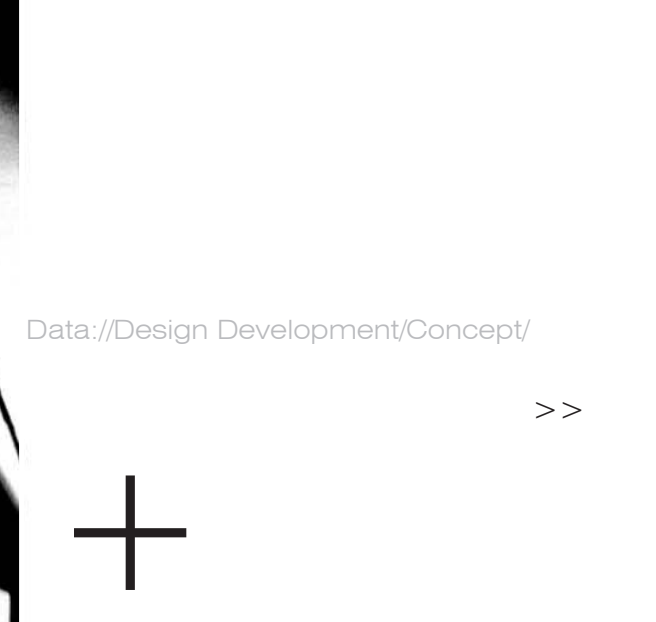
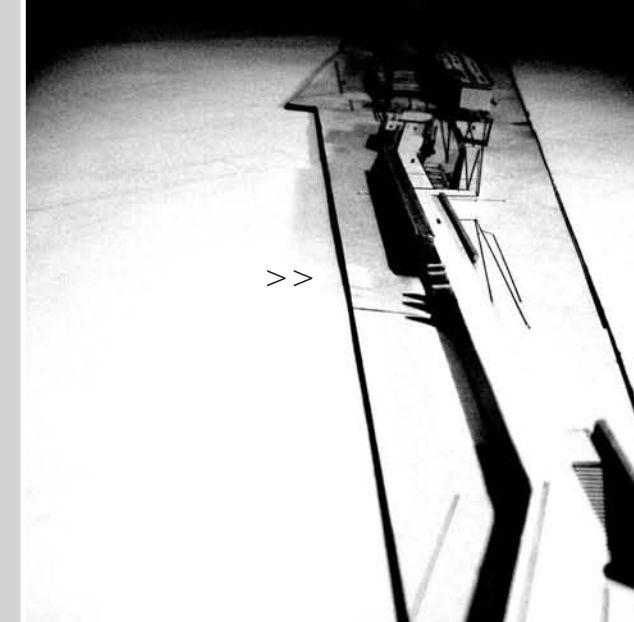
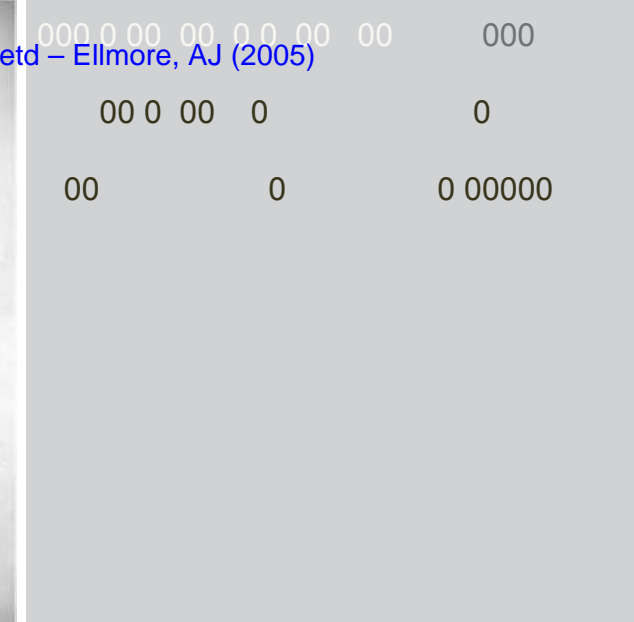
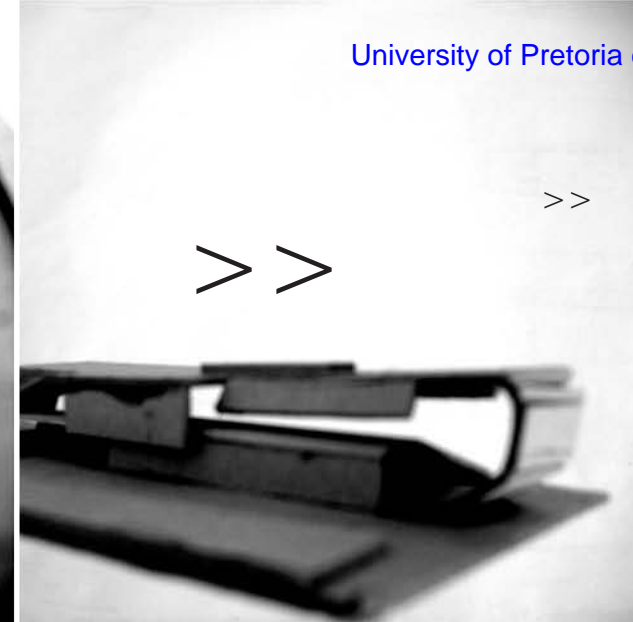
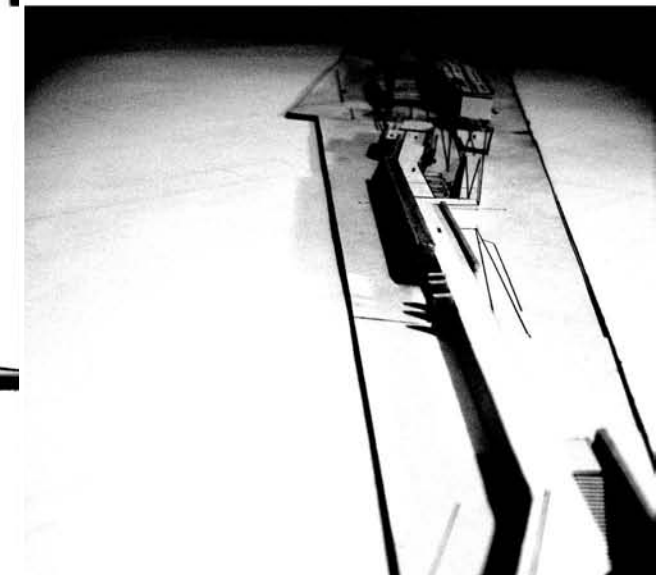
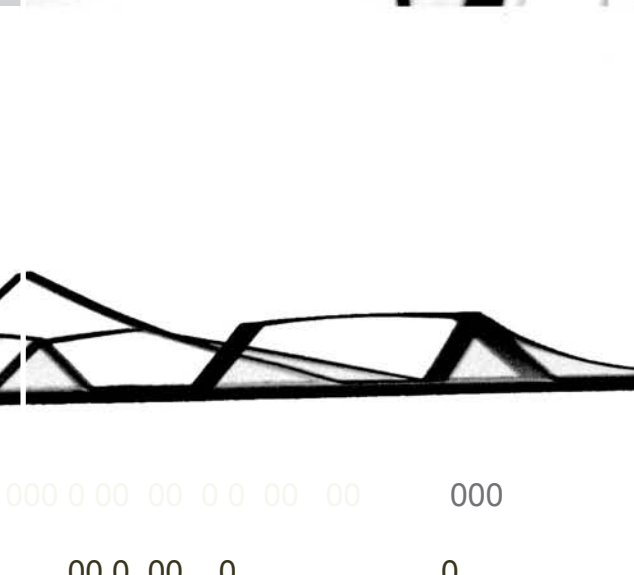
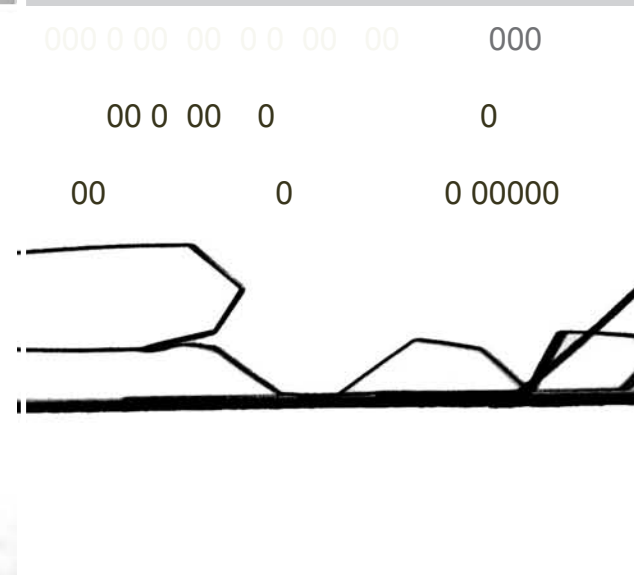
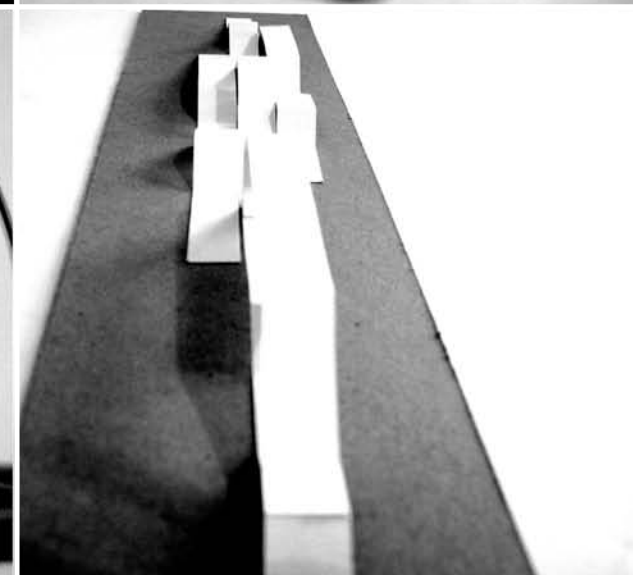
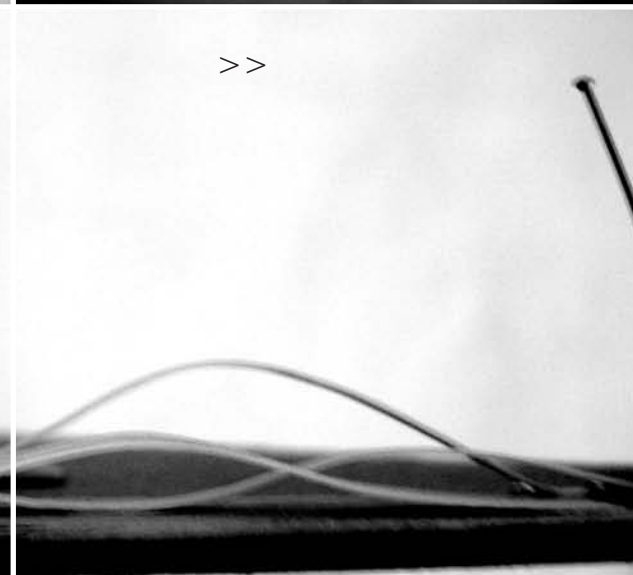
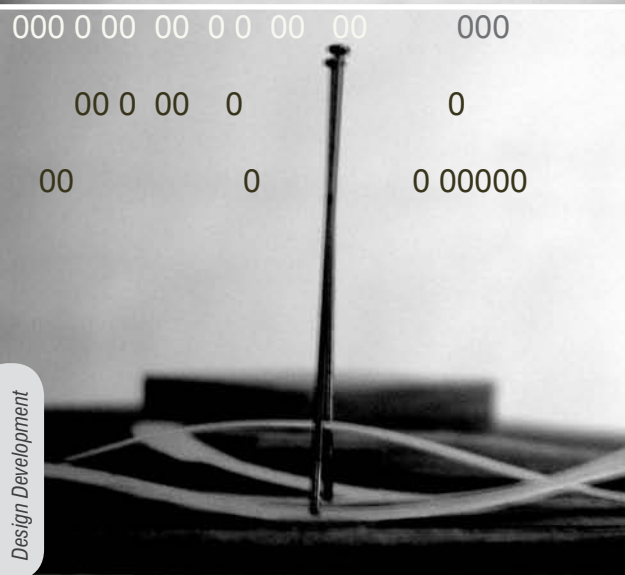


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## 6.0 Design Development



University of Pretoria etd - Ellmore, AJ (2005)



Data://Design Development/Concept/



Design Development

fig.6.1 - 6.4 view of concept model

fig.6.5 - 6.7 view of concept model

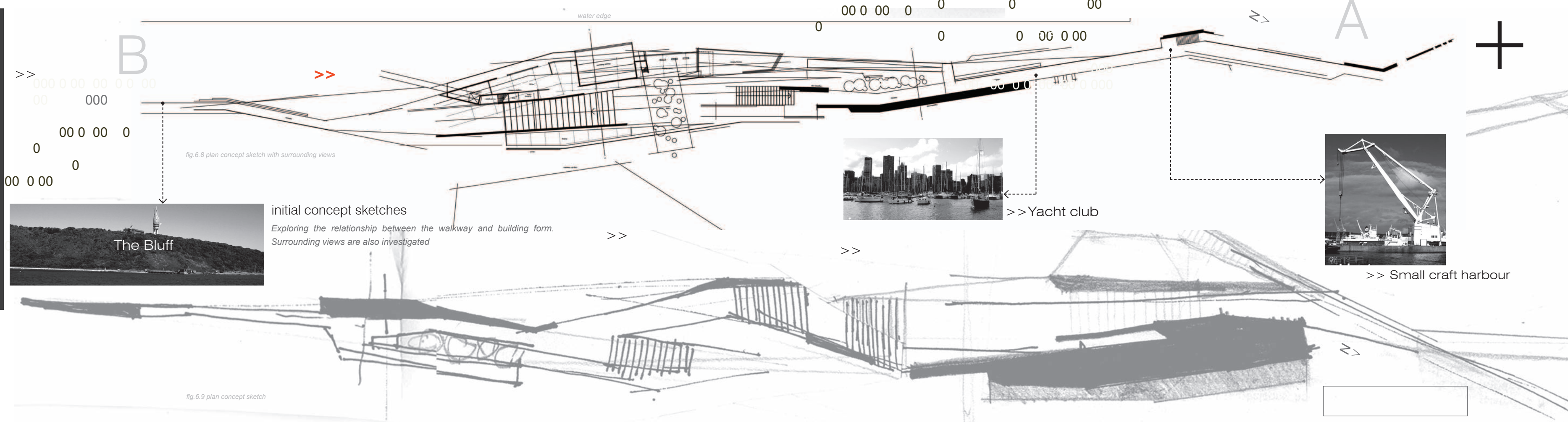


fig. 6.8 plan concept sketch with surrounding views

initial concept sketches

Exploring the relationship between the walkway and building form. Surrounding views are also investigated

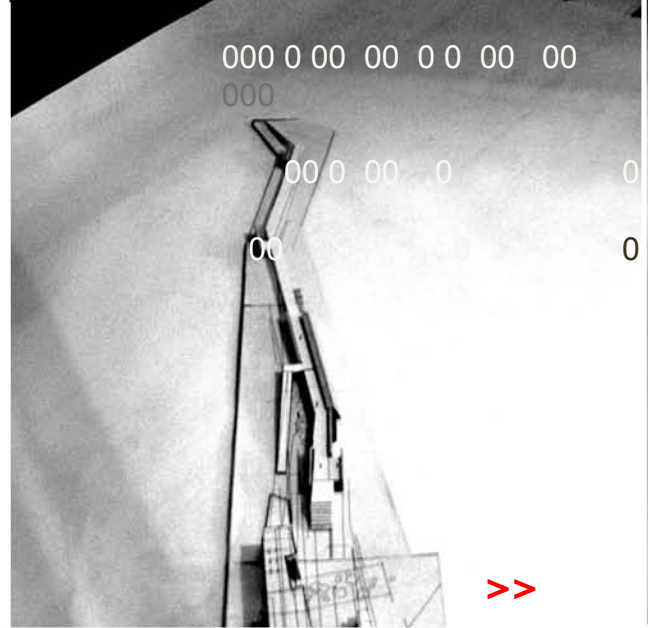


>> Yacht club



>> Small craft harbour

fig. 6.9 plan concept sketch



University of Pretoria etd – Ellmore, AJ (2005)

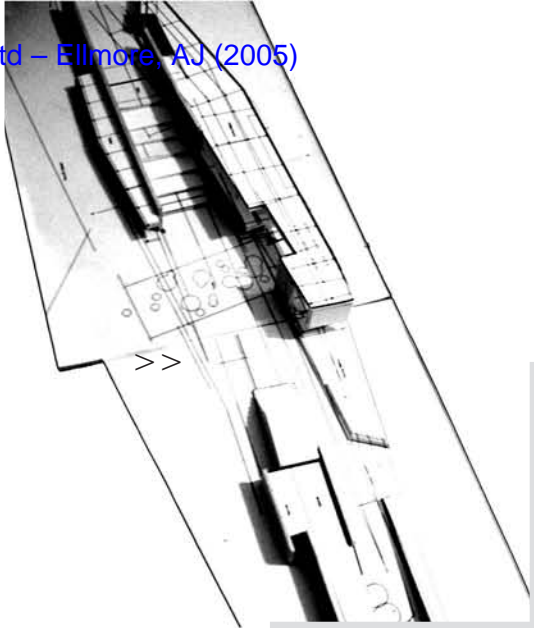
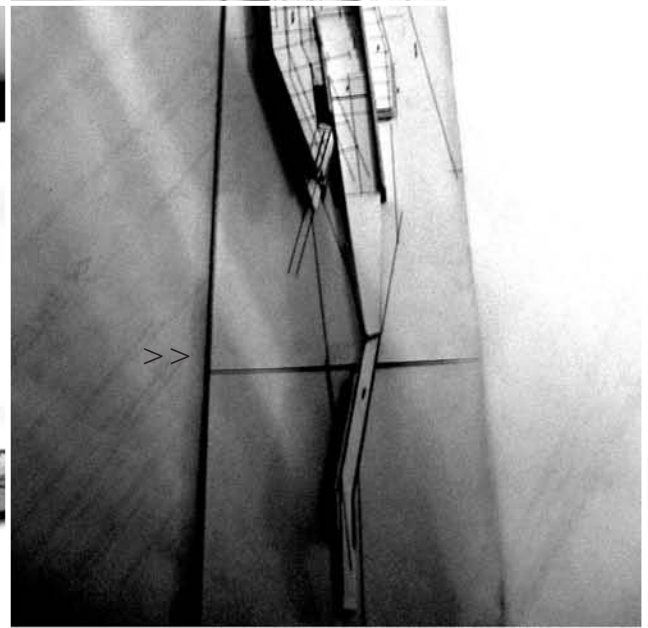
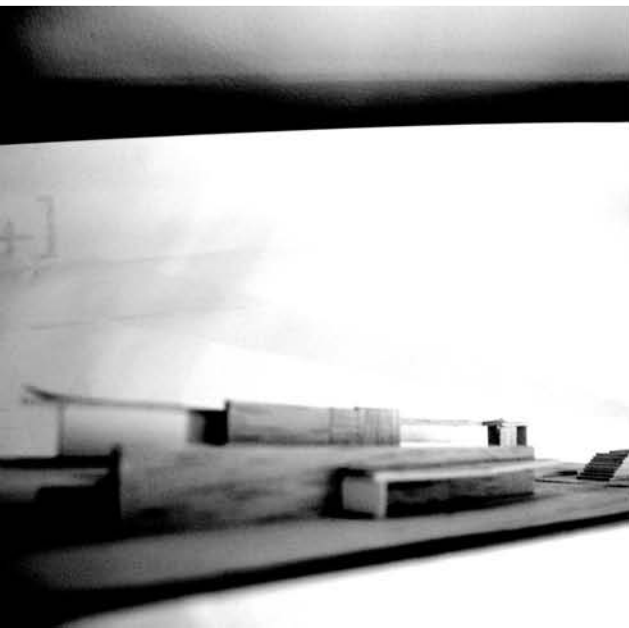


fig.03 view of concept model



*"If man-made places are at all related to their environment, their ought to exist a meaningful correspondence between natural conditions and settlement morphology. The basic problem to be solved by a settlement is how to gather the surrounding landscape."* Norberg-Schultz

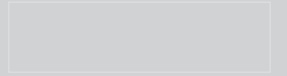


fig.5.10 - 5.12 view of concept model

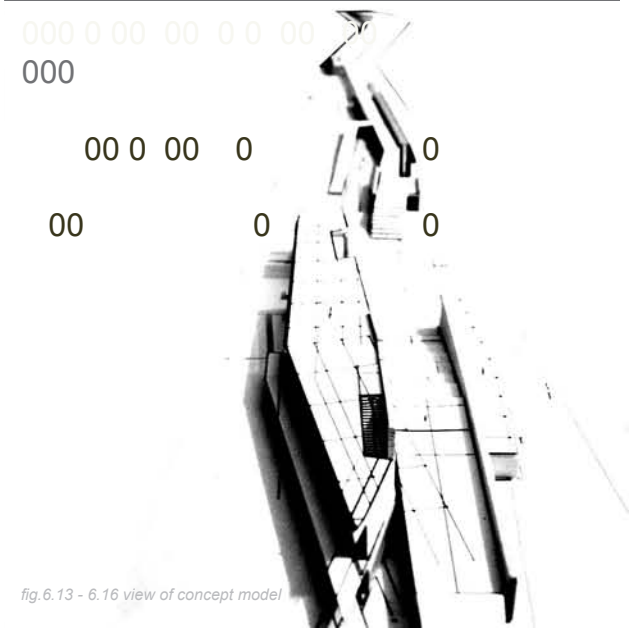
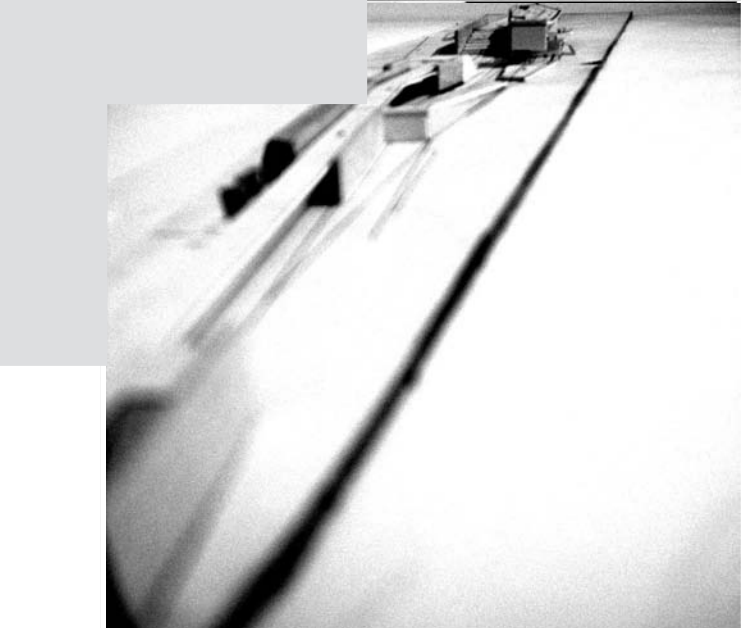
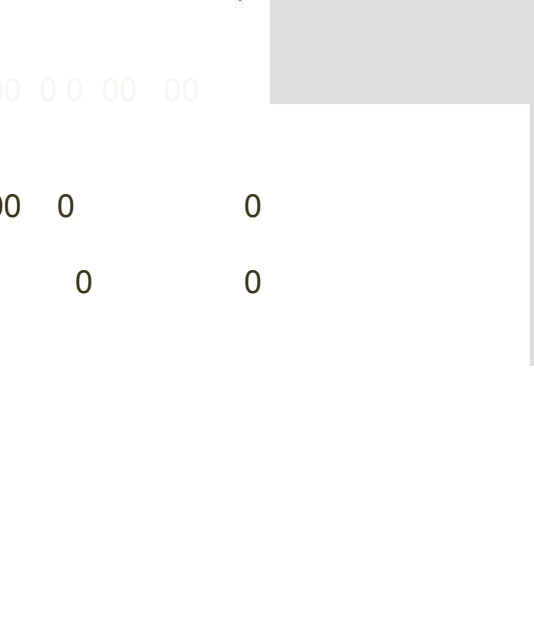


fig.6.13 - 6.16 view of concept model

Connections

The project strives to bridge of their city. The margins separate islands or forces. The most obvious being the program of the intervention, to connect land and sea and by so doing linking Durban to the global community through tourism. The building, as a transport hub, physically connects it to the major nodes within the city.

Durban harbour is the lungs of the city, an area restricted visually as well as physically from the public by high fences and walls. The proposed walkway through the working harbour defies these boundaries, encouraging the public to experience the harbour that is vital to the economy

The margins between working and public realm are blurred. In the same vein, a connection is created between two poles of the city. That is the new Point Development framework and the traditional CBD of the city. This traditional CBD centrally located within the city is characterized by medium income residential and commercial activity. The Point development is primarily high income residential units and commercial zones. **A connection is created between new and old Durban, economic classes, cultural groups and communities.**

The Building as a Gateway

An experience needs to be created for visitors to Durban. The building welcomes passengers and introduces them to the city, providing them with an idea of what to expect of the city, its people and landscape. A unique experience is created. The building is to be seen as morphed with the city. The emphasis placed on the city and therefore not on the building. Additionally this concept aids the problem in difference of scale between the cruise liner and the building. The building is perceived not, as a single entity in the harbour, but as an urban intervention interwoven within the urban fabric. What makes a building or landscape inviting and welcoming? The use of semi-transparent materials and layering allows visibility into the spaces. The entrance is large and emphasised, the boundary between interior and exterior is vague, with no distinct edge. Individuals are encouraged to enter the building without even being aware they are doing so. The transparency of the building acknowledges its position on the waters edge, further enforcing the concept to make the public aware of their surrounding environment.

Transformability

The project needs to adapt to the change in size of cruise liners and the influence these “moving buildings” have on the site. Natural cycles such as seasons, tidal cycles and diurnal cycles are emphasised due to the connection of the building to the exterior and the nature of the working harbour is made visible and the user becomes more connected to their surroundings and city. This theme is closely related to that of the use of landscape

to create a continually transforming environment that is constantly changing, allowing for an interesting and refreshing experience. The idea is carried through into the façade design, the pivot doors on the north western façade can be moved resulting in an ever-changing façade. The walkway placed through the harbour provides a spine for future development. Programs can be “clipped” onto the spine or “grow” from it. This is in line with the city’s development

plans to reclaim the waters edge from the harbour. This allows for an interesting aesthetic where nodes will grow along the spine where required, mimicking a living organism. The site of the terminal is visible from many points within the city, making the city aware when a cruise liner is in port. Citizens have the opportunity to become more involved with the experience, and this routine will become a component of the life of the city.



>>

>>

fig. 6.18 view of concept model exploring landscape

# Handscape

“to dwell between heaven and earth means to settle in the multifarious in-between, that is, to concretise the general situation as a man-made place....a study of man-made place therefore ought to have a natural basis: it should take the relationship to the natural environment as its point of departure.”

*Norberg-Schultz*

&gt;&gt;

The project celebrates terra firma, primarily due to the nature of the program. After three days out at sea, land is welcome. In addition to this, the public are drawn out of the city into the landscape to experience their environment.

Durban has a distinctive landscape, which is integrated within the life of the city. Vegetation emerges from cracks in pavements and buildings. This character of Durban can be made evident through the intervention. There is less of an attempt to control nature. Vegetation is encouraged to grow from the walls and slabs, recognizing this character of Durban and making it evident to visitors.

Through the manipulation of the landscape, a relationship is created with the land around the structure. The changes in direction along

the walkway aim to focus the user on certain views in their surroundings, such as The Bluff, the Millennium Tower and the city skyline. Information is provided to the user about their immediate landscape, creating a connection between the user and their landscape. By doing so the project attempts to enforce the idea of how humans are dependent on nature and how our lives are interwoven with nature.



&gt;&gt;

“This we know.

All things are connected like the blood which unites one family...

Whatever befalls the earth, befalls the sons and daughters of the earth. Man did not weave the web of life; he is merely a strand in it. Whatever he does to the web, he does to himself.”

TED PERRY

inspired by Chief Seattle

By providing information about the history of Durban and the surrounds, the relationship to the landscape is able to develop to one of not only space but also of time.

As Betsky (2002) states in his book: *Landscrapers: Buildings With The Land*. “Site-Specific work means to reveal the nature of its location in time and space, the history of its making, the hand of its maker, and the cultural assumptions that maker and viewer bring to an experience of the work. The result is something that is neither object or field. The work creates an environment, but is also an object (or set of objects) in its own right. It offers an alternative landscape that is critical of, or merely makes us aware of, what we have left behind once we are in a position to experience the site-specific piece.”

&gt;&gt;

“These landscrapers give us back the land and architecture. By making us aware of the ground we inhabit, we can regain a sense of the reality of place in a culture that is more and more dependent on the abstraction engendered by the mass production of real and virtual spaces, instant communication, and digital manipulation.”

■Betsky , 2002 p. 192

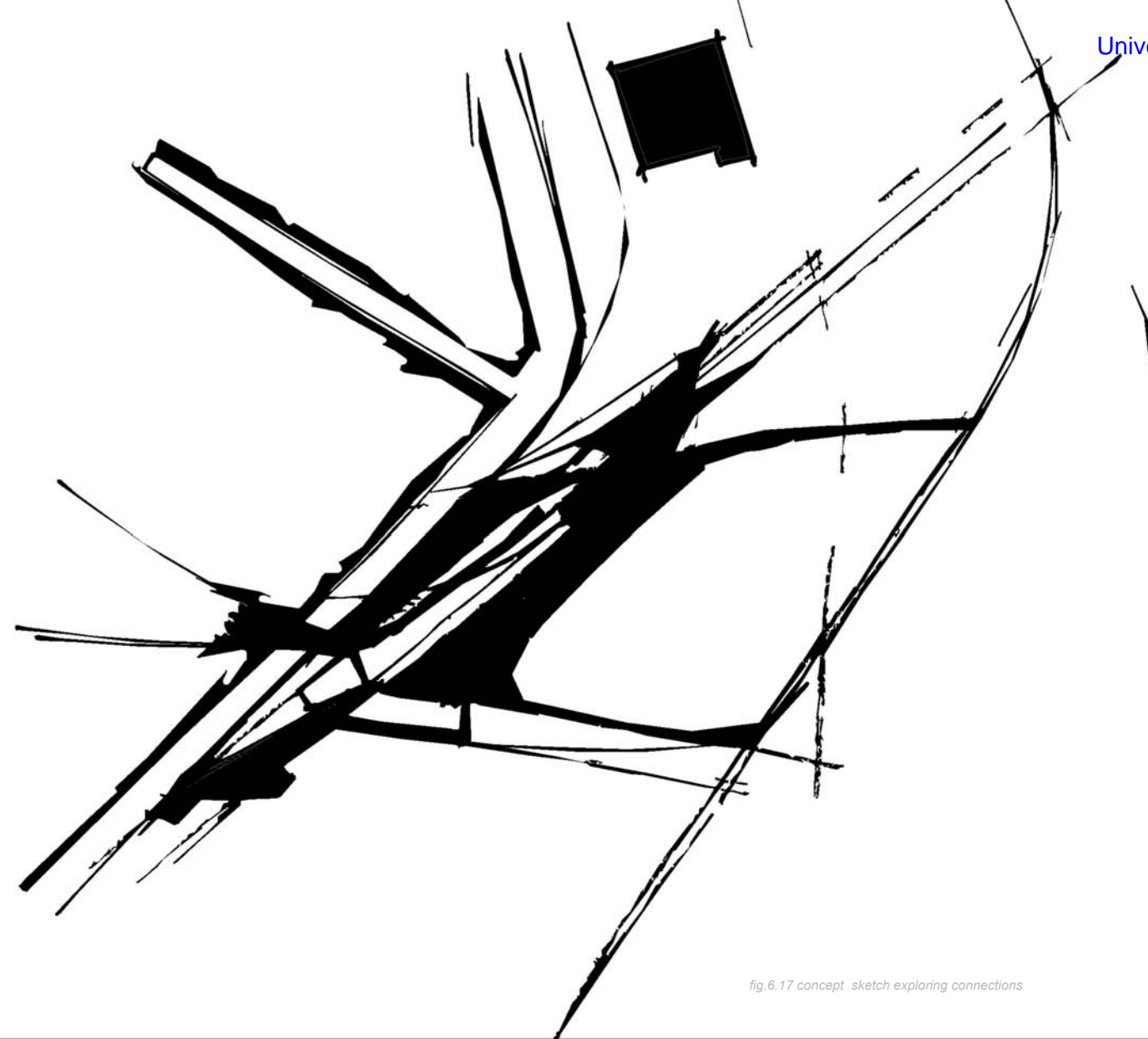


fig.6.17 concept sketch exploring connections

### Layering

The contrast between the harsh, rough texture of the working harbour and that of the new landscape placed above it makes evident how brownfield sites can be transformed, and the evolution of the city. The landscape created does not strive to be a pristine natural park. The environment created is an honest response to its context in a working harbour. The layering of the new intervention over the existing creates an interesting play on texture and acknowledges the history of the site. The linear fragments of the walkway mimics the railway-lines on site, creating a sense of familiarity between the layers.

This concept of layering developed from the site, is carried through into the use of

materials used to construct the building as well as generate the facades. Viewed from a distance the separate elements of the building appear to overlap, creating a layering effect. Materials are layered, such as timber battens placed as screens in front of glazing. The use of creepers and other vegetation adds to this a natural layer.

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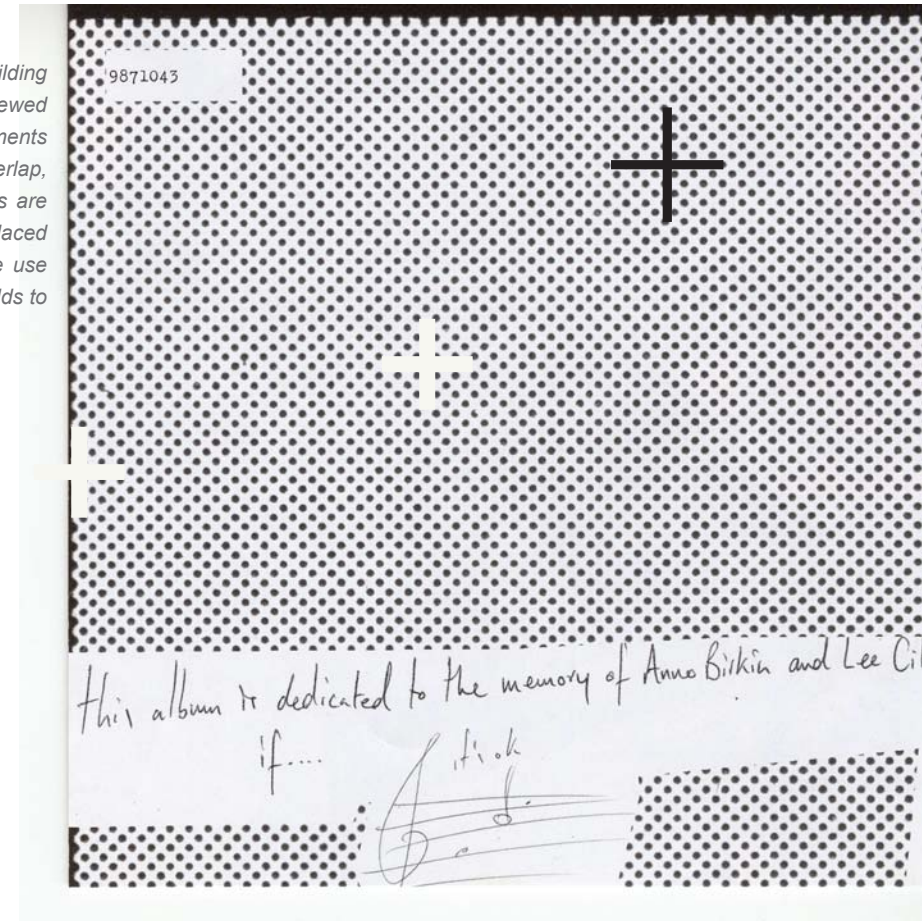
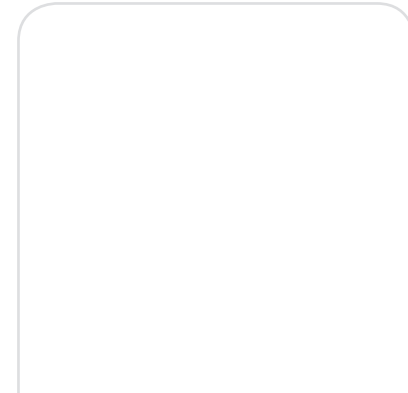


fig.6.21 layering



### Cruise ships

In his book "Towards a New Architecture", Le Corbusier uses the ocean liner as an example of the "new spirit".

*"The steamship is the first stage in the realization of a world organised according to the new spirit."* (Le Corbusier, 1986, p.103)

*Le Corbusier views the cruise liner as the future of architecture. An architecture making use of new technology, and void of unnecessary decoration and custom.*

*"Architects live and move within the narrow limits of academic acquirements and in ignorance of new ways of building, and they are quite willing that their conceptions should remain at doves kissing one another. But our daring and masterly constructors of steamships produce palaces in comparison with which cathedrals are tiny things, and they throw them on the sea!"* (Le Corbusier, 1986, p.92)

*He emphasises the use of good proportions; new architectural forms; freedom from the "styles" that stifle us; good contrast between the solids and voids; powerful masses and slender elements.*

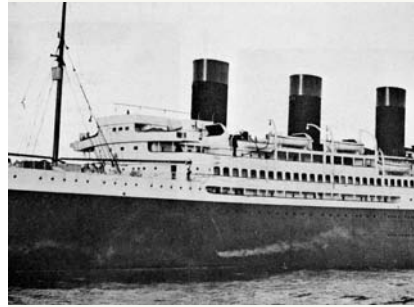


fig. 6.22 the liner "France"

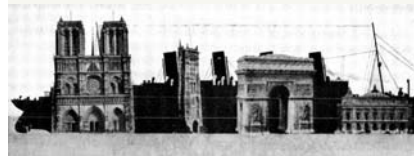
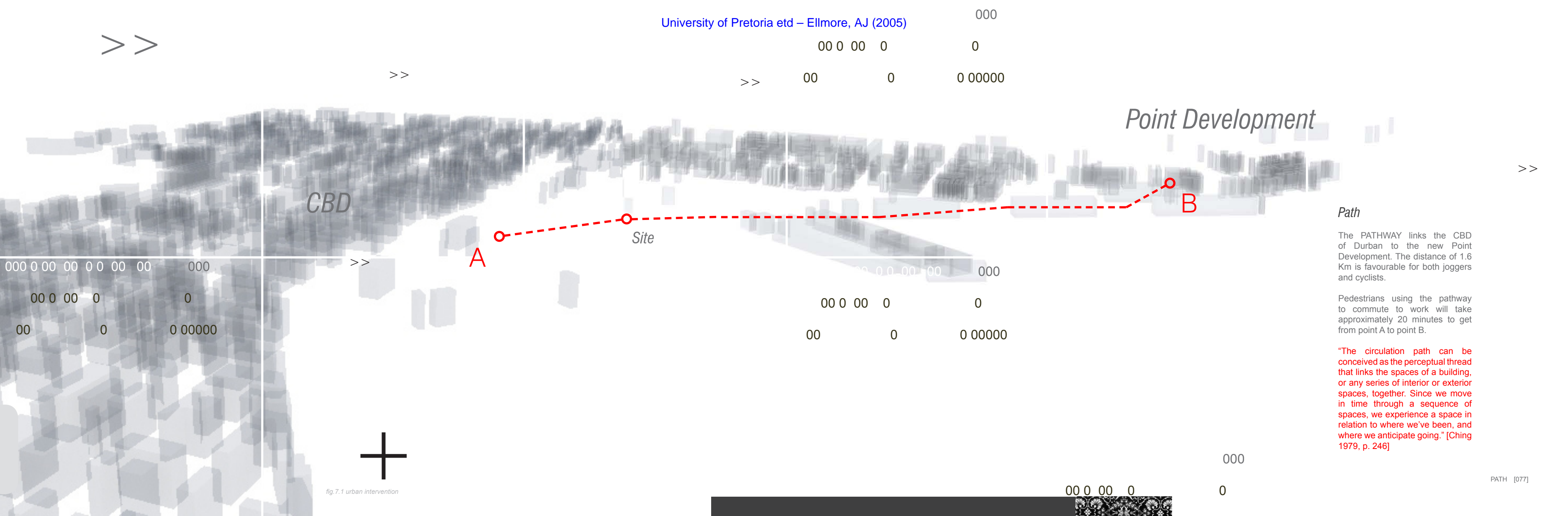


fig. 6.23 the cunarder "Aquitania" compared with various buildings

[ + ]

<sup>7.0</sup> Design Proposal



CBD

Point Development

A

Site

B

Path

The PATHWAY links the CBD of Durban to the new Point Development. The distance of 1.6 Km is favourable for both joggers and cyclists.

Pedestrians using the pathway to commute to work will take approximately 20 minutes to get from point A to point B.

“The circulation path can be conceived as the perceptual thread that links the spaces of a building, or any series of interior or exterior spaces, together. Since we move in time through a sequence of spaces, we experience a space in relation to where we’ve been, and where we anticipate going.” [Ching 1979, p. 246]

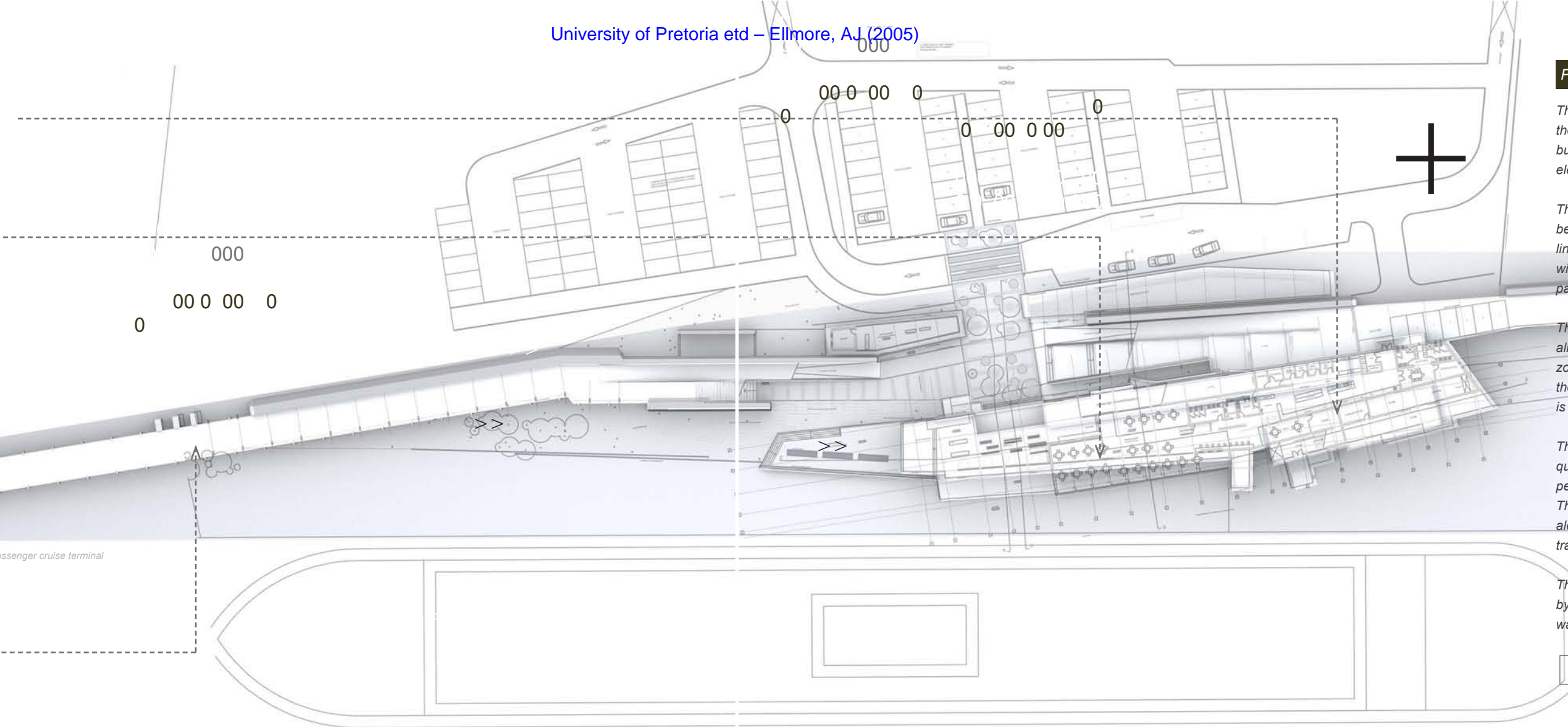


fig.7.1 urban intervention

**Accommodation**

- >A **Passenger Cruise Terminal Facilities:**  
Foyer, Customs facilities, Luggage facilities, Public toilets, Waiting area, Trolley storage, Viewing platforms
- >B **Restaurant:**  
Outside and inside seating, Kitchen, Public toilets, Cold rooms and storage, Kitchen office, Staff toilets & showers, Staff room, Recycle sorting area, garbage storage
- >C **Waiting Shelter**
- >D **Parking**  
Parking bays, 2 disabled parking bays, Delivery zone, Bus Parking, Taxi queue, Staff parking
- >E **Exhibition Space**  
Store, Exhibition space
- >F **Information Centre**  
Office, Store, Display shelving, Information counter
- >G **Harbour Facilities**  
Office, Store, Luggage sorting area, Luggage Lift
- >H **Durban people mover terminal [future intervention]**
- >I **Walkway through harbour**

fig.7.2 plan of passenger cruise terminal



**Parking and Drop-off**

The public parking is designed as an extension of the building, as to complement the design of the building if viewed from a cruise liner. [i.e. from an elevated position]

The public parking is separated into two, one half being permanent paved parking, the other simply lines painted on the existing harbour asphalt, that will be used during larger functions when additional parking is required.

The vehicular circulation is designed in such a way allowing drivers to drive past the drop-off / collection zone before entering the parking area. This allows the driver to check if the person they are collecting is already waiting, not requiring them to park.

The waiting shelter is located in front of the taxi queue. This provides shade and a landmark where people can meet.

The linear shape allows people waiting to stand along side one another with a view of the oncoming traffic.

The shelter is constructed of wattle latte supported by a stainless steel frame, connected to the spine wall.

Entrance Foyer

The foyer is open and exposed, allowing for natural ventilation. Large pivot doors can be moved to provide sun shading when required. When not required these doors can be opened to enhance the view.

Concrete benches are provided for in the foyer, which serves as the waiting area for the public. The balcony and viewing platform adjacent to the foyer allows people to move out of the building and view the cruise ship. The floor slab of the foyer is cantilevered over the harbour asphalt to create the effect that it is floating.

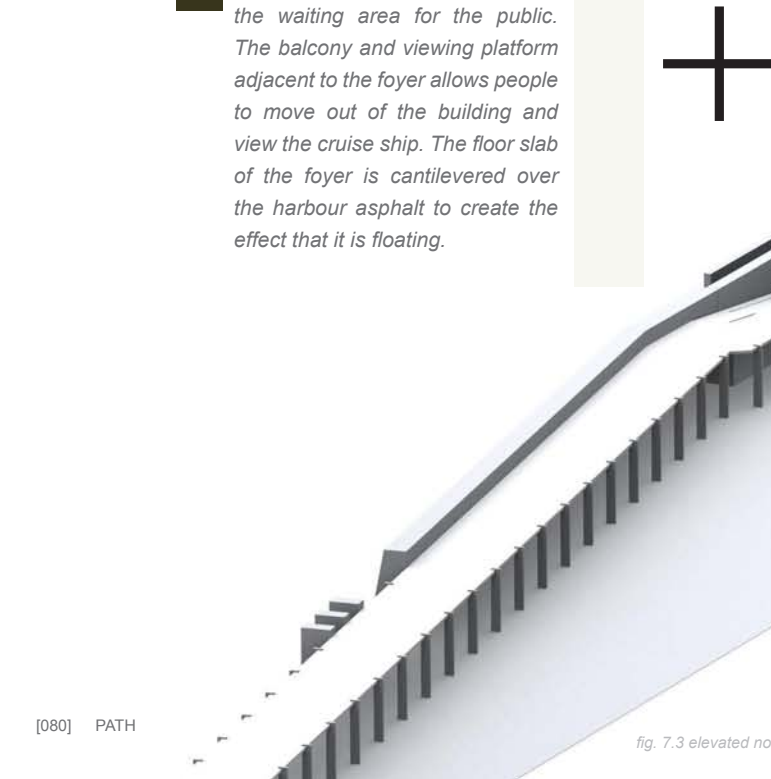
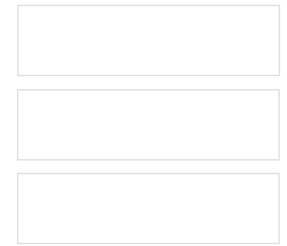


fig. 7.3 elevated north western view of building



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Ramps

Ramps are placed at all level changes. This allows for easy movement of people with luggage trolleys and wheelchairs. All ramps have a maximum fall of 1 in 12, and a slip resistant surface, allowing for easy use by people in wheelchairs. Railings are provided on all ramps and stairs.

Ramps along the walkway, provide an easier route for cyclists.

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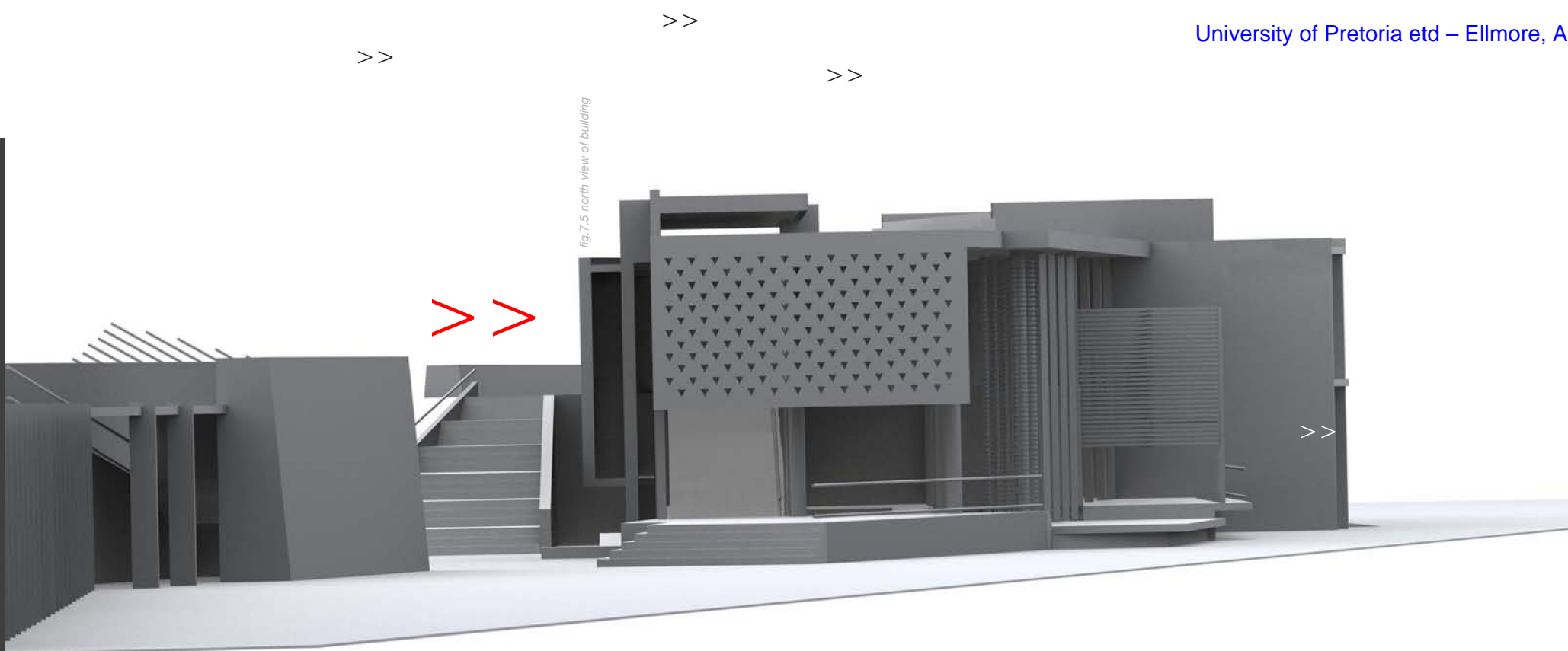
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fig. 7.4 north elevation



**Restaurant**

The restaurant provides forty external seats and seventy internal seats. The internal seating is again divided into an air-conditioned area and a natural ventilated area. Allowing the customer to decide according to weather condition or time of day. The sunscreens on the restaurant façade are positioned at right angles to the façade to block the sun, however still allowing a view [see technical chapter]

The restaurant is positioned to allow for a view of the entrance ramp, allowing people waiting for passengers to use the restaurant and watch the ramp for passengers to arrive. The linear form of the restaurant enables a larger number of tables to have a view of the harbour.

**Traffic Calming**

The pathway along the main axis toward the parking area is maintained at a constant height over the road, slowing traffic. Vehicle users are made to realize that they have entered a pedestrian dominant zone. The road is narrow, reducing the speed of vehicles. Different surfaces can also be used to reduce speeds and increase driver awareness.

**Signage**

Signage needs to be incorporated into the design. Simple, easy to read signs provide information to tourists and first time visitors.

**Exhibition Space**

Due to the seasonal nature of cruise

ships, the customs hall doubles as an exhibition space or art gallery. For this reason a store room is provided for storage of the gallery equipment. Large South African artworks could be displayed on the walls up the main ramp. This would serve as an appropriate introduction to passengers arriving in Durban. The restaurant has a service door to the customs hall allowing this space to be served in the situation of a large function.

**Durban People Mover Terminal**

Provision has been made for a link to the proposed people-mover for Durban. It is possible that this people-mover will operate on the existing railway lines. A location

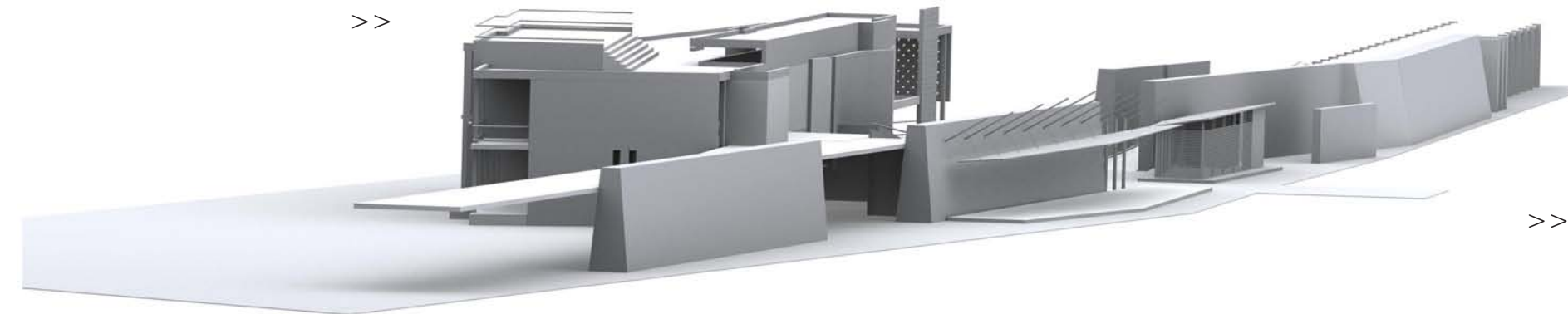
has been proposed for this people mover at the end of the main axis running from the building toward the public parking. This would allow for easy movement of tourists around the city, linking the major nodes of the city.

**Lift**

The lift allows disabled passengers to access the customs hall easily once disembarking the cruise ship. The controls inside and outside must be accessible to people in wheelchairs – 1.15m above the floor level.

The internal dimensions of the car are 2000x1400mm with an entrance width of 1100, and a capacity of 17 people.

fig.7.6 elevated south east view



Entrance

The main entrance of the building is emphasised primarily due to its scale and its positioning. Situated on the main axis leading from the public parking, it will be easily found by first time visitors to the building. The entrance to the building is recessed. According to Ching, "Recessed entrances also provide shelter and receive a portion of the exterior space into the realm of the building." [Ching, 1979, p. 257]

This enforces the concept of merging the building with the surrounding landscape. Due to the nature and position of the entrance, when entering the user has a view through the building towards the cruise liner when in port. Creating the idea that one is entering the ship. If a ship is not in port, the user has a view out across the harbour, again linking the users with their surroundings.

Tourist Information Centre

The information centre is located along the walkway, encouraging the general public, not only the cruise ship passengers, to make use of the facility. Information will be provided about Durban and its surrounding tourist attractions. A range of tourist related services will be provided. The linear building opens up completely to encourage people to enter.



fig.7.7 primary entrance

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Viewing Platforms

Viewing platforms allow for people to bid farewell or welcome passengers. A clear view of the cruise ship is provided. These spaces are public spaces allowing the public to be included in the experience, thereby promoting cruise ships as a travel option.

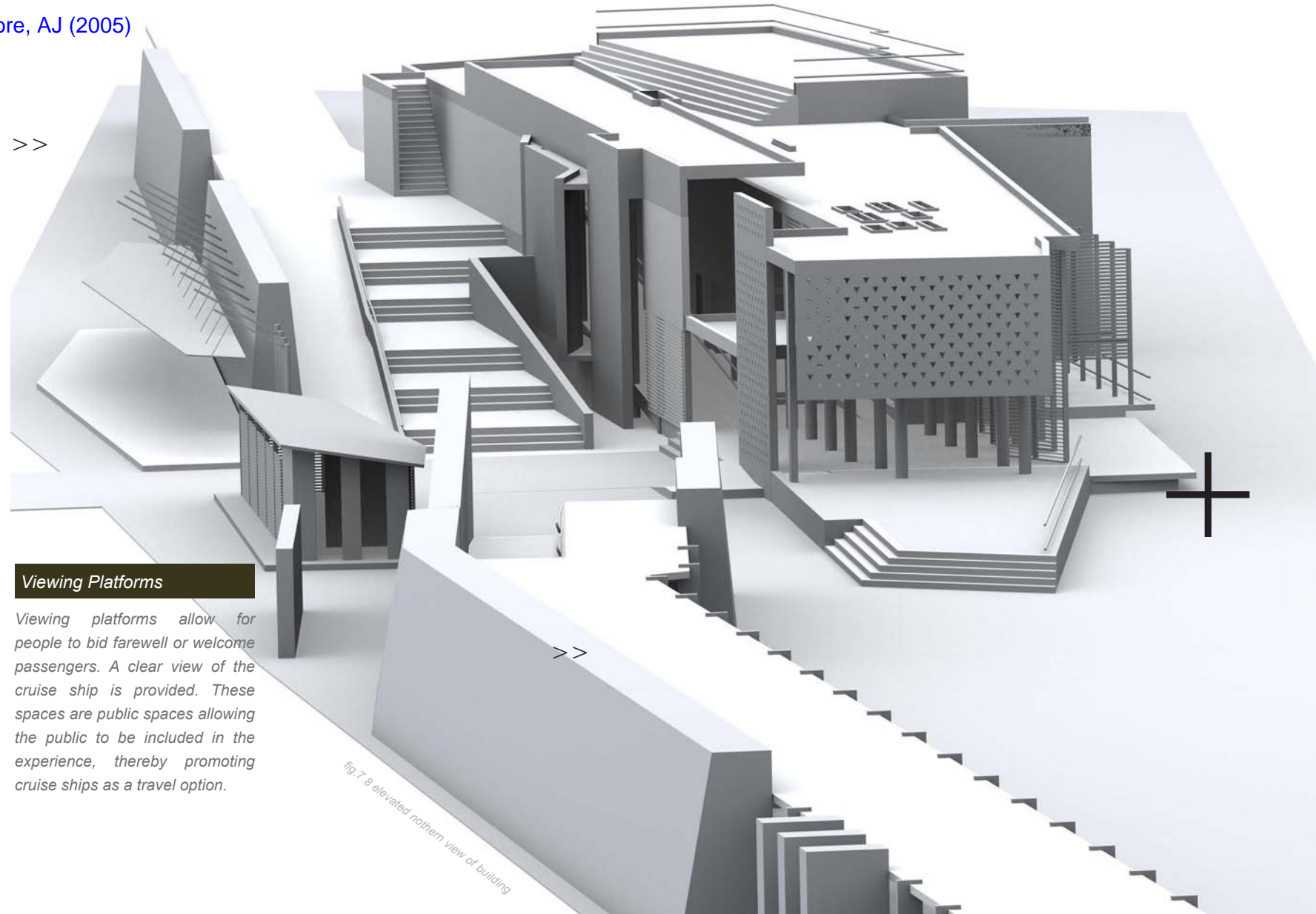


fig.7.8 elevated northern view of building

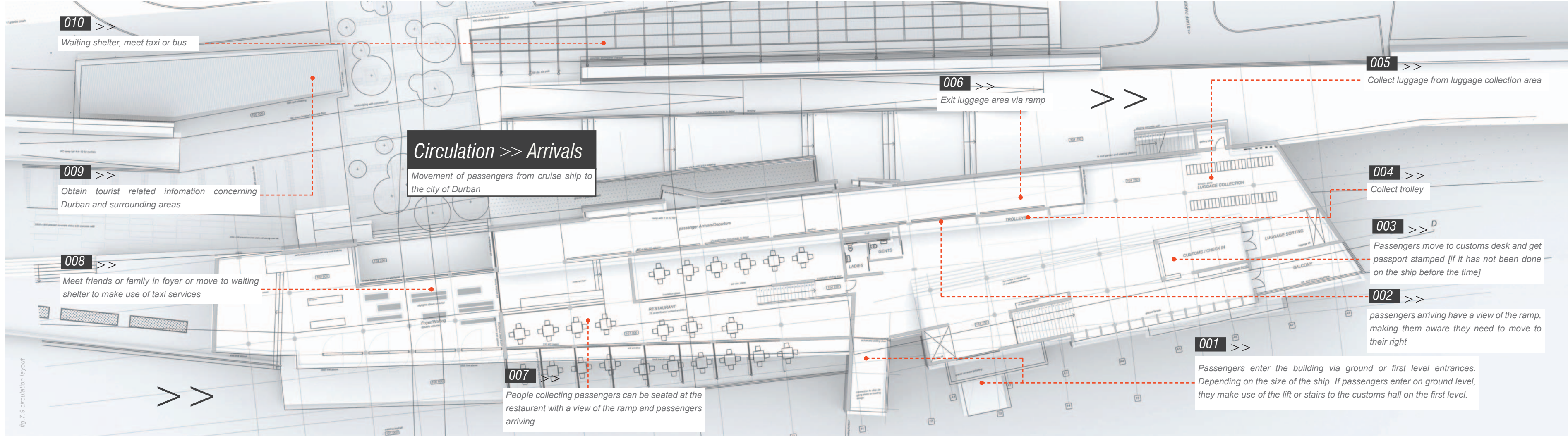


fig.7.9 circulation layout



### Circulation >> Departures

Movement of passengers from Durban to the cruise ship

**001** >>  
Passengers are taken to the drop off zone. They collect a trolley to help transport their luggage, and move towards the entrance

**003** >>  
Floor surface is used to indicate circulation route

**004** >>  
Passengers check-in luggage, once done they have the opportunity to return to the restaurant via the ramp and bid farewell to friends or family.

**002** >>  
Passengers move toward customs hall via ramp

**005** >>  
Passengers get their passport stamped at the customs desk before moving towards the boarding exit

**006** >>  
Photos are traditionally taken of passengers before boarding the cruise ship

**007** >>  
Passengers board the cruise ship via the first level gang plank or from the ground level exit depending on the type and size of the cruise ship

fig. 7.10 circulation layout

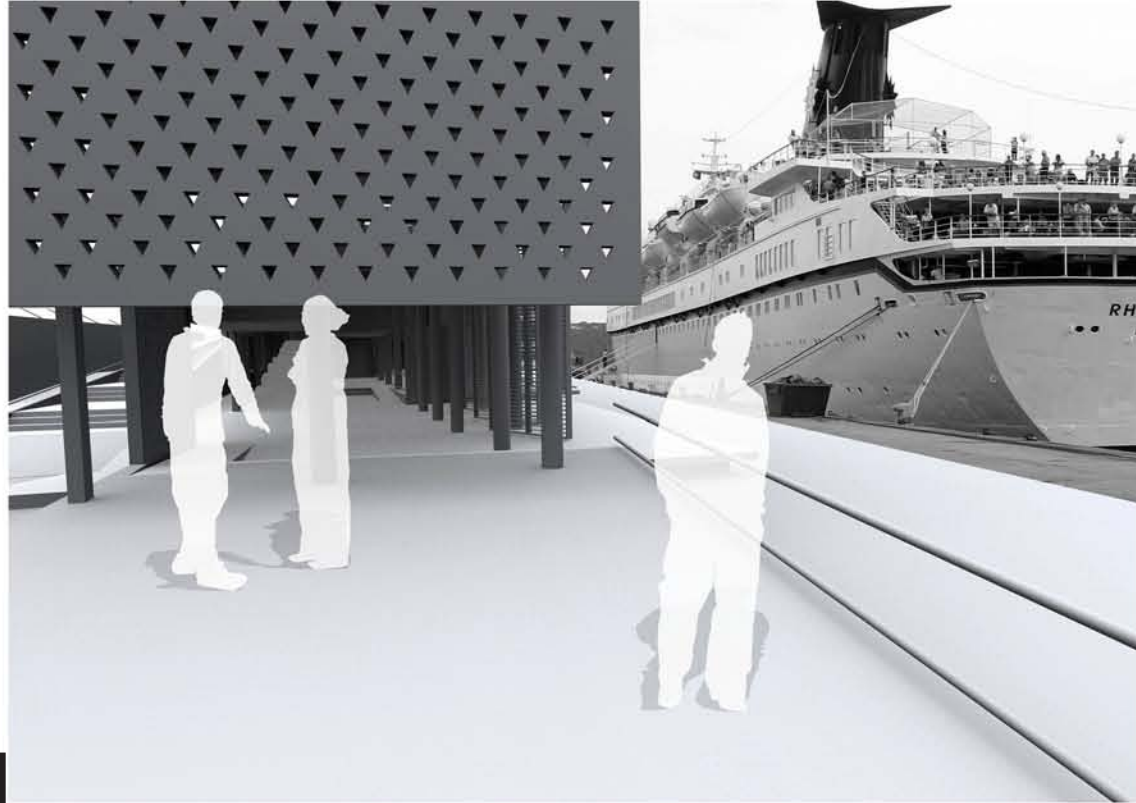


fig.7.11 viewing platform



fig.7.12 circulation ramp

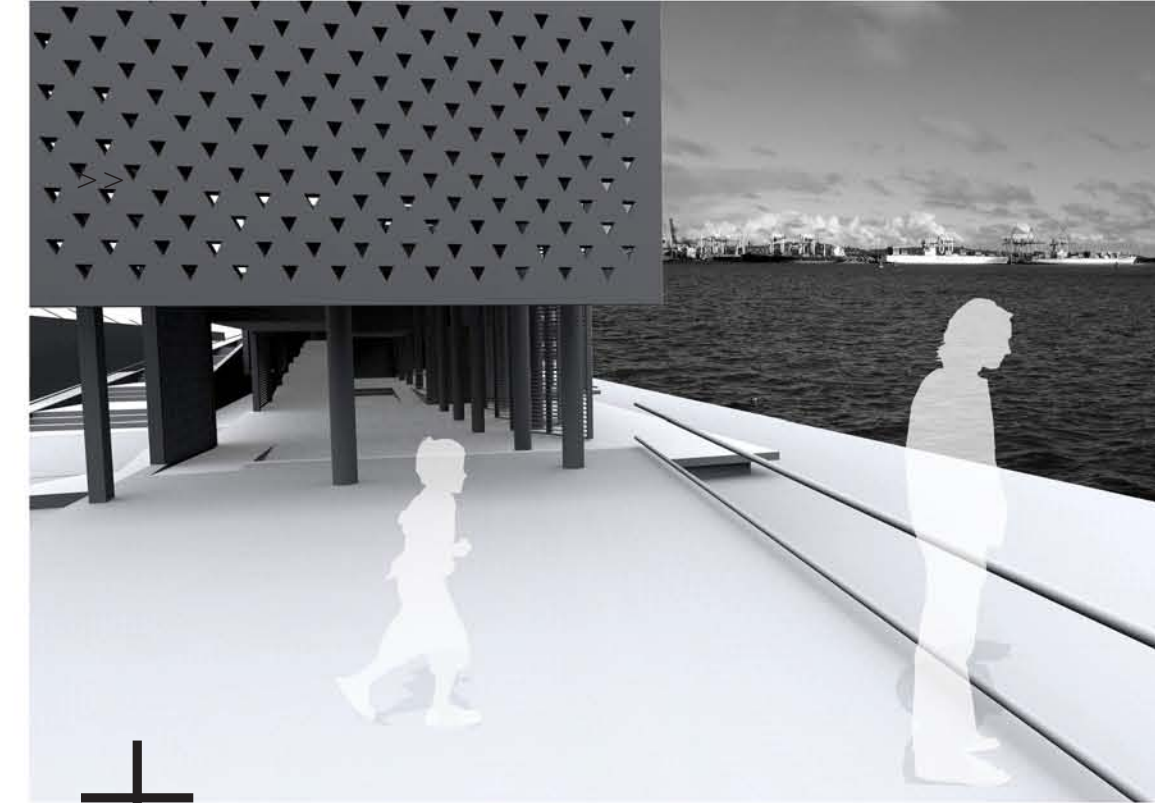


fig.7.13 viewing platform

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fig.7.14 foyer

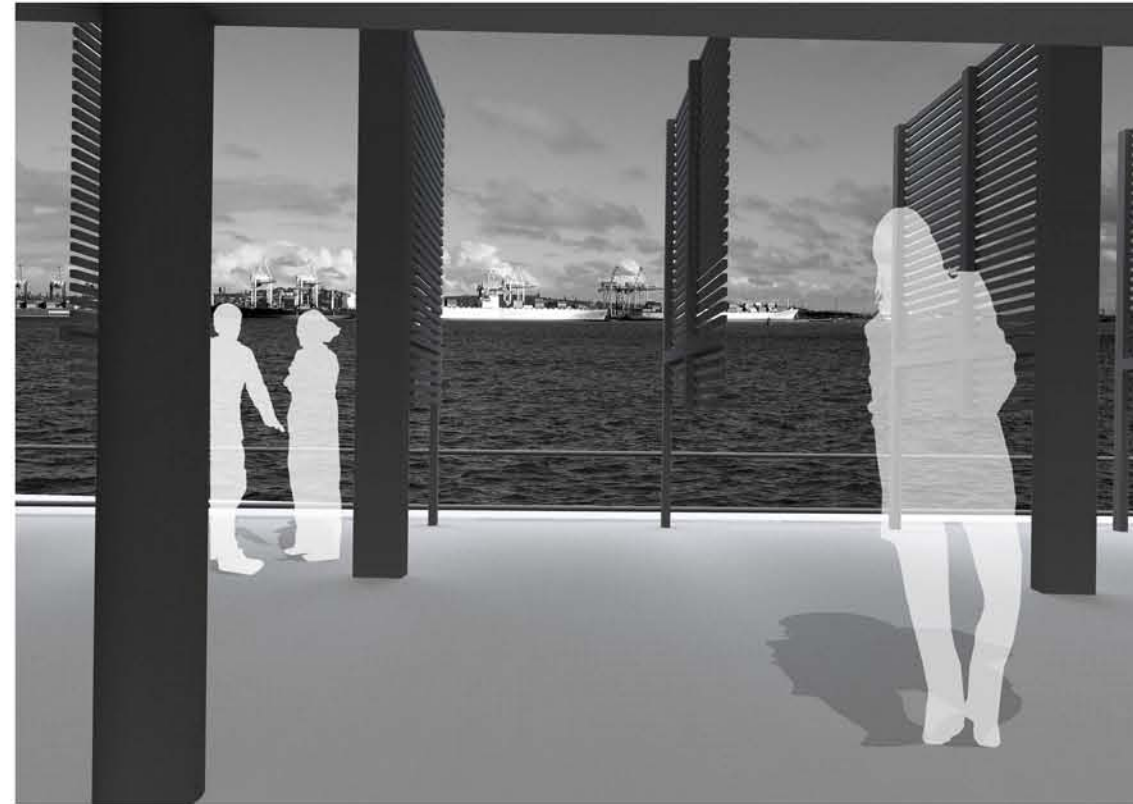


fig.7.15 restaurant view

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fig.7.16 entrance



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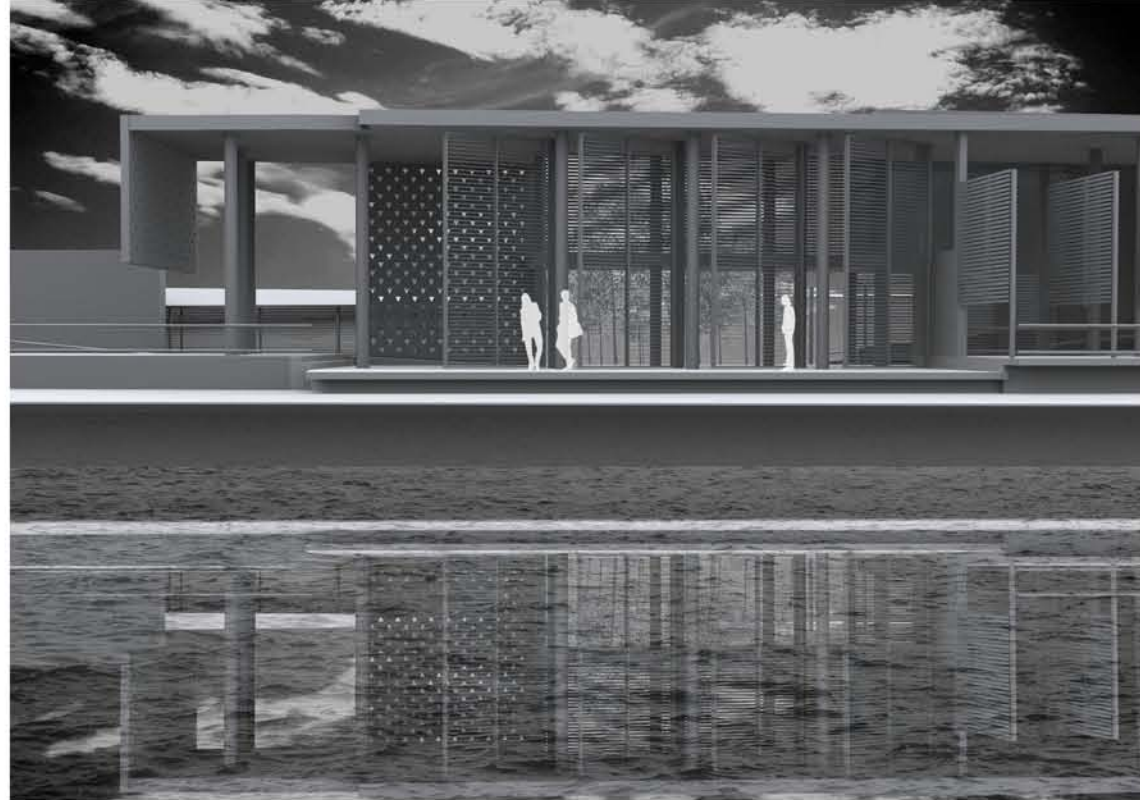


fig.7.17 north-west elevation

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fig.7.18 circulation ramp

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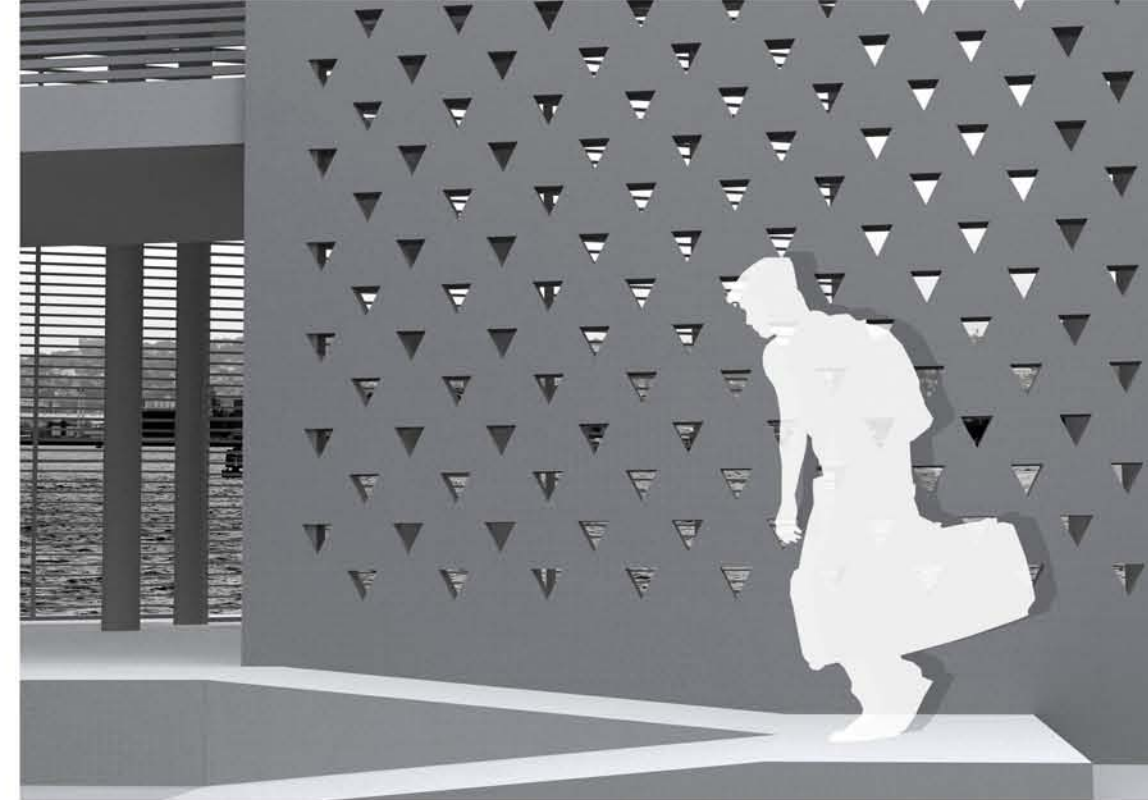


fig.7.19 entrance

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>> >>



fig.7.20 external ramp and stairs

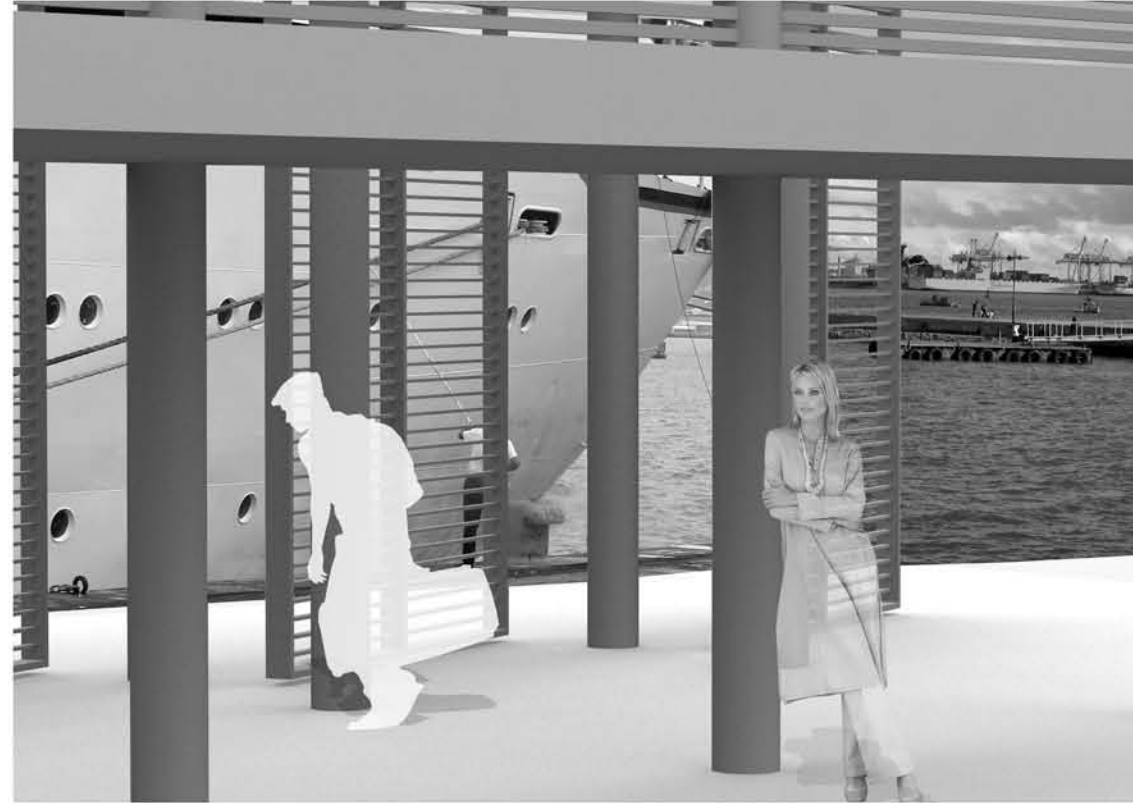


fig.7.21 pivot doors



fig.7.22 view from public parking

