7 THE DESIGN

DESIGN DEVELOPMENT

Fig 7.1 Concept model of betweeness

The schedule of accommodation includes the following areas:

_ reception

_ exhibitions (inside & outside)

_ lecture room

_ laboratories

_ deli

_ consultants

_ computer area

_ reading area

The relationship between the different areas must overcome the physical boundaries which create easy access and sufficient orientation. When entering the site, the access to the different areas should be transparent with the exhibition areas acting as transitions between the main facilities.

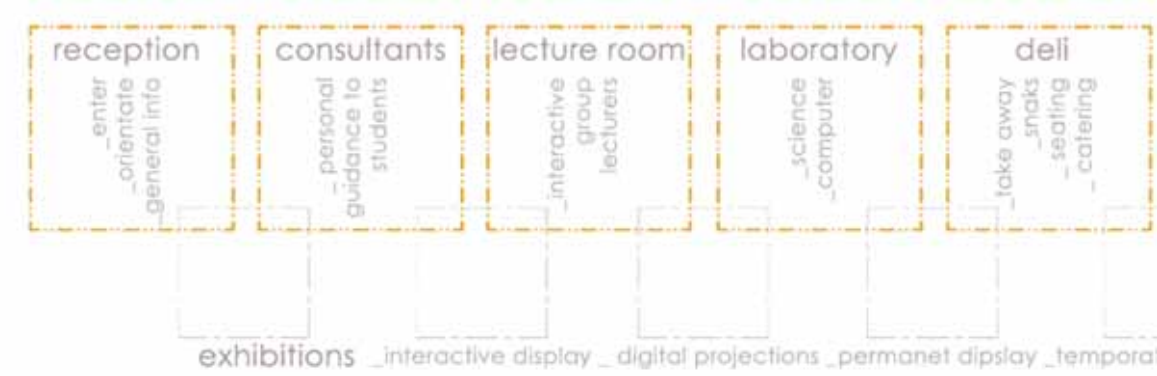


Fig 7.2

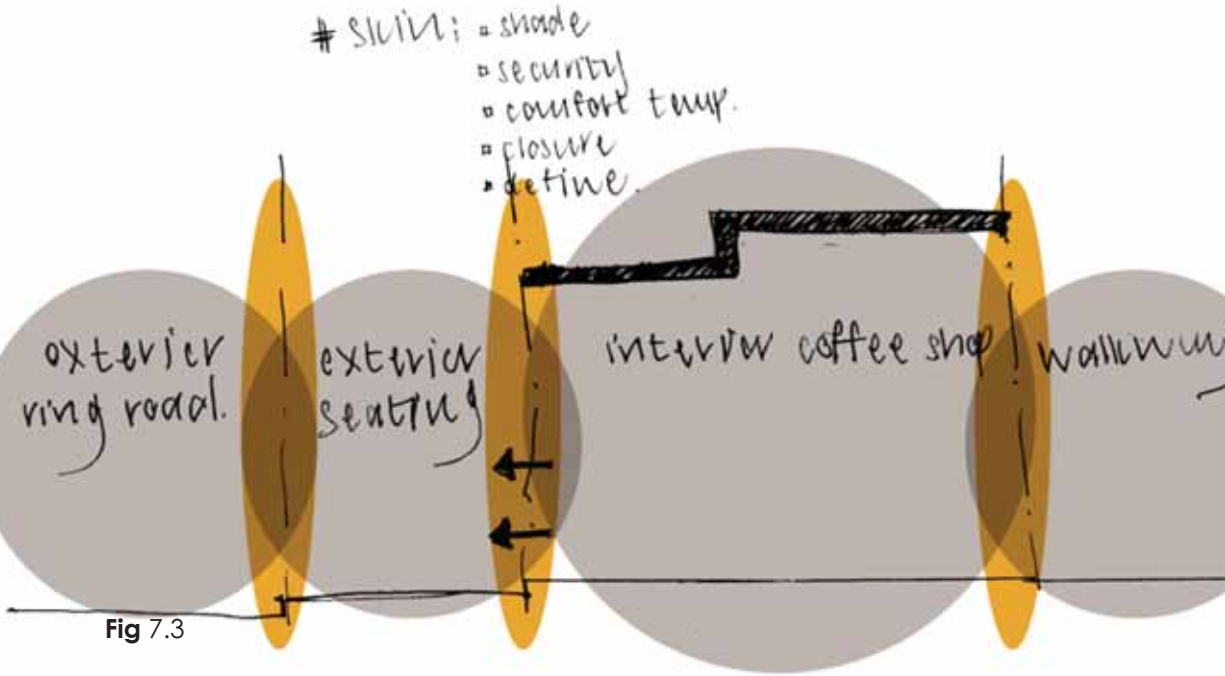


Fig 7.3

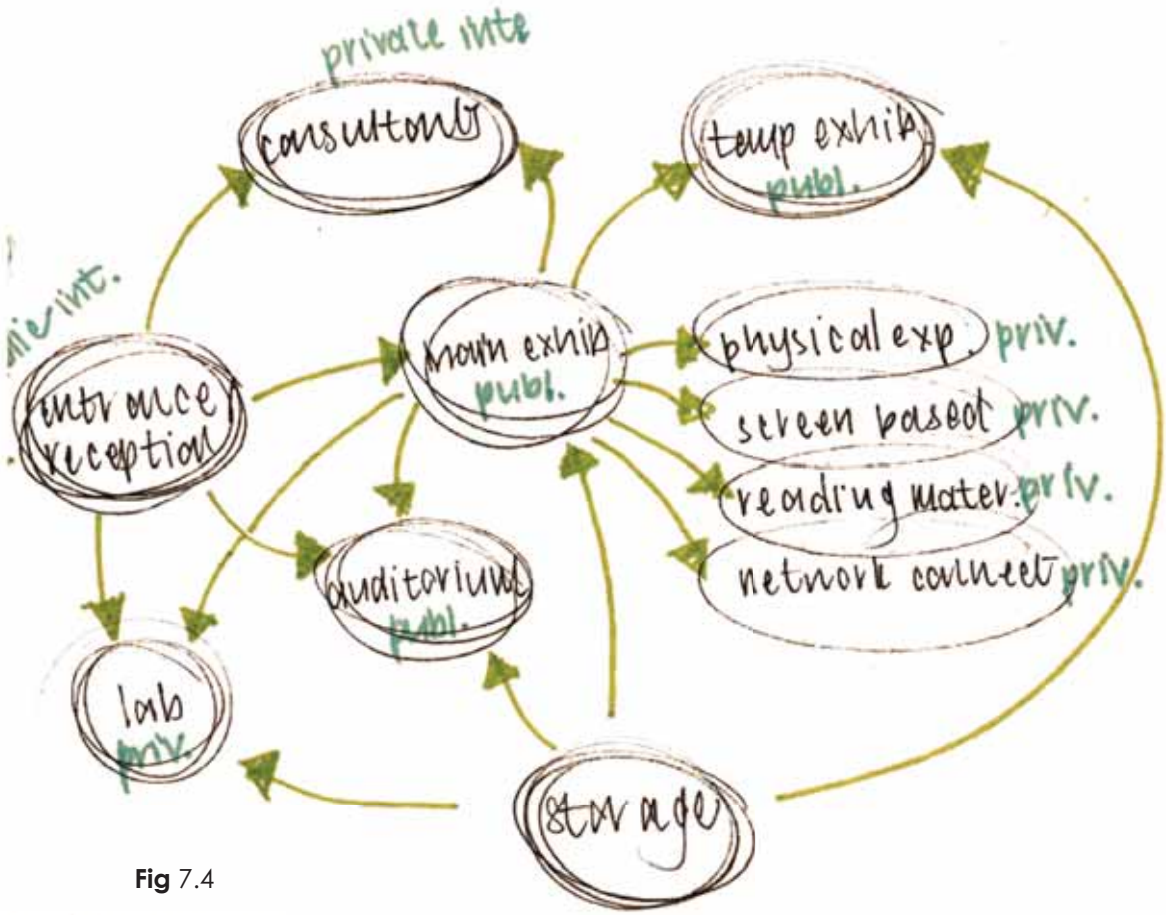


Fig 7.4

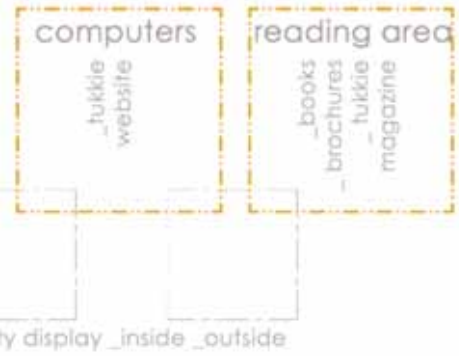
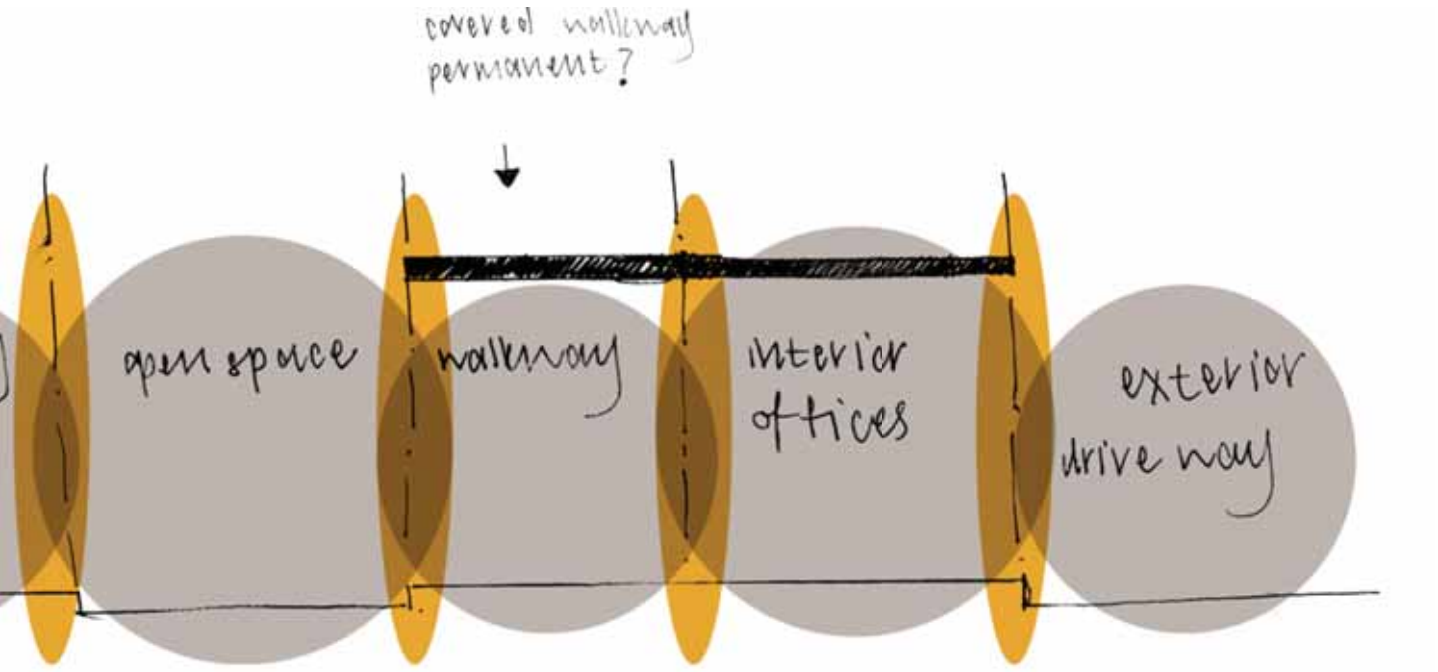


Fig 7.2 Diagram indicating different activities

Fig 7.3 Concept sketch of different spaces and boundaries

Fig 7.4 Concept diagram of schedule of accommodation



The models reveal a single skin that is broken up into segments, the definite line between two spaces is distorted and the betweeness in the line itself is created. The line falls both inside and outside the two adjacent spaces.

The opportunities lie within the betweeness.

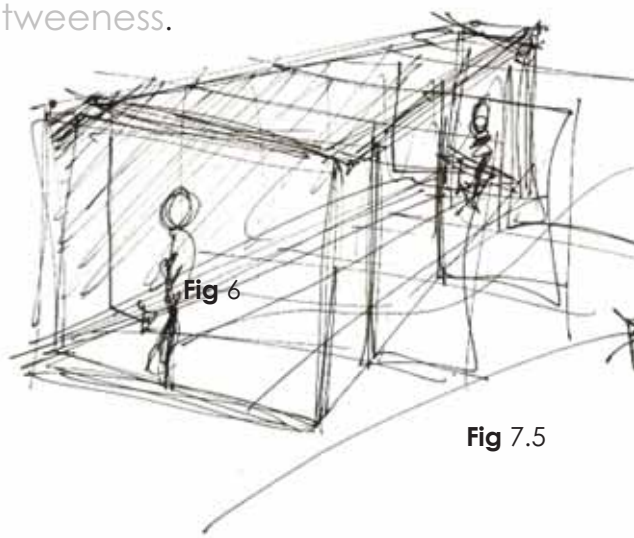


Fig 6

Fig 7.5

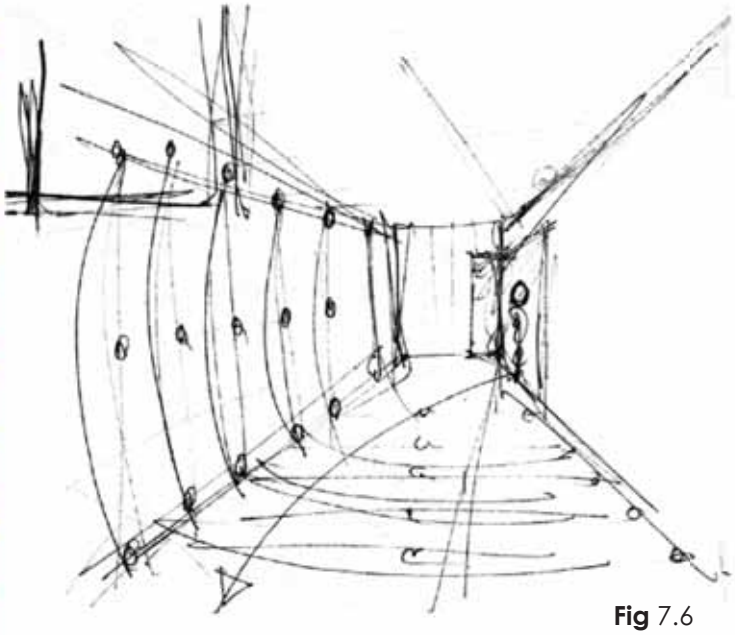


Fig 7.6

Fig 7.5 Concept sketch investigating limit to boundary

Fig 7.6 Concept sketch of interactive skin

Fig 7.7 Concept model of interactive skin

Fig 7.8 Concept model of a skin broken into different segments that form a fragmented boundary

Fig 7.9 Concept Plan 1

Fig 7.10 Concept model of interactive skin

Fig 7.7

Fig 7.8

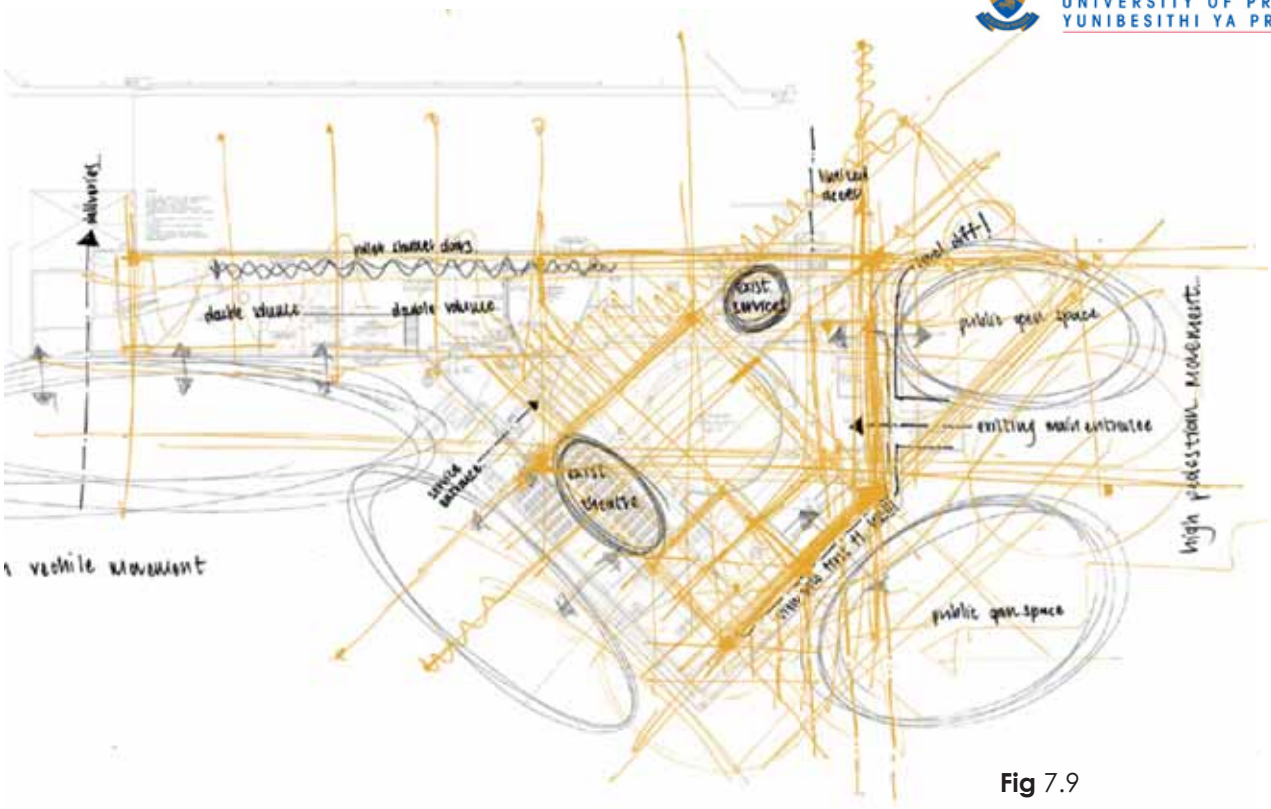
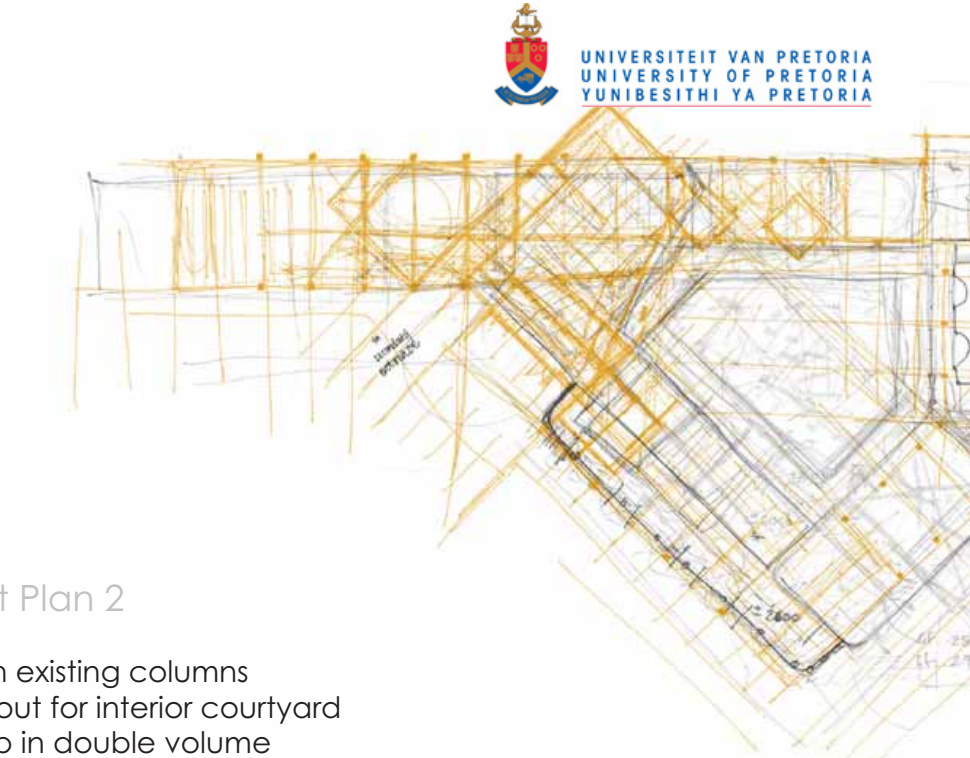


Fig 7.9

Concept Plan 1

_ analyse existing spaces
_ entrance hidden away
_ insufficient natural lighting to interior
_interior columns obstruct movement
_ awkward interior spaces
_ double volume inadequate use
_ no sense of orientation

Fig 7.10



Concept Plan 2

_ work with existing columns
_ slab cut out for interior courtyard
_ insert slab in double volume
_ move entrance to south eastern facade
_ slab cut out for double volume at entrance

Fig 7.11

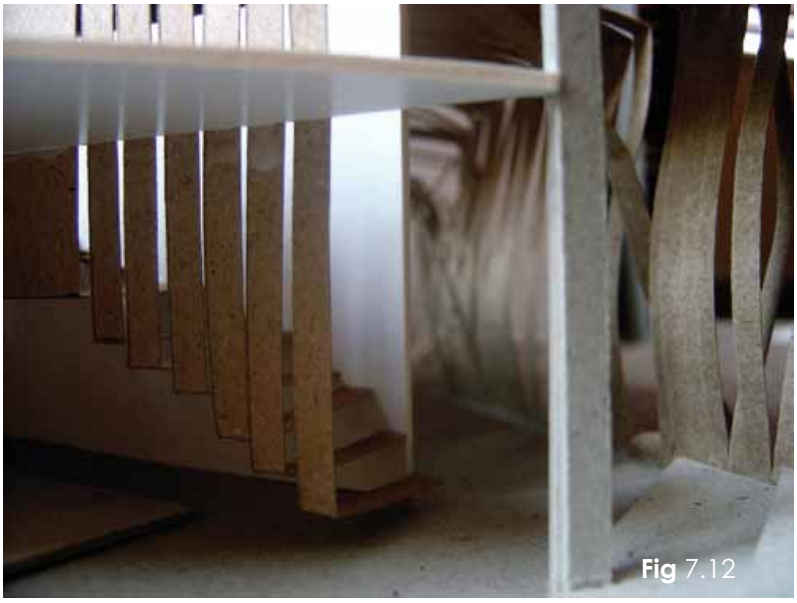


Fig 7.12

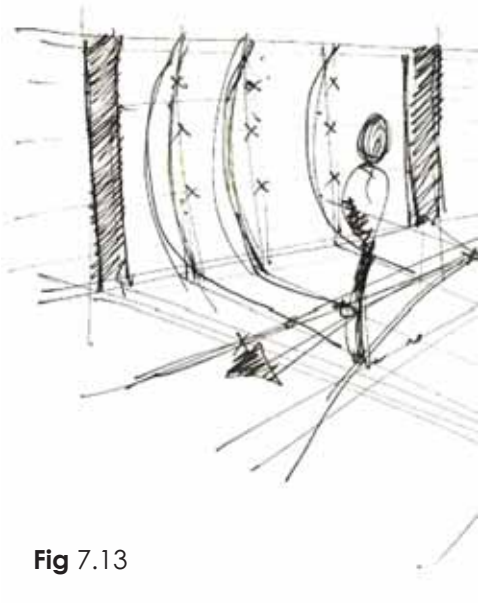


Fig 7.13

Fig 7.14

Fig 7.11 Concept Plan 2

Fig 7.12 Concept model of existing structural column with new elements

Fig 7.13 Concept Sketch of interactive plain

Fig 7.14 Concept model of visibility

Fig 7.15 Concept Plan 3

Fig 7.16 Concept Plan 4

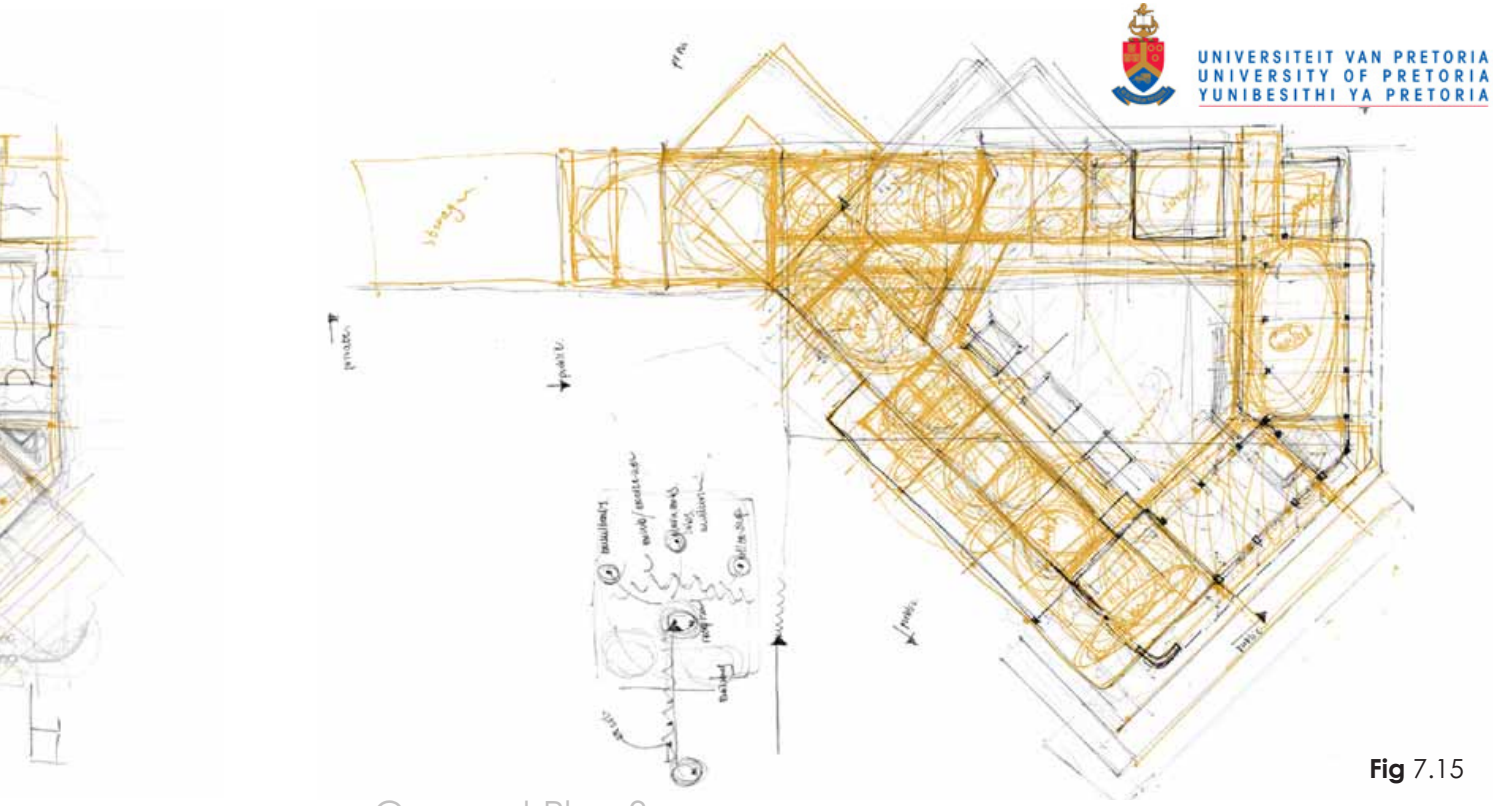
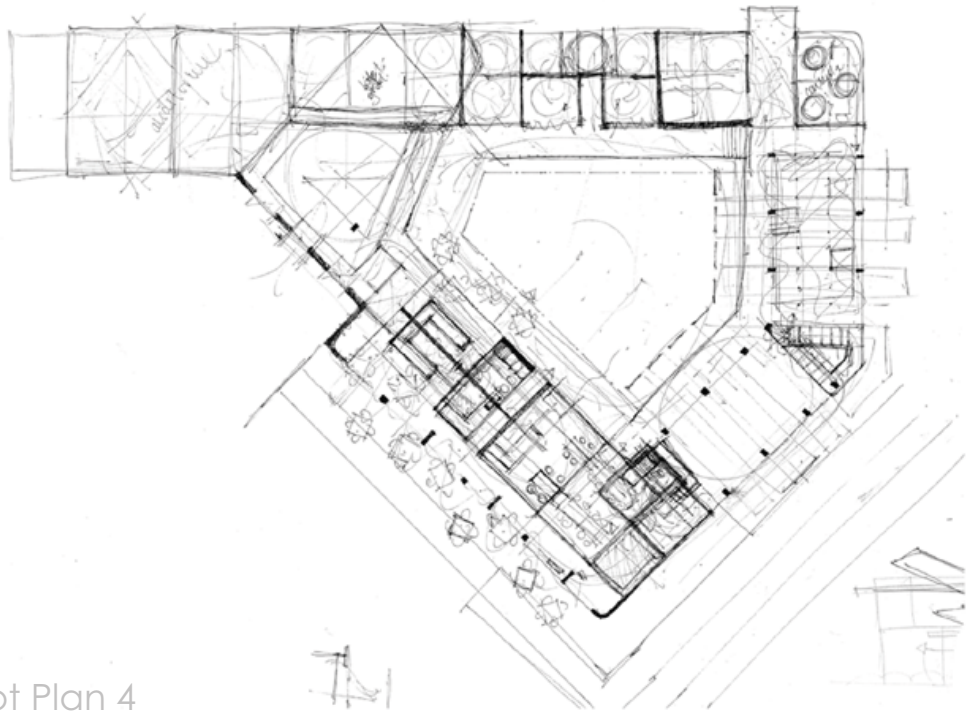


Fig 7.15

Concept Plan 3

_ investigate expansion to northern facade
_ investigate expansion to southern facade
_ eastern facade more public area
_ western facade more private area
_ most exterior activities to south eastern facade



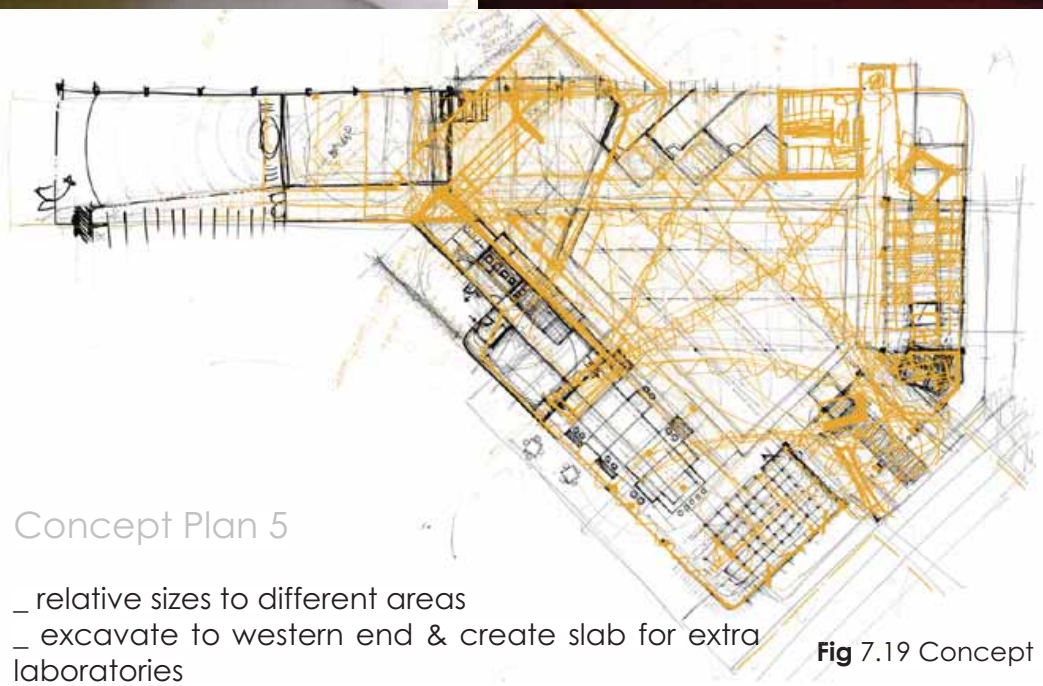
Concept Plan 4

_ area allocation
_ deli placed for most exposure
_ exhibition & entrance together
_ no level difference between areas
_ consultants, lecture room, labs to more private spaces

Fig 7.16 Concept Plan

Fig 7.17 Concept Model of new structural elements

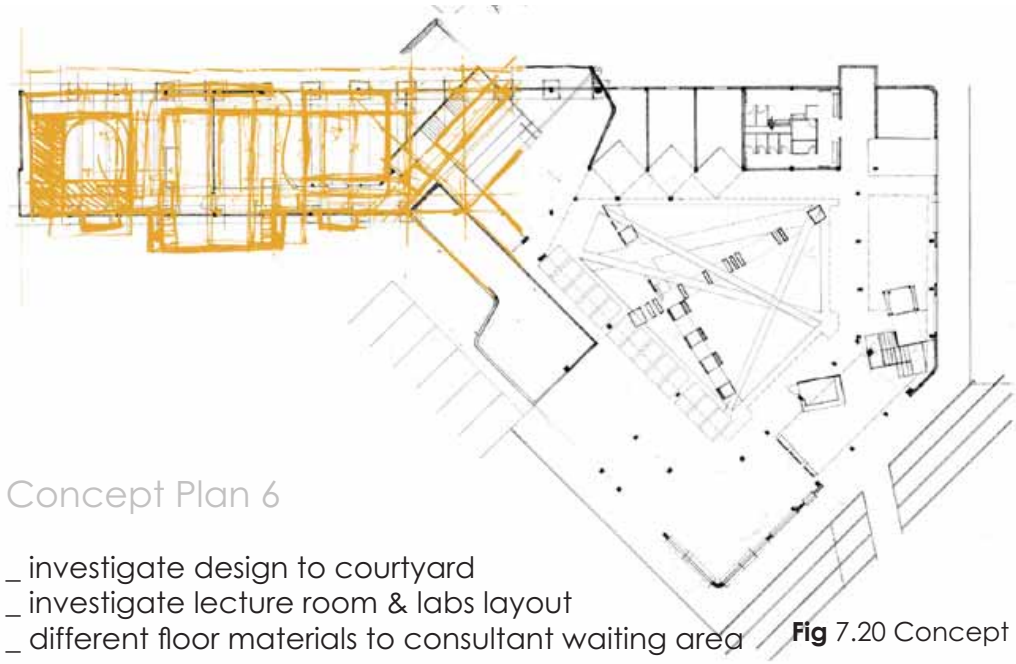
Fig 7.18 Concept model of existing structural eleme elements and infill material



Concept Plan 5

_ relative sizes to different areas
_ excavate to western end & create slab for extra laboratories
_ double volume at deli
_ investigate movement through courtyard

Fig 7.19 Concept Plan 5



Concept Plan 6

_ investigate design to courtyard
_ investigate lecture room & labs layout
_ different floor materials to consultant waiting area

Fig 7.20 Concept Plan 6

The sketch investigates the opportunities for interactive environments where existing ordinary boundaries are cut through in specific intervals. Implementing spatial transparency to a space reveals an environment that gradually changes from one space into the other.

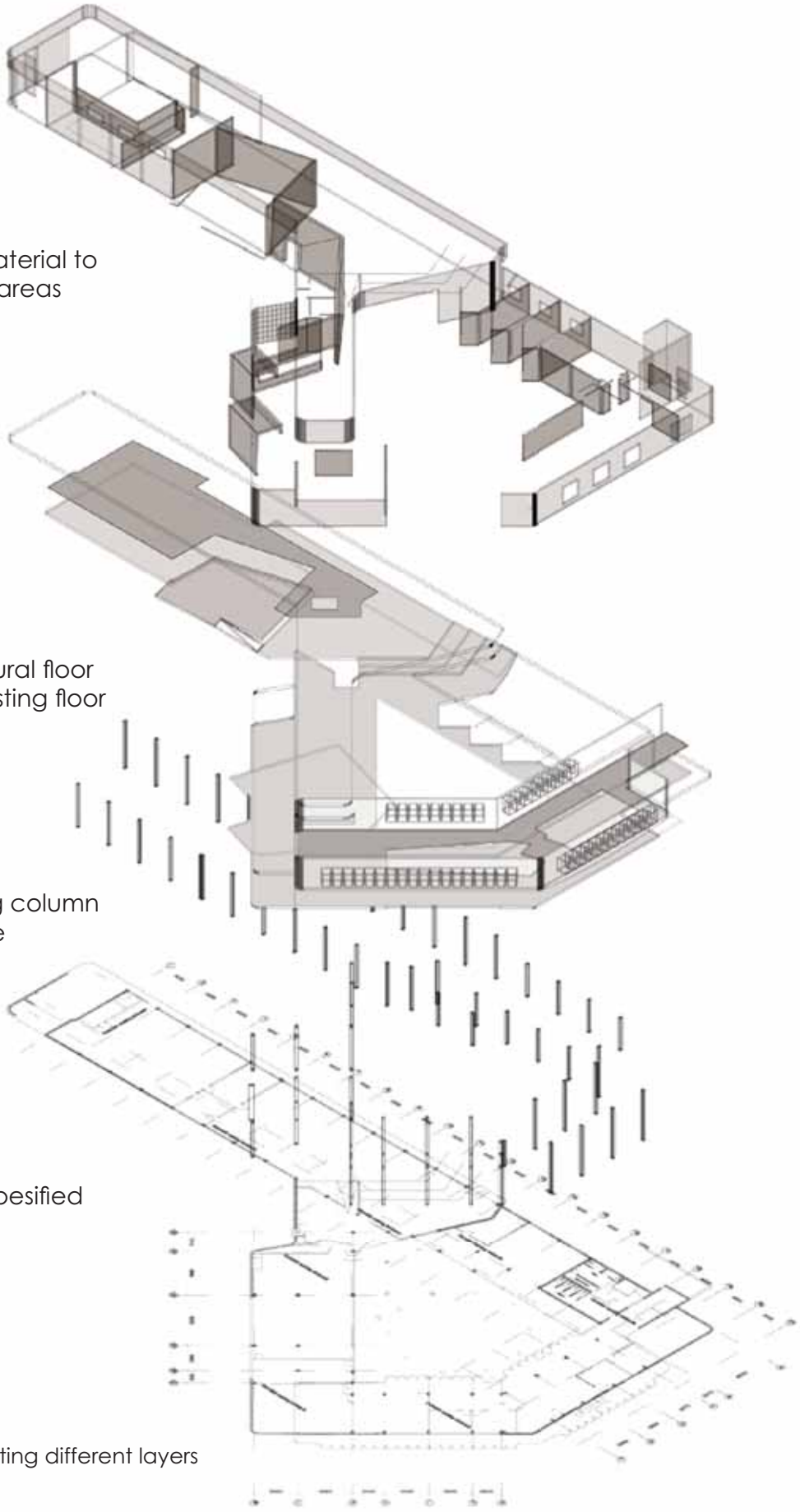


Fig 7.21 Illustrating different layers

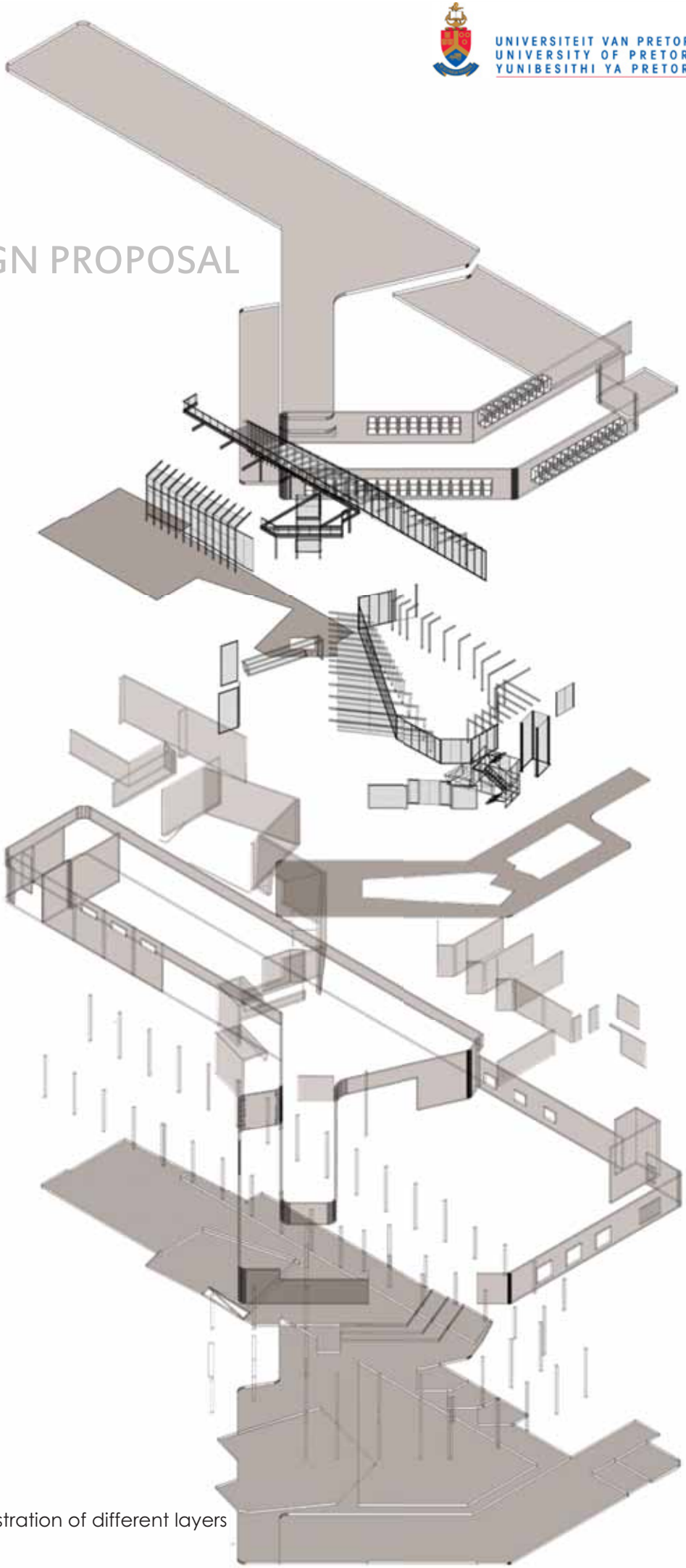


Fig 7.22 Illustration of different layers

Fig 7.23 Concept Layout Ground Floor

Fig 7.24 View towards southern elevation

_ENTRANCE

As you enter the site on the south eastern end, the existing parking is removed and large landscaped steps are brought in that step down to the new entrance. The new entrance at the eastern facade is filled with glass panels and automatic glass sliding door that provides for easy access. The reception area is visible to people walking past breaking the existing boundary and revealing the activities on the inside. The approach of transparency comes into play with the idea of showing the viewers on the outside what is happening inside in order to create an awareness of and interest in the activities. This is a total change to what is happening with the existing space.

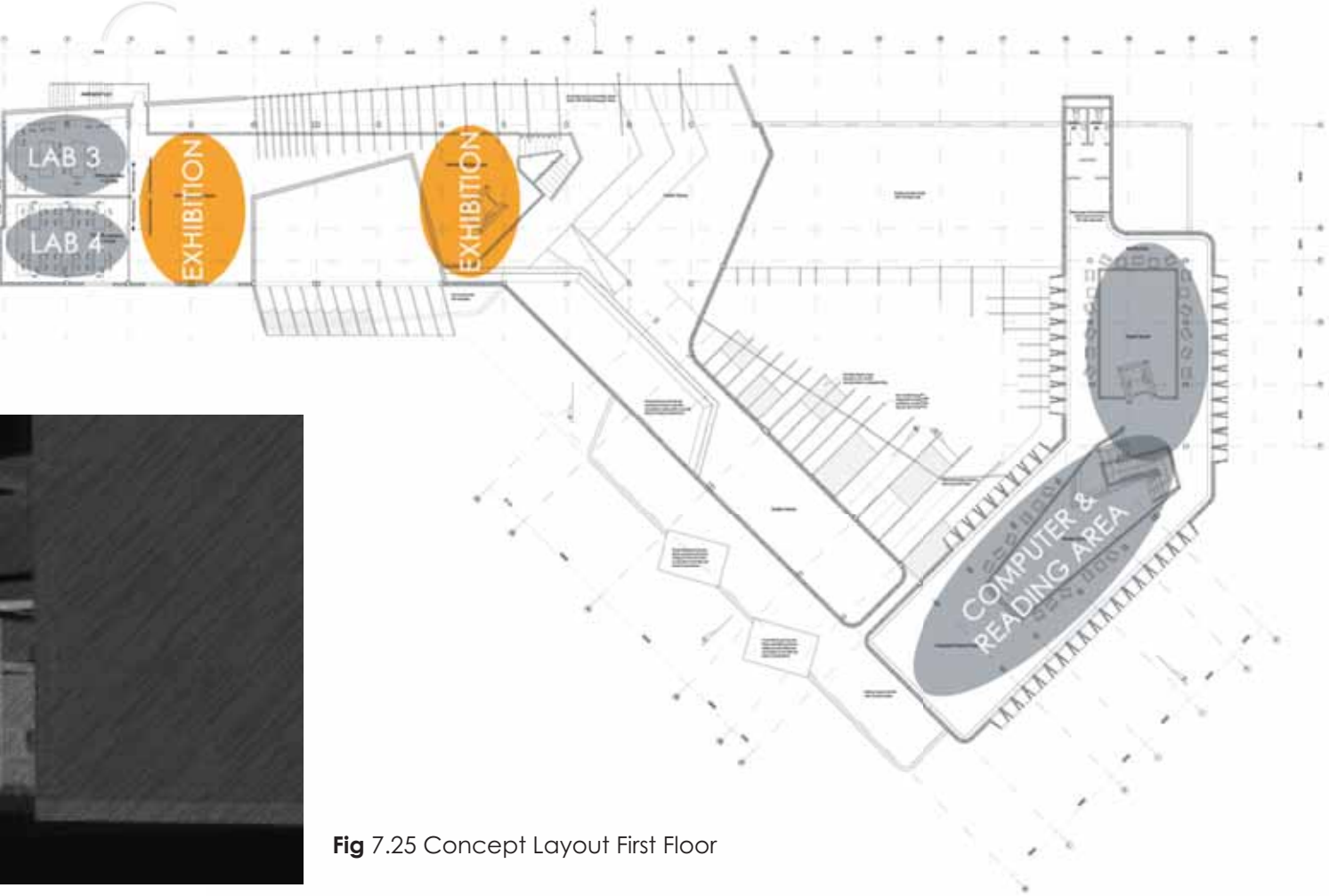


Fig 7.25 Concept Layout First Floor

_ WALKWAYS

The use of ramps with large steps ensures the accessibility for disabled visitors, the level differences only changes to the western end of the interior space where an adequate ramp is introduced next to the steps. Changes in floor levels were kept to a minimum to ensure easy access for all visitors. Visibility is enhanced with the use of wide walkways throughout the interior and with definite change in the floor materials used so as to indicate different areas. Lifts are introduced to the first floors and are distinctly visible with the use of 3 Form, 'Cranberry' Chroma panels.

Fig 7.26 Concept model of view from walkway

Fig 7.27 Illustrating movement analysis from entrance

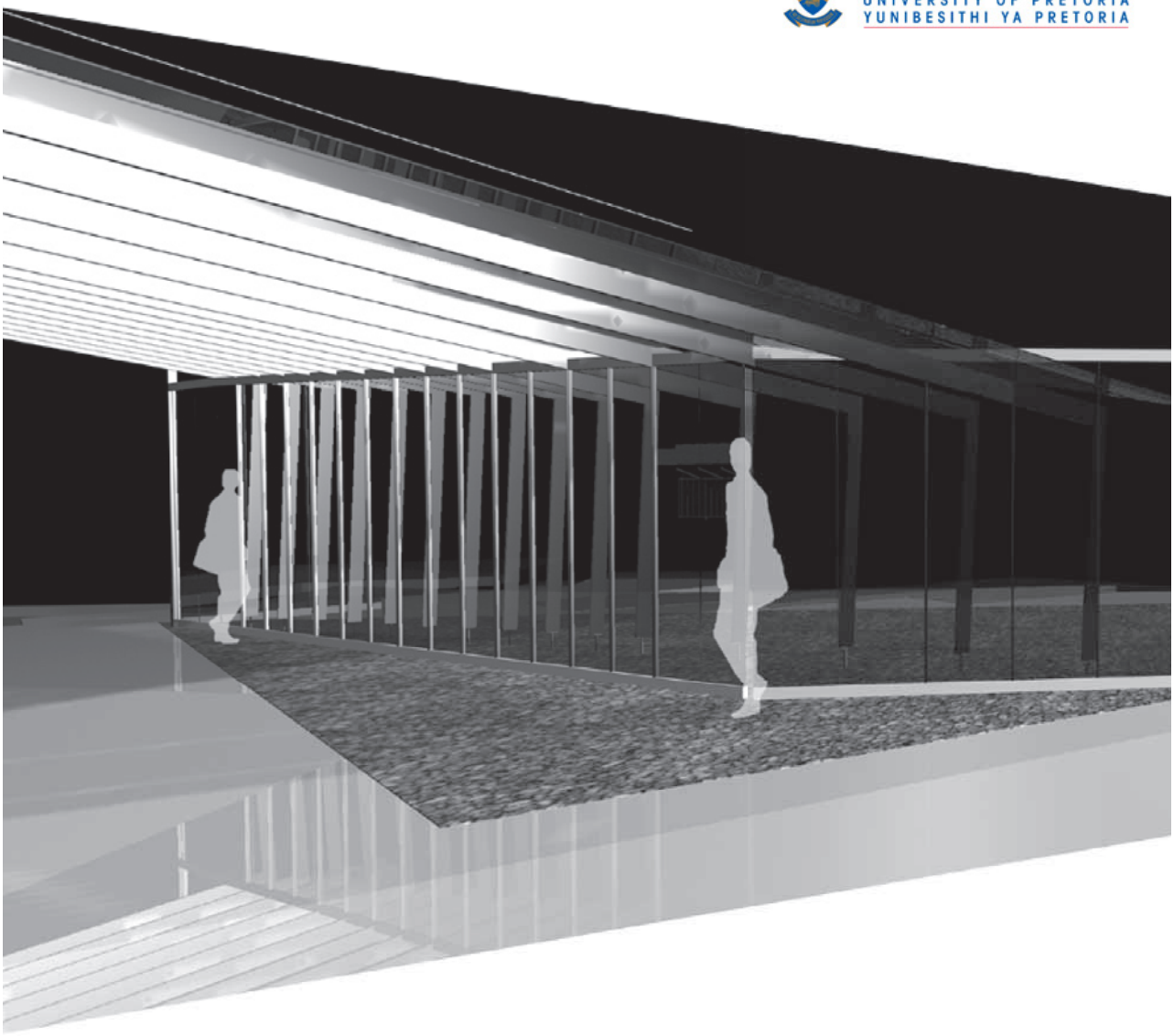


Fig 7.28 Concept model of volume in space

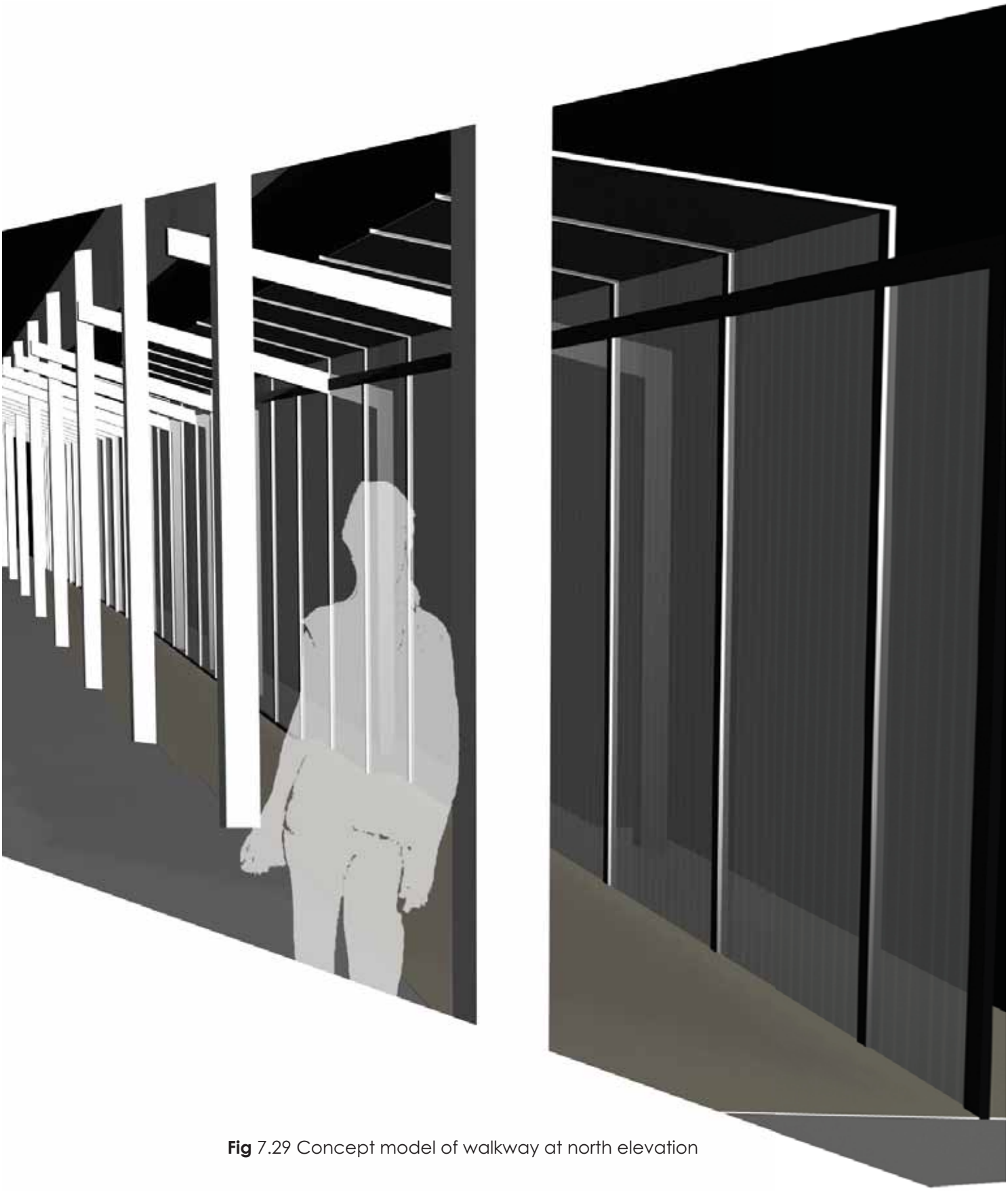


Fig 7.29 Concept model of walkway at north elevation

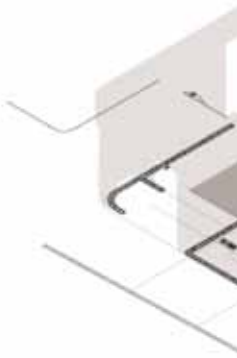
_DELI

The Deli caters for the visitors and staff. The Deli allows for 50 seating visitors but includes a take-away facility for fast meals. The seating is placed as to direct visitors on the main walkways and more private seating areas are created inside the deli. The sunscreen panels to the northern facade of the deli are placed at right angles to allow afternoon sun to shine through but to block out most direct sun rays. The kitchen has a separate private entrance door for deliveries and waste collection; the waste collection will happen with the existing scheduled waste collection of the university. A waste area is created outside the kitchen and is screened off with metal screens out of view from the public.

Fig 7.30 Concept mod

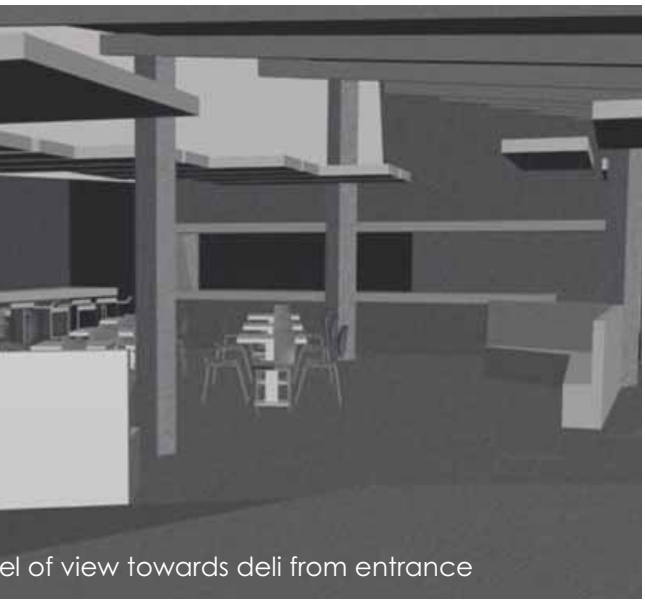
_CONSULTANTS

The offices of the consultants are allocated in a more private area of the building with adequate walkways passing the offices. The use of different floor materials indicates waiting areas from office areas. The waiting areas can also serve as informal meeting area with consultants thus making the interaction between a consultant and the student visible for visitor. This will result in awareness and interest amongst visitors. For more private consulting sessions, areas are available inside offices to ensure sufficient space, confidentiality and comfort.



_ SERVICES

The existing services were upgraded and more WC's were added on the ground floor. The new sewage pipes must connect to the existing system at the northern end of the building. A wheelchair accessible WC is also available on the ground floor to enable easy access.



el of view towards deli from entrance

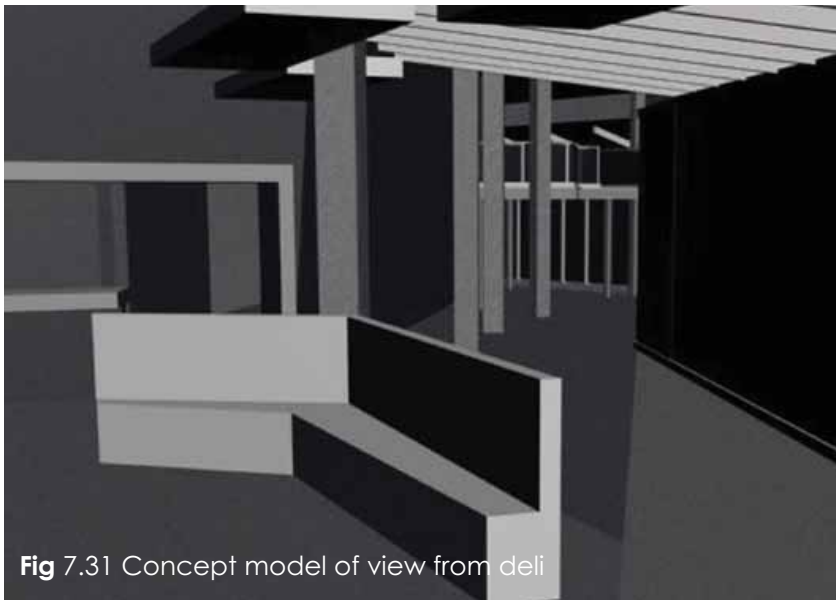


Fig 7.31 Concept model of view from deli

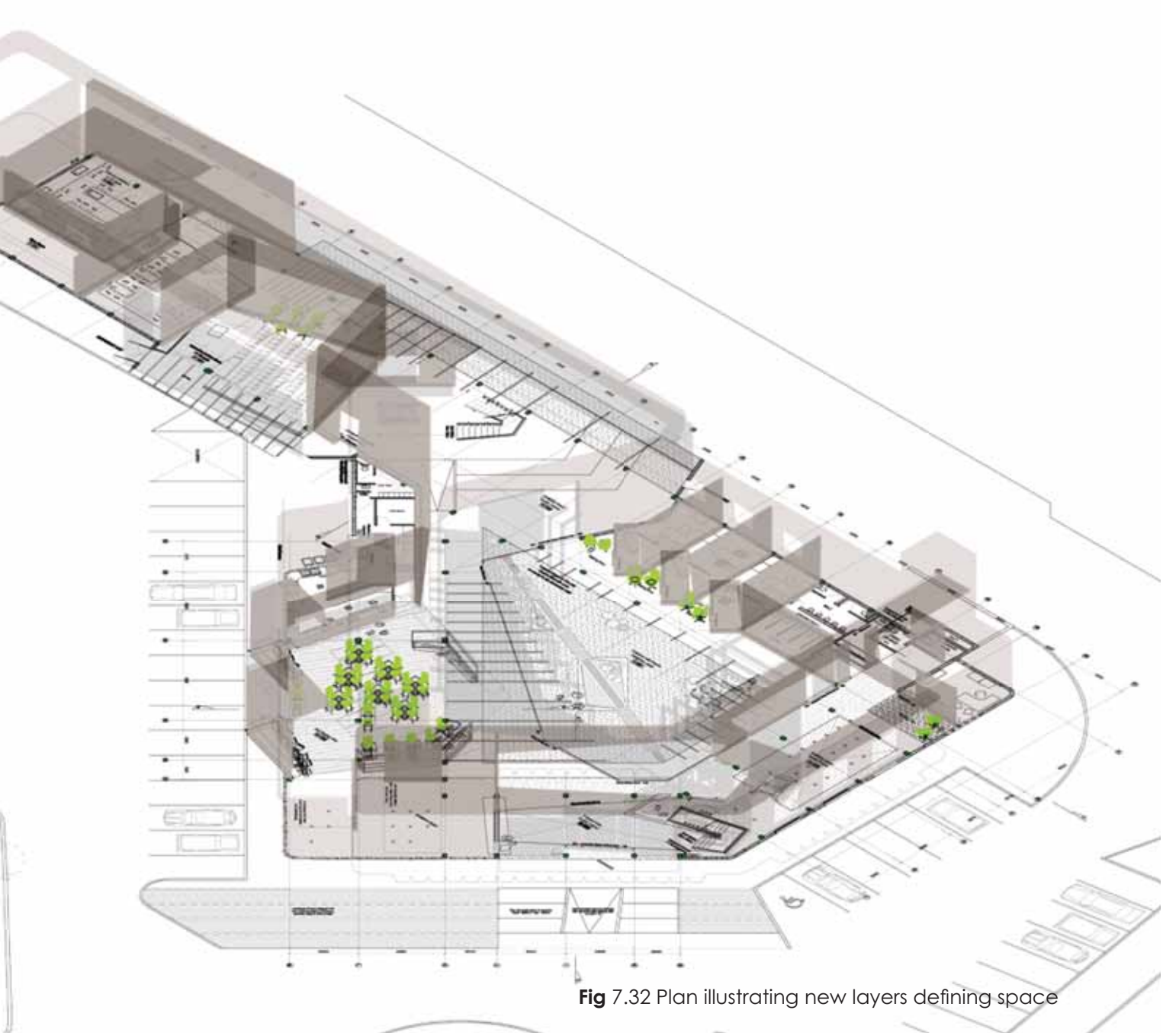


Fig 7.32 Plan illustrating new layers defining space

_LECTURE ROOM

The lecture room includes the latest technology and materials for lecturers. These include the 'clicker', video recorders, interactive smart pads as well as the smart podium. This lecture room will enable interaction with students and enhance the level of education. The use of these technological enhanced devices enables international lecturers and corporate representatives to interact with students more easily without the constraints of inadequate technology support.

_ LABORATORIES

The four laboratories with the objective to educate students in different areas of expertise will provide students with the opportunity to interact physically with experiments. The laboratories have a glass facade to the front to enable students passing by to view and experience the activities of the class.

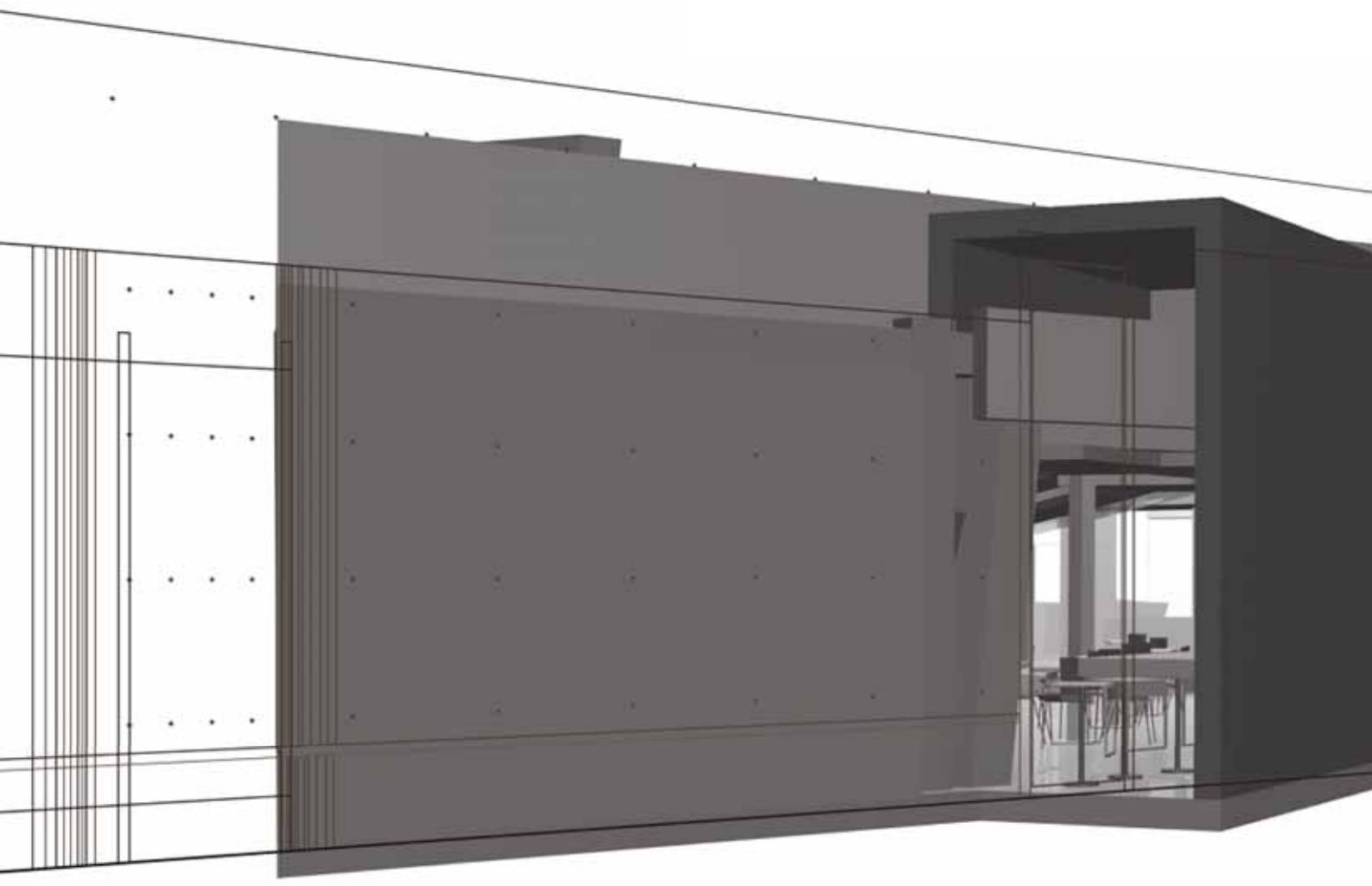
_EXHIBITIONS

The spaces allocated for exhibitions are placed in between the different areas of the building. The approach in exhibition design is to generate attention to the information to be translated through the exhibitions. This will be the first step of interaction between user and information. Afterwards the student then consults with a consultant on a more one-on-one basis and the information is further translated to the user.

_ COMPUTERS & READING AREA

This space is more private-orientated and requires a student to access the information available, either by making use of the reading material or the digital information. The area is situated on the first floor at the entrance with comfortable seating placed in specific areas. The seating enables students to access the information in a relaxing and comfortable context.

Fig 7.33 Concept model of walkway to lecture room



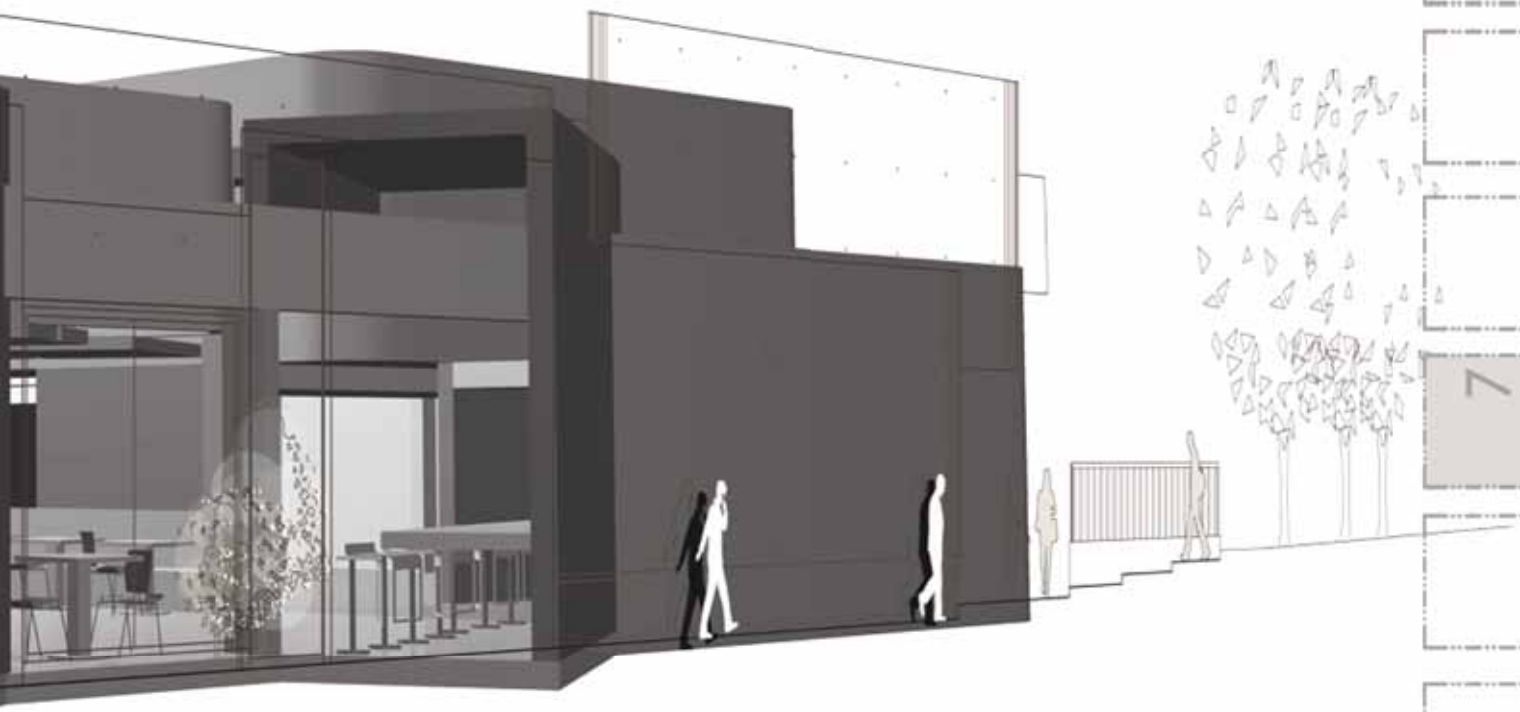


Fig 7.34 View of south elevation towards entrance

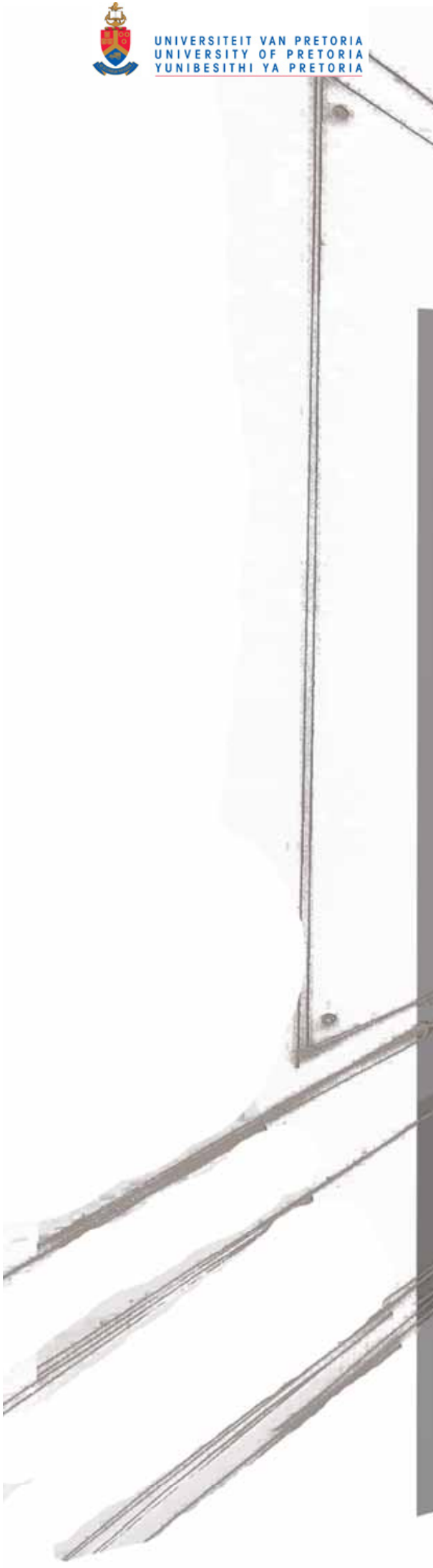


Fig 7.35 View from entrance towards deli

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UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

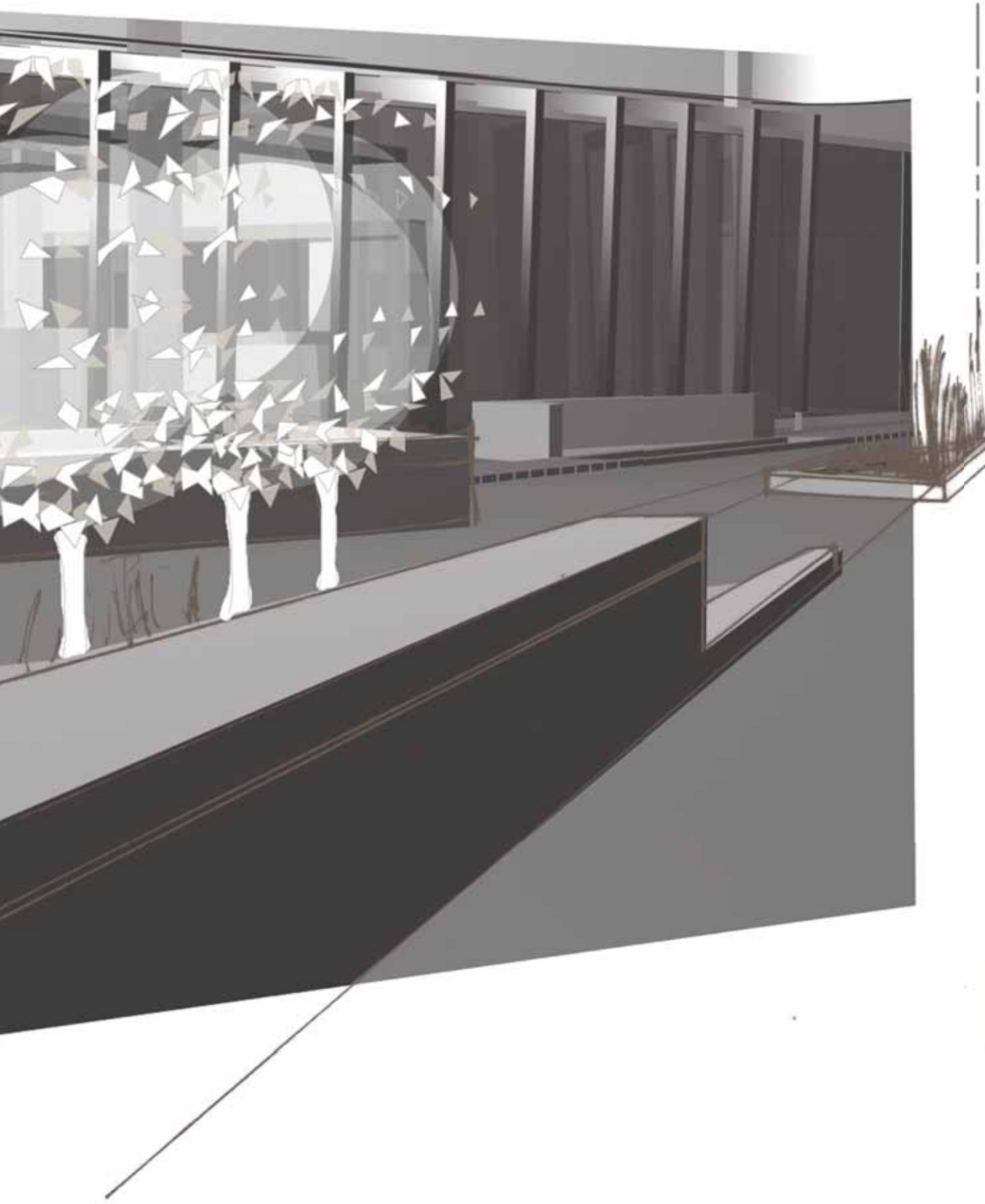

Fig 7.36 View towards courtyard