



Fig 10.1 Existing ruins of the old Era Brick Factory (Author, 2018)

CHAPTER

10

appendices
(article & final presentation)



Re- Creation

The de-stigmatisation of a post-industrial site, at the old Era-Brick factory in Eersterust.



Fig. 01. Above; Photo, ruins of the old Era Brick Factory (Author, 2018)

INTRODUCTION

The Era Brick-factory used to be an important economic generator in Eersterust. Yet as time and development progresses, industrial sites are often abandoned. As such, negative connotations and preconceived ideas or stigmas are formed about these sites. The same can be said for many post-industrial sites around the world and our local context.

This article will attempt to create strategies to address these stigmas, by synthesising architectural theories from both heritage and ecological standpoints, with theories surrounding stigma alleviation.

THE ISLAND

The site is a result of many historic layers including industrialisation, forced re-settlement policies, urban sprawl etc. The most pertinent issue facing the site is the fact that it is isolated from its urban context and it separates neighbouring communities, obviously by historic design.

The spatial legacy of apartheid can clearly be seen when looking aerial photos of the site, as it formed a barrier between the 'white' community of Jan-Niemand Park and the 'coloured' community of Eersterust.

This forms the first layer of this article's argument. The decades of separation has fuelled stereotyping and stigmas on both sides of this urban-island. The history of the site and Eersterust will be discussed in the next section. The other factors

contributing to the site's current state, include abandonment from the end of 2013, the detrimental effect the quarry and factory had on the sites ecology, current owners using it as a dumping ground and the vast amounts of space left derelict to name but a few.

ADDRESSING THE SHADOW

In architectural theory the notion of stigma associated with place has not been addressed adequately, as previously stated this article will attempt to use existing theories in architecture and layering them with theories that address stigmas in a general sense. Thus creating a possible template to address similar situations on other post-industrial sites with social, political and environmental stigmas following them like a shadow.

Left untreated, stigmatised post-industrial sites, like the old Era Brick Factory, can deteriorate even further, causing loss of heritage fabric, urban decay and more social and political tension.

What follows is an attempt at synthesizing the above mentioned theoretical premises and coming up with possible strategies that can address the complex challenges that succeed a post-industrial site.



Fig. 02. Top Left; Site Location (Author, 2018)

Fig. 03. Below Right; Sketch, ruins of the old Era Brick Factory (Author, 2018)

THE PAST MEETS PLACE - HISTORY & CONTEXT

Eersterust was born out of a series of discriminatory laws and actions by the previous government, with the coloured community relocated to the area and further segregated by natural and industrial boundaries. The site is located 12km east of the Pretoria city- centre. Adjacent to the site is an underutilised soccer stadium complex.

BRIEF HISTORY OF EERSTERUST

In the early 1900's a settlement east of Pretoria was established on the Vlakfontein farm, owned by the Wolmarans family. Directly translated from Afrikaans, Eersterust means first-rest. Although the true origin of the settlement's name is not known, there are a couple of theories ranging from it being the first spot mail-coaches stopped while traveling to Lydenburg from Pretoria. The above-mentioned

Wolmarans family wanting the coloured community to have their own place of permanent residency. And lastly during the Anglo-Boer war, the Boer-forces rested at the location after the siege of Pretoria. (Potgieter, 2002:32, 46) & (Van der Walt, 1966).

The 1958 Group Areas Act, imposed by the previous government, relocated coloured citizens to the area. From then on it became known as a predominantly coloured community, which is true up until this day. In 1994 Eersterust became part of the City Council of Pretoria and at the millennium it became part of the City of Tshwane Metropolitan Municipality. (Potgieter, 2002:46) & (Van der Walt, 1966).

The settlement has just under 30,000 residents, of which approximately 84% are of the coloured population group. About 78% of the community identify Afrikaans as their first language. (Census, 2011)

BRIEF HISTORY OF THE ERA BRICK FACTORY

On the original farm that would eventually become Eersterust, brick manufacturing was established because of the natural abundance of clay soil found between the two rivers running around the site. The first formal brick manufacturing company was established in 1947, called Era Stene (Era Bricks). (CIPC, 2018) & (Enslin, 2018).

From the middle of the 20th century the operation became formalised with the first factory buildings appearing on site. By the end of the 1960's the sports fields adjacent to the site were constructed. (National Geo-Spatial Information Database, 2018).

In the 1990's the clay found on site was exhausted and alternative sources had to be transported daily to the factory. In the last decade of the previous century, the soccer fields were upgraded to the stadium complex as it stands today. (National Geo-Spatial Information Database, 2018) & (Enslin, 2018).

In late 2013 the entire brick factory and quarry were decommissioned. The buildings were demolished, and usable components were sold/recycled. The site was then sold to the Labucon group, a civil engineering company that uses the site to dump excavated soil from building sites in and around Pretoria. (National Geo-Spatial Information Database, 2018), (Enslin, 2018) & (Labucon, 2018)





Fig. 04. Left; Sketch, ruins of the old Era Brick Factory (Author, 2018)

Fig. 05. Opposite Top; Sketch, of stigmas (Author, 2018)

ISSUES GENERAL ISSUE

The most prevalent issue(s) this article seeks to address is the stigmas associated with post-industrial sites. Stigmas often have a push-away effect, which can have dire consequences for interaction, development or preservation. The old Era brick factory site has multiple stigmas associated with it. The main stigmas associated with this site are divided in three broad categories to make the reaction strategies quantifiable, and easier to relate to architectural theories. They are as follows:

1. Social stigmas. Loss of jobs (after the factory closed), the lack of activity on the derelict site, underutilisation of the stadium.
2. Political stigmas. Continuous segregation of neighbouring settlements with little to no interaction between communities separated along racial and economic divides.
3. Environmental stigmas. Pollution from the previous and current owners that resulted in a scar in the landscape.

THE URBAN ISSUE

At an urban scale the site forms a barrier between two suburbs, namely Eersterust and Jan Niemand Park. This separation is reinforced by the natural barriers of the two rivers flowing on either side of the site, the mountain to the north and the man-made barriers of Stormvoël road, and industrial areas like Silvertondale. Thus strategies need to be adopted to address the site as an urban island to break this barrier between segregated communities. Making the site a common ground rather than a barrier.

ARCHITECTURAL ISSUE

The underutilisation of the adjacent stadium and the complete lack of activity on site presents an opportunity to create an architecture that has more than mere functional significance, rather than a housing development currently being proposed by developers that will inflict more damage to the site. Creating an architecture that seeds ownership and pride, for more than one group of users.

THEORETICAL CONTEXT

This article argues that architecture can be a viable solution to solve stigmas associated with place. Strategies to address stigmas in general are being adapted to suit a spatial problem. To ground this argument in architectural constructs, theories from the Heritage & Cultural Landscapes and Environment Potential are synthesised.

The confluence of these theories are then connected to the aforementioned stigma approaches. (See diagram)

STIGMA

A stigma is defined as a perceived negative attribute or feeling of disapproval that causes someone to devalue or think less of a circumstance, quality, place or person. (Synthesis of multiple definitions, see endnotes).

According to a 2009 article by the Government of Western Australia, stigma often leads to an individual being stereotyped. In turn this leads to prejudice and lastly to discriminatory actions on said individual or group.

**STIGMA = STEREOTYPING ->
PREJUDICE -> DISCRIMINATION**
(Government of Western Australia, 2009)

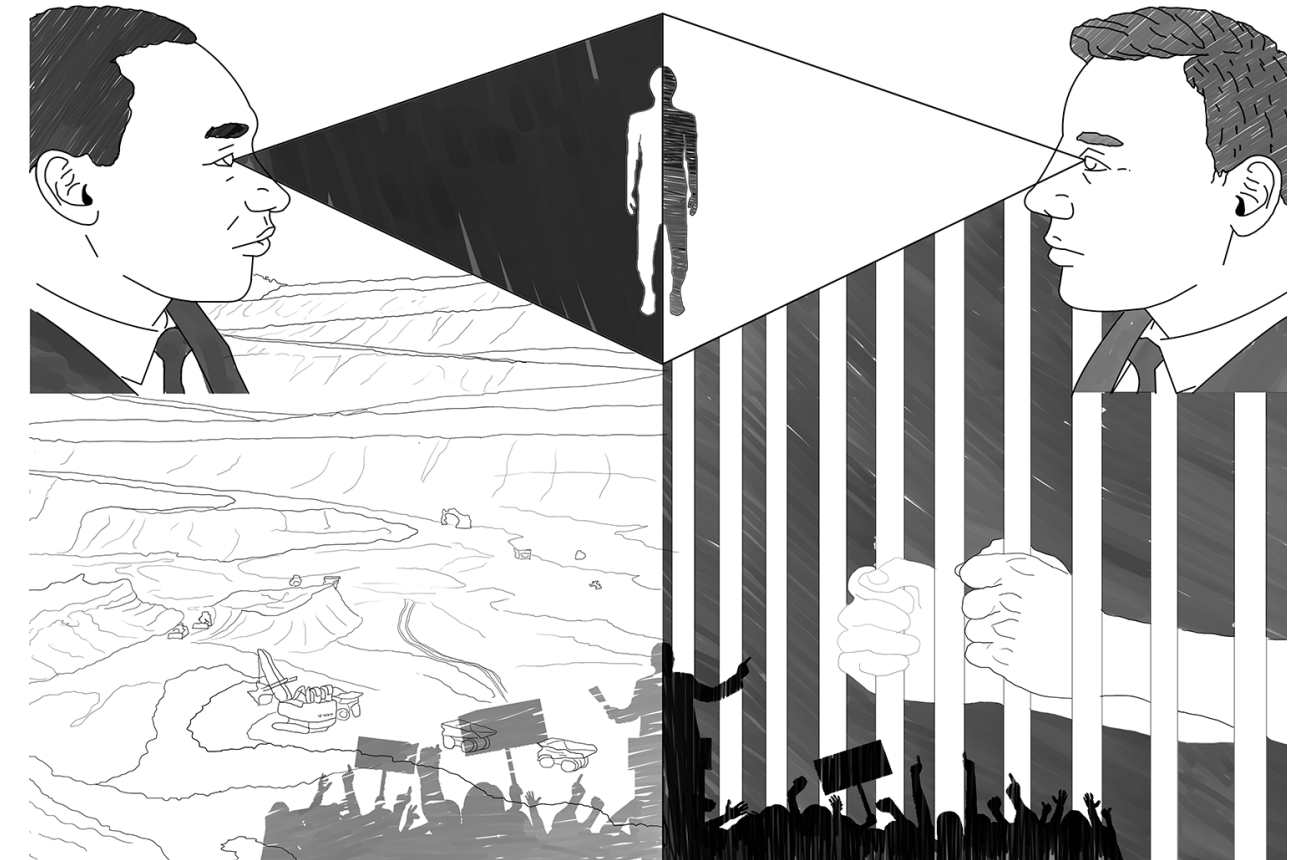
This can then be further unpacked to focus on stigmas of place. Usually this is associated with landscapes that carry severe damage or that are linked to a certain negative event, the Chernobyl nuclear disaster or Auschwitz for example. This is not limited to historically significant places, as any productive facility that is currently in operation or has ceased operation (post-industrial sites), can carry a stigma. (Leiss, 2013:2.)

Thus it is unsurprising that stigmas are often associated with areas where disenfranchised communities dwell.

This notion is often perceived by both parties directly associated and outside of the community in question, al be it from different perspectives and different outcomes (Flanagan et al. 2017:6).

Thus what are some of the most important characteristics of a stigmatized place?

- There is a perceived risk.
 - Avoidance of the place as a result of the risk.
 - There is an abnormality associated with the place.
 - Associated with a socio-economic or socio-political issue.
 - It is discussed in a negative light in the media or personal conversations.
 - There is a stereotypical mentality and image associated with the place. Suggestive language is used by people when discussing the place.
 - The negative emotions and rash reactions the place evokes.
- (Leiss, 2013:3 & 8.) (Flanagan et al. 2017:7).



STIGMA RELIEF STRATEGIES

Various strategies exist in a general sense to alleviate stigmas- the relevant sources were consulted, synthesised and reinterpreted to alleviate stigmas of place:

- Communication & interaction between the opposing communities.
- Education, learning from and about each other.

- Create shared spaces, where social interaction can take place.
 - Facilitate empowerment, through education, skills development and equal opportunity.
 - Build a community, where competition and interaction can happen.
- (NAMI. 2018) (The Mighty. 2018) (Socialist Health Association. 2018) (Mend the mind. 2018) (Gluck, S. 2018) (Government of Western Australia. 2009) (Leiss, W. 2013).



Fig. 06. Opposite Top; Photo, ruins of the old Era Brick Factory viewed from stadium (Author, 2018)

HERITAGE & CULTURAL LANDSCAPES APPROACHES

The first Era brick factory building was built between 1950's-1960's and the second factory building was built between 1976-1980's. Thus, some of the buildings on site are older than 60 years and are protected by the heritage charters. Unfortunately the bulk of the buildings on site are not old enough to be protected. This undoubtedly contributed to the demolition of the factory buildings.

However, it is arguable that the site has significance through what it meant to the community by providing jobs and skills. If one expands the significance to the adjacent sports stadium, it becomes clear that there is value left on the post-industrial site that needs protection and reinterpretation. The leftover built fabric has a unique character that still speaks to its original design and honesty of materials. The buildings were

125

Fig. 07. Right; Diagram, of Theories & Strategies Considered (Author, 2018)

constructed from mostly bricks, bricks that were manufactured from the very soil it stands on. This adds layers of significance that vouch for its importance in Eersterust's history.

The two main charters to be used in this argument are the Xi'an declaration on the conservation of the setting of heritage structures, sites and areas and the Nizhny Tagil charter for the industrial heritage. The following is a summary of what aspects in a theoretical sense are relevant to the site in question and the approaches that will be used to design with. The Xi'an declaration is focused on general heritage buildings and landscapes, where the Nizhny Tagil charter is focused on industrial heritage.

- First, one must acknowledge the significance of the setting, particularly for post-industrial sites, even their environmental leftovers can be considered for their archaeological and ecological value. The site has significance from a functional perspective, not particularly from an architectural perspective. The site was used as a quarry and brick factory, even before the first building was built, or the establishment of Eersterust itself. Furthermore the adjacent stadium complex adds another layer of significance (Nizhny Tagil, 2003) (Xi'an, 2005).
- Second, the charters calls for an understanding of the history, evolution and character of the setting through diverse forms of documentation, literature, interviews and media. (Nizhny Tagil, 2003) (Xi'an, 2005).
- Third, the charter dictates that any development on such a site should positively reinterpret and contribute to the character that makes the site significant. With sites that are at risk, appropriate measures should be implemented to reduce risk and assist interventions that aim to repair or re-use the site. In other words an intervention on the Era brick factory should protect the most important buildings left on site and utilise the productive nature of that what is left without losing this significance (Nizhny Tagil, 2003) (Xi'an, 2005).

- Fourth, the historic significance should not prevent or obstruct development from happening on site as long as it is handled with respect. New uses should, respect, maintain, and interpret the existing fabric (Nizhny Tagil, 2003) (Xi'an, 2005).
- Fifth, the charters call for an intervention to engage with local communities and stakeholders to give the site a new significance, this is vital to protect and conserve its heritage (Nizhny Tagil, 2003) (Xi'an, 2005).
- Lastly, adaptation and re-use, should be reinforced by contributing to sustainable development. Industrial heritage can have an important role in economic regeneration. If such a re-use creates new employment opportunities. (Nizhny Tagil, 2003)

From the above mentioned charters it is clear that it is vital to build on and interpret the existing built fabric and story of place of the site. To be more specific a new intervention will have to consider the various layers on site as palimpsest, to inform design. One of the most important documents on the subject matter is the article by R., Machado, entitled Toward a Theory of Remodelling, Old buildings as palimpsest. As a strategy to design with, Machado can be used in the following ways:

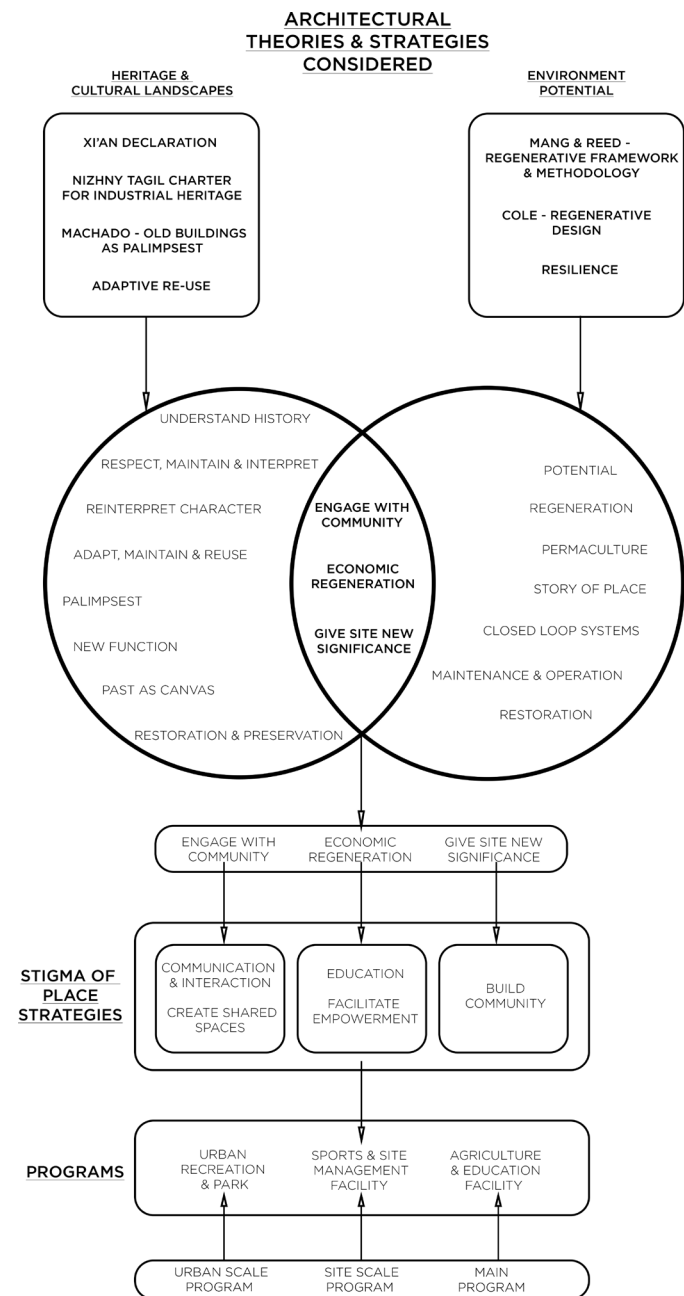
- The building as palimpsest – The most obvious approach this dissertation will use is to use the old layers of the site as a design informant for the new architecture.

- Remodelling as rewriting – Changing the features of a building to suit its new functions. This calls for innovation and sensitivity.
- Re-functionalizing – Or adaptive re-use, is an approach that is an attempt to add new functions to the left over built fabric.
- As a repository – the past layers of the site is a resource to draw from to inform design.
- The past itself as the material – The past layers act as a material to use or to build on top of in a new interpretation of the site or building.
- Type Transformation – The type of a building can be changed to suit new conditions. (Machado, 1976).

ENVIRONMENT POTENTIAL

The factory and more importantly the quarry, left a scar on the landscape. Thus it is vital that the argument must be supplemented with an ecological response. The article will focus on regenerative design as a framework to respond to the environment potential that the site has. The following approaches are merely to support the design decisions taken in this proposed framework. The approaches to be adopted is set out by P. Mang & B. Reed in their paper entitled; Designing from Place a Regenerative Framework and Methodology.

- Organize activities on site that continuously feed and are fed by the living systems within which they occur. Thus man as part of nature, not above nature. This of course refers to the growing of fresh produce, capture and use of water, and lastly harnessing the sun's energy for electricity generation and day lighting.
- From regeneration potential standpoint, design will have to take maintenance and operation in to consideration.
- Consider permaculture as a design informant, in other words, shifting from dominance to a close relationship with nature, through mutually beneficial interactions. Weave the human and natural together into a dynamic whole.
- The notion of story of place, as referred to in the HCL section above as well, that by creating a new significance creates an incentive for the community to take ownership of a place. In this way they are more likely to take care and maintain such a facility.
- When looking at a new design it is imperative that one considers the potential it has from a larger perspective, specifically how it can integrate into and enhance the existing systems in and around the site. In turn this will contribute to the viability and vitality of a project.



- As stipulated in the HCL section above, by engaging with the community and relevant stakeholders the project will have greater significance, making a stronger case for its very existence (Mang & Reed. 2012) (Cole. 2012).

From the diagram in Fig 7, it is clear that there is a confluence of ideas from the Heritage and cultural landscapes and Environment potential discourses. The confluence of these ideas will be linked to stigma of place theories that relate to them the most. These links will act as the main theoretical drivers for informing design. The most important notions being:

Engaging with the community --- Communication & interaction, Create shared spaces.

Economic regeneration --- Education, Facilitate empowerment

Giving the site a new significance --- Build community

The three solutions above will be solved and addressed on different scales, as follows:

Engaging with the community: Urban vision scale.

Economic regeneration: Site vision & programmatic scale.

Give site new significance: Architectural scale.

Thus it can be argued that architectural intervention can be a viable solution to solve stigmas associated with place, in this case a post-industrial site. The premise mentioned in the theoretical section of this article along with the context of the site is what informed the proposed program(s) for the site.

THE PROGRAM(S)

URBAN VISION - AN URBAN RECREATIONAL FACILITY & PARK

From what has been uncovered in the previous sections of this paper, the urban scale program needs to engage with the community. It needs to respond to its context in a way to alleviate the stigma surrounding the site in an urban scale. It has to break the notion of the site being a barrier and make it a middle ground.

The rivers forming the first layer of this barrier, can be used as a spine to connect the neighbouring communities to one another. There are several schools in the immediate vicinity of the Era brick factory. With children from both communities attending schools in the area, coupled with the existing foot paths towards the northern edge of the site, presents itself as an opportunity to improve the linkage between the settlements.

The urban vision proposes a new road with adequate cycle and foot paths supporting it, to be built along the Rietspruit river, to connect the schools North of Jan Niemand Park to the schools situated along the Rietspruit river and south to the Eersterust soccer stadium.

The natural landscape needs to be rehabilitated on areas where extensive damage has been inflicted by the quarry. A series of board-walks and paths are proposed, so the natural landscape can be transformed into a recreational park, activities like hiking, trail running and mountain biking would then be possible. The phenomenological experience the ponds found on site need to be strengthened to add to the character of this new recreational park.

To revitalise the Eersterust stadium complex, the addition of multiple sports are proposed, to give the site a more diverse user base, while attracting more users on a more regular basis.

SITE VISION & PROGRAMMATIC SCALE - AN AGRICULTURAL & EDUCATION FACILITY

The focus of this scale of program needs to be on economic regeneration and empowerment. Thus, education and skills development is vital. The western portion of the existing buildings and ruins are proposed to become a new vocational school. This portion will not be designed but be in a proposal phase only. The eastern portion, that is closest to the stadium complex, will be dedicated to urban farming, teaching the communities how to provide form themselves and generating an income.

A portion of the landscape around the new proposed building will act as a proof ground, for farmers to test and expand their skills and knowledge. Connected to this an



Fig. 08. Top; Photo, ruins of the old Era Brick Factory (Author, 2018)

Fig. 09. Right; Photo, ruins of the old Era Brick Factory (Author, 2018)

educational facility that can aid in gaps of knowledge left in the community. Multi-use class rooms that can serve more than one demographic of 'student'. Teaching urban farmers, providing school children a safe place to do homework, to name but a few prospective 'clients'.

ARCHITECTURAL SCALE - A SPORTS & SITE MANAGEMENT FACILITY

At this scale it is vital to give the community a sense of ownership and pride. Thus, one cannot and should not ignore the untapped potential of the adjacent stadium complex. It is evident that the lack of activity on site has contributed to the dismal state of both the derelict brick factory and the underutilised stadium. The final program proposed is a sports- and site- management facility, to be the transition between the stadium complex and the old factory site.

To build the sense of ownership it is important to provide areas for social interaction, especially when a sporting event is taking place. Thus the program suggests providing various food stalls, both permanent and informal. The need for adequate nutrition and the sense of community surrounded by eating and preparation of food, is a vital program to strengthen all the other programs mentioned. Providing space for formal and informal commerce for goods and produce produced on site. Lastly providing facilities like a gym, team meeting spaces and gym to strengthen the sporting leg of this proposed program.

PRECEDENT

I am particularly influenced by the work done by Jose Forjaz, his minimalist designs are frugal yet detailed. Forjaz uses a simple pallet of materials that he manipulates to form extraordinary designs. A strong believer in context and making true African architecture. This can be seen in his Fisheries museum in Maputo, Mozambique.

The building sits on a very prominent square, in one of the oldest parts of the city. The building is very simple to read and to navigate, which is a testament to his clever design. The aspect of this building that is most relevant to this project is the fact that it plays with transparency of its facades and levels. Creating interesting thresholds for the users to pass through and experience. A very simple plan that is very clever with its use of large open spaces. The same vastness and transparencies are akin to the Era brick factory site. With areas that need to be public and the deeper reaches of the building being more private and intimate as the program calls for it. His building although relatively large feels light, and sensitive to its context. Forjaz designs buildings to human scale and it is no deferent in this instance (Forjaz, J. 2011).

The I-CAT Offices and Warehouse by Earthworld Architects is a beautiful building in Pretoria designed with ecological principles in mind. The building was designed to be sustainable on various levels including economic, environmental and social levels. The philosophy behind the building is to realise that these three factors have impacts on each other and was thus a confluence of the three ideologies. Being such an environmental considerate building, both active and passive systems were implemented to improve human comfort and minimize environmental impact.

Honesty of materials that have low maintenance requirements were used. On the southern side of the building the architects designed pergola structures that allow trees to eventually grow in the structures. The building dematerialises where the threshold between inside and outside gets blurred. Thus strengthening the buildings connection to nature (ArchDaily, 2018).

These principles match the strategies proposed in this article, that the confluence of numerous philosophies can be a conceptual driver for a new building design. The use of natural materials and materials of low maintenance reinforces this ideal. Moreover the connection of inside and out through clever thresholds is of vital importance to the proposed design.

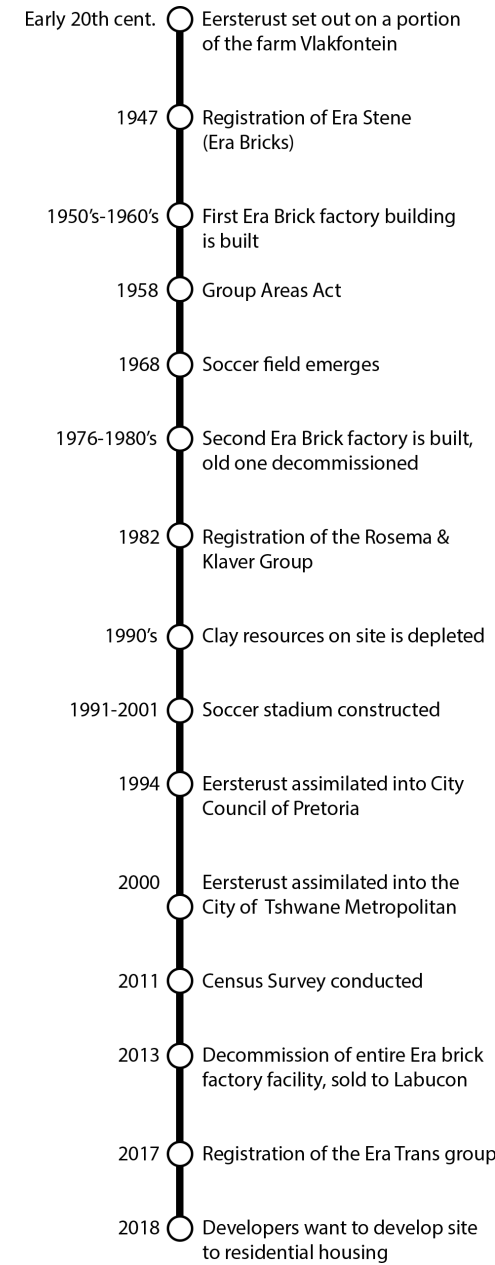


Fig. 10. Top Left; Diagram, Era Brick Factory Timeline (Author, 2018)

CONTRIBUTION/CONCLUSION

This proposals contribution is grounding the project in a unique South African context. A post-industrial site that has stigmas associated to it, that originates out of South Africa's spatial-legacy.

This project hopes to have a unique approach to using the existing context to the projects advantage, from seeing the opportunities in the greater urban context, contributing to the school infrastructure in the area. Creating a place where different communities can find common ground. A space where people can be empowered rather than being shunned by the preconceived ideas the site had been associated with.

This project aims to create thresholds that create the perception of safety in an otherwise bleak context. Where the architecture contributes to the character of the landscape rather than feeding on and scaring it.

Yet the main contribution is connecting architectural theory to the relief of stigmas theories and making new applicable spatial principles. It stands to reason that an island site as the old Era brick factory can have very negative urban consequences, and that this proposal can be a viable solution to the challenges facing such a site.

ENDNOTES

- Various definitions of a stigma:
- A mark of disgrace associated with a particular circumstance, quality, or person. (en.oxforddictionaries.com, 2018).
 - A strong feeling of disapproval that most people in a society have about something, especially when this is unfair. (dictionary.cambridge.org, 2018).
 - If something has a stigma attached to it, people think it is something to be ashamed of. (collinsdictionary.com, 2018).
 - Stigma is a perceived negative attribute that causes someone to devalue or think less of the whole person. (healthyplace.com, 2018).

REFERENCES

About Labucon (Pty) Ltd – Labucon Resources (Pty) Ltd. 2018. About Labucon (Pty) Ltd – Labucon Resources (Pty) Ltd. [ONLINE] Available at: <http://www.labucon.co.za/about/>. [Accessed 05 March 2018].

Accueil - International Council on Monuments and Sites. 2018. Accueil - International Council on Monuments and Sites. [ONLINE] Available at: <https://www.icomos.org/18thapril/2006/nizhny-tagil-charter-e.pdf>. [Accessed 22 March 2018].

Architecture. Construction. Engineering. Property. 2018. Buildings Alone Will Never Be 'Regenerative'. [ONLINE] Available at: <https://sourceable.net/buildings-alone-will-never-be-regenerative/>. [Accessed 22 March 2018].

ArchDaily. 2018. I-CAT Offices and Warehouse / Earthworld Architects & Interiors | ArchDaily . [ONLINE] Available at: <https://www.archdaily.com/791647/i-cat-offices-and-warehouse-earthworld-architects-and-interiors>. [Accessed 20 July 2018].

Companies and Intellectual Property Commission (CIPC): eServices. 2018. Companies and Intellectual Property Commission (CIPC): eServices. [ONLINE] Available at: <https://eservices.cipc.co.za/NameSearch.aspx> . [Accessed 22 March 2018].

Enslin, N. 2018. Interview with Naudé Enslin on 14 March 2018, Rosema Bricks head office, Gemsbok Avenue, Monument Park. (Transcript in possession of author).

Gio Dup. 2018. History. [ONLINE] Available at: <http://www.eersterust.com/history/>. [Accessed 22 March 2018].

Forjaz, J. 2011. Fisheries Museum. [ONLINE] Available at: http://www.joseforjazarquitectos.com/imag%20proj/08%20museudaspecies/2008PESCAS/content/_5778565388_large.html. [Accessed 20 July 2018].

Government of Western Australia. 2009. Stigma, discrimination and mental illness. [ONLINE] Available at: http://www.health.wa.gov.au/docreg/Education/Population/Health_Problems/Mental_Illness/Mentalhealth_stigma_fact.pdf. [Accessed 28 May 2018].

Haggard, B, Reed, B. & Mang, P. 2006. Regenerative Development. 3rd ed. Zweig White, Arkansas.

Heritage Council of Victoria. 2018. Heritage Council of Victoria. [ONLINE] Available at http://heritagecouncil.vic.gov.au/wp-content/uploads/2014/08/HV_IPAWsinglepgs.pdf . [Accessed 06 March 2018].

ICOMOS 15th General Assembly and Scientific Symposium. 2018. ICOMOS 15th General Assembly and Scientific Symposium. [ONLINE] Available at: <https://www.icomos.org/xian2005/xian-declaration.pdf>. [Accessed 22 March 2018].

ICOMOS, (2005). Xi'an declaration on the conservation of the setting of heritage structures, sites and areas. In 15th General Assembly of ICOMOS. Xi'an, China, 21st October. Xi'an, China: International Council on Monuments and Sites. 1-4.

Leiss, W, (2013). Stigma and the Stigmatization of Place: A Paper commissioned by the Canadian Nuclear Safety Commission Final Report. In Stigma and the Stigmatization of Place: A Paper commissioned by the Canadian Nuclear Safety Commission Final Report. University of Ottawa, November 2013. Ottawa, Canada: McLaughlin Centre for Population Health Risk Assessment. 2-3,5 & 7-9.

Living, Regenerative, and Adaptive Buildings | WBDG Whole Building Design Guide. 2018. Living, Regenerative, and Adaptive Buildings | WBDG Whole Building Design Guide. [ONLINE] Available at: <https://www.wbdg.org/resources/living-regenerative-and-adaptive-buildings>. [Accessed 22 March 2018].

Machado, R, 1976. Toward a theory of remodelling - Old buildings as palimpsest. Progressive Architecture, 11, 46-49.

Mang, P & Reed, B, 2012. Designing from place: a regenerative framework and methodology. Building research & information, [Online]. 40(1), 23-38. Available at: <https://www.tandfonline.com/loi/rbri20> [Accessed 22 March 2018].

National Geo-spatial Information (NGI). National Geo-spatial Information. 2018. Home. [ONLINE] Available at: <http://www.ngi.gov.za/>. [Accessed 22 March 2018].

Nora, Pierre. Between Memory and History: Les Lieux de Mémoire. Representations, No. 26, Special Issue: Memory and Counter Memory. Spring, 1989, pp.7-24.

Oxford Dictionaries | English. 2018. stigma | Definition of stigma in English by Oxford Dictionaries. [ONLINE] Available at: <https://en.oxforddictionaries.com/definition/stigma> . [Accessed 19 March 2018].

Potgieter, G., 2002. City of Tshwane: A pictorial journey. 1st ed. Pretoria: Kuru Publishers.

Regenerative Design | CIRS. 2018. Regenerative Design | CIRS. [ONLINE] Available at: <http://cirs.ubc.ca/building/building-overview/regenerative-design/>. [Accessed 22 March 2018].

Ribeiro, A., 2011. José Forjaz Architect - Ideas & Projects. 1st ed. Almada, Portugal: Casa Da Cerca.

Samantha Gluck. 2018. What is Stigma? - Stand Up for Mental Health - Stigma | HealthyPlace. [ONLINE] Available at: <https://www.healthyplace.com/stigma/stand-up-for-mental-health/what-is-stigma/>. [Accessed 19 March 2018]

Seven Important things we can do to reduce Stigma and Discrimination. 2018. Seven Important things we can do to reduce Stigma and Discrimination. [ONLINE] Available at: <https://www.mendthemind.ca/stigma/seven-important-things-we-can-do-reduce-stigma-and-discrimination/>. [Accessed 27 May 2018].

Stigma Meaning in the Cambridge English Dictionary. 2018. stigma Meaning in the Cambridge English Dictionary. [ONLINE] Available at: <https://dictionary.cambridge.org/dictionary/english/stigma> . [Accessed 19 March 2018].

Socialist Health Association. 2018. How To Battle The Stigma Of Disabilities. [ONLINE] Available at: <https://www.sochealth.co.uk/2017/05/22/battle-stigma-disabilities/>. [Accessed 27 May 2018].

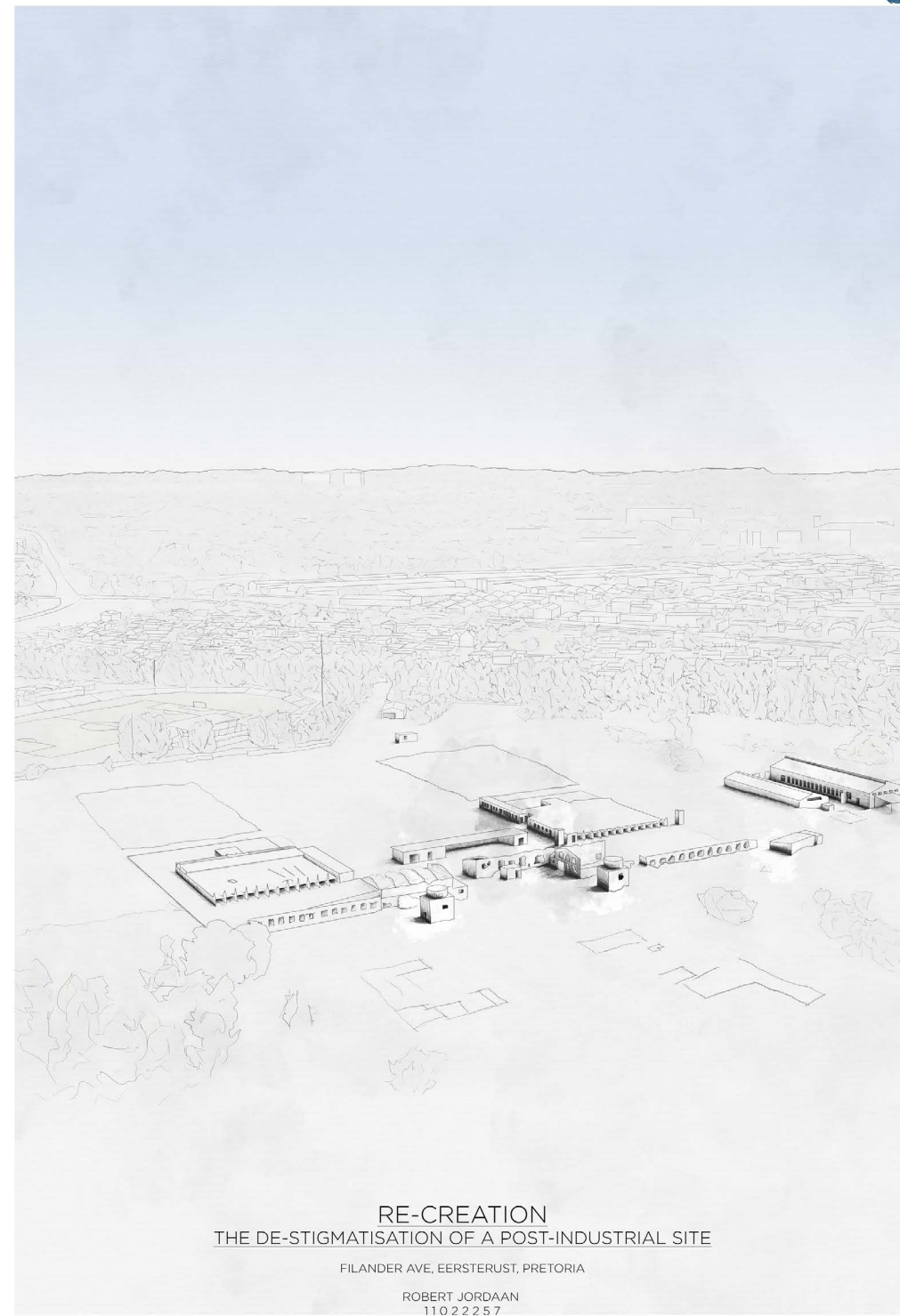
The Mighty. 2018. How I Fight Mental Illness Stigma | The Mighty. [ONLINE] Available at: <https://themighty.com/2016/06/how-i-fight-mental-illness-stigma/>. [Accessed 28 May 2018].

Van der Walt, T, 1966. Kleurlingbehuising in Eersterust, Pretoria: 'n sosiologiese ontleding met besondere verwysing na onwenslike behuisingstoestand en die houding van die kleurlinge ten opsigte van hul behuisingomstandighede. Masters (M.A.). Pretoria: University of Pretoria.

Van Dijkhorst, H. 2013. Interview with H. van Dijkhorst on 15 March 2013, Era Brick factory, Eersterust. Done by a group of students in 2013.

9 Ways to Fight Mental Health Stigma | NAMI: National Alliance on Mental Illness . 2018. 9 Ways to Fight Mental Health Stigma | NAMI: National Alliance on Mental Illness . [ONLINE] Available at: <https://www.nami.org/blogs/nami-blog/october-2017/9-ways-to-fight-mental-health-stigma>. [Accessed 28 May 2018].

FINAL PRESENTATION



SITE LOCATION

2013



AERIAL PHOTO JUST BEFORE THE FACTORY'S CLOSURE



DECOMMISSIONED BRICK OVEN



ACTIVE BRICK DRYING TRACKS

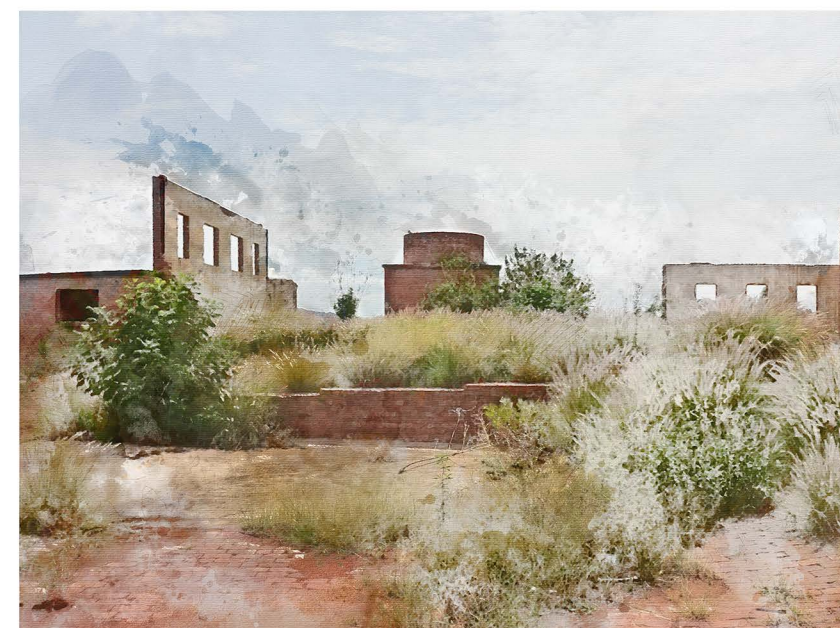


OLDEST BRICK FACTORY BUILDING

2018



SKETCH OF THE REMNANTS OF OLD BRICK FACTORY (2018)



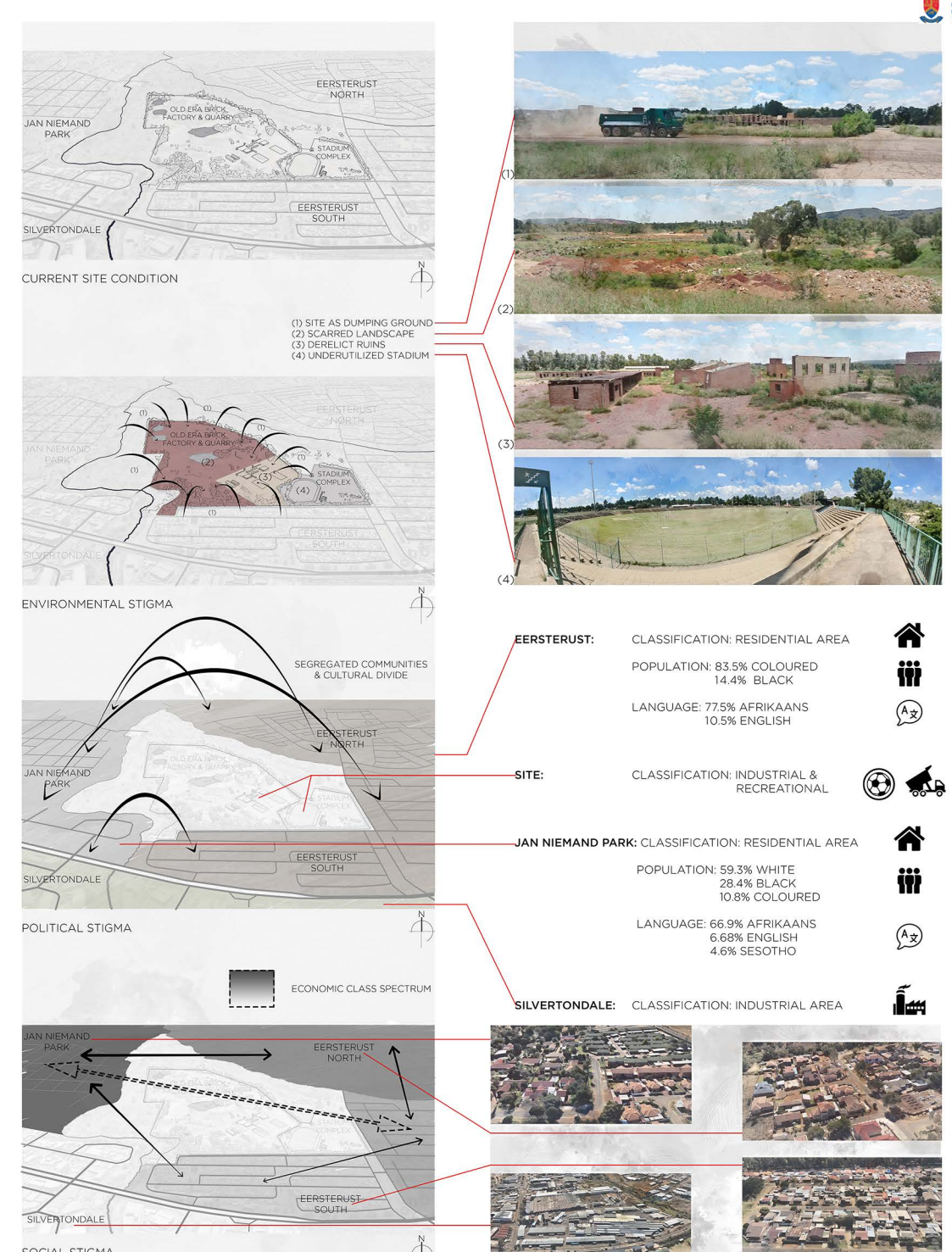
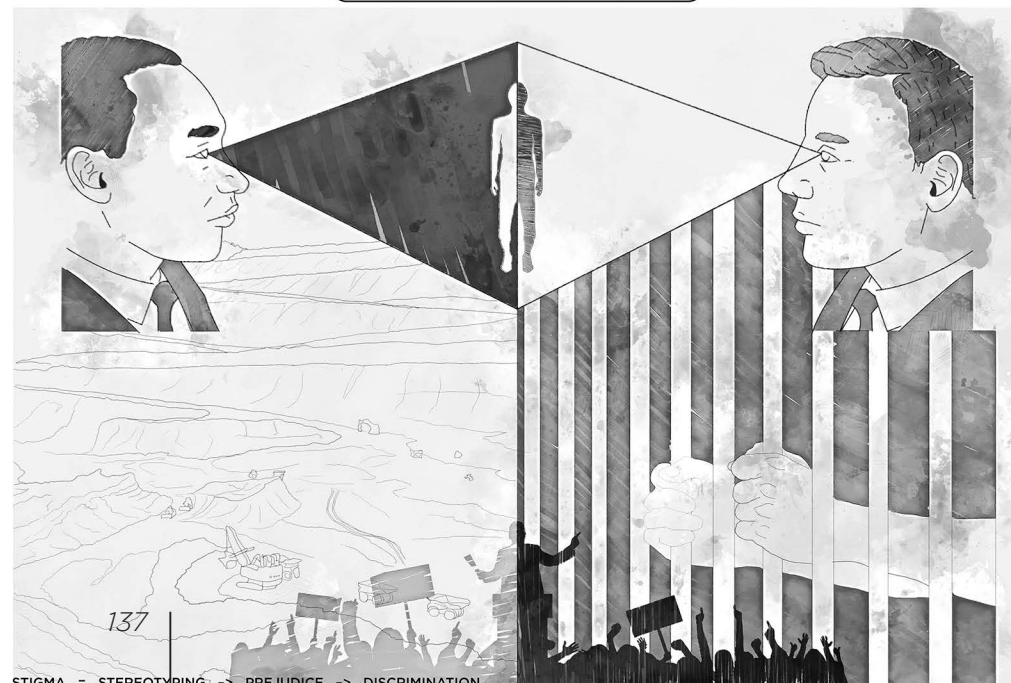
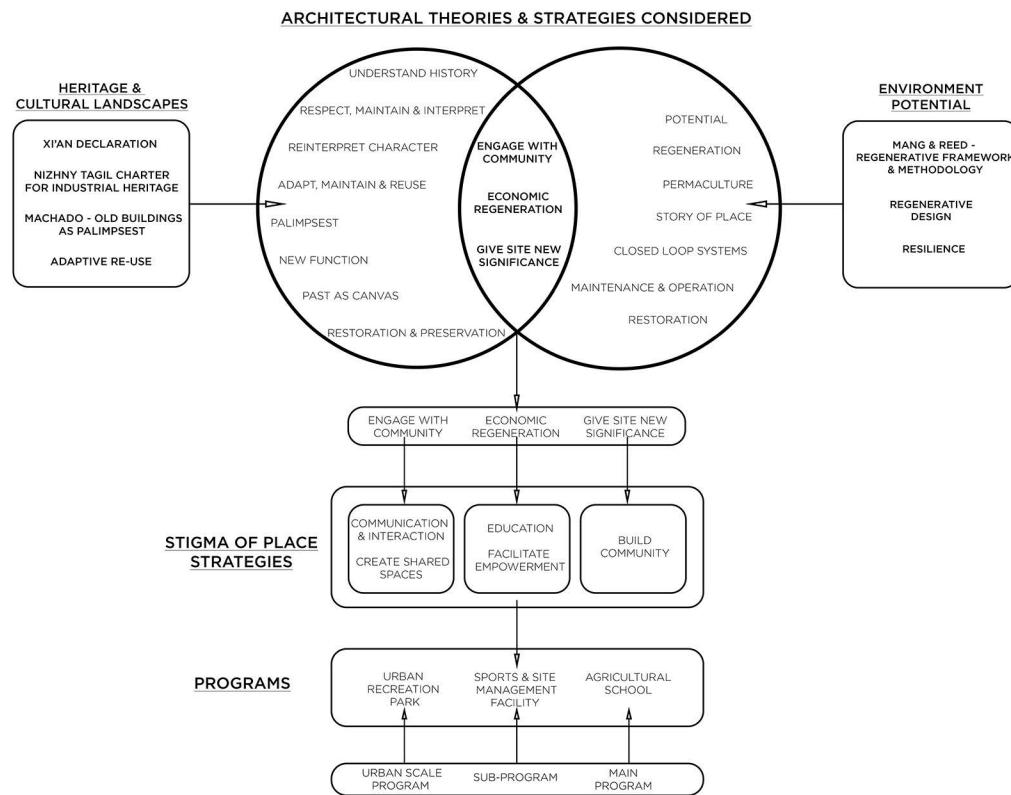
OVERGROWN BUILT FABRIC



LEFTOVER BRICK DRYING TRACKS



VIEW FROM STADIUM



THEORETICAL PREMISE & STIGMA

FISHERIES MUSEUM JOSE FORJAZ

CONTEXTUAL PRECEDENT

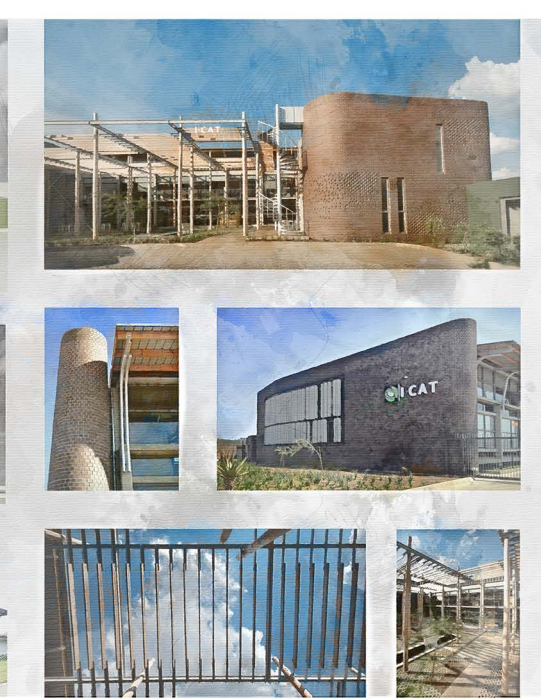
- Pays homage to the context's industrial heritage.
- Located in the harbour precinct of Maputo, Mozambique, the building was a competition entry by the Mozambican architect, Jose Forjaz.
- The museum was built on a very important public square in a historic location, on a very limited budget- resorted to building it in phases (Jose Forjaz Arquitectos, 2011).
- Great care was taken to make economic use of materials, both in the construction process and for future maintenance (Jose Forjaz Arquitectos, 2011).
- Attention to proportions, interesting approach to thresholds, use of materials.
- The architectural language is derived from ship building, yet it does not look like a boat, that would be too obvious, the technology used is derived from boat building conventions, particularly in the shape of its roofs. The ground floor is much more solid (below a boat deck) while the first floor is much lighter and open (above a boat deck).
- The bricks that will be used in the proposed intervention, were found on site, were made on the site and from the very soil on which the new building would be built.



I-CAT OFFICES & WAREHOUSE EARTH WORLD ARCHITECTS & INTERIORS

TECHNOLOGICAL PRECEDENT

- The building utilises passive systems like orientation, shading, natural ventilation and lighting, with the main courtyard, being orientated to the south, with day lighting being a priority (ArchDaily, 2016).t
- Furthermore, the northern façade was designed to allow for summer shading and winter heat gain. A photo-voltaic system was implemented to supplement the building's electricity requirements. Runoff from the buildings' roofs is collected for use in the building (ArchDaily, 2016).
- Materials and finishes were used to keep maintenance to a minimum. Solid face brick walls were used to great effect as a contrasting element to the "softer" elements as the glass, steel and pergola structures.
- This dissertation took its inspiration from the use of solid face brick walls as a contrasting element to the softer areas of the building. The attempt to connect the interior to the exterior, through the use of transparent façades and pergolas to soften the transition or thresholds of this building, is of particular interest.
- Vegetation and permeable paving were also used to great effect to soften this threshold.



SAINT PETER HOUSE PROYECTO CAFEÍNA & ESTUDIO TECALLI

FORMAL PRECEDENT

- This house was constructed from locally sourced red face bricks. The house showcases a handmade quality with the use of brise soleil and the dramatic geometry of the façades.
- The geometry allows for interesting openings that provide day lighting, ventilation and the framing of appropriate views.
- The abnormal footprint of the building lends itself to an open plan layout on the ground floor.
- The first floor contains two bedrooms and a roof garden. All these spaces are built around an internal courtyard to help with ventilation and day lighting.
- The windows are particularly interesting as waterproofing them can be challenging when implementing brise soleil in interior to exterior spaces.



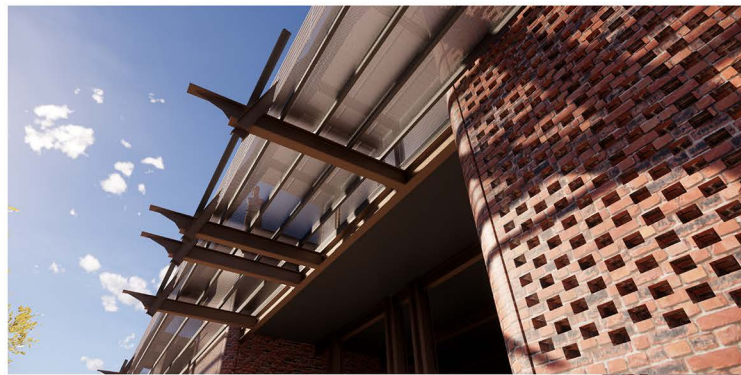
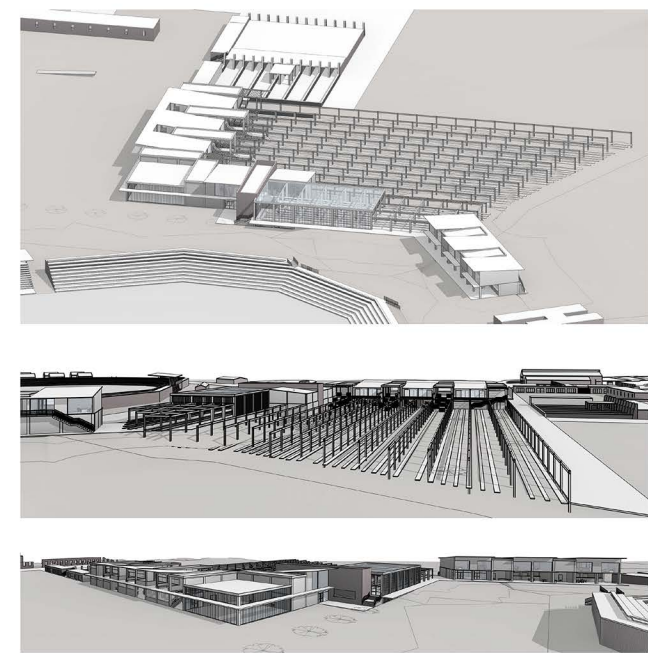
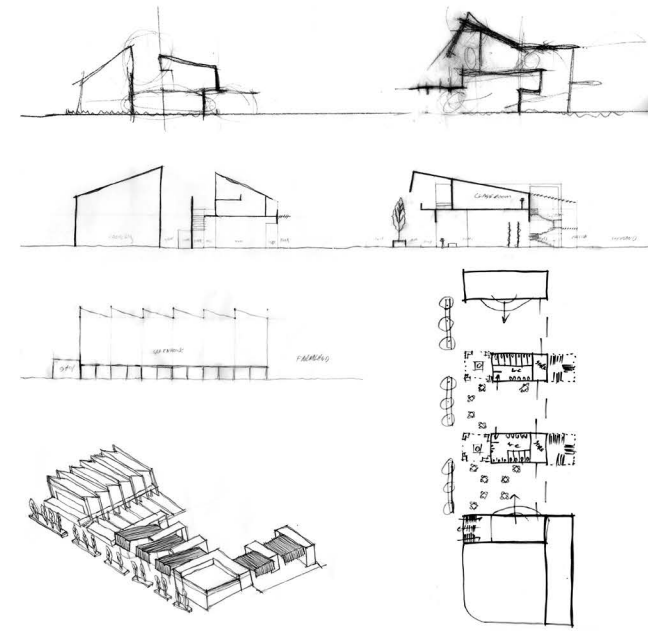
SINO-ITALIAN ECOLOGICAL & ENERGY EFFICIENT BUILDING MARIO CUCINELLA ARCHITECTS

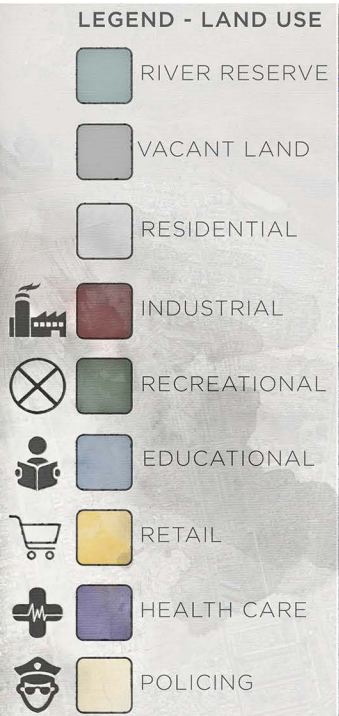
FUNCTIONAL PRECEDENT

- The building integrates passive and active systems to control day lighting, temperature and fresh air conditions.
- This building, like the two previous examples, is also designed around a central courtyard with public spaces that have views on to a garden.
- The building is orientated to a north-south axis, taking cold winter winds and a transparent southern façade into consideration.
- The functional spaces, which include offices and labs, on the upper levels have stepped gardens covered by solar-panels that serve as sun shields, pergolas and electricity generators.
- The important aspects of this building are, the innovative use of solar panels that serve more than one purpose, the landscape being pulled into the building and the systems that cools and ventilates the building.



PRECEDENTS

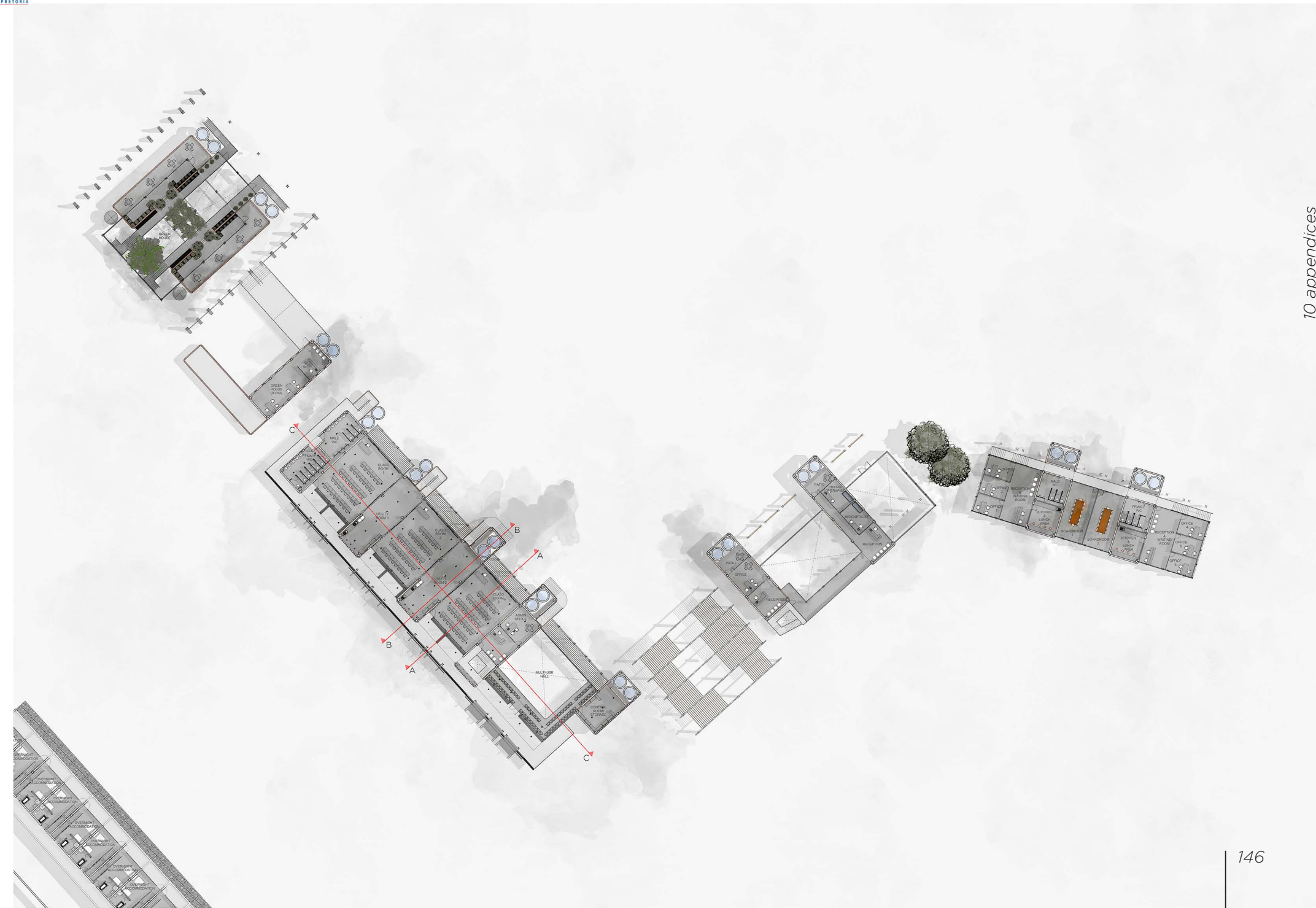








GROUND FLOOR PLAN



FIRST FLOOR PLAN





AGRICULTURAL SCHOOL



CLASS ROOM



BRAAI AREA



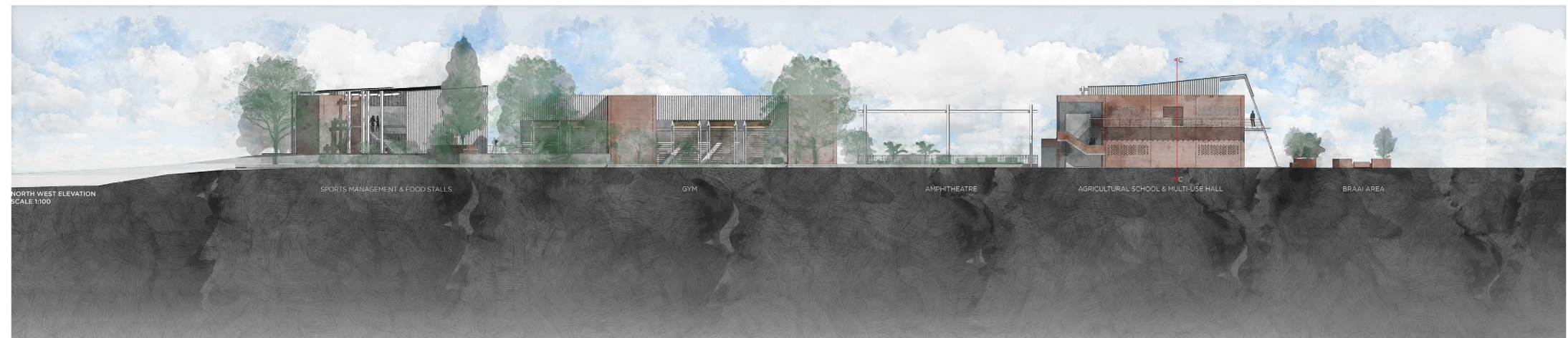
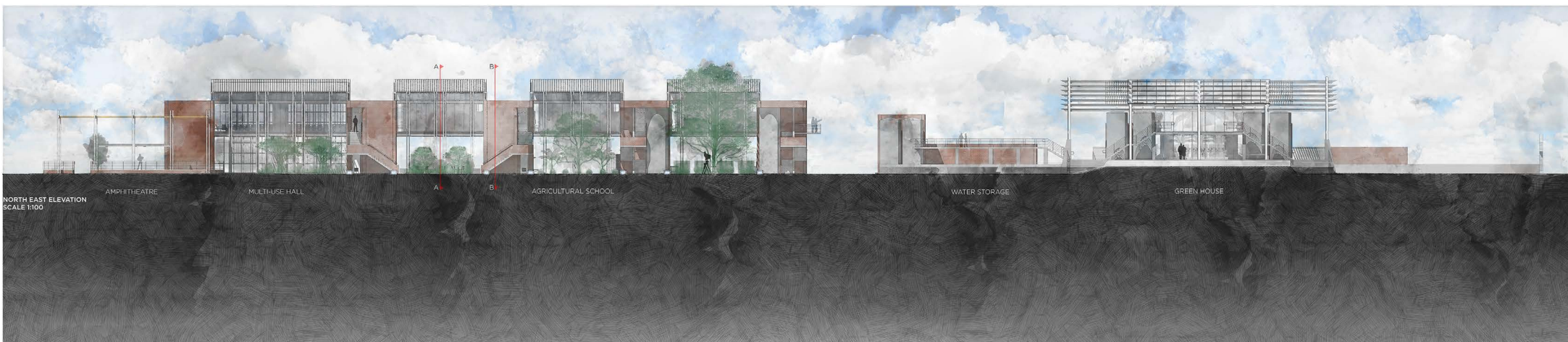
GREEN HOUSE & COURTYARD



GREEN HOUSE INTERIOR

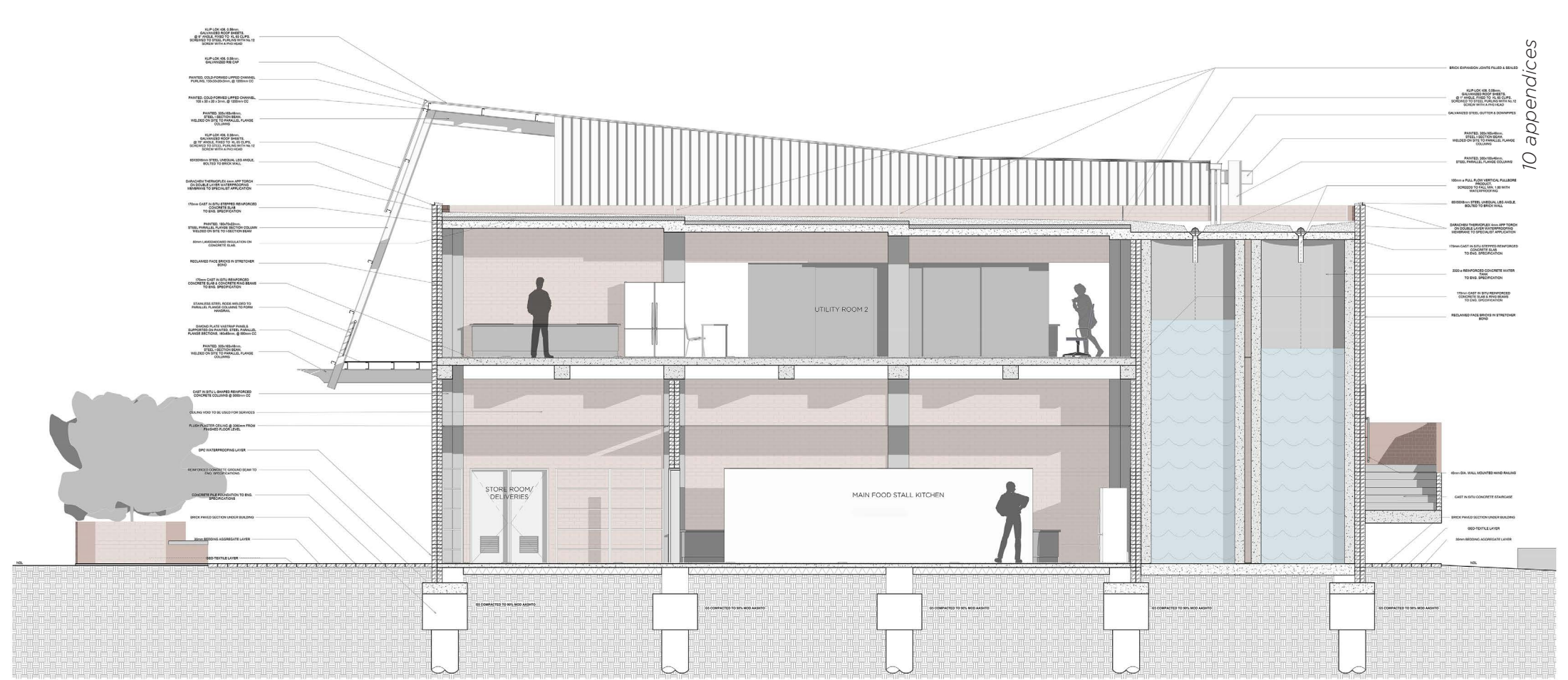
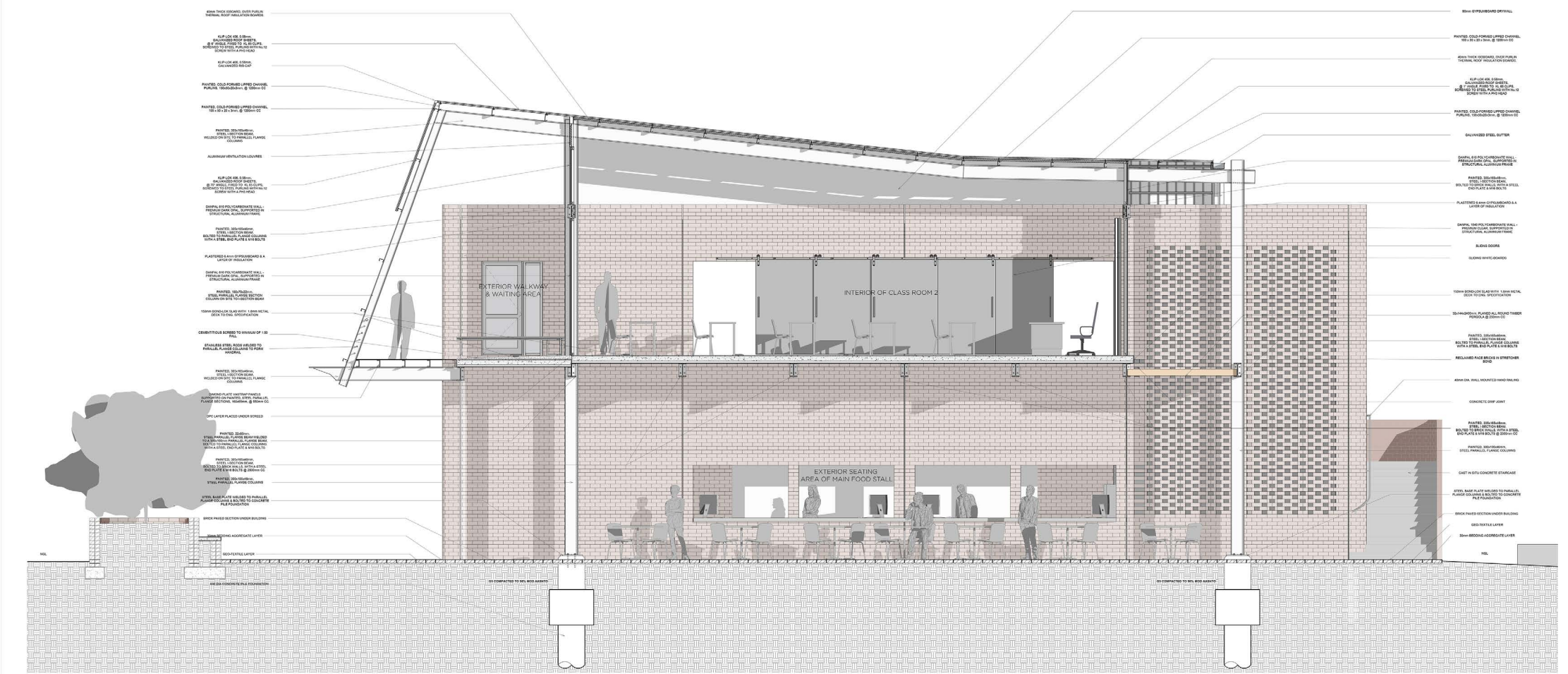


GREEN HOUSE



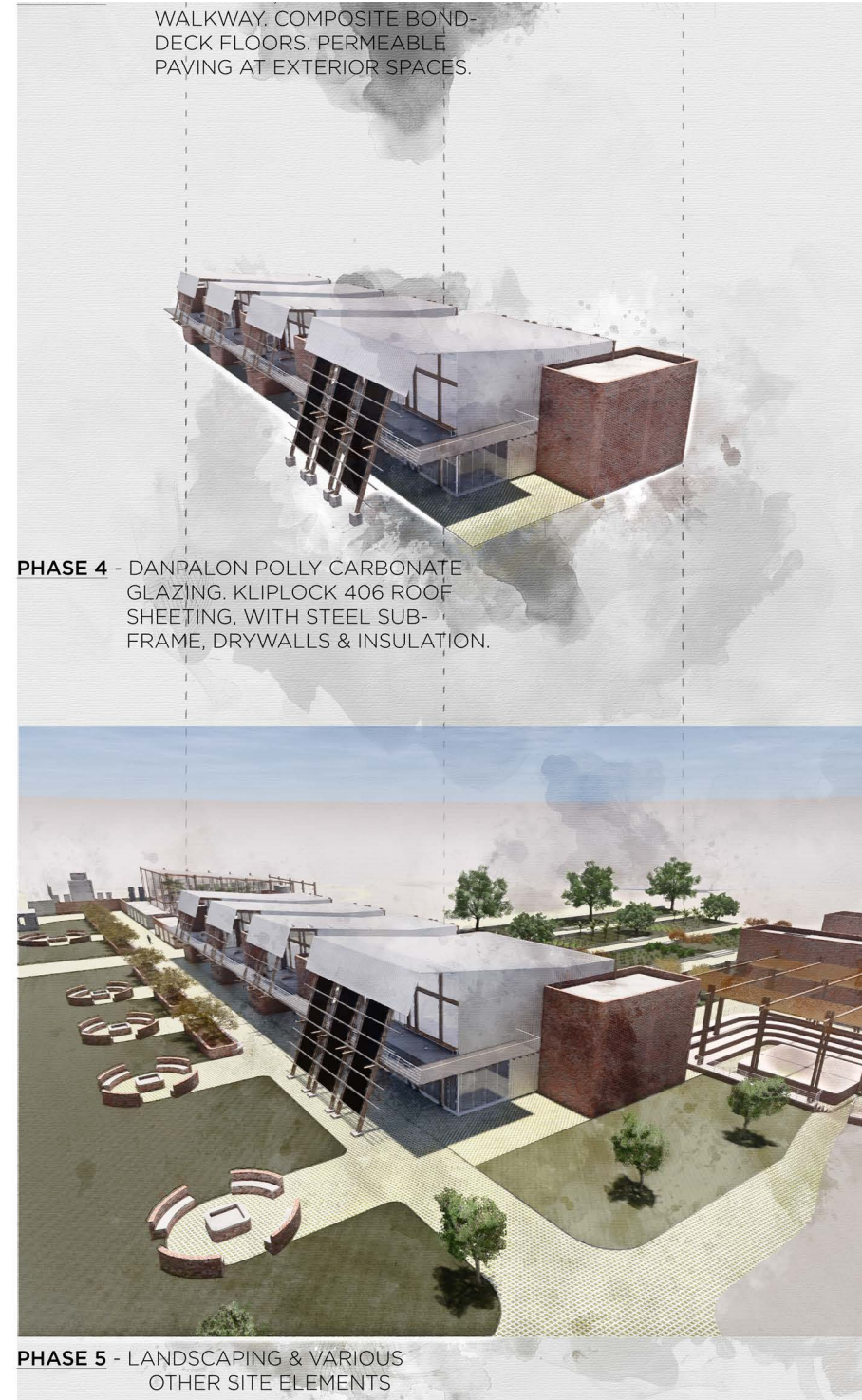
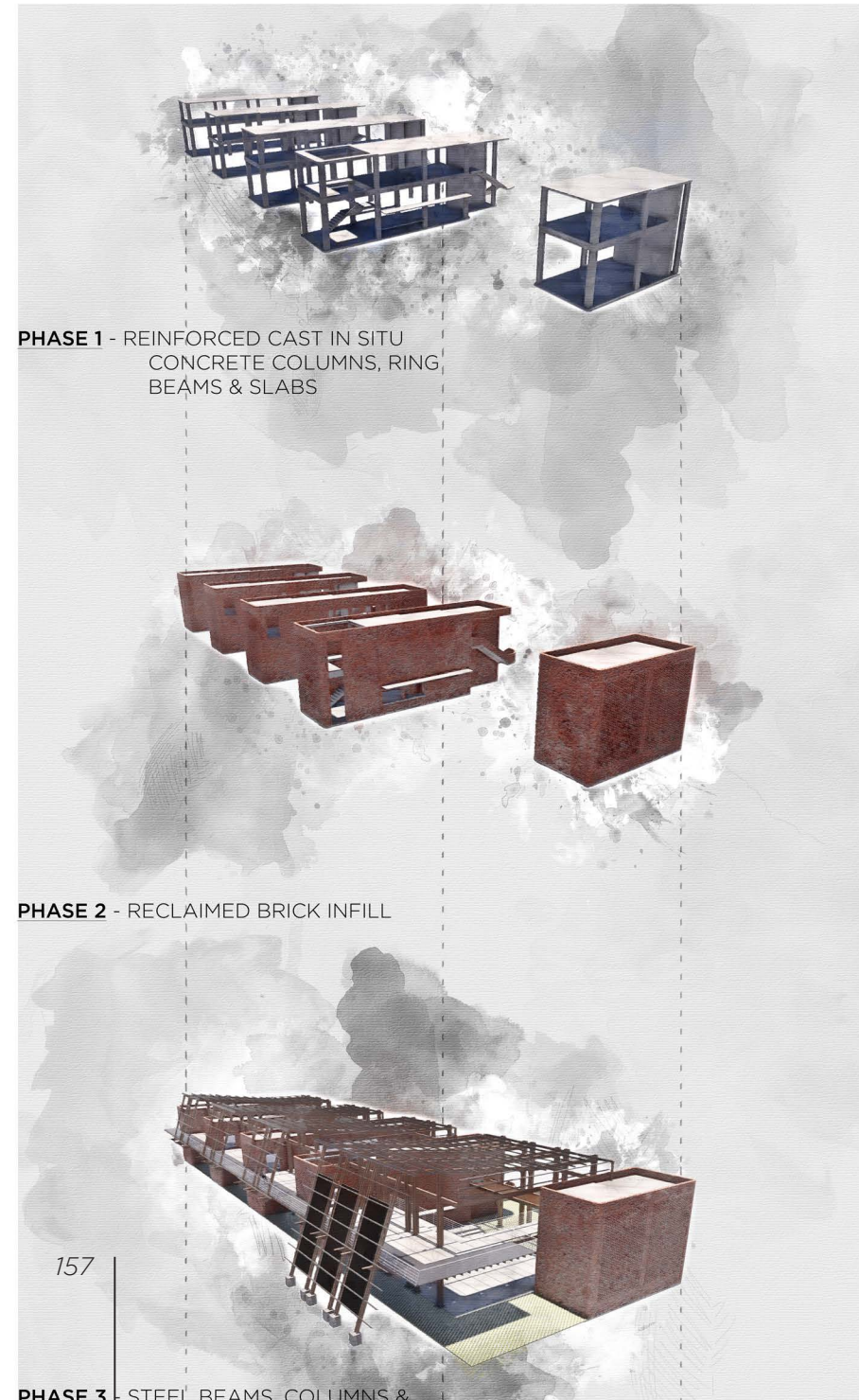
ELEVATIONS

ELEVATIONS



SCALE 1:20

SECTION BB



CONSTRUCTION PHASES



REUSED BUILDINGS & FOOTPRINT



SCALE 1:50

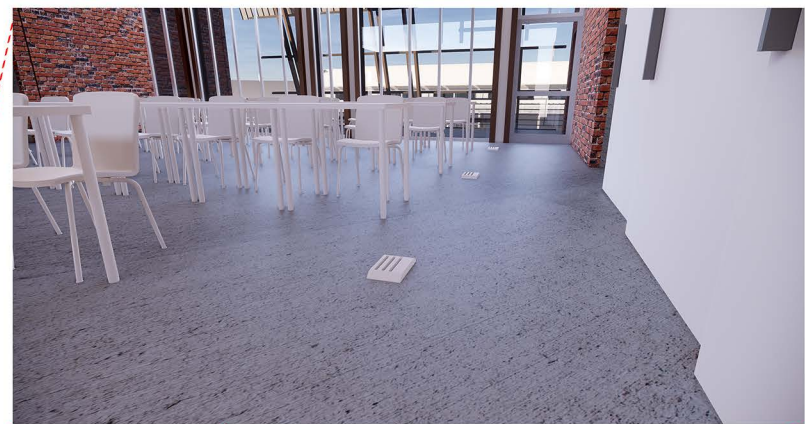
SECTION CC



ALUMINIUM AIR VENT TO LET OUT STALE AIR

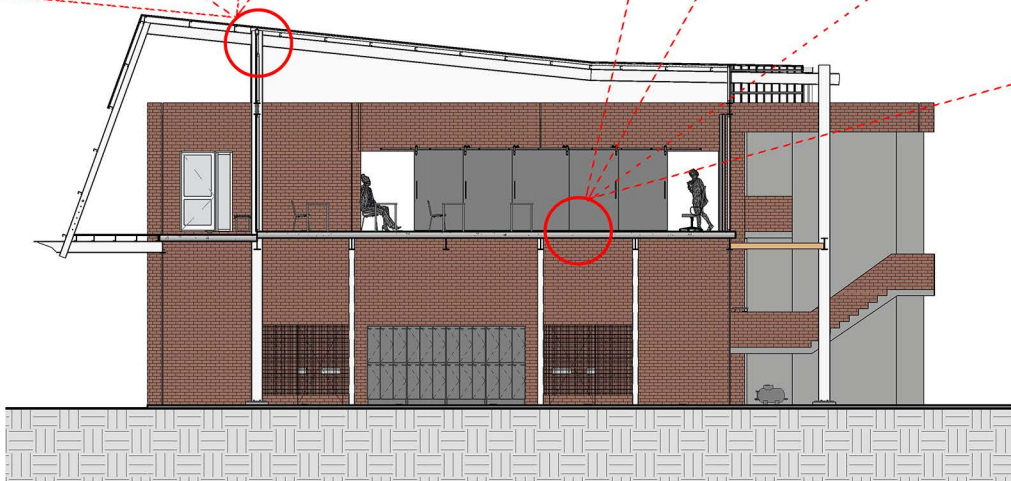


FLOOR VENT TO LET IN FRESH AIR

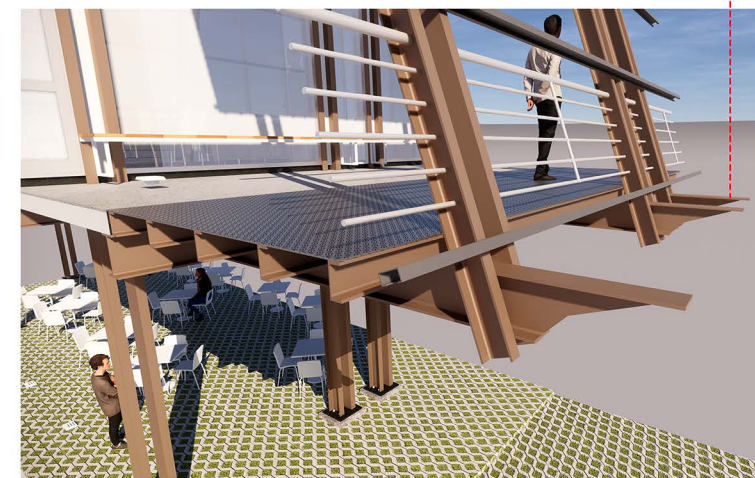
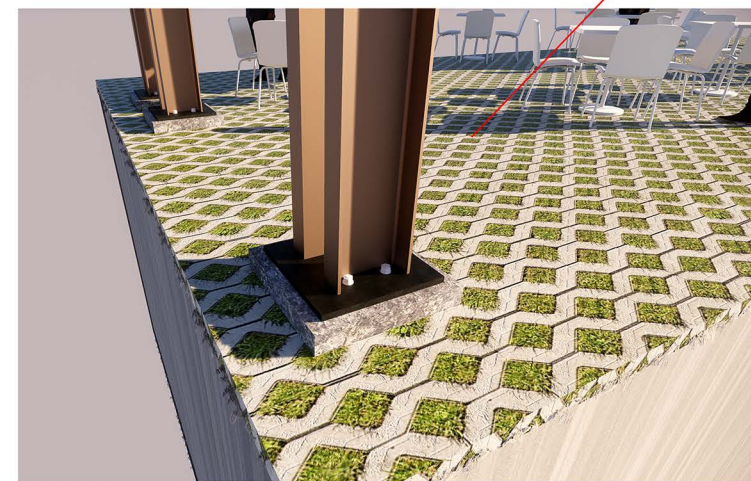
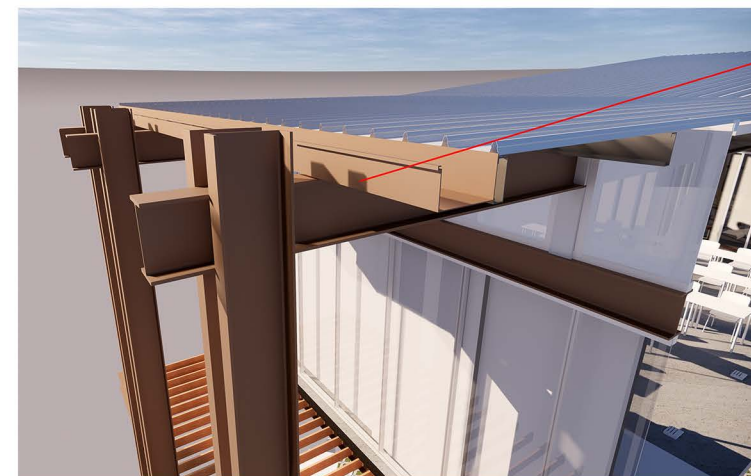


Cool air is supplied to the building through a geo-thermal heat exchange system. Ambient air in the vegetated landscape is blown in to pipes with a mechanical fan, the pipes carrying the air is buried under ground, the pipes are subject to heat exchange, energy from the hot air is absorbed by the soil through the heat conducting pipes. Cooler air can then be pumped into the building through the brick cores.

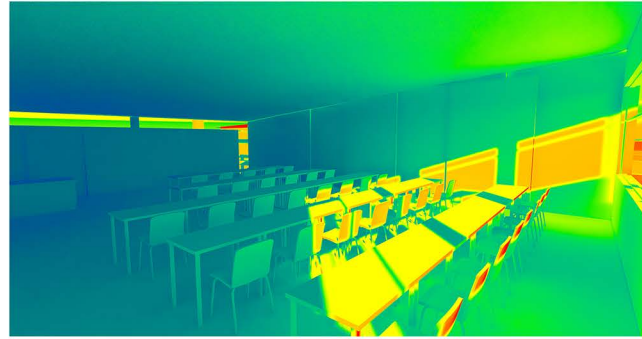
During colder months the average temperature of the soil will be higher than the air temperature and the system will supply the building with warmer air, heating up the desired spaces.



GEO-THERMAL HEAT EXCHANGE SYSTEM



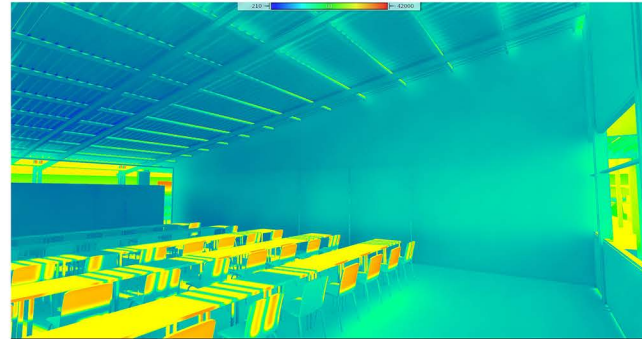
STEEL DETAILS



EARLY ITERATION
OVER EXPOSED WINDOW
HARSH SUN IN SUMMER
AFTERNOON.



THIRD ITERATION
ENTIRE FACADE CHANGED
TO DANPALON, BETTER
SPREAD OF LIGHT IN ROOM,
BACK ROW OVEREXPOSED.

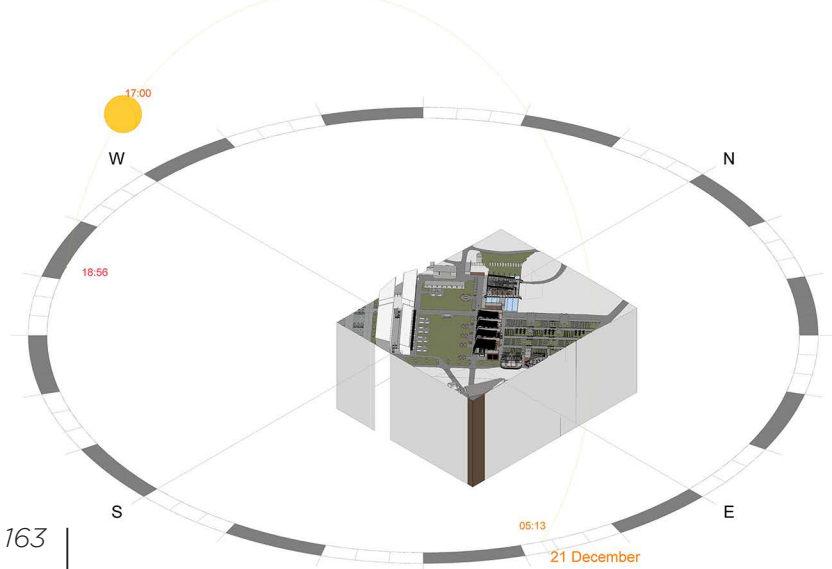


SECOND ITERATION
THE ROOM IS BETTER LIT,
YET CHAIRS AND TABLES
ARE OVER LIT.



FOURTH ITERATION
SHADING-DEVICE OUTSIDE
ITERATED TO GET BEST
POSSIBLE SPREAD OF LIGHT
AND STOP OVER EXPOSURE
IN THE ROOM.

SOLAR TEST RAN IN LATE AFTERNOON AT SUMMER SOLSTICE



DAYLIGHTING ITERATIONS