

CHAPTER 6



DESIGN DEVELOPMENT

6.1 Urban Design Development

This chapter discusses the development of the project. Essential to the project was establishing important design issues within the urban environment. Resolving these issues and realising the qualities and character of the site and its surroundings, helps to establish a firm foundation for a responsive design proposal.

PEDESTRIAN ARCADE SYSTEM

One of the aspects that emphasise the success of an urban environment is its ease of accessibility. It is with this idea of increased accessibility that the pedestrian arcade system was proposed for the Prinshof area. Pedestrian arcades are not a foreign feature to Pretoria. Many of them are found within the heart of the CBD and are used to dissect large city blocks in a north-south direction.

The positioning of the Prinshof arcade system will be through the middle of the city blocks in an east-west direction. This correlates, at some city blocks, with informal pedestrian paths and will help facilitate pedestrian movement within Prinshof.

Besides creating more pedestrian friendly routes, the arcades also give an added layer to the urban fabric. A pedestrian orientated arcade running through a city block will help to establish a more community based spine. This spine will run parallel with the busy city streets, resulting in contrasting activity spaces. Large retail stores and general public amenities will be located on the street edge, while more community based facilities like, nurseries, doctors and smaller retail stores will be located within the arcades.

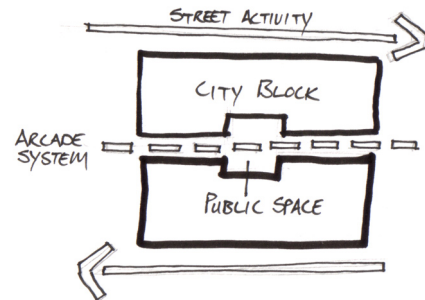


Fig. 6.1 Diagram illustrating the intentions of creating two levels of activities within a city block. Public based facilities on the street edge, and community facilities located within the arcades

Fig. 6.2 Map of Prinshof showing the urban design intentions.

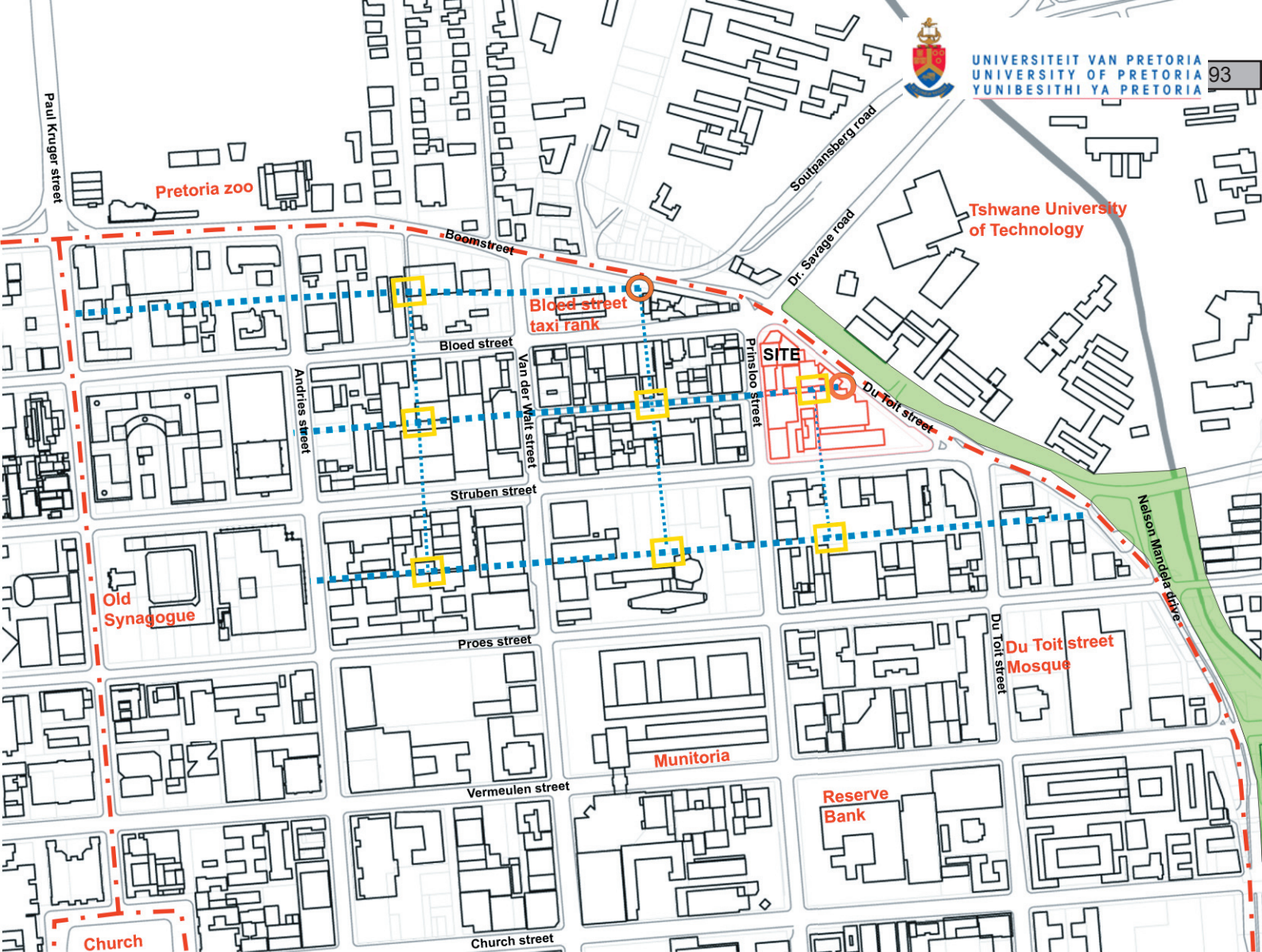







Fig. 6.2

The arcades will also act as a monitored entrance to future residential developments on upper floors of the city block. Some of the arcades will eventually culminate within a public space, creating a relaxed community atmosphere within the confines of the urban environment.

-  Tram stop
-  Proposed public spaces
-  Tram route
-  Proposed arcade system
-  Extension of Nelson Mandela Corridor

TRAM SYSTEM

Affirming the idea of greater mobility might also mean refusing vehicular access to some parts of the city. The idea is not to allow private vehicles as well as taxis within the CBD. Large transport nodes will be established on the CBD's periphery with parking facilities. These nodes will facilitate the transition, as private and taxi commuters are encouraged to use the inner city transportation (trams and busses).

Implementing such a system will result in less traffic within the CBD, encouraging a more pedestrian friendly environment. In Prinshof, transport transition points (tram stops) will be located at the intersections of the tram routes and the pedestrian arcades.

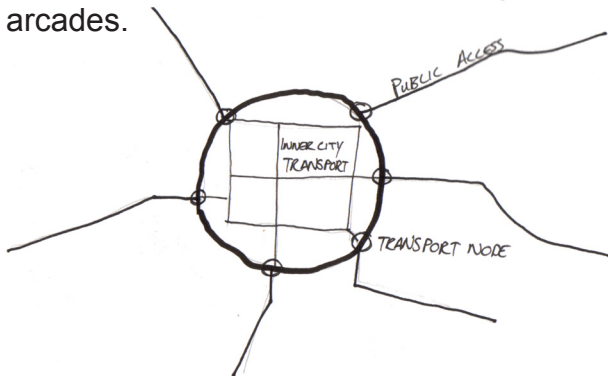


Fig. 6.3

INTERSECTION

To the north of the proposed site is the intersection where Bloed, Boom, Prinsloo, Du Toit and Dr. Savage converge. This busy intersection is situated at one of the gateways into Pretoria CBD and it is therefore crucial that this space be celebrated as an entrance.

In close proximity to the Bloed street taxi rank, the intersection is currently a chaotic conglomeration of pedestrian and vehicle alike. Consequently, the decision is to slow down the pace of movement through the intersection. A rough texture will be created by using cobblestone pavers on the road surface, and the level of the road, for the designated area, will also be raised. This will help to decelerate this space and create a more homogenous pace of movement through the intersection. With minimal vehicular activities during the evening (Bloed street taxi rank closes at 8pm, the intersection can be closed for vehicular access and used as a public space).

Fig. 6.3 Diagram of proposed Public transport intensions

Fig. 6.4 Aerial photo explaining urban design proposal



STREET VENDORS

- TRAM ROUTE
- ARCADE SYSTEM
- NELSON MANDELA CORRIDOR EXTENSION
- PROPOSED DEVELOPMENTS
- SLOW DOWN AREA



Fig. 6.4

Proes street

STREET VENDORS

Because of the uneconomical factors of returning to their destination during the day, most long distance taxi drivers remain within the confines of Prinshof, until they have to return with their commuters in the afternoon. As a result a lot of informal activities occur within the surrounding areas of the Bloed street taxi rank.

The informal activities help create a more vibrant setting and affirm the idea that economic interactions should not necessarily be confined to glass boxes lining the street façade. It should be able to spill into the streets, into the realm of the pedestrian.

The wide sidewalks of Du Toit street have become popular with vendors serving lunch to the taxi drivers. The vendors pay a monthly fee towards the local municipality in order to hire equipment to prepare food. Meat and vegetables are bought from the local butcher and green grocer and prepared on site.

Currently these vendors do not have storage facilities available to them. Most of the equipment are stored at local

retail stores during the night and then recollected early in the mornings. The vendors are also forced to share Du Toit street with the informal vehicle repair activities lining the street. This results in an unhygienic atmosphere as food is prepared next to the spot where a vehicle's motor oil had been drained the previous day.

It is essential to incorporate these vendors into the design proposal and equip them with suitable storage and food preparation facilities.

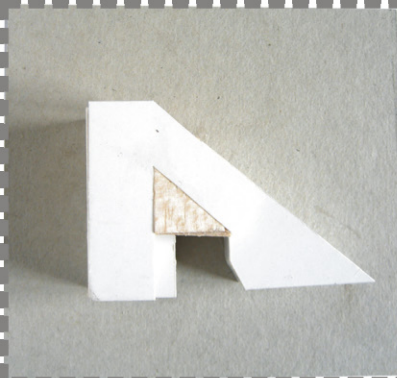


Fig. 6.5 Current state of street vending facilities along Du Toit street.

Fig. 6.6 Street traders and the unhygienic state of the surrounding area

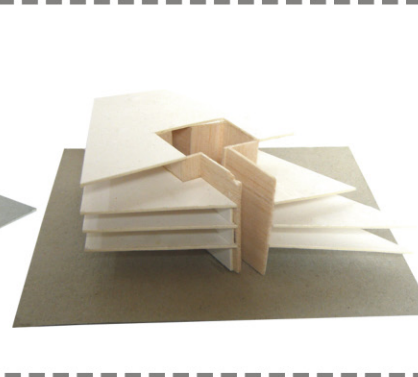
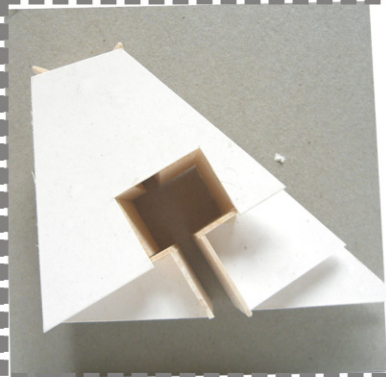


Fig. 6.6



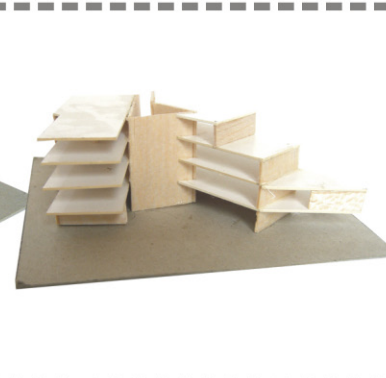
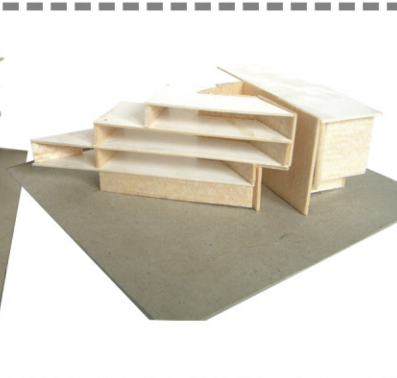
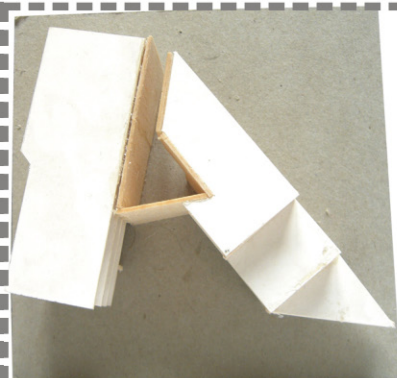
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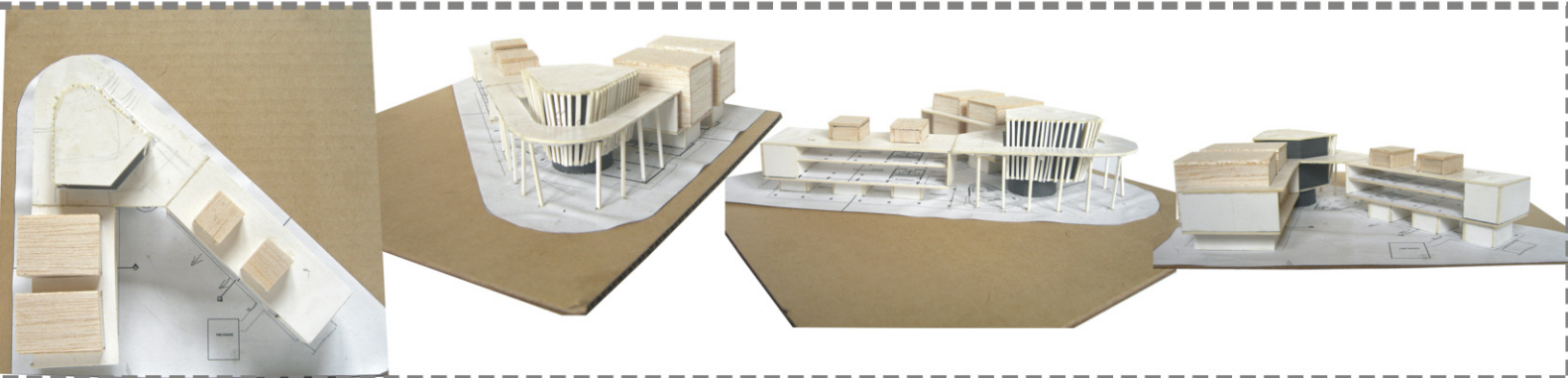
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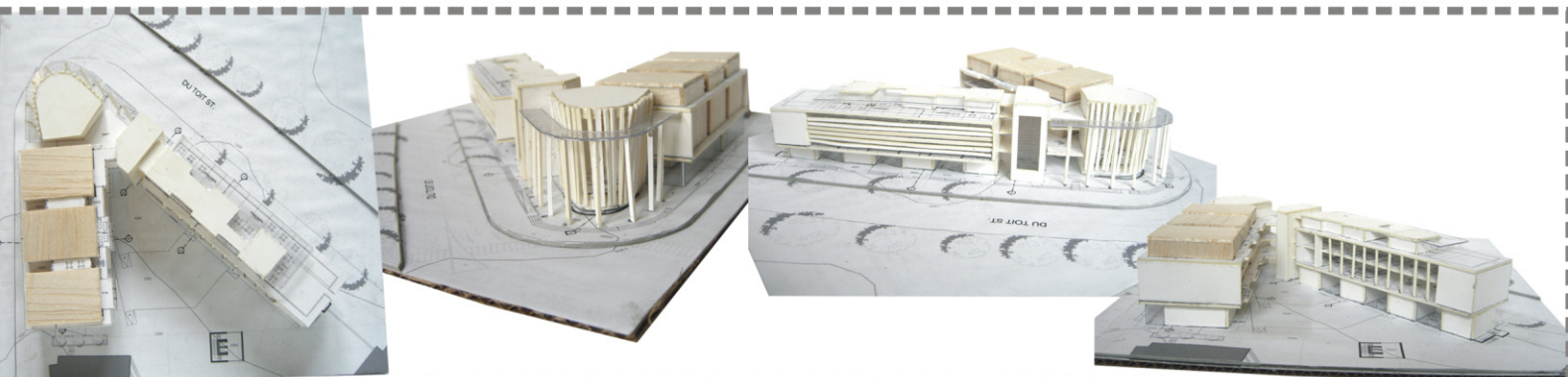
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_ model 6

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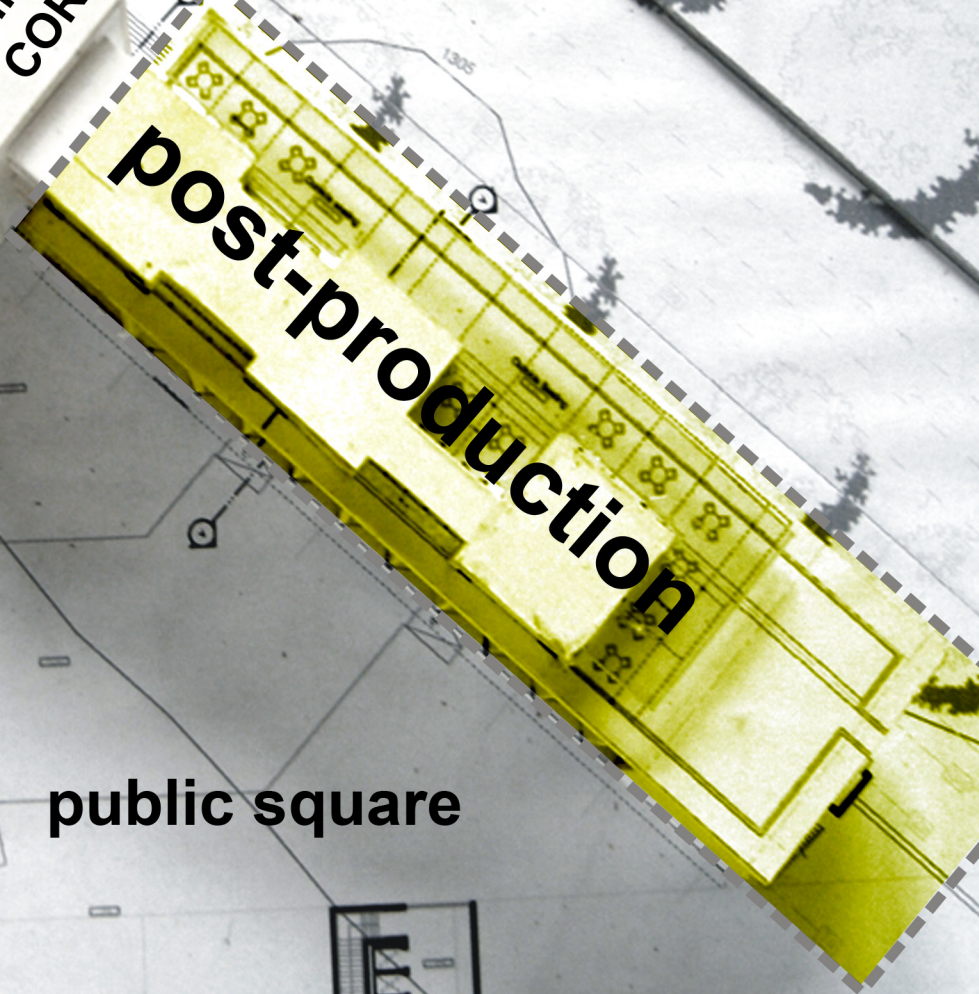
6.2 Building development

TSHWANE UNIVERSITY
OF TECHNOLOGY



CIRCULATION
CORE

DU TOIT ST.



public square

Fig. 6.9

6.2.1 FORM GIVING

As explained earlier in this chapter the pedestrian arcades form an integral part of the design proposal. Situated along one of these pedestrian arcades and in close proximity to the Tshwane University of Technology (TUT) it became evident that the establishment of a public square is needed (due to the extreme lack within the vicinity). Owing to the nature of the TUT Art campus and the taxi rank nearby, the public square will be emphasised as a cultural gathering point within Prinshof. The buildings surrounding the square should be able to support this ideal.

From the initial outset of the design, the intent was to frame the public square with the building. This creates a sense of enclosure towards the surrounding streets (fig. 6.10). The building is pushed towards the site boundaries, forming a definite urban street edge. Activities, such as retail stores and food vendors, are situated along this street edge to encourage and facilitate pedestrian movement along the site. The intent on forming a solid street edge by the building is not to discourage pedestrians away from the public space created, but rather giving them selected entrances to filter through. Once one enters the public square the emphasis changes from the movement created by the street edge, to a calm and relaxing nature. People will be able to use this space as a break-away from the busy activities created by the city.

Like the ancient Roman Forum, the public square will be used as an intellectual as well as a social gathering point within the city. Information about local cultural events, trends, news, art exhibitions, popular culture and issues relating to the community can be displayed on media screens within the square. The intention is also to open up towards the TUT Art campus as a social facility that can accommodate the students during the day and become a backboard for their creative expressions.

The intersection towards the north of the square also becomes a crucial aspect of the design. The visual importance of the northern corner of the site is evident in the current use of large merchandise signs (fig. 1.22). This corner will act as a visual attraction for people towards the site and should be evident as one approaches the development. The response of the building towards the intersection is of utmost importance and will be discussed later in this chapter.

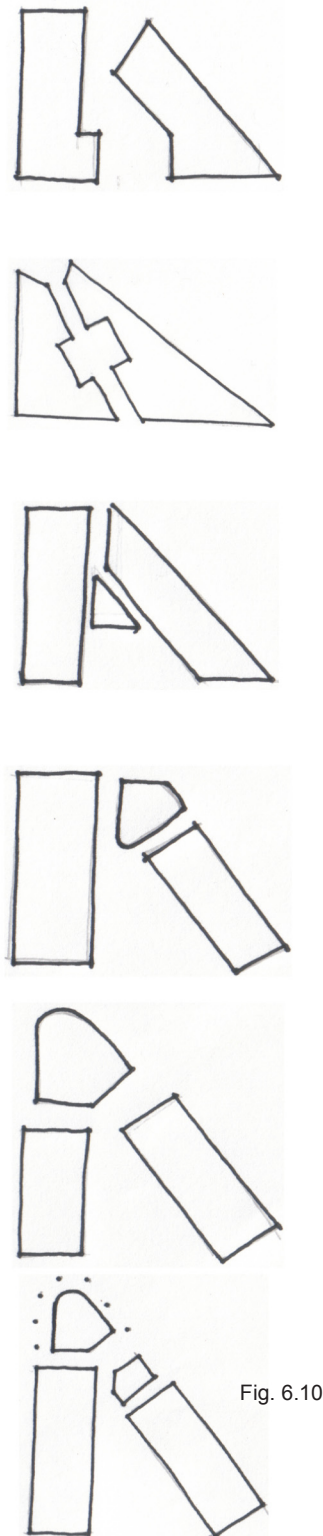


Fig. 6.10

One of the obvious aspects of designing television production facilities is the difference in requirements between production and post-production spaces. Production spaces (recording studios, control rooms and storage facilities) are usually associated with large, static structures and bulky equipment. Most of them are devoid of natural light and sound. Post-production spaces on the other side of the spectrum are usually smaller adaptable spaces, which can be grouped into small individual cubicles or can open up into a larger multi-use space.

This led to the decision of separating the building into two halves. The production facilities situated to the western portion of the site and the post-production facilities to the eastern portion.

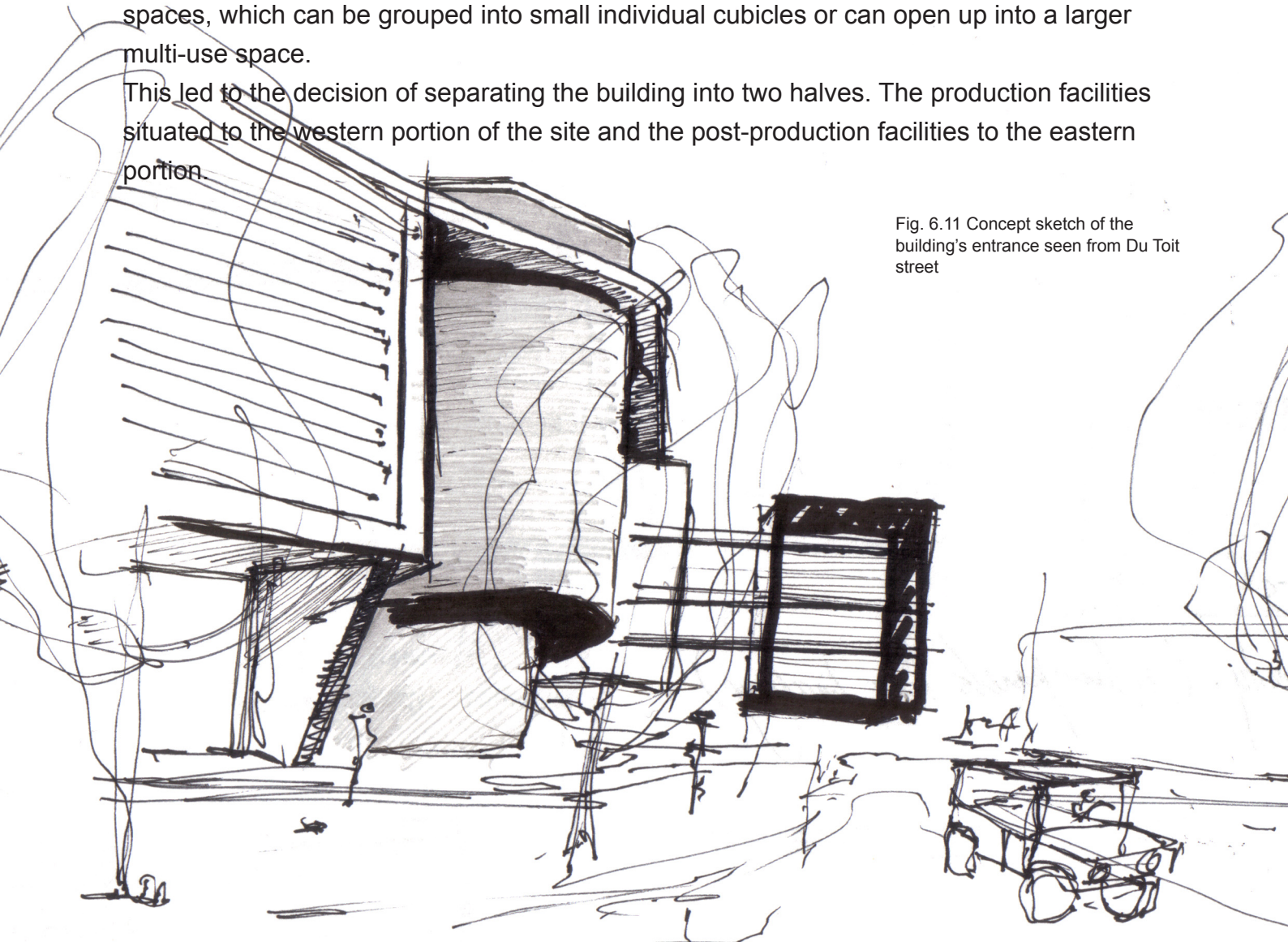


Fig. 6.11 Concept sketch of the building's entrance seen from Du Toit street

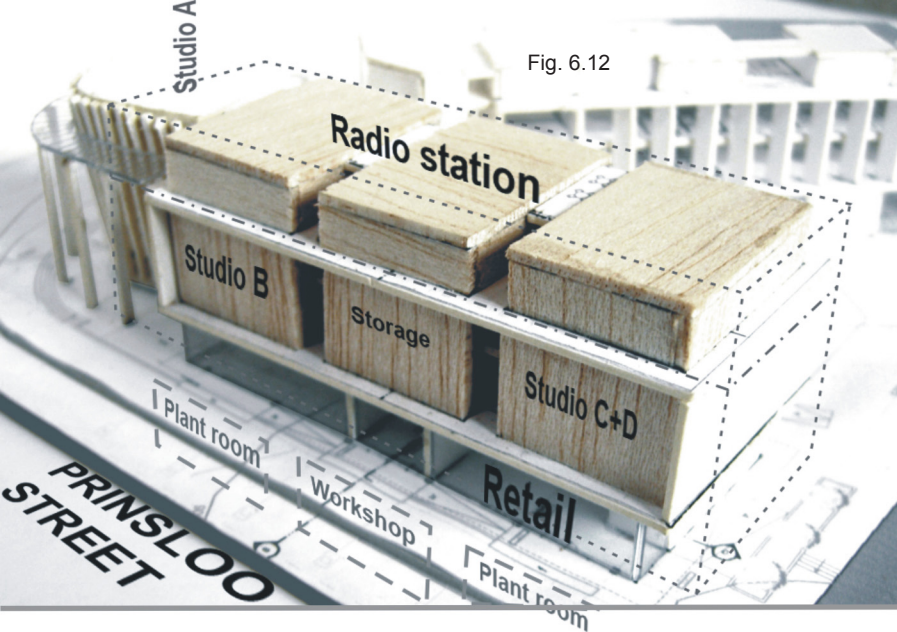


Fig. 6.12

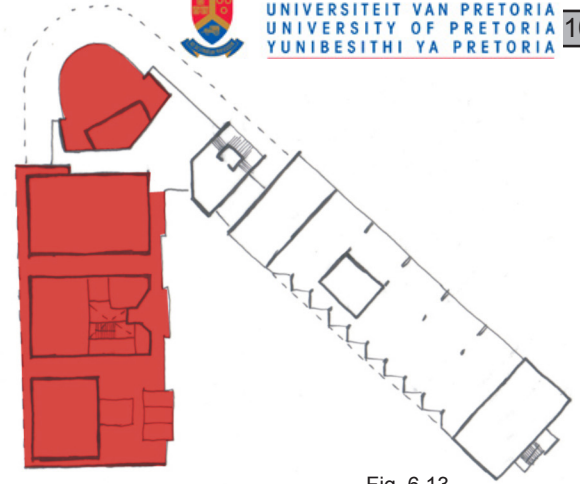
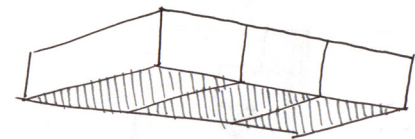
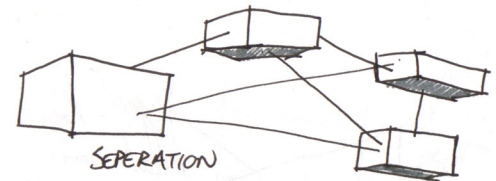


Fig. 6.13

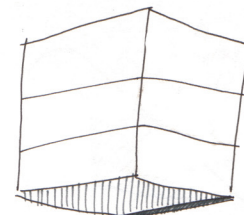
Production facilities

Because a significant proportion of the production facilities require light and sound exclusion, the production section of the building was positioned towards the western side of the site. Thus the large solid volumes on this façade shade the rest of the building against the harsh western sun during the afternoons.

Due to the amount of pedestrian movement on Prinsloo street towards the CBD, retail facilities were incorporated at ground floor level. The raised sidewalk facilitates the shoppers and also encourages the movement of the pedestrians to filter through the building. The ground floor of the building is public based and should be accessible to all. A dedicated presenter/staff entrance is situated towards the public square which makes it easier to access the production facilities from the square as well as the basement.



GROUPING ON SAME LEVEL. [GROUNDS FLOOR]



VERTICAL GROUPING.

Fig. 6.14
Diagrams of different grouping possibilities for the recording studios

All the production facilities are situated on the first and second floors. The reason for placing them on these floors is to allow the ground floor to be used by the public in their daily activities. The production facilities comprise of recording studios; set and equipment storage spaces and presenter areas (make-up, dressing rooms, wardrobe storage and toilets)

The production section is categorized by three oversized cubes placed on the western façade. Two of these cubes (those at the ends) house the television recording studios while the cube in the middle facilitates the storage spaces allocated to these studios.

There are four recording studios ranging in size. Studio B, which is the largest of the four, will be used for the making of in-studio music videos as well as larger format set programs. Studio C and D will be used for smaller format programs, like talk shows, with a green screen (used as a projection surface for a digital background) incorporated into Studio D. Studio A is exclusively a live audience studio, with seating for 120 audience members. This studio is one of the primary features of the building and is situated opposite the intersection (fig. 6.21). This gives the corner studio a constant visual connection with its surroundings and also gives passers-by the opportunity to experience the activities within the studio. This studio will be

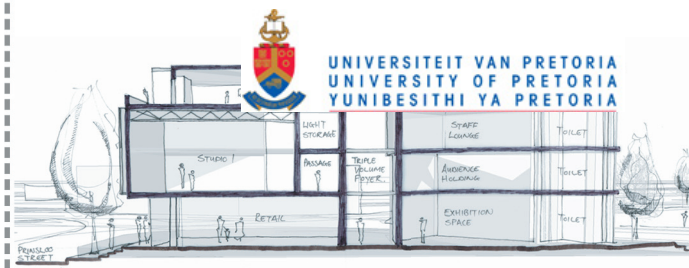


Fig. 6.15 Sectional development sketches of the Production studios and their relationship with the street

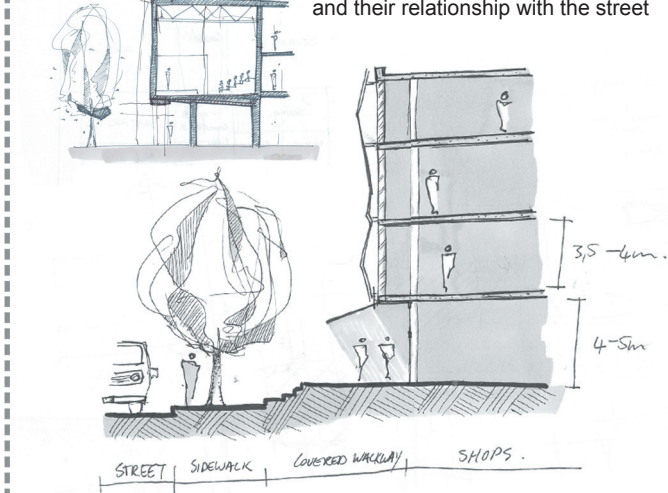


Fig. 6.16 Early sketch of western facade

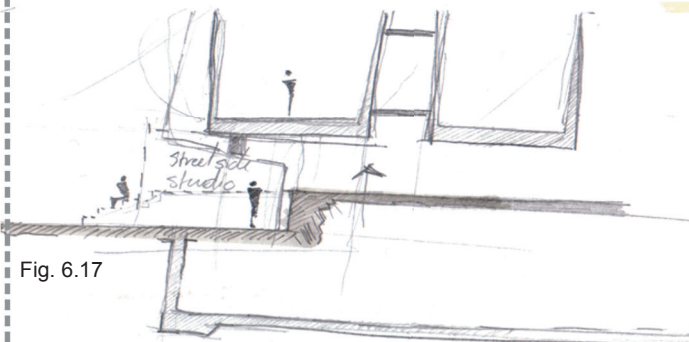


Fig. 6.17

used to host interactive shows with audience members and local musicians at selected times of the day (usually during peak-hours and lunchtime as this will ensure that more pedestrians can be attracted to the show). The pedestrians and the activities of the intersection will form an appropriate background for the television programme.

Both Studio A and B will have production control rooms available to them. Due to the sizes of both Studio C and D the use of portable production control equipment would be sufficient.

Programme feeds from the production control rooms will be sent to the Master Control room for final editing before being broadcasted.

Radio broadcasting station and administration offices are situated on the third floor. The radio station is dedicated to bringing local music to people who do not own a television set or to the thousands of commuters traveling into the city everyday.

All the Production facilities are vertically serviced by the basement. The studios are vertically serviced by mechanical ventilation plantrooms, while the storage facilities are serviced by a set-building workshop.

Fig. 6.21
Elevational sketch of the western portion of the building

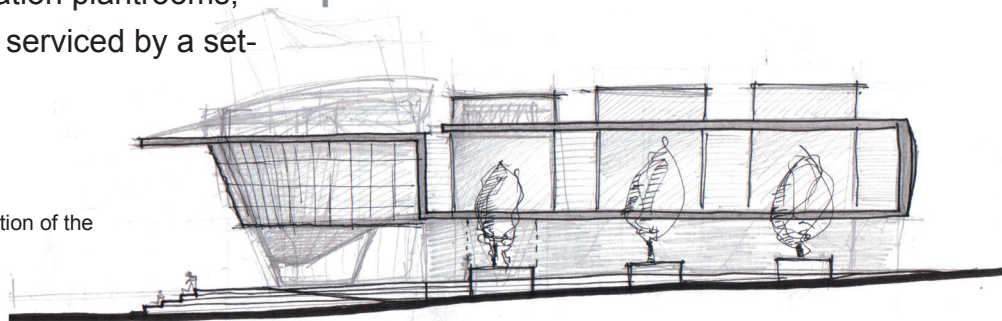


Fig. 6.18 Vertical servicing of the production facilities

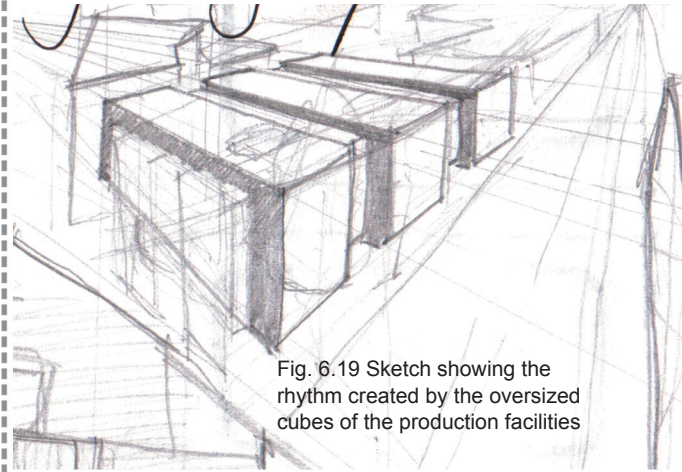


Fig. 6.19 Sketch showing the rhythm created by the oversized cubes of the production facilities

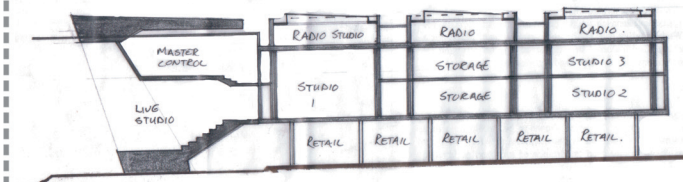
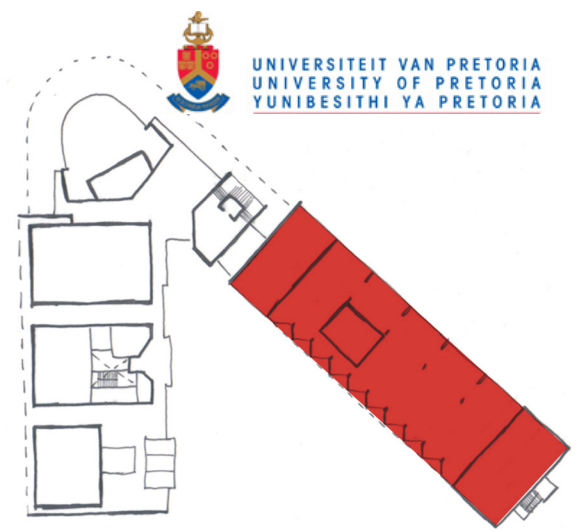


Fig. 6.20 Sectional sketch of the western portion of the building.



Fig. 6.22



Post-production facilities

The post-production section of the building houses the majority of the development's habitable spaces (offices and restaurants) and therefore it is required as a prerequisite to have a northern aspect for these spaces. The placement of the post-production facilities on the eastern section of the site accommodates most of the spaces with desired northern sunlight. Because of the harshness of this northern sunlight, a horizontal louvre system is applied to the large glazed façade of the post-production office spaces (fig 6.24). Deciduous London Plane trees lining Du Toit street add to some of the solar protection during the summer months and lets in light during the winter (fig 6.23).

The atmosphere created by these trees as well as the increased amount of activities along the broad sidewalks gives a distinctive quality to Du Toit street. This character is emphasised in the design on the ground floor by creating lock-up facilities for food vendors. This enables them to prepare food in a

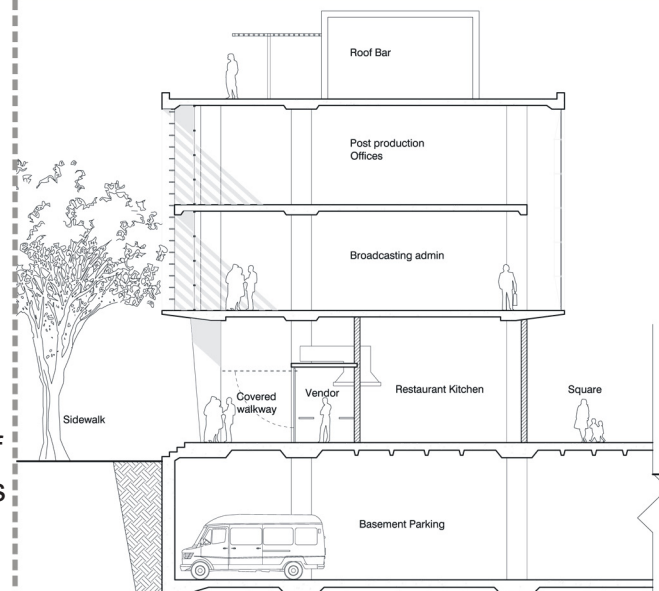


Fig. 6.23
Section of the Post-production facilities indicating the level of solar infiltration during the winter.

more hygienic environment and gives them the opportunity to lock away their equipment with relative safety. Accompanying the food vendors are small restaurants and their individual kitchens opening up to both Du Toit street and the public square. These facilities encourage the relaxing nature desired within the square.

Post-production offices are situated on the first and second floors of this portion of the building. The first floor comprises of a large open-office space used as broadcasting and production administration offices. The second floor is reserved for post-production use, which comprises of audio and visual editing facilities. These facilities are mainly grouped into individual cubicles where the editing and the finalization of the television programs occur. Supporting facilities to the post-production component are; an audio and visual library as well as a digital image archive.

The office space features large glazed facades on both the northern and southern sides, creating adequate natural lighting required for these habitable spaces.

A private roof bar takes up the entire third floor of this portion of the building. Intended primarily for presenter and staff use, this space can also be used for private functions and launch parties. The outside seating area is shaded by a timber pergola. Canvas shading devices can also be applied if needed in the summer.

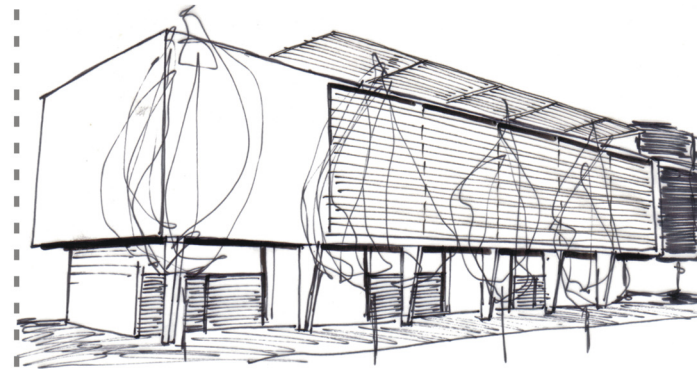
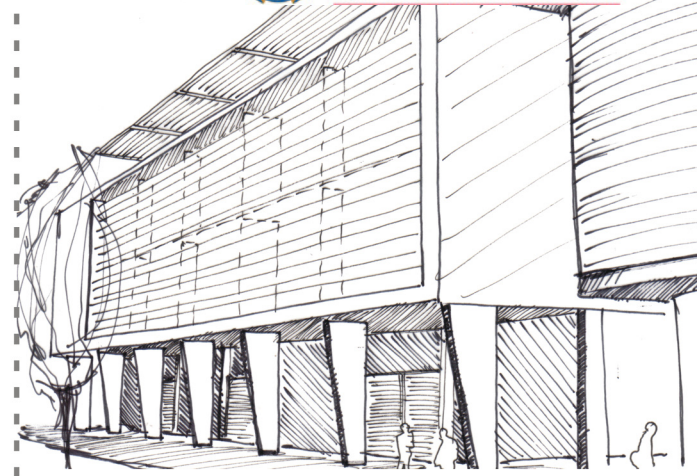
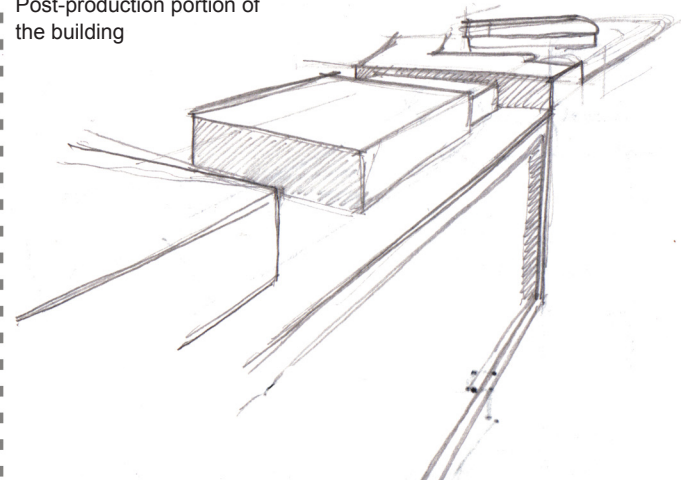


Fig. 6.24
Concept sketches of the
Post-production portion of
the building



Circulation

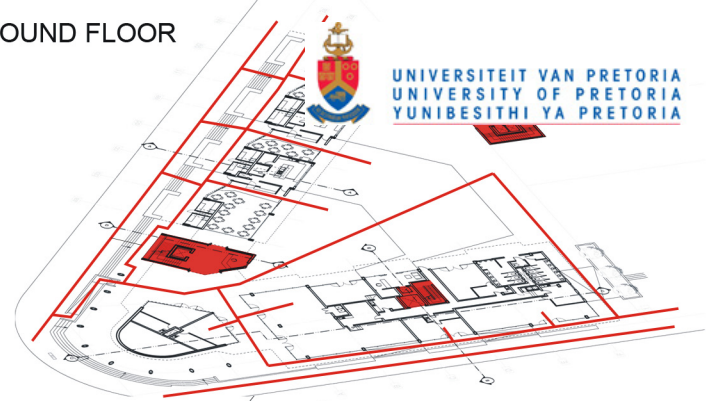
Connecting the production and post-production portions are the centralised circulation core. Access to the building is controlled on ground level by reception with stairs and a lift linking the ground floor to the rest of the building. The connection between the production and post-production facilities on the first floor also doubles up as an audience holding area for Studio A.

Public access to the building is only allowed on the ground floor, the circulation core and studio A. The rest of the building is reserved for private use and is monitored by controlled access points.

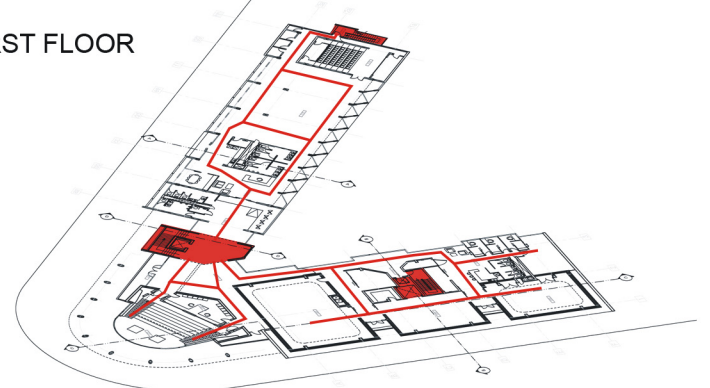
As mentioned earlier, a secondary circulation and service core is situated in the production portion of the building. This enables staff to have a dedicated entrance to the studios and presenter areas from the square and basement. A service lift, within this secondary core, enables sets and equipment to be transported from the basement to the storage facilities on the first and second floor. Lastly the circulation core is also the escape route in cases of emergency.

Fig. 6.25 Horizontal circulation of each floor. Coloured blocks indicating areas of vertical circulation

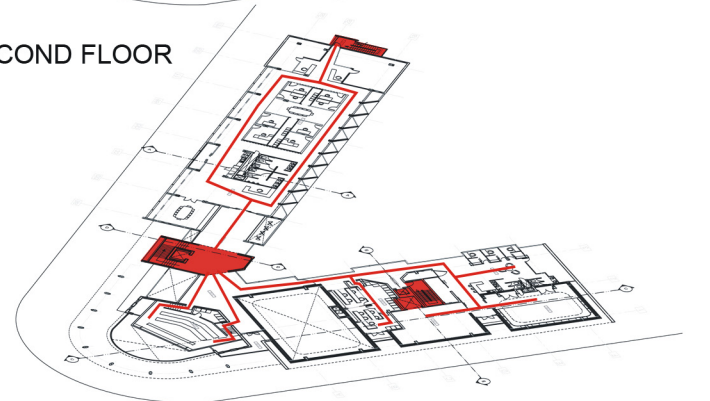
GROUND FLOOR



FIRST FLOOR



SECOND FLOOR



THIRD FLOOR

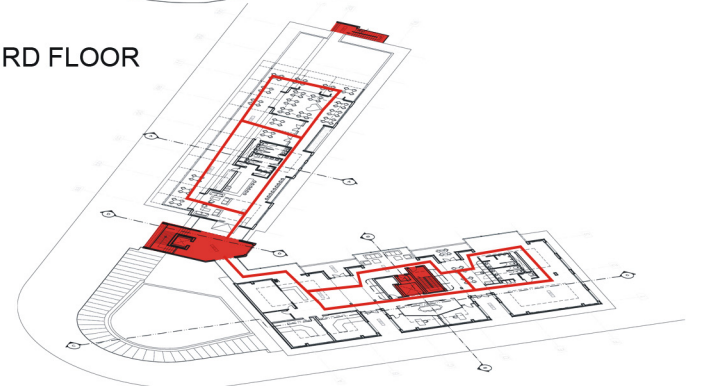
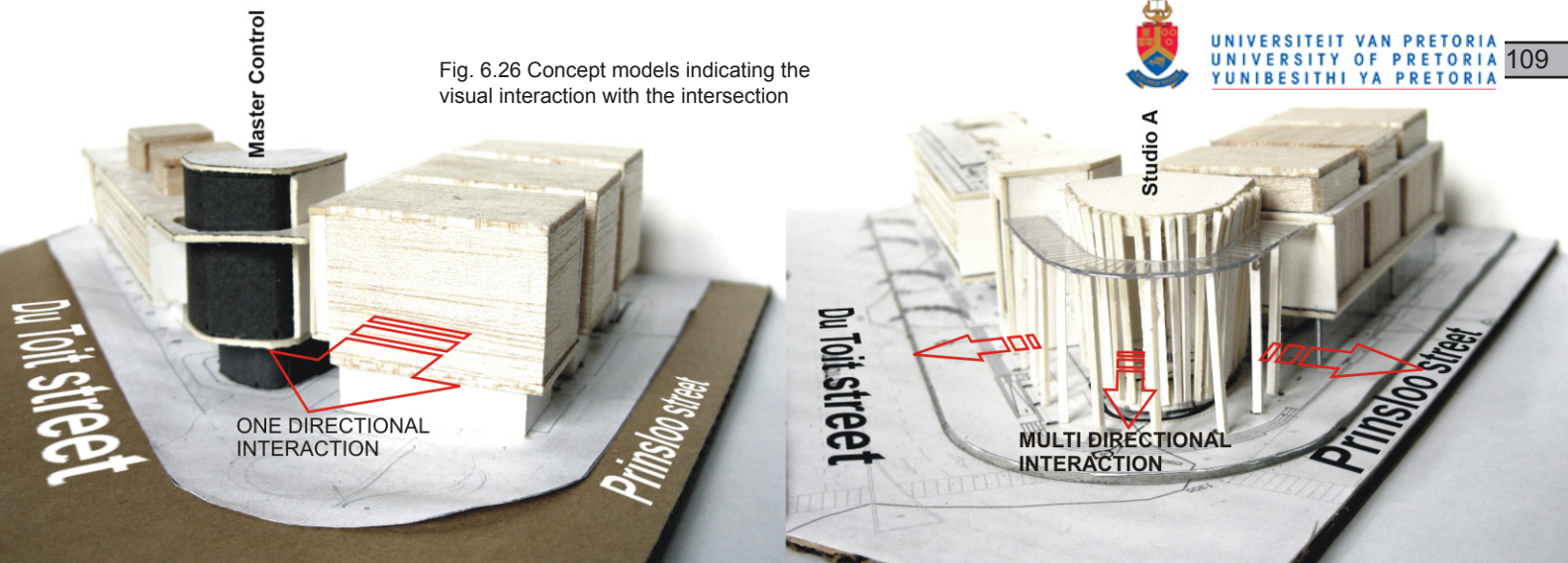


Fig. 6.26 Concept models indicating the visual interaction with the intersection



Corner development

As mentioned before, the response of the building towards the intersection is extremely important for the nature of this dissertation. Initially the building had a poor one dimensional response towards the intersection. There was absolutely no connection between the activities of the building and the activities happening on street level.

The decision was made to incorporate the live studio into the design and place it on the corner of the site. In this way it has a multi-directional response towards the intersection as well as Prinsloo and Du Toit street.

The studio, with its digital screens, becomes a bold, imposing element giving

the intersection added value. The studio is placed on a pedestal, five stairs above the level of the sidewalk. Although entirely open, this creates the idea that one leaves one space (intersection) and enters another (building)

The live studio drops down from first floor level, to approximately eye level on ground floor, giving passers-by direct visual contact with the activities within the studio. The activities surrounding the intersection, as well as all the taxis driving past, makes for an interesting and truly African backdrop for the television programme.