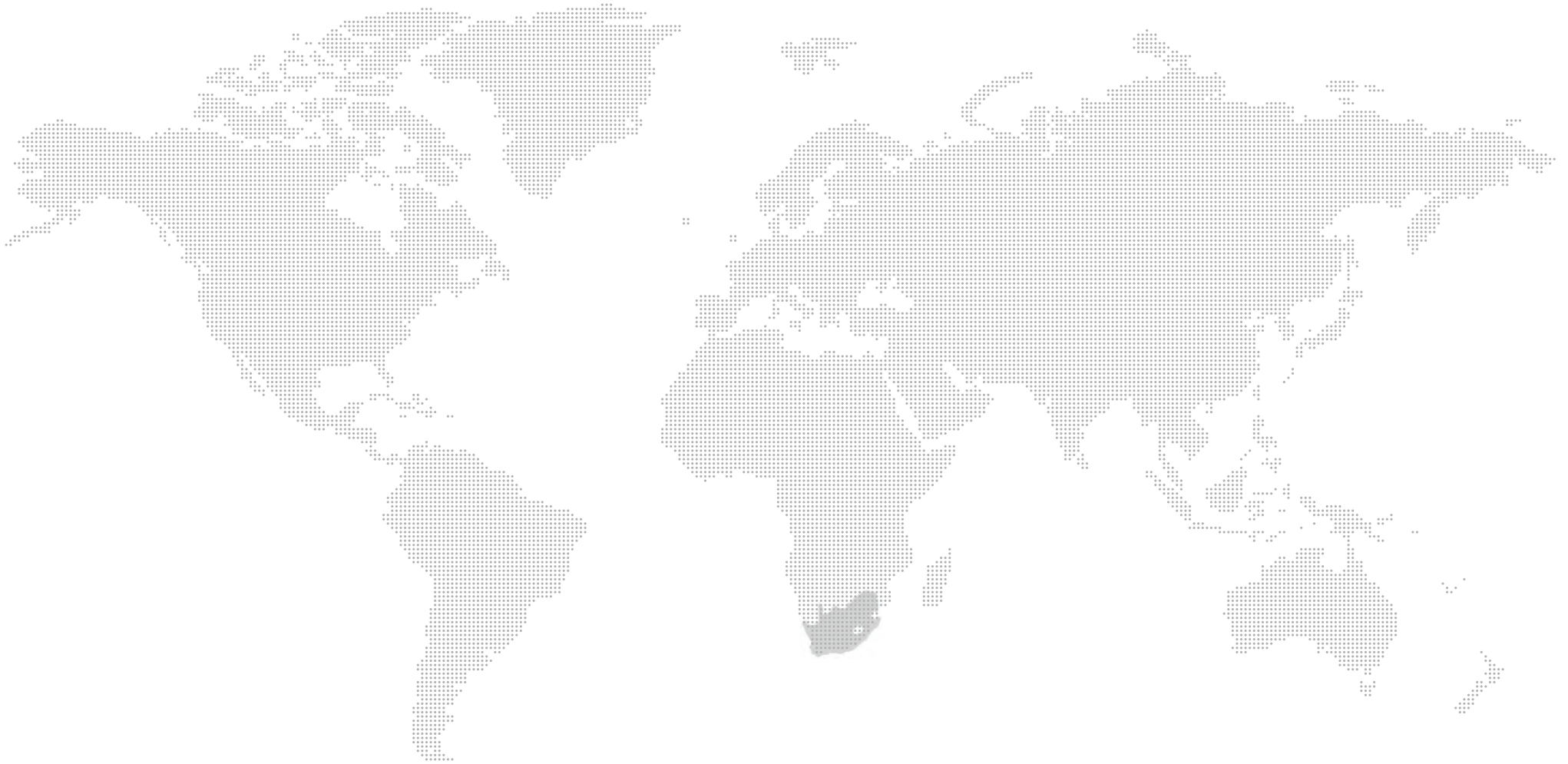




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4. context

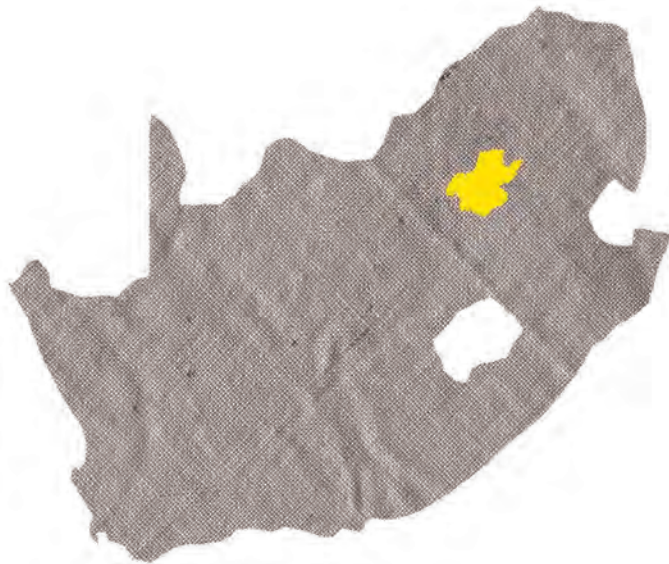


4.1_physical context

Greater Pretoria (City of Tshwane)

Location: 25'45'S ; 28'15'E
Average day temperatures: Summer 15-28°C
Winter 6-23°C
Average annual Rainfall: 700mm
(summer rainfall region)
(Heydenrych, 1999: 2)

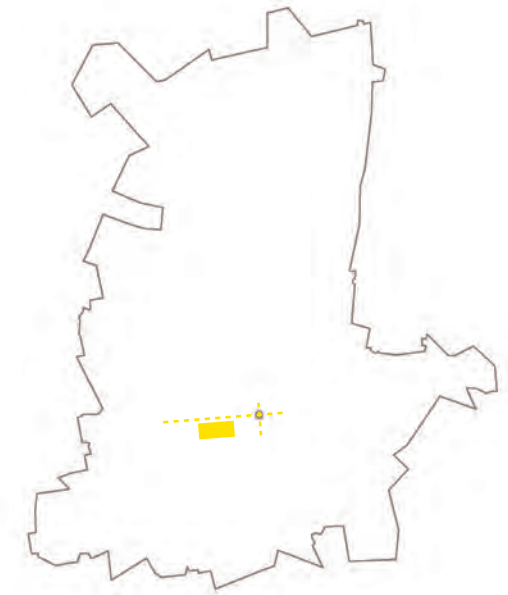
Fig 4.1 (a)-(d) Series of maps showing South Africa, Gauteng Province and location of site in the City of Tshwane.



south africa



gauteng province



city of tshwane

4.2_urban context

4.2.1__background

Pretoria West – currently a part of Pretoria associated with industrial activity, pollution, noise, poverty, panel beaters and mechanics – was established in 1892 and has a rich history.

In the 1870's this part of Pretoria was surveyed for burger-right erven. There was an agreement that the Voortrekkers would receive farms in the Transvaal area, but many rather preferred large stands and they settled mostly in Pretoria West. After 1902 farmers flocked to the city from the plat-teland, and so the Goede Hoop residential area in Pretoria West developed rapidly. The primary school, called Burger-right School, recalls the historic area of Pretoria.

With the rapid growth of the area, there was initially a lot of criticism about the urbanisation of the area – especially from the Uitlanders and newspapers who preferred that the area, which contained a park and race course (the current Show Grounds) retain its rural character.

Many railway employees lived in the area of Goede Hoop and with the establishment of Iscor in the area, which acted as a catalyst for industrial activity and growth, the need for more housing grew. Today the rural past of Pretoria West is long forgotten and due to its location close to Pretoria CBD the area shows phenomenal potential for growth. (Pretoria News, 1996, p. 8)

Fig 4.2 Aerial photo of Pretoria West and its relation to Church Square and Pretoria CBD



marabastad

church square

pretoria west residential

pretoria CBD

proclamation hill

pta west power station



pretoria west industrial

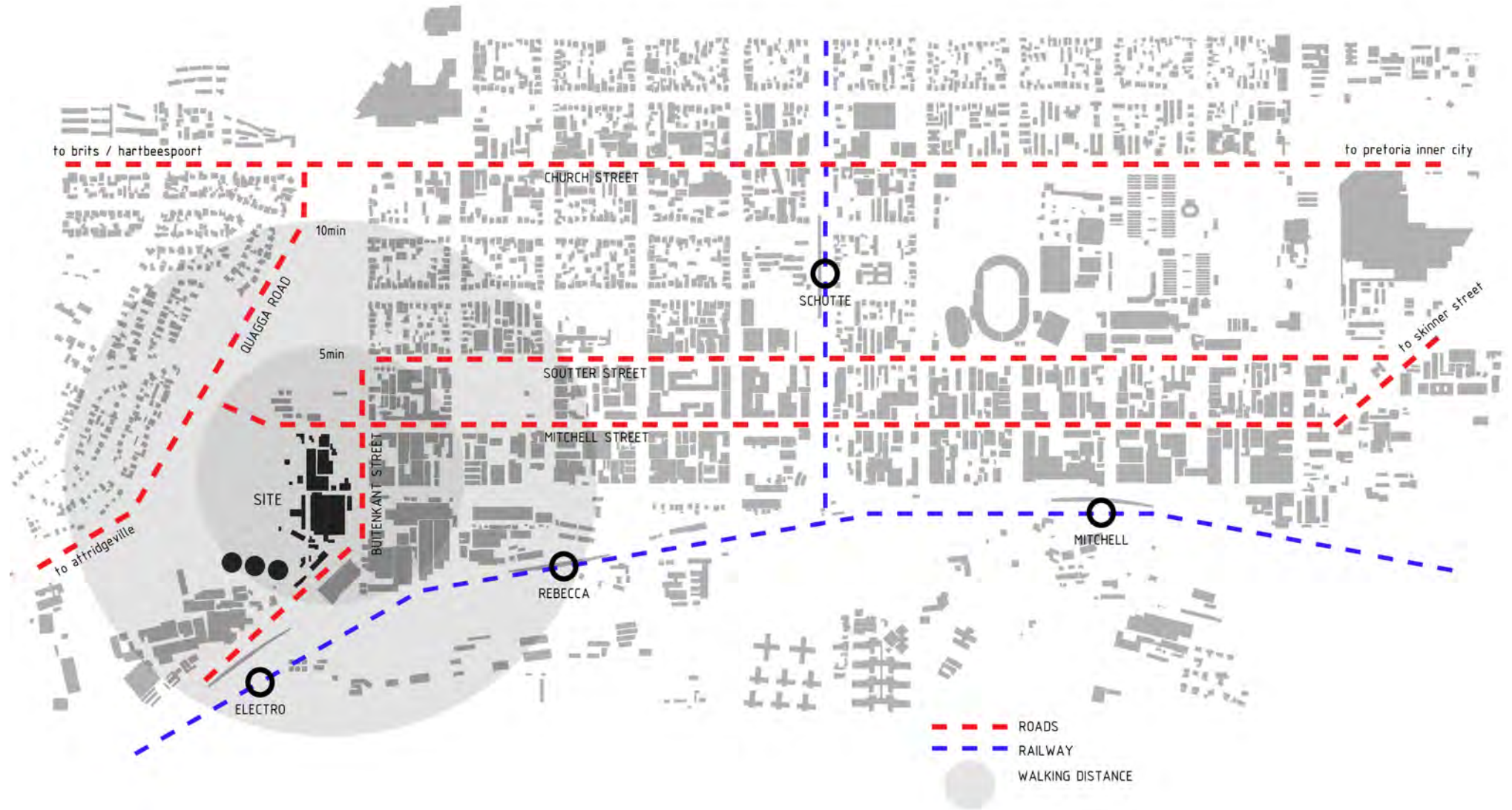
weskoppies mental hospital

pretoria military

pretoria police training

major access 4.2.2_ routes

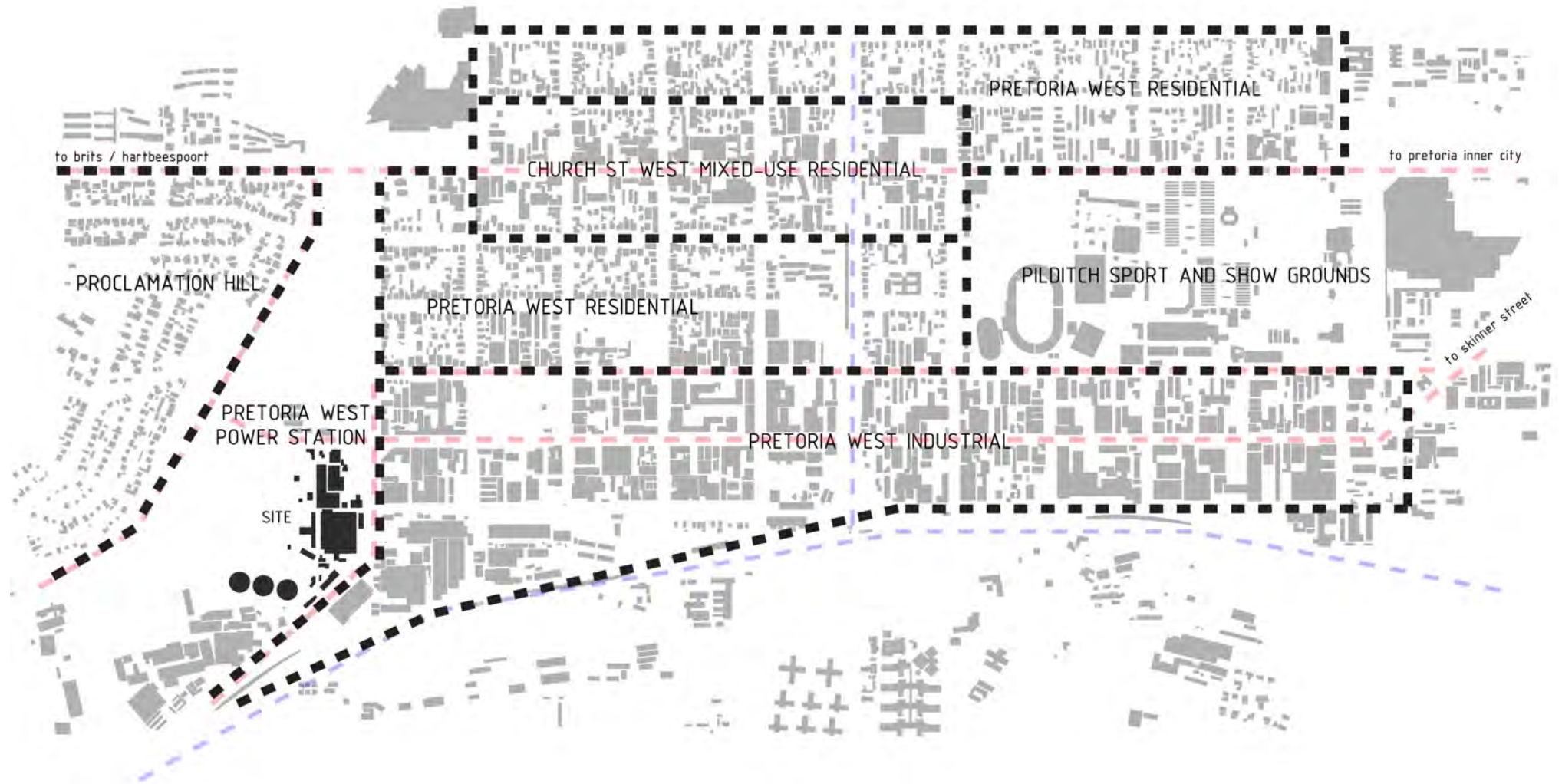
Pretoria West Power Station is within 5 minutes walking distance to major access roads that link the site with Pretoria CBD and Atteridgeville. The site is also currently within 10 minutes walking distance of two train Station, Electro and Rebecca, which also provides access to Pretoria Station and Atteridgeville.





4.2.3_ districts

Within the Pretoria West district there are smaller areas that have similar functions e.g. the Industrial area north of the railway tracks, Church Street with more commercial activities and apartments, Pilditch Stadium with other recreational activities, and residential in the remaining areas.



4.2.4_ land use

There is a diverse collection of land use in the Pretoria West Region. There are more industrial and commercial activities along major access routes, with lower density residential in the quieter streets. The Old Power Station, which will be adapted to offer more public functions, might have a changing effect on the rather mono-functional industrial area north of the railway lines, with more commercial and residential activity.



4.2.5_ landmarks

Within the Pretoria West region there are certain buildings that act as landmarks or way-finding elements. The areas immediately surrounding these landmarks usually offer enormous potential to be developed, due to the existing identity of such landmarks. Pretoria West Power Station is one of these landmarks in the area because of the massive buildings, dam and Cooling Towers.



4.2.6_ nodes

Within the Pretoria West region there are small activity nodes that were formed. Their location is usually informed by other activities or where major access routes cross. An example of this is the Kwagga Mall, where the railway crosses over Church street, around Pilditch Stadium, on the eastern side of Mitchell Street around the Barrel Inn Hotel and around the Old Power Station. These areas also offer the potential for further development due to existing activity and energy around these nodes.

Fig 4.7 Figure Ground Study showing nodes (concentration of activities) within the Pretoria West area.



4.3_pretoria west power station

(site and surroundings)

4.3.1_background

The period between 1920 and 1940 was marked by very extensive development in power distribution all over the Union with the establishment of large power stations, the rapid development of outdoor lighting and the increased use of electricity to drive workshops and machinery. (SA Engineer and Electrical Review, 1942: 17)

The first electrical undertaking in Pretoria was established in Schoeman Street in the year 1891 by a private company. In December 1904, the station was taken over by the Municipal Council and in 1910 a system of electrical tramways was inaugurated. During this period the station had been enlarged and extended several times.

In 1919, owing to the increase of building operations and the extension of the town, the demand for electricity increased in such a way that it was decided to build a new power station. The suitable site, commanding an adequate supply of water for condensing purposes, had been selected at a point about three miles west of Church Square. The erection of the building was proceeded with in accordance with the design and specifications of Messrs, Clark and Partner, consulting engineers of Johannesburg. (SA Engineer, 1927: 43)

In December 1923 Pretoria West Power Station was the only provider of electricity for Pretoria and the power station in Schoeman Street was shut down. Today this facility in Schoeman Street is known as the Tram Shed, a shopping complex and market. (Masut, 2010)

Fig 4.8 Aerial photo of Pretoria West Power Station

new coal bunkers

security office

workshops (unused)

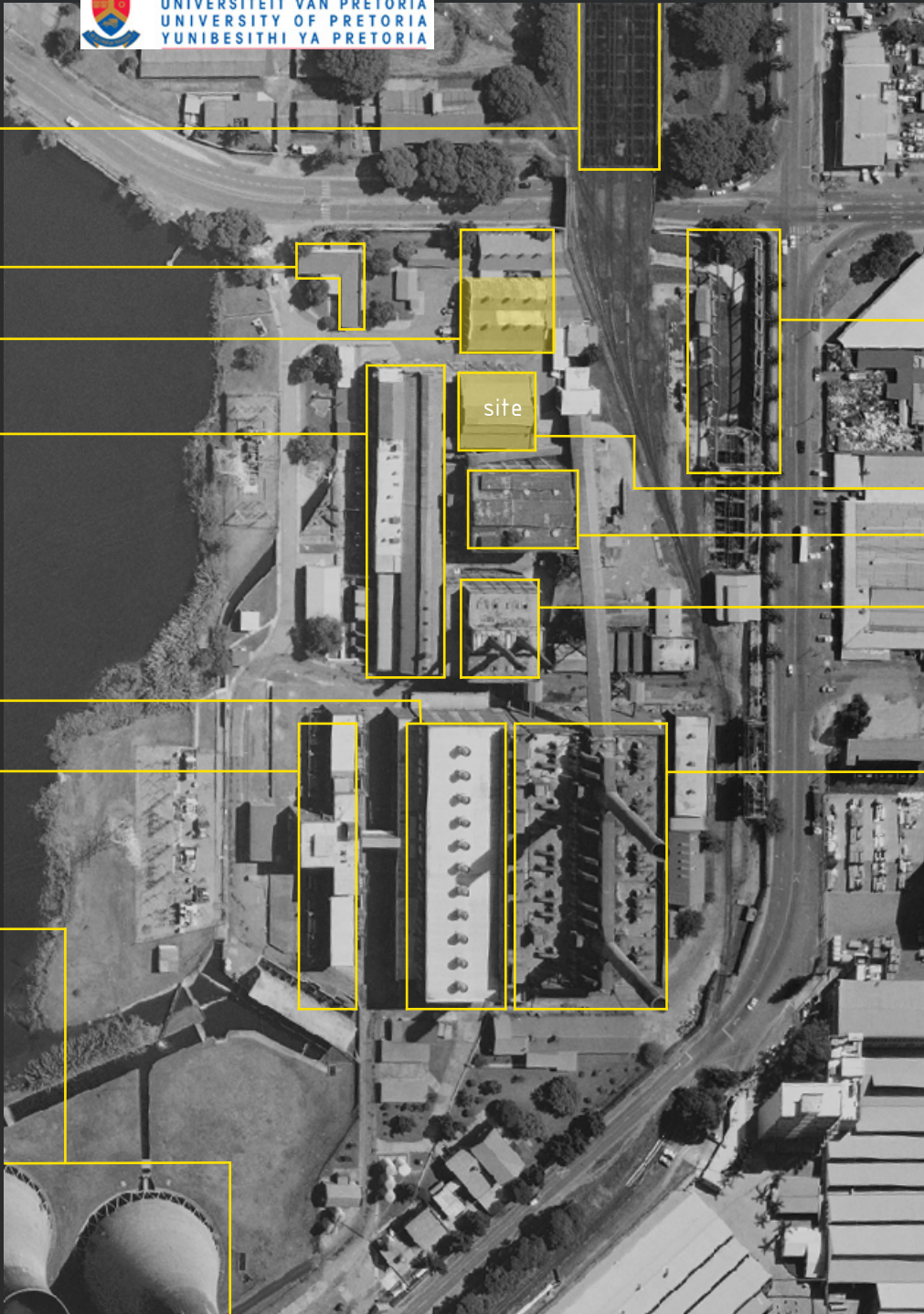
old turbine hall (unused)

new turbine hall

administration building

cooling towers

pretoria west
power station



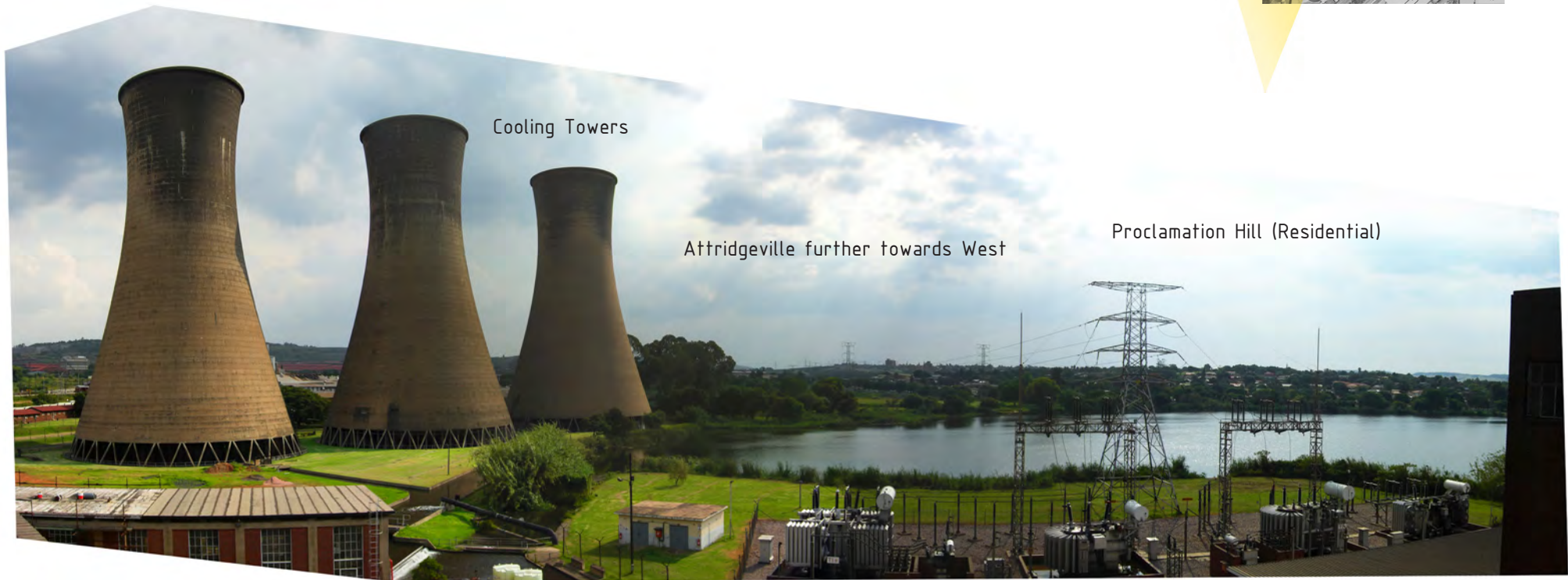


Fig 4.9 View from Admin-Building looking west



Fig 4.10 View from Power Station looking east towards Pretoria CBD

4.4_site

4.4.1_background

During the late eighteenth century, the engineering profession achieved professional recognition, subsequently they have risen to dominance in the construction industry. Their advanced technical knowledge about materials allowed them to design structures with the biggest spans and the least materials, with functionality and pragmatism as the only criteria for the building form, without ever considering what 'style' they should apply to the building (De Botton, 2006: 46).

This approach from the engineer was contradictory to those of the architectural profession. According to Karl Friedrich Schinkel, an architect's duty was to "turn something useful, practical and functional into something beautiful" (De Botton, 2006: 47).

The site for the specific project was identified as the 1924 Boiler House and Workshops. These buildings were of the first buildings to be built at the Power Station and although they were designed primarily with functionality in mind, they are some of the only buildings at the Power Station where the 'beauty' of the building was still an important consideration by applying subtle hints to an aesthetic approach in the original early 20th century Industrial Architectural design.

It is therefore appropriate that the new programme, a facility for the fashion industry, which primarily deals with beauty, be housed within these existing buildings. The new programme includes a public event space for fashion shows, studios for fashion designers and a clothing factory where they can produce their products. The event space should be adaptable to present the option for other events like inde-

pendent cinema and film festivals, or community gatherings.

4.4.2_heritage charters

According to the Burra Charter, places of cultural significance "enrich people's lives and provide a sense of connection to community, landscape, the past and to lived experiences. They are historical records, that are important as tangible expressions of an identity and experience. They are irreplaceable and precious" (Burra Charter, 1999: 1).

The Burra charter also supports the approach to "do as much as necessary to care for the place and make it usable, but otherwise change it as little as possible so that its cultural significance is retained" (Burra Charter, 1999: 1).

The charter stipulates that a statement of significance be prepared, which will provide the foundation in the decision making process, when new work or adaptations are done to an existing building (Burra Charter, 1999: 4). Adaptations and new work is acceptable where there is minimum impact on the significance of the place and the new intervention should easily be identifiable as new work (Burra Charter, 1999: 7).

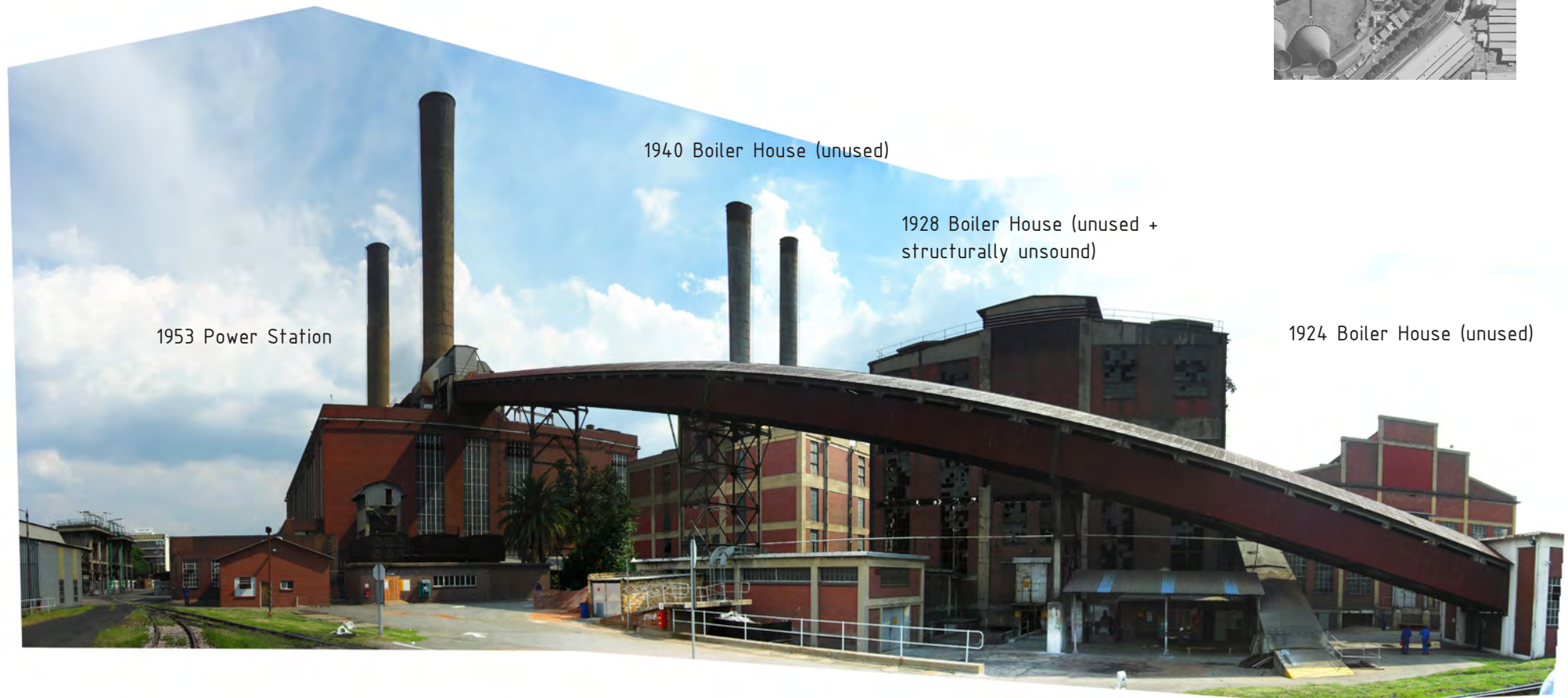


Fig 4.11 View of unused and current power station



Fig 4.12 View of existing 1924 Boiler House and Workshop buildings in surrounding context

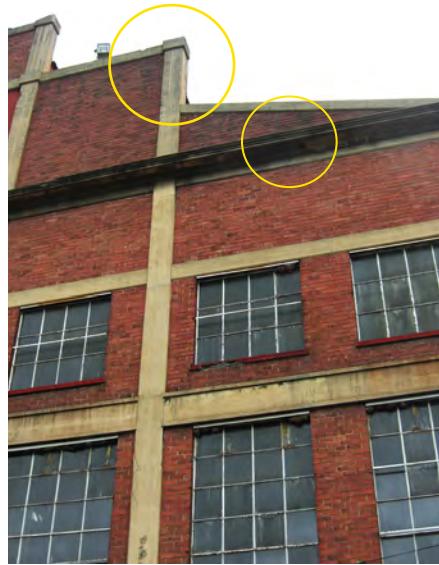


Fig 4.13 (a) 1924 Boiler House gable,
(b) subtle hints toward an aesthetic approach



Fig 4.14 (a), (b) Interior of Boiler House

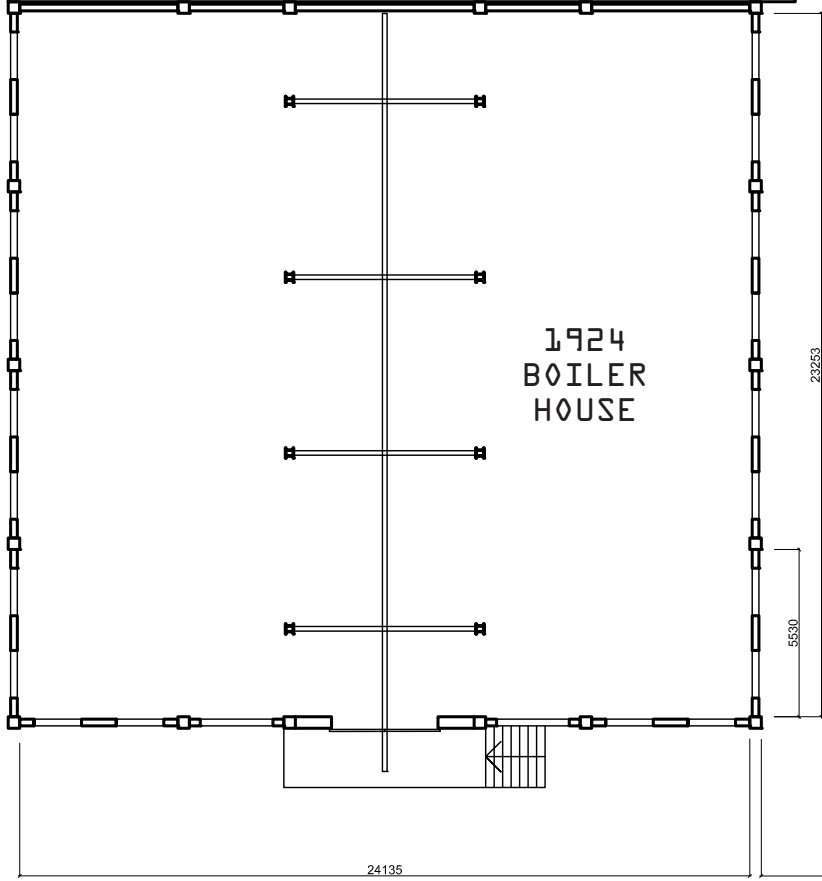
Fig 4.16 Workshops



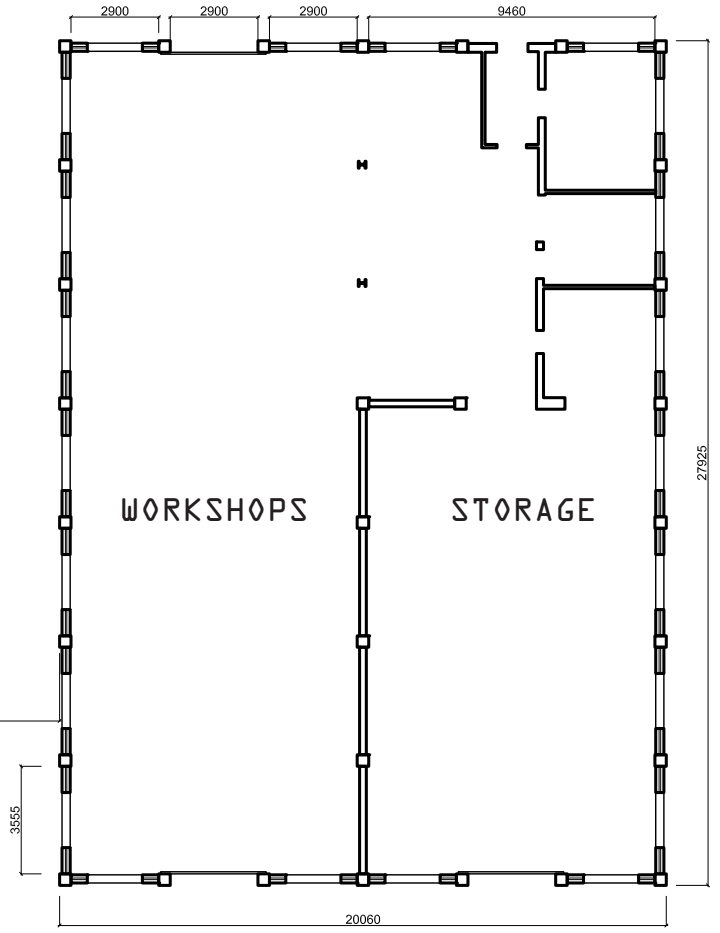
Fig 4.15 (b) Workshops Interior



1924 TURBINE HALL



1924
BOILER
HOUSE



WORKSHOPS

STORAGE

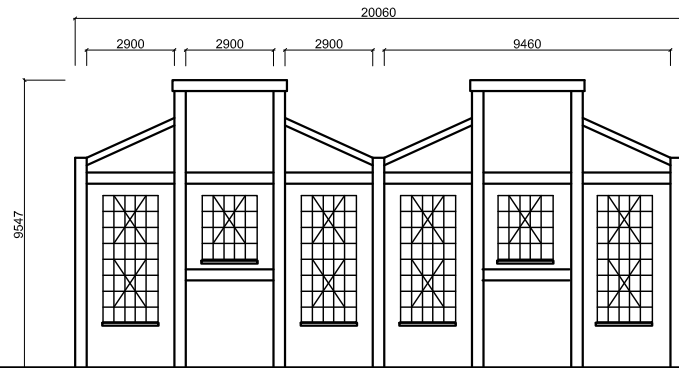
PLAN OF EXISTING BUILDINGS
SCALE 1:250



1924 BOILER HOUSE



WORKSHOPS



EAST ELEVATION
SCALE 1:250

site (continued)

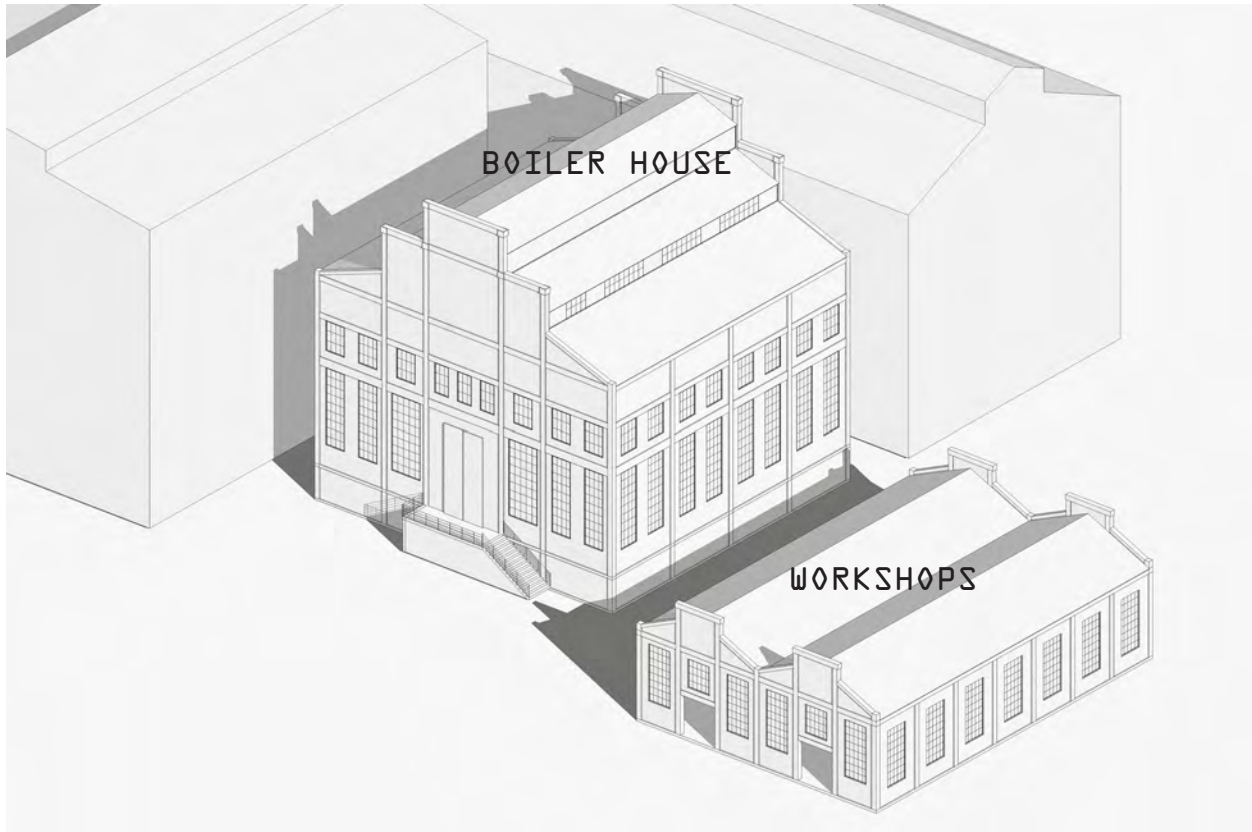


Fig 4.17 3D model of existing buildings

4.4.3_history

This building was built during a confused age in architecture where the engineering profession was well established and they demanded that factories and industrial buildings be built according to their function only, which was to house large machinery and equipment (De Botton, 2006: 47).

It was also during this time that there was a self-conscious tradition or movement in architecture. Cleveland Amory wrote in an interview with Philip Johnson in Vogue Magazine (May 1924) that "Civilisations are remembered by buildings. There's nothing more important than architecture" (Jencks, 1973, p. 50). Architects wanted to be immortalised by designing monumental architecture and were serious about taking the duty to turn something practical and functional into something beautiful (De Botton, 2006: 47)

4.4.4_boiler house

description

The building was originally used as a Boiler Room where – as the name suggests – water was boiled to extreme high temperatures to create compressed steam that was transferred to the turbines in the neighbouring Turbine Hall to generate electricity. The interior of the building is a large open volume which could house the boiler machinery. The façade and especially the gable ends were given a unique identity in an early 20th century industrial architecture, with subtle hints towards an aesthetic approach in the original design. The eastern facade of this building reads as the front of the building.

The building is constructed with reinforced concrete columns and beams/lintels, filled in with brick and big windows. On the eastern side there are huge steel roller doors which announce the entrance. Currently the building is not actively used and acts as storage for unused steel shelves and drawers (Masut, 2010).

significance

The significance of this building lies in the volume that the building envelopes. The space offers the opportunity to be adaptable for different functions. The building is proudly located next to the new proposed public space. It therefore lends itself to the use of public functions.

4.4.5_workshops

description

Just like the Boiler House, the eastern, as well as the western facades of this building are articulated with gable ends in an early 20th century Industrial Architecture aesthetic.

The building is also constructed with reinforced concrete with brick infill. The building was originally used as a workshop to make or repair broken equipment from the power station. Currently the building is used to store equipment used on the Power Station site.

significance

The significance of this building lies in the architectural language which is similar to that of the neighbouring Boiler House. The skin / envelope of this building becomes important as it doesn't speak of industrial activity, but rather a pastiche façade that resembles that of the neighbouring Boiler House with its decorative elements and hides away industrial activity inside.

The interior space of this building is also very adaptable and to honour its historic function the new building program should be of a productive / working space nature.

site (continued)

4.4.6_approach towards existing buildings

Buildings are like pages in a history book. They speak of the time they were built in. Industrial buildings, especially, were designed primarily as containers to house a specific function. The buildings on site, the 1924 buildings designed in an early 20th century industrial architecture, with subtle hints towards an aesthetic approach in the original design, shows that even during a time when the engineer had the majority influence on the design of an industrial building, the architect wanted to voice the importance of 'beauty' and aesthetics in architecture, metaphorically adding their page to the history book. "Civilisations are remembered by buildings" (Jencks, 1973: 50).

As the Power Station's need grew and the amount of buildings grew as well, the building façades became less aesthetically driven and purely functional. These buildings become significant, because they are good examples of industrial architecture and how it changed through the years. However they do not possess any famous associations towards a specific historic figure in the country's history, but rather a memory of what has happened there before (Cantell, 2005: 5).

The paradox of architecture is that the adored city must be destroyed to allow for the new. The approach to intervene is that one sets out to alter, but at the same time to respect and protect a building (Scott, 2008: 167). Historic buildings add to the different layers of a city that accumulated through time. When intervening on them, it shouldn't be copied or mimicked because it doesn't necessarily speak of the time that the alteration took place. New layers should be added to them so that the distinction between the

old and the new become more apparent.

The fitting of the new into the existing is a challenge, and so the fit is likely to become less clear than the more explicit requirements that can be made with a new building and, of course, the new identity often needs to be made explicit within the old context. The relationship between the new programme and original use should contain meaning for the overall project (Scott, 2008: 172).

David Chipperfield was commissioned to alter and restore the Neues Museum in Berlin. His approach to alteration is that architectural presentation – like fashion – changes through the decades. "That which was once acceptable in one period, is not acceptable in another." The architect or engineer's original concept of the building is part of the original building and is not identified as a mistake, but the way we address and restore the building and present it as an object in the 21st century is different from when it was originally built.

4.4.7_conclusion

Alteration to existing buildings needn't be an exercise to restore the building to its original form and function. Buildings change over time and adapt as their needs change. This is also part of the building's history. To alter a building, it is important to address and redress its shortcomings to translate it as an object of the 21st century (Chipperfield, 2009). Due to the contrasting nature in fashion photography, a contrasting approach will be taken in the design of the new building, which will emphasise the spirit of the time when the original buildings were built, as well as when it was adapted.

neues museum, berlin, germany
(2009)

david chipperfield architects

description

The original Neues Museum building was built between 1841 and 1859 and was designed by Friedrich August Stüler and was one of the first museums on the island in the River Spree in Berlin. During the Second World War, the building was badly damaged during bombings with some parts completely missing and others severely damaged (Neues Museum, 2010).

approach

The aim was to restore the building to its former glory. The architect incorporated all the original parts of the damaged building into his new design, without imitating them. He therefore translated the spatial qualities of the original building into a contemporary architectural language. In an interview with David Chipperfield, he had the following to say about the central 'Treppenhalle' staircase: "One voice said restore it to its original state, the other voice advocated that we take advantage of the space, creating a radical piece of modern architecture. We pursued both concepts for a year. But we realised that when we listened to the building there was only one solution. We saw in the configuration of the windows, porch and doors that the historical stairs had measured the room, enabling visitors to experience it, travelling both vertically and horizontally through the space. Without the stairs one became a passive spectator, a voyeur unengaged with the space" (MacLean, 2009).

design influence

Chipperfield's approach to restore a building to its former glory is remarkable, yet he doesn't imitate the original building and materials. This translates the building from its former neo-classical glory to a contemporary piece of architecture, whilst retaining the original spatial qualities of the original building.

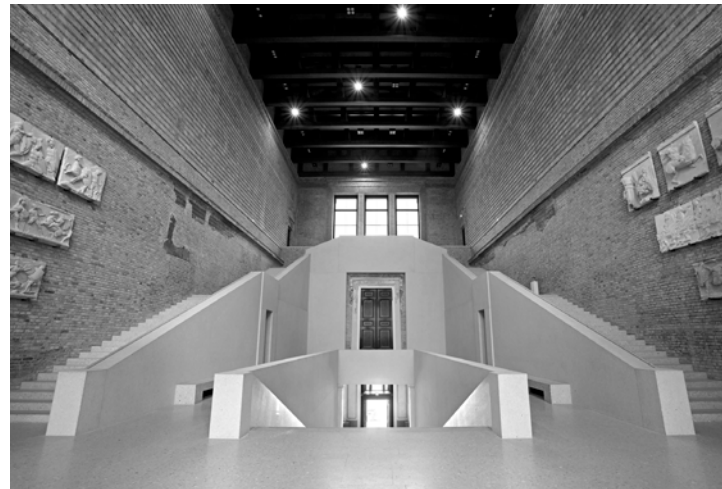


Fig 4.18 Treppenhalle at Neues Museum, Berlin, Germany in 1850 (a) and currently (b). The structure behind the murals are exposed in David Chipperfield's alterations