



# introduction

The theoretical departure point of the project is orientation of the individual within an urban environment. Orientation is determined by our ability to perceive and identify with our surroundings, our *sense of place* [Lynch, K. 1981: p.131]. Within a South African social environment comprising varying cultural groups, the challenge is that of providing a built environment identifiable to all its users. "Physical form plays no significant role in the satisfaction of important human values, which have to do with our relations to other people." [Lynch, K. 1981: p. 99].



fig. 5.1 road markings

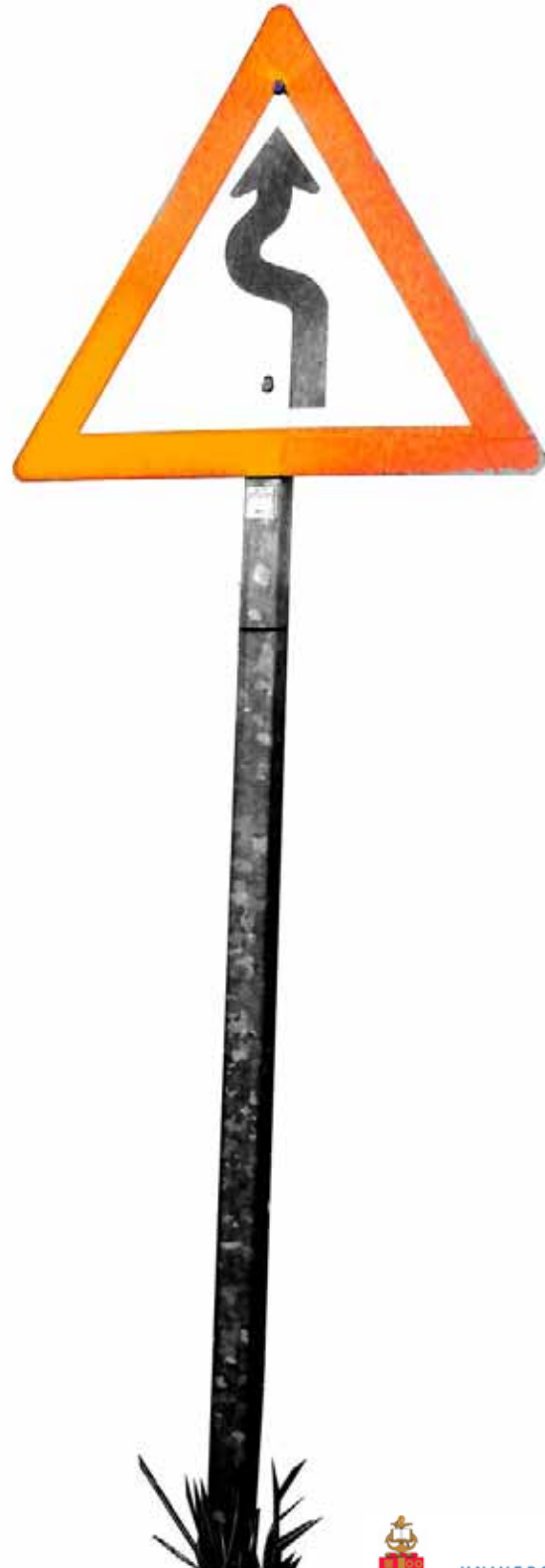




“For me, the acts and thoughts of human beings are the final grounds for judging quality.”  
[Lynch, K. 1981: p. 49].

“The place is the concrete manifestation of man’s dwelling, and his identity depends on his belonging to places.” [Norberg-Schulz, C. 1980: p. 6].

## orientation + interaction



Establishing a point of orientation, reinforcing the existing urban structural elements comprised the city-wide concern of the proposed project. How the physical urban and architectural environments are composed to strengthen the user’s mental image of their surroundings, contributes to navigation thereof. However, the extent to which it can distinctly be recalled, indicates *identity* and a *sense of place* within that particular environment [Lynch, K. 1981: p.131]. The spatial structure of an environment must not only facilitate orientation, but must provide concrete objects for identification, in order for it to become *meaningful* [Norberg-Schulz, C. 1980: p. 21].

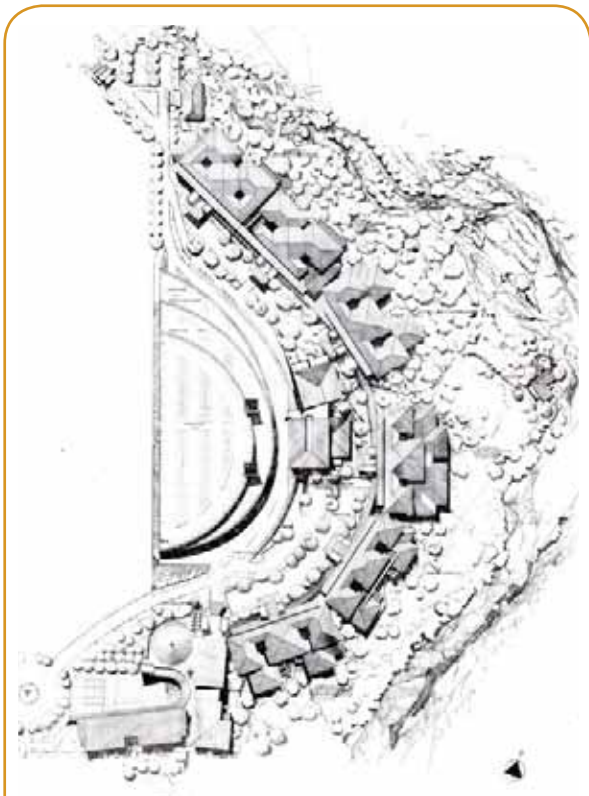


fig. 5.3 site plan\_sketch

Christian Norberg-Schulz identifies a phenomenological notion of *place* as a qualitative character, more than a sum of its spatial relationships [Norberg-Schulz, C. 1980: p.7-9]. It is comprised of the *landscape* (natural) and the *settlement* (man-made). The settlement concretizes man's understanding of the natural environment, forming a *cultural landscape* [Norberg-Schulz, C. 1980: p. 52]. A symbolic language is developed through this understanding and is contextual to a specific environment. Identity cannot be supported by a universally abstract environment, but rather one that is culturally and situationally articulated [Pallasmaa, J, Architectural Review, May 1988: p.28].



5.4

**p** The Mpumalanga Provincial Government Complex strove for "The Making of An African Building", through architecture which displays the democratic society it serves. The architects investigated a civic architecture that would accommodate the new frames of reference in democratic civic life. The surrounding context informed the design, allowing integration of the built and natural environment. Nearby granite domes and the symbolism of the confluence of the two rivers are harnessed in the architectural language. The various facades relate in different, complimentary ways with the immediate surroundings [Malan, C. and McInerney, P. 2001] displaying a desire to incorporate the natural components of the site.



5.5

fig. 5.4 view of the legislature including civic square

fig. 5.5 view of the humanised scale and tectonic quality of the walkways



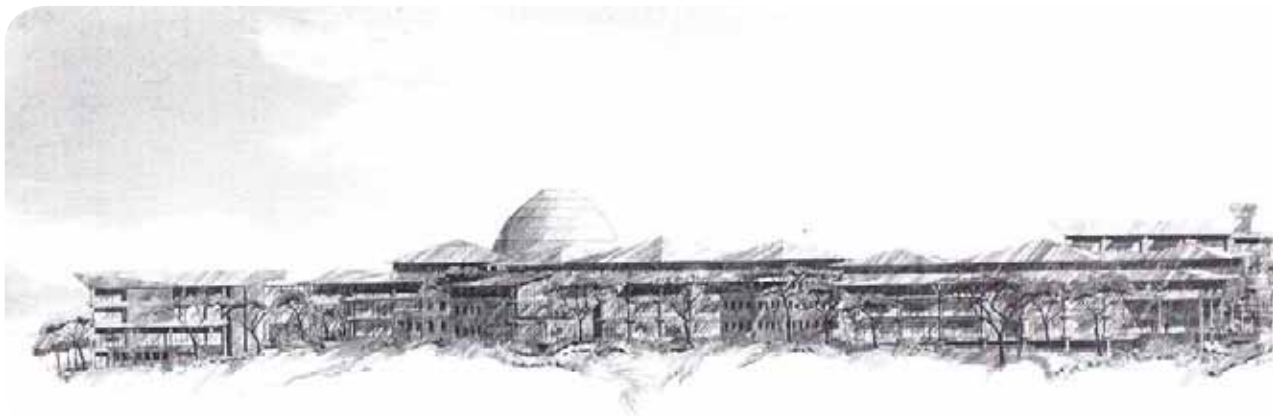
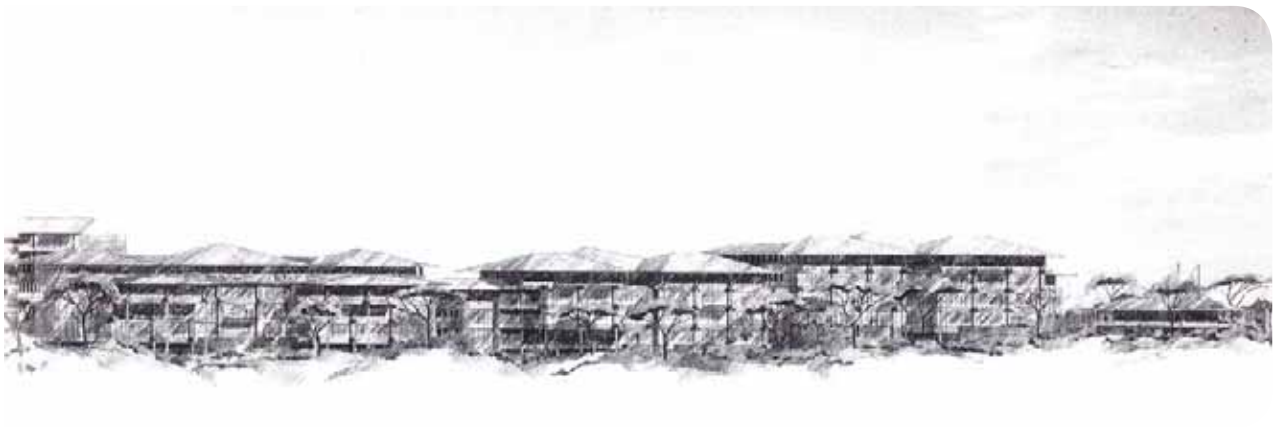


fig. 5.6 extended riverfront elevation of mpumalnga legislature







Juhani Pallasmaa discusses the priority assigned to the visual aesthetic in modern consciousness. He argues that perception is the sum of all sensory experience, which can be related back to tactility. "The architecture of the eye detaches and controls, whereas haptic architecture engages and unites." [Pallasmaa, J, *Architectural Review*, May 2000: p.5]. In the Mpumalanga Government Complex, a holistic approach to texture, finish, scale and detail creates an intimate experience which assists identity and orientation in the complex.

5.7



In the Mpumalanga Provincial Government Complex, selected traditional forms were employed in a contemporary manner, intended to suggest a culturally-adapted architecture. However, the resultant visual style is a pattern of a *specific* culture. Although intended to create a sense of identity, their cultural exclusivity limits their accessibility to all users.

5.8

Sediments of tradition, history and culture, are fused into a given context. Culture cannot be dissembled and re-composed, it must be lived. Often attempts to instil a sense of place and authenticity are mistakenly applied as superficial historical and regional motifs. Regionalism is thus reduced to what Pallasmaa describes as a *sentimental provincialism*, and culture becomes "...an object of deliberate fabrication". *Placemaking* in Pretoria must react to a variety of cultures. The challenge posed is thus the development of an architectural language which suggests a diversity of cultures, while excluding none.





fig. 5.7 texture identified on site  
5.8 Synagogue on Paul Kruger  
Street  
5.9 Sketch of pedestrian activity

5.9



Jane Jacobs discusses the phenomenon that “the sight of people attracts still other people” [Jacobs, J. 1972: p. 47]. Public social interaction, whether active or passive, is a main attraction of the city, versus the intimate interaction provided by a domestic environment. Although privacy is essential to city dwellers, a balance of differing degrees of social contact must be available. Jacobs further states that public contact and the resulting safety aspect can contribute to overcoming segregation and racial discrimination within a city [Jacobs, J. 1972: p. 82].

**p** The Mpumalanga Legislature was designed to encourage use and to address the human dimension by creating opportunities for interaction. The civic square or *isigcawu* provides an arena for public activity. The provision of micro-climates such as seating under trees and shaded colonnades encourages more intimate interaction. The social interaction between urban users determines the public life in cities. It should be our aim to provide an environment which supports and encourages such interaction. The users and activities within such an environment contribute to its character.

Human activity is appealing to still other people because they can identify with that form of activity. By seeing other people within a city environment making use of facilities, a user feels more at ease to be within that environment as well. The sight of people of similar race, economic or social status further reinforces the affinity to the surr







It should not be our aspirations to identify a cultural style suitable for a democratic society. Rather, we should strive to design populated places; we should provide opportunities for interaction. We should generate activity through the provision of the necessary programme. This will generate events of a social and public nature which contribute to a vibrant urban environment [Tschumi, 1994]. The users, for whom we design, become the greatest assets to the environments we create. The built environment should not “attempt to conquer the foreground...” instead we should be “creating a supportive background for human activities and perceptions.” [Pallasmaa, J. Architectural Review, May 2000: p. 9]

It is this which will provide identifiable environments, accessible to users from a broad demographical spectrum, culturally unrestrictive and unique in character. These environments are dynamic, meaningful, and unifying for its users. An unconscious culture develops through the fusion of memories and experiences establishing a dialogue between the individual and collective. And it is this culture, this unique character, which will be, for all those who partake, the *sense of belonging to place*.







Urban form was primarily derived from the surrounding context. It was necessary to address issues of scale with the proposed form. A suitable scale needed to be established towards the existing heritage building, also providing a humanised scale on the square. However, the scale also had to establish the building as a notable landmark on the urban skyline. Movement through the site, towards the city was important for connectivity to the city context. Existing movement axes were to be reinforced and emphasised through the design. The development of the square and adjoining student projects was also a consideration.

## form development





fig. 5.11 concept model [a]\_view from north

[a]The initial concept was of creating a frame or backdrop for the zoo café building. The height of the building would establish a northern landmark and anchor for Paul Kruger Street. The new and existing building would be integrated as a single entity. The new building was to be set respectfully away from the heritage building, creating an intimate semi-private space. This form was developed under the proposal that a similar tower on the opposite side of Paul Kruger Street, would contribute to the creation of an urban gateway. Surrounding buildings were proposed which provided a street edge and enclosure to the public square.

A critical analysis of movement through the block layout of this proposal revealed disjointed spaces. The new proposed 'tower' overshadowed the heritage building, an 'alley' developing between the two masses. The movement from the pedestrianised portion of Paul Kruger Street was obstructed by the proposed tower. Physical and visual linkage between Paul Kruger Street and the proposed public square was impeded by the buildings.

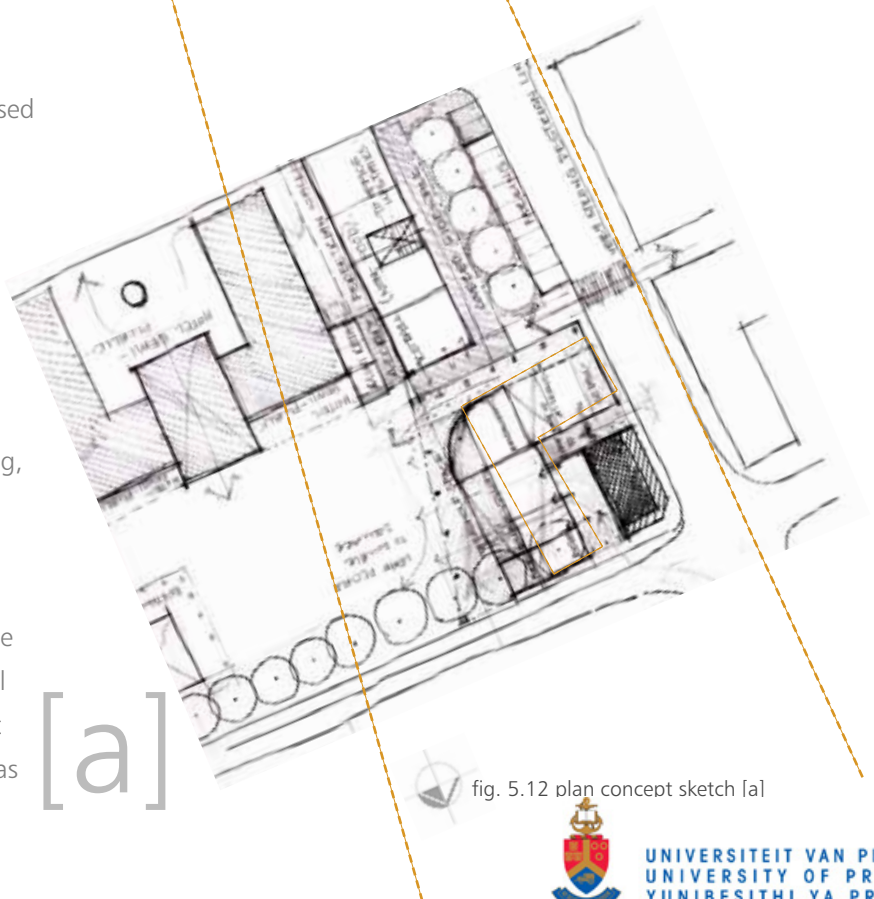


fig. 5.12 plan concept sketch [a]





[b]

[b] The second proposal was to pull away a portion of the building, funnelling movement into the city. The quality of the resultant intermediate spaces was notably improved. However, the southern portion of the building acted as an obstruction, lacking the desired fluidity of motion. The interaction between various building components and linkage between street and square were still a matter of concern.

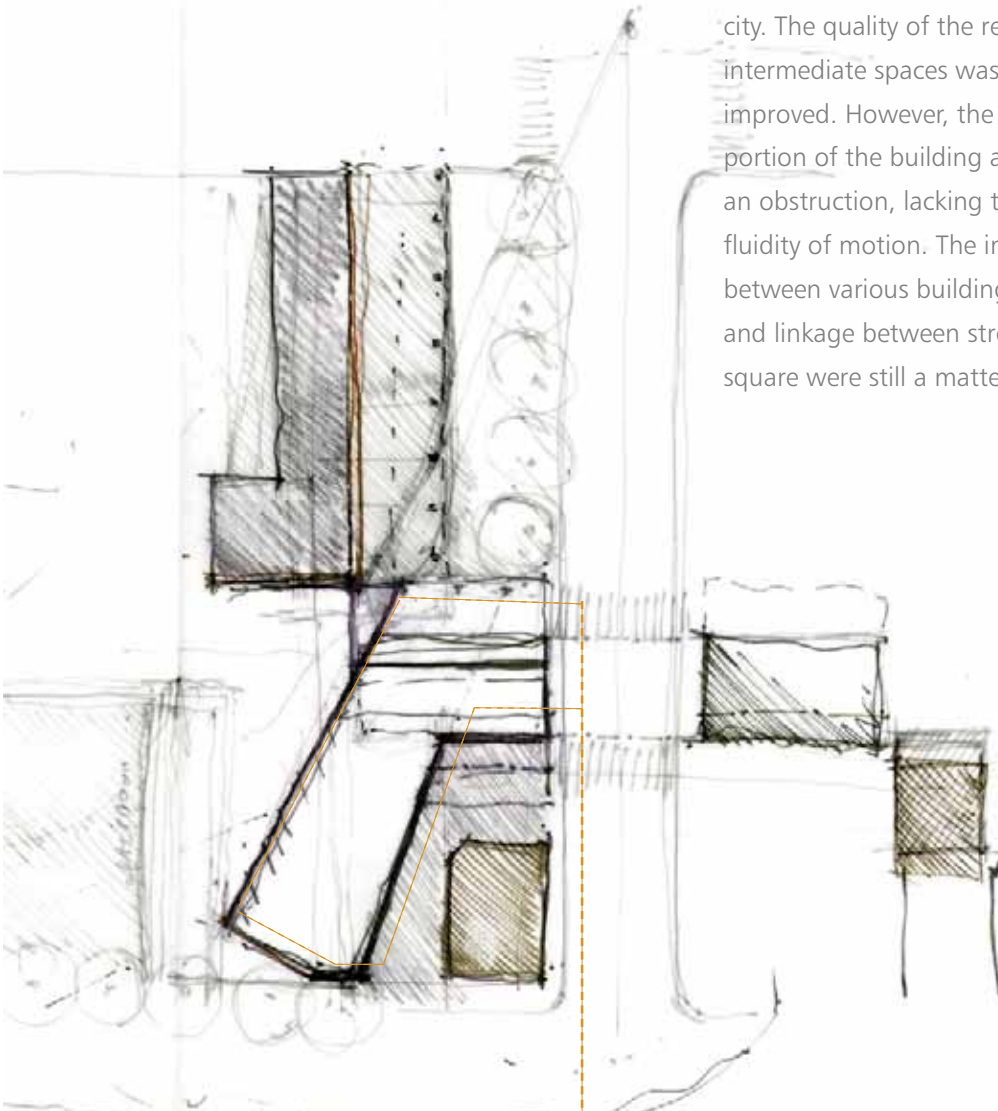
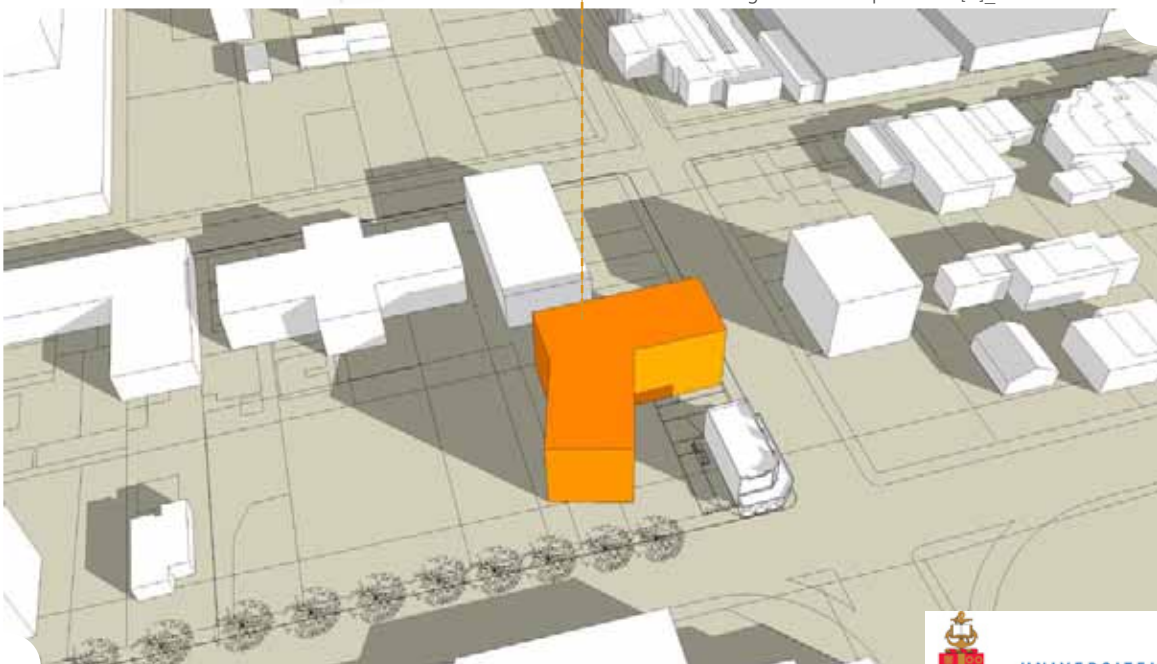


fig. 5.13 plan concept sketch [b]

fig. 5.14 concept model [b]\_view from north







[c] The proposed building was now split into two components- a landmark 'tower' portion, and then a dynamic linear portion which was scaled down to suit the heritage building and square. Linear movement could now be guided either side of the tower, which acts as a point reference. The tower could now be afforded a height of more stature. However, the interaction between proposed buildings seemed disjointed and detrimental.

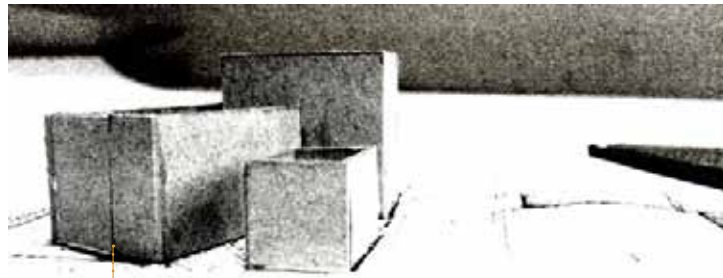


fig. 5.15 concept model [c]\_view from north

[c]

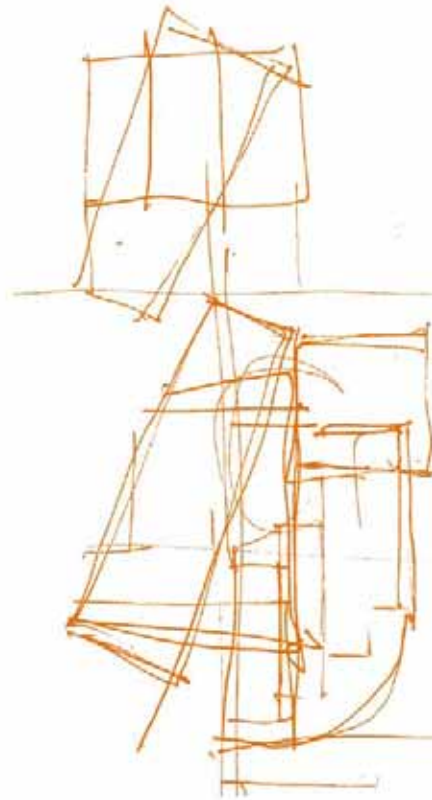
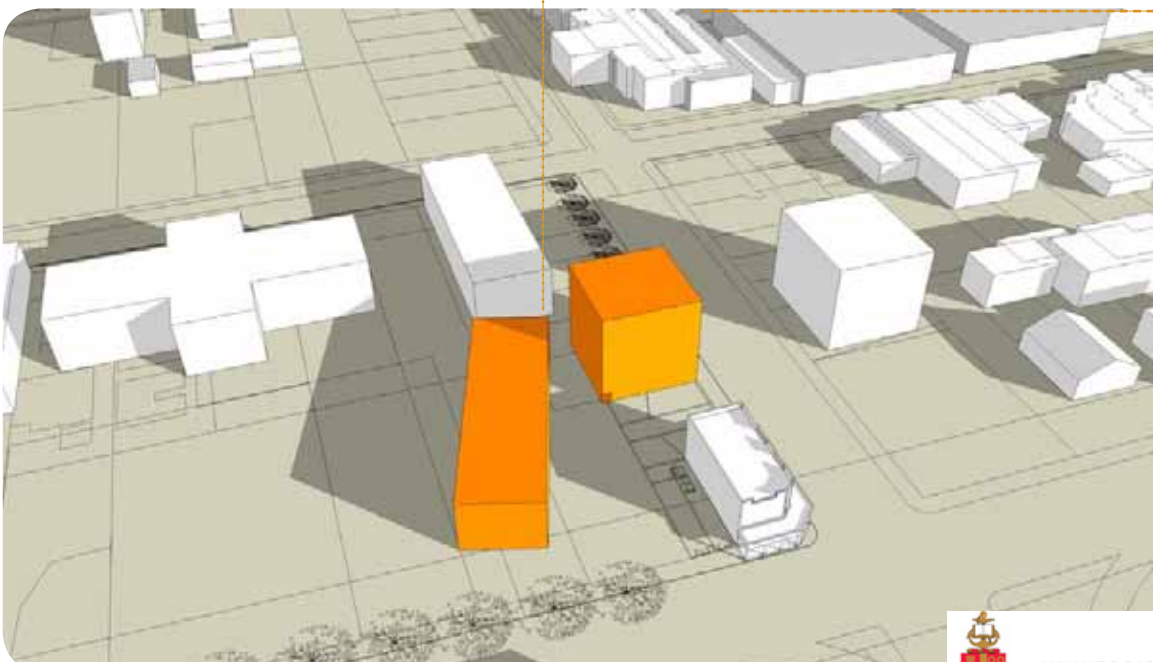


fig. 5.16 concept sketch

fig. 5.17 concept model [c]\_view from north







p

The Gas Natural building, designed by Miralles-Tagliabue Architects, was studied as an example of a landmark tower within a high-density, low-rise environment. The building geometries, described as “form follows urbanism”, relate to the axes and districts of the urban context [www.geocities.com]. The absence of hierarchy of facades, the variety and originality of forms and the uniqueness of the building when viewed from different vantage points contributes to unique built form, which can only be truly experienced when moved through. The manner in which the surrounding landscape and public square are integrated with the building volume relates to human dimension and dynamic. The fragmentation of the building volume, reduces the impact, and allows respectful integration within the existing urban fabric. The material and formal extravagance enable it to contemporise the city, catalysing development in the area. [Raventós, A.G. Domus, July/August 2006, p. 58].



fig. 5.18 conceptual model, natural gas building



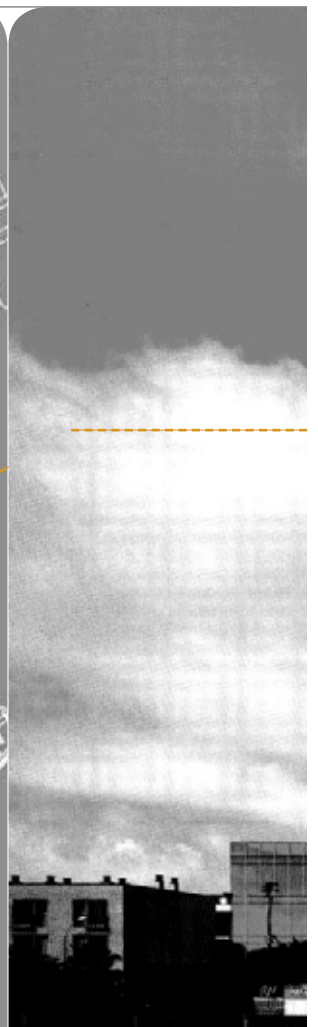
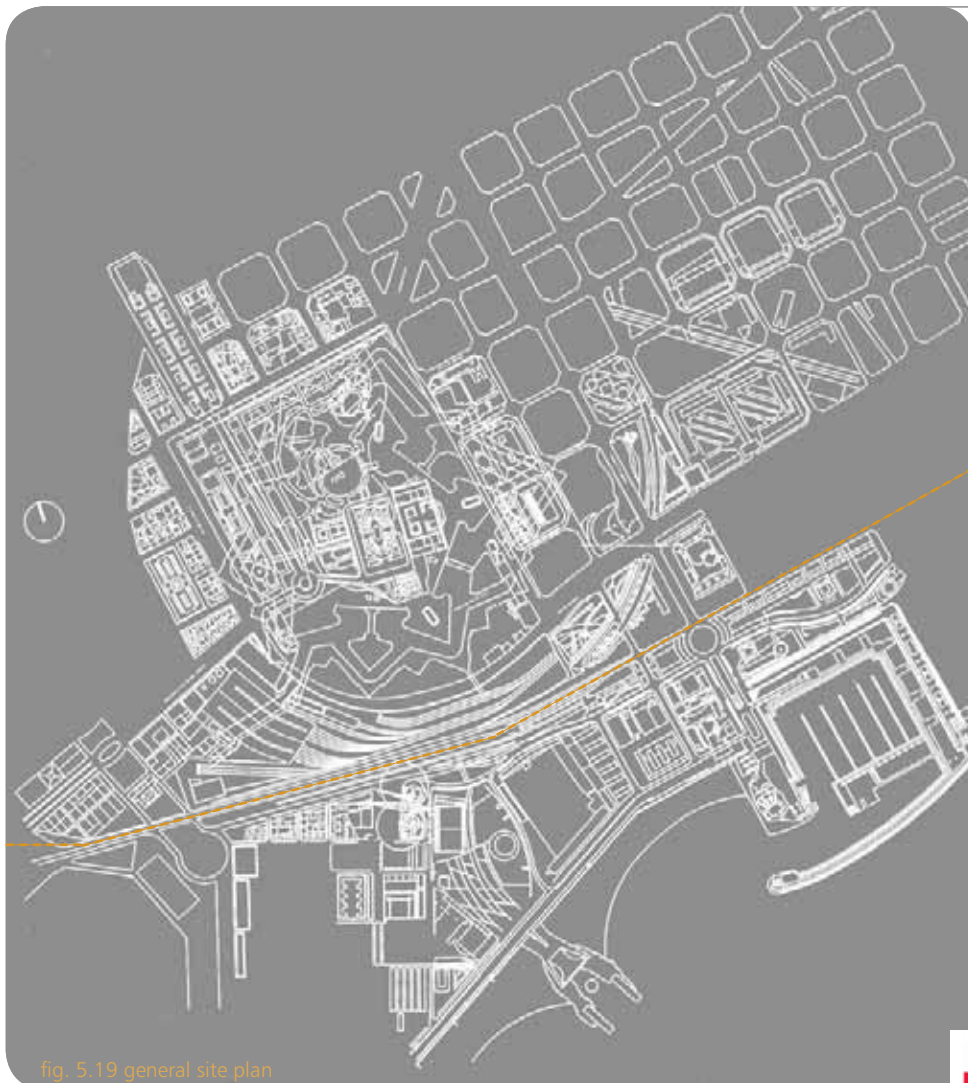


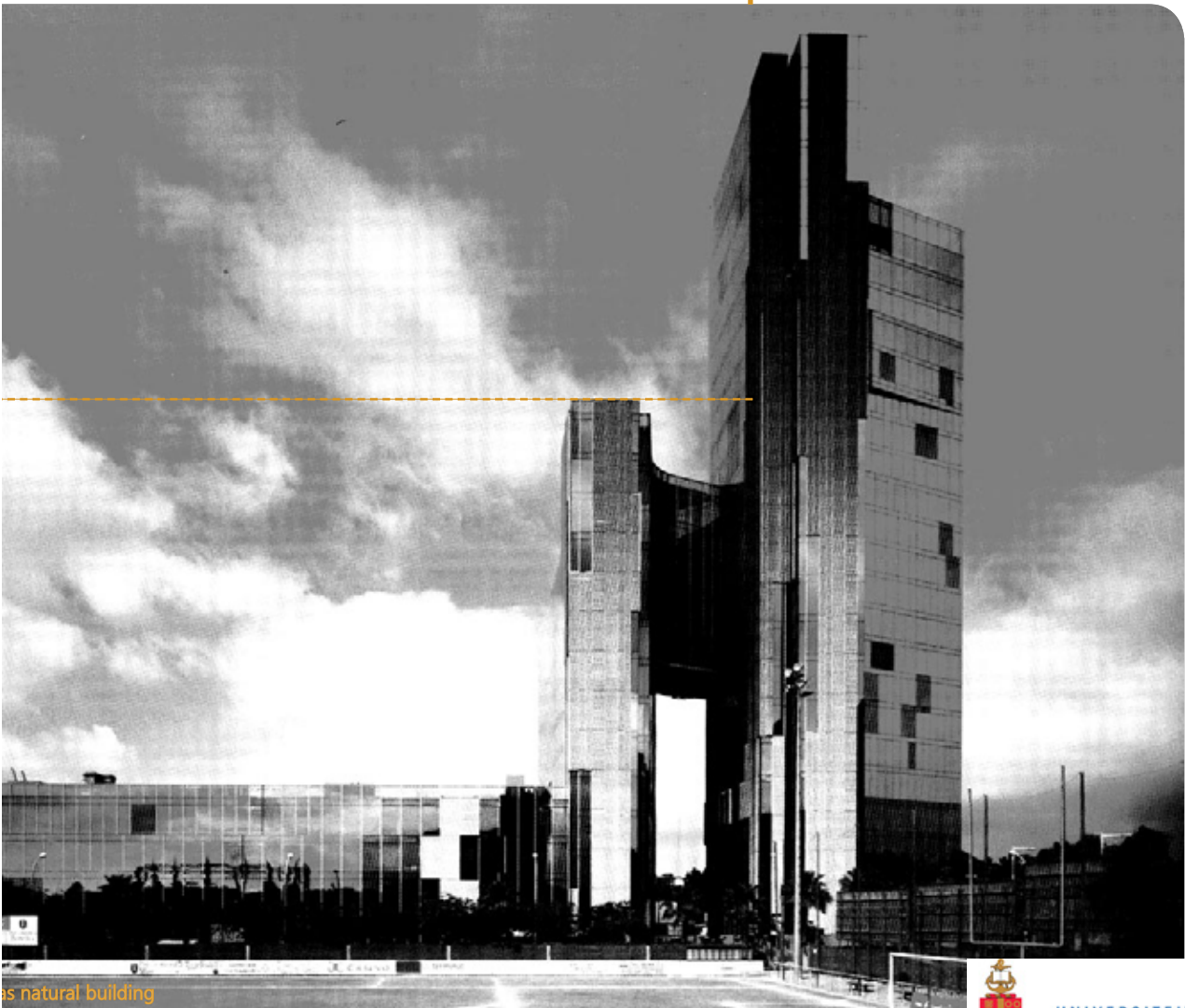
fig. 5.19 general site plan





gas natural building\_ Enric Miralles-Benedetta Tagliabue

This precedent was influential in the creation of a dynamic urban and architectural form, and the fragmentation of the tower to reduce the impact of the built mass. The landscaping around the building was also studied as a generator of suggested movement.



gas natural building





fig. 5.21 concept sketch [d]



[d] The linear dynamic component was now combined with the southern building. This addressed the desired continuity of north-south movement. This proposal considered leaving portions of the ground floor open, to facilitate connectivity between street and square. The linear component reacted to square and surrounding building scale, whereas the verticality of the tower component established an uncomplicated landmark, stark against the city back drop. However, the path of movement suggested by the line of the building competed with that of Paul Kruger Street.

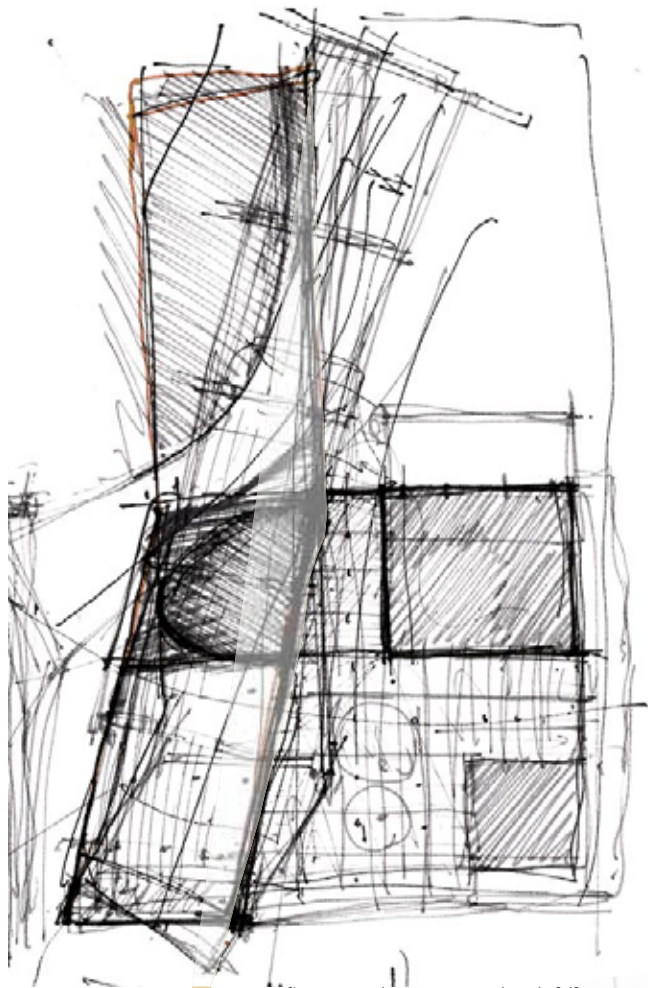


fig. 5.22 plan concept sketch [d]



[d]

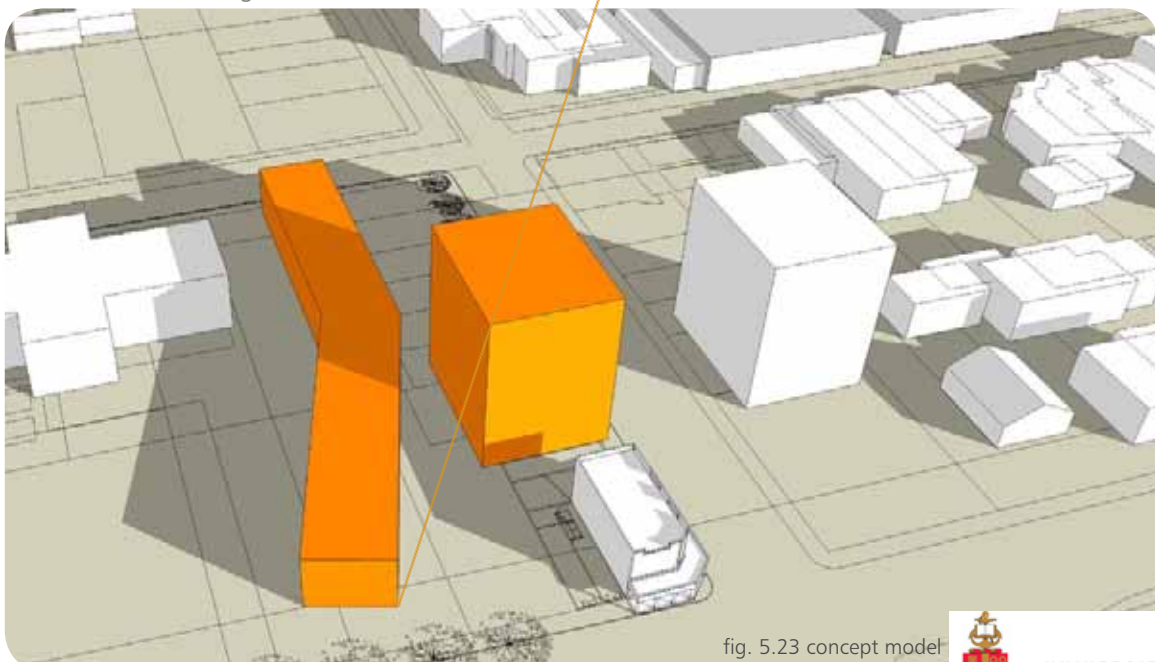


fig. 5.23 concept model

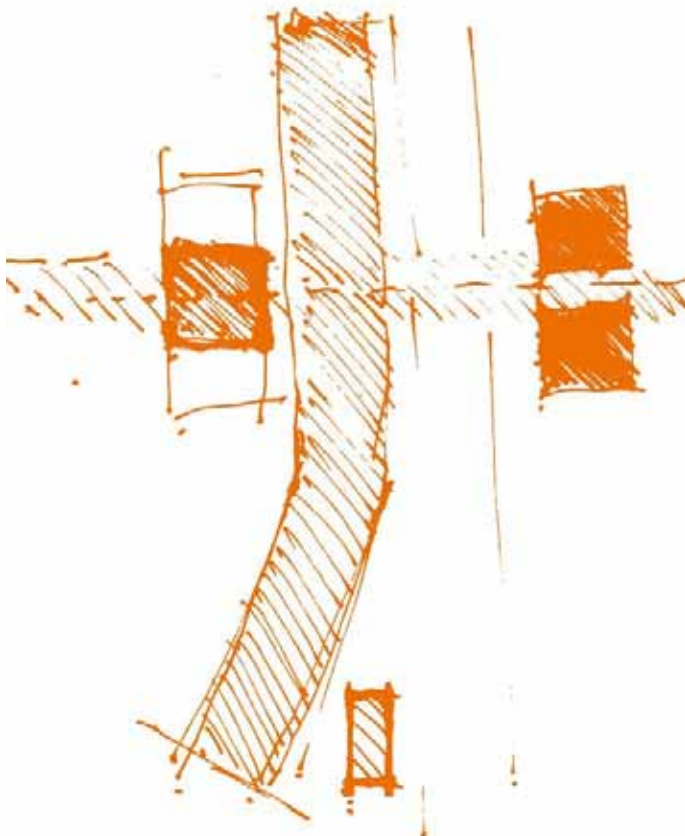






fig. 5.24 concept model [e]\_view from north

[e]



[e] Until this point, an assumed secondary tower addressed the need for a defined gateway. By moving the proposed tower across Paul Kruger Street, the project was unified along the path of movement. The linear building guides movement into the city and respects context. The tower acts as visual landmark, relating to the city context. A proposed link or bridge would strengthen the connection between these two entities, establishing the psychological threshold.

fig. 5.25 plan concept sk





## gateway components

### [a] Public square

A proposed public square addresses the spatial linkage to the public and civic space in the city. Public space has always been, with variety, the meeting place, marketplace and traffic space of the city. The *traditional city* provided a balance between these three aspects. Streets were dimensioned to accommodate pedestrians and squares suited uses requiring space. However, in the *invaded city*, car traffic has overtaken the city, and public space has changed dramatically. A direct correlation exists between urban quality and public life. Public spaces inspire a variety of urban activities. Pedestrian movement through a site promotes users to linger and enjoy social and recreational activities. [Gehl, J. and Gemzøe, L. 2003: p. 10-14]. In order to reconquer the city and inspire urban regeneration, we must once more develop public space as a platform for social and recreational activities. The motor vehicle must be pushed back, and pedestrian activity promoted.

The proposed public square is to act as a starting point. Users are intended to arrive at the city by motor vehicle, park within safe and accessible points, then proceed into the city by foot and public transport. This will reduce noise and air pollution in the city, making it a friendlier environment for pedestrians. The renewed activity within the Northern district will contribute to a vibrant urban environment, displaying urban culture and community life.



fig. 5.26 Spatial linkage down Paul Kruger Street







fig. 5.27 parc de la villette\_points of intensity\_urban context

[Parc de la Villette\_Bernard Tschumi Architects]

Parc de la Villette, designed by Bernard Tschumi architects, is an urban park which acknowledges the social realities of urban public space. The juxtaposition of a variety of activities was intended to encourage new attitudes and perspectives. It is an open-air cultural centre "encouraging an integrated programmatic policy related both to the city's needs and to its limitations". [Tschumi, B. 1994: 55].

The park can be considered as a large discontinuous building, comprised of various programmatic components, overlapping with the city and existing suburbs.

The park is an urban regeneration project within a populated semi-industrial quarter of north-east Paris.

**p** The park contains the Museum of Science and Technology, a City of Music- a Grande Halle for exhibitions and musical performances. "The park forms part of the vision of the city" [Tschumi, B. 1994: p. 55].

The design included placing *folies* on a point-grid system, establishing a common denominator throughout the programmatically complex, though ill-defined terrain. The deconstructed 10m x 10m red cubes established a symbol and identity for the park. These *folies* fulfil programmatic requirements, generating *events*. Tschumi describes a programme as "...a determinate set of expected occurrences...often based on social behaviour, habit or custom." [Tschumi, B. 1994: p. 13]. Events, however, are "an i

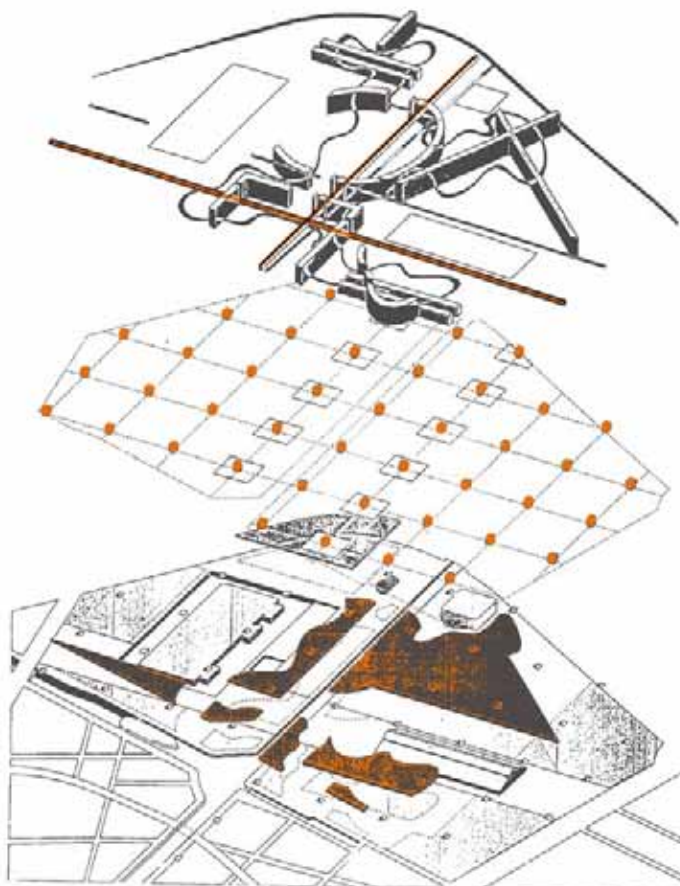


fig. 5.28 parc de la villette\_points, lines, surfaces









parc de la villette\_bernard tschumi architects\_concepts

The influence of this precedent is the development of the gateway intersection as an urban park related to an overall city vision. The programmatic requirements of the various facilities are to generate *events* of a social and recreational nature which inspire urban public life. Movement axes can generate activity in spaces along their length, and should be clearly identified. Varying surfaces can determine and facilitate intended functions.

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fig. 5.29 walkway structures  
fig. 5.30 concept development sketches  
fig. 5.31 perspective sketch of folly



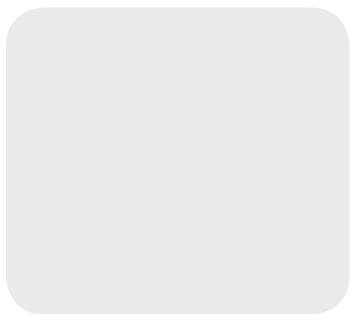
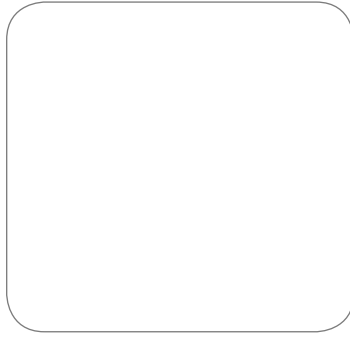
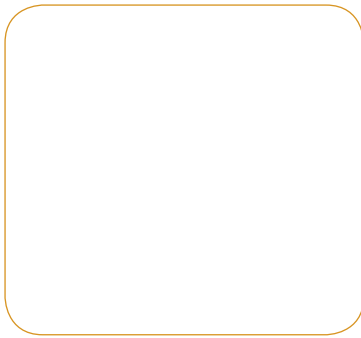


fig. 5.32 photographs of walter sisulu square, surrounding context, overlaying of old + new, community oppurtunities, materials

fig. 5.33 elevation of perimeter building from square







[b] Existing context\_ zoo café building

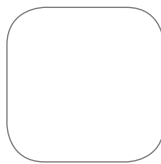
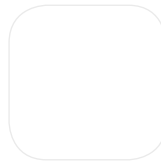
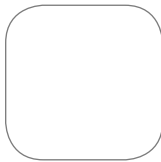
The zoo café, as previously discussed [chapter 04\_site proposal\_historical context] introduces a temporal layering to the proposed project. It assists users in orientating themselves within a portion in time, referring to the historical layering of the site.



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[Walter Sisulu Square of dedication\_ StudioMAS Architects]

A project where such layering is displayed, is that of Walter Sisulu Square of Dedication, Kliptown. The rich history of Kliptown is acknowledged through the square and other building elements. The project is also approached as an urban park, showing influences of Tschumi's theories. The design "indicates a direction to be taken rather than a destination", providing a rich and enabling programme of spaces, allowing for future change to community needs. The concept uses symbolism as design generator, acknowledging the site's relevance in political history. The square is flanked by permeable building volumes on either side, overlaying the existing buildings. The predominantly open nature of the lower floors encourages movement into the square, generating various informal activities. This is also an attempt to harness the activity and atmosphere of the existing street and retail buildings. The square is divided into two components of symbolic nature, the surfaces denoting intended activity.







Although the square does not currently interact as successfully with the existing fabric as intended, it displays the benefit of layering old and new. Community involvement and upliftment, generating opportunities and creating a future vision can all be considered key strategies in urban regeneration. The provision of market stall facilities on ground level beneath the building structure, although somewhat restrictive, indicates an incorporation of the informal activities within the proposed design. This encourages community ownership of the new facilities. The palette of materials visible in the project, though somewhat elaborate in cases, indicates an attempt to create a tactile environment, promoting local industries, in the establishment of a robust environment, accommodating future change in use.





It is proposed that the façade of the Zoo Café building be maintained and renovated. However the interior and the Southern and Eastern facades are to be demolished. Within the new proposed framework, these facades now become very public and need to be accessible and permeable. The prominence and resulting status of the building increases the value and marketability of the building. The interior spaces should thus be of a suitable standard. Both the ground and first floors are to retain their existing functions. A new reinforced concrete structure will be inserted to support the existing façade. A glazed façade will encourage interaction of the Southern and Eastern fronts with pedestrian activity.

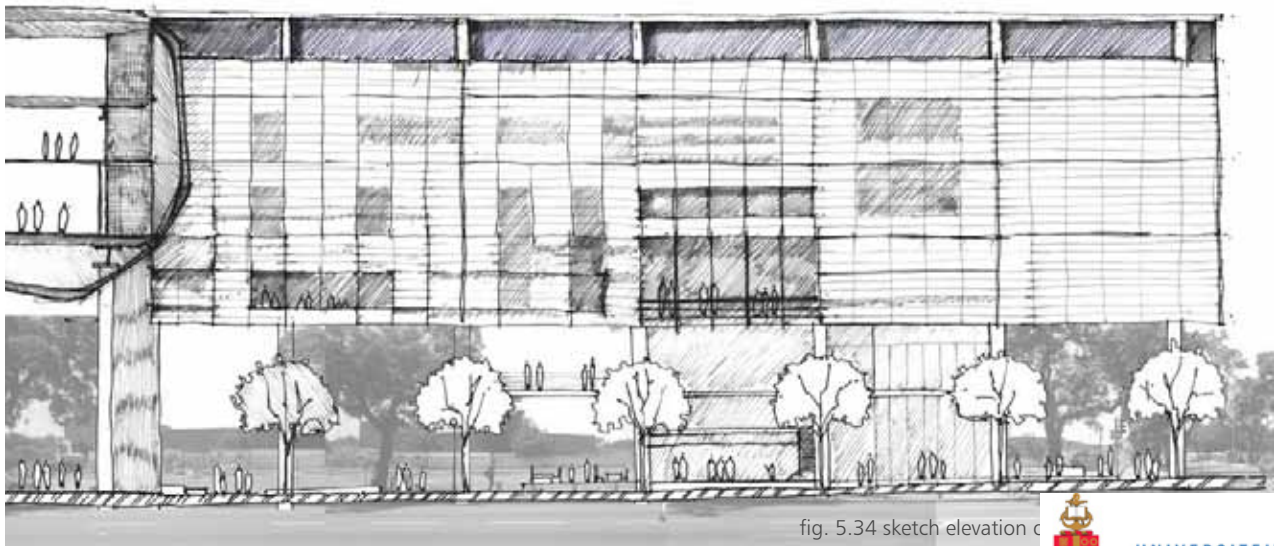


fig. 5.34 sketch elevation c





[c] threshold/link

Establishing a theoretical urban *threshold* is manifested in the form of a bridge linking the proposed two buildings either side of Paul Kruger Street. The bridge is located on the main mid-block pedestrian axis. It thus marks the gateway on both the vehicular route (Paul Kruger Street) and the pedestrian path. It reinforces the character and composition of the surrounding district, changing perspectives thereof.

The German philosopher Martin Heidegger describes a boundary as "...that, at which something begins its presencing...". Norberg-Schulz indicates it to be a threshold separating 'inside' from 'outside'. He, furthermore, identifies the basic properties of man-made places [Norberg-Schulz, C. 1976: p. 23]. The bridge is intended as a separate entity within the gateway development, its programme, as corporate restaurant and conference facility, denoting the *meeting place* of city and the exterior world. It is not to mark the exact moment of entering the urban environment, but should rather allude thereto.

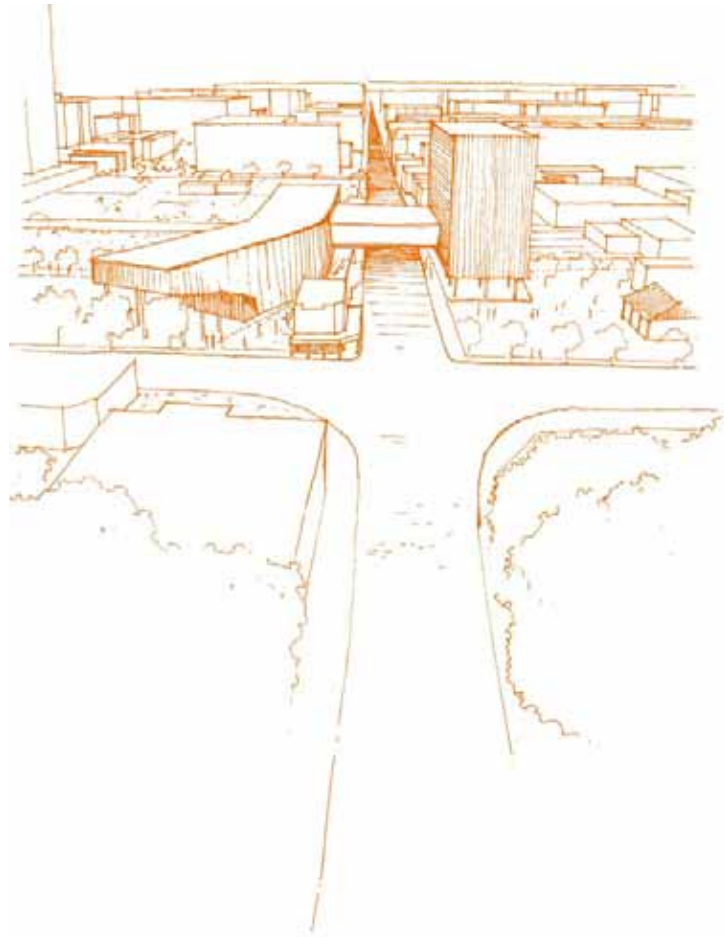
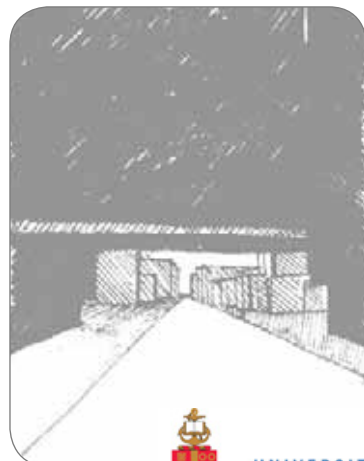


fig. 5.35 perspective view down Paul Kruger Street indicating threshold

fig. 5.36 perspective sketches of changing perceptions of threshold







[d] the landmark

The visual landmark takes form as a multi-storey tower block, initially conceptualised as a multi-functional predominantly office space building, later adopted as a new hotel building in a fellow student's project [P. Mare, 2007]. The abstraction and scale of the building is to contrast with the two and three storey surrounding buildings, achieving an iconic status within the urban environment. The tower associates the gateway with the city which it announces, a visual reference to buildings such as the Reserve Bank and ABSA Building. The surrounding components are to assist in achieving a well-scaled environment.

Tall buildings have been traditionally associated with the expression of power, and thus favoured by governments and institutions who wished to display such a public image. However, it is not this form of architectural meaning that is to be suggested. Rather, through a dynamic, interactive façade, the building can achieve a transient character. "The lightness must come from within, since it is not only a physical quality, but a mental, even philosophical one." [Piano, R. Domus, April 2001, p. 68]. Such employed interaction allows a social transfer between the interior user and the general public, contributing to a vibrant, dynamic street environment.

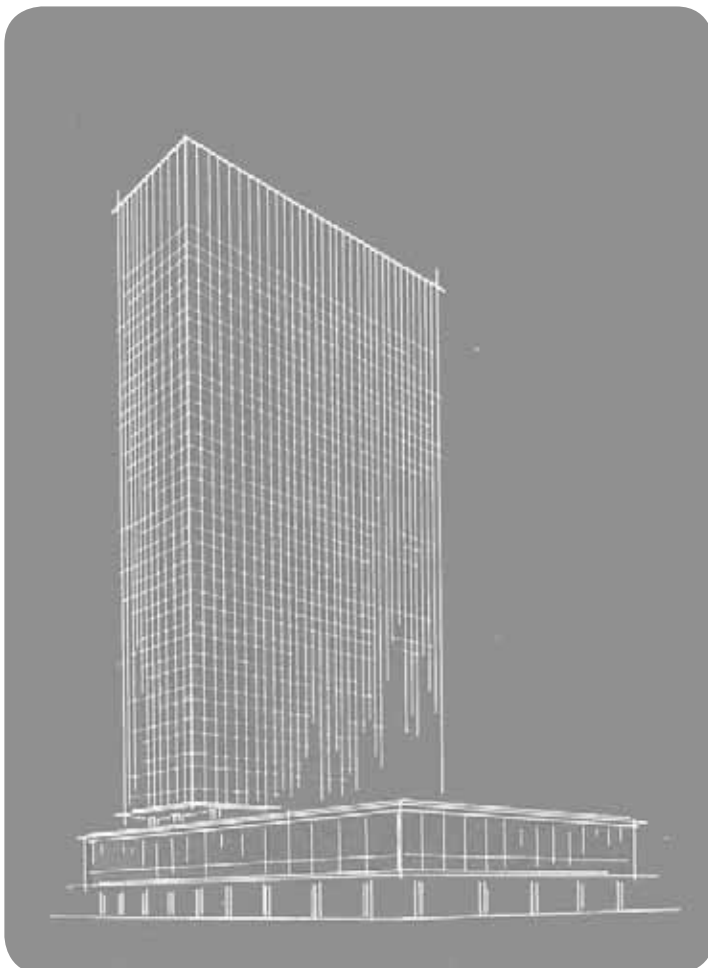


fig.  
thor





[e] Transition building



This building serves as the main focus of the architectural design and technical investigation. This building marks the transition from natural to urban. The process of entering the city affects the way you feel about the city once 'inside'. "If the transition is too abrupt there is no feeling of arrival..." [Alexander, C. *et al*, 1977: p. 549]. This transition building is thus to mediate between city and user, providing the necessary layers, assisting adjustment to the city environment. The building will thus act as an urban foyer, providing a legible entry point from which to proceed into the city. The building form shows a transition in a North-South direction from the organic of the natural, to the formalised structure of the urban. The programme, linear components and colour utilised will further allude to this transition. The transition from the public to private realm will be emphasised through the visibility of various spaces, ranging in use. Design generators of plan and programme can be categorised as [i] layering [ii] movement [iii] legibility

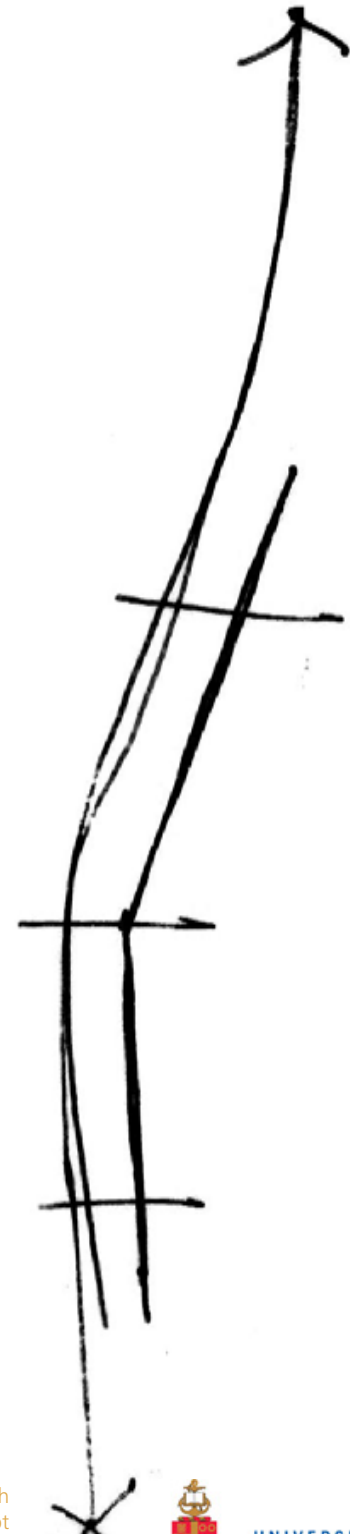
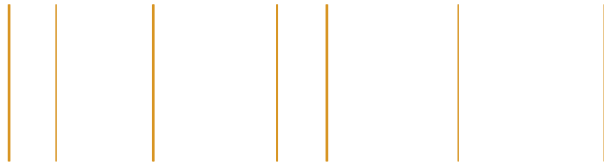


fig. 5.38 transition concept sketch  
5.39 western facade layering concept

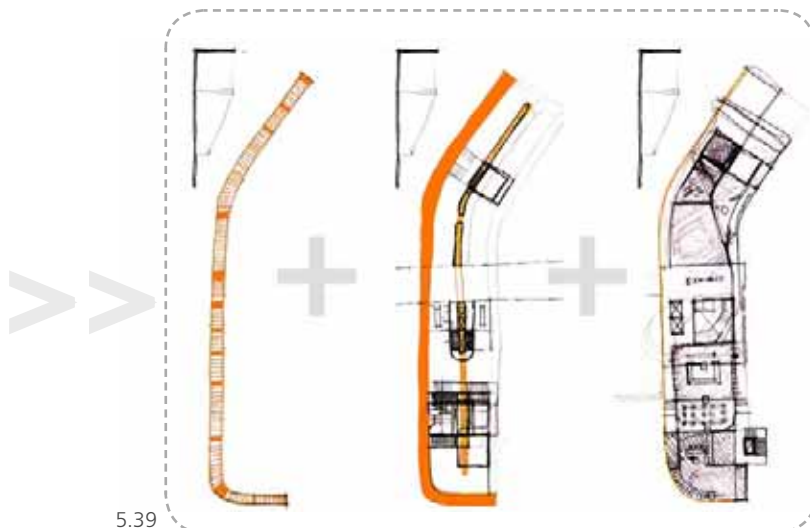




### [i] layering

The concept of layering assists in the transition across a boundary or *edge*. The building form refers to the natural-urban transition. The change in programme and spatial definition from North to South echoes this transition. The Northern tip of the building is designated with predominantly public facilities such as restaurants. The northern façade is also staggered, to suggest 'openness' towards nature, creating an organic flow. The linear quality of the plan also assumes a fluid nature. Proceeding to the South, the programme formalises, finding its anchor in the offices for the City Vision Department. This reinforces the designed client as the 'driving force' behind the proposed development. The stepping of the roof line- from a fourth floor level at the northern end, to a seventh floor level at the southernmost tip- relates to the scaling of heights as one moves into the centre of the city.

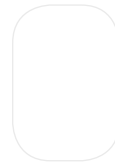
Layering is also displayed vertically, through the different floor levels. The openness of structure displayed by the ground- and first floors reinforces their public nature, further confirmed by the facilities designed on these levels. A transition from public to private space is experienced as one moves higher into the building, culminating in the semi-private roof gardens and private office space of the top floors. This layering of spatial types is also expressed on the plan. Walkways [*paths*] create an intermediate semi-public or semi-private space, which interact on varying levels with



5.39







public square. The opacity of the designed facades denotes the nature of the interaction.

The western façade, facing onto the street, is reacting to a fast-paced vehicle-dominated environment. It must create a bold first impression which can be appreciated at a speed. However, for the pedestrian, it should provide a finer-grained interaction relating to a slow, personal transition through the space. For the interior user of the walkways, it allows vantage points of the surroundings depending on the position and opacity of the panels. This façade creates a permeable, homogenous *edge* to the building.

The eastern façade is composed of boxes, varying in height and transparency, determined by the climatic requirements of the interior programme. Some portions of the façade are demarcated by translucent

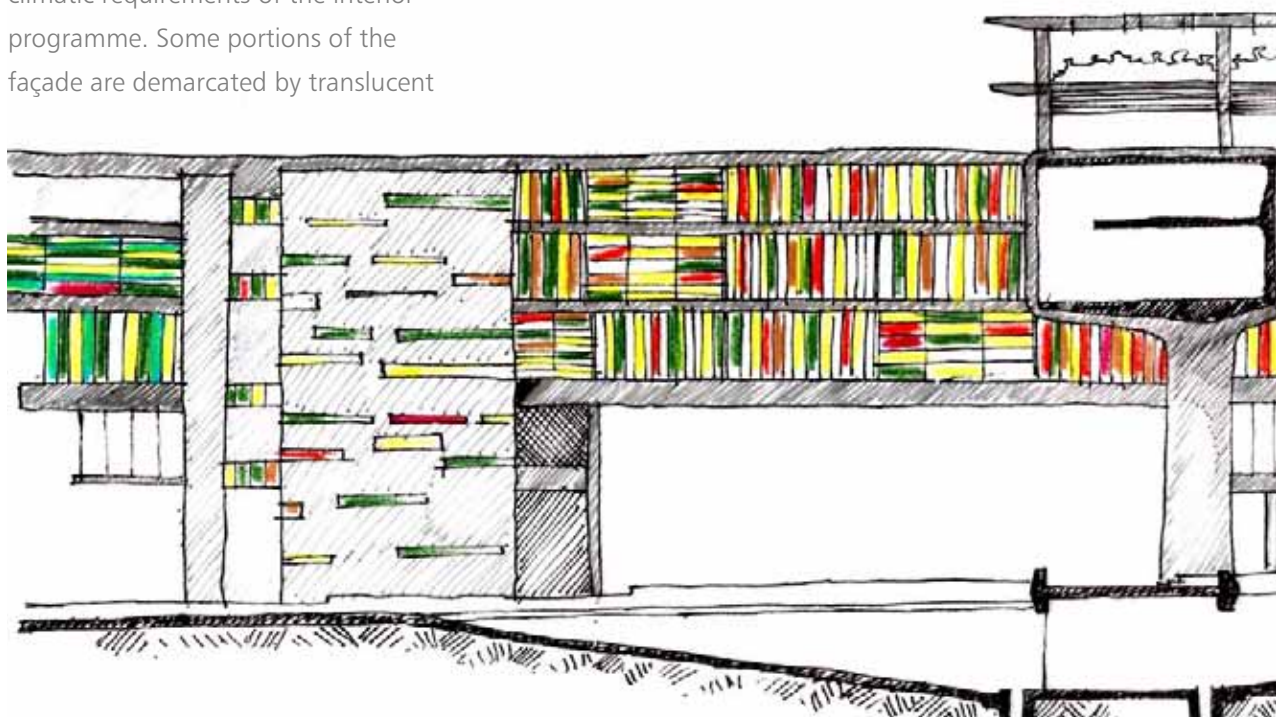
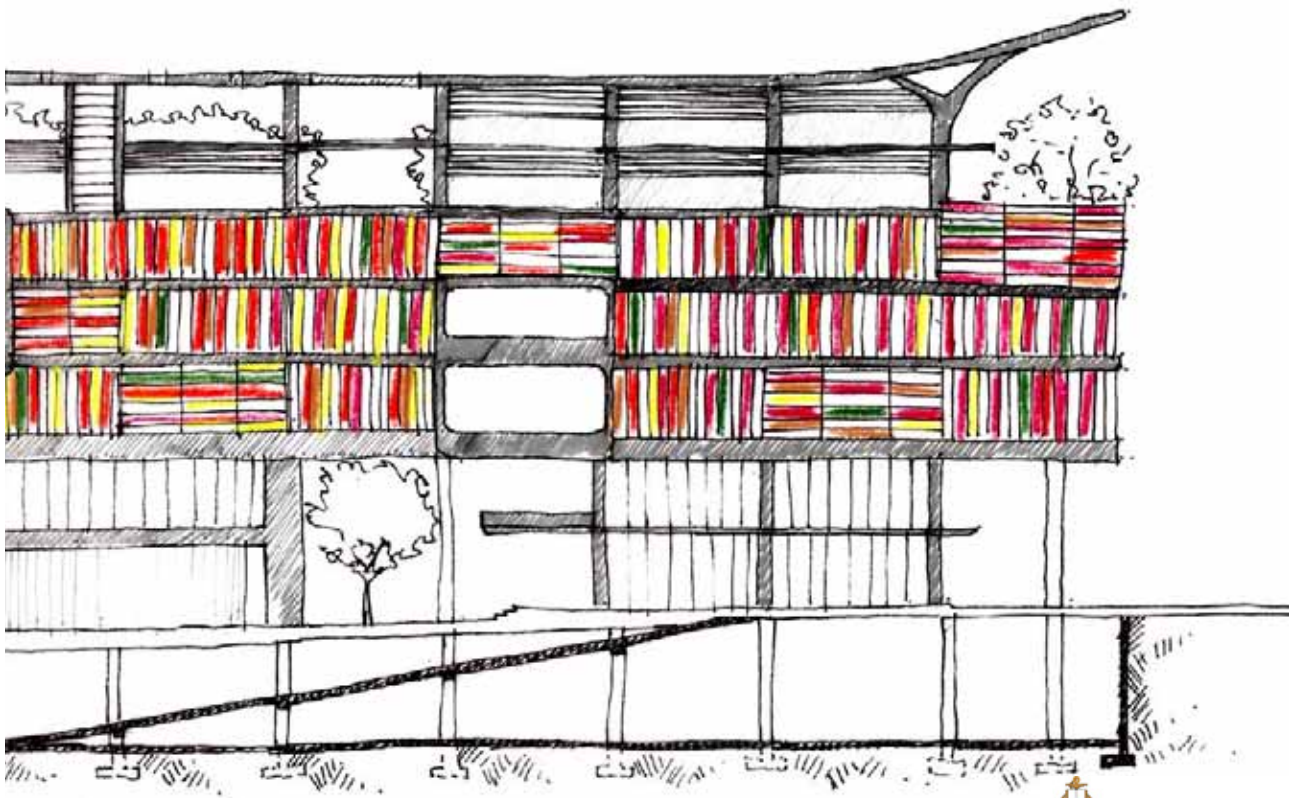


fig. 5.40 proposed design of western facade



glass balustrade. This opens the interior to visual access from the square, assisting in legibility of the building. Where more privacy is required, a screening solid display unit or waiting alcove is employed. Public seating is also provided on this façade. The activities generated by these components display the human element and distinctly public identity of the building.

This layering of activities is vital to displaying the human element and the building. By allowing visual access into areas usually closed off, a unique character is revealed of an urban building. The showcased human activity creates a dynamic, vibrant façade, contributing to the city user's perception of the building. This allows for various users to identify, through others, with the given environment.





## [ii] movement

Human movement through the spaces designed is the key linear factor from which plan form was derived. A mapping of free movement through the horizontal levels, especially on the ground floor, brought about the 'bent' line. People do not turn at sharp angles when changing direction on linear path. Rather, they turn gradually, creating an organic pattern.

The building too takes on this 'bent' character, funnelling movement towards the city centre. Paving and landscape design underneath and around the building suggests the building as a transitional element within the larger node, rather than a barrier. Approach to entry points of various facilities within the building are indicated with a 'softening' of line, leading movement. These lines improve the accessibility of the spaces.

The periphery walkways are specifically designed to be useful for more than just movement. Furnished with seating, worktops and display alcoves, these walkways are to have a 'cross-programmed' nature. Under the discussion of Parc de la Villette [04\_gateway components] the concept of *programme* and *events* was raised. The walkways are suited to accommodate various events, rather than purely facilitate a programme of movement. As such they encourage and display activity, vital to the design as backdrop for an experiential environment.

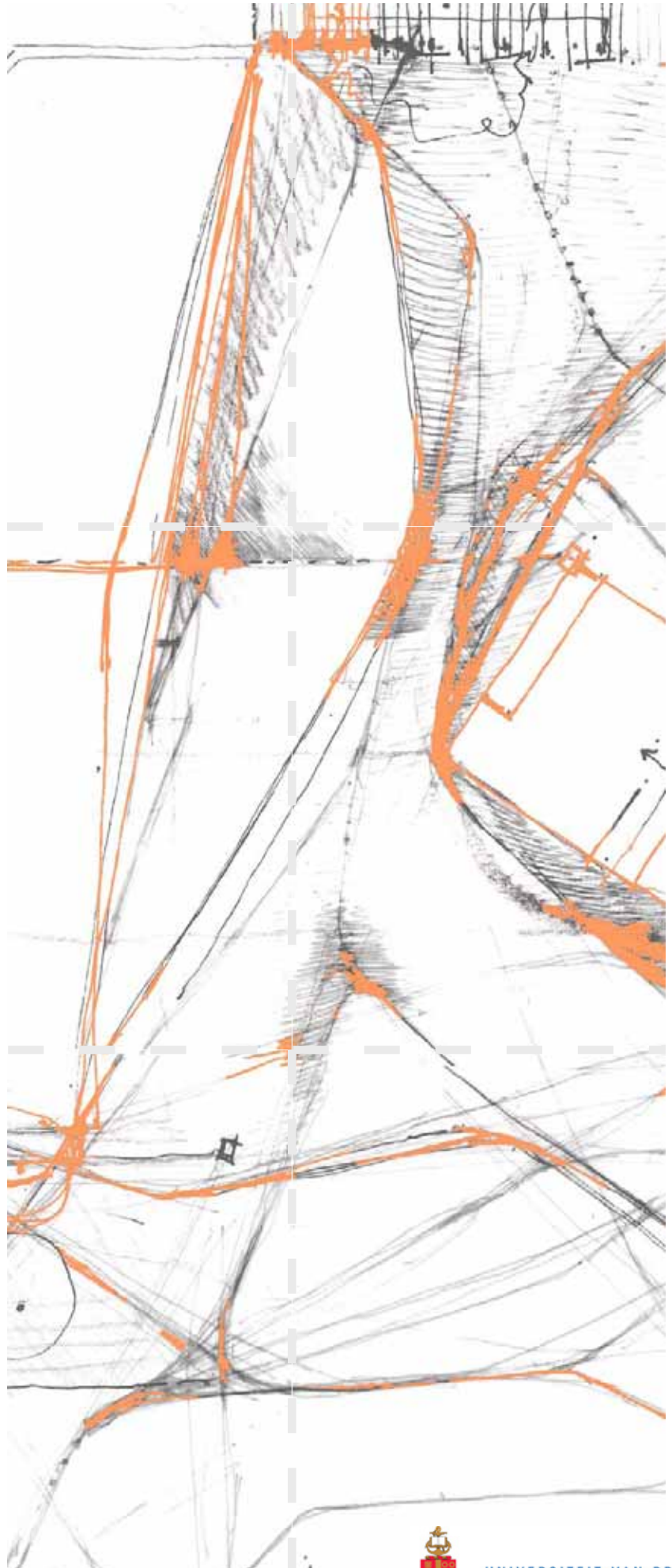






fig. 5.41 movement study\_analysis sketch

[iii] legibility

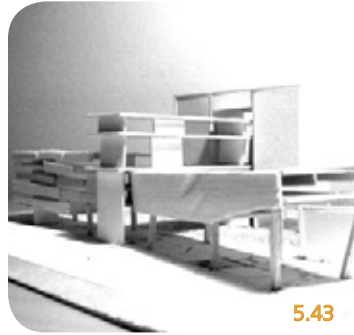
Visual legibility strongly influences the ease with which the unfamiliar visitors may navigate the building. The interactive western façade and colours employed will refer to the position of various functions. Sensors within the building will be activated by movement along the walkways. This will suggest the frequency of use of certain areas, varying according to time of day and function. This will assist users in discerning whether the desired public facility is available at present.

The spatial allocation of service and movement cores [*nodes*] concentrates functions, creating a common denominator throughout the different levels of the building. The central staircase, through its irregular and solid form, acts as a visual point of reference [*landmark*] from the square and various parts of the building. The walkways contribute to a rational understanding of movement along the building. The use of flexible signage allows for accurate indication of function and direction. The visual accessibility from the main movement cores was addressed.

Legibility and orientation is further reinforced by the use of vivid colours to identify floors. Through tile inlay details in the concrete screed floors and limiting signage and furnishings to a specific colour, position can be easily identified. This use of colour is to be transferred to facades for legibility of function on the exterior.



5.42

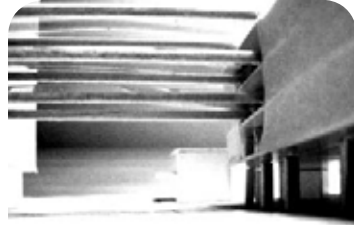


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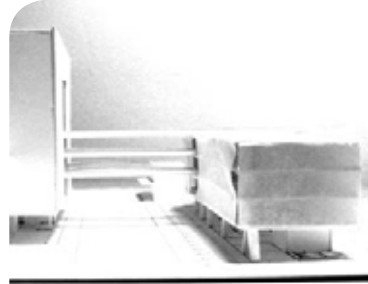


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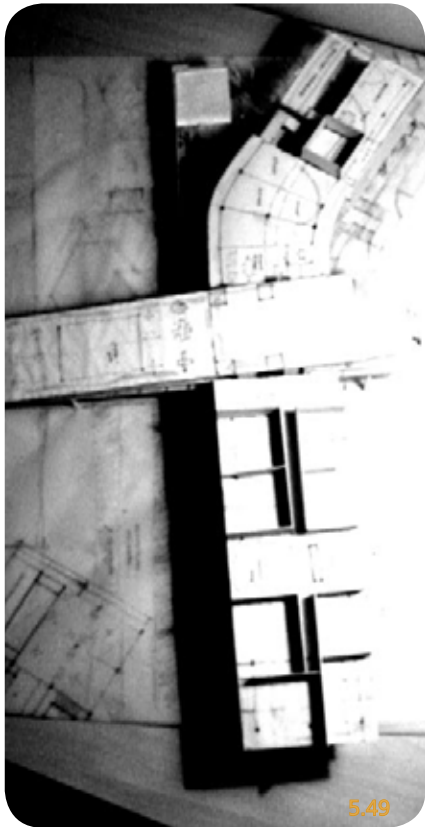
fig. 5.42-5.44 concept model 2  
5.45-5.46 concept model 3  
5.47-5.49 concept model 4  
5.50-5.53 concept model 5



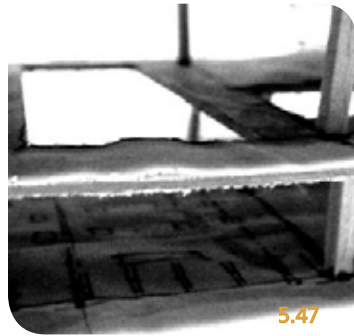
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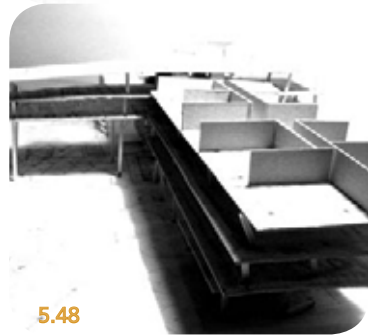
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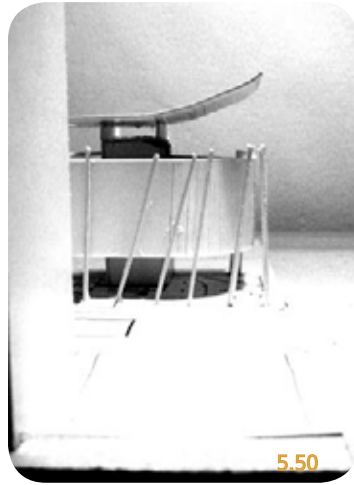
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5.47



5.48



5.50



5.51



5.52

