Chapter four illustrates the formulation of a concept, translated into a final design.
4.1 Design development _ part one

The connection between Pretorius Street and Church Square played an important role throughout the design process. The introduction of a rectilinear line slicing through the corner, unifying the two elements became a guiding force within the design and is illustrated in Fig 4.1.1 & Fig 4.1.2.

Fig. 4.1.1 Line introduced to connect Pretorius Street with Church Square.

Fig. 4.1.2 Parti diagram depicting the central concept of the design.

Fig. 4.1.3 Investigation of possible placement of new programs within the TPA.
The proposal of adaptively re-using the TPA building exposed the inadequacies and aspirations of its Modern design narrative. In response to this strong language consisting of linear lines, a fluid form was introduced. Flow, penetrate and protrude through the TPA's Modern skin.

This form introduced within the existing structural membrane of the TPA building, tried to imitate the sensuous nature of a body moving through space. The skin responds to texture, sound and form.

Fig. 4.1.4 Model of fluid form introduced within the TPA’s structure.

Fig. 4.1.5 Graphic depiction of the sensuous fluid form.

**FLOTSOM**
Objective: Vertical public corridors in the grid of existing buildings.
Description: Experimental BVA 1 project
Designer: Wolfgang Tschapeller
Date: 1998

Flotsom proposes the creation of vertical public spaces within a typical sixties office building. Pieces of floor area are sold that carry a percentage of public space, resulting in small public cells caught in the grid like flotsam.

The concept of the fluid form within the building evolved into the body that accommodates the design proposal, of the new facilities for the Pretoria Art Association. Contextual precedents were selected and investigated to inform the design proposal.

This fluid body, within its rectangular container has the potential to be a beacon within the city fabric of Pretoria if illuminated at night. The voluptuousness of the curved volumes creates interior spaces which guide the visitor along a sensuous path through exhibition areas illustrated in Fig 4.1.6.

The fluid form could possibly be made of a mixture of resin and glass, with changes in consistency and ranges from transparent to translucent to opaque depending on the required light quality of the area. The liquid surface appears wet and further enhances the sensuous experience of the space.
4.2 Contextual precedent

The following contextual precedents explore three art galleries acting as public spaces within cities.

**ROSENTHAL CENTRE FOR CONTEMPORARY ARTS**

Objective: Urban rejuvenation through a contemporary design, incorporating the idea of urban verticality.

Description: Centre for Contemporary Arts
Place: Cincinnati; United States
Designer: Zaha Hadid
Date: 2003

The Lois & Richard Rosenthal Centre for Contemporary Arts (Fig. 4.2.1) is located in Downtown Cincinnati and functions as an urban building housing artworks. The new Arts Centre succeeded to reaffirm some of the urban values of the fast deteriorating fabric of Downtown Cincinnati. Hadid captured some of the rhythms of the heartland city through the fluctuation of extremes. The fluid nature of the interior directly contrasts the exterior, comprised of a series of irregular shaped, stacked and interlocking galleries. The building is positioned between a block-long parking garage, commercial buildings and a performing art centre.

"The surface of the street flows into the building and curves up into a dramatic vertical circulation, creating a continuous zone, L-shaped in section, of urban activity’ (Moore 2003, p.36) The architecture figuratively grows out to the street as the idea of vertical urban space is manifested through the dissolution of perceptual boundaries, illustrated in Fig 4.2.2. The centre’s street interface is further enhanced by the glazed lobby, framing uninterrupted views inviting the public to enter.

Design influence:
Hadid’s design responds to its Cincinnati surroundings in a contemporary fashion, resulting in urban rejuvenation.

Pretoria CBD is an example of a city centre rapidly degrading due to the gradual emigration of businesses to the eastern suburbs. Incorporating Hadid’s design approach concerning the Contemporary Arts Centre, in the context of a design proposal in Pretoria, may imply urban regeneration possibilities and the activation of dead street edges.

TATE MODERN
Objective: The adaptive re-use of the Bankside Power station.
Description: Art Museum.
Place: London Bankside; United Kingdom.
Designer: Jacques Herzog and Pierre de Meuron.

The Tate Modern is a celebrated example of a building which has been adaptively reused. The enormous art museum rests in the shell of the Bankside Power Station, designed in 1947 by Sir Giles Gilbert Scott on the Thames River.

Herzog & de Meuron’s design respects the original architecture, referred to as the industrial cathedral. The old power station’s turbine room now serves as a sizeable exhibition hall directing movement by way of a ramp to temporary exhibitions held in the adjacent boiler zones. The experience of the gigantic turbine room illustrated in Fig. 4.2.4, is further enhanced by the illumination from above created by 524 glass panels. A two storey glass structure forms the roof of the power station and heightens the building’s presence.

Design Influence:
The placement of the Tate Modern Art Museum within the decaying power station has not only given the building a new lease on life, but resulted in the transformation of the surrounding area. I hope to apply these same principles of respect for the existing structure while introducing a new function within the TPA building.

Design Influence:
The placement of the Tate Modern Art Museum within the decaying power station has not only given the building a new lease on life, but resulted in the transformation of the surrounding area. I hope to apply these same principles of respect for the existing structure while introducing a new function within the TPA building.


Fig. 4.2.3 Tate Modern on the Thames River in London.
Fig. 4.2.4 The Turbine hall.

EVERARD READ ART GALLERY
Objective: Cosmopolitan art gallery exhibiting South African art.
Description: Art Gallery.
Place: Rosebank, Johannesburg.
Designer: Meyer Pienaar & partners
Date: 1980

The Everard Read Art Gallery is purpose-built with exhibition areas designed in various sizes with clerestory windows ensuring abundant daylight. A series of sculptured courtyards connected to the building exterior extends some of the exhibition space to the outside and draws the outdoors in. The interior quality created by the relationship between the indoor and outdoor space is illustrated in Fig. 4.2.5.

Fig. 4.2.5 An indoor circulation route indoor exhibition spaces on to the left and sculptured gardens to the right side.

Fig. 4.1.8 Adjustable exhibition boards can be arranged according to the requirements of individual artworks.
4.3 Design development _part two

Block A of the TPA building has two vertical circulation cores consisting of lift units and fire staircases on the eastern and western side of the building and an additional service core in the middle, illustrated in Fig 4.3.1.

Fig. 4.3.1 The TPA’s existing vertical circulation cores.

These vertical movement cores proved to be sufficient in serving the government’s administration department but are inadequate for the design proposal of a conference centre and arts facility amongst others.

A new circulation core is introduced in the centre of the building, with the dual function of providing additional vertical circulation and emphasizing the difference of the proposed two new programs. This element, referred to as the GAP, slices through the existing structure, forming a large atrium space with a series of ramps connecting various floors with each other, illustrated in Fig. 4.3.3.

Fig. 4.3.3 A large atrium area with a series of ramps in the centre of the TPA building.

Fig. 4.3.2 The GAP slicing through the centre of the building is introduced to provide additional vertical circulation.
4.4 Design development _part three

The subsequent design concept returned to the parti diagram, emphasizing the need to connect Pretorius Street with Church Square.

The concept introduces rectilinear lines slicing through the building’s linear form, drawing people into the area by activating the Pretorius Street front. “The GAP” extends to the ground floor, cutting through the structure and forming a pathway that connects Pretorius Street with Church Street. This thoroughfare responds to Fountain Street, an existing secondary street.

![Fig. 4.1.1 The Parti diagram.](image)

![Fig. 4.4.2 Design concept sketch of the TPA’s ground floor.](image)
The design explores the sensuous qualities embedded in materials by placing them in tension. Cold hard concrete is placed in contrast with wood, which has a natural warm feeling. This principle of materials in tension is explored throughout the design to enhance the sensuous experience of the visitor. One material enfolds another and indirectly softens the experience where body meets object. (See Fig. 4.4.3)

Fig. 4.4.3 One material, wraps around another material with contrasting qualities.

Fig. 4.4.4 Material application concept.
4.5 Final Design

4.5.1 Design framework

Fig. 4.5.1.1 Block diagram illustrating TPA buildings previous accommodation schedule.

Fig. 4.5.1.2 Block diagram illustrating TPA buildings current accommodation schedule.

<table>
<thead>
<tr>
<th>Design Development</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
</tr>
</thead>
</table>

1963-1996

1996-2009

Relocation
Proposed use

Fig. 4.5.1.3 Block diagram illustrating TPA building’s proposed accommodation schedule.

<table>
<thead>
<tr>
<th>Design Development</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
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chapter [4] | Sensory Architecture_ Beyond Appearances | 66
4.5.2 Design intervention

Fig. 4.5.2.1 Block diagram illustrating the position of an additional circulation core, consisting of a ramp structure.
Fig. 4.5.2.2: Image depicting the activated street edge along Pretorius Street.

Fig. 4.5.2.3: Parti diagram depicting the central concept of the design.

Fig. 4.5.2.4: The concept introduces rectilinear lines slicing through the building.

Activating Pretorius Street public interface...
Fig. 4.5.2.5 Activating Pretorius Street public interface.
Fig. 4.5.2.6 Pretorius Street edge.
Fig. 4.5.2.7 Pretorius Street edge activated through the provision of public amenities and robust street furniture with signage boards incorporated.
Fig 4.5.2.8 Spacious double volume lobby area for the Pretoria Arts Association with reception desk and directional signage boards.
Fig 4.5.2.9 A section of the additional vertical circulation core protrudes out of the TPA building with a view of Church Square. Look out points are incorporated into the landing areas of the ramp.
INNENHOF WESTPARK
Architecture firm: Raderschall
Landschaftsarchitekten
Place: Zurich, Switzerland
Date: 2002

“The narrow dimensions of the inner courtyard of this office building determined the character of this project: a three-dimensional garden. A framework of flowers emphasizes the rectangular shape of the site, while a taut wire that stretches to the fourth floor of the building allows the garden to extend upward.”

Fig 4.5.2.12 Look out points incorporated into the landing areas of the ramp overlooking Church Square.