Design Development

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Chapter Five discusses the spatial understanding of the site, as well as the programme and design intention, by unpacking the informants that lead to the concept and the design development.

5.1 Design Informants

5.1.1 Arcades
The aim of the dissertation was to reactivate the culturally diverse Central quarter of Pretoria into an attractive environment where new economic, social and recreational activities could take place. Introverted, indeterminate city blocks is a widespread urban condition in Pretoria, which needs to become more inclusive to establish public life in these city blocks.

To be able to establish a new inclusive condition in these indeterminate blocks, access to the public realm is required (see Fig. 94). The existing network of arcades in the CBD informed the establishment of new pedestrian arcades that promote the inclusion of surrounding buildings and activate the spaces they define. These arcades can form artistic experimentation and open transformation of public space, allowing for equal access and equal representation, with a high degree of social and cultural inclusion in these blocks (see Fig. 95 & 96).
5.1.2 Edge Conditions

The existing edge conditions indicate multiple introverted courtyards that are disconnected by boundary conditions (edges) or are inaccessible and hidden from the public realm. This introverted site condition informed the use of a new interface that allows for a new inclusive condition to be established. The boundary conditions (edges) can become transitional or in-between spaces, thresholds (edges) can be extended to make place. The condition of the in-between spaces can allow events to determine spatialities. Blurring (edges) creates a fair environment between public and private realms - see Fig. 97 (Da Costa & Van Rensburg 2008b:53).

Figure 97 - Body / Society being separated from Space (Author 2015)

5.1.3 African Space Theory

The Theory on African or field inter-dependent space informed the design of spaces that allows for “heterogeneous society”. This allows the existing built fabric to be regenerated and made relevant to the current and future inhabitants of the CBD, and establishes a more inclusive condition within the scheme, see (Fig. 98).

African City - Public Space Model: Everything is public except expressed as private.

Figure 98 - African Independence Model (Author 2015)
5.1.4 Analysis of Public Space in Helen Joseph Street.
The contextual analysis on Helen Joseph Street illustrates the existing typology of public space in Pretoria. This typology illustrates aspects of both the Western “field dependence” model and the African “field independence” model. This supported the application of a hybrid public space model within the intervention around the indeterminate block to create an inclusive space for “heterogeneous society” (see Figures 96 & 99).

Existing Typology of Public Space: Pretoria City Model - Helen Joseph Street
5.2 Design Concepts

5.2.1 Architectural Concept: Interfaces

The edge conditions on the introverted site informed the concept of establishing new interfaces, see (Fig. 100). How these edges are handled (see 5.1.2 Edge Conditions, as Design Informant) can determine the making of “places” at the four proposed interfaces (section 3.4), the quality of those places and the fairness or inclusiveness of them.

5.2.2 New Hybrid Public Space Model

The western / African typology of public space models, as well as the existing Pretoria condition, lead to the development of the concept of a new hybrid typology combining arcades (as specific African public space) with event-driven public space (as the western space model) to form an inclusive condition supportive of a “heterogeneous society”, see (Fig 101).

The Specific African space of the arcades grants the public access through the block, with a sequence of infill components linked by a journey, with the user experiencing a continuous process of changing scales in time and space. The site and its context are treated as both a cultural corridor and an explorative journey. The expression of such metaphors is achieved through spatial qualities and use of materials. The arcades as a design informant (see 5.1.1) are also incorporated here to include the surrounding buildings, activate spaces, invite artistic experimentation, bring about social inclusion and create unprogrammed or “open” transformation of public space.

New Hybrid Public Space Model: New Arcades with informal trade and public plaza combines African and Western Public Space.

FIGURE 100 - ARCHITECTURAL INTENT (AUTHOR 2015)

FIGURE 101 - NEW HYBRID PUBLIC SPACE MODEL (AUTHOR 2015)
5.2.3 Contextual Concept: “Behind the Curtains”
The combination of these hybrid spaces opens the previously introverted, indeterminate site and gives the public a glimpse “Behind the Curtains” to the previously hidden spaces of the city. This leads to a re-establishing of the public realm, to enable people to explore the “other” previously hidden spaces of the city (see Fig. 102).

Contextual Intent: ‘Behind the Curtains’ – Re-establishing the public realm into the space of indeterminacy and developing it as an inclusive condition.

FIGURE 102 - CONTEXT INTENT (AUTHOR 2015)
5.2.4 Programmatic Concept: “Breaking the Fourth Wall”

The inclusive condition is further achieved, through the programmatic concept of “breaking the fourth wall” - providing public life with a visual and physical connection into the “Back of House” theatre programmes. The process is made public from “Back of House” to performance, providing the public with a deeper understanding of theatre.

The idea of “breaking the fourth wall” is that the process and performance is seen as a journey through the “Back of House” theatre process and spaces, rather than merely an activity taking place in a designated theatre space. A stage can be a separating device, or the function could be blurred so that the audience can participate with the performers - this can be interpreted as the interface between public and private, the event space and transitions into the social or public interface. Thus, the stage serves as a means to frame social or public interaction, see (Fig. 103).

Programmatic Intent: ‘Breaking the fourth wall’ - providing public life with a visual and physical connection into the back of house programmes.

FIGURE 103 - ENERGY SPILLOUT, SPARKING NIGHT LIFE INTO HELEN JOSEPH (AUTHOR 2015)
“Invent what could happen next, not following the status quo”.
The main architectural intent, as mentioned in section 1.11, is to activate the introverted indeterminate site by establishing new interfaces with arcades on the public ground floor level that accommodates public movement through the block. Figures 104 and 105 indicate where interventions or “interfaces” are required in the block. This is part of the design intent to reactivate the precinct and support night-time activities.

The Site Activation Figure Ground, studies the existing buildings and spatial conditions on site. Superimposing new access, movement and interactive edge conditions that open up to the public realm. These new condition should take place to activate the hidden introverted indeterminate courtyards on site, forming new links connecting the larger city block to allow for public life.
5.5 Design Development - Prinschurch Building

The Prinschurch Building was designed on modernist principles, with vehicles taking hierarchy over pedestrians, the main entrance into the building is the ramp entrance leading to the first, second and podium parking levels, and enters the building through lift lobbies on each level. The building is lifted on a podium level and disconnected from the public realm on the ground level. Two small, insignificant doors open into a narrow arcade leading to the Prinschurch building’s lift lobby. The narrow arcade has no connections to the peripheral shop along it, as they have their “backs” turned towards the arcade, creating a disconnected edge condition on the ground floor.

From Fig. 105, one can see the widened sidewalks that provide spill out space for the commercial shopfronts and for pedestrian movement. The corner has become an informal taxi rank, used as a pickup and drop-off point, due to the corner also being a major pedestrian intersection, shown in previous analysis.

The two narrow entrances leading to Prinschurch blend in with the shopfronts. Small extensions of the public roof are used to announce the entrance, but appear to go unnoticed by the members of the public walking underneath the roof (seen in Figures 106-107).
The sectional exploration of existing problems in Prinschurch building is shown in figures 108 and 109. The solid wall between the shops and the arcade blocks visual and physical connection to the rest of the Prinschurch building. This creates a separation between public realm and the currently private arcade. The shallow heights and deep spaces of the parkade lack natural light and ventilation.
The existing edge conditions need to be made more permeable, to form a visual and physical connection to the rest of the Prinschurch arcade and the hidden courtyards behind (Fig. 106).

5.5.1 Problems & Opportunities

Problems
- Narrow insignificant entrances to arcade.
- Small projections of the cantilevered roof over the entrance are not sufficient to announce the entrance to passers-by.
- Shops/shopfronts are visually and physically disconnected from the arcade and the rest of the Prinschurch building.
- The shallow heights and deep spaces of the parkade lacks natural light and ventilation.

Opportunities
- The adjacent crossing of Sisulu and Helen Joseph Streets is a strong transport and pedestrian node.
- 5-10 minute walk from BRT stations and taxi rank.
- Along a highly active pedestrian corridor.
- Edge conditions can be made more permeable to form visual and physical connections to the rest of the Prinschurch building and the hidden courtyards behind.
5.5.2 First Interface

First Interface plan diagram

Movement diagram through space

FIGURE 111 - FIRST INTERFACE PLAN DESIGN DIAGRAM (AUTHOR 2015)

FIGURE 112 - FIRST INTERFACE MOVEMENT DIAGRAM (AUTHOR 2015)
The first interface is an alteration of the existing commercial shopfront edge condition, which is made more permeable to provide access from the western side of the site and to the previously concealed arcades and courtyard space behind the building. The interface is designed to draw members of the public from Sisulu (Prinsloo) Street, Helen Joseph Street and visually connect to the State Theatre Square and Sammy Marks Precinct directly across the street, seen in Fig. 108. In line with the programmatic intent, theatrical process is made public, from “Back of House” to performance. The “Back of House” rehearsal studios are used in the first interface to provide visual interest, entertainment and previews of the shows to come. These studios are located on the focus axis of termination along the movement arcades, with public viewing spaces in front, see Fig. 109 & 110. These points of visual interest are used to attract and draw users into the previously disregarded courtyard space.

FIGURE 113 - NEW PRINSCHURCH · FIRST INTERFACE (AUTHOR 2015)
The decision was made that people take hierarchy over cars, and thus the parkade on the first, second and podium levels was made smaller and parts were reclaimed for general public use. The podium level will be reclaimed for human activity with a commercial podium level and green spaces. Smaller green pockets are also introduced in the building to soften the brutalist stereotomic nature of the building.
Sections BB design diagrams, seen in Fig. 115, shows the public viewing space, with glimpses of the creators at work in their basement offices, their creations being performed above them in the rehearsal studio. The section illustrates the juxtaposition of the creative act and the execution of the products of that act.
Sections CC design diagrams, seen in Fig. 116, shows the public side-walk, with glimpses of the creators at work in their basement offices, through open lightwell / creative space.
5.6 Design Development - Karps 2 Building

FIGURE 117 - KARPS 2 BUILDING DESIGN DIAGRAMS (AUTHOR 2015)

1.1 Walls

2.1 Demolished Part of Walls

Removed walls create visual connection to stage and movement axis through scheme.

1.2 Roof

2.2 Demolished Part of Roofs

2.3 Demolished Part of Floors

Removed parts of floor for vertical access ramps to new basement level

Removed roof & floor above breakdown the space to form movement axis

Removed roof & floor above create orientation pause area

1.3 Floors

2.4 Demolished Parts of Structure

Some existing columns are removed.

1.4 Structure

2.5 Demolished Parts

The remaking columns accentuates movement axis through scheme.

1.5 Existing Structure

3.1 New Curtain walls

New Curtain walls are used to provide visual connection to the Creator’s Library.

3.2 New Roof & Box Gutter

New Box Gutter captures water from both roofs to storage tanks and articulates circulation space below

3.3 New Ground & Basement Floor Level

New roof inserted over new Library space. Supported on existing column structure

3.4 New ‘Underpinned’ Column Structure

Existing columns are ‘underpinned’ and new columns for new ground and basement level are casted.

3.5 New Parts Added

Existing Karps 2 Building

Removed parts Karps 2 Building

New Insertions Karps 2 Building

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5.6.1 Problems & Opportunities

Problems
• The three storey building blocks visual and physical movement from Prinschurch to the hidden courtyard spaces behind.

Opportunities
• The building is designed with a concrete column and beam primary structure, with a concrete ring beam around the perimeter of it. Brick walls are used as infill between the column structures. The infill brick walls can be removed to allow thoroughfare and visual connection through the building on ground level.
• The first floor level of the Karps 2 building is level with the Prinschurch first floor level and can thus be connected by a small bridge.
• The edge conditions of the building can be made more permeable to form visual connections to the creators at work, the stage and the rest of the courtyards behind.

5.6.2 Design and Intentions

The brick infill walls are removed on the ground floor and partially on the first floor level, making the building more permeable for visual and physical continuity with the rest of the scheme. A new ground floor level slab and first floor level bridge connects Prinschurch building with Karps 2 and the rest of the scheme. The building is re-appropriated to host new creative workshops and the creators' library. The creators' library also connects to the new basement level below with ramps leading to the ground and first floor level. The new basement level hosts the creator's processes, providing the public with glimpses of these processes, seen in Fig. 115 - 117.

Parts of the roofs and floor slabs will be removed to create a new ground floor courtyard space. A number of the concrete columns are removed, with the remaining columns articulating the new circulation corridor underneath. New basement columns are underpinned and cased underneath the existing column grid, supporting the new ground floor slab, shown in figures 115 - 117.
5.7 Dissecting - Boundary between Site and Adjacent College

5.7.1 Problems & Opportunities

Problems
• The existing boundary wall between the “Back of House” theatre and the existing college adjacent to the site, obstructs a possible midpoint block connection that will allow thoroughfare between Helen Joseph Street and Pretorius Street.
• The boundary wall is also partially responsible for the introverted courtyard condition, contributing to the creation of an exclusive condition in the block.

Opportunities
• The boundary wall can be used as a mutually beneficial interface between the college programme and the “Back of House” theatre, by perforating the wall.
• The wall can also support new platforms on the first floor level that could form a connection with the Prinschurch second floor level.
• A thoroughfare could be created through the boundary wall which would connect Helen Joseph Street with Pretorius Street.

5.7.2 Second Interface

The second interface is designed to integrate the “Back of House” theatre with the existing colleges on the southern side of the block facing Pretorius Street. The interface is created by perforating the existing boundary wall and extending the space to create new small shops and boutiques. The new viewing platform on the first floor level also has small shops and boutiques connecting with the second floor level in Prinschurch. This first floor level slab overhangs the edge wall to form a public cantilever roof and arcade on the ground floor level. The interface also references the historic arcade typology in the precinct, connecting the block from Helen Joseph to Pretorius Street, by creating controllable openings through the boundary wall and establishing a new movement corridor.
5.8 Design Development - “Sheds” Building

Figure 118 - Design Diagram of “The Sheds” (Author 2015)
5.8.1 Problems & Opportunities

Problems
• The existing “Sheds” building has a weak connection to the introverted courtyard spaces west of the sheds.
• The existing roof is too low to create a connection to the first floor level of the adjacent buildings.

Opportunities
• The small spill out courtyard south of the sheds has the opportunity to form part of the second interface by connecting with the culinary school adjacent to it.
• The roof structure can easily be adapted to allow for a new mezzanine level that can connect to the new bars and restaurant on the first floor level situated in the buildings adjacent to the “Sheds”.
• The roof structure creates an open plan versatile space, making it ideal for events and markets.
• The “Sheds” hosts a “Neighbourgoods” market every weekend.
• The courtyard space west of the “Sheds” is centrally located and well connected to the adjacent buildings, which could form part of the third interface, the theatre stage and viewing space.
• The building has a prominent entrance on Helen Joseph Street.
5.8.2 Third Interface
A portion of the western side of the “Sheds” roof is adapted to create space for a new mezzanine level. The mezzanine connects to the first floor level of the adjacent buildings, and forms a new viewing platform surrounding the stage area. The new theatre stage is located at the center of the precinct and the courtyard space and is directly linked with the stage “Back of House” functions in the adjacent Rezmezep 7 building. The stage can be used as a separating device, or the function could be blurred so that the audience may interact with the performers - this can be interpreted as the interface between public and private, the event space and transitions into the social or public interface. Thus, the stage serves as a means to frame social or public interaction. The stage is adaptable, with platforms being able to move into various arrangements or be fully closed to create a small plaza, as shown in Fig. 56.

FIGURE 121 - DESIGN DIAGRAM SECTION AA (AUTHOR 2015)
5.9 Design & Intention: Courtyard / Plaza

The site should not be opened up too much, to the point that it becomes a thoroughfare or pure circulation space and loses its ability to perform as an event-driven space. The level of exposure should be controlled to keep its unique quality and “hidden” characteristics. The plaza forms part of the idea of “breaking the fourth wall”, that the process and performance is seen as a journey through the spaces rather than merely an activity taking place in a designated theatre space. The plaza is used to showcase the theatrical process, from “Back of House” to performance, providing the public with a practical demonstration and, ideally, a greater appreciation of theatre.

This plaza is intended to become the unprogrammed and fluid event-driven space, where users can simply “be”, proposed as part of event-driven space theory investigated in section 4.2.

The courtyard space is designed for the collective: individuals should be free to create their own place and in the same time are encouraged to socialise in the open spaces. The space requires smaller pockets of open-ended activity for multi-cultural use, as seen in Fig. 118.

FIGURE 118 - DESIGN DIAGRAM OF “THE SHEDS”
(AUTHOR 2015)
5.10 Dissecting - Peripheral Buildings on Helen Joseph Street

5.10.1 Problems & Opportunities

Problems
• The existing peripheral buildings on Helen Joseph Street have their “backs” turned to the site.
• These buildings have weak connections to the introverted courtyard spaces with small doors and windows.

Opportunities
• The strip of fringe buildings has as existing public interface on Helen Joseph Street.
• The strip of buildings has the opportunity to be connected together with a new platform on the first floor level, bridging the divide, which can become spill out and viewing spaces.
• These peripheral buildings have the opportunity to become socialising spaces, which could be used to activate the street.
• The ground floor levels currently house commercial activity on Helen Joseph Street, which should be retained for the pedestrian street to remain active.
• The back portion of the building can be re-appropriated to accommodate restaurants, bars and coffee shops, so that the building is active on both sides.

5.10.2 Fourth Interface

This interface is located in the block’s peripheral 2-3 storey buildings, used as intermediate spaces between the courtyards and Helen Joseph Street. The intention of this interface is to establish a space where people can socialise in between events and shows, maintaining the energy of the people within the scheme during and between shows, releasing that energy once the shows are complete. The release of energy is important for supporting secondary activities, “happenings” and night life along Helen Joseph Street in the vicinity of the site.

The buildings on the ground floor level are split into two parts: the front street portion remains commercial in nature; the rear portion is re-appropriated for hospitality use, becoming social bars, restaurants and coffee shops, with large folding sliding doors opening the building up to interact with the courtyard space.

The first floor levels are connected by a new platform, bridging the divide, which becomes new spill out and viewing spaces, with bars and multifunction event spaces. These platforms are connected on all sides of the courtyard and surround the stage at the heart of the scheme.

FIGURE 119 - DESIGN DIAGRAM OF ALL INTERFACES IN CONTEXT (AUTHOR 2015)