

06_PRECEDENT STUDIES



Fig.6.1. Temporary Exhibition of Renzo Piano Building Workshop portfolio



Fig.6.2.



Fig.6.3.



Fig.6.4.

SACKLER GALLERIES

NORMAN FOSTER & PARTNERS | London, UK

The Sackler Gallery at the Royal Academy of Arts is an extension to the existing historical buildings - the original Palladian house, and the Victorian gallery. The project demonstrates the improvement of an existing building through the sensitive combination of a contemporary intervention.

The project is a connection between the two buildings in an existing light well between them, into which a new lift lobby was inserted. The design exposes the exterior facade of the Burlington House, while using contemporary materials such as glass and steel to reveal more of the existing structures. According to Foster (2009), the project was the first of a number of their projects that demonstrate a clear philosophy about contemporary intervention in existing historical structures.

INFLUENCE ON DESIGN APPROACH

- _Use of glass and steel as a contrasting material to the existing (concrete).
- _Use of a break/light well to connect two buildings

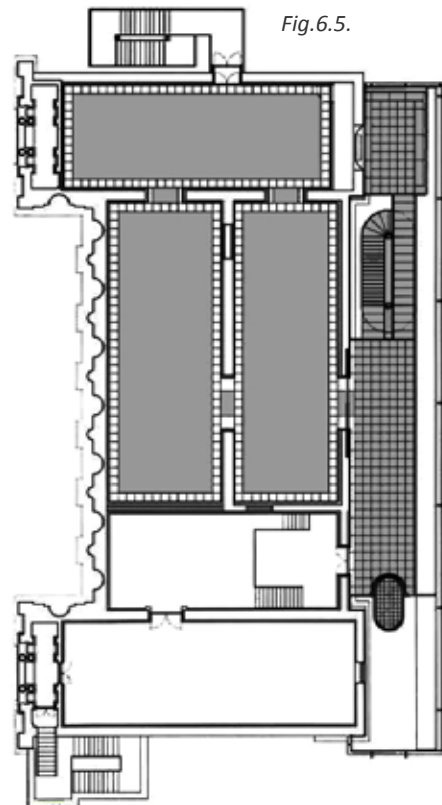


Fig.6.5.



Fig.6.6.



Fig.6.7.



Fig.6.8.

HECTOR PIETERSON MUSEUM

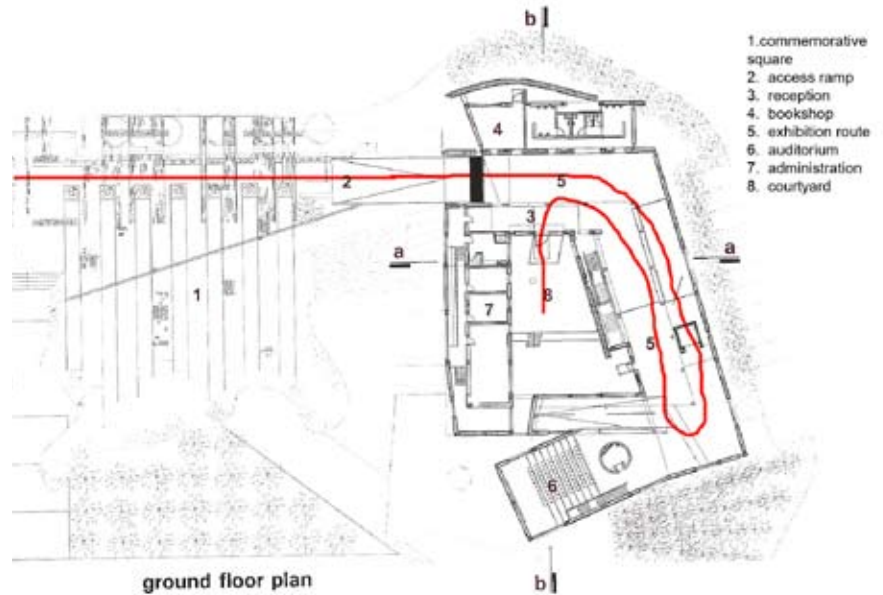
MASHABANDE ROSE ASSOCIATES architects + urban designers | Johannesburg, South Africa

This project was chosen as an example of a contemporary museum/exhibition space in South Africa and influenced the design in the approach to circulation and exhibition. The museum space is in essence a large ramp, leading from the higher level of the square, through exhibition rooms to a courtyard.

The exhibition includes printed material, photographs and audio-visual displays that are displayed on small televisions suspended midway between the floor and soffit. Large images are displayed on poster boards that are hung on the large blank brick walls of the museum. Glass doors and windows act both as story boards and as valves controlling flow through the building. Stories and quotes are printed onto glass surfaces, thereby allowing the on-looker to read the story and imagine it in the landscape beyond.

Finishes are raw: brick, steel and timber, and air conditioning and lighting are exposed, detracting as little as possible from the exhibit. (Joubert, O. 2008, p.130).

Fig.6.9.



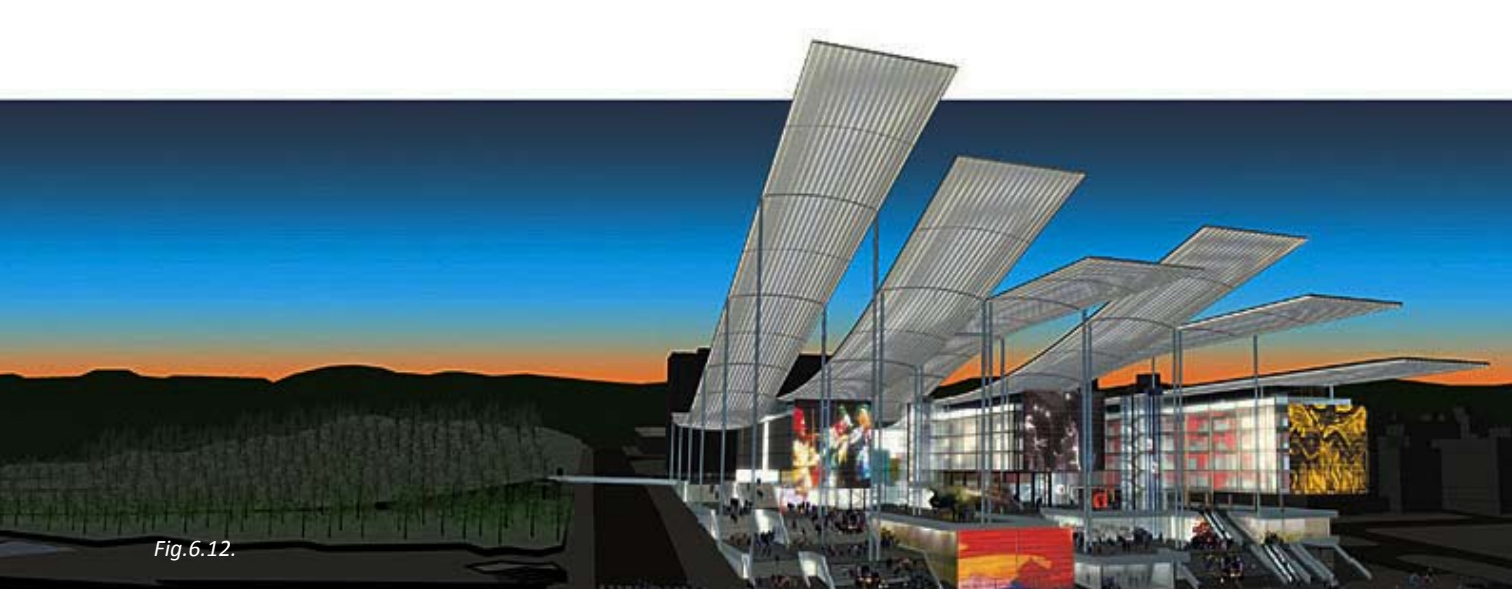


Fig.6.12.

SABADELL CULTURAL CONGRESS CENTRE

ROGERS, STIRK HARBOUR & PARTNERS | Sabadell, Spain

This project was chosen as an example of a cultural building with commercial functions. The project was a competition entry for an arts and congress complex in Sabadell in Spain.

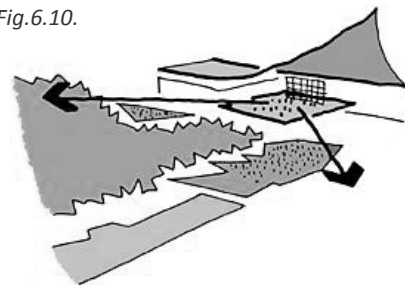
The centre is situated on the edge of a large park. It is a large open complex that consists of number of individual pavilions on a platform which is set back from the open space in front of the building. The functions are connected under a system of large roofs, giving the centre a feeling of being an open-air stage protected from the sun and rain by high light-weight roofs.

The centre is intended to act as a stage to the open space in front of it, incorporating a number of digital screens facing the park. At the same time, the building consists of a number of platforms that provide a view from the building onto the park.

INFLUENCE ON DESIGN APPROACH

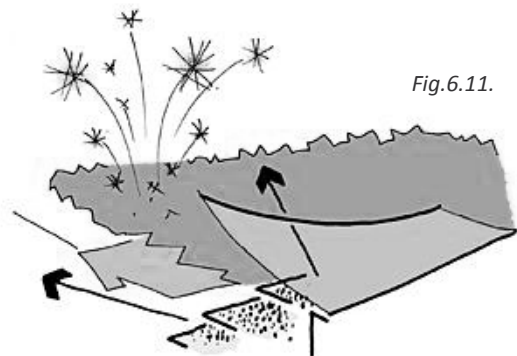
_Concept of a building being both a viewing point and a stage.

Fig.6.10.



The cultural centre forms a great stage to the park

Fig.6.11.



The park forms a great stage to the cultural centre



Fig.6.13.



Fig.6.14.



Fig.6.15.



Fig.6.16.

TATE MODERN

HERZOG & DE MEURON | London, UK

The influence of this chosen precedent is the spatial organisation of the first three levels. The project serves as an example of reutilization of existing architecture, as well as an example of a temporary exhibition space with industrial elements. The main entrance to the Tate Modern Gallery leads from ground level directly onto a ramp in the multi-storey exhibition space known as the Turbine Hall. This space acts as a blank canvas for large exhibitions and installations. Industrial elements of the Turbine Hall such as a moveable platform, and structural elements to which posters and displays can be mounted, are still in use.

From this space, one enters the formal gallery spaces through a staircase and walkway from the centre of the Turbine Hall, or a large escalator next to the museum shop. The walkway above the Turbine Hall serves as a lookout space, additional viewing space of temporary exhibitions.

INFLUENCE ON DESIGN APPROACH

- _Concept of temporary exhibition space that would be visible from the rest of the building.*
- _Combining new elements with an existing building.*

TRANSLATION

- _An exo-skeleton was envisioned to further open this temporary exhibition space to the public square.*
- _The second floor is stepped back from this exhibition space to allow viewing from the upper floor of the restaurant.*

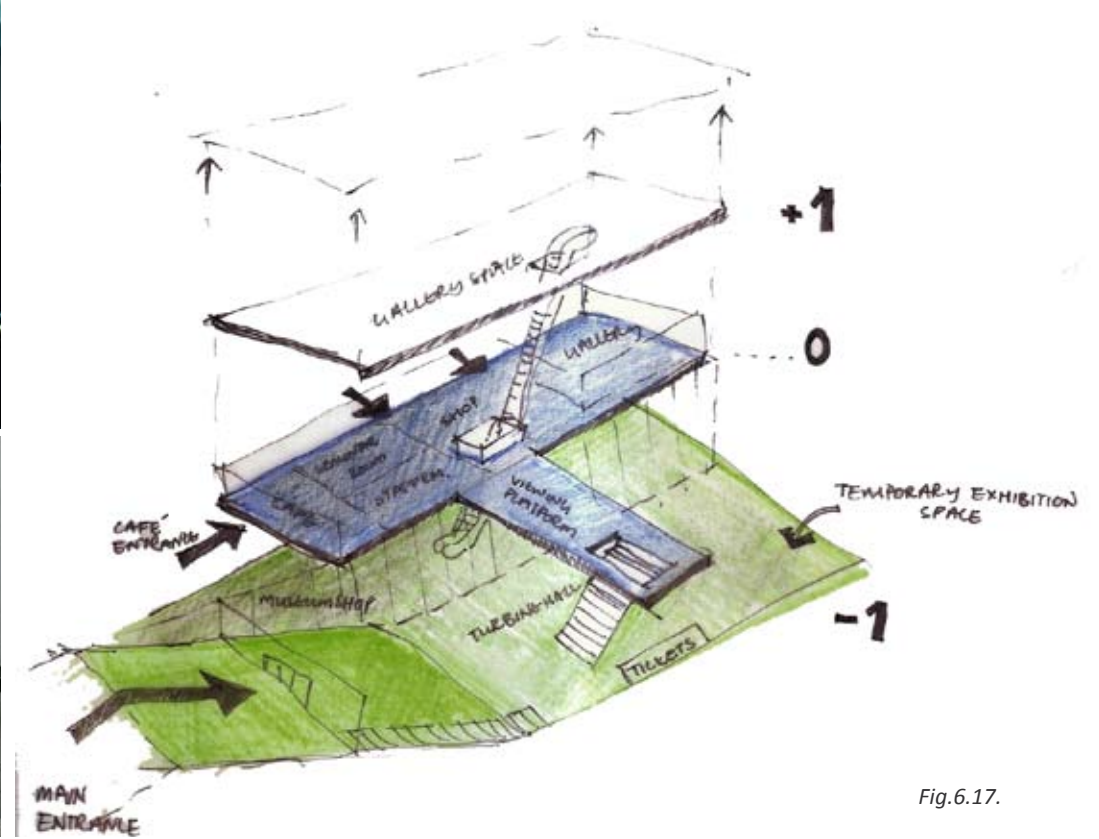


Fig.6.17.

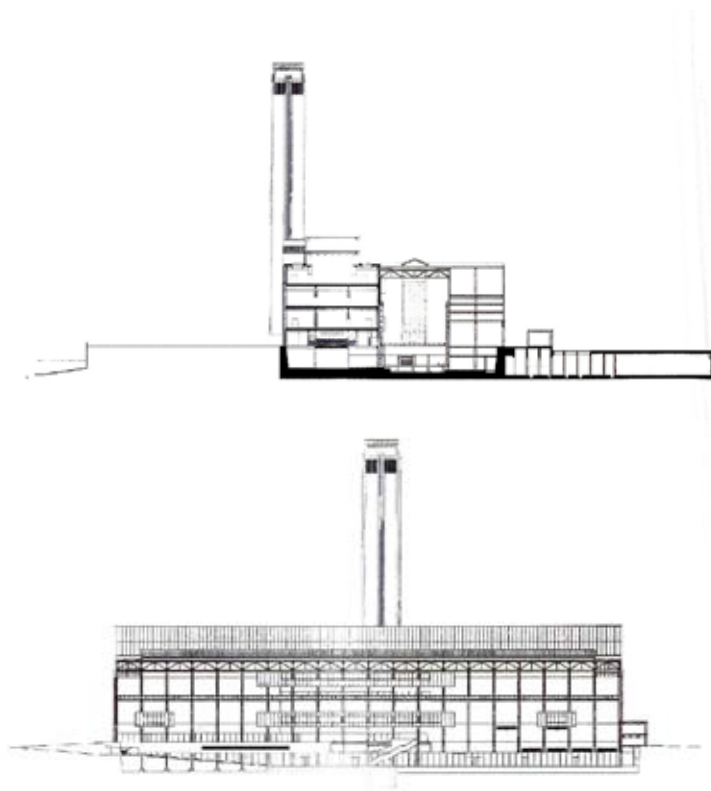


Fig.6.18.



Fig.6.19.

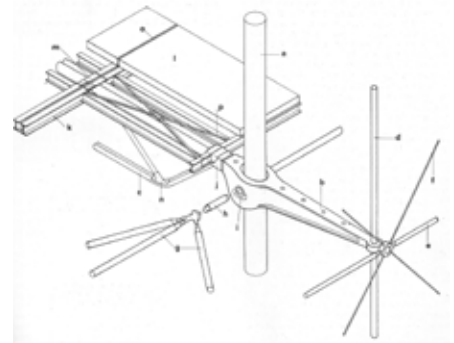


Fig.6.20. Axonometric detail of structural elements

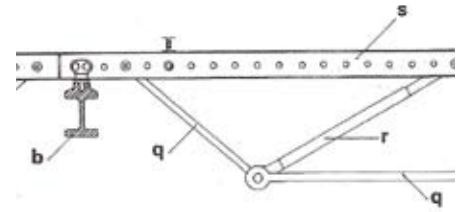


Fig.6.21. Detail section of floor composition

POMPIDOU CENTRE

RICHARD ROGERS + RENZO PIANO | Paris, France

FUNCTION AND ORGANIZATION

This project was chosen as an example of a multi-functional city building with its main function as an art museum. The centre also offers restaurants, shops, galleries, cinemas, classrooms and a library. The Pompidou Centre remains open and active from early morning to the late hours of the evening, ensuring a feeling of security in the square in front of it.

The building can be entered from the level of the public square (Fig.6.19). From here one enters into a central atrium space with a museum shop, cafe, ticket booth and entrance to classrooms. Cinemas and temporary exhibition spaces are situated on basement levels, while bookshops, permanent galleries and library rooms are situated on the upper floors. The roof level is reserved for special installations, experimental theatre and a restaurant (Fig 6.23 & 6.24)

FLEXIBILITY

The Pompidou Centre functions as a flexible shed. An external structural frame allows the building to be altered in plan, section and elevation to suit changing needs over the building's lifetime. The building consists of two sets of elements: The permanent structural system which forms a steel grid onto which building elements are attached (Fig. 6.20), and moveable building elements (including walls and floors) that can be added, repositioned or removed as necessary (Fig. 6.24).

This concept of flexibility is extended to every component of the building, from interior partitioning and services to large clip-on elements (escalators) that are attached to the main facade.

“All interior spaces could be rearranged at will and exterior elements could be clipped on and off over the life span of the building.” (Rogers, Stirk Harbour and Partners, 2009.)

CONNECTION TO PUBLIC SPACE

As discussed in chapter 4, Place Beaubourg is a very successful public space in Paris. Human movement in the Pompidou Centre can be watched from the square while the centre allows viewing opportunities from the west facade through horizontal and vertical movement. Circulation devices – elevators, lifts and escape stairs are clipped onto the western facade of the centre, taking full advantage of views over the city.

The building was envisioned as a “communication machine” with a skin of ever-changing information which would be visible from the public square. In the final design of the building, it was decided to implement a more traditional glass-curtain wall facade.

INFLUENCES ON DESIGN APPROACH

Organisational influence on this design project – Although the centre itself and the square is very successful, the building does

CENTRE GEORGES POMPIDOU (1977)
Description: Multi-purpose arts centre with an *exposed* articulated steel superstructure and concrete basement levels
Architects: Piano and Rogers
Structural engineers: Ove Arup and Partners

Assessment:
 view from NW

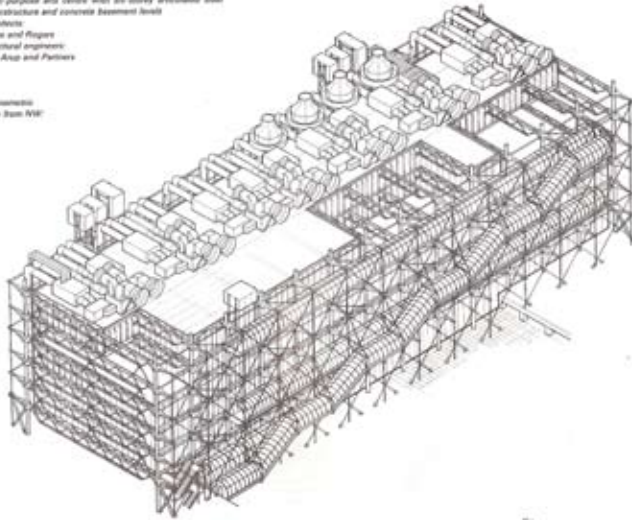
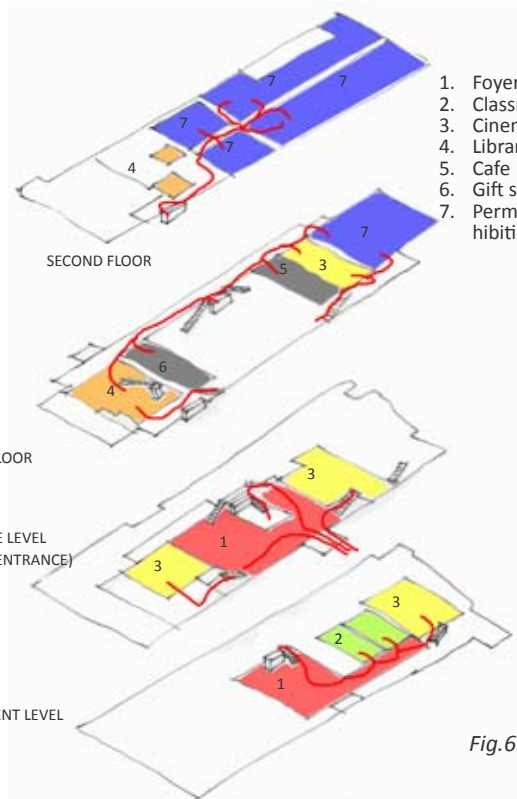


Fig.6.23.



1. Foyer
2. Classrooms
3. Cinema
4. Library
5. Cafe
6. Gift shop
7. Permanent exhibition space

Fig.6.24.

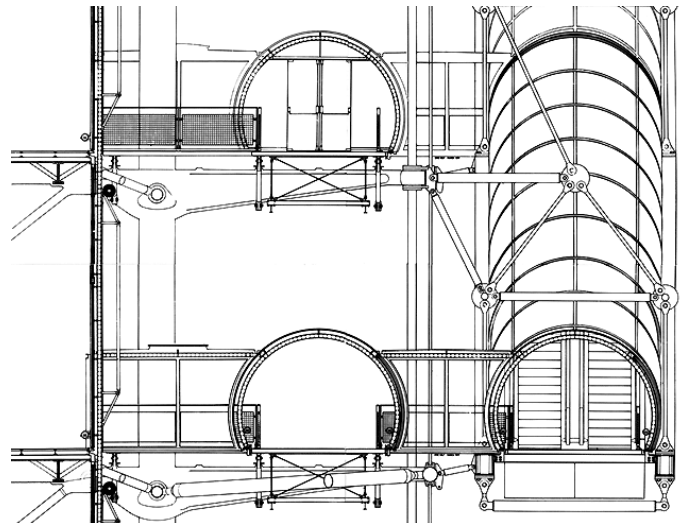
not offer any activities on the square itself. In the design of an intervention on Lillian Ngoyi Square it would however be essential to provide an active edge of shops and street cafes along the square to bring activity to the square. The edges of the square are made more accessible through the provision of stairs and an integrated ramp along the square's edges.

_Similar to the Pompidou centre, the building's main entrance is situated roughly in the centre of the facade. The idea of utilizing a basement level for cinemas is ideal in the case of Lillian Ngoyi Square because of an existing theatre entrance in the basement, as well as a possible link to the re-opened shopping centre in on ground and basement levels of the ABSA building.

_Following from the example of the Pompidou, the *exo-skeleton* of the design proposal allows a similar freedom of extension where structures can be clipped-on to

the exterior of the building. This structure allows for LED mesh screens as well as posters to be suspended from it, allowing the building to become a centre of information and image.

Fig.6.22. Section through facade and clip-on elements



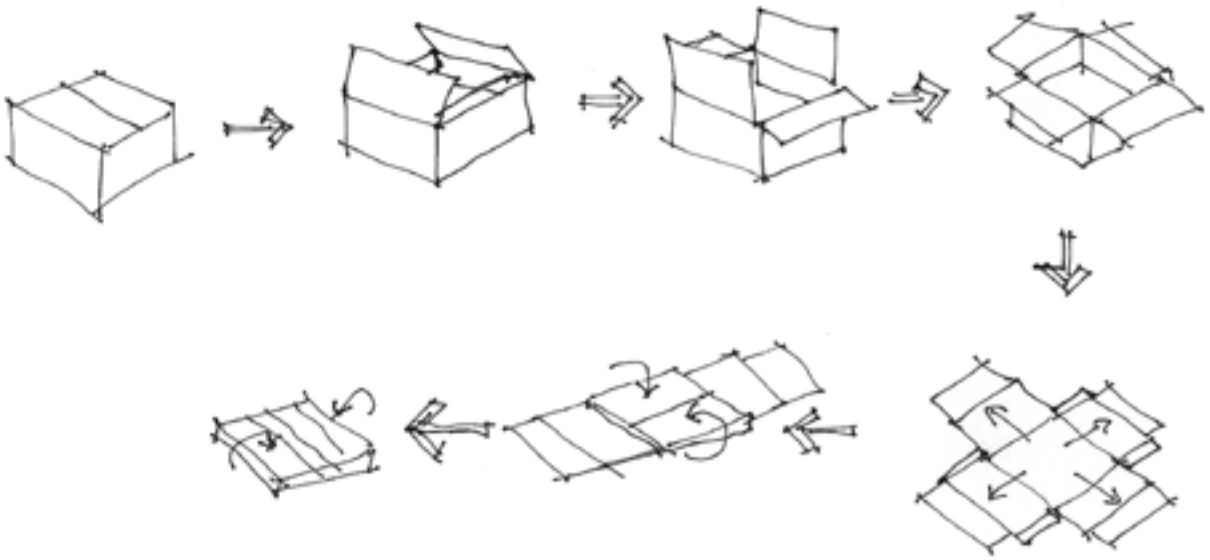


Fig. 7.1.

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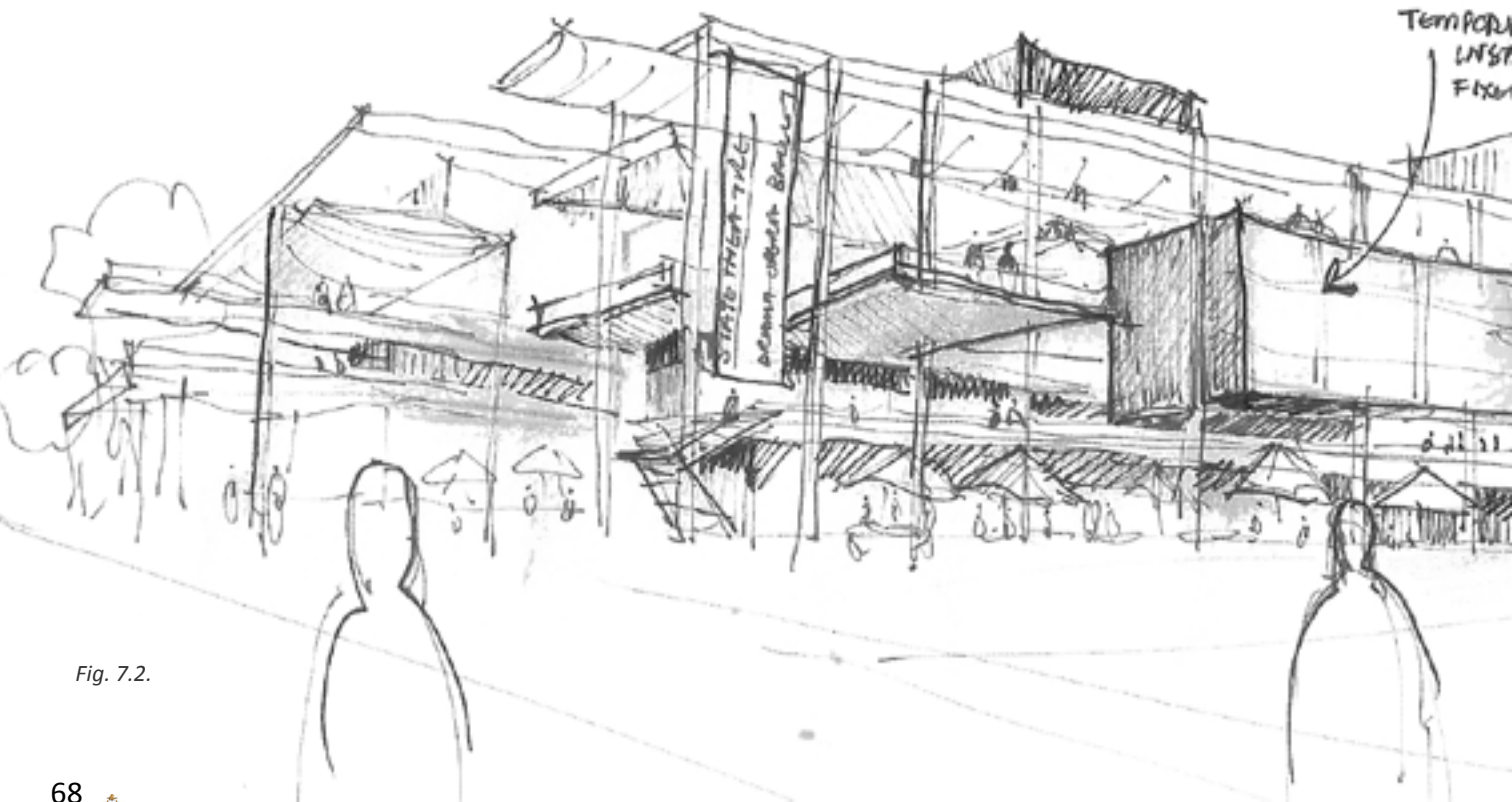


Fig. 7.2.

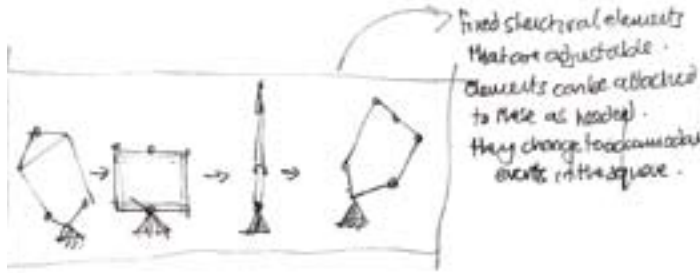


Fig. 7.3.

This project challenges the traditional concept of the theatre by breaking through the box, and extending the state theatre into the public square, thereby allowing the public to experience and learn about the performing and visual arts.

The success of the space will be tested on the following:

- Accessibility to all users both physically and visually.
- Comfort: Spaces to rest, sit in the shade, eat/drink
- Activity in the space and management of activities
- Opportunities for active/passive engagement - opportunities for watching as well as for spontaneous events
- Identity

DESIGN DEVELOPMENT



FORM DEVELOPMENT

The form and placement of the design proposal was derived from a number of factors. Primarily, decisions were based on conclusions derived in the site analysis and influenced by theoretical research. The primary focus of the project was to extend the State Theatre into the public square, thereby creating a space for outdoor theatre and concerts. The design attempts to join it to the existing urban fabric and give new life to the public square by improving access and comfort. Movement on and around the site was important to connect the site to the city. Development of the larger “cultural precinct” in later years was also a consideration.

Materials and architectural language were partly based on the existing context, with specific reference to the existing steel frame structures that form part of the Sammy Marks Square complex.

PROPOSAL 1_ march 2009

The project developed through the physical investigation of the site, the opportunities presented by the existing basement parking garage and the discovery of an original basement shopping centre underneath the Absa building. The initial concept was to 'open the box' (the box referring to the theatre and the parking garage below the square, as well as the ABSA building). These boxes were to be opened to the square.

This concept involved utilizing the underground parking space and the existing structure as the new building, creating only an entrance on the public square. Several options were investigated, including working mostly underground as well as different positions on the site. Another possibility was explored of creating a temporary intervention that could be installed in many different configurations and locations on the square.

After careful consideration of the implications of each of these options, it was decided that the most important threat on the square – the lack of activity – could most effectively be addressed through the addition of a new "filter" building to the West of the State Theatre.

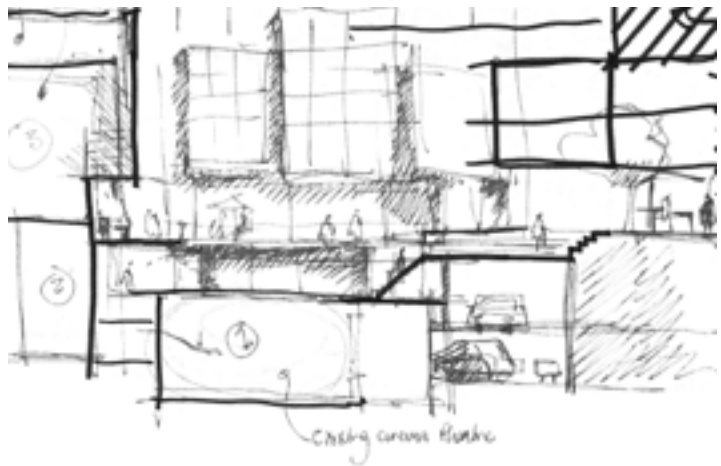


Fig. 7.4. Exploration of levels

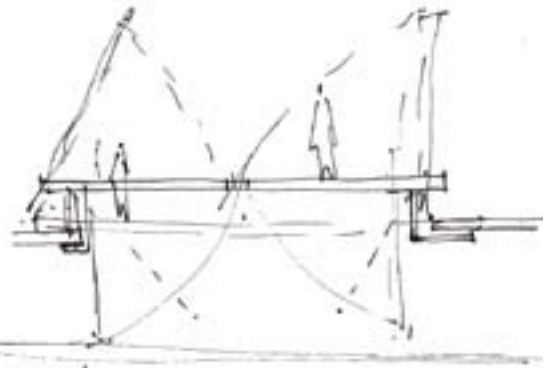


Fig. 7.5. Openable stage concept

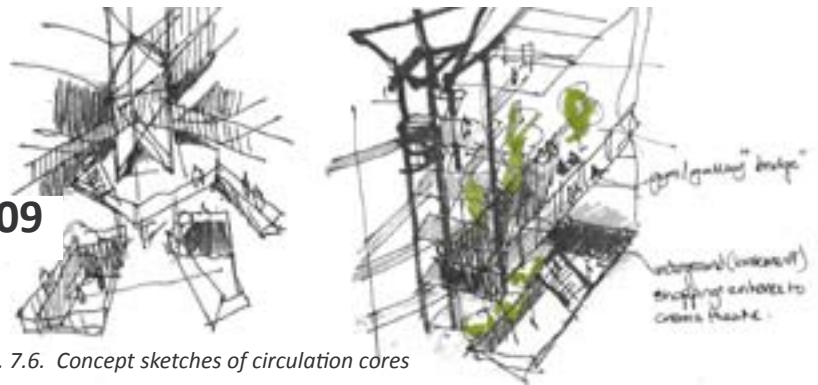


Fig. 7.6. Concept sketches of circulation cores

PROPOSAL 2_ april/ may 2009

The second proposal was to respond to the Sammy Marks Square Shopping Centre through the introduction of an arcade space between the State Theatre and the new intervention. This would allow the preservation of the Theatre building and create a new, friendlier entrance to the Theatre, whilst activating the public square. The new intervention would consist of a lightweight structure, contrasting with the existing building and symbolizing openness and transparency. It was decided to make



Fig. 7.7. Concept section through central circulation core and office boxes

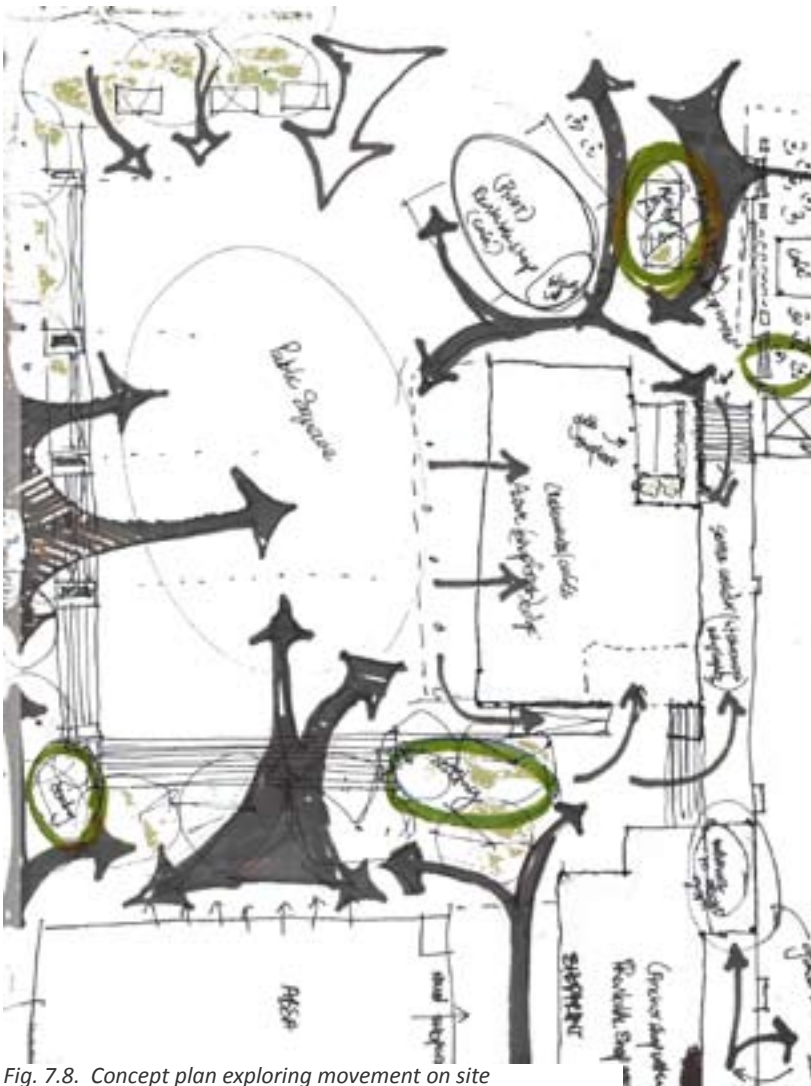


Fig. 7.8. Concept plan exploring movement on site

use of steel as the primary structural material.

The concept involved a number of “pavilions” on a plinth (created by the ground floor shops facing the square). The “pavilions” were to be lifted from the plinth. The space between the square surface and each box/pavilion was dedicated to an open shopping centre with a number of screens facing the square. The concept involved the building becoming a large screen to the square, but did not satisfy the intention of a “filter”.

Movement patterns and usage of the square was explored. A large central circulation space was envisioned, linking the Absa building, State theatre and new structure together through a system of walkways and a scenic lift.

The proposal was too large and bulky and did not satisfy the intention of the project, which was to create an open-air theatre on the square. Furthermore, the architecture did not relate to any of the existing architecture surrounding the site.

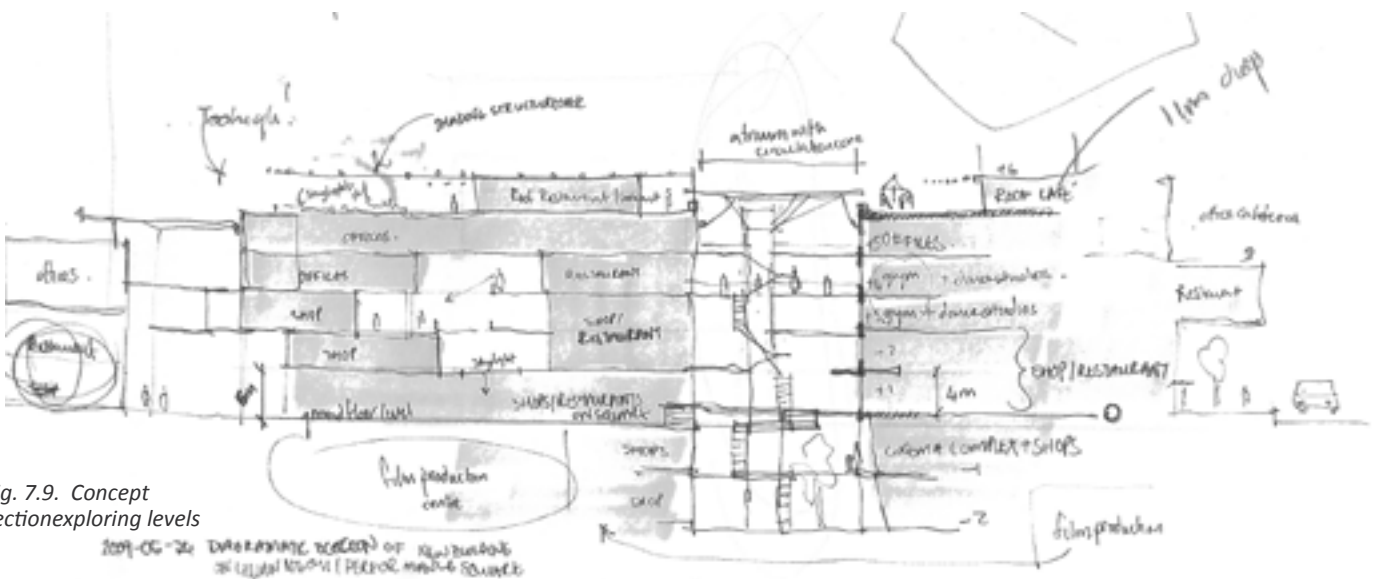
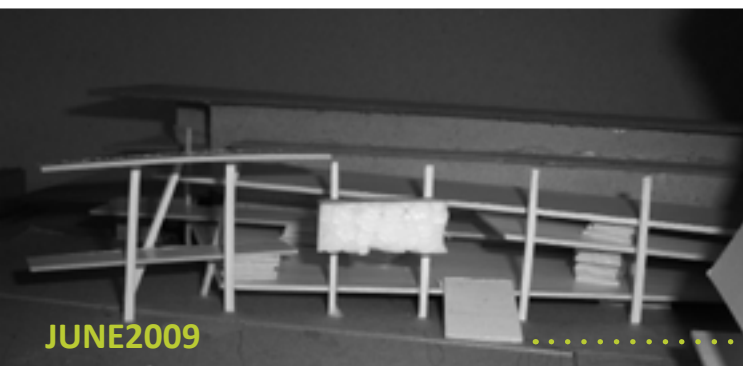
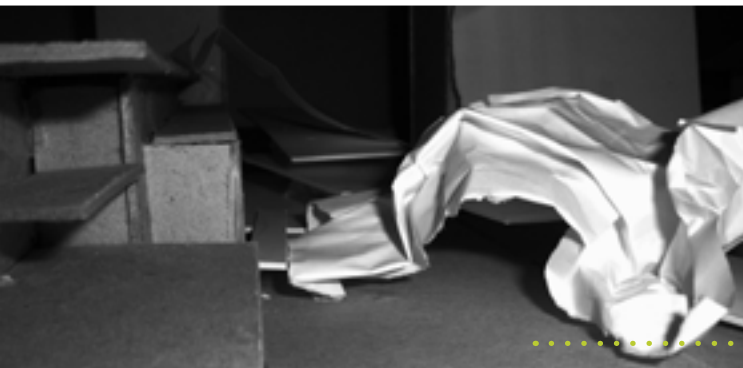
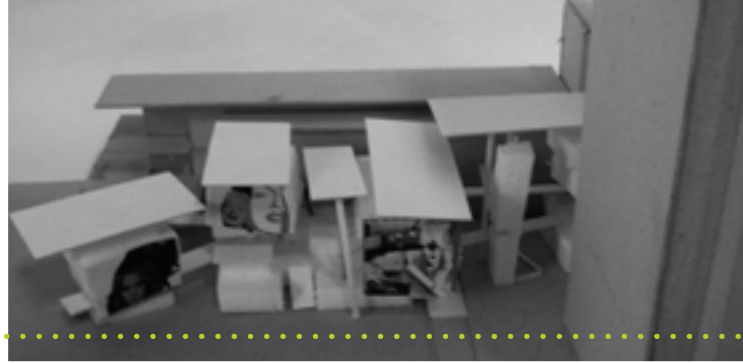


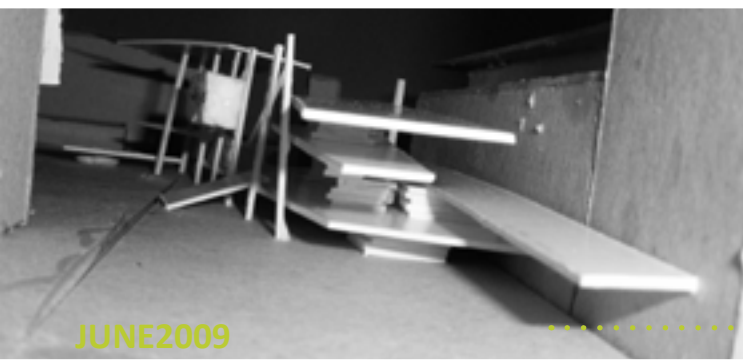
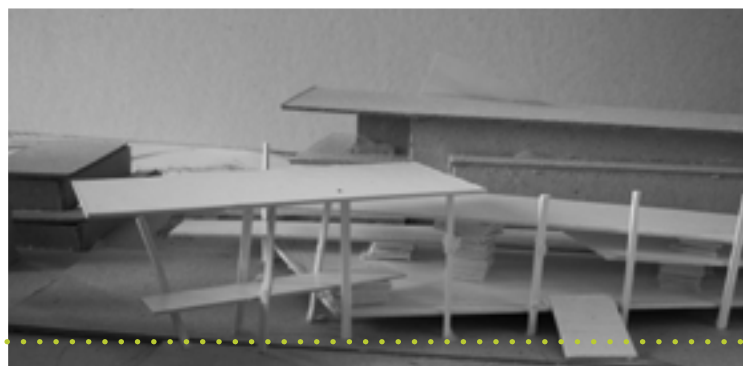
Fig. 7.9. Concept section exploring levels



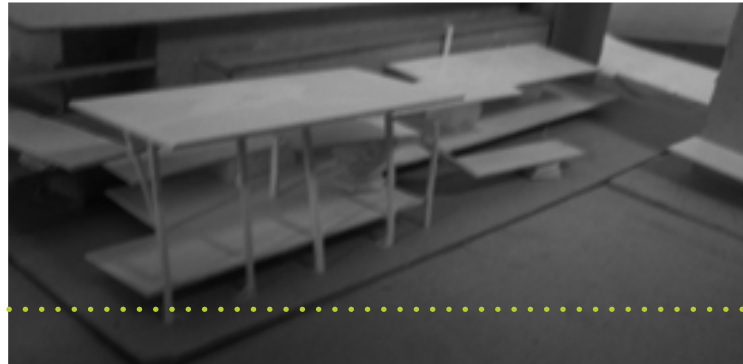
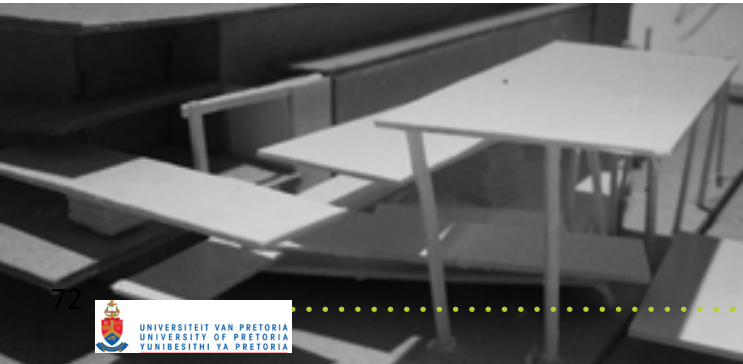
PROPOSAL 2 MAY 2009



JUNE 2009



JUNE 2009



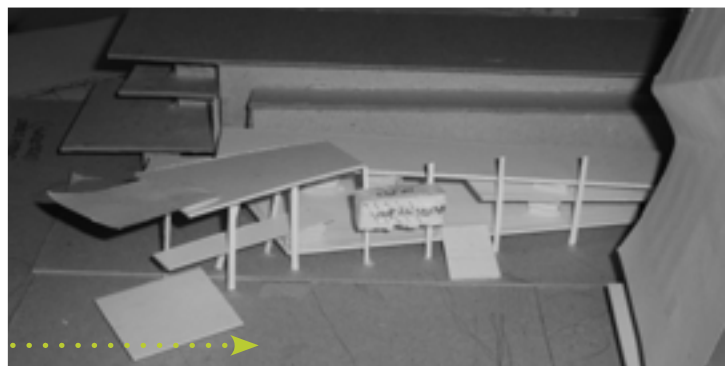
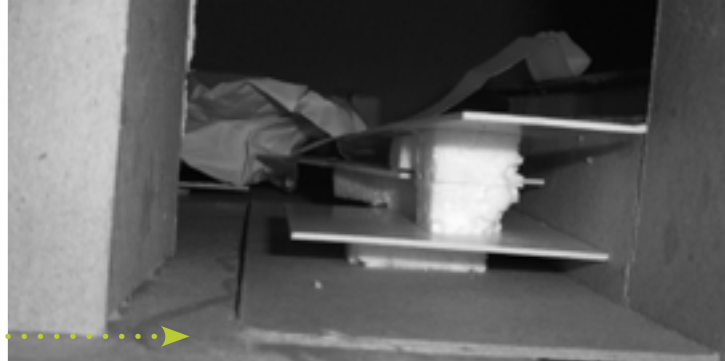
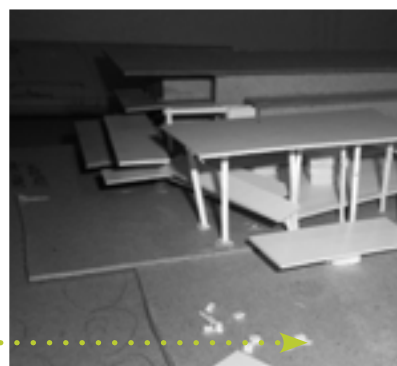


Fig. 7.10.

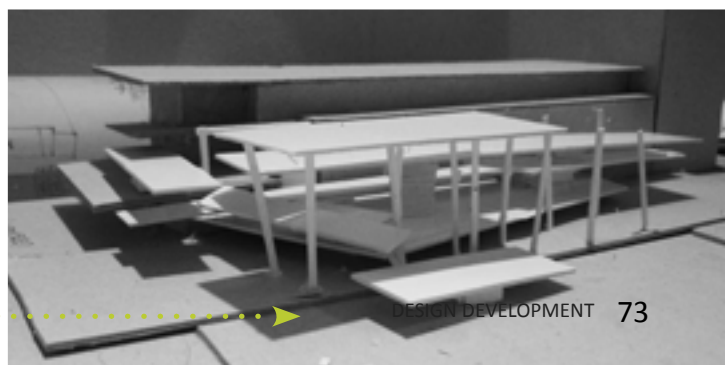
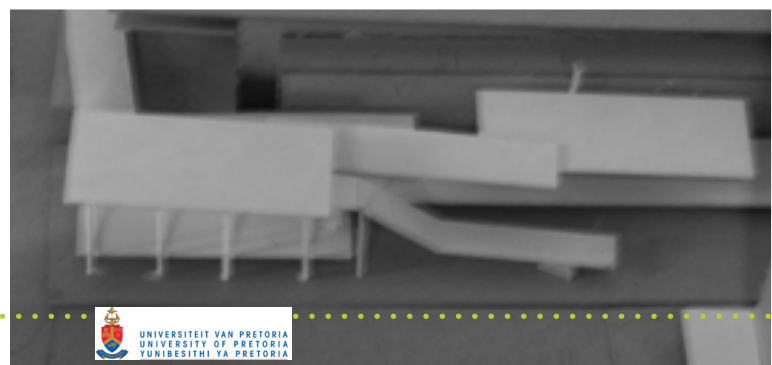
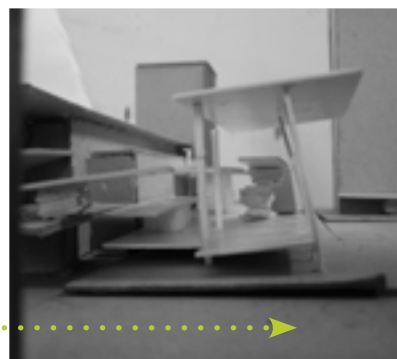


3D EXPLORATION

The use of physical models aided in the exploration of form and placement of structure. Physical models were used in the design exploration during May and June. After a basic layout and shape were determined, exploration continued

The stage concept was derived from proposal 2 and now taken further. A definite formal outdoor stage/balcony area overlooking the public square was envisioned on first floor level. Elevating the stage to first floor level allows it to become both a stage and a look-out point. One could view the public square without feeling like the centre of attention, but formal performances could be experienced as a formal event. This also allows the square to become a space for informal performances. From the stage/balcony area one would be able to move to the restaurants and a gallery on first floor.

The ground floor is used for small shops and cafes spilling out onto the public square.



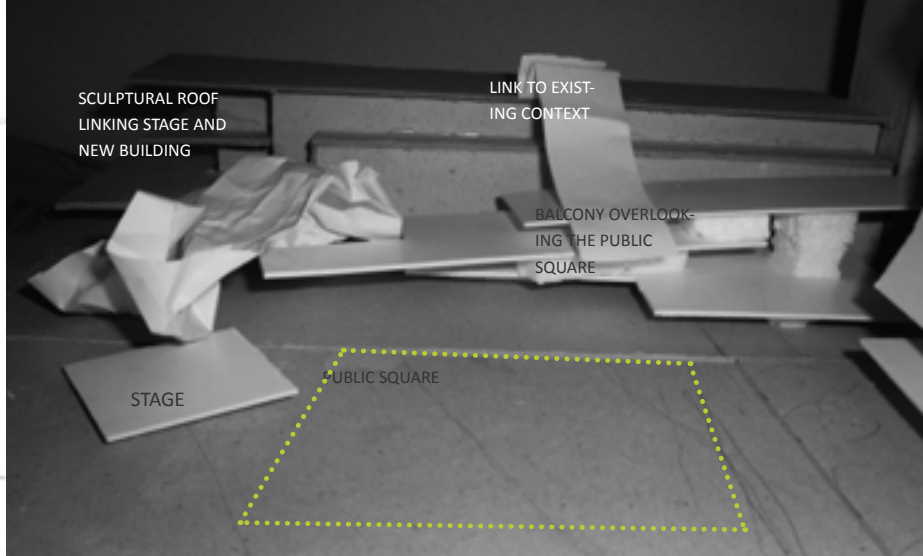
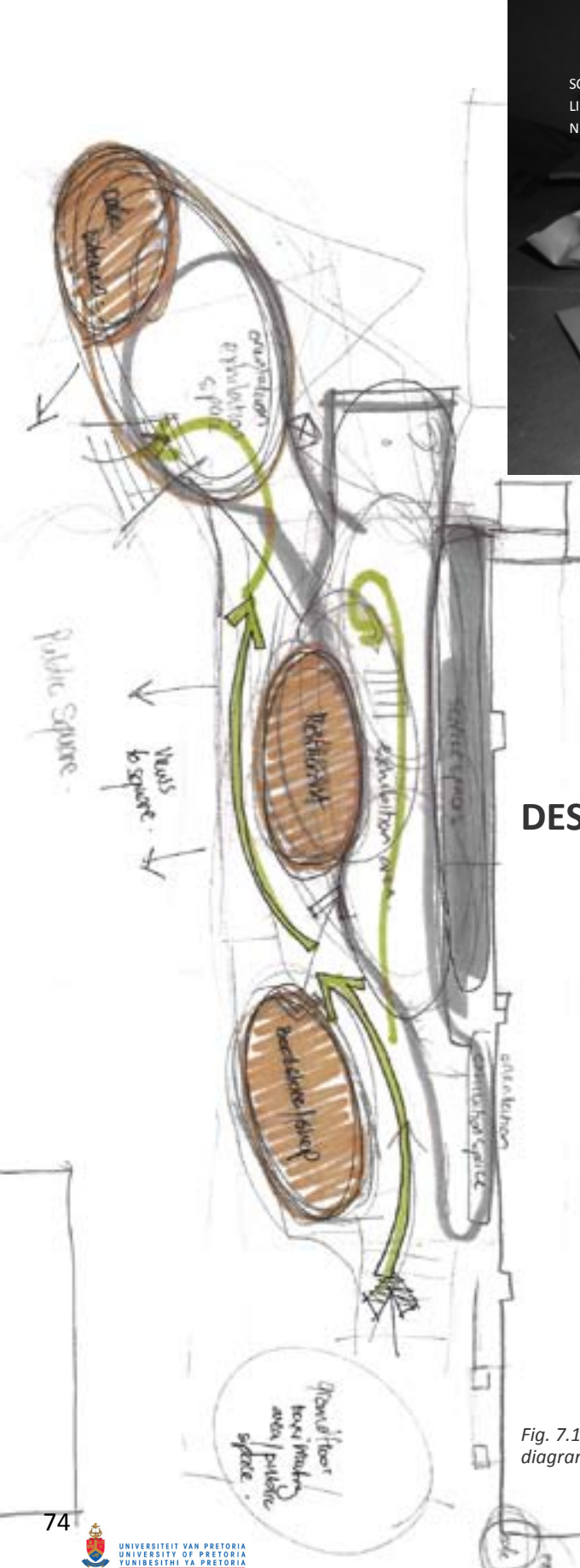


Fig. 7.11. 3D Exploration Proposal 3

DESIGN DEVELOPMENT MAY-JUNE 2009

The third proposal involved a more sculptural and lighter approach to the site. The proposed building would act as a pavilion and stage with entry points to the State Theatre on upper levels. A sculptural canopy connected the stage and the rest of the structure but allowed no interaction with Sammy Marks Square and the State Theatre on the Northern edge. The two structures would be viewed as two separate entities with no relationship between one-another. A better connection between the old and the new needed to be developed.

Fig. 7.12. Circulation and functional arrangement diagram for proposal 3

PROPOSAL 4_ june 2009

Fig. 7.13. External frame concept

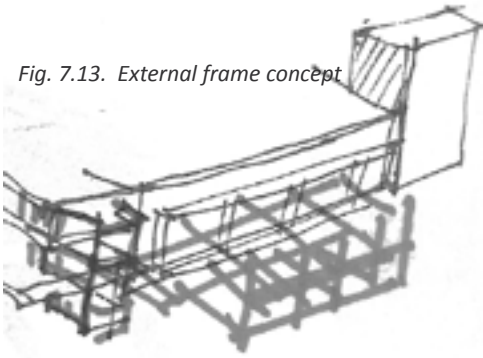
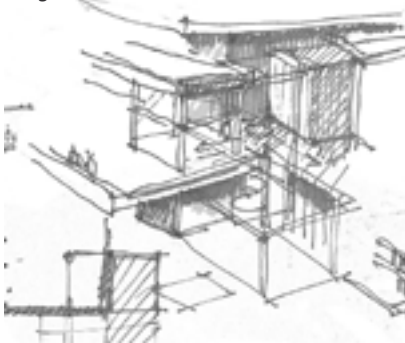


Fig. 7.14. Frame concept sketch



Fig. 7.15. Transition between old and new



Here, the focus was to create a better transition and link between the existing and the new. A “floating” bridge structure, linking the existing building and new building, was created. This element would form the roof of a new cafe on the balcony of the State Theatre, as well as the floor of an open-air exhibition platform that links to the second floor of the new extension.

This proposal revisited the stage area on first floor level which allowed users of the new museum/restaurant space to view performances on stage. These users were still visible from the public square, thereby exposing the performing arts to the maximum amount of people. The building would host a restaurant on first floor, as well as a shop and performance space, whilst the second and third floors would be reserved for dance studios and an educational programme, involving a gallery/museum component and a library.

Placing a stage of first floor level created the opportunity to utilize the existing theatre’s equipment, props and stage decorations. The first floor level would be placed at the same height as the existing theatre’s height. This would enable the museum and exhibition space to utilize the existing stage wagons for performances and allow for easier transport of equipment and decorations to exhibition and performance spaces.

Breaking through the facade of the existing building allowed opportunities for opening up the theatre and created a visual filter from the museum spaces into the back-of-house areas of the existing theatre.

This change gave the public a glimpse into the inner workings of the theatre.

The new building would be a filter in structure:

- physically connecting the theatre to the public square, material
- allowing views through to the original building and functions
- educating the general public about the theatre, and
- acting as an extension of the building’s many large balconies.

A large structural frame is placed on the western façade, forming a balcony on first floor level. This frame acts as a temporary exhibition space for the gallery/special functions, for rock/pop music concert decorations and for a media screen/shading structure, thereby protecting the internal spaces from the harsh western sun.

Fig. 7.16. Concept section exploring levels

july 2009

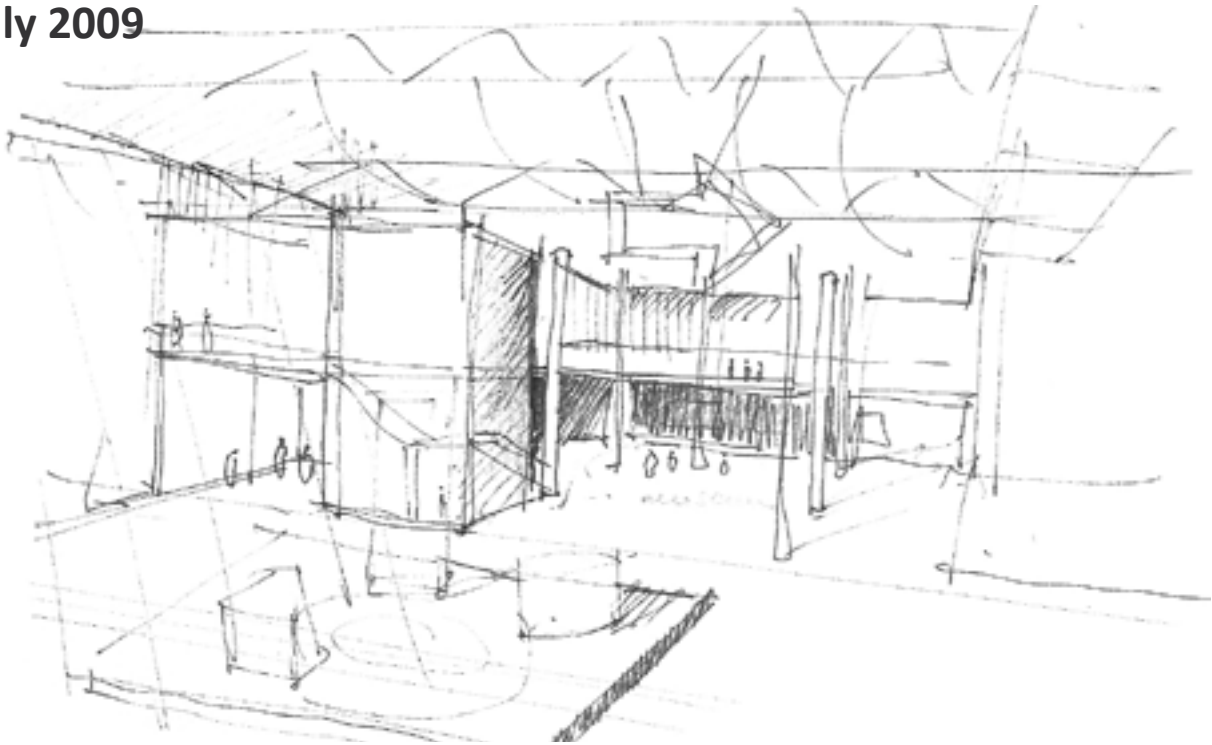


Fig. 7.17. VIEW FROM CAFE ONTO CENTRAL EXHIBITION SPACE

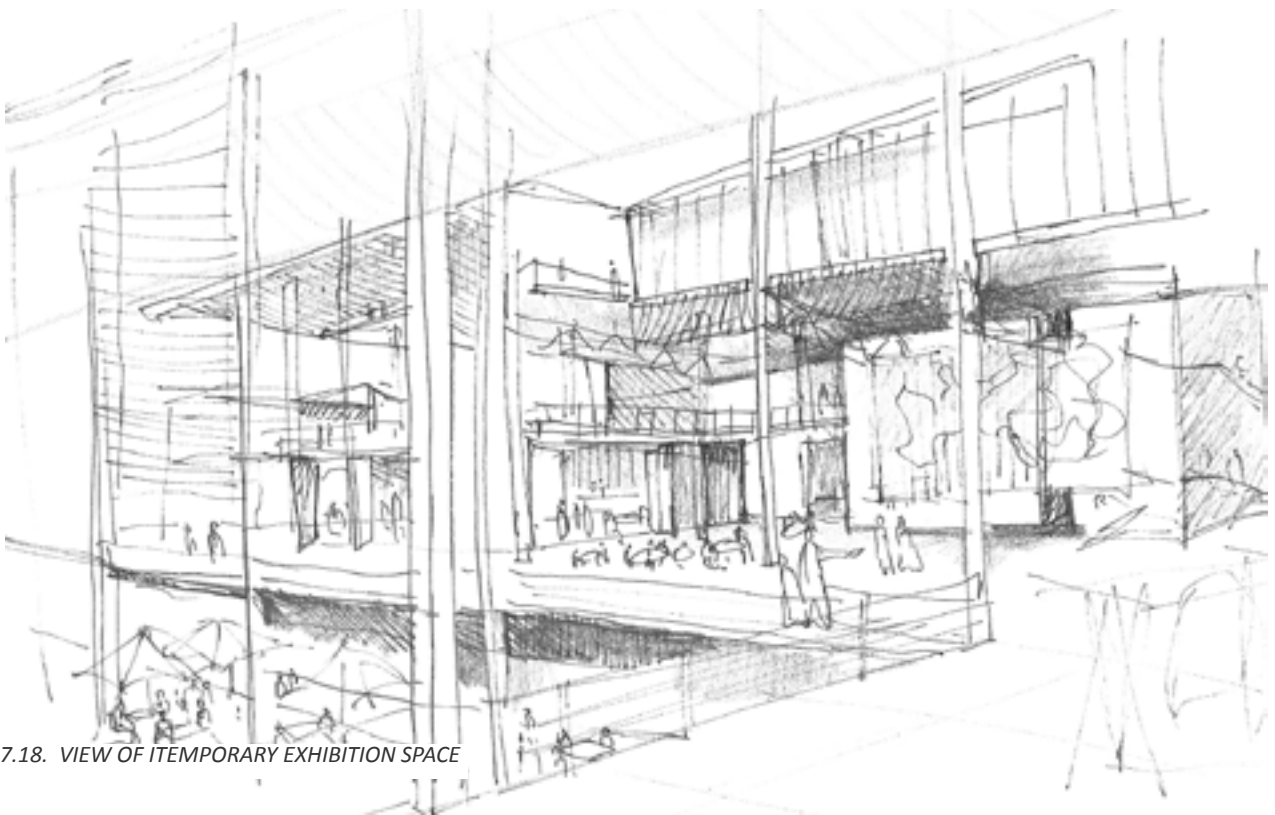


Fig. 7.18. VIEW OF TEMPORARY EXHIBITION SPACE

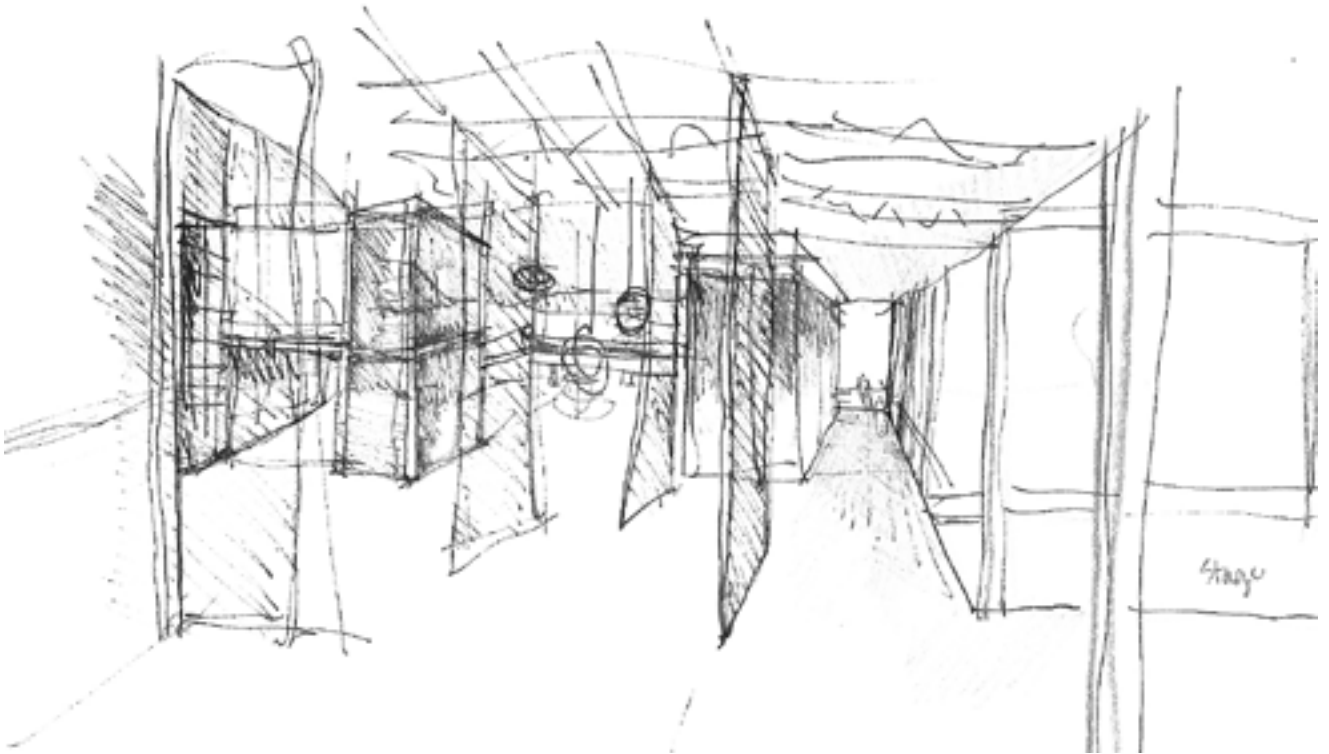


Fig. 7.19. VIEW OF TEMPORARY EXHIBITION SPACE DURING EXHIBITION

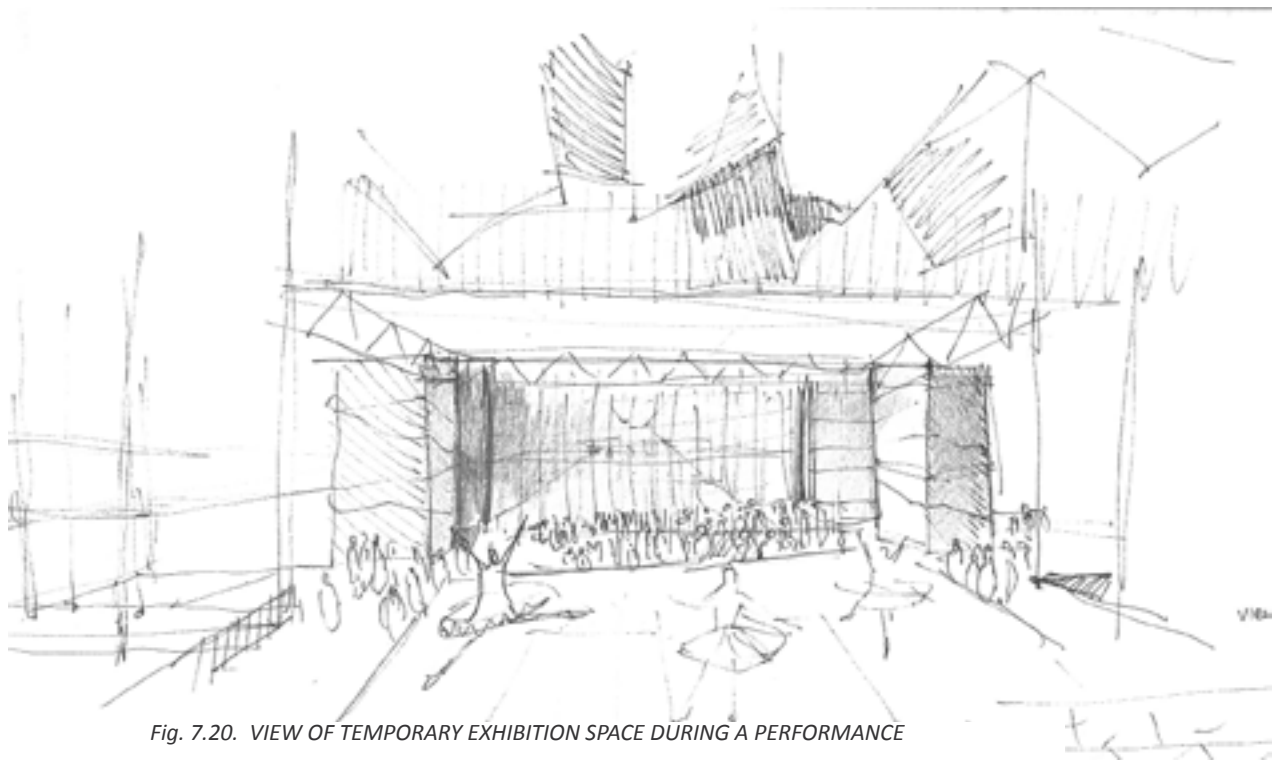


Fig. 7.20. VIEW OF TEMPORARY EXHIBITION SPACE DURING A PERFORMANCE

Fig. 7.21. Proposal 4: View of new extension from the corner of Church and Van der Walt Street





THE SQUARE

The development of the square was the starting point for the thesis. Although the focus of the design is on the architectural intervention, the site development is a major part of the design proposal. As mentioned in Chapter 3, Squares must be designed to accommodate basic human needs, and rights and should be designed to draw people and keep them in the space for the maximum period of time. These points have been applied to the proposed design as follows:

NEEDS - comfort, security, activity and basic needs

- The new extension to the State Theatre provides rentable shop space and restaurants on ground and first floor levels, where the user can buy food and beverages
- Opportunities for passive and active engagement were created by providing shaded steps on the edges of the square where visitors can sit in the shade created by Celtis Africana trees planted along the edges of the square, while watching the activities on and around the square.
- The stage and media screens of the proposed extension to the State Theatre are best visible from the steps at the edges of the square
- A water feature in the centre of the square provides a space where children can play during warm summer afternoons. The fountain jets are installed flush with the square surface. This optimizes the amount of the square's surface that can be used as standing area during a summer concert.
- Street lighting and additional strip lighting in the pavement are provided to enhance the security on the square at night.

RIGHTS - freedom of access/use

Disabled visitors can easily access the square via a ramp on the Southern edge

of the square, or on street level via Church Street.

Informal traders are encouraged to set up trading stalls along Van der Walt and Church Streets where the majority of fast moving pedestrian traffic is expected to occur. Together with the new rentable shops and restaurants on the square, informal trading activity could draw more users to the square and create more activity.

MEANING & IDENTITY

The design proposal suggests that the square becomes a place of activity, relaxation and public performance. The intention of the design is to provide the square and the State Theatre an image of accessibility. The surrounding area could become a new cultural precinct that encourages public performances and exhibitions of art/performance.

MANAGEMENT AND MAINTENANCE

The square could be maintained by the Government and the State Theatre. By allowing the public square to become an extension to the State Theatre as an outdoor theatre, maintenance of the square becomes the responsibility of the State Theatre and of the tenants who rent shop and restaurant space overlooking the square.

Income could be generated through the renting of shops and advertizing space, as well as renting out the square as a flea-market on weekends and hosting outdoor concerts. The project could be an investment of the State Theatre into its own future, promoting the arts to the man on the street.

INNER SQUARE

Fountain jets and drains are installed flush with the pavement surface in the centre of the square. The water feature may be activated on hot summer afternoons where children can play and the water will cool down the square's surface. Excess water

will drain away immediately to reduce unwanted quantities of water on the square surface.

OUTER SQUARE

The Van der Walt Street sidewalk is altered to provide steps and seating for pedestrians to sit in shaded areas while viewing the activity on the square. Informal traders are encouraged to set up their stalls in this area as most pedestrian movement is expected on the edges of the square. Steps and a ramp on the southern edge of the square provide easy access to all visitors.

The Van der Walt Street surface is paved and raised to slow the vehicular traffic and to extend the pedestrian "square" to the western edge of Van der Walt Street.

The ABSA office tower is altered: the banking mall (currently on the ground and first floor levels) is moved to the basement level. Shops are reinstated on the basement levels and the ground and first floor levels refurbished with restaurants and shops opening onto the square.



1. NEW WATER FEATURE AND PAVEMENT LIGHTS
2. NEW STAIRS/SEATING
3. WIDENED SHADED SIDEWALK AND TRADING SPACE
4. NEW CAFE
5. EXISTING INFORMAL TRADING STALLS
6. NEW SHOPS AND CAFES
7. SHADED WAITING AREA
8. RAMP AND STAIRS
9. ROAD SURFACE RAISED AND PAVED WITH COLOURED BRICK PAVING

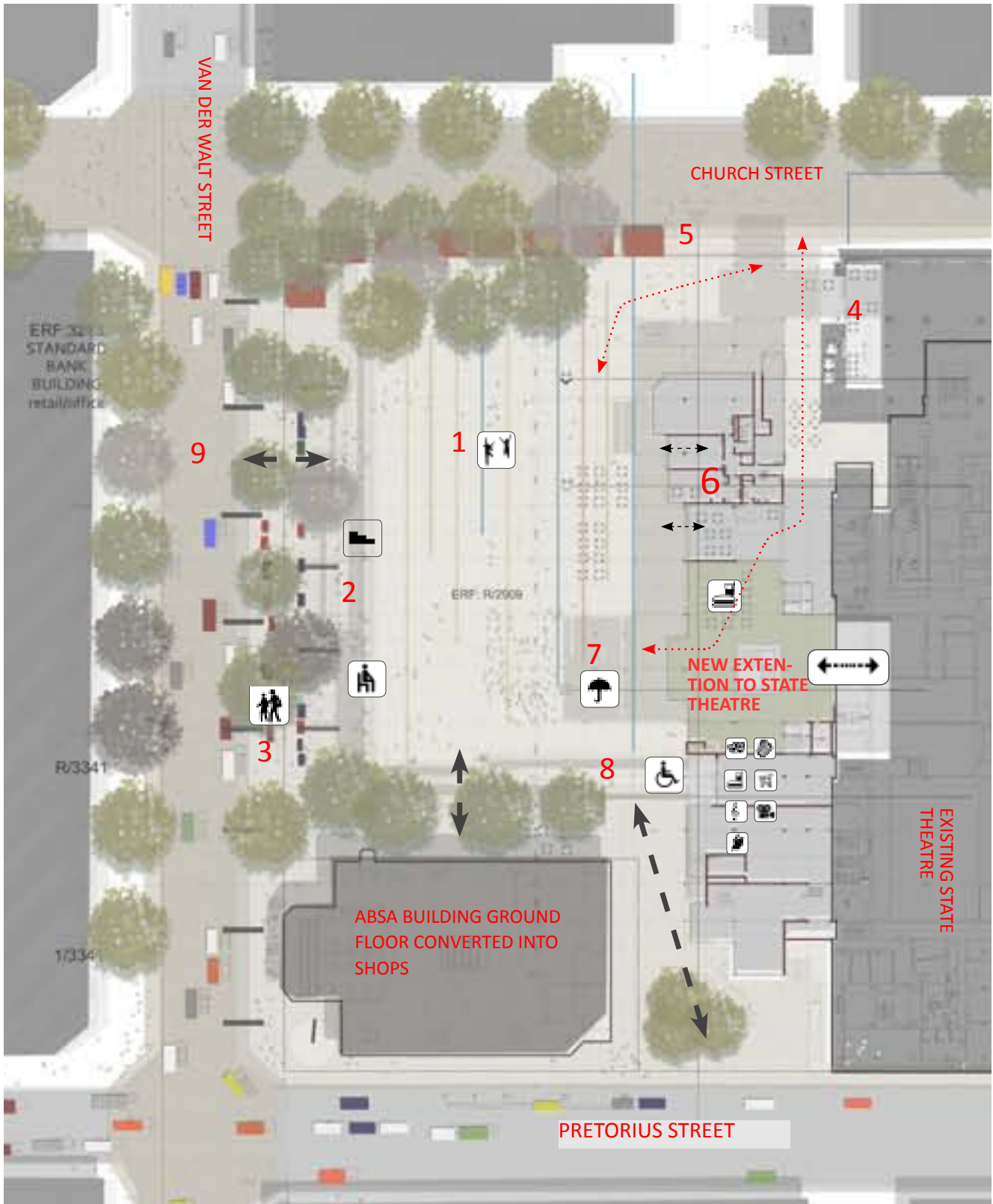


Fig. 7.22. Final proposal: Site Plan

OUTER SQUARE

The Van der Walt Street sidewalk is altered to provide steps and seating for pedestrians to sit in shaded areas while viewing the activity on the square. Informal traders are encouraged to set up their stalls in this area as the most pedestrian movement is expected on the edges of the square. Steps and a ramp on the southern edge of the square provides easy access to all visitors.

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The ABSA office tower is altered: the banking mall (currently on ground and first floor level) is moved to the basement level. Shops are reinstated on basement levels, and the ground and first floor levels refurbished with restaurants and shops opening to the square.

INNER SQUARE

Fountain jets and drains are installed flush with the pavement surface in the center of the square. The water feature can be activated on hot summer afternoons where children can play and the water will cool down the square’s surface. Water drains away immediately to reduce unwanted load of water on the square surface.



Fig. 7.23. Inner and Outer square

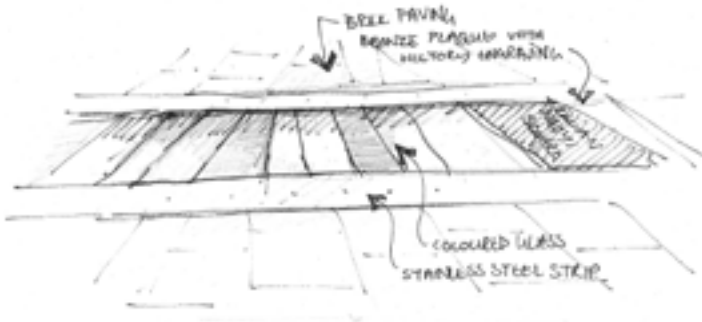


Fig. 7.25. Strip of coloured lighting on square surface

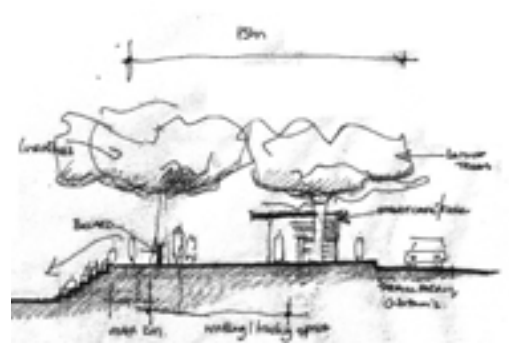


Fig. 7.24. Concept section of sidewalk



Fig. 7.26. Water feature in Geneva



Fig. 7.27. Grid detail, water feature in Geneva



Fig. 7.28. Girl playing in water

ORGANIZATION

Functions are arranged around the central stage and the temporary exhibition space. Restaurants situated to the north, open onto Sammy Marks Square and the State Theatre balcony. Two bridges on the first and second floor levels link the State Theatre to the new extension through an outdoor exhibition space. Originally, a service core was placed on the western edge of the State Theatre. This would compromise the existing façade and views to the existing building. The service core was moved to the centre of the restaurant, allowing free views to the surrounding context and existing building.

A sky-lit atrium space was introduced between the existing and new buildings. Stage decorations and props may be suspended from the steel building frame and will be visible from both the central exhibition space and the restaurant space.

THE GALLERY

LOCATION_ The gallery is located to the south of the central exhibition space. The gallery does not require as much interaction with the public square as would be required by the restaurant spaces, and may therefore ideally be located in a less prominent position. The gallery is a part of the new suggested educational programme of the State Theatre and it is positioned near the administration tower of the theatre, which is the back-of-house entrance.

FORM_ because the gallery will not display paintings or wall-mounted elements, it is unnecessary to provide walls. It is suggested that the gallery/museum could house a permanent collection of stage decorations and wardrobe items used in previous shows, as well as images and descriptions. Content of the gallery/museum could be displayed by suspending the objects from the building structure. Digital television screens could also be suspended between floor and ceiling. Descriptions of objects and other text may be printed on film on glass.

As previously mentioned, the old and new do not completely touch. A glass floor extends from the gallery to the edge of the exterior of the original façade of the theatre. The row of glass tiles closest to the existing façade is a clear glass, while others are frosted. This row of clear glass and a triple volume space to a skylight above, allow visitors to experience the entire existing façade. It is suggested that large pieces in the wardrobe collection and suspended stage decorations are suspended from the steel structure in this area. The gallery may be decorated as a stage, allowing visitors to learn and experience more of the stage construction and decoration process.

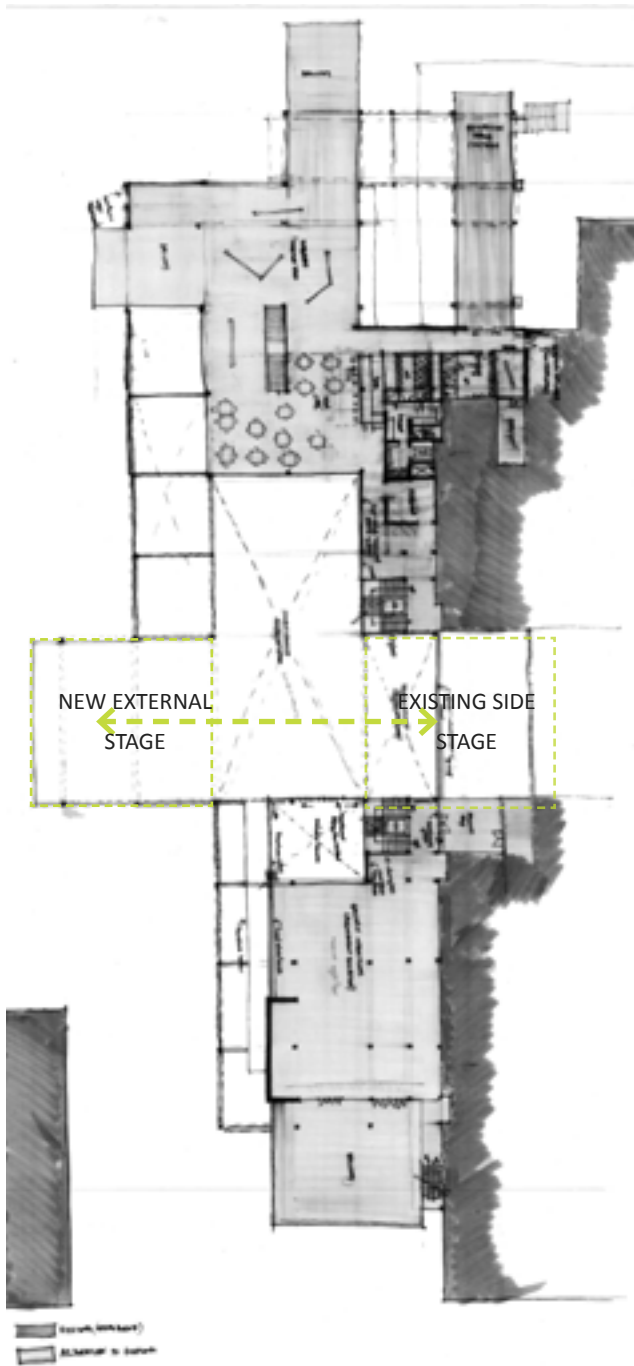


Fig. 7.29. Concept plan First Floor

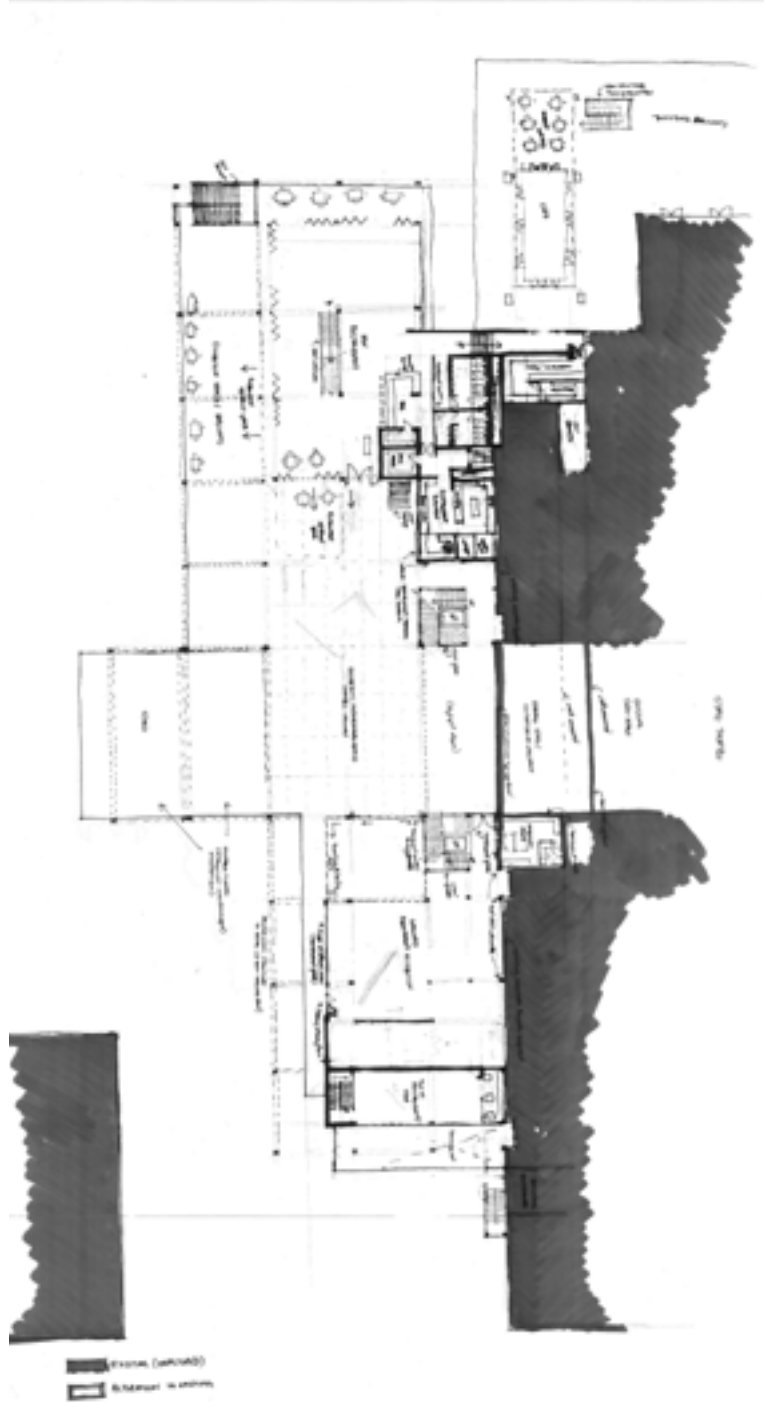


Fig. 7.30. Concept plan Second Floor

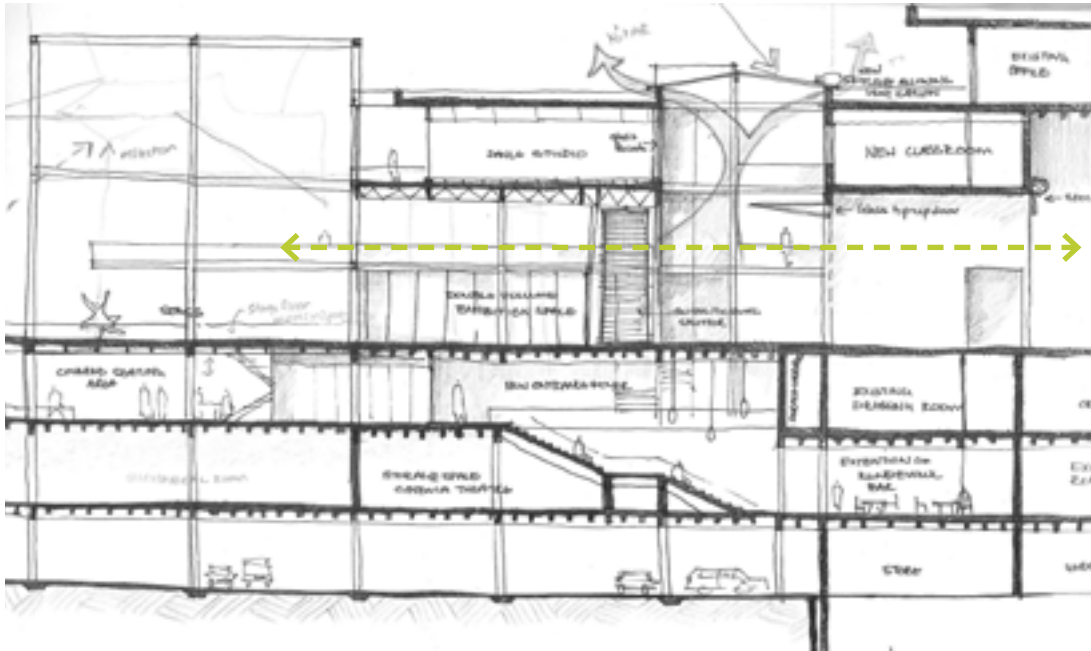


Fig. 7.31. Concept Section through stage area indicating movement to existing side stage

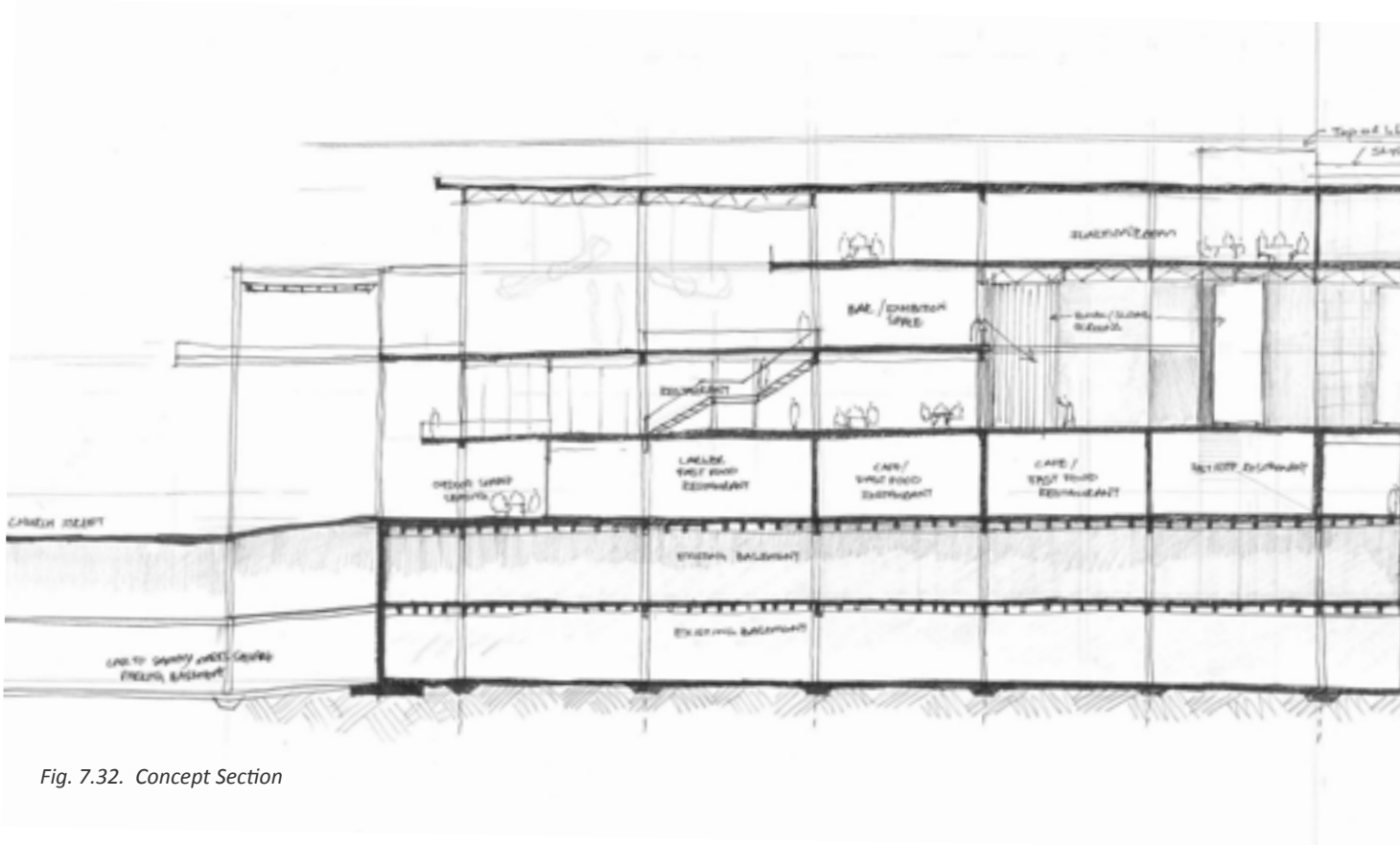


Fig. 7.32. Concept Section

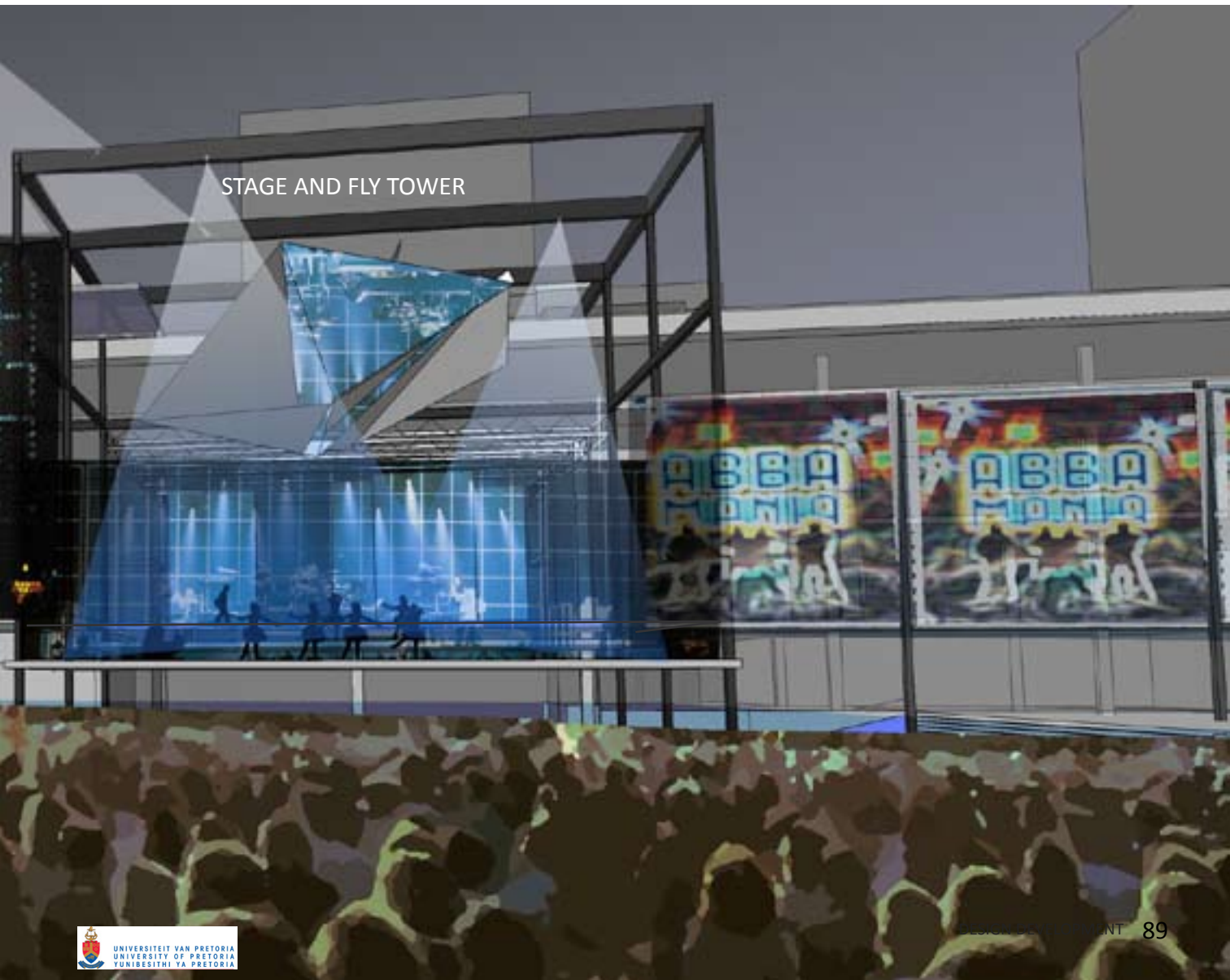
THE STAGE

Fig. 7.34. NIGHT TIME POP CONCERT ON THE SQUARE



LED MEDIA MESH SCREENS

STAGE AND FLY TOWER



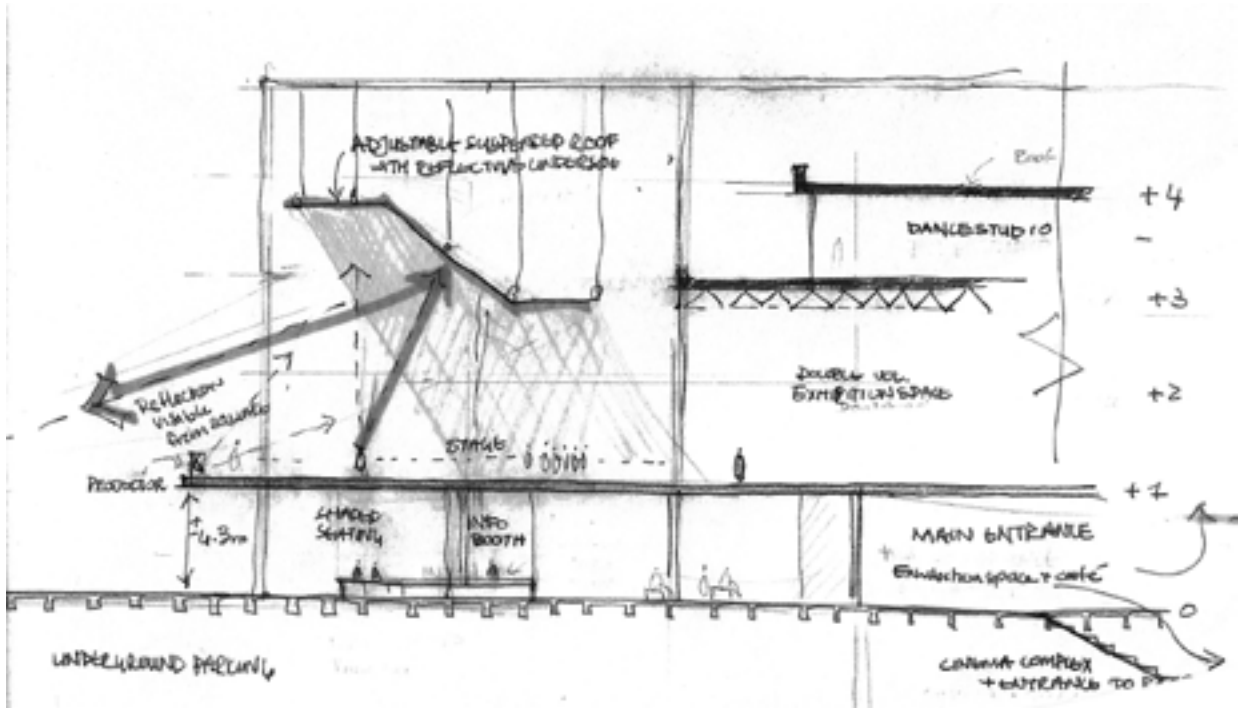


Fig. 7.35. Stage concept with reflective roof surface to increase visibility on the square

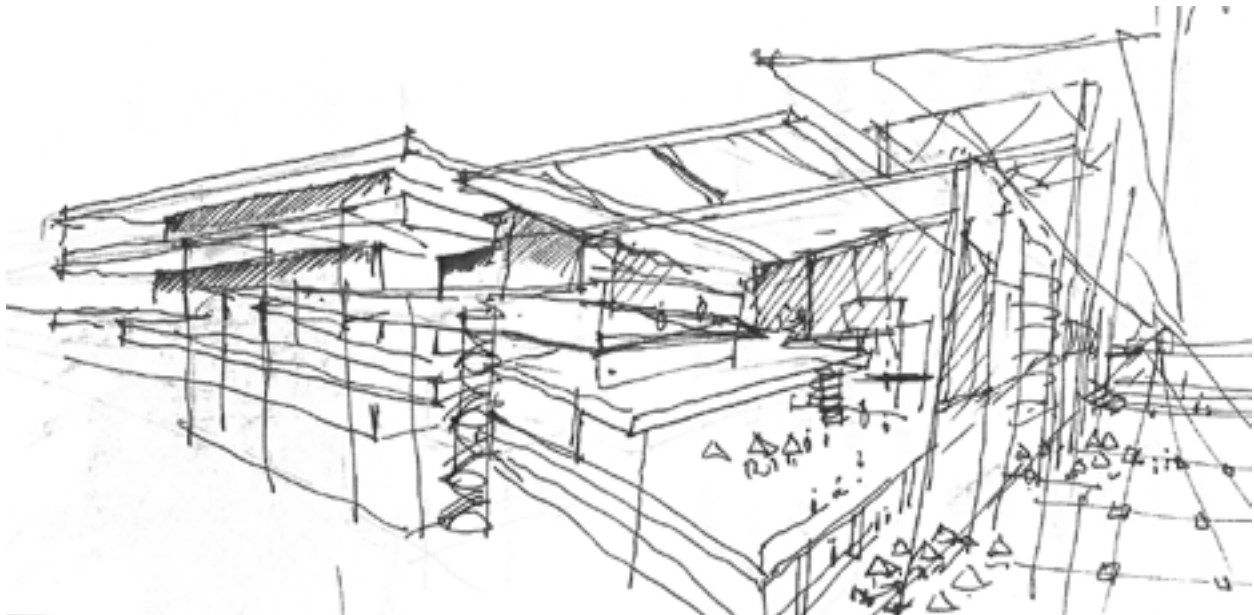


Fig. 7.36. South Western Corner

Fig. 7.39. Square as a stage

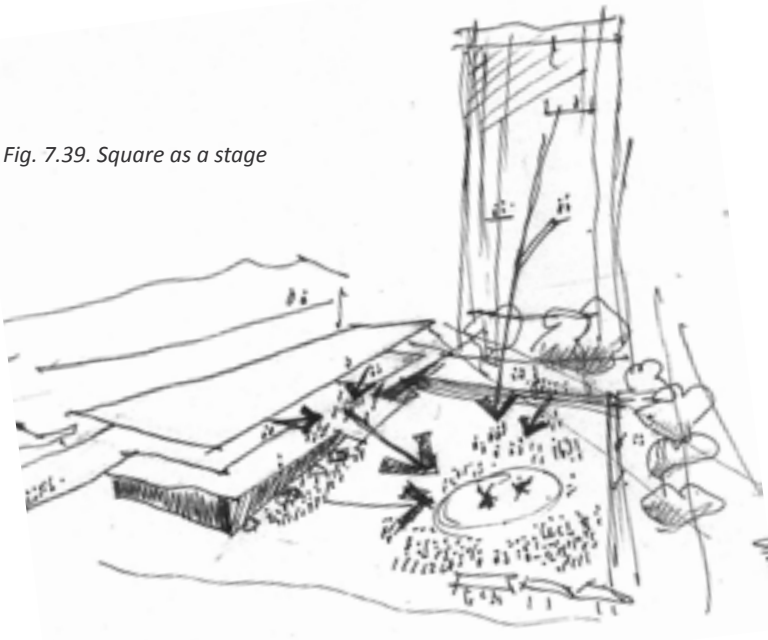


Fig. 7.37. Steel structure on State Theatre Balcony

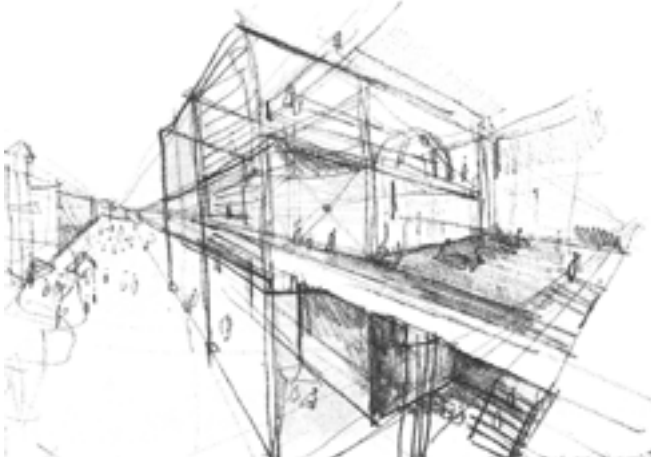


Fig. 7.38. Interior exhibition space



THE STAGE

A steel frame protrudes into the square. This acts as a fly tower onto which lights and stage decorations maybe attached during pop concerts. The stage leads onto a temporary exhibition space in the centre of the new extension, which is defined by movable sliding door panels. These panels may be arranged in any configuration and act as exhibition panels, stage curtains or blank back “cloths” onto which images may be projected.

Another set of sliding doors define the division between the existing and the new buildings. These doors are constructed of fire-proof glass in custom made steel frames, allowing a view into the main stage area of the State Theatre. The glass doors blur the distinction between the old and the new and act as a filter that allows a visual link into the back-of-house activity of the theatre. A second door on the interior acts as a light and sound barrier that may be closed when performances are held on the main stage.

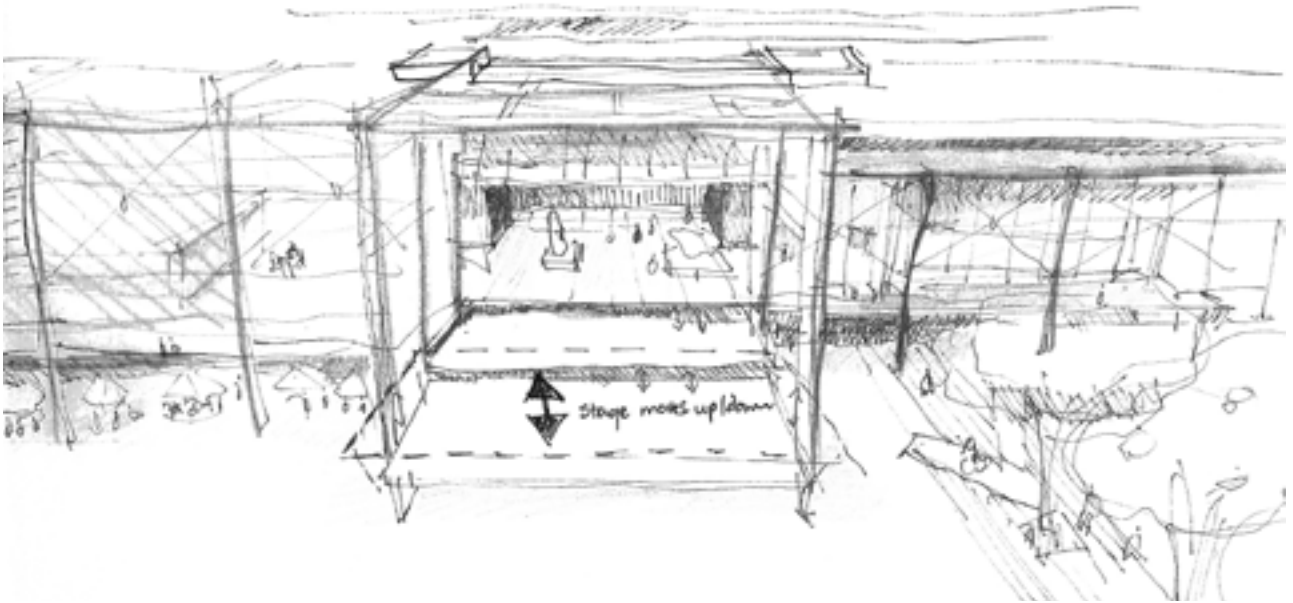


Fig. 7.40. EXTERIOR VIEW OF STAGE

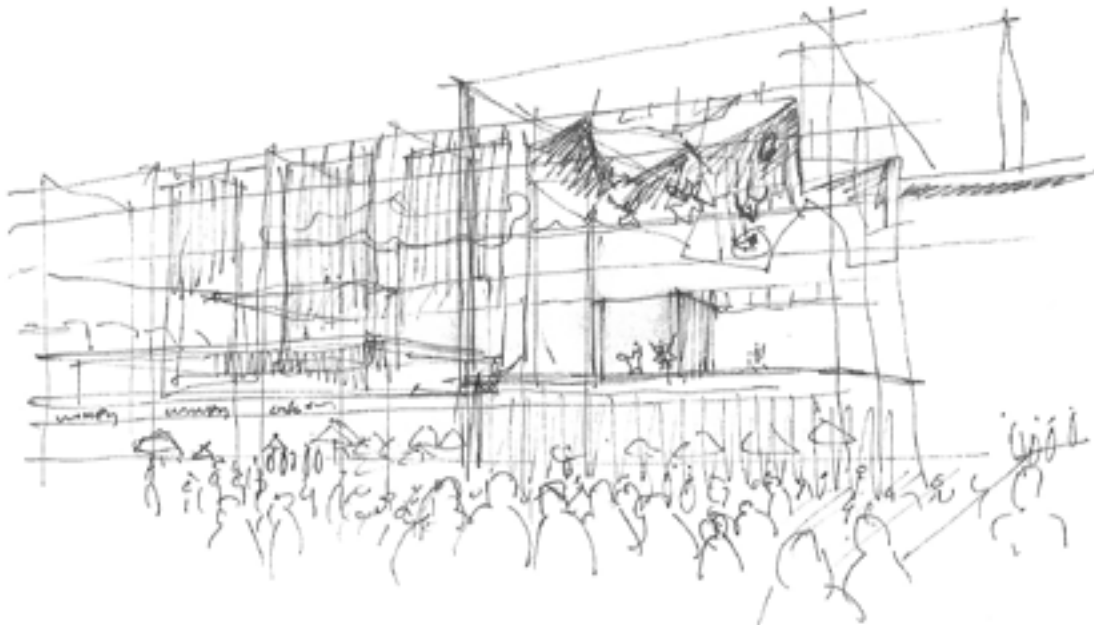


Fig. 7.41. EXTERIOR VIEW OF PERFORMANCE ON MAIN STAGE

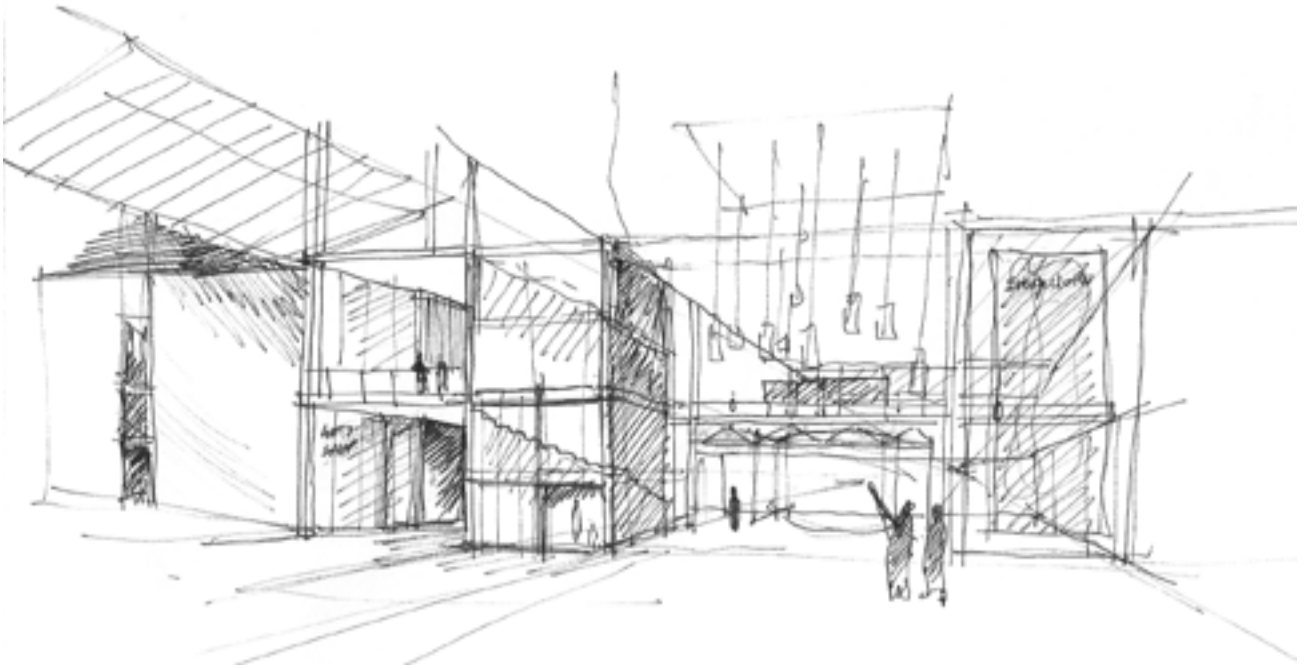


Fig. 7.42. INTERNAL VIEW OF GALLERY



Fig. 7.43. EXTERIOR VIEW FROM SAMMY MARKS SQUARE

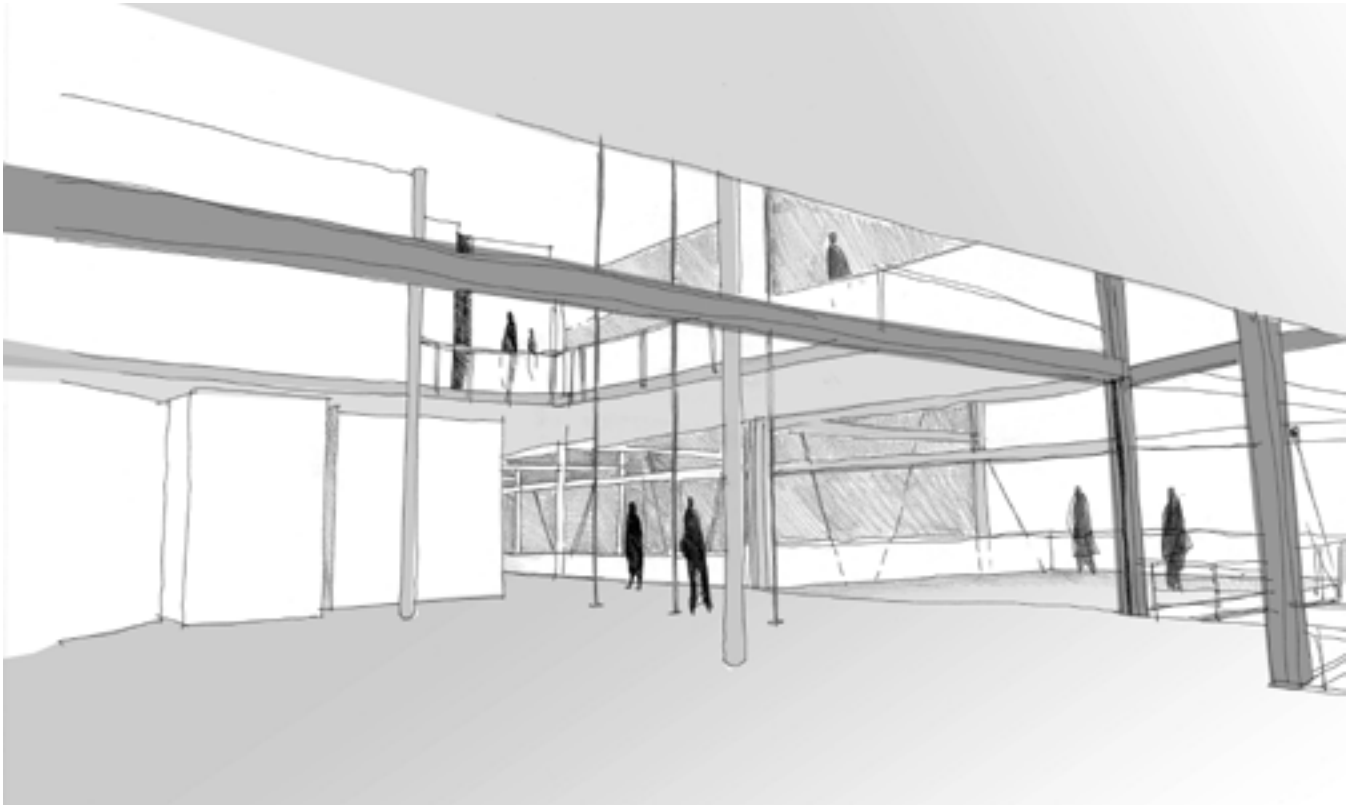


Fig. 7.44. VIEW FROM SECOND FLOOR EXHIBITION SPACE LOOKING TOWARDS VIEWING PLATFORM

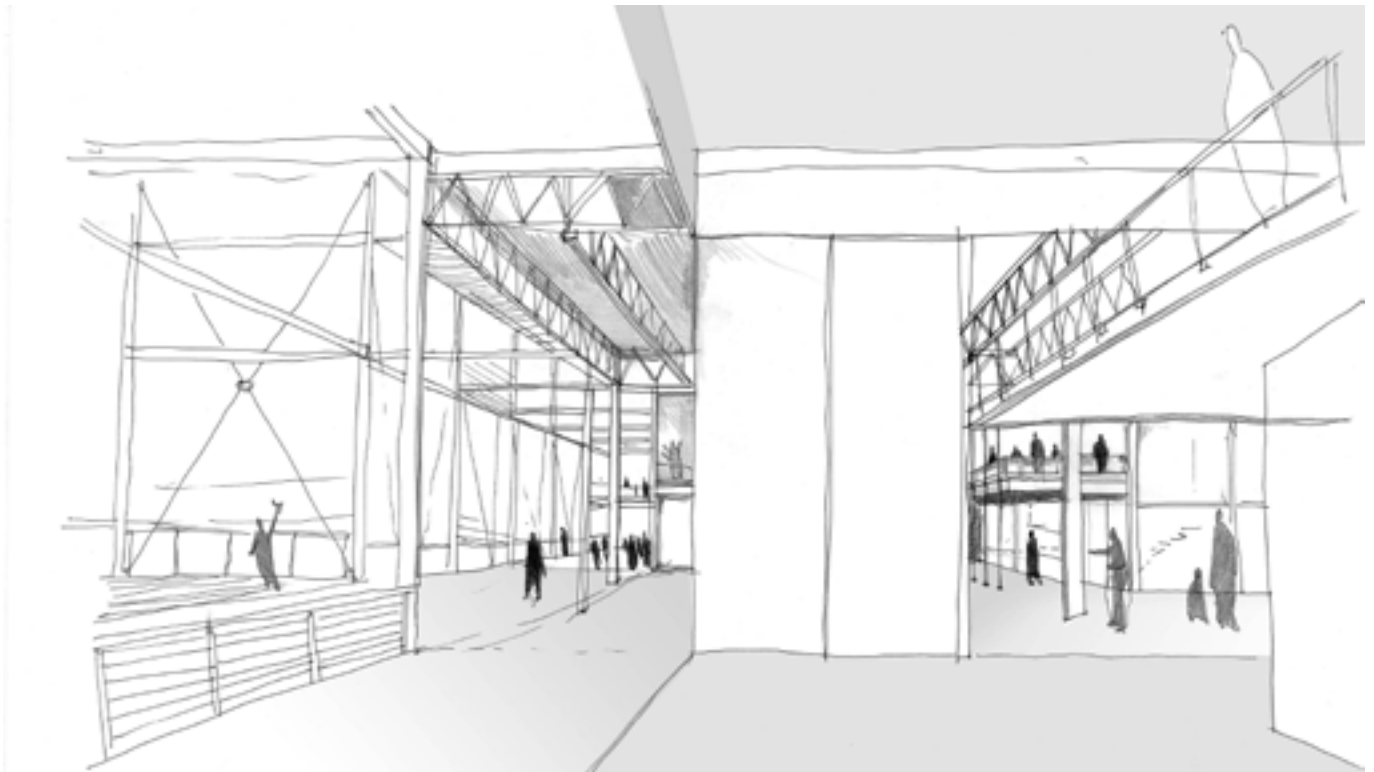


Fig. 7.45. VIEW FROM GALLERY TOWARDS CENTRAL EXHIBITION SPACE

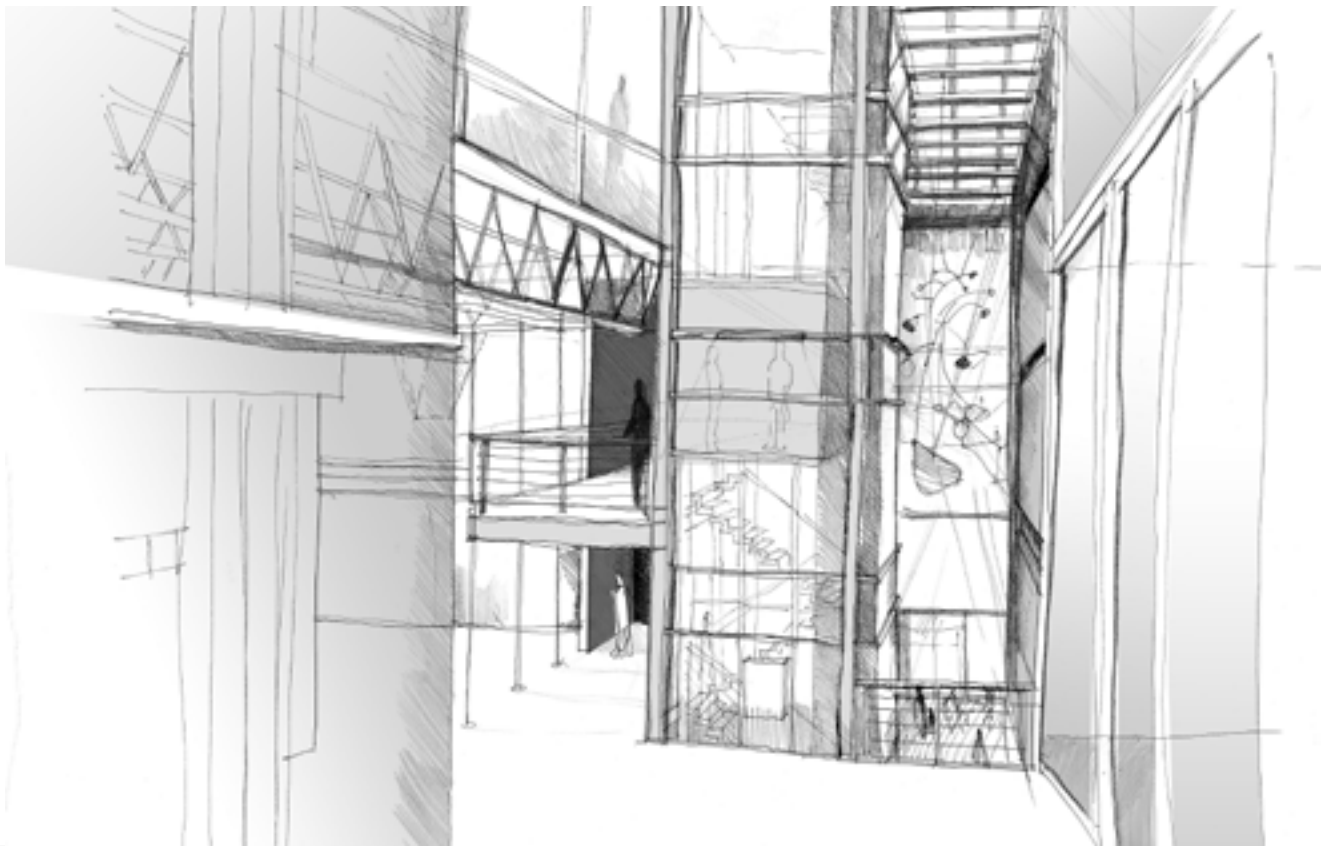


Fig. 7.46. INTERIOR VIEW OF CENTRAL EXHIBITION SPACE

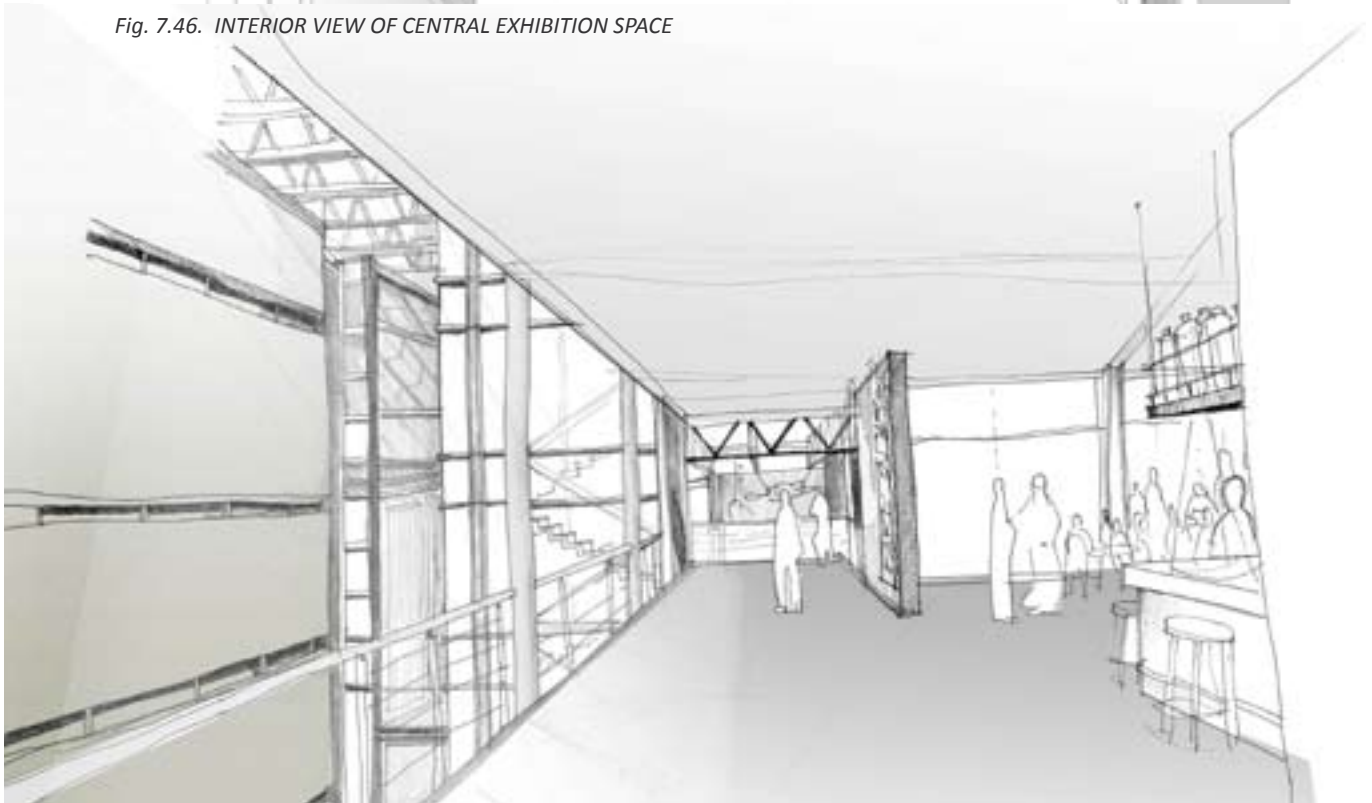


Fig. 7.47. INTERIOR VIEW OF RESTAURANT

3D SECTION C-C

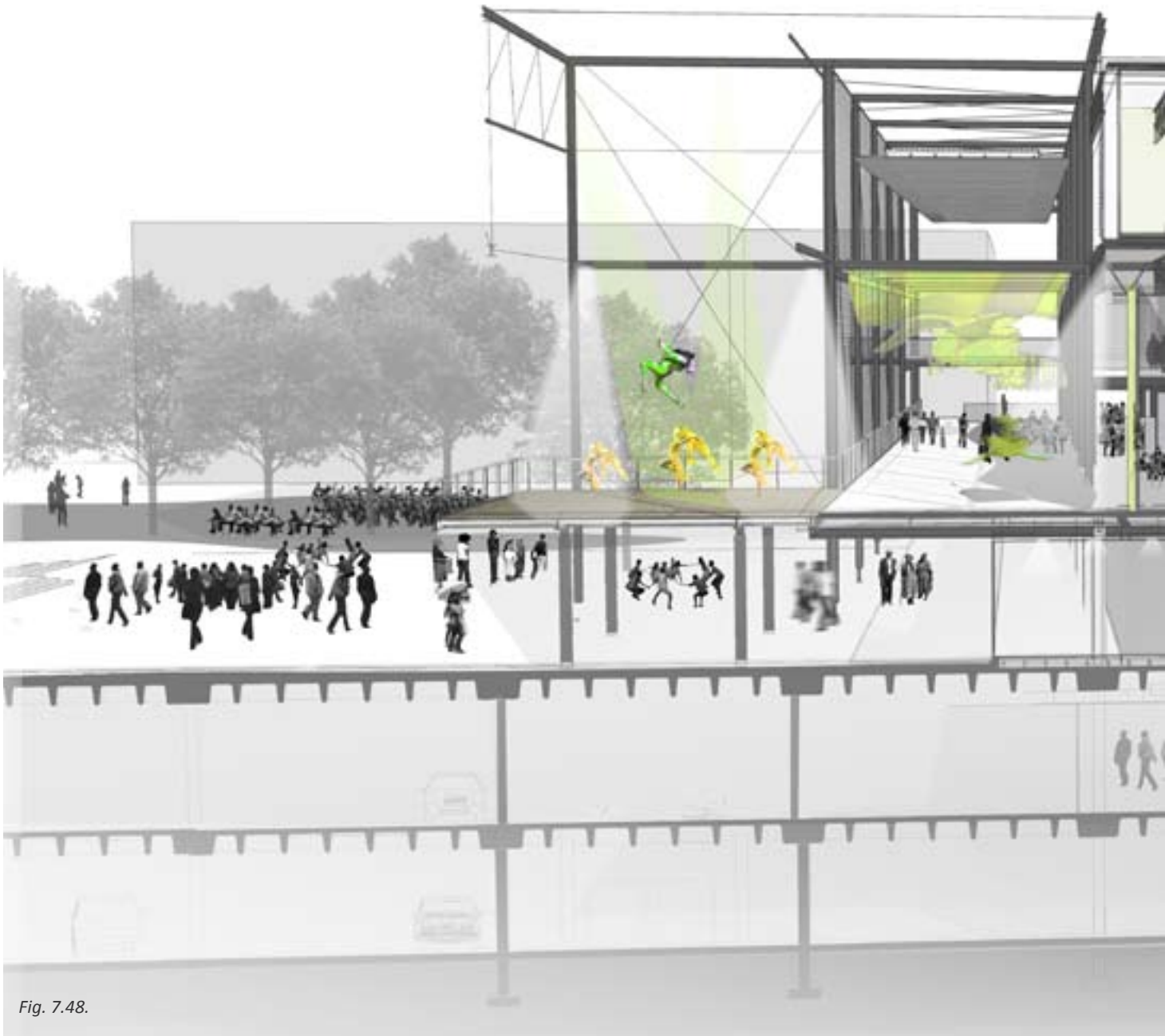


Fig. 7.48.

