Fig 10.1 Existing ruins of the old Era Brick Factory (Author, 2018)
The de-stigmatisation of a post-industrial site, at the old Era Brick factory in Eersterust. The above-mentioned theoretical premises and coming up with possible strategies that can address the complex challenges that succeed a post-industrial site.

The site is a result of many historic layers including industrialisation, forced relocation 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 obviously by historic design.

The past meets place - history & context

In architectural theory the notion of stigma associated with place has been investigated inadequately, as previously stated this article will attempt to use existing theories in architecture and layering them with theories that address stigma in an urban context. Thus creating a possible template to address similar situations on other 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.

The brick-making factory was established on the Vlakfontein farm, owned by the Wolmarans family. Directly translated from Afrikaans, Eersterust means first-place. Although mentioned, 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 information database, 2018) & the ‘coloured’ community of Eersterust.

In the early 1990’s a settlement in Eersterust was established on the Vlakfontein farm, owned by the Wolmarans family. Directly translated from Afrikaans, Eersterust means first-place. Although mentioned, 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
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 Enka 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 stigma. Loss of jobs (after the factory closed), the lack of activity on site and lastly to discriminatory actions on said individual or group.

2. Political stigma. Continuous segregation of neighboring settlements with little to no interaction between communities separated as an urban island to break this barrier between segregated communities. Making the site a derelict site, underutilisation of the stadium.

3. Environmental stigmas. Pollution from the factory that resulted in racial and economic divides.

The underutilisation of the adjacent stadium and the complete lack of activity on site presents an opportunity to reframe an architecture that has more than mere functional significance, rather than a housing development. 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, 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.

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).

**ARCHITECTURAL ISSUE**

At an urban scale the site forms a barrier between two suburbs, namely Ensentacht and Jan Niemant 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 Silvertronida. Thus strategies need to be adapted to address this site as an urban island to break this barrier between segregated communities. Making the site a common ground rather than a barrier.

**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 –> DISCRIMINATION**

The underutilisation of the adjacent stadium is currently in operation or has ceased operation (post-industrial sites), can carry a stigma. (Leiss, 2013:2.)

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**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 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.**
- **Avoidance of the place as a result of the risk.**
- **There is an abnormality associated with the place.**
- **There is an 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 harsh reactions the place evokes.**

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

This notion is often perceived by both parties directly associated and outside of the community in question at it is from different perspectives and different outcomes (Flanagan et al. 2017:7).

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

- There is a perceived 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 harsh reactions the place evokes.

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 first 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 50 years and are listed by the heritage charters. Unfortunately the last of the buildings in the quarry was built around 1960’s 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 factory and more importantly the quarry, left a scar on the landscape. Thus, it is vital to build on and interpret the existing fabric and story of place of the site as palimpsest, to inform design. One will have to consider the various layers on the site as a design informant for the new developments.

First, one must acknowledge the significance of the setting, particularly for post-industrial sites, even for considered for their archaeological and ecological value. The site has significance from a functional perspective, not particularly from an architectural perspective. The site contains historical and brick factory, even before the first building was built, or the establishment of Eersterust. Furthermore the existing built fabric has a unique character that it is vital to protect and interpret. The significance of the site is value left on the post-industrial site that vouch for its importance in Eersterust’s history.

Second, the charters calls for an understanding of the history, evolution and character of the site, through diverse forms of documentation, interviews, historical and media. (Nizhny Tagil, 2003) (Xi’an, 2005).

Third, the charter dictates that any development on such a site should respect, maintain, and interpret the existing fabric (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 interpret the existing built fabric (Nizhny Tagil, 2003) (Xi’an, 2005).

Lastly, adaptation and re-use, should be reinforced by contributing to sustainable development. Third, the charter dictates that any interventions that aim to repair or re-use existing fabric (Nizhny Tagil, 2003) can have an important role in economic regeneration. Such as utilising vacant buildings in new employment opportunities (Nizhny Tagil, 2003).

From the above mentioned charters it is clear that the process of development on such a site should respect, maintain, and interpret the existing fabric (Nizhny Tagil, 2003) (Xi’an, 2005). 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:

ENVIRONMENT POTENTIAL

The factory and more importantly the quarry, left a scar on the landscape. Thus, it is obvious approach this dissertation adopts is set out by P. Mang & B. Reed in Regenerative Framework and Methodology.

The notion of story of place, as referred to in the previous section, is also an imperative that one considers 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 adapted are based on the type of intervention that the paper entitle, Designing from Place Regenerative Framework and Methodology, and to engage with local communities and stakeholders, to give the site a new significance, this is vital to protect and interpret the existing built fabric.

- Remodelling as reworking – Changing the features of a building to suit the new functions. This calls for innovation and sensitivity.
- Re-functionalizing – Or adaptive re-use, is an approach that is attempting 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.

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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.
• 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 tried to stigma of place theories that relate to them. 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 of 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 for 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...
I am particularly influenced by the work done by Jose Forjaz. His minimalist designs are frugal yet extraordinary. A strong feeling of disapproval that someone experiences when they are made to feel ashamed of. (collinsdictionary.com, 2018).

A mark of disgrace associated with something, especially when this is unfair. (dictionary.cambridge.org, 2018).

A strong feeling of disapproval that this proposal can be a viable solution to the challenges facing such a site. Yet the main contribution is connecting architecture to the relief of stigmas or think less of the whole person. (en.oxforddictionaries.com, 2018).

A mark of disgrace 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 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.

This project hopes to have a unique approach to the projects that are akin to the Era brick factory. This project aims to create thresholds that allow trees to eventually grow in the landscape rather than feeding on and scaring it.

This project aims to create thresholds that allow trees to eventually grow in the landscape rather than being shunned by the preconceived ideas the site had been scarred in. Where the threshold between inside and outside gets blurred. Thus strengthening the building connection to nature (ArchDaily, 2018).

Three principles match the strategies proposed in this article, that together with an understanding of numerous philosophies can be a conceptual driver for a new design building. 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.

The I-CAT Offices and Warehouse by Earthworld Architects is a beautiful building featured in Architectural Review. The building is very simple square, in one of the oldest parts of Maputo, Mozambique. The building sits on a very prominent site. With areas that need to be public and the deeper reaches of its facades and levels. Creating interesting thresholds for the users to pass through and experience. A testament to his clever design. The building is to realise that these three factors are a confluence of the three ideologies. Being aware of materials that have low maintenance requirements.

The building dematerialises into the landscape rather than feeding on and scaring it.

The philosophy behind the design is to provide areas for social interaction, to provide ownership and pride. Thus, one cannot simply design a building to meet only the potential of the adjacent stadium. It is evident that the lack of activity on site has contributed to the dismal state of both the adjacent brick factory and the underutilised stadium.

To build the sense of ownership is important to provide areas for social interaction, especially when the site is still in an active phase. Thus the program suggests providing various food stalls, both permanent and informal. The need for adequate nutrition and the sense of community surrounding 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.

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FINAL PRESENTATION
AERIAL PHOTO JUST BEFORE THE FACTORY'S CLOSURE

DECOMMISSIONED BRICK OVEN

ACTIVE BRICK DRYING TRACKS

OLDEST BRICK FACTORY BUILDING

SKETCH OF THE REMNANTS OF OLD BRICK FACTORY (2018)

OVERGROWN BUILT FABRIC

LEFTOVER BRICK DRYING TRACKS

VIEW FROM STADIUM

SITE DETERIORATION
CONSTRUCTION PHASES

PHASE 1: REINFORCED CAST IN SITU CONCRETE COLUMN, BEAMS & SLAB

PHASE 2: RECLAIMED BRICK INFILL

PHASE 3: LANDSCAPING, BARRIERS, OTHER SITE REFINISHES

PHASE 4: DEMOLISH POLY CARPORTS, GUIDING ALUMINUM ROOF SHEETING, WITH STEEL SHEET PANS, DRYWALLS & INSULATION

NEW GREENHOUSE BUILT ON EXISTING RANGE

REUSED BUILDINGS & FOOTPRINT
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 air pipes are absorbs heat from the ground, then earth is cooled down, then the cool air is absorbed by the sea through the heat conducting pipes. Cooler air can then be pumped into the building through the back cores.

During cooler months the average temperature of the soil will be higher than the air temperature, thus the system will supply the building with cooler air heating up the desired spaces.
DAYLIGHTING ITERATIONS

EARLY ITERATION
- Glass exposed window
- Harsh sun in summer afternoon.

SECOND ITERATION
- The room is better lit,
  yet chairs and tables are over lit.

SOLAR TEST RAN IN LATE AFTERNOON AT SUMMER SOLSTICE

THIRD ITERATION
- Entire facade changed
to dimmable glass,
better spread of light in room,
back row overexposed.

FOURTH ITERATION
- Shading device outside,
  iterated to suit west,
  control light and stop over exposure
  in the room.

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