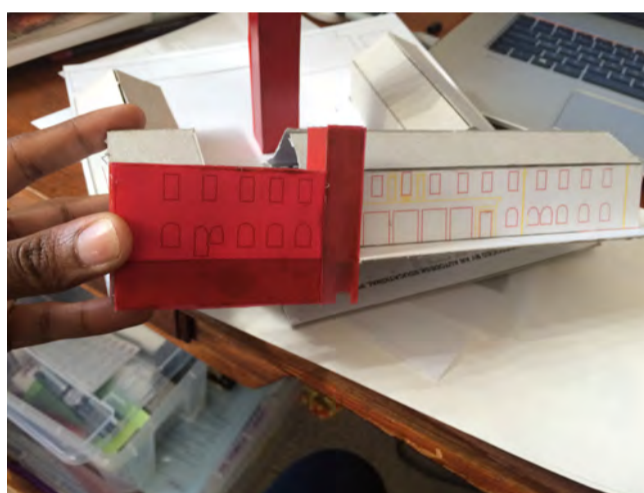
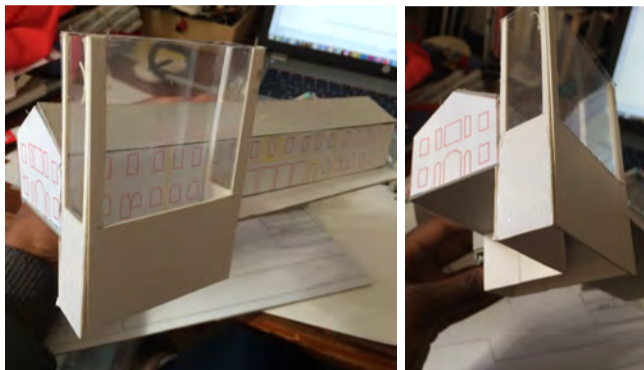
The second draft (figure 5.15) of the façade intervention was completed on computer in order to better observe the outcome. The first draft intervention was identified as being extreme in its scale and overpowering to the existing façade. The second draft for the façade redesign looks to refine and cut away at unnecessary additions to the floor space.

The structural columns underneath the new intervention are to mimic the African comb; they create seating area, a pause space within the city, and a place for conversation.

The intervention will represent African feminism and the “masculine” nature of the building being integrated with the new feminine use of the building to become a place of empowerment. The angular and slanted new intervention goes against the strictly vertical or horizontal planes of the existing building, given that it is bold in its newness, being integrated where it can, and creating new boundaries where possibility exists, thereby changing the footprint of the existing building and aiding in creating a footprint for the African girl child within the city.

Critique of design draft

The intervention was considered too overpowering and not sensitive to the heritage of the host building. The canopy of the façade intervention and the extension of the restaurant and hair salon into the courtyard were thought as being unnecessary since the host building already offered ample space for the new programme to be implemented.



1

The initial model was an extreme intervention that sought to scale the building up so that the tower did not overpower it.

2

On this model the existing basement level underneath the office is extended towards the street facade to create an auditorium on the inside of the building.

Black hair salons have music or an African movie playing which typically becomes background noise. The auditorium is to mimic this element in hair salons but in a formalised manner. The space could be for lectures.

3

On this model I looked at using the auditorium space but also trying to mimic the tower in the courtyard through the vertical circulation that I am introducing on the facade.

I also looked at making use of the landscape area on the front of the building on Bosman street and creating craft spaces (metal works, woodworking, beading, pottery etc that also relate to the materials that were found when a mine was discovered on site during renovations.

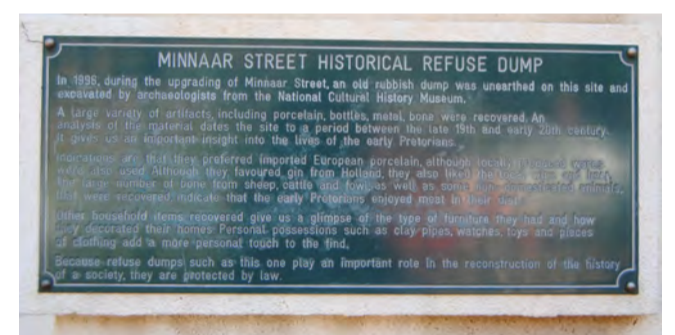
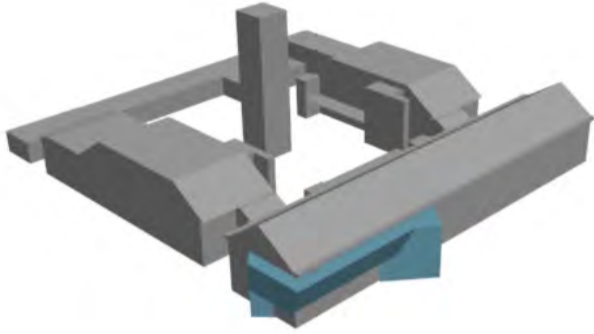


Figure 5.14: Draft 1 process models for the façade intervention (Author 2015)

FACADEINTERVENTIONMASSMODELS

Computer mass models were used as a quick means to investigate the effect of the intervention on the facade

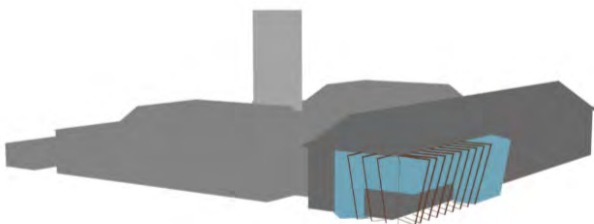


1

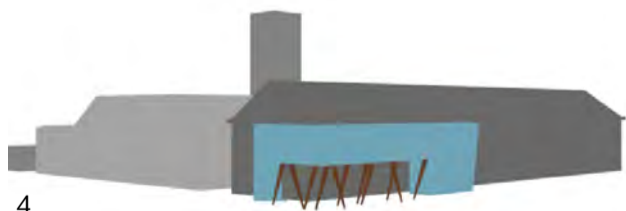


2

1&2: A wrap around intervention that appears on Minaar and Bosman streets.



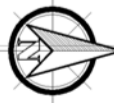
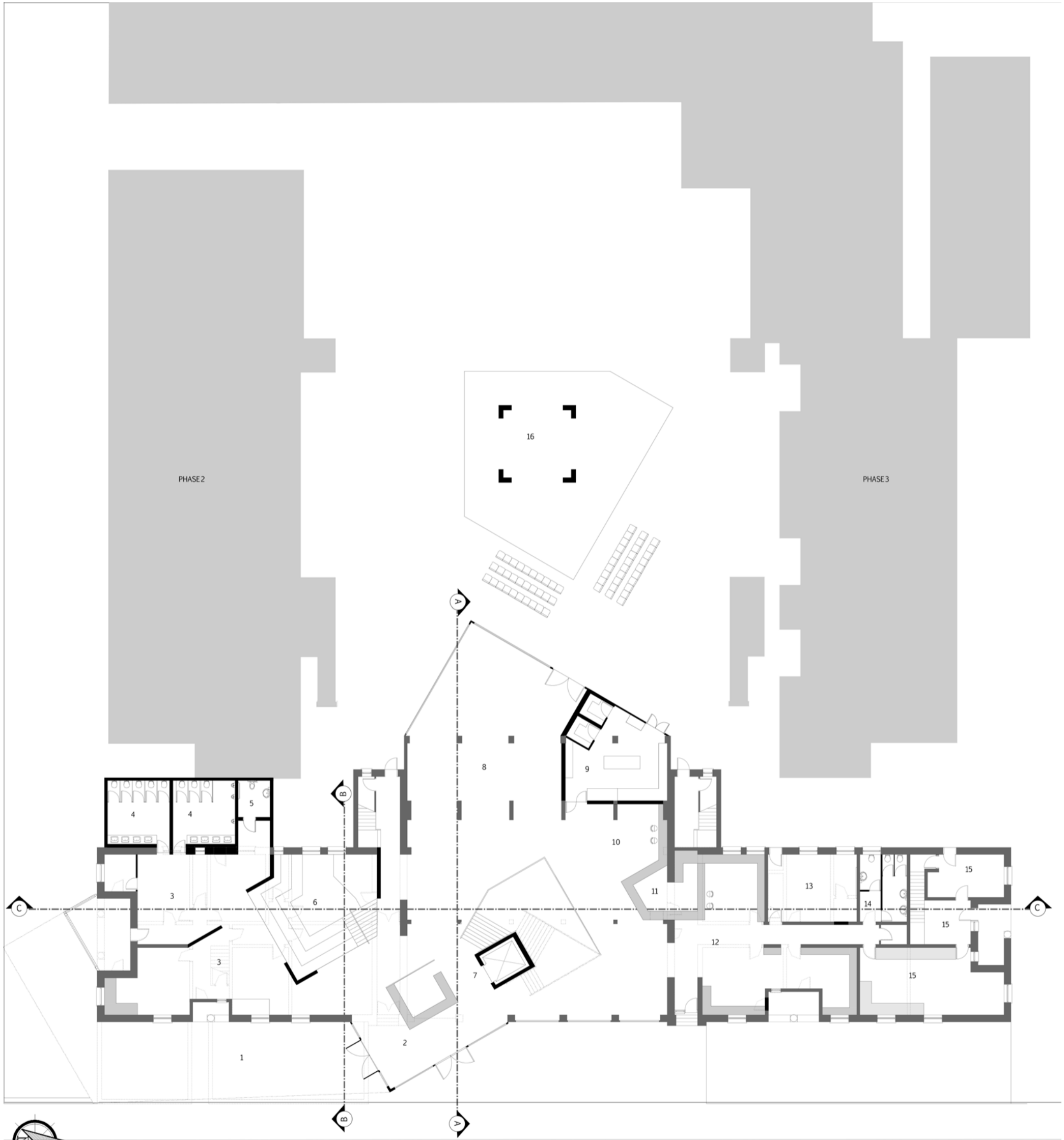
3



4

3&4: The intervention support structure was mass modeled which would incorporate a canopy, waiting space under the intervention.

Figure 5.15 Draft 2 process models for the façade intervention (Author 2015)



GROUND FLOOR PLAN
SCALE 1:100

- LEGEND
- 1. Covered entrance way
 - 2. Reception
 - 3. Tailoring workshop
 - 4. Male and female ablutions
 - 5. Accessible ablution
 - 6. Auditorium
 - 7. Elevator
 - 8. Hair and beauty workshop
 - 9. Kitchen
 - 10. Restaurant
 - 11. Restaurant counter
 - 12. Internet cafe and bookshop
 - 13. Training workshop
 - 14. Ablutions
 - 15. Homework/ study rooms
 - 16. Courtyard stage
- Existing walls
 - Demolished
 - Existing buildings on site

Figure 5.16: Ground floor plan- June 2015, not to scale (Author 2015)

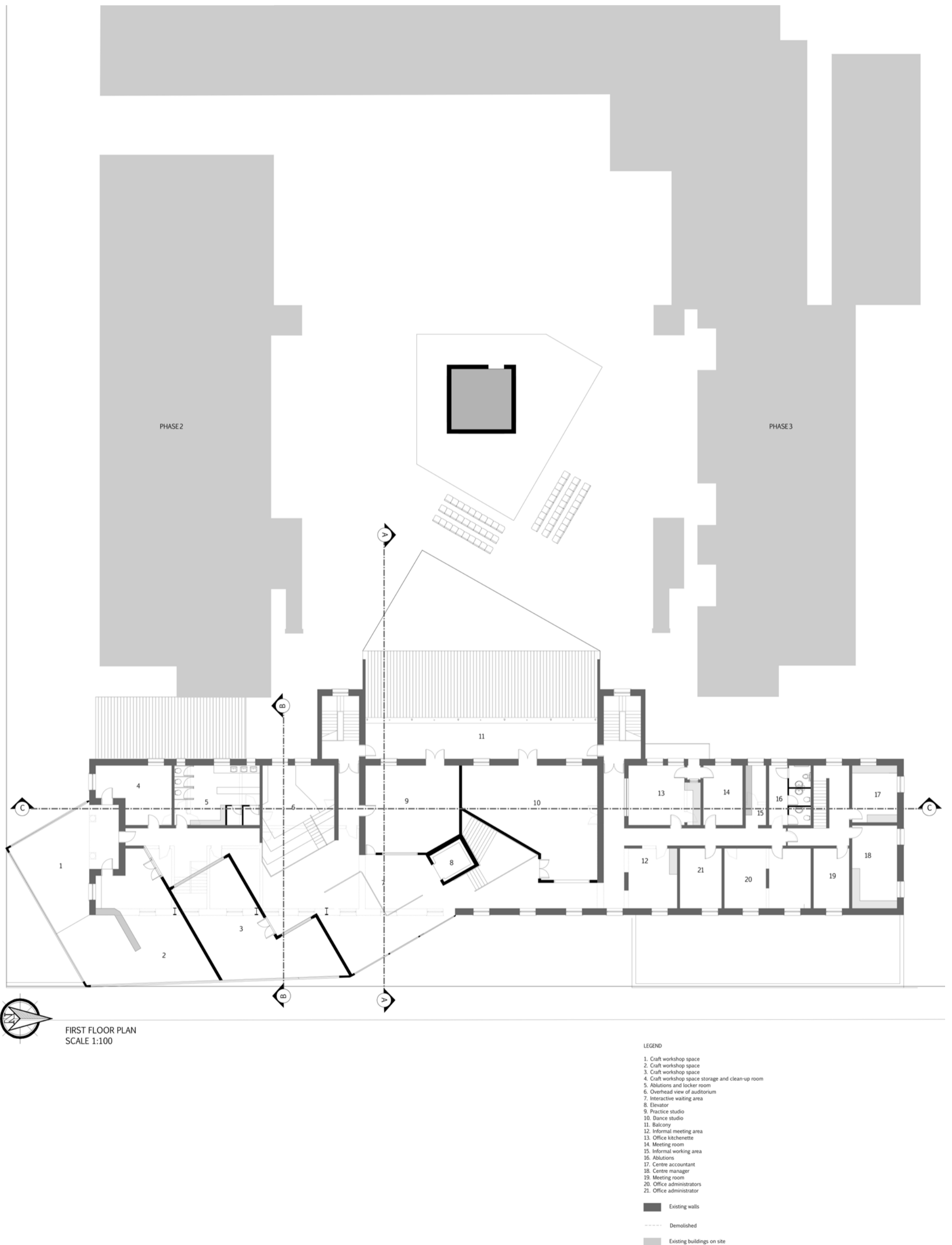


Figure 5.17: First floor plan- June 2015 , not to scale (Author 2015)

5.7.2 Design draft – October 2015

The design draft has developed into a more refined version of the previous document presented in June. The conceptual approach remains and is further improved upon by removing the canopy space that the façade intervention would create, instead extending it to become a foyer space on ground level whilst accommodating a multi-functional space on the floor above.

The original intervention had two doors with which to access the new entrance, leading into an open plan reception space. This has been developed to have three access routes that guide the user into the building by leading them to the auditorium, the main circulation (elevator and staircase) and towards the restaurant and bookstore.

The outward protrusion on the Minaar street façade has been redeveloped and manifests as an inward projection that opens up the corner of Minaar and Bosman Street. This deviation from the solid, impermeable façade allows an alternative view into Bonang, adding a layer of transparency, a peek into what the girls are busy with.

The auditorium initially intended to be a speaking and performance space was identified as being more apt if it were only a speaking auditorium. This changed the design of the auditorium that originally had railing height glazing all around to being fully glazed to allow only visual connection rather than an auditory connection with its surrounding uses and passers-by.

The staircase remained in its central location whilst its orientation and aesthetics were re-iterated to suit the new design language as per the mood board (figure 5.12). This will be discussed further in Chapter 6 (6.3)

The auditorium in section BB (figure 5.18) shows that the auditorium is sunken below the building's finished floor level. This was done to extend an existing basement level located in this part of the building and allow the AGC to have an impact on the building on all three levels as she fully occupies the spaces within Bonang. The AGC not only extends her boundaries in breadth (seen on plan) but also in depth (shown in section), which is symbolic of the inward and outward expansion she will experience and create in her life and ultimately in her community.



Figure 5.18: Ground and first floor plans- October 2015 (Author 2015)





Figure 5.19: Section A-A (Author 2015)



Figure 5.19: Section A-A (Author 2015)



Figure 5.20: Section B-B (Author 2015)

5.8 CONCLUSION

The design development chapter offered a starting point for the design and aesthetic interpretation of African feminism in Bonang. Conceptual ideas such as the deviation from the linear circulation in the existing building, the re-interpretation of African patterns and materials were identified as well as the connection between black hair alteration methods and the interventionist approach. The proposed design seeks to instil pride in the AGC concerning her African heritage that she need not abandon it to succeed in a previously white, supremacist, patriarchal society. The re-iterative process of drawing plans and sections, building models and mood boards allows for a reflective outlook that peels away at any layers and design decisions that are no longer necessary. The design development process aided in the selection of 3 interventions will be further detailed in Chapter 6, Technical investigation.





CHAPTER 6

TECHNICAL INVESTIGATION

6.1 INTRODUCTION

This chapter focuses on detailing of systems, materials and structural and component connections that manifest in the design. Of importance is how the new intervention integrates into the host building, creating an interface within which the AGC can be comfortably interacted.

The three interventions to be detailed relate to the tripartite oppression that the AGC experiences, namely; race, gender and power, which deal with aesthetics, representation and empowerment. How each addresses the respective oppression will be discussed in detail in the rest of the chapter



6.2 APPROACH

The technical resolution and detailing must be contextually appropriate, taking into consideration material, colour and connection choices. The approach is a result of analysing the spatial qualities of informally designed spaces (figure 6.1). These findings are to be applied in the design investigation.

6.3 MATERIAL AND COLOUR STRATEGY

The material and colour strategy is influenced by elements found in the context.

6.3.1 Colour strategy

The colour strategy for the centre draws inspiration from hair salon signage that is commonly found in an African hair salon setting. The colours are rich with earthy undertones.

6.3.2 Material strategy

The chosen materials are decided upon by a criteria that is listed as follows;

6.3.2.1 Functionality

A material needs to first be functional before it can be aesthetically pleasing, this is noted in the imagery of informal housing whereby food packaging is used as wall paper to keep the cold and wind out. The end result is a visually striking place but functionality is key.

6.3.2.2 Sustainability

This is to be done by incorporating modularity in the design so that materials are easily replaceable without having to demolish a whole structure to fix a part.

6.3.2.3 Lighting

The demolition of walls within the African girl child centre will encourage a greater dispersion of daylight and artificial lighting this is to further be heightened by the application of materials with colour rendering that will permit the reflection and distribution of light.

DESIGN INFORMANTS

SPATIAL QUALITIES OF INFORMALLY DESIGNED SPACES

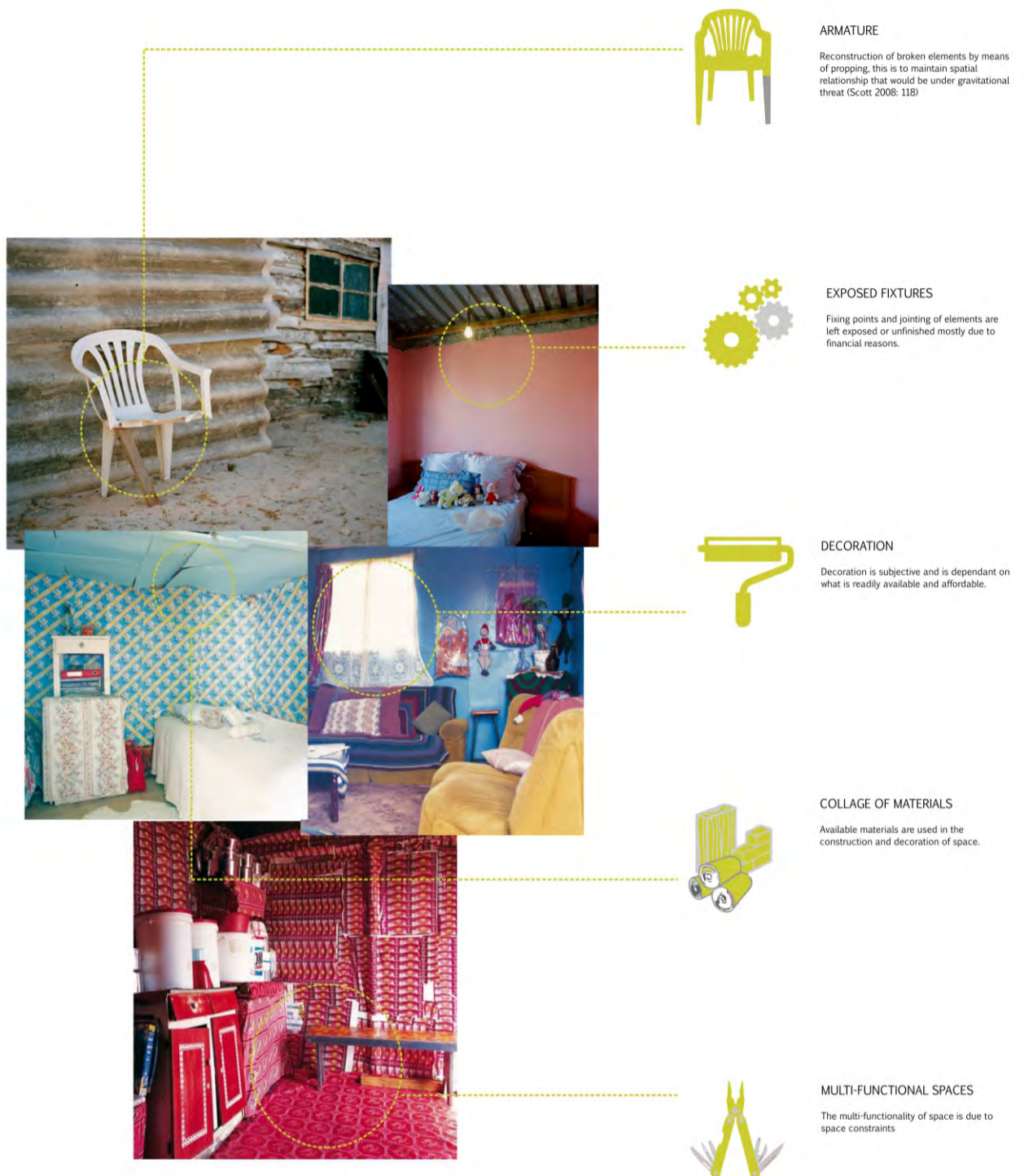


Figure 6.1: Spatial qualities of informally design spaces (Author 2015)

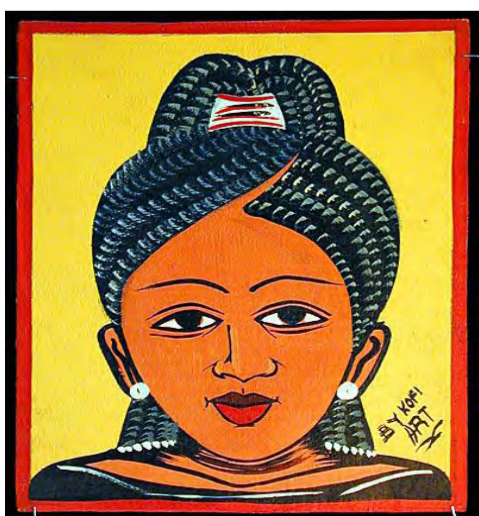


Figure 6.2: Hair salon signage (Museum of uncut funk 2012)

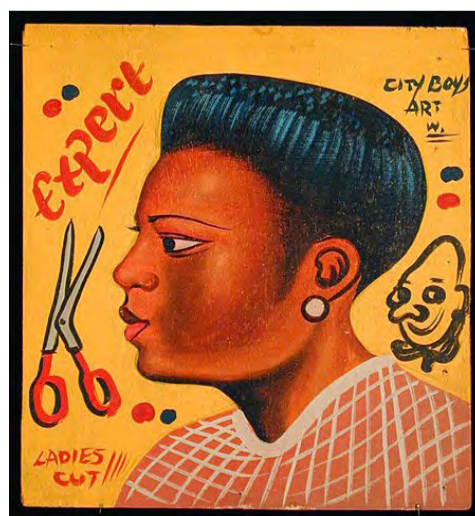


Figure 6.3: Hair salon advert (Museum of uncut funk 2012)

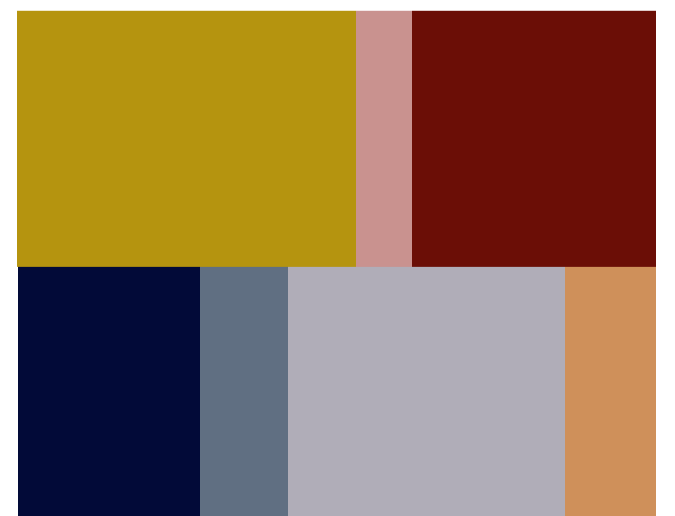


Figure 6.4: Bonang colour palette (Author 2015)

6.4 FAÇADE INTERVENTION

The façade is symmetrical in its design and the intervention adds a break in the symmetry, announcing the new use proudly. The deviation from the existing symmetry relates to what occurs on the floor plan level.

The façade intervention underwent a re-iterative process discussed in Chapter 5 (5.7.1). The final form of the foyer being resolved led to the next iterations which required refining the design and detailing the form as shown in figure 6.1

The intervention was originally intended to be an extension of the reception area downstairs and contain a multifunctional space upstairs. The multifunctional space remains upstairs (figure 6.3) but the programme has changed to a foyer space downstairs (figure 6.2), a transitional space that connects the exterior to the interior, orientates the user with orientation information boards, and allows for conversations to take place.

6.4.1 Thermal comfort

Thermal comfort is concerned with the comfort zone range within which the human body can adjust to the environment; this range is considered to be between 16 and 32°C in terms of temperature. The ideal temperature is 21-22°C.

The design of buildings that consider the comfort of the user results in an environment that encourages “...productivity, health and mental and physical energy” (Holm 1996: 6). The thermal comfort of the foyer building is of concern as it is a North-Easterly facing building. This orientation may cause thermal comfort concerns in the warmer months. Solar control devices should be considered to reduce solar gain. Holm (1996: 11) states that it is recommended that summer sun be screened between solstices and winter sun be allowed to penetrate. This is a factor that is considered in the design.

6.4.2 Visual comfort

The majority of lighting in the foyer and multifunctional mezzanine will be natural daylight so as to refrain from increasing the energy consumption of the building. Daylighting is implemented in a diffused manner by means of translucent materials and shading screens. Artificial lighting will complement the daylighting method and will be an advantage on overcast days.

Reflective indoor colours will be used as a means of further enhancing the daylight penetrating the foyer.

6.4.3 Ventilation

Passive ventilation is considered a means of achieving thermal comfort in the new structure. The Pretoria climate zone experiences both dry and rainy seasons, strong solar radiation and moderate humidity levels. Wind direction in summer is east-north-easterly to east-south-easterly while in winter it is south-westerly, minimum north-east. The summer wind is ideal for the north easterly and south easterly facing façade intervention.

6.4.4 Designing for comfort and climatic consideration

EcoTect was used to assess the amount of daylighting coming into the foyer and to ascertain how visual comfort could be reached by the application of a shading device.

A model was built with no shading device and tested (shown in figure 6.4 number 1) and a second model was built with a shading device and tested under the same climatic conditions (shown in figure 6.4 number 2). The screen which acts as a shading device reduces the lighting levels from 1700 lux - 4100 lux to between 500 lux - 2100 lux. This reduction in lux levels results in better visual comfort within the foyer.

Following visual comfort, the issue of thermal comfort and ventilation needed to be addressed. The building was originally intended to have solid glass glazing but this, as a design decision, would raise the temperature of the foyer and permit minimal ventilation into the space. Louvre windows were proposed as a solution, allowing for passive ventilation to occur in the space, therefore, a better suited thermal comfort for the space.

Of importance in the foyer design is the shading device that will permit ample daylight but also allow for cross ventilation to occur. The Biomedical Research Centre in Pamplona, Spain was investigated as a case study on how such a shading device could be designed.

Architects: Vaíllo & Irigaray & Galar

Location: Pamplona, Spain

Architects: Vaíllo & Irigaray & Galar - Antonio Vaíllo i Daniel, Juan L. Irigaray Huarte

Client: Navarre Health Service

Cost: 18,000,000 €

Area: 12150.0 sqm

Project Year: 2011

The shading device is constructed from 3mm-thick perforated aluminium panels that shield the façade of the building from the sun. The screens are fixed at a distance from the glazing allowing maintenance of the screen and the glass façade.

The perforations in the aluminium panels permit filtered daylight into the building whilst also allowing for the user to have a visual connection with the exterior, thereby inhibiting a complete block of the view.

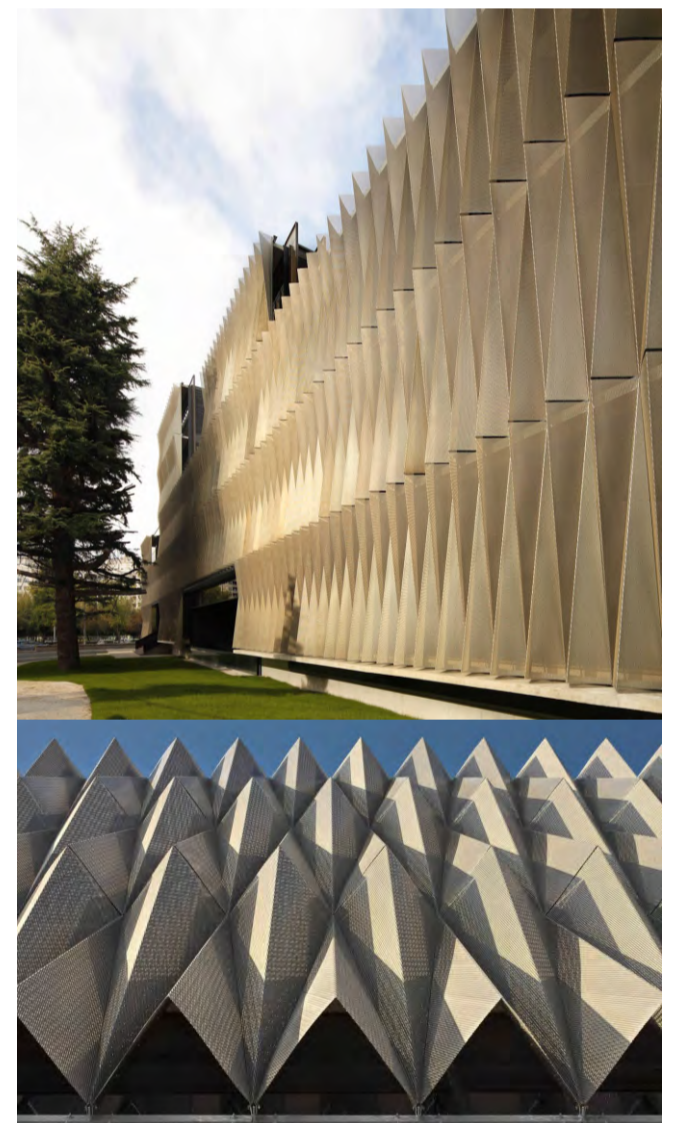


Figure 6.5: Shading device at the Biomedical Research Centre in Pamplona, Spain (Cutillas 2012)

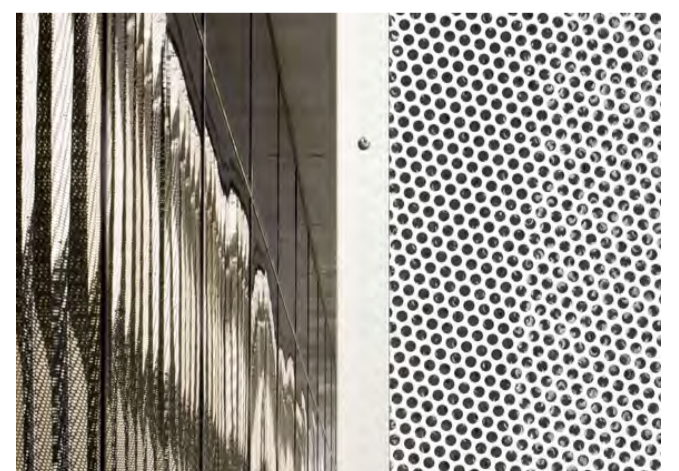


Figure 6.6 Close up of screen material (Pegenaute Studio 2012)

6.4.5 Bonangfoyerscreen design

The screen takes inspiration from that of the Biomedical Research Centre in Pamplona, Spain in that it has slits within the pattern that permit light and air to pass through for better visual and thermal comfort. The slits in the screen draw inspiration from black hair braiding patterns whilst also being staggered to allow for maintenance. The screen is attached to a CorTen weathering steel tube that is in turn fixed to the foyer building framework. The 250mm long fixing tube allows for the screen to be fixed at a distance permitting for the louvre windows to be opened and for maintenance work to be carried out.

CorTen steel is a material that is treated to weather over time and have an oxidised look to it. As the girls change and grow so does the façade structure. The material is a reference to the rusted zinc sheeting that is commonly found in the construction of informal structures. The structure that the foyer space is comprised of is lightweight steel, beams and columns which are glazed with openable louvre windows.

The exploded axonometric drawing (figure 6.9) of the foyer expounds on the various components that make up the foyer.

The connection between the new foyer building and the existing building is by means of a steel plate that is bolted into the new steel columns and the existing brick wall. The foyer structure is self-supported by its foundations yet the connection between the two results in a better integration of the two. This speaks of the manner in which African feminism is not about emasculating the male gender but about working, occasionally, with the male gender to dismantle patriarchy, and with the white race to undo destruction done by white supremacy.

The flooring, walls and ceiling materials within the foyer space are chosen to better enhance the amount of daylight entering the space. The vinyl flooring is prevalent in informal housing interiors; this material has been introduced into the foyer and extends into circulation routes within Bonang. The vinyl flooring, within an informal housing interior, is generally worn out from the wear and tear of daily use as it may not be of the best quality but is the most affordable. Bonang takes this commonly used material and applies it in the space in a better quality; therefore, the girls are able to identify this aesthetic, connect with the space and not feel alienated at or within Bonang.

FOYER

SCREEN: CONCEPTUAL APPROACH

The designed screen draws inspiration from the repeat pattern that is prevalent in African hair braiding. The screens can be arranged to form various patterns on the facade intervention. The screens are to be laser cut from CorTen steel which is treated to weather over time.

The treatment of the steel is in reference to weathered zinc materials that are found in informal settlements but here the aesthetic is celebrated and not a point of shame.

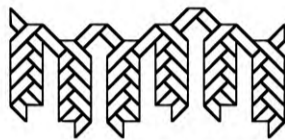


Figure 6.7: Braid pattern (Author 2015)



Figure 6.8: Braid styles (Lym 2015)

Daylight Analysis

Daylighting Levels
Value Range: 500 - 4500 lux
© ECOTECT v6

Ecotect was utilised in testing the effect of a screen on the lighting levels in the foyer.

The screen which acts as a shading device reduces the lighting levels from 1700lux - 4100lux to between 500 lux -2100 lux

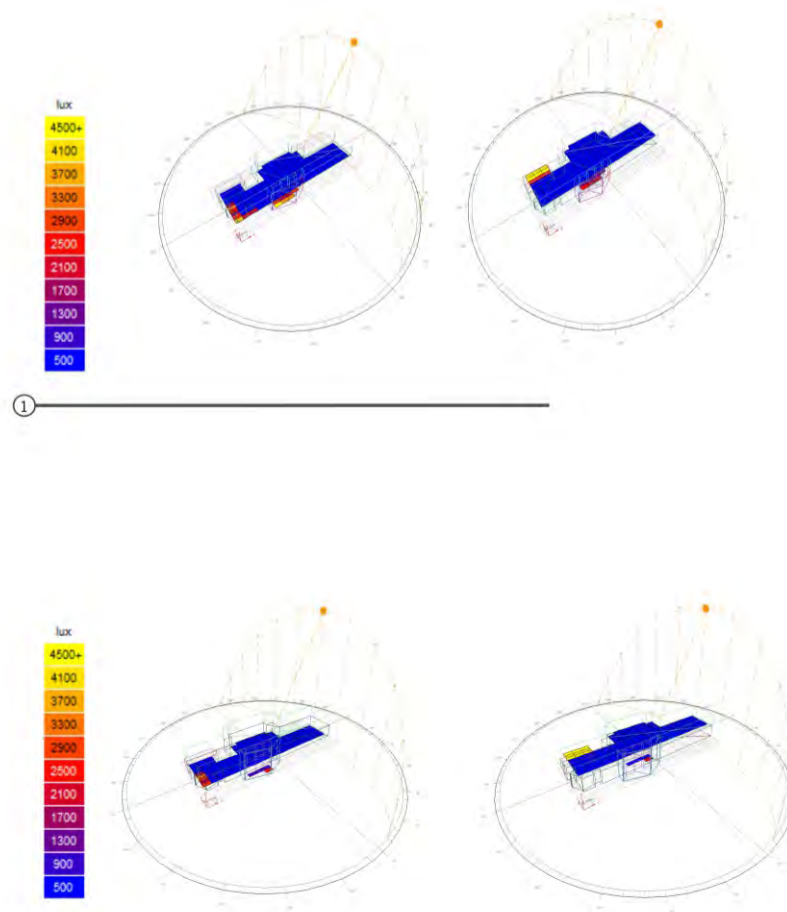
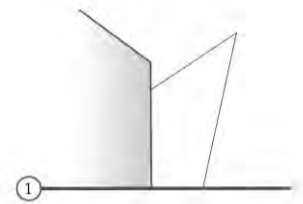


Figure 6.5: Ecotect analysis (Author 2015)

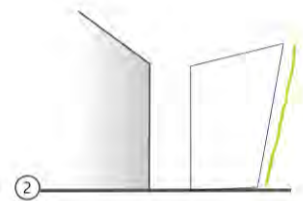
REITERATION: FOYER

The foyer is a space that externally stands proud and announces the new programme for the host building.

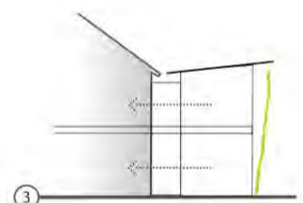
It is programmed to be a transitional space that connects the exterior to the interior, orientates the user and allows for conversations to take place.



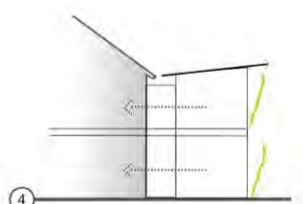
INITIAL DESIGN
Glass facade only
Issues:
overheating of foyer space



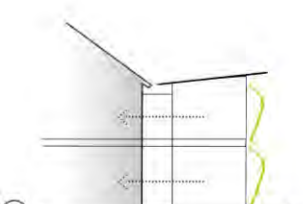
RE-ITERATION 1
Glass facade with screen
Move structure away from host building
Issues:
Roof drainage
Connection between host building and new intervention



RE-ITERATION 2
Glass facade with screen
Move structure away from host building
Connect new intervention with host building with a ramp
Issues:
Roof drainage
Fixing of screen to facade
Modularity of screen



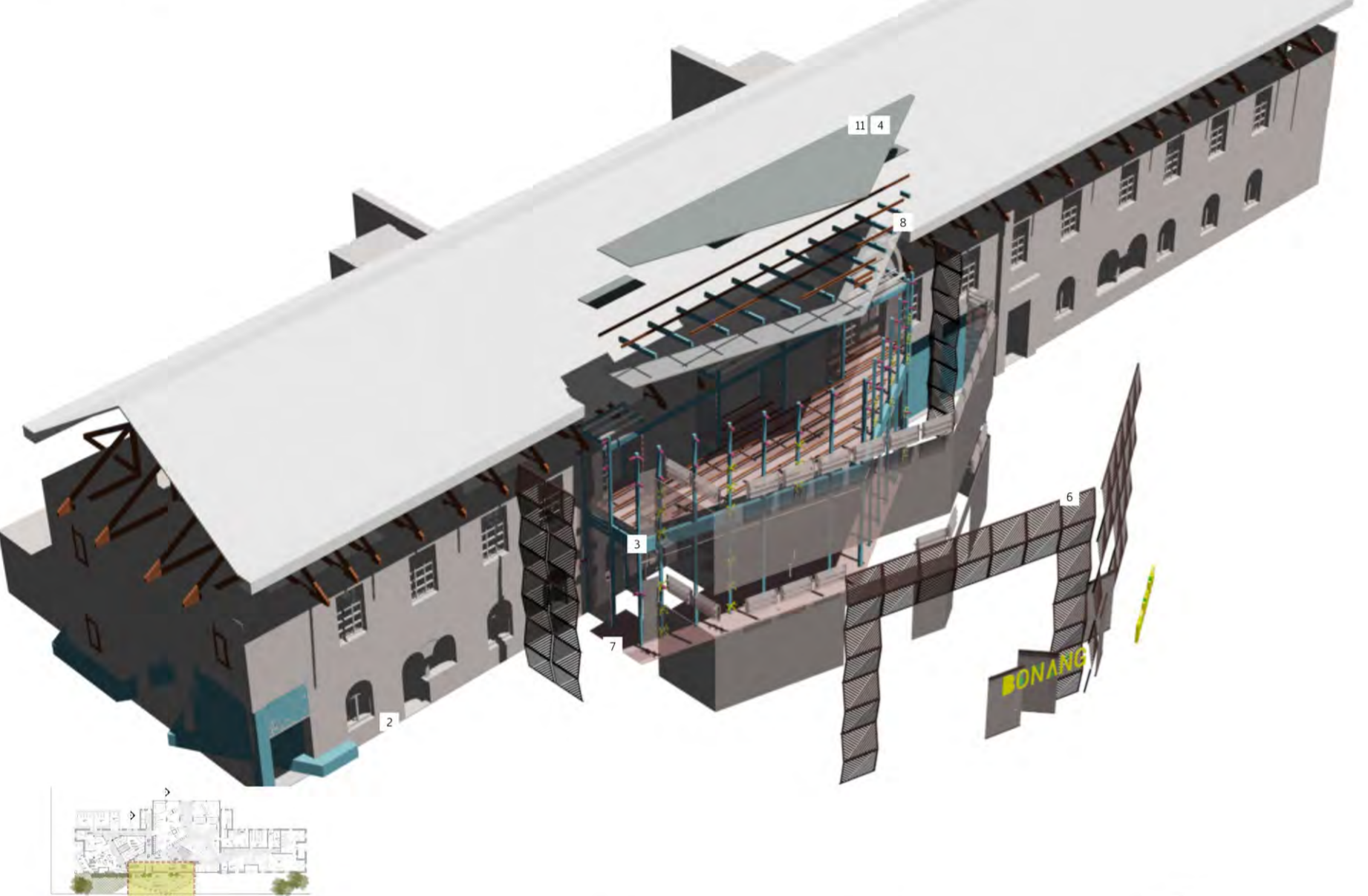
RE-ITERATION 3
Move structure away from host building
Screen to be modular and split on 2 levels
Issues:
Sun angles and its effect on screen



RE-ITERATION 4
Glass facade with screen
Connect new intervention with host building with a ramp
Screen to be modular and split on 2 levels
Redesign screen to suit sun angles in Pretoria

Figure 6.9: Facade intervention re-iteration (Author 2015)

FOYER
The 3 entrances that puncture into and connect to the building are a representation of the tripartite oppression of race, gender and power that the AGC experiences, and of how these three issues become a bridge between the traditional white supremacist, and patriarchal society (the present) and African feminism (the future).



WEAVING INTO THE HERITAGE
The connection between the existing building and the new structure is inspired by the forms of alteration that occurs with African hair. The new structural framework has its own foundations and therefore stands independently of the existing building. The new and old are connected at intervals by a corner steel plate which is fixed to the cold rolled CHROMADEX® structural steel column and existing facade wall using 10mm x 50mm expansion bolts. This connection method permits for the new structure to be removed and the structure and aesthetics of the building to be minimally changed.



The designed screen is designed to be modular so as to allow for sections of the screen to be removed and repaired, allowing the structure to not become redundant in function.

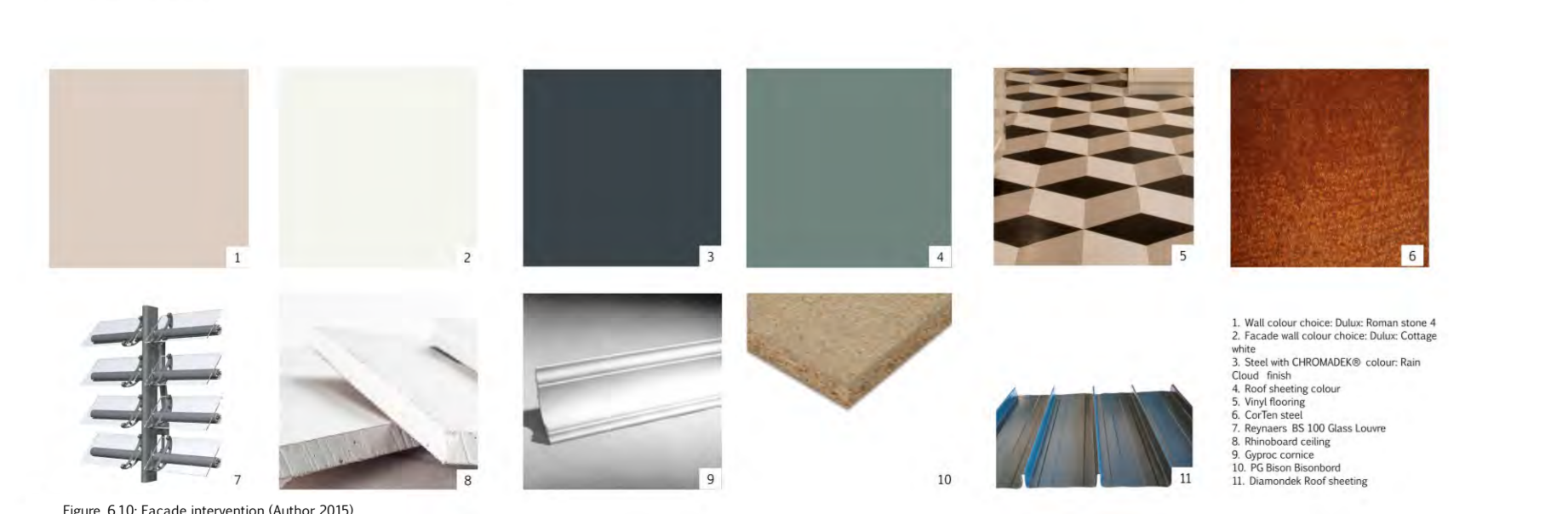
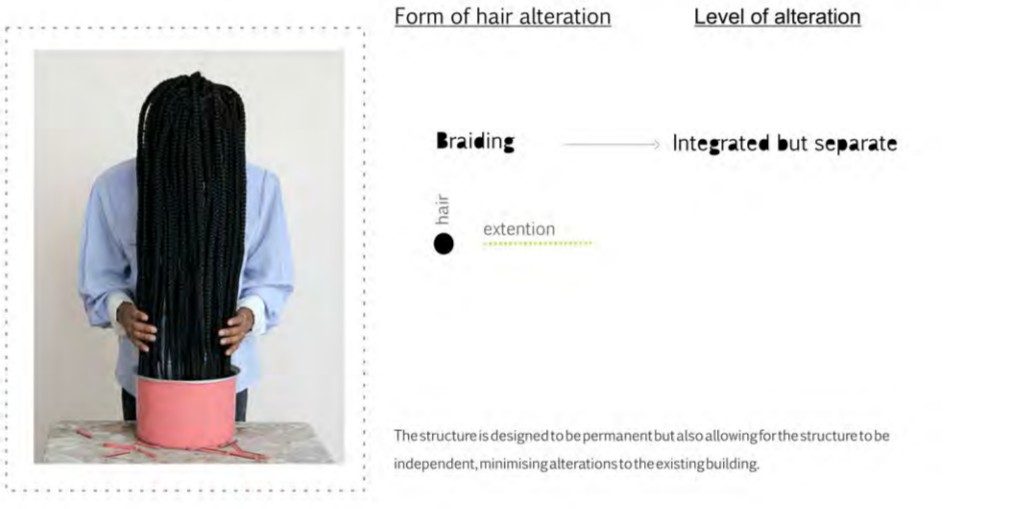
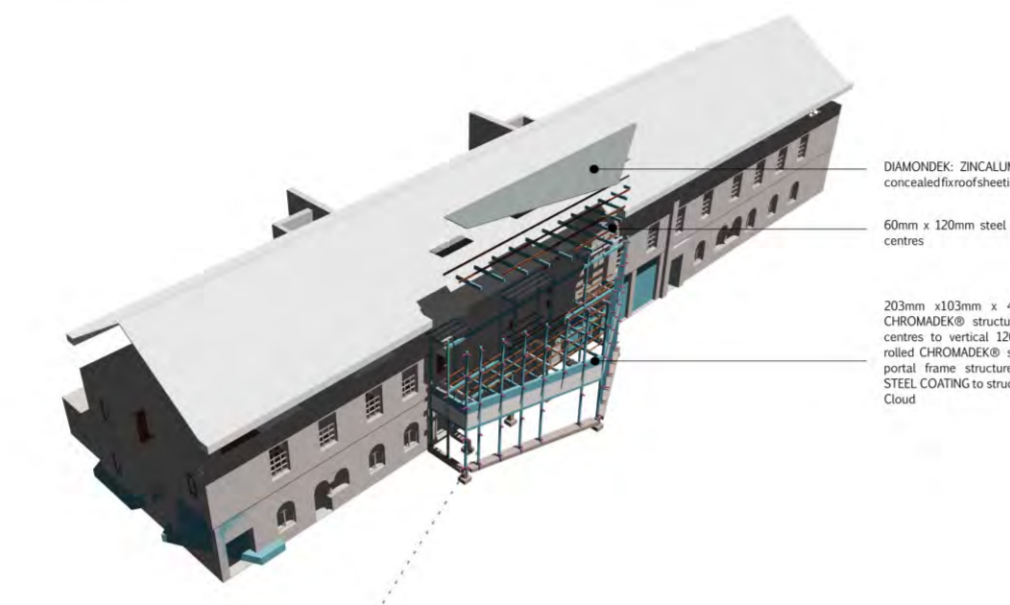


Figure 6.10 Facade intervention (Author 2015)

1. FRAMEWORK

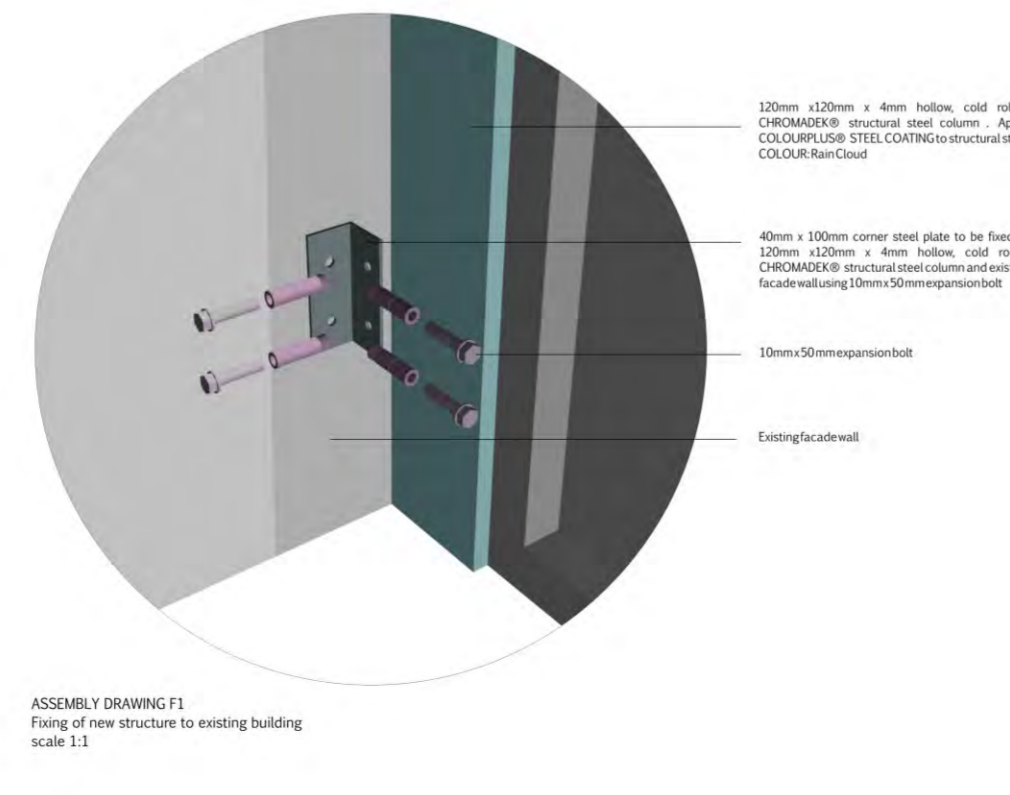


The extension of the boundary speaks to the gender oppression that the AGC experiences. The new structure is a means of representing the AGC in a way that adds a new African layer on the facade.

The cladding and structural soundness is inspired by the oppression of power and how the site and building become more accessible through the new structure.

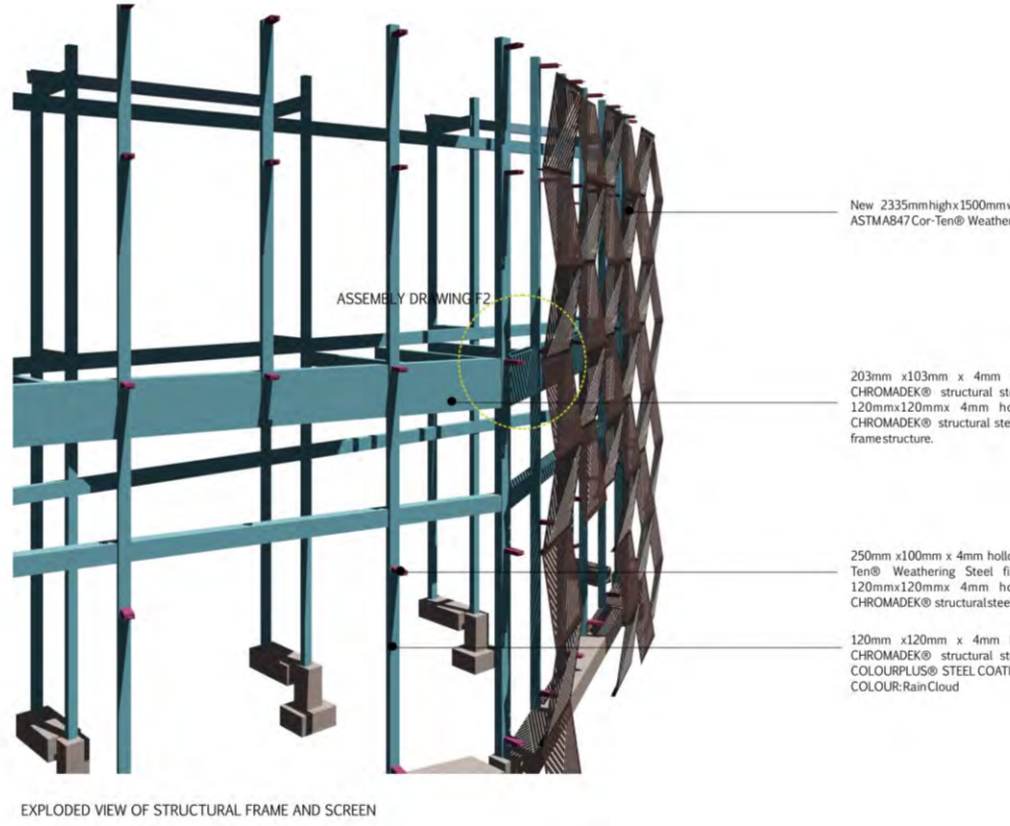
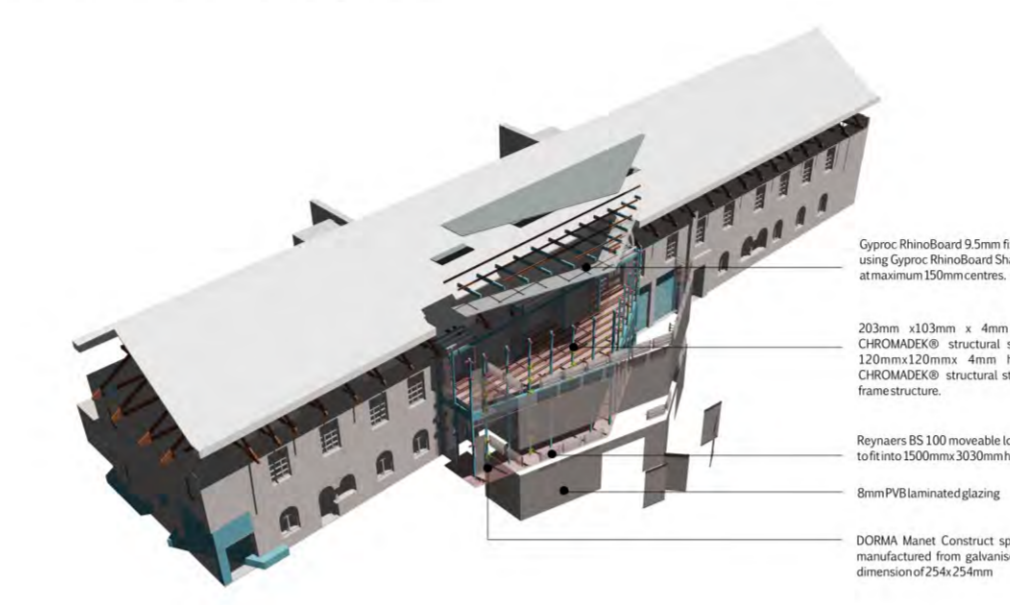
The design of the screen is a result of tackling the race oppression that the AGC by designing a functional element with an aesthetic that draws inspiration from an African aesthetic.

2. CLADDING AND STRUCTURAL SOUNDNESS

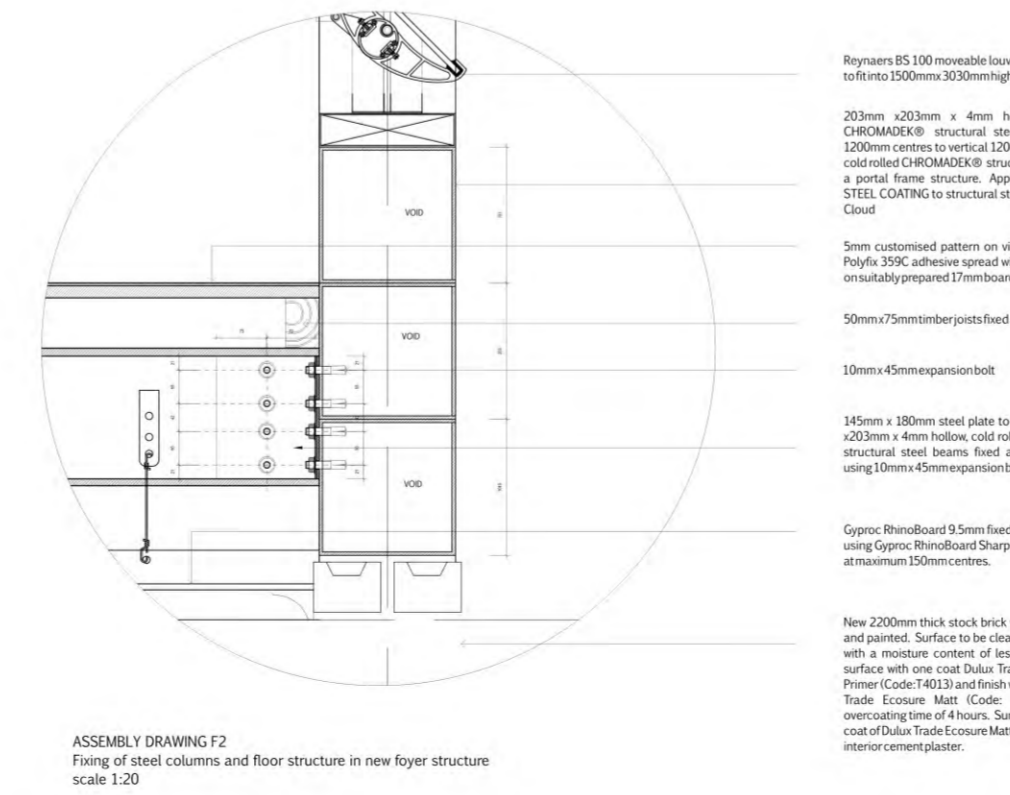


ASSEMBLY DRAWING F1 Fixing of new structure to existing building scale 1:1

2. CLADDING AND STRUCTURAL SOUNDNESS

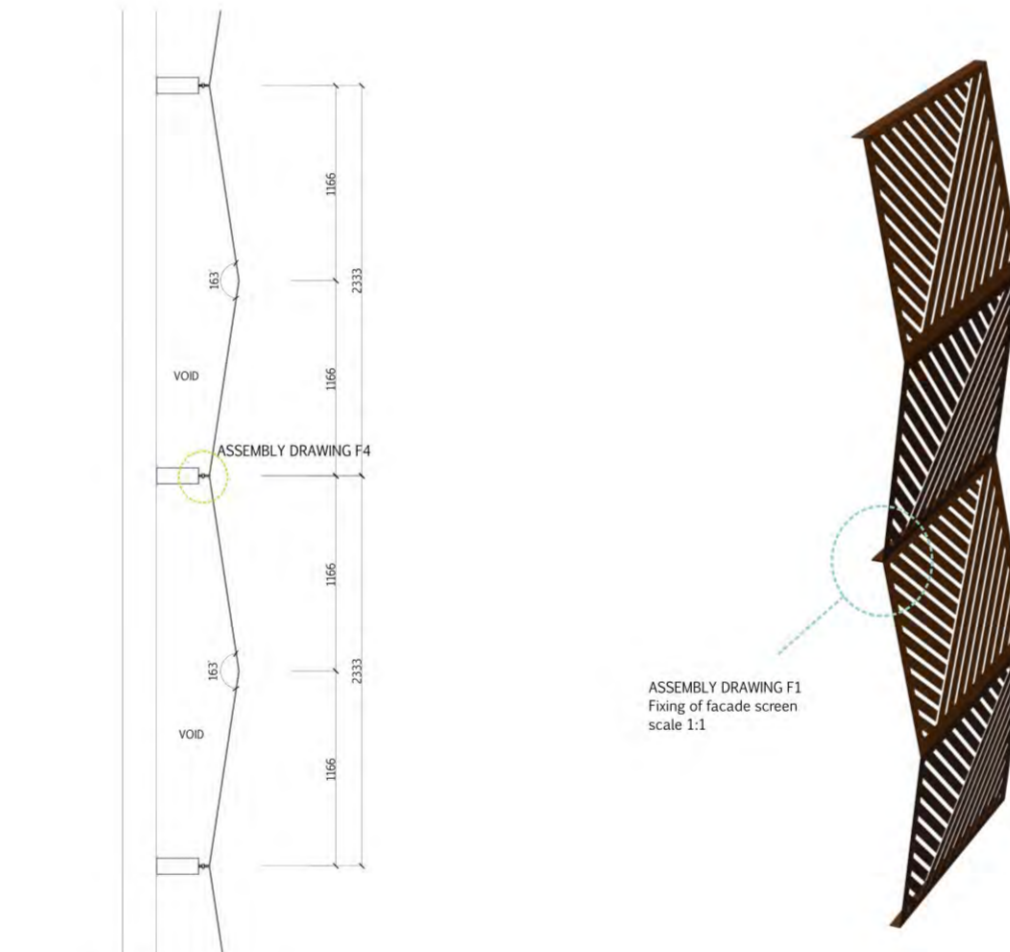
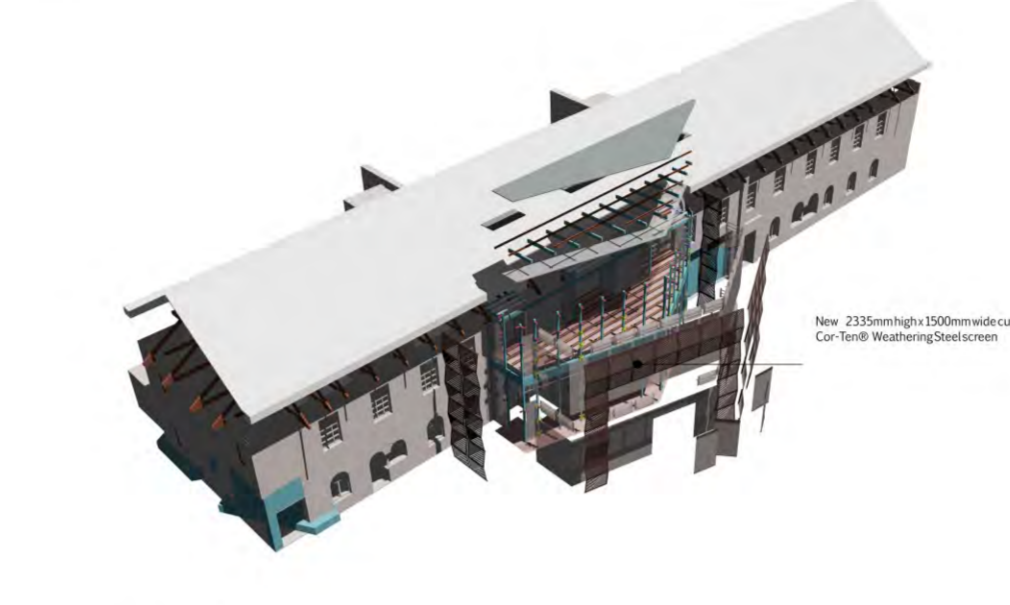


3. SCREEN

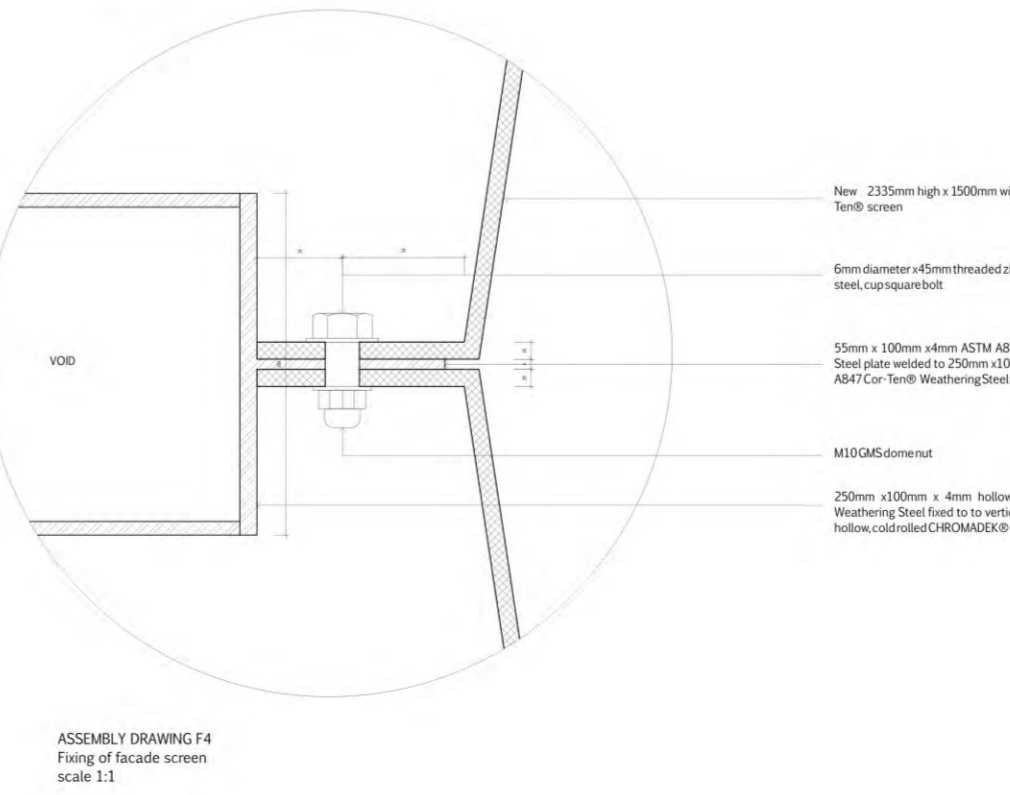


ASSEMBLY DRAWING F2 Fixing of steel columns and floor structure in new foyer structure scale 1:20

3. SCREEN



DETAIL DRAWING F3



ASSEMBLY DRAWING F4 Fixing of facade screen scale 1:1



BOSMAN STREET ELEVATION (n.t.s)



MINAAR STREET ELEVATION (n.t.s)



Architectural rendering of the building facade intervention.

6.5 AUDITORIUM INTERVENTION

The auditorium is a speaking venue for the AGC and for the community. The space is inspired by the Feminist Stokvel, discussed in Chapter 2 (2.3). Talks that engage and empower the African girl child are to take place in this space.

The auditorium is constructed with a lightweight steel framework that is clad in recycled timber (assembly drawing A2) which will be retained from the demolishing that will happen in the building. The main concern for the space was how to keep the surrounding sound out and the sound generated inside in. Depicted in the exploded axonometric of the auditorium (figure 6.11) is AlphaPerf metal acoustic panels that will aid in the absorption of sound generated in the auditorium. The perforations in the panels allow for minimal dust to settle on the panels.

Sound absorption is further enhanced by designing for a slit (assembly drawing A3) in the auditorium seating that will permit generated sound into the void under the seating. The void in the seating contains Foamrite acoustic foam that will absorb the sound. In terms of simultaneously keeping the generated sound in and surrounding noise out, two methods were employed. Firstly, the acoustic glazing was used to permit a visual connection with its surrounding, and secondly, the steel columns that support the glazing are clad in Soniksfoam sound reduction panels with an aluminium sub-frame onto which CorTen weathering steels clad.

AUDITORIUM

1. FRAMEWORK

The auditorium is representative of the trees and spaces under which traditionally conversations, deliberations and decisions were made in a rural setting.

The auditorium is to host debates, information sessions and workshops, such as those by the Feminist Stokvel, (figure 6.9) that empower the African girl child.

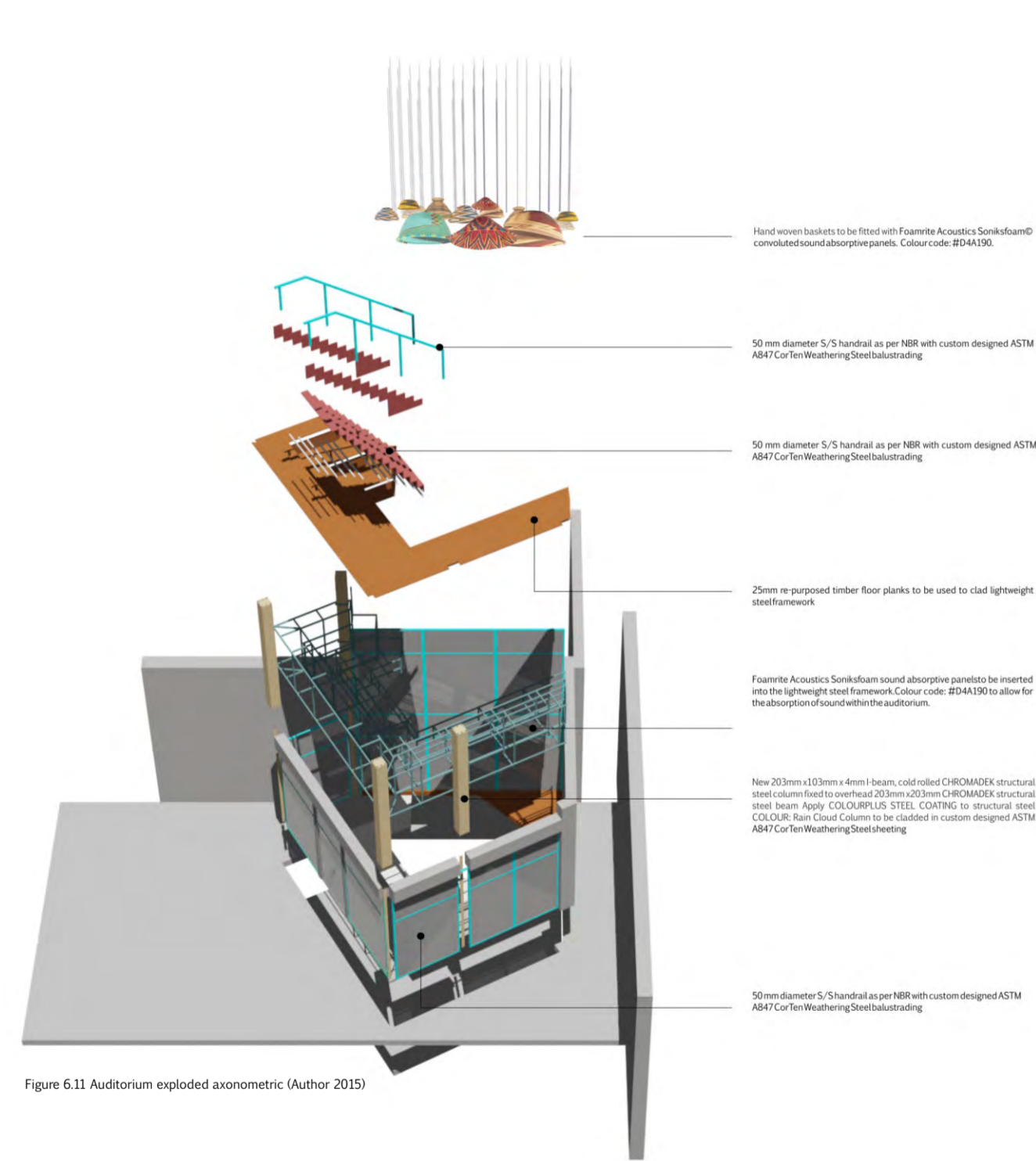


Figure 6.11 Auditorium exploded axonometric (Author 2015)

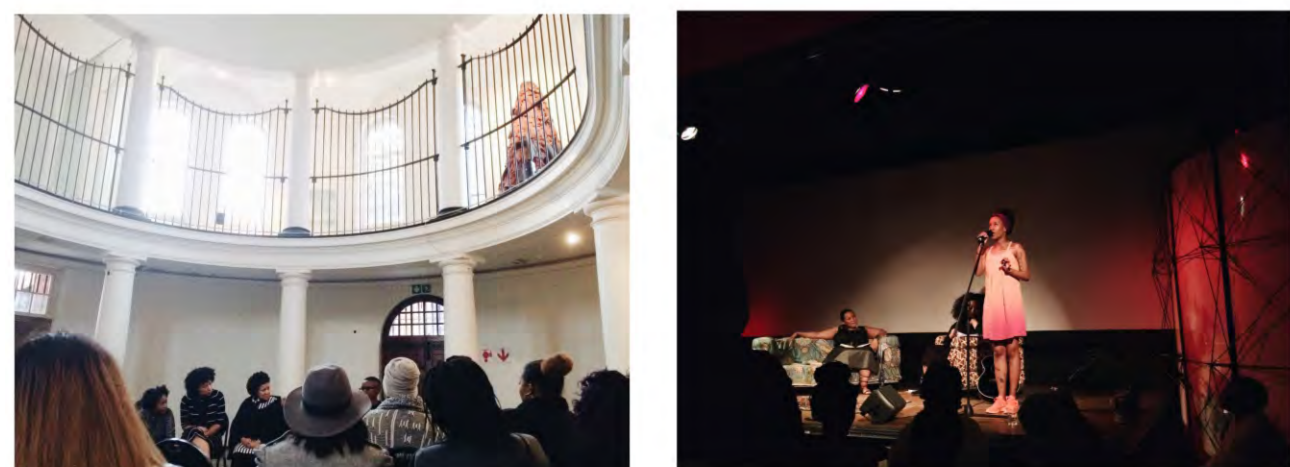


Figure 6.12: Pictures taken at Feminist Stokvel events in 2015 (Author 2015)

2. CLADDING AND STRUCTURAL SOUNDNESS

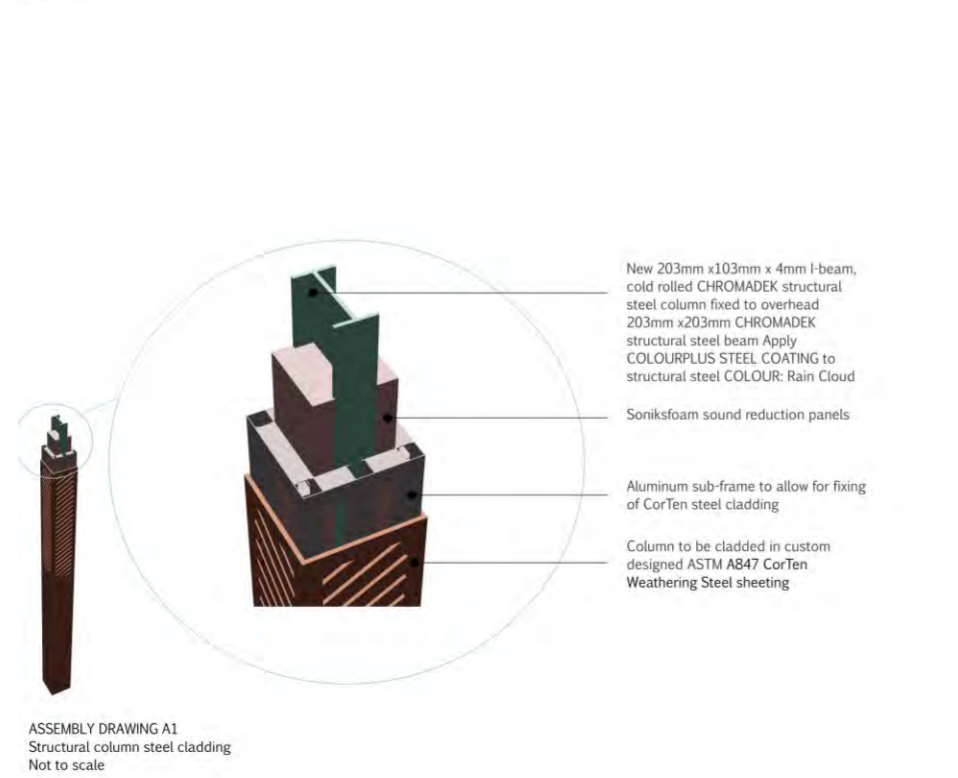
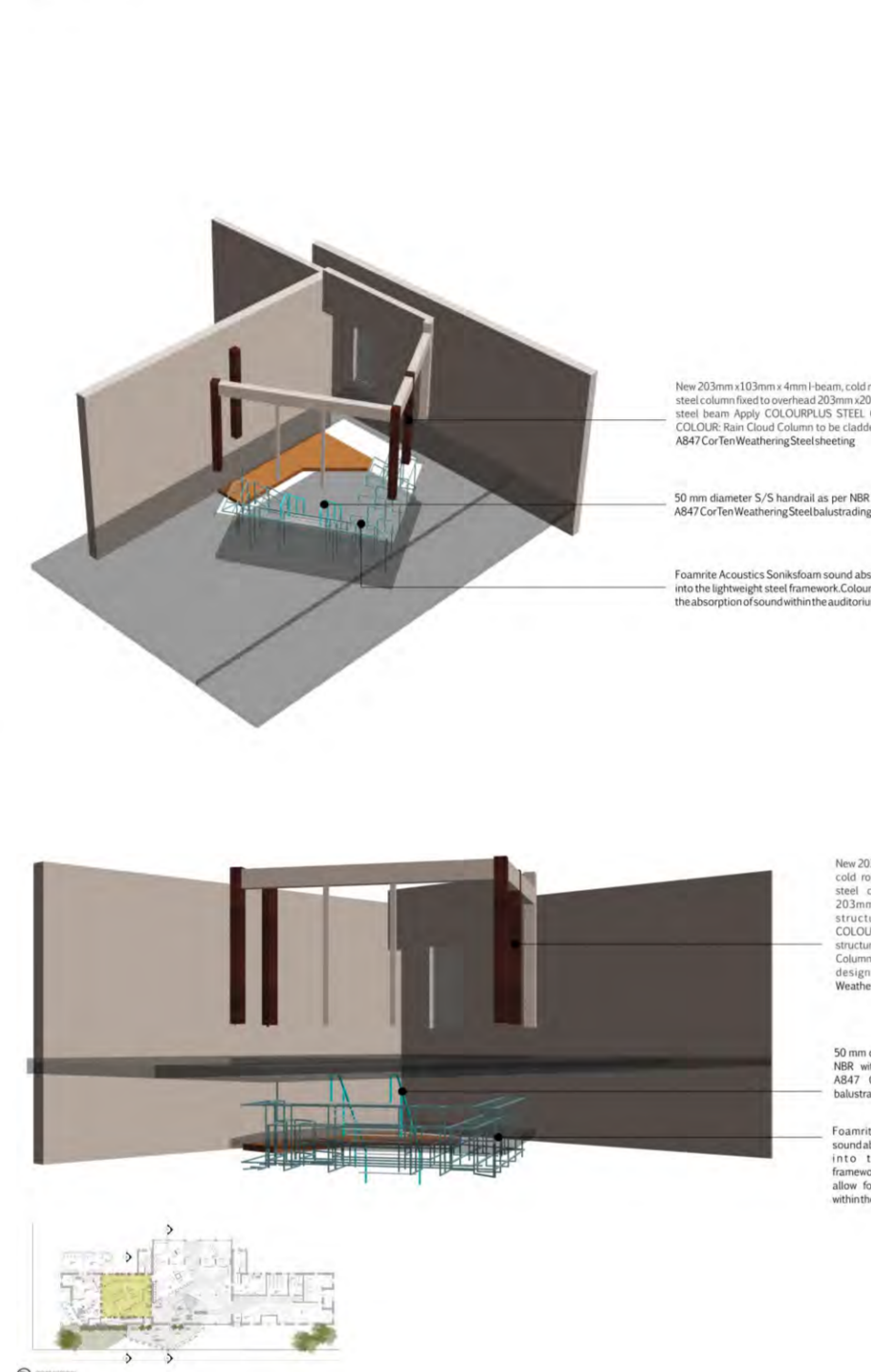


Figure 6.2: Auditorium intervention details (Author 2015)

3. SAILING

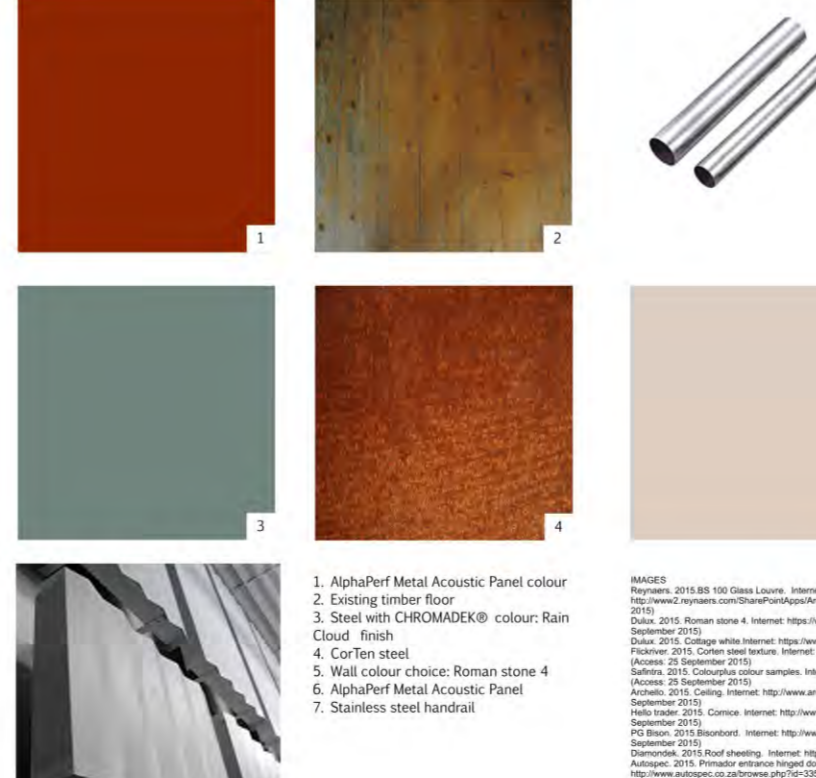
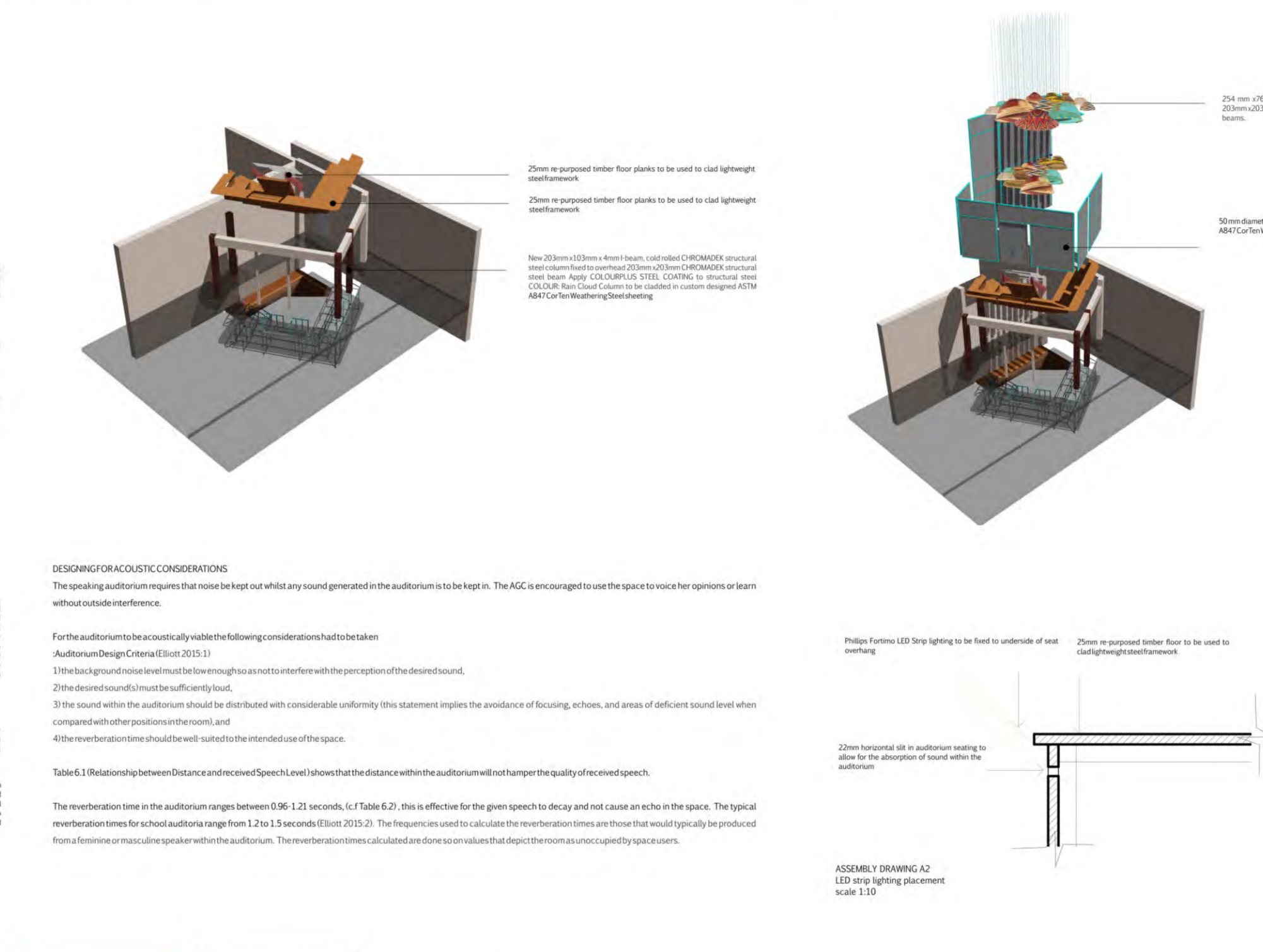


Figure 6.3: Auditorium intervention details (Author 2015)

Relationship between Distance and received Speech Level :

Regular talking

| Distance (m) | 0.25m | 0.5m | 1m | 1.5m | 2m | 3m |
|-------------------|---------|---------|---------|---------|---------|---------|
| Speech Level (dB) | 70-76dB | 65-71dB | 58-64dB | 55-61dB | 52-58dB | 50-56dB |

The Sabine formula: $T = 0.163 \times V/A$

T: Reverberation time (seconds)
V: Room volume (m³)
A: Total equivalent absorption area (m²)

Table 6.1 Relationship between distance and received speech level (AW Info. 2015)

Reverberation times

| Phase | Location | Room volume (m³) | Frequency (Hz) | | | Reverberation time (seconds) |
|------------------|------------|------------------|----------------|-------|---------|------------------------------|
| | | | Walls | Floor | Ceiling | |
| New intervention | Auditorium | 314.79 | 250 | 5.63 | 16.71 | 0.96 |
| | Auditorium | 314.79 | 500 | 3.38 | 11.14 | 1.21 |
| | Auditorium | 314.79 | 1000 | 3.38 | 11.14 | 1.08 |
| | Auditorium | 314.79 | 2000 | 2.25 | 8.36 | 1.19 |

Table 6.2 Reverberation times (Author 2015)

Voice frequencies

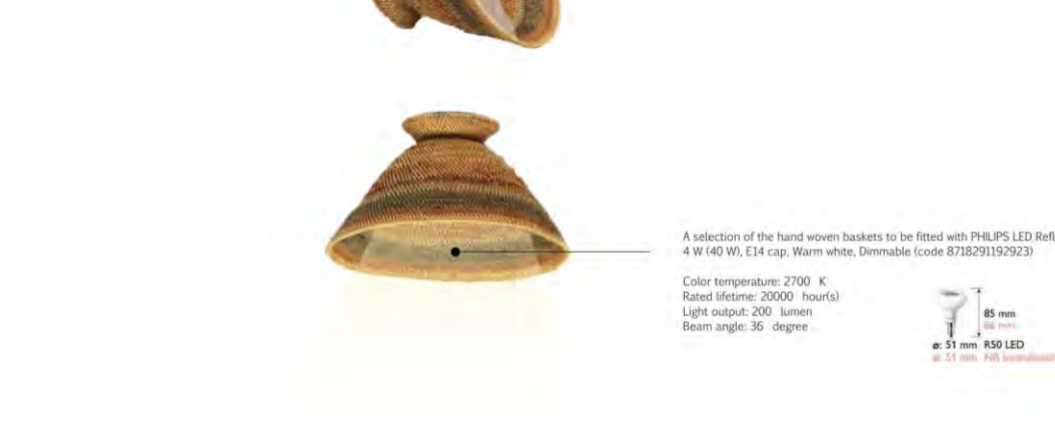


Table 6.3 Voice frequencies (AW Info. 2015)



Figure 6.4: Auditorium interior rendering (Author 2015)

6.6 CIRCULATION INTERVENTION

The new vertical circulation, staircase and elevator, are centrally placed and a celebration of the empowerment of the AGC. The layout of the floor plans is designed for grouping of spaces thus situating public spaces together whilst the more private and quieter spaces are situated in proximity. This grouping results in the two levels not having a hierarchical narrative such as the one the African girl child may experience in her home environment. Instead, spaces such as the administration offices and crafting spaces are both situated on one floor, granting her fluid movement between the two domains. The AGC can be seen actively circulating the two floors, in a centre that celebrates the African girl child.

The staircase which wraps around and is supported structurally by the elevator is made up of a steel hollow core framework as annotated in figure 6.12. The balustrading is designed to be CorTen steel with the black hair braiding patterns as inspiration for the cut-out pattern. A 50mm stainless steel handrail is placed at a 900mm height. The riser is constructed from repurposed timber that will be retained during the demolishing stage.

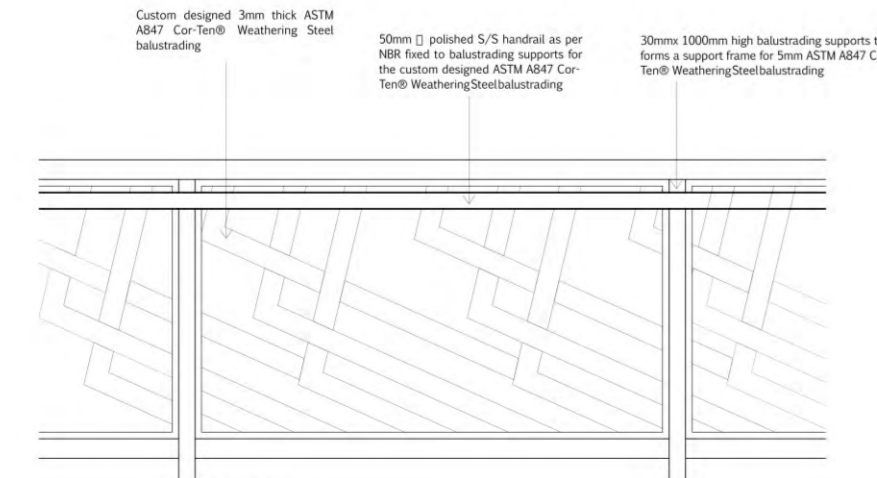
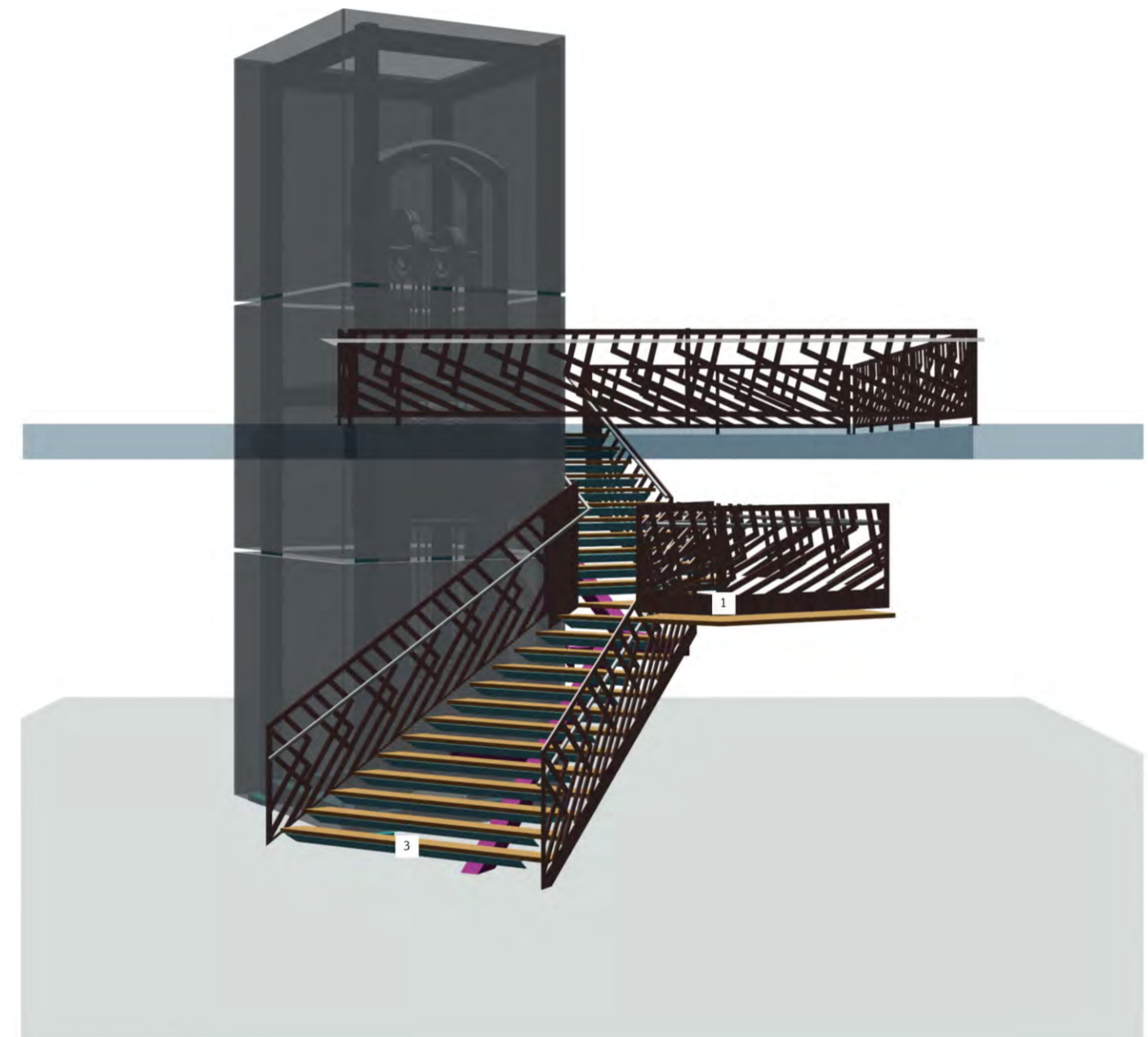
The elevator consists of a steel hollow core framework onto which the staircase structure is fixed, the framework is clad in 12mm laminated, and strengthened glass.

The staircase is designed according to the requirements of SANS 10400-M depicted in figure 6.12.

STAIRCASE

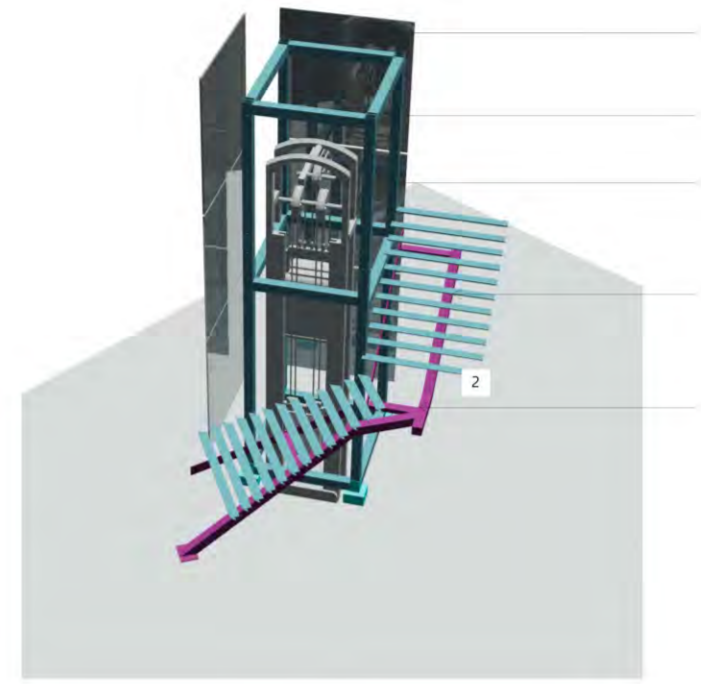
STAIRCASE AND LIFT

The staircase introduced in the design encourages the free and visible movement from one level to another. The design of the staircase is bold and incorporates a handrail that is inspired by the fractal pattern that is visible in African hair braiding patterns (depicted in the figure below).



ASSEMBLY DRAWING S1
Detail of handrail and balustrading
scale 1:30

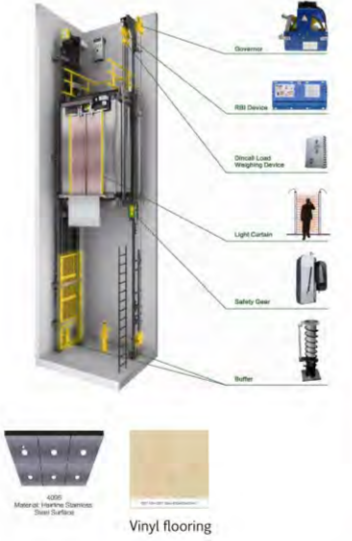
1. FRAMEWORK



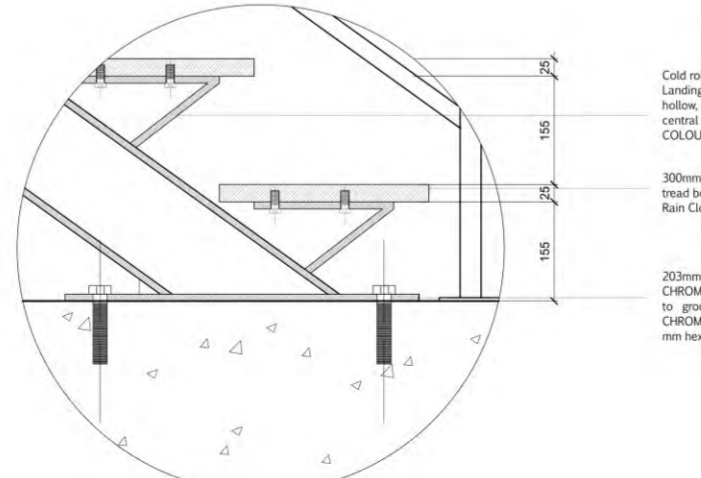
- 203mm x 203mm x 4mm hollow, cold rolled CHROMADEX® structural steel framework. Steel COLOUR: Rain Cloud
- 4mm thick, cold rolled CHROMADEX® structural steel stair stringer fixed to the supporting 203mm x 103mm x 4mm hollow, cold rolled CHROMADEX® structural steel stair central stringer COLOUR: Rain Cloud
- 270mm x 350mm Dia, Gen 2 BaGen machine roomless elevator.
- Cold rolled CHROMADEX® steel spigot welded to Landing 1 mild steel plate and 203mm x 103mm x 4mm hollow, cold rolled CHROMADEX® structural steel stair central stringer COLOUR: Rain Cloud
- 203mm x 103mm x 4mm hollow, cold rolled CHROMADEX® structural steel stair central stringer fixed to ground floor using M24x100 mm hexagon expansion bolt. Steel COLOUR: Rain Cloud

NOTE: Stairways SANS 10400-M

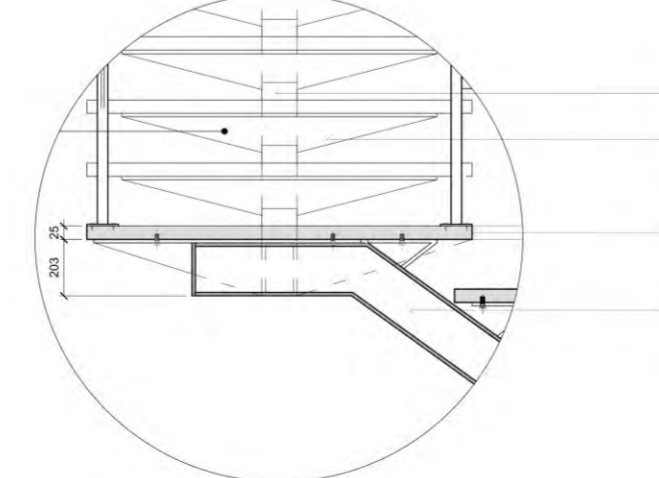
- There must be sufficient headroom above any stairway at least 2.1 m measured vertically from the pitch line of the stairway
- Stairs need to be wide enough for safe use, usually not less than 750 mm
- The going (depth of the tread) and width of treads must be at least 200 mm
- Treads of stairways that do not have solid treads must cover the nosing by at least 20 mm
- Landing opening from flight to a straight run needs to be at least 900 mm long and at least as wide as the flight of stairs
- There should be a vertical rise that is greater than 3 m between landings
- Single step risers should be more than 200 mm
- The handrail to any flight of stairs provided in shall be:
 - a) on at least one side of the flight where the width of the flight is less than 1.1 m, and on both sides where the width exceeds 1.1 m
 - b) securely fixed to such wall, screen, railing or balustrade at a height of not less than 900 mm and not more than 1 m measured vertically from the pitch line to the upper surface of the handrail, and
 - c) of such a design and so fixed that there shall be no obstructions on, above or near to it which might obstruct the movement of a hand moving along it.



- 1. CorTen steel
- 2. Steel with CHROMADEX® colour: Rain Cloud finish
- 3. Existing timber floor

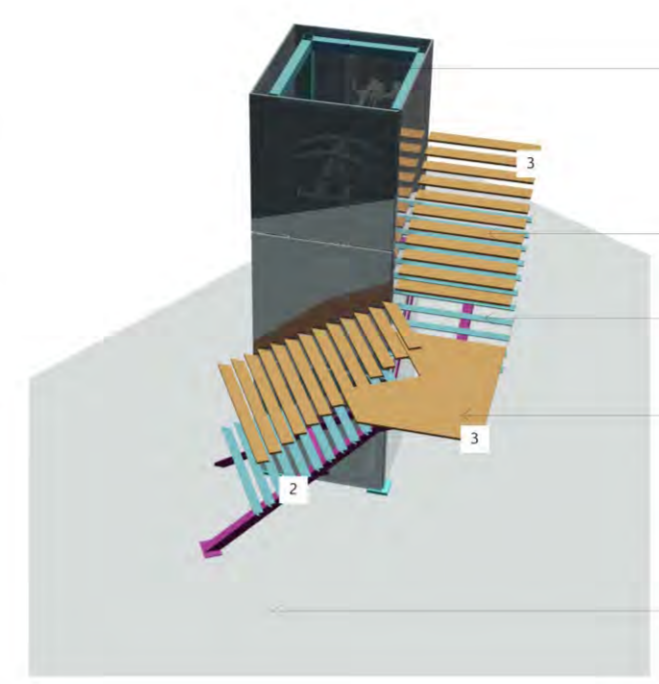


ASSEMBLY DRAWING S2
Fixing of central stringer to the floor
scale 1:5



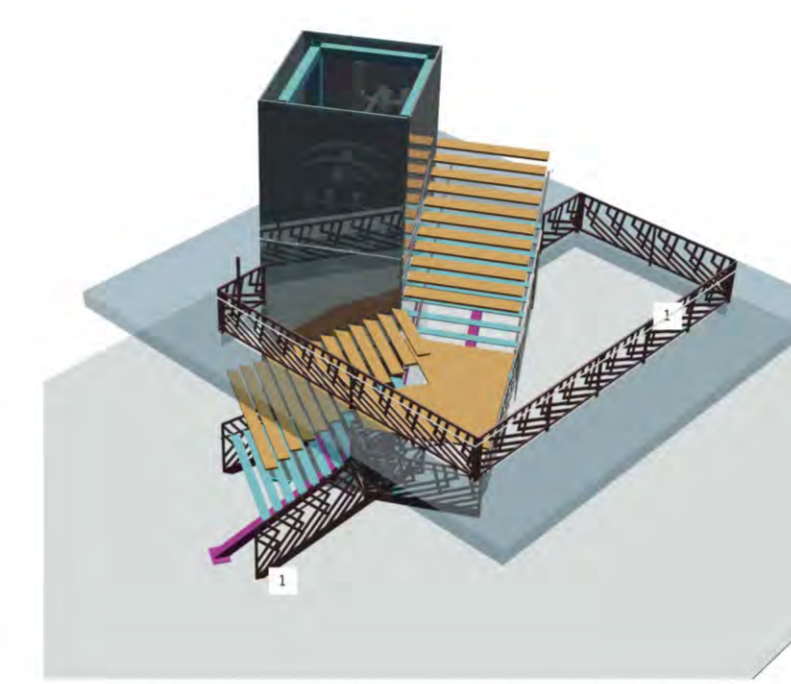
ASSEMBLY DRAWING S3
Fixing of the landing to steel support members
scale 1:10

2. CLADDING AND STRUCTURAL SOUNDNESS

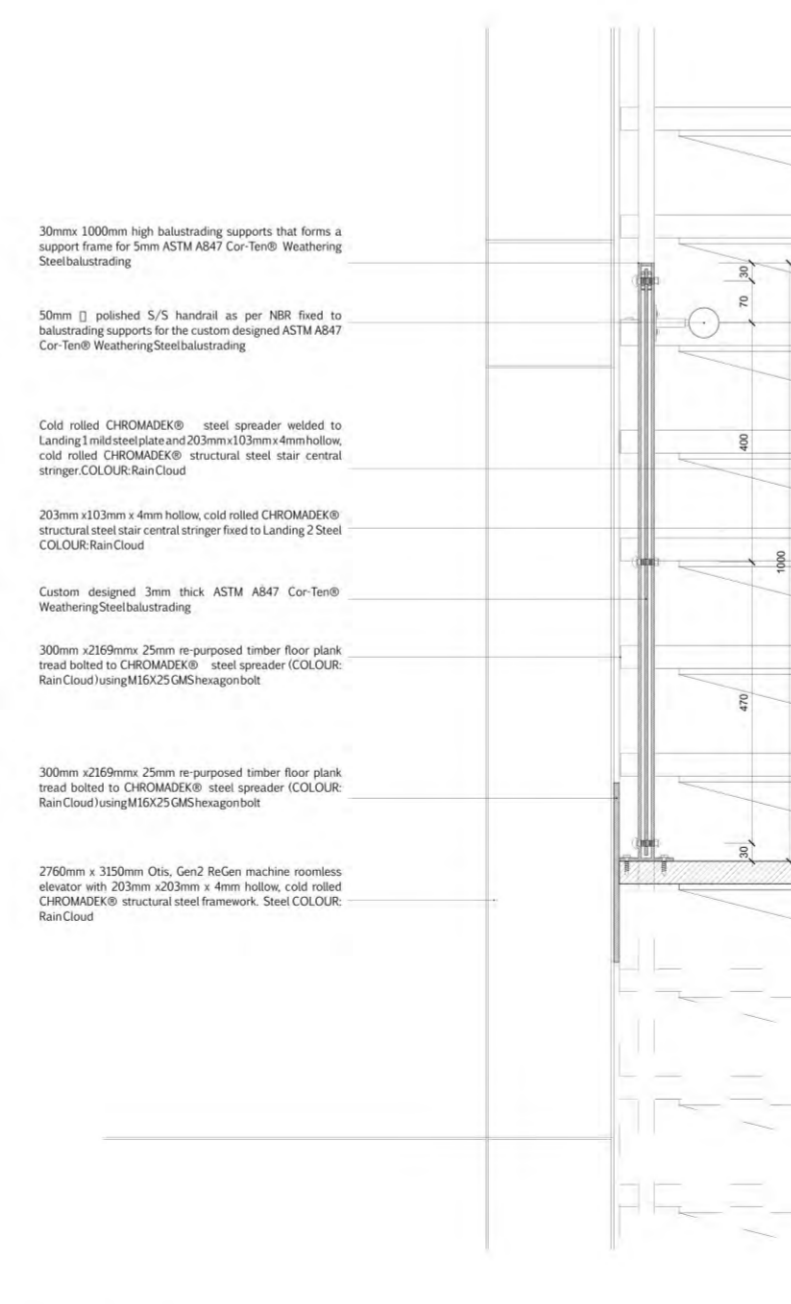


- 270mm x 350mm Dia, Gen 2 BaGen machine roomless elevator.
- 300mm x 280mm x 25mm re-purposed timber floor plank fixed to CHROMADEX® steel spigot COLOUR: Rain Cloud 1 using M8x20 GMS hexagon bolt
- Cold rolled CHROMADEX® steel spigot welded to Landing 1 mild steel plate and 203mm x 103mm x 4mm hollow, cold rolled CHROMADEX® structural steel stair central stringer COLOUR: Rain Cloud
- 300mm x 280mm x 25mm re-purposed timber floor plank fixed to CHROMADEX® steel spigot COLOUR: Rain Cloud 1 using M8x20 GMS hexagon bolt
- 203mm x 103mm x 4mm hollow, cold rolled CHROMADEX® structural steel stair central stringer fixed to ground floor using 20x200mm cold rolled CHROMADEX® base plate bolted to floor using M24x100 mm hexagon expansion bolt. Steel COLOUR: Rain Cloud

3. RAILING



- 270mm x 350mm Dia, Gen 2 BaGen machine roomless elevator.
- 300mm x 280mm x 25mm re-purposed timber floor plank fixed to CHROMADEX® steel spigot COLOUR: Rain Cloud 1 using M8x20 GMS hexagon bolt
- Cold rolled CHROMADEX® steel spigot welded to Landing 1 mild steel plate and 203mm x 103mm x 4mm hollow, cold rolled CHROMADEX® structural steel stair central stringer COLOUR: Rain Cloud
- 300mm x 280mm x 25mm re-purposed timber floor plank fixed to CHROMADEX® steel spigot COLOUR: Rain Cloud 1 using M8x20 GMS hexagon bolt
- 203mm x 103mm x 4mm hollow, cold rolled CHROMADEX® structural steel stair central stringer fixed to ground floor using 20x200mm cold rolled CHROMADEX® base plate bolted to floor using M24x100 mm hexagon expansion bolt. Steel COLOUR: Rain Cloud



ASSEMBLY DRAWING S4
Framing of railing and stair supports
scale 1:10



Figure 6.14 Staircase intervention detailing (Author 2015)

6.7 FLOORDETAILING

A detail of concern is retaining and integrating the memory of the old with the new. In the case of demolished walls in the interior, the memory will be remembered by inserting a CorTen steel plate in the void of the wall demolition as indicated in figure 6.13.

This detailing is to be applied to any surface in the building where a wall is removed, signifying respect to the old, and that it is possible to retain the history of the building in a manner that allows the new use of the building to function better within the space

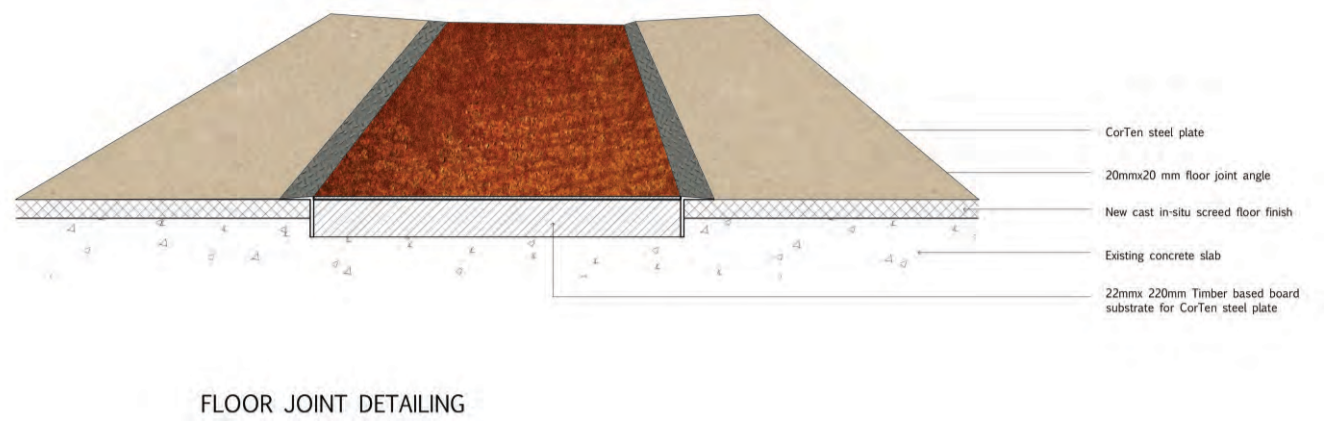


Figure 6.15 Floor joint detailing, not to scale (Author 2015)

6.8 COURTYARD TOWER INTERVENTION

The training tower that can be found in the inner courtyard is a part of the heritage of the site and therefore the treatment and redesign of it is to take this into consideration.

The design considerations for the tower are depicted diagrammatically in figure 6.16. The first consideration for complete demolition proved to be contradictory to the heritage strategy outlined in Chapter 2 (2.2.2) therefore partial demolition was considered to reduce the phallic nature of the tower and so lowering the height of the structure to that of the surrounding courtyard buildings. Diagram number three depicts the chosen approach to the tower intervention, this being more inline with the heritage strategy. The tower will incorporate a performance stage on the ground floor which will require demolition work. The rest of the tower will be designed to be a folly. Drawing inspiration from Rapunzel re-imagined as an African character (see figures 6.17 and 6.18). The folly will consist of staircases that lead to the top floor and back down. The girls are given freedom to make use of the different spaces, on each level, as they wish. The staircase is to be seen through as in figure 6.20 whilst allowing for patterned cladding to be applied to it as shown in conceptual rendering figure 6.19 and figure 6.21

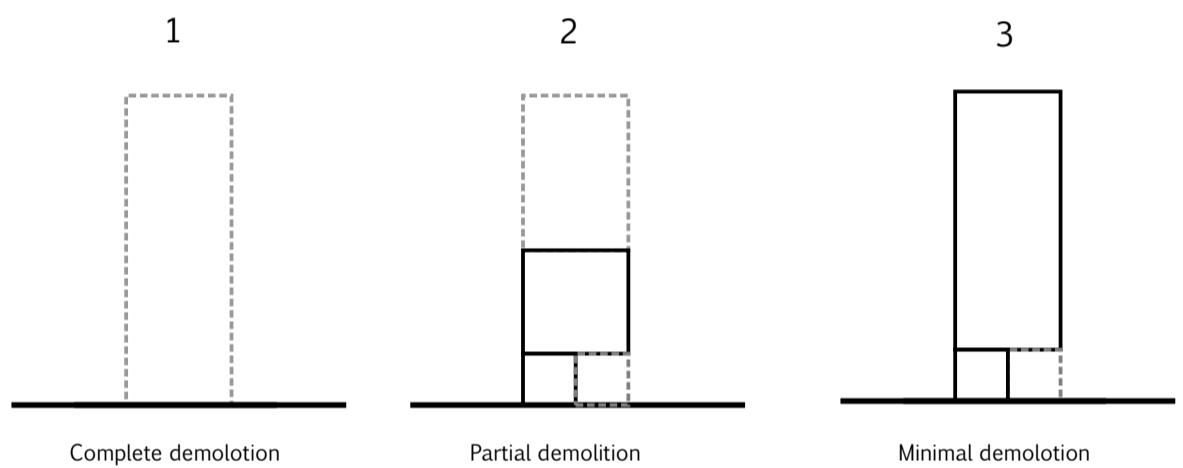


Figure 6.16 Training tower design consideration (Author 2015)



Figure 6.17: Afro Rapunzel comic strip (Author 2015)

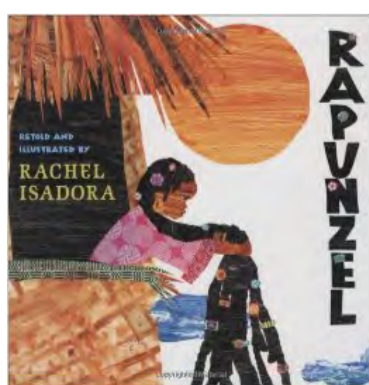


Figure 6.18: Dreadlocked Rapunzel book cover (Author 2015)

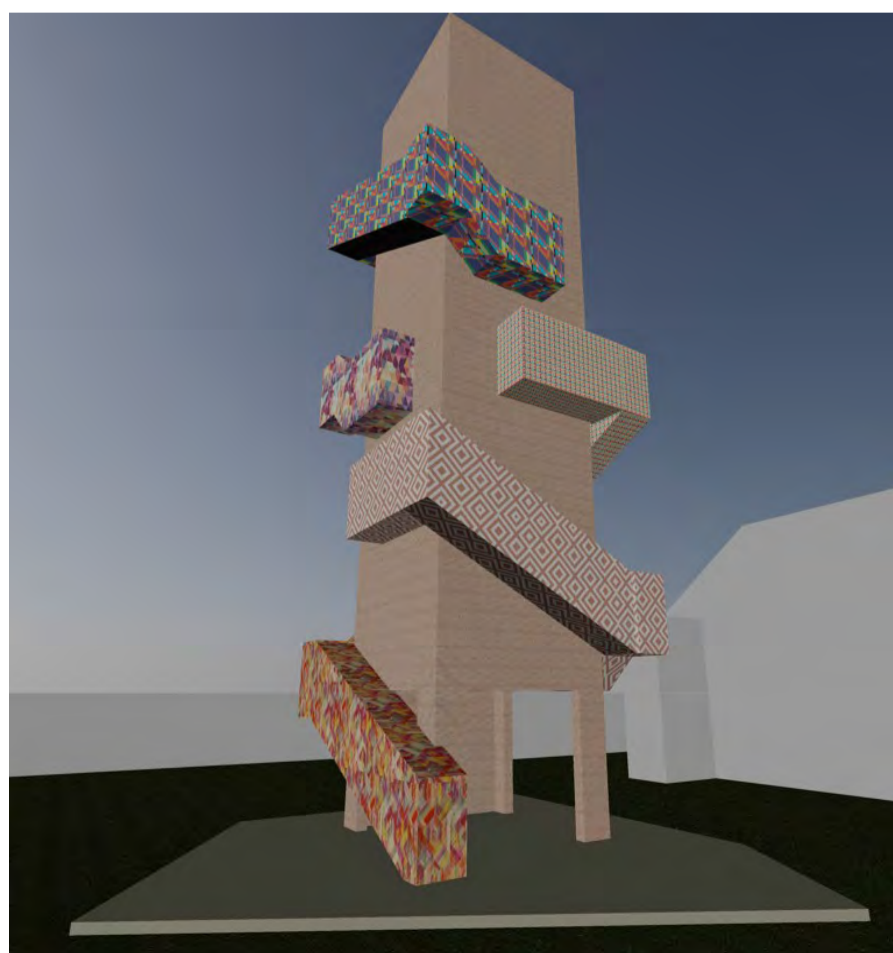


Figure 6.19: Conceptual rendering of Training tower design (Author 2015)



Figure 6.20: Steel staircase (Author 2015)

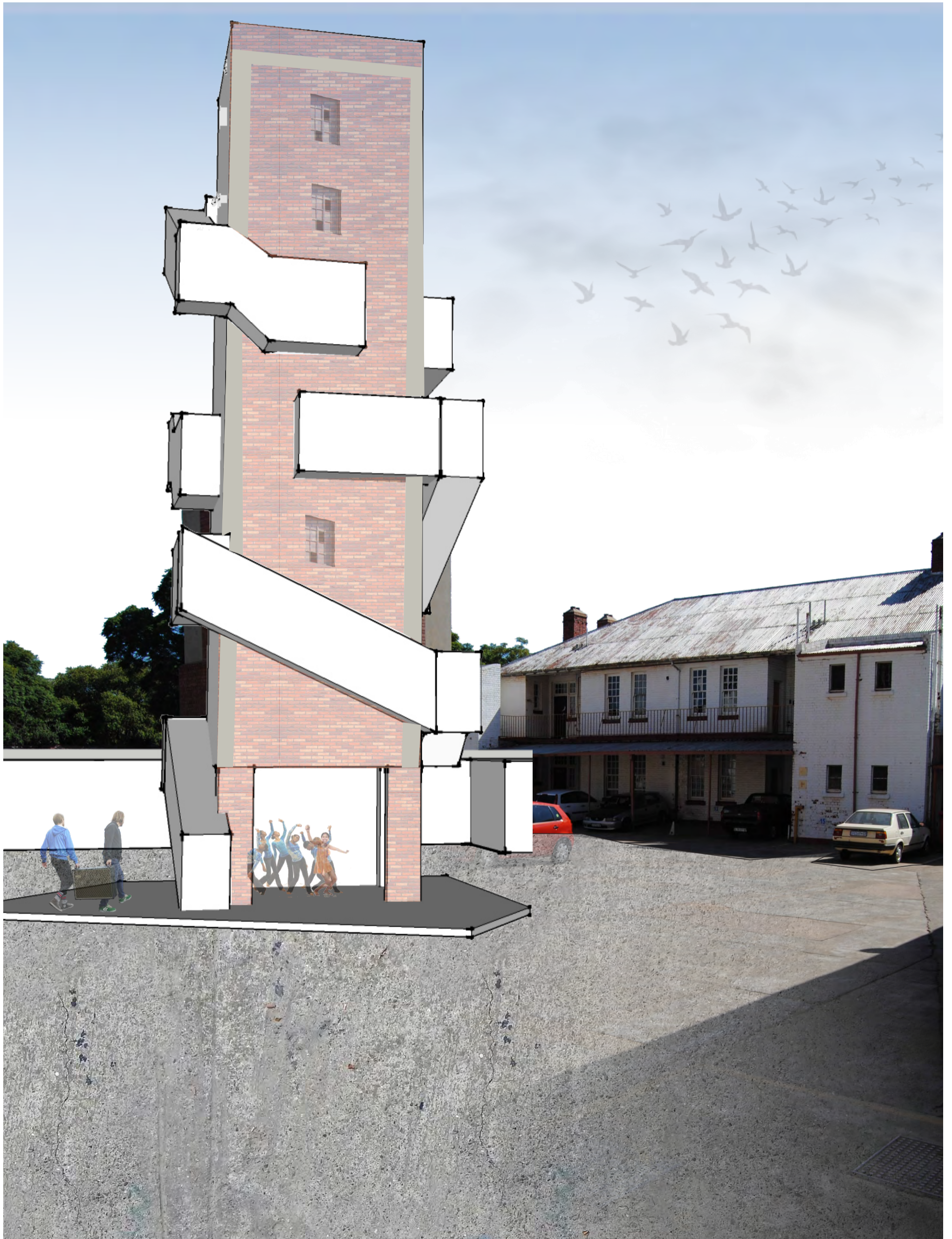


Figure 6.21: Conceptual rendering of Training tower design (Author 2015)

6.9 CONCLUSION

The technical development chapter sought to find ways of adding value and meaning to the design by the application of the conceptual approach to the technical resolution of the interventions and connecting the old and the new to create an integrated interface. The chosen interventions which act as transitional spaces and products were addressed in their connection details, material choices and design problem resolution.



7 . C O N C L U S I O N

7.1 Findings

The African girl child full of potential but surrounded with few opportunities to see her potential come to fruition. Bonang is such a space in which a young black girl can have an interface that connects her with relevant assistive organisations, her community and her culture. The existing host building stands impermeable and inaccessible by the public and especially the African girl child. The degenerate state of the building with its outdated, cellular layout required an intervention that would go in contrast to this.

The proposed interventions, public in nature, allowed for the building to be rendered usable by the community in a manner that works to the building's and contextual setting's advantage. The friction between the new and old, what is Afro-centric and what is western was dealt with by finding common ground between the two that could aid in the development of a design that. Informal design qualities, and interventionist approaches that are inspired by African culture aid in adding a contextually appropriate layer to the technical resolution of the building. The building therefore becomes a place in which the AGC can feel comfortable to engage in her own empowerment. She no longer needs to feel alienated in a traditionally patriarchal society.

7.2 Contribution

The study is relevant in the Interior design field as it has delved into how alteration could be designed to be contextually appropriate and empowering within an African feminist setting. The African feminist finds herself with a society that expects her to fulfil traditional and cultural roles, of which some may hinder her empowerment. The investigation looks into a program that breaks the barrier of inaccessibility of skills to the African Girl Child within the city and designing interventions that translate the pivotal issues into a spatial setting.

The design investigated what is currently occurring contextually and then sought to incorporate and strengthen these activities. This manner of investigation is of importance especially with regards to an African Aesthetic of which no formal guideline exists within the Interior Design field. The design of the center was one based on intuition and conscious design, incorporating elements, informants and cultural findings with which the African girl child could identify.

7.3 Recommendations

The following recommendations are listed for further investigation:

7.3.1 Phased approach

The initial intervention in the design of the Centre for the African girl child is part of a phased approach which consists of an Arts and Culture program which could then be phased on to include programs that incorporate Technology, Engineering and Mathematics. Each program will have specific spatial requirements that will need to be designed.

7.3.2 African Aesthetic from an African feminist stance

The investigation of the African Aesthetic is in its initial stage and requires further development in identifying guidelines and informants that can be used in the designing of spaces that speak to the African context that the intervention is found.

7.3.3 Precedent studies

The precedent studies that were reviewed are a satisfactory start but requires for a deeper and more thorough investigation into precedents that relate to the African aesthetic.

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9. APPENDIX- A: PRESENTATION DRAWINGS



BONANG

A CENTRE FOR THE AFRICAN GIRL CHILD
by Esther Shaidi

Full dissertation title: BONANG: A centre for the African Girl Child in The Old Pretoria Fire Station : an investigation into the role of Interior design as an agent in the empowerment of the African Girl Child.

Research Field: Heritage and Cultural Landscapes
Study leader: Catherine Karusseit (Ms)
Studio Master: Raymund Konigk (Dr)



INTRODUCTION

“We are the ones we have been waiting for”

(Walker 2006)

BACKGROUND

The African girl child (2):

- repressed by **male dominance**
- controlled by **traditional perceptions** of a woman
- abused by the time-honoured **customs** of her community
- the African girl child referred to in this study refers to a girl **between the ages of 12-17**.
- has an **inferior status**

REAL WORLD PROBLEM

A result of the discrimination :

- Lack of **access to girl-friendly, safe and supportive spaces** aid in her self-empowerment and self-actualisation.
- School and home environments are not necessarily affirming, therefore a third space is needed whereby she can be acknowledged and empowered.

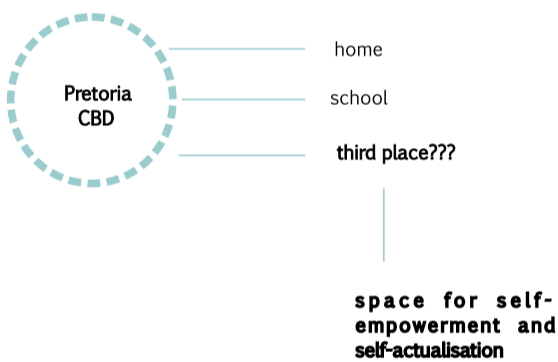


Figure 2. Possible affirmative spaces in the Pretoria CBD (Author 2015)

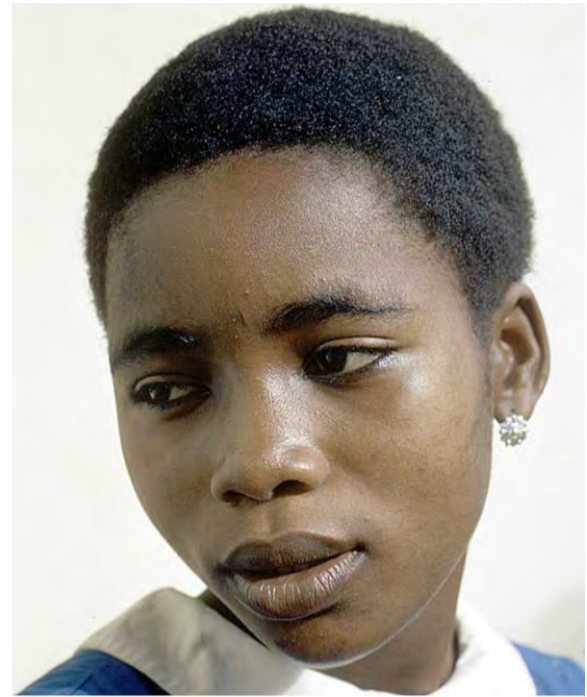


Figure 1. Students at a Protestant secondary school in Mbandaka, Congo (Elisofon 1972)

PROBLEM STATEMENT

The African woman and African girl child experience a dichotomy of oppression, firstly within a previously white supremacist society and secondly within their own family with regards to traditional gender roles and patriarchy.

To summarise **three main issues** have been identified:

- The **lack of opportunities** for the African girl child in Pretoria's CBD due to a patriarchal society and its limitations;
- The **absence of physical spaces that cater to the African girl child** in Pretoria's CBD;
- The **repercussions of a previously white supremacist society** that lacks an aesthetic with which the African girl child can identify.

PREVIOUSLY WHITE SUPREMACIST SOCIETY, TRADITIONAL GENDER ROLES AND PATRIARCHY



Figure 3. Dichotomy of oppression for the African girl child (Author 2015)

RESEARCH QUESTIONS

- 1 What theory exists that supports the African girl child and her three areas oppression namely; race, gender and power? **AFRICAN FEMINISM**
- 2 Is there any identifiable historical significance in the host building and its context that may be used to empower the African girl child? **HISTORICAL SIGNIFICANCE**
- 3 What precedents can be investigated to aid the intervention in the host building? **PRECEDENTS**
- 4 Can a design aesthetic be generated that speaks of the African girl child and serves to empower her? **DESIGN AESTHETIC**



Name: Old Pretoria Fire Station
Location: 449 Bosman Street and corner of Minnaar Street, Pretoria CBD, Erven 913 + 914
Built: 1912 : Subject to Section 34 of the NHRA (25 of 1999) because the building is older than 60 years.
Previous uses: Fire Brigade, Ambulance Centre
Current uses: Tourist information, Offices, Housing
Current owner: City Of Tshwane
Current occupant: Museum Park, Tshwane Leadership Foundation



CONTEXT ANALYSIS

MACRO CONTEXT

The chosen site is located within the context of the City of Tshwane Inner City Development and Regeneration Strategy. This strategy seeks to "...celebrate the national capital and reposition the inner city as a vibrant cultural and government centre" (CultMatrix, 2009: 8).

The strategy identified a number of interventions:

- Announcing the destination: Design of gateways into the Inner City, e.g. at Paul Kruger Street Station;
- Cultural Circle: Town Hall Station near Museum Park;
- Capital Precinct;
- Mandela Development Corridor and Apies River Precinct;
- Tshwane Crossing;
- Zone of Urban Regeneration: Marabastad;
- Movement: BRT and other modes; and,
- Exceptional Public Environment: Improvement of public spaces.

The selected site is situated within the **Cultural Circle intervention**, which is concerned with the "...identification of all existing cultural landmarks and facilities and the enhancement thereof, as well as the development of new, contemporary cultural landmarks" (City of Tshwane 2005). The proposed design delves into the representation of the African Girl Child and African feminism which form part of cultural issues within both the South African and African context. This strategy will aid in identifying cultural activities within the micro and macro context.

The strategy entails less formal cultural zones such as markets, street performances and small businesses (City of Tshwane 2005).



Figure 3.1 : Visage and Minaar Street as access routes to the formal historical and cultural spine (Author 2015)

MACRO SITE ANALYSIS

The macro site analysis seeks to investigate what is happening within the greater context that applies to the design investigation.

HISTORICAL CONTEXT

Pretoria was founded in 1855 and named after General Andries Pretorius, and in 1890 Sunnyside was incorporated as a part of Pretoria and subsequently what is now known as Pretoria West (South African History Online 2015). In 1856 the first church was established on what is presently Church Square. Formerly named Market square, the area is the central point from which Pretoria grew the city's social and commercial core. **Notable buildings** that were established before the Old Pretoria Fire station include Loreto Convent (1878) and Ditsong National Museum of Natural History (1892). In 1912, the **Old Pretoria Fire Station was built**, after which African Window / National Museum of Cultural History (1921) and City Hall with Pretorius Square (1931) were built.

A second layer of historical context, shown in figure 3.10, has been investigated from the point of view of African feminism focusing on specific moments in relation to women in South Africa.

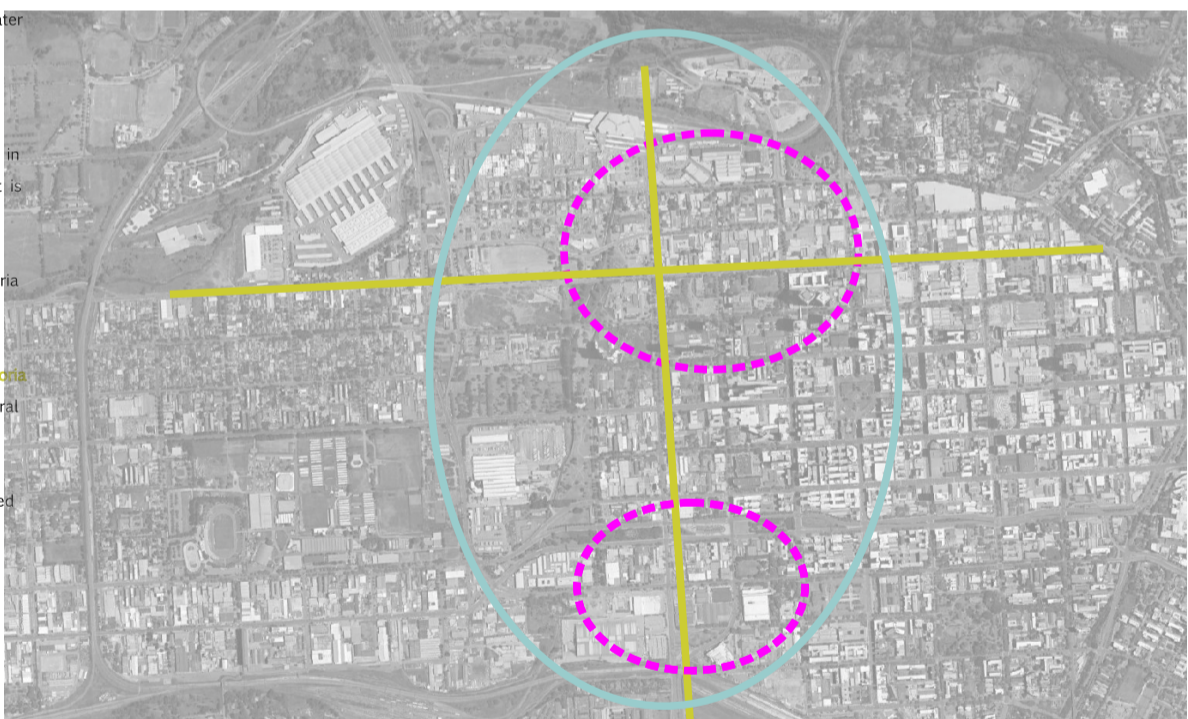


Figure 3.2 : Cultural Circle intervention (City of Tshwane 2005, edited by author 2015)



Figure 3.7: Charlotte Maseke (Parliament of the republic of South Africa 2015).



Figure 3.8: FEDSAW protest, Pretoria 1956 (Women's History Network Blog 2010).



Figure 3.9: Members of FEDSAW present petitions protesting the pass laws at Union Buildings in Pretoria on the 9th of August 1956 (Women's History Network Blog 2010).

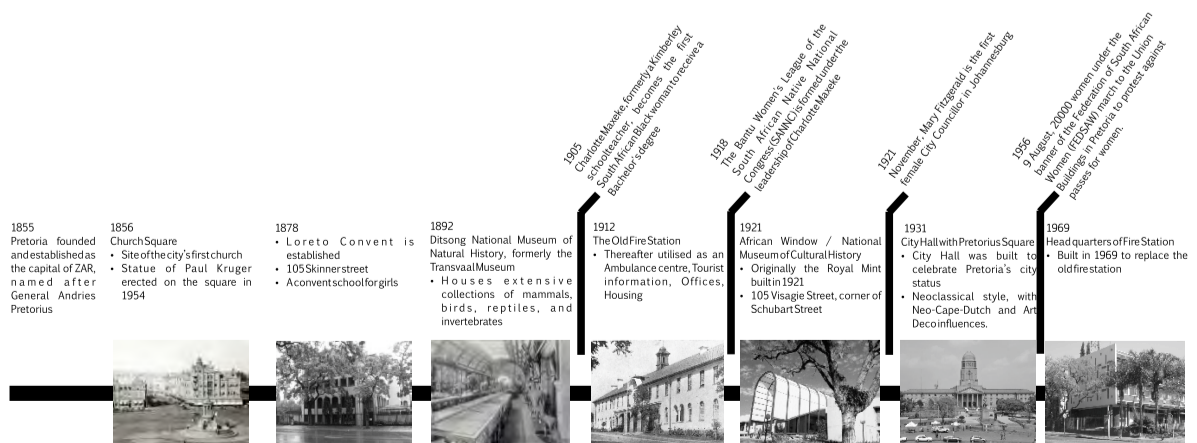


Figure 3.10: Time line of contextual buildings and women's history in South Africa (Author 2015)

TRANSPORT

The Old Pretoria Fire Station, found on the corner of Bosman and Minaar Streets (figure 3.2), is located along major transport routes indicated in figure 3.3. There are a number of Gautrain bus stops found on Bosman street which run parallel to Paul Kruger Street, whilst Minaar street was upgraded by closing off the west end resulting in less vehicle movement on the street. Visagie and Minaar act as access routes to the formal historical and cultural spine located between them.

Pedestrian movement along Paul Kruger Street depicts it as a primary route due to its connection with the Pretoria Station, while Bosman Street acts as secondary route, feeding out or into the primary route. The accessibility and ample provision of public transport will aid in the movement of the African girl child to and from the site.

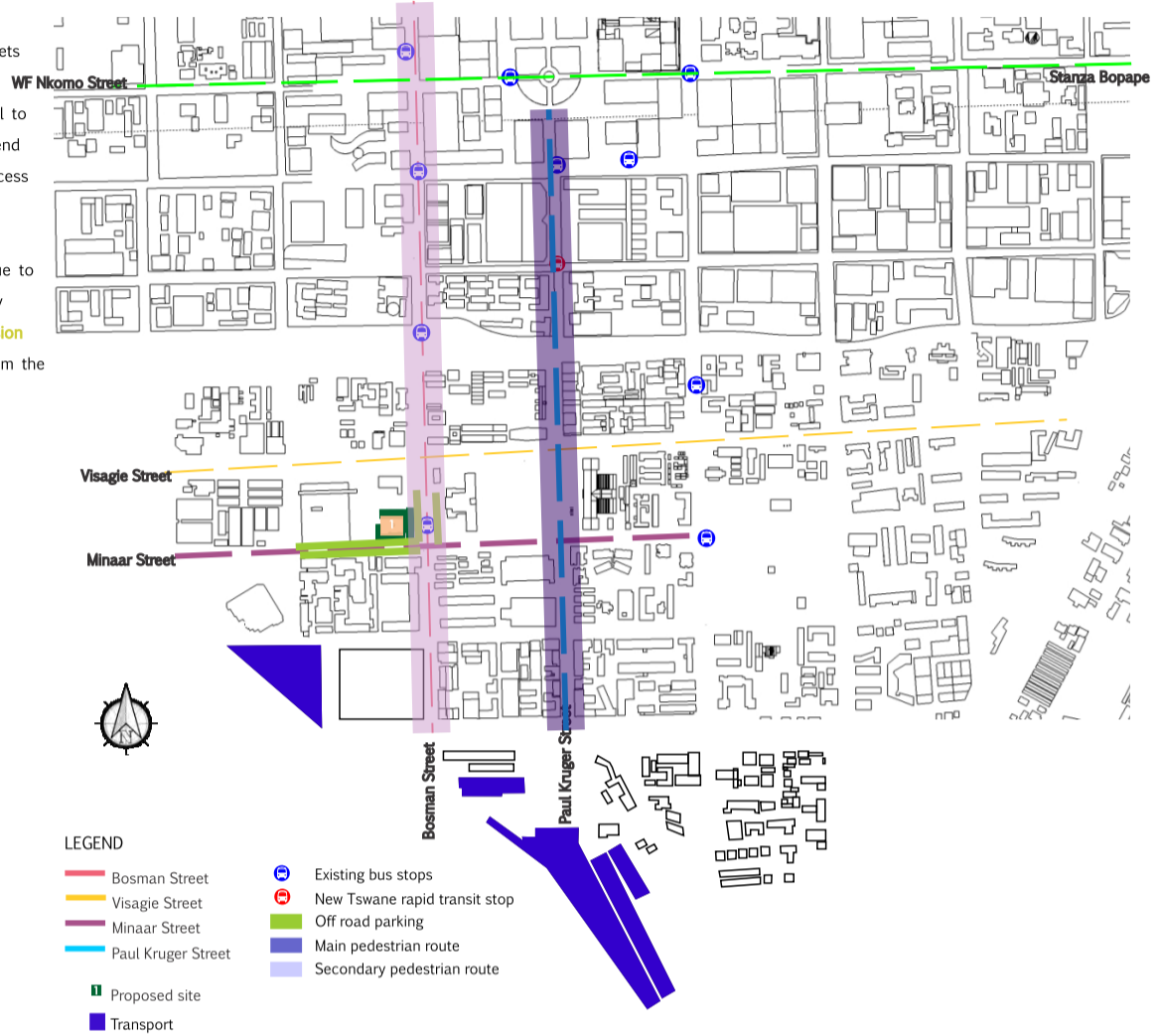


Figure 3.3: Transport mapping within close proximity to the proposed site (Author 2015)

EDUCATIONAL FACILITIES

Educational facilities within the greater context reveal that the current target age group for the African Girl Child Centre are educationally catered for within the city centre and she will therefore be looking for study or recreational facilities at school.

The facilities indicated in figure 3.5 are in close proximity and cater for the formal education of students in the city centre while the African Girl Child Centre will provide the informal education and empowerment of the African girl child.

CITICOL SECONDARY SCHOOL
85 Nana Sita Street, Pretoria

TSHWANE SOUTH COLLEGE
85 Schoeman Street
Pretoria

LORETO CONVENT SCHOOL
135 Nana Sita Street, Pretoria

TSHWANE UNIVERSITY OF
TECHNOLOGY
Metro-Skinner Campus
159 Nana Sita Street
Pretoria

KINGS & QUEENS COLLEGE
211, 2nd Floor, Willie Theron
Building
Corner Bosman & Jeff
Masemola Street
Pretoria

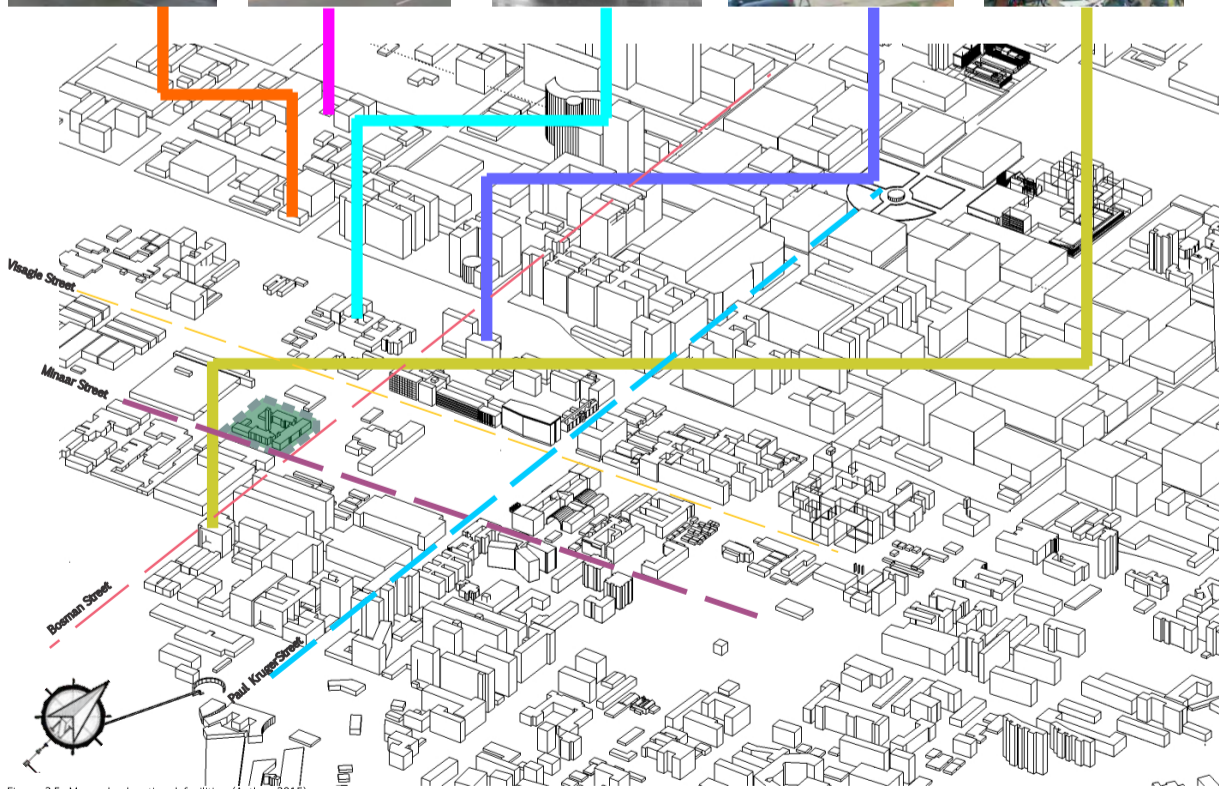


Figure 3.5: Mapped educational facilities (Author 2015)

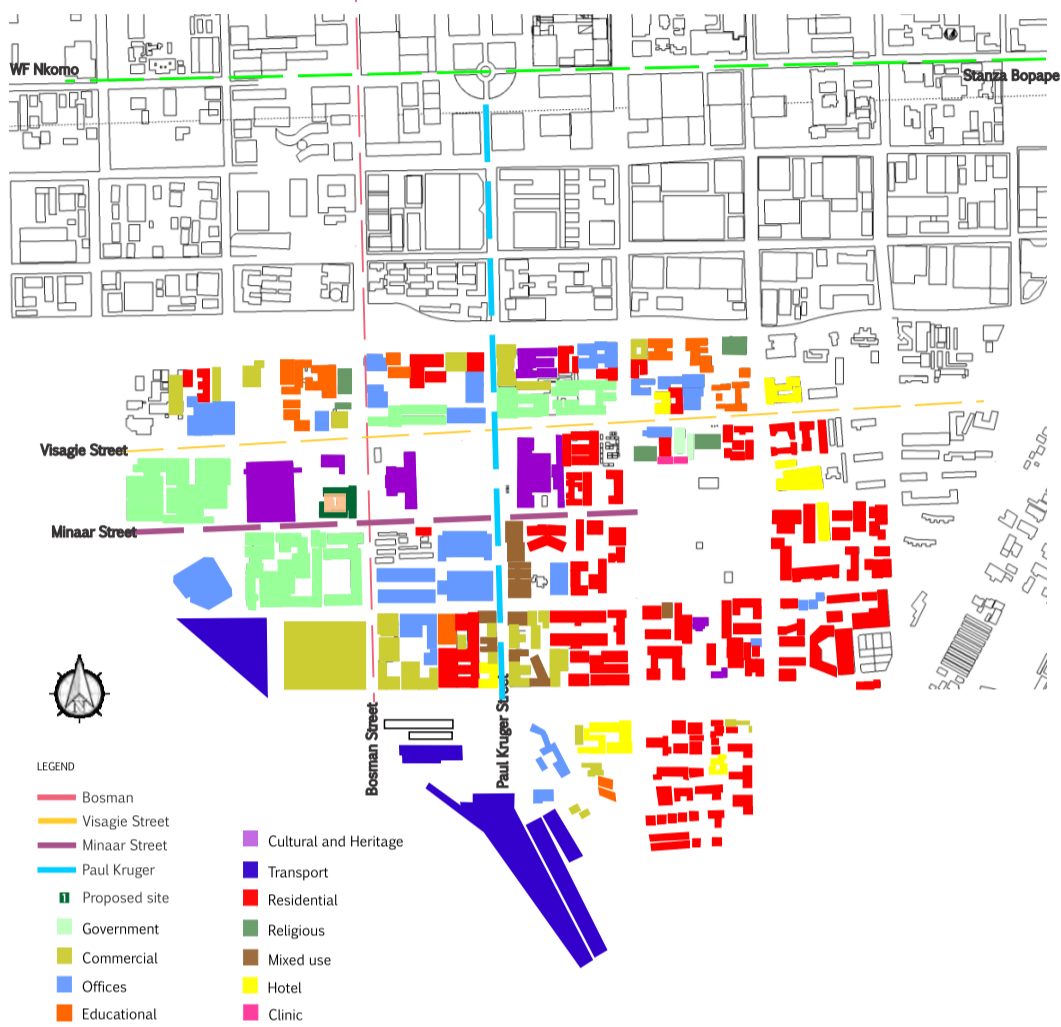


Figure 3.4: Use zones in the greater context (Author 2015)

USE ZONES

The use zone mapping reveals that the proposed building is surrounded by a variety of uses: to the west of the building there are industrial and governmental uses, to the north mixed-use facilities, educational facilities and offices. To the south there are commercially zoned buildings and transport, and east of the site has majority residential use from where the centre's African girl child will come.

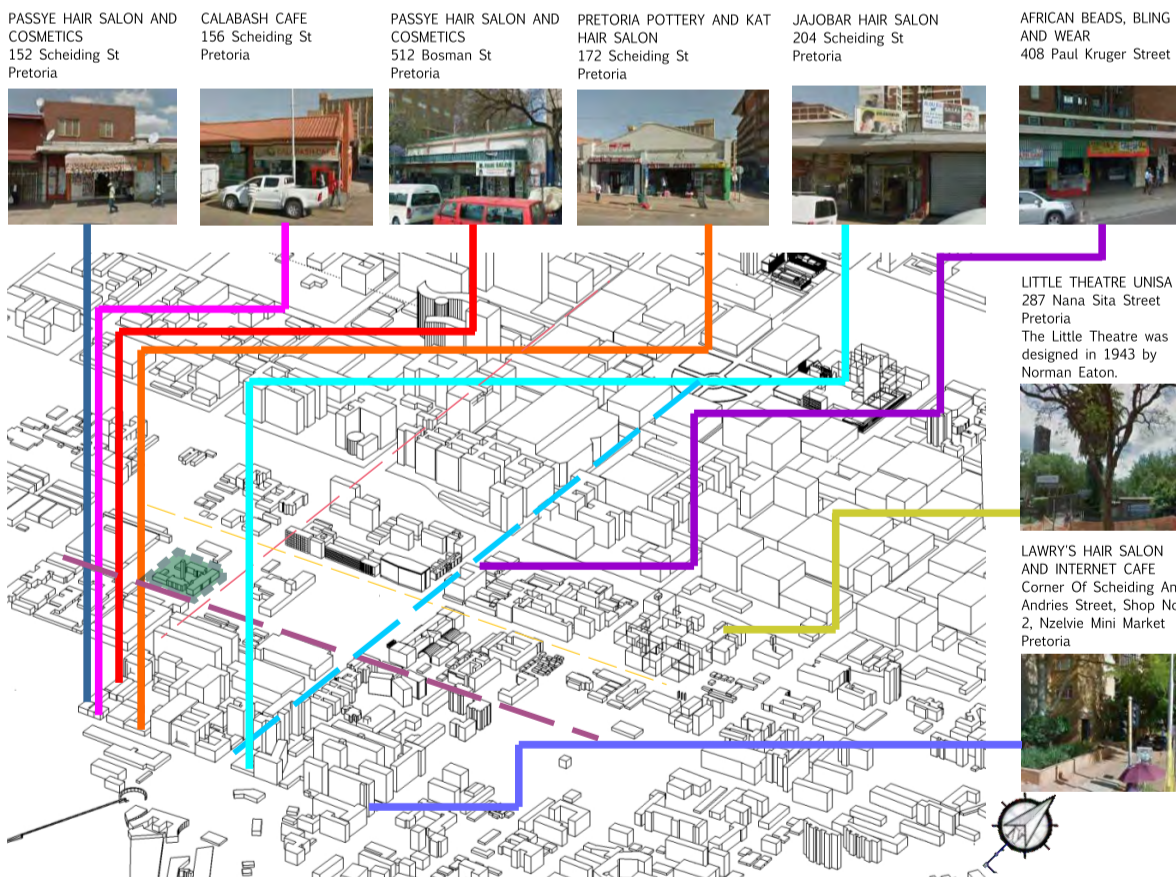


Figure 3.6: Existing informal cultural activities (Author 2015)

EXISTING INFORMAL CULTURAL ACTIVITIES

The informal activities found within the context (figure 3.6) are a means for the community within the CBD to express and consume what is of cultural importance to the community.

Functions such as cafes and restaurants, hair salons, tailoring, pottery and herbal doctors can be found. These existing activities will provide guidance in the choice of programme that is relevant to the context, thus tying in with the Cult Circle strategy that the City of Tshwane seeks to implement. These existing informal cultural activities will act as inspiration for the programme of the centre.

SITE ANALYSIS

The Old Pretoria Fire Station is located on the south end of Bosman street with one way, four lane, high traffic road, and on the west end of Minaar street which is quieter in comparison with its two lane, two way road as shown in figures 3.12 and 3.13 respectively. Both streets offer a means for greater public interface between the building and the street users.

The building was designed by Cowin & Powers Architects, built in 1912 is thought to be of early South African Edwardian style was to be utilised as a fire station, which later relocated to the building opposite it.

The proposed building defines the corner of Minaar and Bosman Street. The U-shaped building, depicted in figure 3.14, has an inner courtyard which is completely isolated from view when one stands looking in from the street.

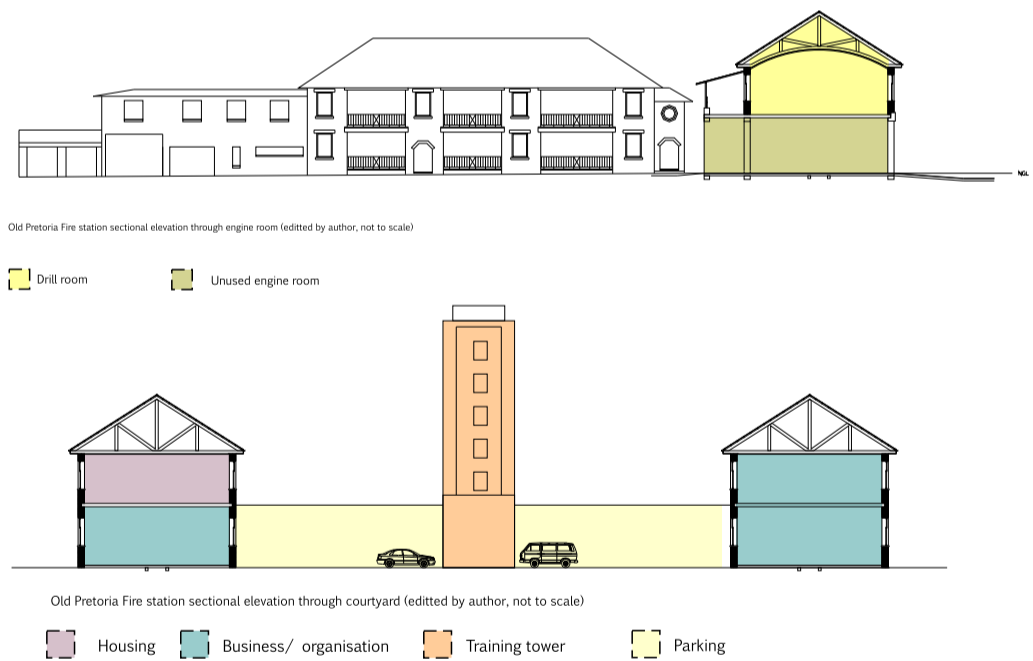
The chosen building for the first phase intervention is located on Bosman Street in order to make the most of the high foot traffic that occurs on this street. This building is currently occupied by the Museum Park Administrators, Tshwane Leadership Foundation and Housing. This phased intervention is a reminder of the original phased intervention in which the buildings on the site were built. The initial building is the eastern building on Bosman Street, followed by the building on Minaar Street, and lastly, the northern building.



Figure 3.11: Site conditions around the OPFS (Google Earth 2015, edited by author)



Figure 3.14: Old Pretoria Fire station floor plan and sections (edited by author, not to scale)



SITE FINDINGS

- Mixed use shown in figure 3.15
- Brick training tower, six storeys high
- Main entrance to the site defined by a tower on the roof was intended to be on the eastern side of the building, located on Nosman street.
- White plaster finished building which was designed to be asymmetrical
- Original clay tile roof was replaced with corrugated iron sheeting
- Whilst the wooden vehicle entrance doors were replaced with rolling steel doors
- Building consists of a ground and first level.
- Wooden framed windows and doors are still in place, original fire places intact
- Timber flooring and ceiling still in use
- Rectangular plan which consists of load bearing brick walls
- Concrete beams and columns can be found in the fire truck parking garage
- The interior spatial quality of the OPFS reveals that the fire truck garage does not receive natural light due to the roller steel doors located on both walls.
- With the floor to ceiling height being 4480mm and the first floor is at 3770mm
- Basement level was discovered in the office indicated in figure 3.17 as "e"

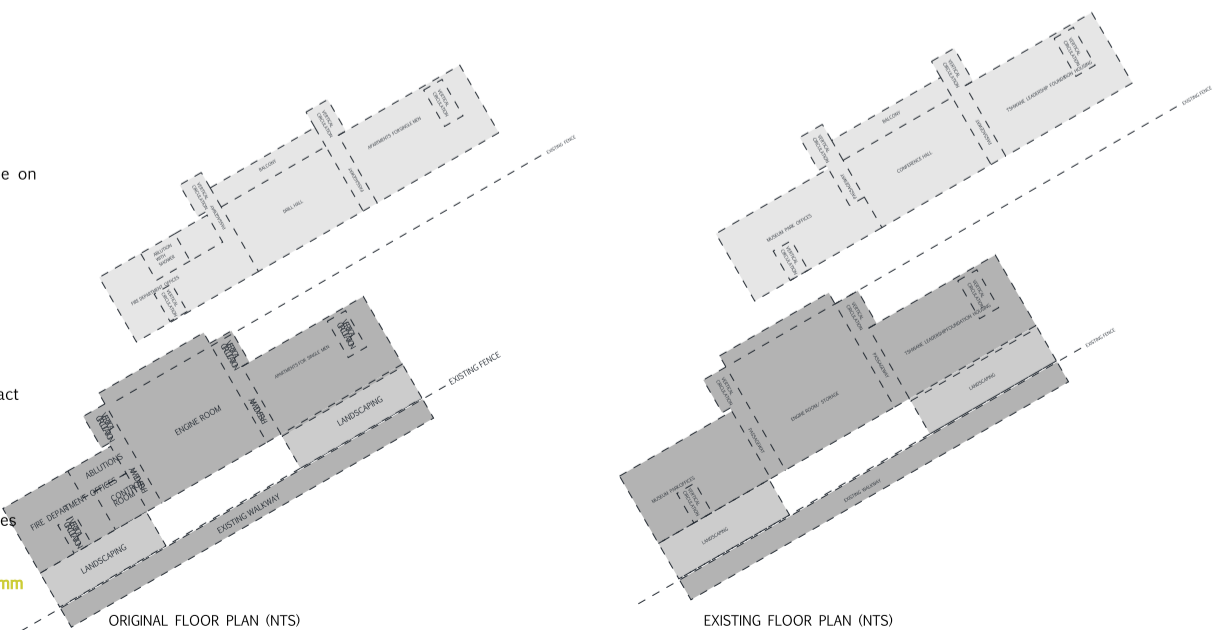


Figure 3.15: Original and existing uses within the proposed building for intervention (Author 2015)

BUILDING STRUCTURE ANALYSIS

Use viability

The building in question is **currently in use, habitable, and structurally sound** this is not to say that the building is fulfilling its purpose in a manner that is enriching to the user.

The current programme in the number of buildings on site is varied and not unified. There is no common purpose or goal.

In projects such as this which requires adaptive reuse the designer is to question what is existing and look ahead and design for the future betterment of the building. The assessment of the building with regards to the theory in question, practicality of use and available spatial qualities reveals that the building would be able to accommodate the proposed use in a manner that create a restorative space for the African girl child.

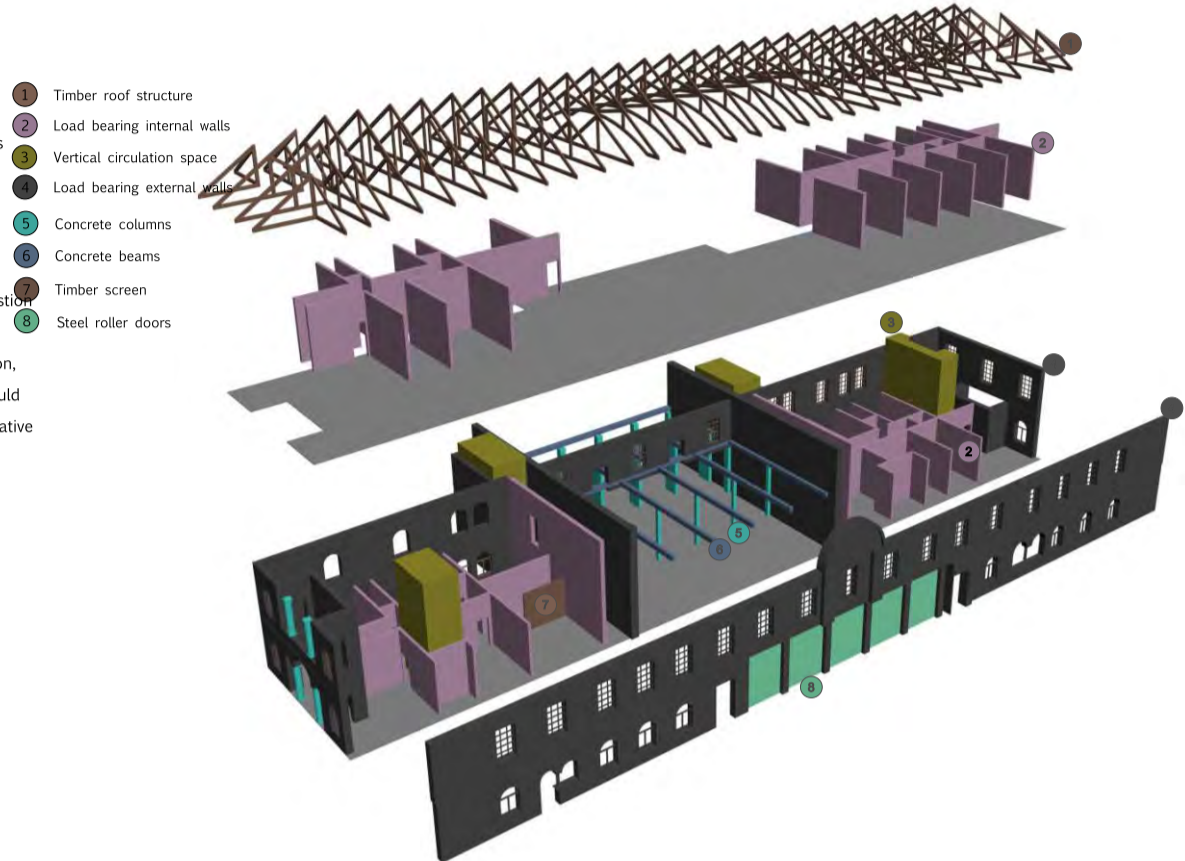
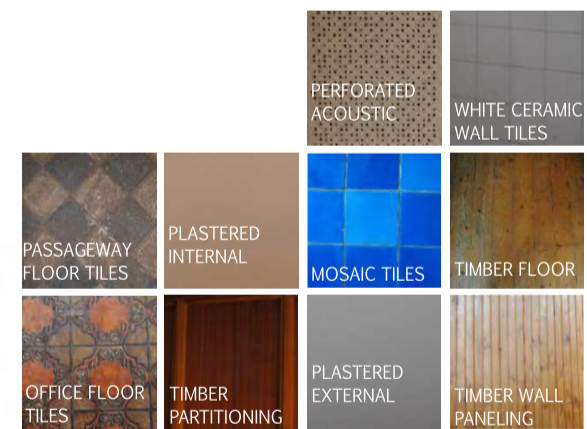


Figure 3.16: Building analysis (Author 2015)

SURFACE TEXTURE ANALYSIS

The existing surface materials within the building are of a durable nature. Existing finishes range from timber and timber based boards, stone such as slate ceramic tiles to metal gates and glass glazing.



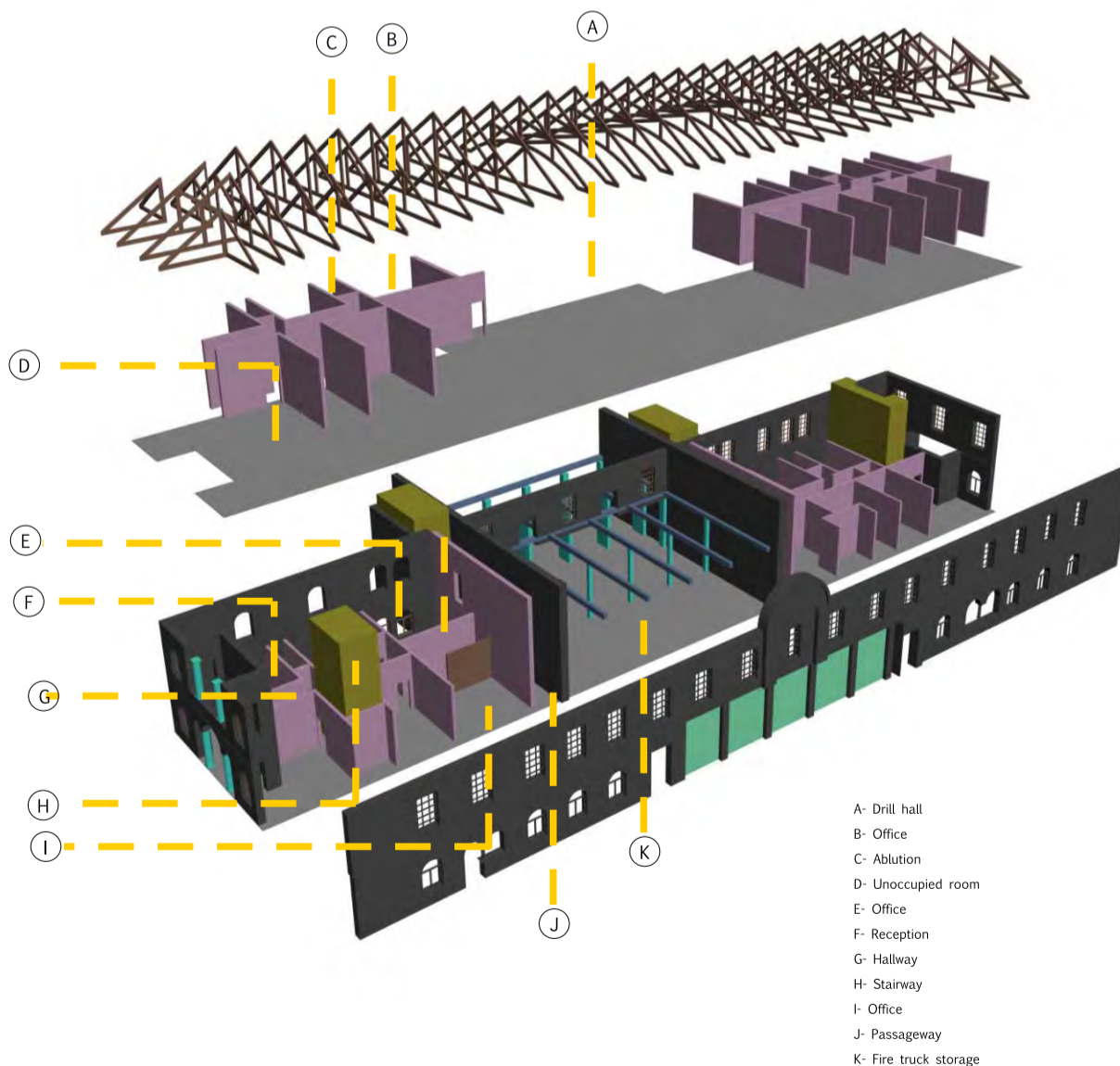
SPATIAL ANALYSIS

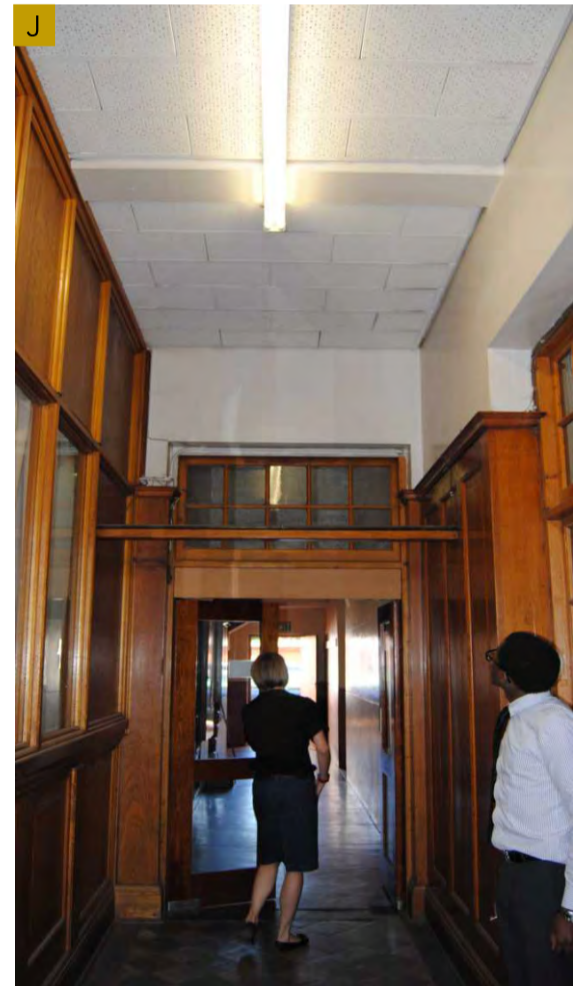
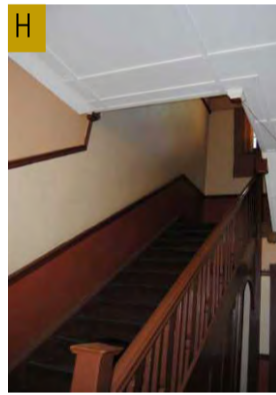
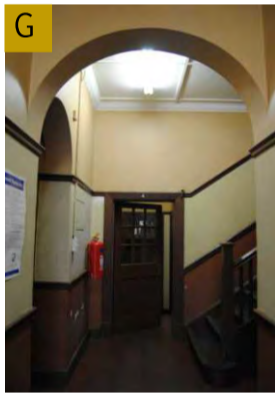
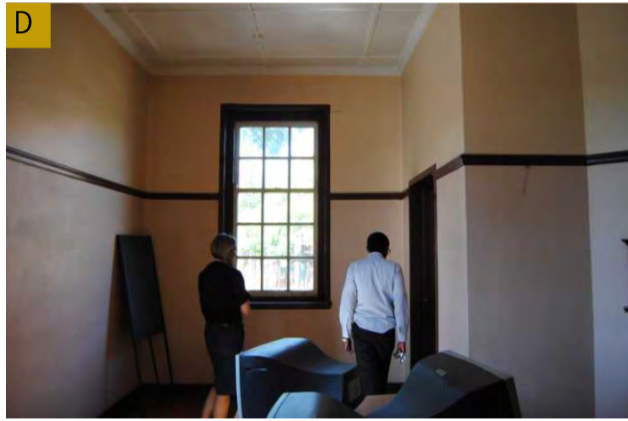
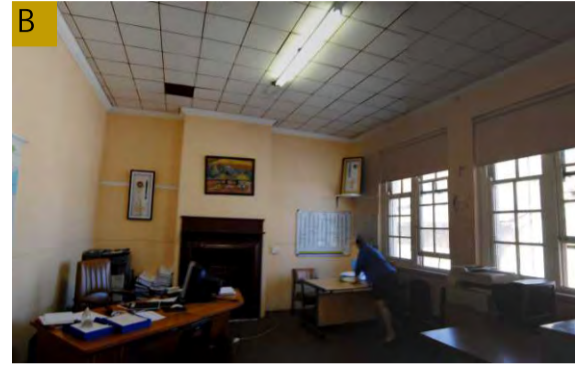
The current floor plan is not being utilised to its full potential. There are offices, function rooms, training rooms and accommodation within the PHASE 1 building.

The sectional elevations reveal that a multi use programme is a viable option in building. The ground floor, floor to ceiling height is 4480mm and the first floor 3770mm. Kincaid (2002:36) states that for uses D2 AND B1, of which the building would fall under that the slab height can be between 2300-2750mm and 2750-3650mm respectively. The building therefore meets this guideline.

The interior spatial quality is lacking in adequate electrical and day lighting as the internal load-bearing walls do not permit ample light into the cellular office space and accommodation spaces, furthermore this results in passageways being dark and cold transition spaces.

The original fire truck parking is currently being used as storage space, the steel roller doors do not permit daylight into the space, making it a dimly lit space even with electrical lighting. The numerous columns and high ceiling display potential for a striking spatial intervention.







STATEMENT OF SIGNIFICANCE

The Old Pretoria Fire station as previously stated was built in 1912 by Cowin & Powers Architects, making it older than 60 years old and therefore is subject to Section 34 of the NHRA (25 of 1999) (Le Roux & Botes 1993:39).

Not much remains as a reminder of the fire station except for the training tower that to this day still stands proud and sturdy in the inner courtyard. Another architectural element that is a reminder of its previous use is the fire engine truck entrance gates on Bosman Street. The internal courtyard character of the building is to be retained.

Internally there three steel moulded fire places (figure 3.18 inside offices that need to be considered as part of the original character of the building due to their workmanship as well as timber framed windows, timber flooring and ceiling. The original timber doors leading into the fire truck entrance and parking area have been replaced by steel roller doors. The initial clay tile roof has been replaced with corrugated iron sheeting. The existing façade is symmetrical in nature, with two niches in the façade that allow people into and out of the building. Elements such as the building corner keystone, Art Nouveau influences in fire places, bare floor boards indicate that the building is of an Early Edwardian style. These identified elements are to be retained where needed or removed and reused elsewhere with the memory of them retained where necessary.



Figure 3.18 : Steel moulded fireplaces (Author 2015)

HERITAGE STRATEGY

The heritage strategy for the intervention in the Old Pretoria Fire Station, depicted in figure 3.19, is one of integration, retaining the memory of its past whilst incorporating the new use and future into the building and site. New work is to be incorporated in a manner that is complimentary, and where demolition has been carried out the preservation of its foot print within the building and site is to be expressed with newly integrated elements.

This integration of the past, present and future aims to render the OPFS, its history, physical and metaphysical, accessible to African girl child. By exposing the building in this manner the African girl child should be able to identify with and feel empowered by it.

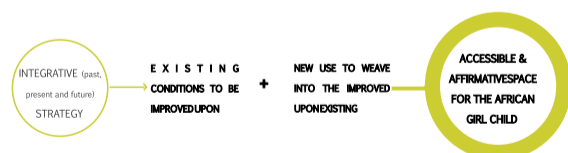


Figure 3.19: Heritage strategy diagram (Author 2015)

A detail of concern is retaining and integrating the memory of the old with the new. In the case of demolished walls in the interior, the memory will be remembered by inserting a CorTen steel plate in the void of the wall demolition as indicated in figure 6.13.

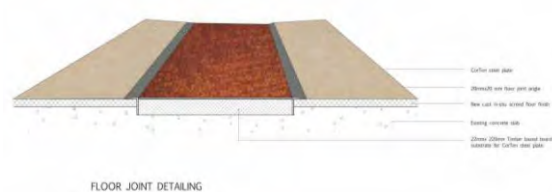


Figure 6.13: Floor joint detailing, not to scale (Author 2015)

» THEORETICAL APPROACH »

LOCAL HERITAGE LEGISLATION: NATIONAL HERITAGE RESOURCES ACT

The National Heritage Resources Act (NHRA) is legislation utilised by the South African government as a means of managing national heritage resources. The NHRA facilitates healing and material and symbolic restitution and it promotes new and previously neglected research into our rich oral traditions and customs (South Africa, 1999: 2).

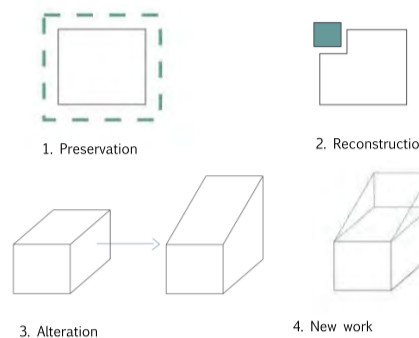
The building in question, **Old Pretoria Fire Station, which has been identified for intervention, has to date not been graded**, it has no qualities so exceptional nor special that have been identified by the NHRA (South Africa, 1999: 20). The **-and building was constructed in 1912 therefore it is subject to Section 34 of the NHRA (25 of 1999) because the building is older than 60 years** but no further information on the heritage status of the building is available.

HERITAGE LEGISLATION:

This process of alteration is not a linear projection of activities but may require one to be involved in various steps at the same time. The process of alteration includes various activities one of which being conservation which Australia ICOMOS (2013:6) states **conservation** may, according to circumstance, include the processes of:

- retention or
 - reintroduction of a use;
 - retention of associations
- meanings; maintenance, preservation, restoration, reconstruction, adaptation and interpretation; and will commonly include a combination of more than one of these.

This approach ties in to the NHRA viewpoint that heritage should not only benefit the present but also future generations. The change to be incorporated should be appropriate in relation to the cultural significance of the building.



Diagrammatic depiction of the Burra charter conservation processes (Author 2015)

AFRICAN GENDER STUDIES

Why the African Girl Child?

The African girl child is perceived to be at a disadvantage in a society that is pro patriarchy, a society that deems her of lesser value than her male counterpart (Iversen & Nyamakanga 2012: 10). Her standing in society is one of uncertainty and insecurity. Various NGO's and initiatives have been formed to aid and empower the African girl child. The empowering of the African girl child can occur on many levels which aid in her finding resources that could help in her intellectual progress. Initiatives such as the Girl Education Movement (GEM) train girls in training in peer education and life skills (International Institute for Capacity Building in Africa 2005:3).



1. The African man
The African man is considered a patriarch of the family or community (Awodele 2008)



3. The African boy child
The African boy child has benefited from a patriarchal society that gives more value to the boy child and so allowing for him to benefit more from such a society (Okello 2011).



2. The African woman
The African woman is considered to be subservient and under the care of the African man (Awodele 2008).



4. The African girl child
The African girl child is considered to be at a loss within the African culture and society. SA History (2014) states that the African girl child is disproportionately affected by cultural and economic issues.

AFRICAN FEMINISM

African feminists are now disproving these connotations as they are diverse in colour, in how they present themselves and in what they fight for. They are not seeking equality as a means of proving stronger than their male counterparts but rather to showcase their strengths as individuals and as a collective.

Lebohng Masango and Chimamanda Ngozi Adichie are two examples of contemporary African feminists. Lebohng Masango is feminist writer and poet. She bares her tattoos proudly, dresses how she feels comfortable and is not afraid to speak her mind (Black Bold Voice 2014).

Chimamanda Ngozi Adichie is an award winning novelist whose family called her a man for speaking her mind (Wagner 2015). Her books are an outlet for her creative genius and feminist standings, with strong female voices taking the lead in her books such as "Kambili in Purple Hibiscus, Olanna in Half of a Yellow Sun, Ifemelu in Americanah" (Wagner 2015).



Figure 2.2: Lebohng Masango and Chimamanda Ngozi Adichie (Masango 2015& Wagner 2015)

FEMINIST STOKVEL

The Feminist Stokvel is a collective of women who have come together to table and discuss openly about social issues facing the black, South African woman. The collective comprises of Pontsho Philane, Millisuthando Bongela, Danielle Bowler, Lebo Mashile, Panashe Chigumadzi, Lebohng 'Nova' Masango, Wisaal Anderson and Kavuli-Nyali Binyase (not pictured), as depicted in the image below.

Figure 2.3: The Feminist Stokvel collective (Chigumadzi 2015)



THE HAIR SOIREE
Practical Lessons for Caring for your Natural Hair
19 March - 18.30 for 19.00
Bean Republic, 81 Consett Drive, across Melrose Arch
R90 tickets via Quicket or at the door
RSVP: feministstokvel@gmail.com

THE HAIR SOIREE
Practical Lessons for Caring for your Natural Hair
18 April - 11.30 for 12.00 to 14.00
Bean Republic, 81 Consett Drive, diagonally across Melrose Arch
R100 tickets via Quicket or at the door by RSVP: feministstokvel@gmail.com
HAIRLINEOLOGY (PART I)

**Texture Discrimination:
THE PROBLEM WITH
~~K*FFIR HAIRE!~~**

Obsessed with... Shrinkage? Length? Texture Manipulation? Tracee Ellis Ross vs Lupita hair goals?

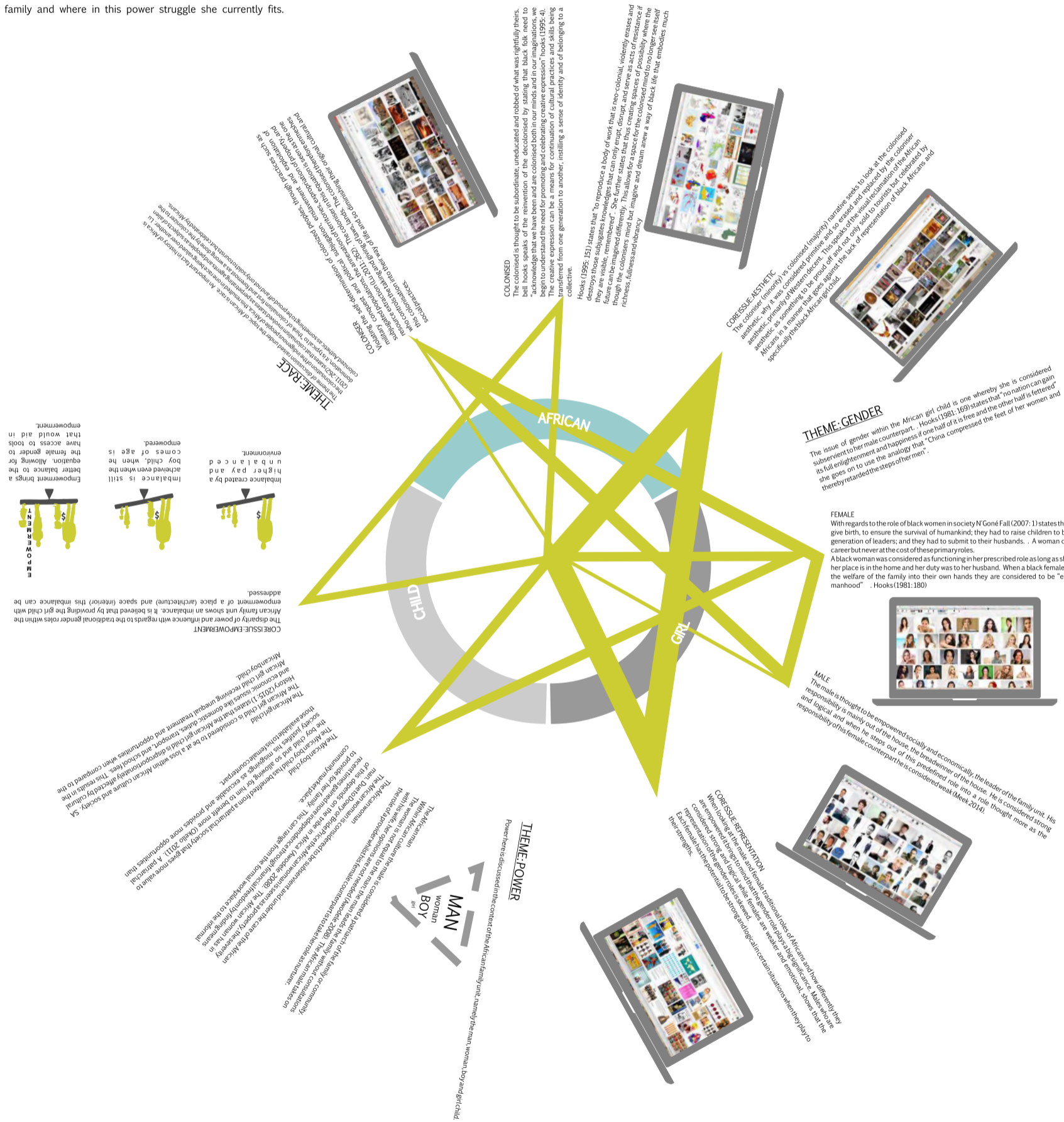
Then join Feminist Stokvel for our third Hair Soiree where we take on Texture Discrimination, an exploration of white supremacist aesthetic ideals within the natural hair community."

Date: Saturday 27 June 2015
Venue: Constitution Hill
Time: 12.00 - 2.00
Cost: R150 - includes lunch, drinks and a free tour of Constitution Hill!
Tickets available on Quicket
RSVP to feministstokvel@gmail.com

AFRICAN REPRESENTATION

The representation of the African girl child within the space she occupies is of importance. Weisman (1992: 9) states that both the world out there and the world inside ourselves depend upon and conform to our socially learned perceptions and values. **By representing the African girl child and the African aesthetic a sense of African pride is instilled in her.**

The **representation of the African girl child** will be discussed under three themes, namely **race, gender roles and the concept of power**, within the African family and where in this power struggle she currently fits.



PROGRAMME



USER GROUP

African girls between the ages of 13 to 17.

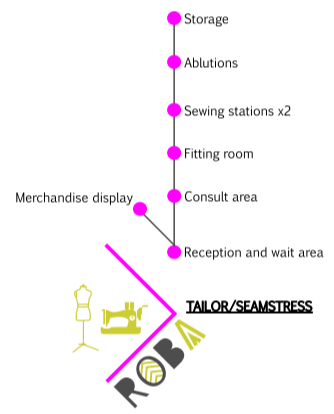
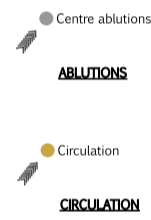
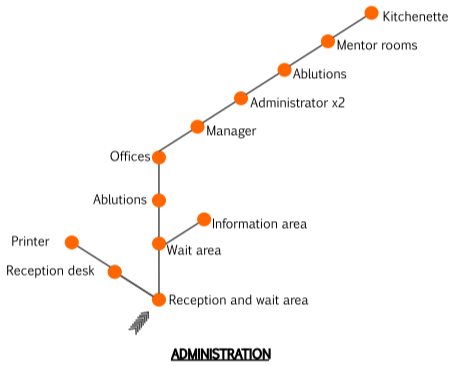
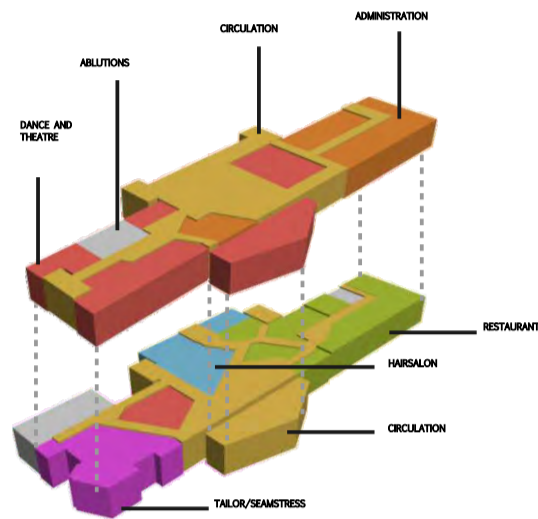


Figure 5.2: Students at a Protestant secondary school in Mbandaka, Congo (Elisofon 1972)

Figure 5.3: CLIENT BODY (Author 2015)

The client body is to consist of:

1. Department of Women, Children & People with Disabilities (Nelson Mandela Children's Fund 2013)
2. Breakthrough (IPWEB 2014)
3. South African Girl Child Alliance
4. Girl Education Movement (Girl Education Movement Uganda 2011)
5. Children's Movement South Africa
6. Businesses that would empower the African girl child
7. Girls not brides (Care 2014)
8. Tshwane Leadership Foundation (Tshwane Leadership Foundation 2015)
9. Cell C Girl Child initiative (Cell C 2015)
10. Zazi (Zazi 2015)



PROGRAMME FOR BONANG: CENTRE FOR THE AFRICAN GIRL CHILD

The programme for the African girl child is to be mixed use, relating to the contextual location whilst providing innovative means of providing empowerment through interior design. The African Girl Child is to be empowered in sectors such as Business, Science and Technology and the Creative arts. These sectors will fit into the play, work, learn grouping of spaces.

Half a mind is a terrible thing to waste

STEAM encourages a well rounded approach to education.

STEAM not STEM (2015) states that STEM is based on skills generally using the left half of the brain and thus is logic driven. Much research and data shows that activities like Arts, which uses the right side of the brain supports and fosters creativity, which is essential to innovation.

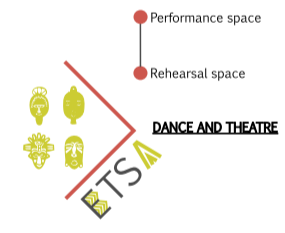
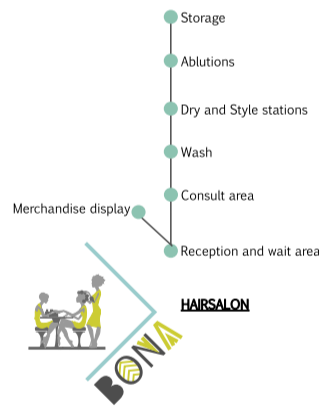
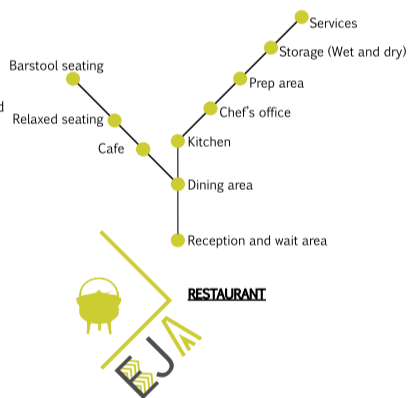


Figure 5.8: Programme distribution at Bonang (Author 2015)



PHASE 1: Arts and Cultural

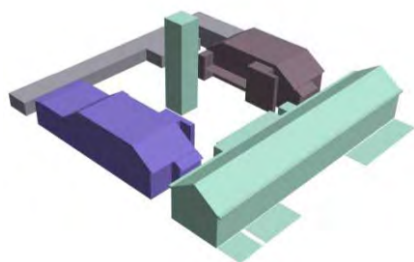
The intervention is to activate the building and build awareness to the general public, concerned organisations and specifically the African girl child about the centre. The chosen building for PHASE 1 was chosen due to its positioning on a more public road and a more frontal and direct entrance to the building.

PHASE 2: Science and Technology

This will build on to PHASE 1 and so broadening the range of interests for the African girl child. The phase will incorporate knowledge transfer spaces such as laboratories and house offices for professionals to work from so the girl child can be exposed to the career and trained in a hands on manner

PHASE 3: Engineering and Mathematics

The third phase will be of a more educational nature, offering a "clinic" for subjects that pertain to the Engineering and Mathematics field, allowing the girl to be a step ahead.



- PHASED INTERVENTION
- PHASE 1
 - PHASE 2
 - PHASE 3
 - STORAGE AND CARE TAKER

Figure 5.4: Phased intervention (Author 2015)

Figure 5.5: African girls dancing (Bare Threads 2012)



Figure 5.6: Young girl child in lab (Fablabtigitullo 2015)



Figure 5.7: Young girl child learning robotics (Fablabtigitullo 2015)



DESIGN INFORMANTS



SPATIAL QUALITIES OF INFORMALLY DESIGNED SPACES



ARMATURE

Reconstruction of broken elements by means of propping, this is to maintain spatial relationship that would be under gravitational threat (Scott 2008: 118)



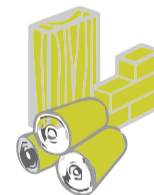
EXPOSED FIXTURES

Fixing points and jointing of elements are left exposed or unfinished mostly due to financial reasons.



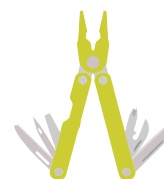
DECORATION

Decoration is subjective and is dependant on what is readily available and affordable.



COLLAGE OF MATERIALS

Available materials are used in the construction and decoration of space.



MULTI-FUNCTIONAL SPACES

The multi-functionality of space is due to space constraints

CONCEPTUAL APPROACH



Form of hair alteration **Level of alteration**

Braiding —————> **Integrated but separate**



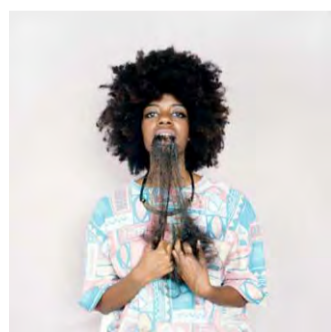
Relaxed hair —————> **Changes hair texture**



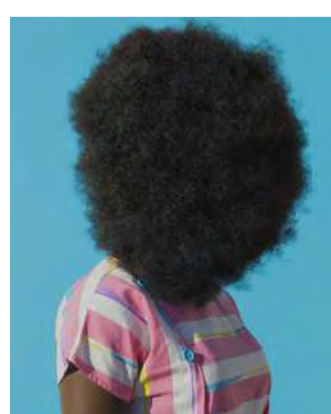
Weaving —————> **Integrated but less integrated than braiding**



Dreadlocks —————> **Existing hair is twisted into its own braid**



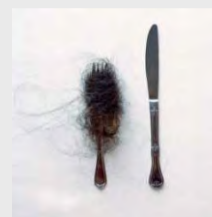
Natural hair —————> **Hair is left to grow out as is, little hair manipulation needed**



Wigs —————> **Temporary hair alteration that does not change the nature of the person's hair**



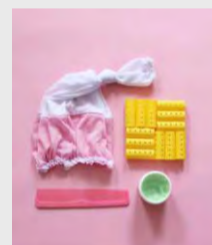
INTERVENTIONIST APPROACH



1. Removal of existing hair style



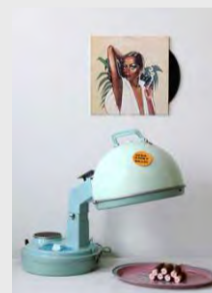
1. Removal of rotten fabric



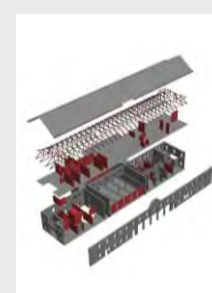
2. Washing/treatment of hair



2. Replacing /repairing original



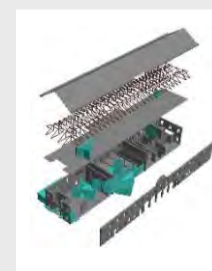
3. Blow-drying and conditioning



3. Enabling works



4. New hairstyle



4. New works



PRECEDENT STUDIES

SPATIAL LAYOUT AND HERITAGE INTERVENTION

The precedents discussed focus on how an intervention in a heritage building can be used to announce new use in the existing building, spatially and on the floor plan.

MUSEUM OF CONTEMPORARY ART OF ROME (MACRO)

Architects: Studio Odile Decq

Location: Piazza Orazio Giustiniani, 4, 00153 Rome, Italy

Area: 12000.0 sqm

Year: 2007

The Museum of Contemporary Art of Rome (MACRO) designed by Studio Odile Decq sought to change the introverted site into a more open site. The integration of Contemporary Art Gallery in an ancient mixed industrial building proved to be challenging but resulted in an intervention that is striking.

FACADE: A prominent corner of the façade, shown in figure 4.1, has been removed and replaced with contemporary materials that stand in contrast to the host building, permitting light into the building and connecting space users within the host building with the context.

CIRCULATION: The circulation path, depicted in figure 4.2, is linear as the host building would have dictated but instead is dynamic, offering various viewpoints along the route.

SPATIAL ORGANISATION: The spatial organisation is not limited to the static orthogonal planes dictated by the original layout of the building but rather pulls away from a formal, static plan and section to form angled horizontal and vertical planes.



Figure 4.1: Façade of Museum of Contemporary Art of Rome (Filetici 2014)

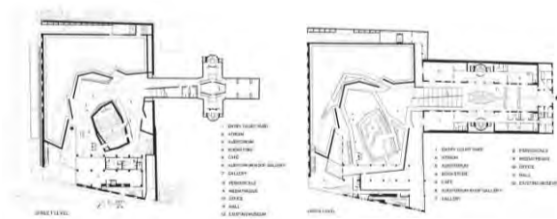


Figure 4.2: Circulation within the museum (Filetici 2014)



Figure 4.3: Spatial organisation within the museum (Filetici 2014)

Analysis

The orthogonal nature of the building was rejected and a diagonal line was used to form new spaces as depicted in the image above. Thus a parti analysis (figure 4.4) reveals that the stable horizontal line is changed to an unstable line, resulting in the static nature of the space becoming dynamic.



Figure 4.4: Analysis of floor plan arrangement and spatial organisation within the museum (Author 2015)

FORTRESS OF FORTEZZA

Architects: Markus Scherer with Walter Dielt

Location: Franzensfeste, Italy

Area: Unknown

Year: 2009

This was a military fortress built in 1838, used as gunpowder depot in the 19th century, and in 1918, Franzensfeste came under Italian rule and was used by the army until 2003. This former fortress has become a place for meetings and cultural exchange.

FACADE: Elements such as the retained existing brickwork (figure 4.5) keep the memory of the past in a matter that is literal whilst the new addition attempts to complete the form of the building with missing parts.

CIRCULATION: Of particular interest is the existing tunnel (figure 4.6) which was extended to 22 meters, to connect the lower- to the middle fortress. A lift and black concrete stairway was added with a golden handrail.

The extension of the tunnel is of importance because it extends the memory of the history of the building. The architects used the opportunity to maximise the fortress' spatial potential.

SPATIAL ORGANISATION: The use of the horizontal organisation of space could have produced a predictable design but the architects sought to move away from this and rather use the vertical geometry that existed to some degree. This shift from existing geometry provides an intriguing spatial product.

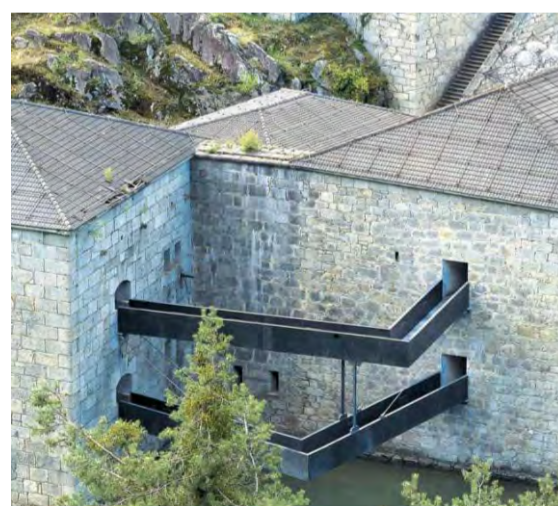


Figure 4.5: Façade interventions at the military fortress (Chemollo 2011)

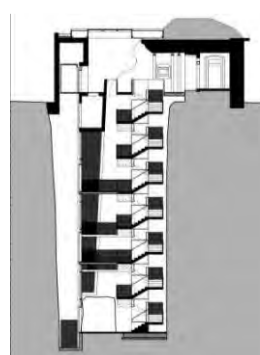


Figure 4.6: Section through the extended tunnel (Chemollo 2011)

MORITZBURG MUSEUM EXTENSION

Architect: Nieto Sobejano Arquitectos, S.L.P.

Location: Halle, Saale, Germany

Year: 2008

Area: Unknown

The castle of Moritzburg in the city of Halle is an example of Gothic military architecture, from the end of the 15th Century in Germany.

FACADE: The facade intervention loudly announces a new entrance (figure 4.7). The superimposed new intervention peaks out of the with an angular pitched roof that stands as a memory of the host building. The new materials stand in contrast to the ruin, highlighting that which is old and the new.

CIRCULATION: The existing buildings were kept as intact as possible whilst the intervention was inserted within the host, retaining its ruined state as far as was possible.

SPATIAL ORGANISATION: Due to the removal of the existing roof, the floor was completely rid of its walls, to allow for a more open plan as shown in figure 4.8

In summary, the interventions discussed in this section highlight the need to activate heritage buildings in a manner that need not continue the original intention but rather introduce the new intervention in a manner that is contrary : complimentary to the site, thereby reactivating the building not only in programme but form and space. The extension and reinterpretation of existing or past elements serve to enrich the design intervention.



Figure 4.7: Façade the castle of Moritzburg (Halbe 2011)

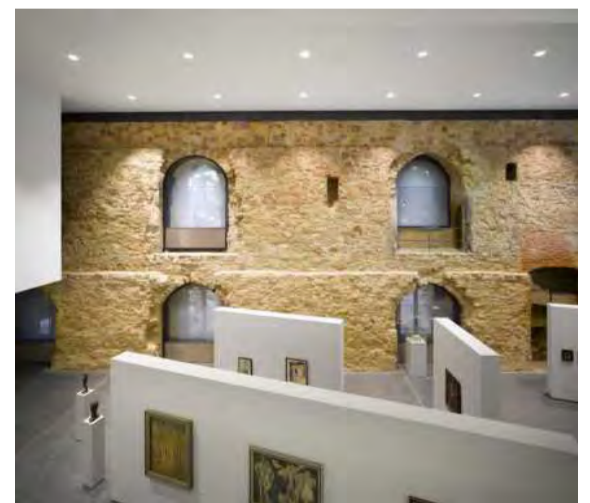


Figure 4.8: Interior, open plan view in the castle of Moritzburg (Halbe 2011)



PROGRAMME

The following precedent has been investigated due to its successful nature as a community centre within the South African context.

UBUNTU CENTRE

Architect: Field Architecture

Location: 5 Qe Qe Street, Zwide, 6200, Port Elizabeth, South Africa

Area: 1951 m²

Year: 2011

Programme: Mixed use: community centre and commercial spaces

The Ubuntu Centre is located in Zwide in Port Elizabeth and is an example of how architecture and education can be used to empower a community. The centre contains facilities for paediatric HIV testing and treatment, counselling, education, and community empowerment”.

The multiple functions that the building contains (figure 4.9) address the needs found in the community. This was done by **looking within the community to provide an answer or alternatives to social ills**, educational dilemmas and the need for creative expression and enjoyment.

The **variation in programme** allows for the centre to cater for young and old within the community at different times of the day. This **ingenious use of programme to prompt different users at different times** can aid in accommodating more functions with less but more flexible space. It also ensures a continual use of the centre. The multi-purpose hall, depicted in figure 4.11, is an example of this continuous use.



Figure 4.9: Floor plan of the Ubuntu Centre (Field 2011:1)



Figure 4.10: Section through the building showing use of double volume (Field 2011:3)

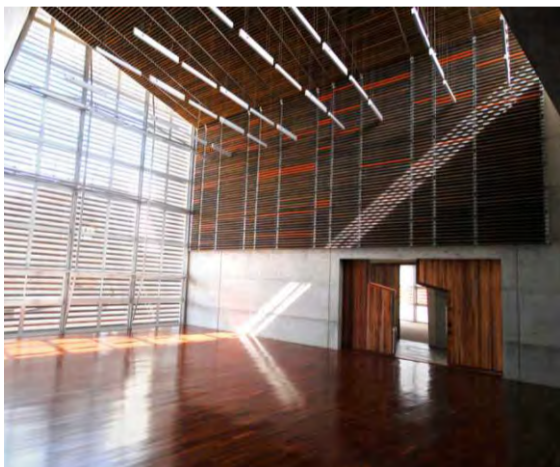


Figure 4.11: Multi-purpose hall (Riordan 2011)

AESTHETIC and CONCEPTUAL FRAMEWORK

The following precedents were chosen in an endeavour to identify an aesthetic that the design intervention would need in order to successfully represent the African girl child through interior design.

The two precedents represent the formal and informal interiors that can be found within the South African context. The formal interior is primarily constructed by skilled labour applying sophisticated mass produced materials, while the informal interior is created by unskilled individuals applying found and/or recycled materials.

CONSTITUTIONAL COURT OF SOUTH AFRICA

The Constitutional Court (2015: 1) brief was “...to create a building rooted in the South African landscape, physically and culturally, without overemphasising the symbols of any section of the South African population, or making a pastiche of them all”.

The principal materials used: timber; concrete; glass; steel and, black slate “...infuse the court with an African feel” Constitutional Court (2015:2). The materials are relevant within the South African context as space users can identify with their everyday use.

THE FORMALISED AESTHETIC: THE MACHINED ARCHITECTURAL ELEMENTS

The Constitutional Court can be considered to be a space that has been machined, meaning that the majority of the building was built commercially and using various machinery.

COLOUR

Colour is also incorporated by allowing the **inherent colour of architectural elements and furniture material**. The use of colour is not overwhelming; rather, it complements the spaces, and results in a unified look of the Foyer space (figure 4.13).

TEXTURE

Textures used in the spaces, range from the very **smooth and polished to rough and coarse** as seen in figure 4.14.. Texture on surfaces and in the incorporated art and crafts all work harmoniously together.

SHACK CHIC

Shack chic is a photographic documentary of the dignity to be found in the dusty streets of South Africa’s shack-lands, and is described as “...an exhibition of **cultural creativity in real life contexts**” (Fraser 2002: 15).

THE INFORMAL AESTHETIC: HAND-CRAFTED FOUND OR RECYCLED MATERIALS

Shack chic serves to celebrate making the best of what is affordable and available. The interiors and built structures showcased in Shack Chic depict handmade elements more as a necessity rather than a luxury. The built structures are built according to what the creators could afford or find resulting in materials being recycled.

For example, a method of wall papering the interior of a shack to keep the cold out, as depicted in figure 4.16 is labeling paper from household and food items receiving a new use, the results of which are an intriguing pattern and colours within a given space; a collage of materials.

COLOUR

Colour is used **varying tone, usually bold and contrasting** seen in figure 4.15. The **colour usage is unconventional** as it may not be premeditated, such as in formally design spaces, but a result of a collage of found materials and readily available elements.

TEXTURE

The texture that can be seen is from **multimedia collage of materials** such as Lucky Star make-shift wallpaper, vinyl floor carpets to painted timber pallet walls (figure 4.17).

In summary, the formalised African aesthetic is primarily deliberate in that there is a concept, a specific colour palette, and predetermined materials. The spaces are realised through the use of machinery and commercialised elements. In contrast, informal spaces with an African aesthetic are unplanned in that what is available and affordable is used. There is no concept in the makeup of a space, rather there are layers of materials and textures which are organically layered and completed, which result in each space being unique in its aesthetic.



Figure 4.12: Crafted element within the Constitutional court (Mushahary 2012)

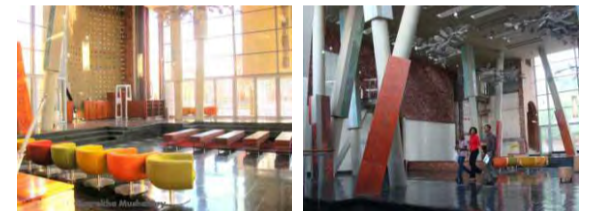


Figure 4.13: Use of colour in the Constitutional court (Mushahary 2012)



Figure 4.15: Re-use of packaging wrappers as wall paper (Fraser 2002)



Figure 4.16: The use of colour in the interior (Fraser 2002)



Figure 4.17: The use of texture in the interior (Fraser 2002)