FRAGMENTS FLOATING IN TREES
RECLAIMING THE URBAN SURFACE

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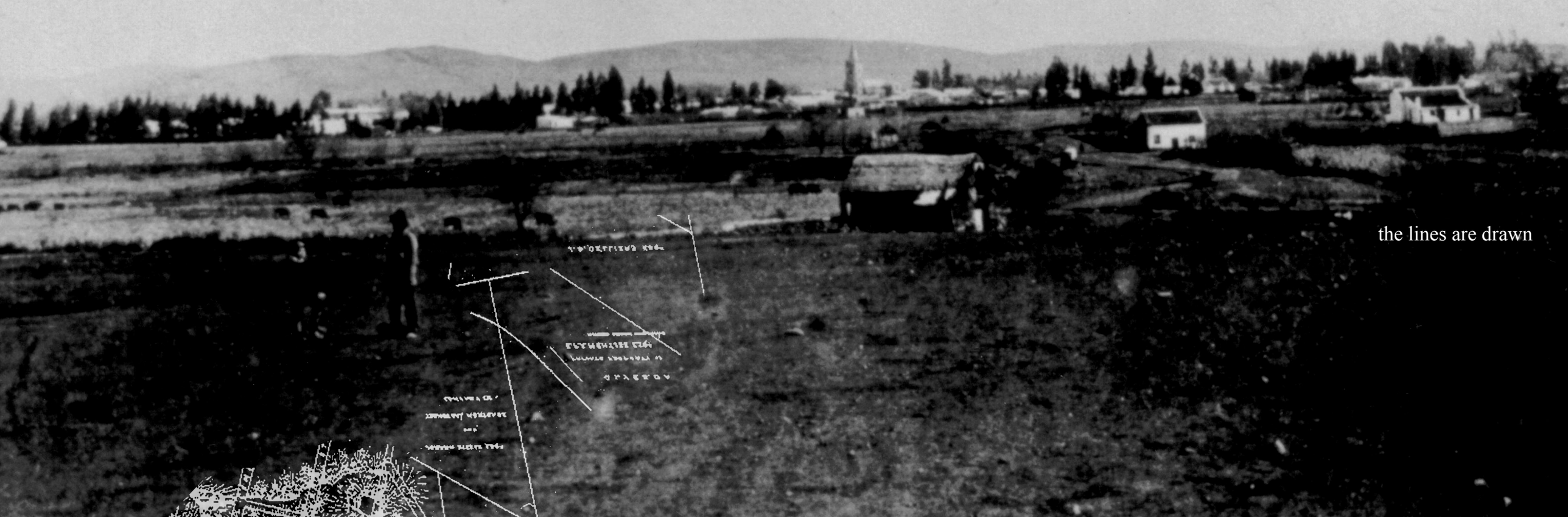
Figure 1

Photograph of Sunnyside, Pretoria c. late 19th century.

Architecture Department Archive: University of Pretoria, 2006



the lines are drawn

Figure 2.

Photograph of Sunnyside, Pretoria c. 1938.

Architecture Department Archive: University of Pretoria, 2006

the chips are counted

Figure 3.

Photograph of Sunnyside, Pretoria from roof of ABSA Building.

Author, 2006

Bold forms rise up from the ground, scorching the earth with their shadows. The ruptured earth grows darker by the day. Hellish creatures lurk in the silence, waiting. The forms have severed their ties with their maternal earth. They have become lost in the void: fragments floating in trees.

Figure 4.

Photograph of Maroela and Tambotie flat blocks of Spruitsig Park. Sunnyside, Pretoria.

Author, 2006

Abstract

This dissertation will investigate the functionalist influence on the development of Pretoria focusing specifically on the high-density residential area of Sunnyside. On an urban scale, it will examine how the combination of a topographically necessary east-west orientated road network, as well as a Functionalist building typology of north-facing flat blocks has resulted in north-south dead routes throughout the Sunnyside region.

While as a result of their orientation, these routes will always be doomed in the functional sense, they offer an opportunity to physically introduce an anti-functional theory in built form. This 'anti-functional', a theoretical reaction against modernist doctrine, will be implemented in these north-south routes, providing a synthesis of the existing functional and the imposed 'anti-functional' in Sunnyside's grid pattern.

This synthesis can be applied within a variety of scales, from that of the urban to that of the common pedestrian. In the same way that the unused north-south streets are utilized for the purpose of the 'anti-functional', the lost, unused spaces between the typologically north-facing flat blocks can be used. In so doing, the wastelands at the feet of these functional buildings can become spaces which reconnect them to their urban context and the people which inhabit it.

Table of Contents

List of Figures

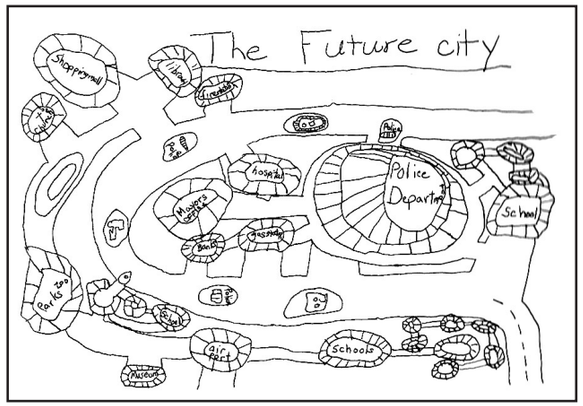


Figure 5

A drawing by an inner-city fifth grader depicts a future city governed by the police and containing huge highways which isolate each function.

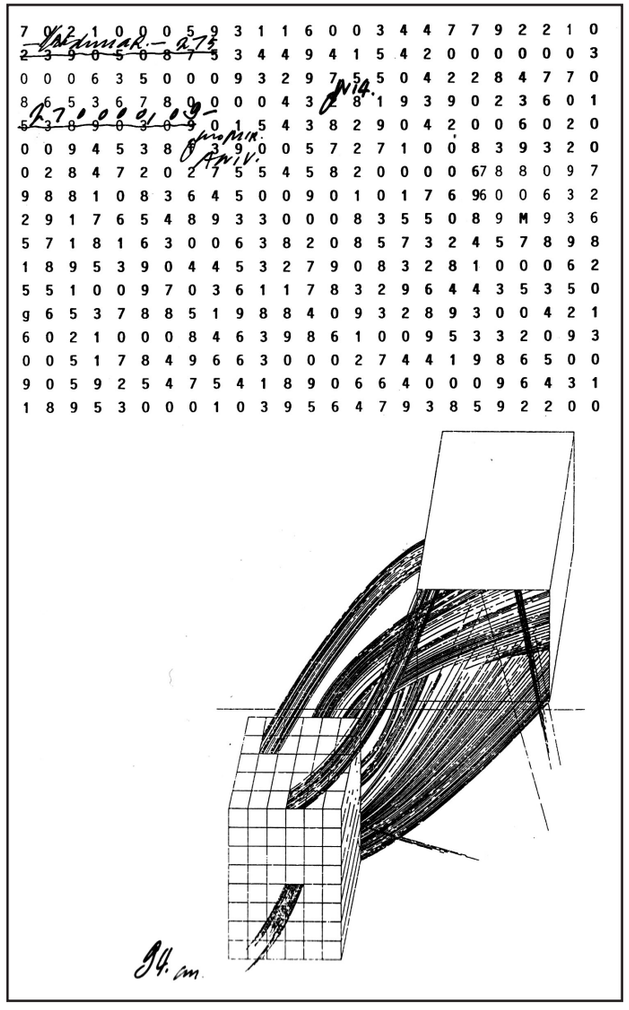


Figure 6

The flow of energy in space is an architecture of change: one thing affects another in ways that cannot be exactly predicted. Artwork by Lebbeus Woods.

Introduction

"In the urban, everything is calculable, quantifiable, programmable; everything, that is, except the drama that results from the co-presence and re-presentation of the elements calculated, quantified, and programmed." (Lefebvre 2003:119)

This statement highlights the necessity of the un-programmable coexistence of the programmable for the functioning of a complex urban environment. The Pretoria of today exists as isolated instances encapsulated by impenetrable boundaries. Fortified activities separated by roads and fences. Citizens are channeled through designated transport routes (pedestrian or vehicular) to be dispatched at their desired destination as quickly as possible, causing the city to become "further fragmented, dispersed and divided." (Bremner 1998: 14) Efficiency is paramount, and has resulted in an urban life of monotony. As Baudelaire has stated, probably the worst enemy of contemporary existence is boredom and habit.

The two images on the adjacent page (Figure 5 & 6) serve well to introduce the intentions of this dissertation, and will be referred back to throughout. It is important to note that this dissertation will attempt to aim somewhere between the following two polemics.

The first envisions an imagined 'future city' which can be likened to the Pretoria of today. The drawing, done by an American 5th Grade inner-city learner, depicts remote islands of programmed functions governed by the police and separated by enormous roads. The second image, an artwork by Lebbeus Woods, can perhaps be seen as the 'future city's' antithesis. It depicts the unpredictable free flowing of energy through space, which relates to the vital urban complexity mentioned above.

Theoretical Investigation

During the mid 20th century new theories were beginning to emerge which questioned the Modern movement's influence on the development of the world's urban environments. This section of the dissertation seeks to examine some of the ideas put forward as well as the success of their "anti-modern" sentiments. While it may seem that many of these theories are outdated, their validity regarding the nature of this dissertation is paramount. It is precisely during this time that the precinct of Sunnyside[1] began to become the high-density residential suburb that it is today. By investigating the development of Sunnyside as well as the ideas which emerged simultaneously, it is hoped that the validity of the "anti-functional" concepts put forward will become apparent.

1. Sunnyside is a precinct within the South African capital city of Pretoria.

Brutus and the Beast

The line between Functionalism and Brutalism in Pretoria is indistinct. While most 'Brutalist' buildings in Pretoria are understandably labeled so as a result of their aesthetic of exposed and often untreated concrete, steel and most considerably, face-brick, the term has more depth than mere surface treatment. For reasons which will later become apparent, this dissertation will recall the origins of the term, its separation from and the disruption of its paternal Congrés Internationaux d'Architecture Moderne (CIAM) as well as its aesthetic reunification with the functionalism it once reviled.

At the 1955 meeting of CIAM, issues which had been stirring within the younger members of the group for some time came to a head. In an attempt to stem the rising tide of criticism among the younger members of the group, the older members cynically entrusted them to conduct the 10th congress in the hope that the realities of responsibility would quiet them. Team-X (so called as they were responsible for the program of CIAM-X), consisted of young architects who were affiliated with the "New Brutalist" way of thinking and "were becoming increasingly tied by… admiration for each others work"(Banham 1966:70). It included members such as van Eyck, Candilis and the Smithsons, who had become increasingly dissatisfied with the concept of a 'mechanical architecture' which abided by the four postulates of the Athens Charter: Work, Residence, Recreation and Circulation.

In the preamble for the program of CIAM, Team-X wrote how shocked they were to see "how far the wonder of the 'ville radieuse' had faded from CIAM."(Banham 1966:70) For the congress, the group decided to present works in which the method of analysis was in terms of human association rather than

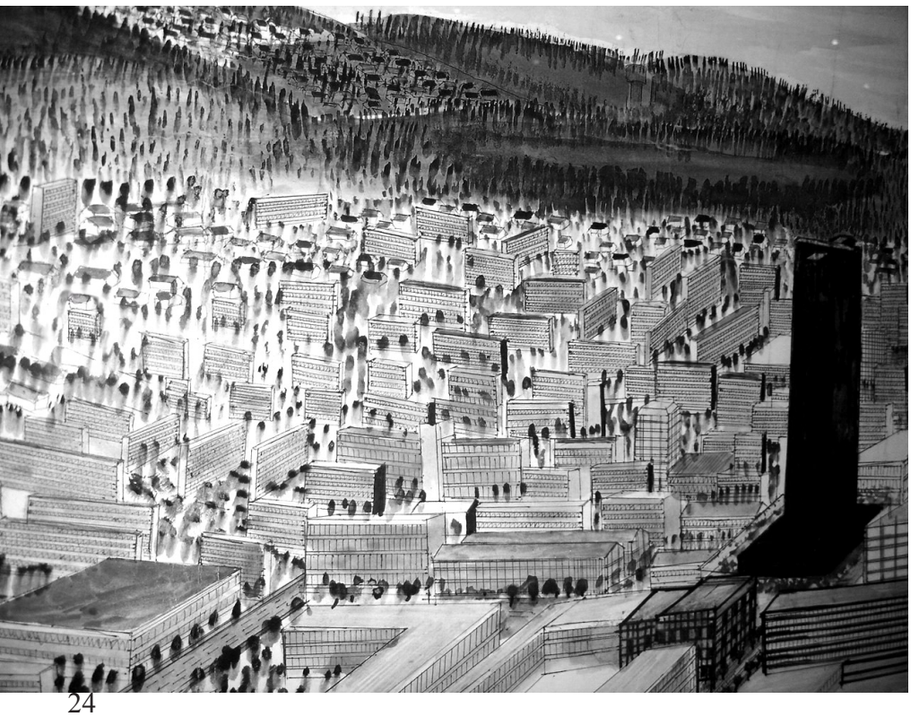


Figure 7

Titus Moteyane,
Panorama of Pretoria
Mixed Media, 60 x 85 cm, National History Museum, Pretoria

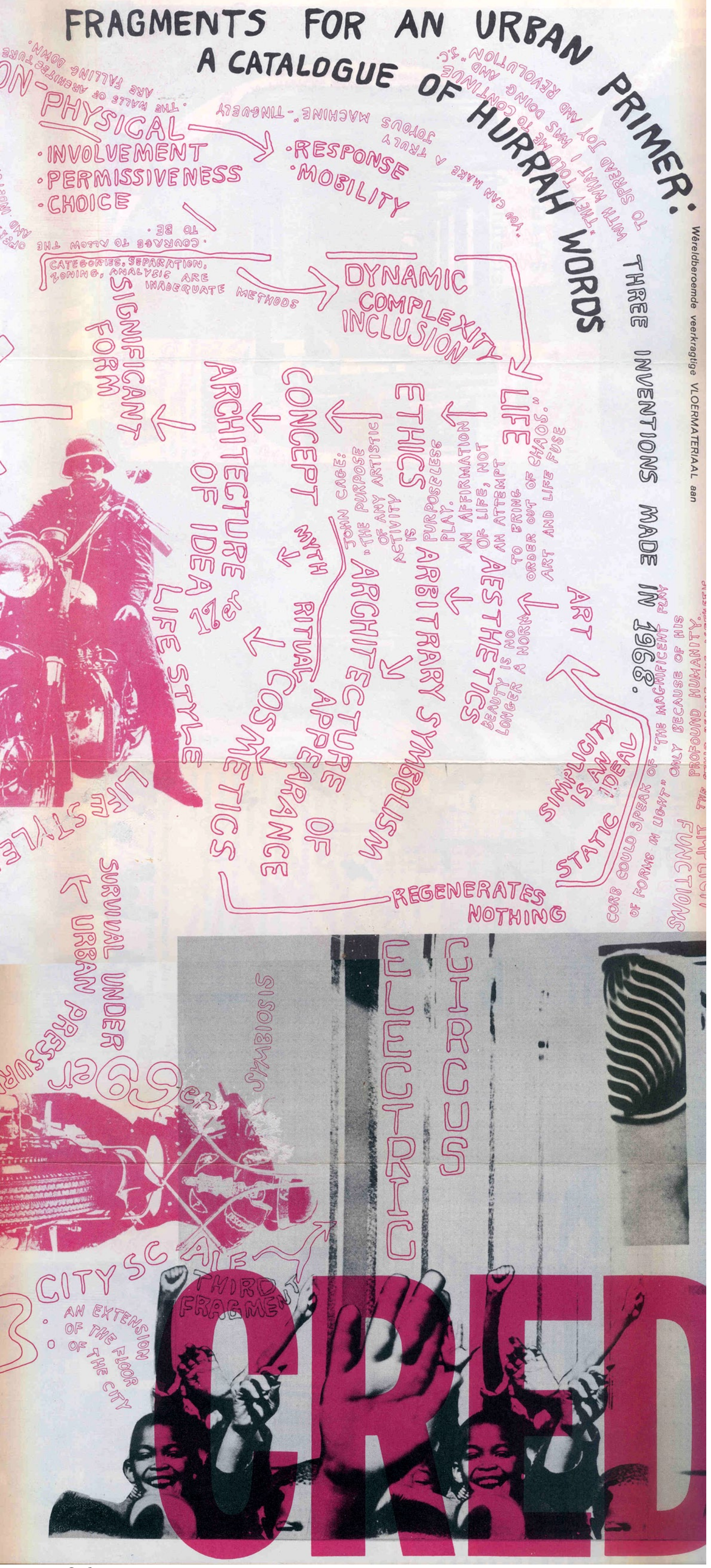
functional organization. This drastic break in architectural thinking presented at the congress marked the beginning of the end for CIAM, which, with more than 3000 members had become too dispersed to deal with any subject in any deserved detail. In the group's earliest published statement on town planning, they state the following:

"Young architects today feel a monumental dissatisfaction with the buildings they see going up around them. For them, the housing estates, the social centres and the blocks of flats are meaningless and irrelevant. They feel that the majority of architects have lost contact with reality and are building yesterday's dreams when the rest of us have woken up to today." (Banham 1966:71)

Other excerpts from the Brutalist's 1955 CIAM program explain that they were "seeking the ideal habitat for each particular place at [that] particular moment", a way of thinking contrary to that of Corbusier and his 'Radiant City', which generalized the site and idealized it to be devoid of accident. The Brutalists "proposed built environment of a particular place with all its accidental and special features, the unique solution to a unique situation."(Banham 1966:72) The Brutalists saw the 'chess board-like' documents drawn up by the Functionalists (with the most noticeable being the Athens Charter) as too diagrammatic and formalistic, and the Smithson's began redeveloping CIAM's functionalist views in a more humane and pragmatic basis.

It is somewhat strange then, that a movement so concerned with the 'situation' and the humanizing of functionalism has become synonymous with the concrete monsters which grace Pretoria's built environment. This can be attributed to the fact that after about a decade, the term 'Brutalist' had shed its "urbanistic and technological overtones, and [became] narrowed to a stylistic label concerned largely with the treatment (or non-treatment) of building surfaces."(Banham 1966:75) An ironic association was made in the 'béton brut' of Le Corbusier, where the heroic material was found to be specifically Brutalist. The irony of Le Corbusier's involvement extended further with Les Maison Jaoul, a house which epitomized the "implications of violence and crudity carried by the word 'brutal'." It also revealed "Le Corbusier rejecting the diagrammatic, formalistic and legalistic categories of the Athens Charter."(Banham 1966:85-86)
"Brutalism is thus a taste for self sufficient architectonic objects, aggressively placed in their surroundings; it is an energetic affirmation of the structure, the revenge of mass and plasticity over the aesthetics of matchboxes and cardboard; it aims to profit from the lessons of Modern Architecture stripped of all literary excuses. It is a method of working, certainly not a recipe for poesy." (Banham 1966:127)

In the South African context this "method of working" was implemented with vigor. An economic boom, the search for Afrikaner identity in the built environment, Kahn's much publicized influence as well as a visit by the Smithson's were just some of the factors that contributed to the development of Brutalism in mid-20th century Pretoria. (Fisher, personal communication, April, 2006) In Sunnyside particularly, the stylistic variations which are now labeled 'brutalism' are apparent: The building as an unified visual image, clear and memorable; clear exhibition of its structure; a high valuation of raw, untreated materials. (Banham 1966:127)



The negativities of the marriage of Afrikaner Nationalism and Brutalist Functionalism are perhaps best illustrated in the construction of the Rand Afrikaans University (RAU) in Johannesburg. The development, which was to "make a statement about the Afrikaner who had 'arrived' in the city" (Maré 1998: 284), was completed in 1974 by the WO Meyer partnership. Meyer, who completed his Masters degree under Kahn at the University of Pennsylvania, was understandably profoundly influenced by his mentor. Although Kahn's architecture is said to "[transcend] the reductive inclinations of the International Style architects [and pave] the way for an architecture of a richer, more complex, more symbolic and therefore more humane architecture" (Maré 1998:281), many of his buildings echo the aggressive monumentality of the Brutalists. Indeed, in the case of RAU it is not the experiential qualities that impress the visitor, but rather the sheer vastness and monumentality of the building.

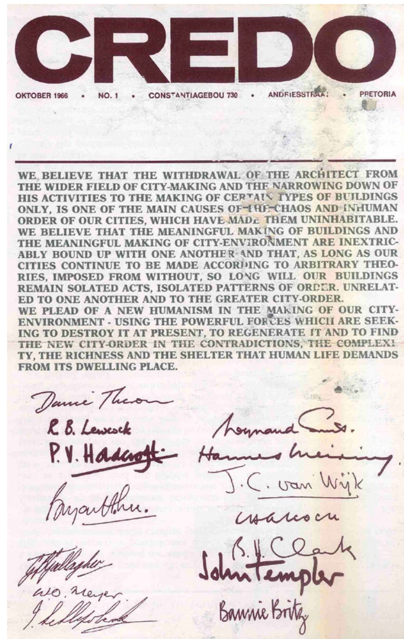
"The commentator despairs of the functionality of the services and the fact that the bodily discomfort of movement through the building becomes an existential hankering after comfort. Even more desperate is his need for the discovery of interesting routes which could at least have sustained the spirit."(Maré 1998:285)

The dichotomy between the original manifesto presented by Team-X at CIAM and its eventual dilution into an aesthetic and formalistic concern is also apparent in the South African manifestation of the movement. Like their European contemporaries, a group of like-minded South African architects found themselves dissatisfied with the architectural practice of the day. They produced a newsletter every two months titled *CREDO* in which they voiced their predominantly humanistic concerns. The contributors included amongst others Danie Theron, Wilhelm Meyer, Bannie Britz and Glen Gallagher In the beginning of every issue, a paragraph is dedicated to what could perhaps be seen as a manifesto:

"We plead a new humanism in the making of our city environment – using the powerful forces which are seeking to destroy it at present, to regenerate it and to find the new city-order in the contradictions, the complexity, the richness and the shelter that human life demands from its dwelling place."(CREDO No.1 1966:1)

Similar to the concerns of Team-X, the writers of *CREDO* were pitted against the dimensionless architecture of functionalism. They longed for the city to regain its vibrancy and complexity which had been robbed by the stifling effects of a town planning rooted in the outdated Athens Charter, where residential developments were a means of storage and the high-speed movement corridor was king. "Once there were places of joy and bustle, great stages of interaction and activity… …There was excitement, uncertainty, chance meeting and diversity,"(CREDO No.1: 1966:3)

However valid and noble the intentions of this group were, the efforts of the South African 'Brutalists', like those of the 'New Bruatalists', resulted in a mere stylistic adjustment to Pretoria's Functionalism. The desire for the situation and the experience of a vibrant street life was superficially translated into a surface treatment, instead of its "courage and revolutionary spirit [leading to a] truer sense of the relation between architecture and society."(Banham 1966:127)


CREDO

OKTOBER 1966 • NO. 1 • CONSTANTIAGEBOU 730 • ANDRIESSTRAAT • PRETORIA

WE BELIEVE THAT THE WITHDRAWAL OF THE ARCHITECT FROM THE WIDER FIELD OF CITY-MAKING AND THE NARROWING DOWN OF HIS ACTIVITIES TO THE MAKING OF CERTAIN TYPES OF BUILDINGS ONLY, IS ONE OF THE MAIN CAUSES OF THE CHAOS AND INHUMAN ORDER OF OUR CITIES, WHICH HAVE MADE THEM UNINHABITABLE.
WE BELIEVE THAT THE MEANINGFUL MAKING OF BUILDINGS AND THE MEANINGFUL MAKING OF CITY-ENVIRONMENT ARE INEXTRICABLY BOUND UP WITH ONE ANOTHER AND THAT, AS LONG AS OUR CITIES CONTINUE TO BE MADE ACCORDING TO ARBITRARY THEORIES, IMPOSED FROM WITHOUT, SO LONG WILL OUR BUILDINGS REMAIN SOLATED ACTS, ISOLATED PATTERNS OF ORDER. UNRELATED TO ONE ANOTHER AND TO THE GREATER CITY-ORDER.
WE PLEAD OF A NEW HUMANISM IN THE MAKING OF OUR CITY-ENVIRONMENT - USING THE POWERFUL FORCES WHICH ARE SEEKING TO DESTROY IT AT PRESENT, TO REGENERATE IT AND TO FIND THE NEW CITY-ORDER IN THE CONTRADICTIONS, THE COMPLEXITY, THE RICHNESS AND THE SHELTER THAT HUMAN LIFE DEMANDS FROM ITS DWELLING PLACE.

Figure 8 *(left)*

Fragments for an urban primer: A catalogue of hurrah words. in CREDO No. 13, October 1968

Figure 9 *(right)*

Original CREDO Manifesto signed by its various contributors in CREDO No. 1, October, 1966

Figure 10

Diagram Equating Le Corbusier's proposed *Plan Voisin* for Paris with the Sunnyside of today. *Clockwise from top-left:* Early 20th century Paris, Aerial Photograph, 1933, *The Radiant City*; Le Corbusier's Plan Voisin for Paris, 1933, *The Radiant City*; Aerial photograph of Sunnyside Precinct, 2006, Aerial photograph of Sunnyside Precinct showing historic corrugated houses, 1938 (Author 2006)

Tabula Rasa

A reflection of the divergence of the theoretical intentions and the built results of the international Brutalists can be seen in the Pretoria of today. The residential flat-blocks of Sunnyside are in fact functionalist buildings constructed in the Brutalist fashion, which by all appearances, are in accordance with the Athens Charter so vehemently rejected by the early Brutalists. This 'Plan Voison' of Southern Africa exists in the myriad of north-facing residential flat blocks in Sunnyside (Fig 10). The adopted pavilion style of architecture has resulted in the promised 'sky, air and light' for the individual units, but this has been accomplished to the detriment of the city below. As the "prevailing attitude of the Functionalists was to start from a clean slate" (Trancik 1986:21), Sunnyside's heritage of corrugated farm houses was cleared to be replaced by a vision of functionalism, with a startling resemblance to the Modernist utopia of parallel rows of high-rises depicted in Ludwig Hilbersiener's 'Ideal City' of 1920. And so, victim of International style's crusade, Sunnyside "…cleared the palette for a heroic, technically competent architecture that would establish a universal, man imposed order."(Trancik 1986:23)

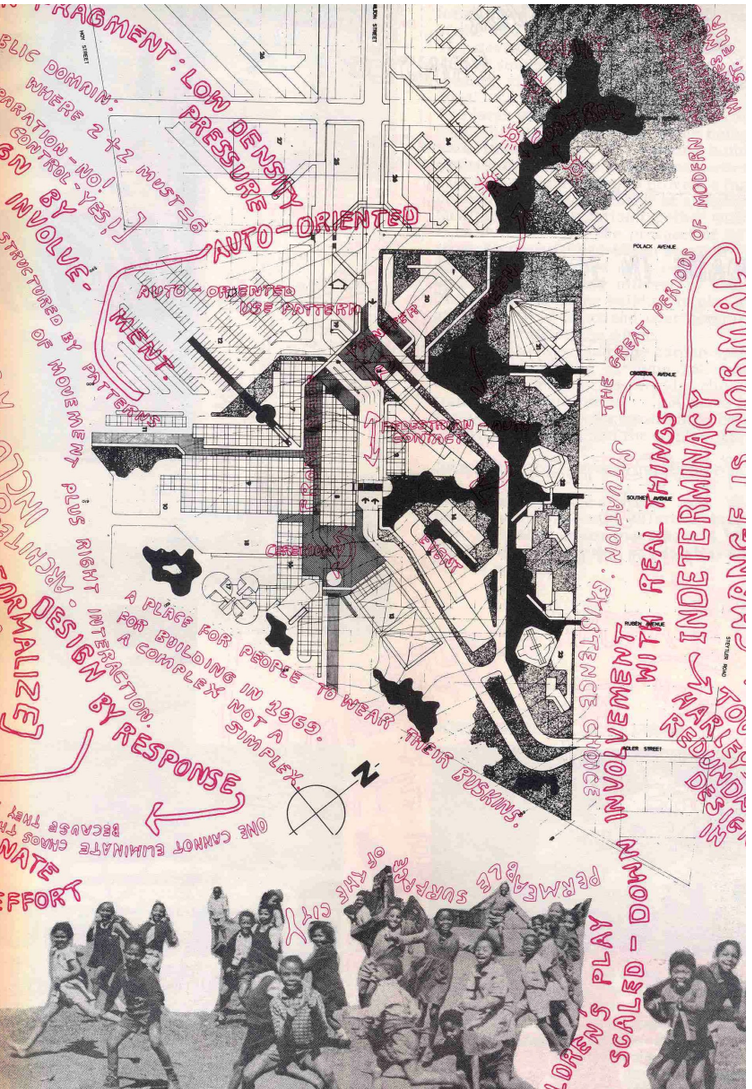
For the more avid 'anti-functionalists', it would be tempting prospect to adopt the attitude of the modernists and develop the city yet again from *tabula rasa.* Implementing the fantastic ideals of just one such group, the so-called 'New Urbanists' would merely be an "exercise in withdrawal from a complex world", romanticizing the past to attain some sort of "mythic communal coherence and shared identity."(Sennett 1997:67) Koolhaas, also tempted by the prospect, states the following: "But the notion of a new beginning – starting from scratch, the tabula rasa – had been taboo ever since Le Corbusier's brutal attempt with the plan Voison to scrape everything away at once. The harshness, the shock, the obvious insanity – but at the same time the incredible eloquence – of his operation closed the book on the question of the new beginning for generations to come."(Koolhaas 1995:1103)

In England, where Brutalism (arguably) began, there has been considerable effort to rescue many of the original buildings from demolition. One of them, the Old Vic Annexe, built in 1958 by Lyons Israel Ellis (Fig 11) has recently been listed to be preservation as an important historical building. David Lammy, Minister of Culture stated that the Old Vic "…is considered an important example in Britain of Brutalism."(Durrell 2006) Although "most people see the building as an incredible eye-sore", the building's place in Britain's architectural heritage has been preserved. The heritage of functionalism in Pretoria can be seen in a similar light. This coupled with our country's socio-economic situation and housing shortage, dismisses the notion of a new beginning.

Fig 11

Old Vic Annexe, a thetre workshop completed in 1958, is one of many Brutalist buildings to be proclaimed as heritage sites in England.

Modern space, anti-space and back again



Although the dispute against functionalism is a tired one, this dissertation deals with the typology's urban implications in Pretoria specifically, and how the spaces between the buildings have evolved with the changing demographics in post-apartheid South Africa. As with most Functionalist environments, the architects of residential Sunnyside had no concerns with open space. Functionalism "ignored or denied the importance of street space and other important outdoor rooms."(Trancik 1986: 8) While the entrance to the building was usually sensitively dealt with, it only served residents and visitors and the buildings became separate entities, estranged from their surrounding context. "Traditional qualities of urban space have been lost. Buildings are isolated objects; spaces between them are vast & formless…High vacancy rates, social pathology and boredom plague many such Functionalist developments… …The modern city dweller is forced to create a social life in personally controllable territory instead of engaging in a communal existence centered around the street."(Trancik 1986: 11)

In Pretoria, the Functionalist dilemma is exacerbated by the city's orientation and topography. As a result of its ridges acting as natural barriers, Pretoria has developed on an east-west axis. The Langeberg and Magaliesberg cut off development to the north, while the Witwatersberg does so to the south. As Pretoria has developed unhindered in the east, the east-west vehicular movement corridors have gained in prominence, growing ever wider to link the far reaching suburbs with the Central Business District. En route to city central, these corridors tunnel through the Sunnyside suburb, fissuring its urban coherence and rendering each city block a separate entity. The narrow north-south streets act merely as links between the east-west corridors, with no commercial viability due to their lack of traffic and pedestrian activity. The Functionalist nature of the suburb's typology further impairs the nature of these north-south streets. As a result of the international style's prerogative to have a north-facing orientation (even though flat units always have the curtains drawn due to the excessive heat of an African climate), the flat-blocks inevitably throw blind east and west façades onto these streets, allowing no interaction between the buildings and the street. Also, the Functionalist imperative of a ground plain of undulating public space has been lost. The phenomenon of 'fortification' so intrinsic to the South African public's post 1994 paranoia has resulted in the fencing in of each individual site. The fence acts as the interface between public and private spaces, a transparent impenetrable barrier between two dysfunctional spaces. "The advantage of living together has disappeared, only irritation remains."(CREDO No.4 1967:4)

All these factors have resulted in lost, unused semi-private space between the north-facing flat blocks. There is no opportunity for the street life to spill over the sidewalk into the important urban spaces which allow for the human interaction essential to a working community. "There is a yearning for the open pores of the street."(CREDO No.4 1967:4) The fenced in open areas have become wastelands of lost spaces, covered in shadow by the looming presence of Functionalist giants. The ominous nature of these spaces is further heightened by the awareness of a thousand gazes, staring down from above. The community living in a flat block is one "bounded by place only."(CREDO No.4 1967:4) Slanted eyes, quiet mutterings and sidelong glances have replaced what should be a healthy urban environment.

Figure 12 *(left)*

Continuation of *Fragments for an urban primer: A catalogue of hurrah words.* in CREDO No. 13, October 1968

Figure 13 *(above)*

Krisis in Pretoria (Crisis in Pretoria), Heading of an article discussing the advent of functionalism on Pretoria's historical heritage in CREDO No. 7, October 1967

Détourne (the redirection of meaning)

"Wandering in the city, getting lost purposely, has been fundamental to encounters with the ever-changing aspects and unexpected experience that the city offers constantly…as one drifts within a palimpsest of episodes and events. (Kim 2006:162)

During the first decade of post-war Europe, unrelated groups started to react against the Modern tendencies and theories advocated by Le Corbusier and championed by CIAM. These groups, of which some are discussed in this section, had similar goals to those of the 'New Brutalists'. Their methodology however, took a more radical stance, focusing on the subjective urban pedestrian rather than an objectified aesthetic. The subversive nature of their work relates to the 'anti-functional' - an antithesis.

The Situationist International

Among these newly emerging groups was the Lettrist International group, founded by the prolific poet, filmmaker and activist Guy Debord. His group had been campaigning against functionalist architecture by means of their Potlatch newsletters since 1954. They reacted against the 'repulsive' Le Corbusier who had the 'impertinence to present his architecture as unchangeable' (and be the architect of churches - the most sickening crime of all) as well as CIAM, the 'infinitely suspect organization [that] will soon evaporate.' Guy Debord and Constant Nieuwenhuys, Co-Founder of the COBRA group of painters (Brayer, Migayrou & Nanjo 2005:65), first came into contact through a congress advocating the concept of 'unitary urbanism', organized by the International Movement for an Imaginist Bauhaus.

Debord and Nieuwenhuys then formed the Internationale Situationniste (1957), which utilized the Bauhaus Imagining into the formulation of an alternative to the Bauhaus and CIAM. (Wigley 1998:14)

While the Situationists acknowledged that there were valuable lessons to be learnt from functionalist design, they felt that it would "be dissipated by a new way of life", "a whole new unitary urbanism based on the 'construction of atmosphere.'" (Wigley 1998:14) They advanced revolutionary urban and architectural ideas contrary to those of Modernist urban planning, focusing on concepts such as 'drift' and 'constructed situations.' (Brayer, Migayrou & Nanjo 2005:22) Debord translated his 'psychogeographic ideas' into the Psychogeographic Guide to Paris, a 'fragmentary map that investigated the possibility of new social freedoms by tracing routes based on the city's potential for chance wonderings and detours, rather than on the linear passage between residence and workplace."(Brayer, Migayrou & Nanjo 2005:22) It was a reaction against the unity and rationality of the plan, breaking it up into urban 'unities of ambience', and mapping the subjective movements of the pedestrian. (Brayer, Migayrou & Nanjo 2005:65)

Figure 14 *(left)*

Guy Debord. *Guide psychogéographique de Paris. Discours sur les passions de l'amour: Pentes psychogéographiques de la dérive et localisation d'unités d'ambiance*. 1957. Folded map. 59.5 x 73.5 cm.

Figure 15 *(above)*

Beauty is in the street, Poster, May 1968

Figure 16 *(below)*

Asger Jorn and Guy Debord, Mèmoires, 1957

Constant's New Babylon

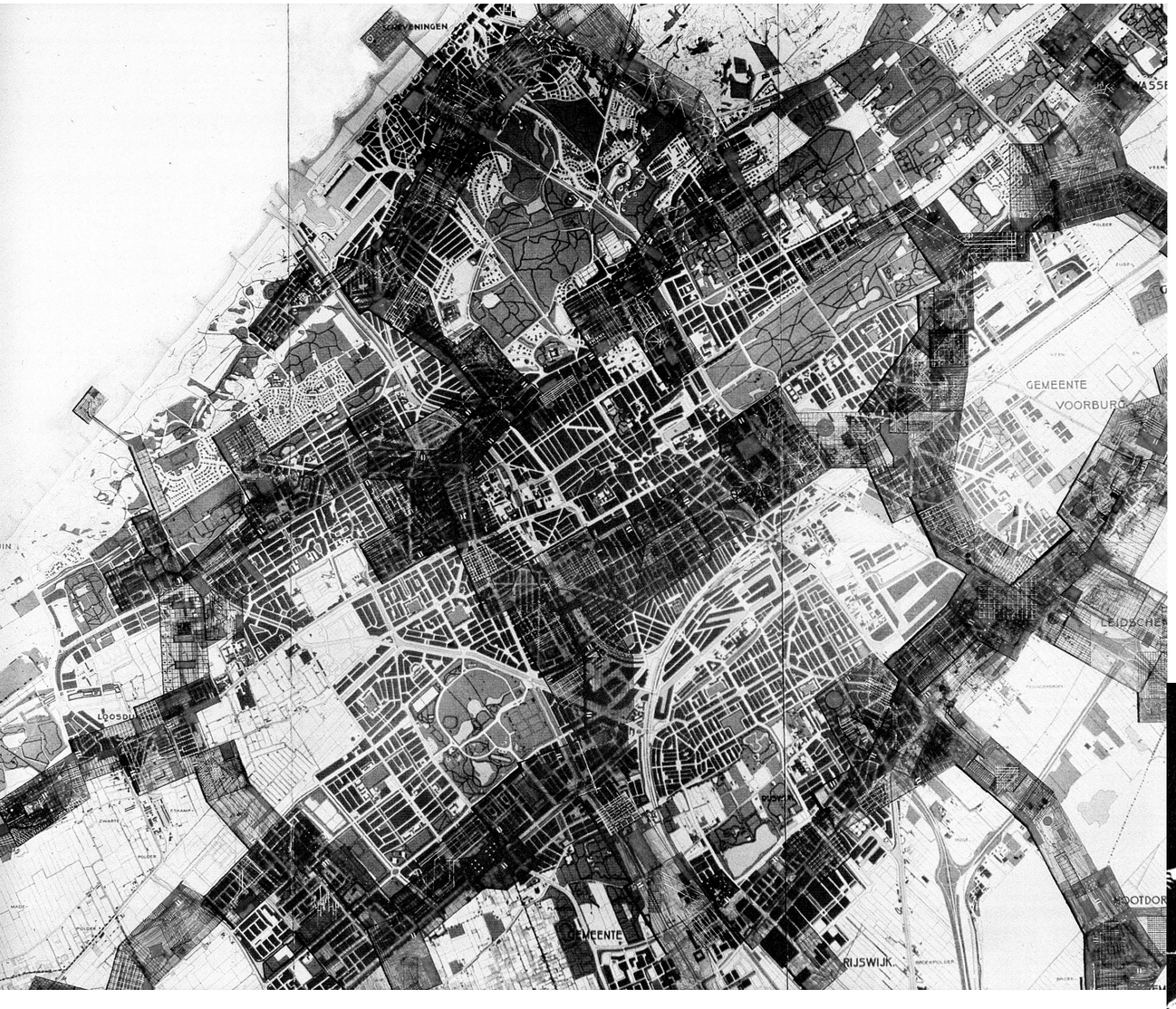


Figure 17

New Babylon/Den Haag (The Hague), watercolour on paper, 200 x 300 cm

Nieuwenhuys questioned the role of architecture in the city and, within the concept of a 'unitary urbanism', proclaimed that "the usual concerns for housing conditions, architectural style, form, economy and planning must give way to the free manipulation of atmosphere." He developed the idea of atmosphere (environmental conditions of climate, sound and light) producing architectural form (instead of vise versa) into a 14 year project called *New Babylon*, a visionary utopist global city which derives its forms from the desire and movement of a 'collective creativity': spaces of atmospheric intensity linked by flowing lines.(Wigley 1998:18) He rejected the urbanism of utilitarianism and social order for a "future ludic society where the 'dynamic labyrinth' would represent paradigm of both architectural and social utopia."(Ford 2005:74) The distinctions between work, leisure, public and private would disappear in favor of the concept of unitary urbanism. "A constructed situation is a means for unitary urbanism. Just as unitary urbanism is the indispensable basis for the construction of situations, in both play and seriousness, in a freer society."(Ford 2005:77)

Although Constant continued working on New Babylon until 1974, by then he had become disillusioned with the endeavor. He felt that if people were granted the unlimited freedom offered by unitary urbanism, they would come to violently abuse each other. This led to a later series of New Babylon images, "this time a dystopian nightmare."(Ford 2005:78) Constant's revelation at New Babylon's completion reveals the opposing extremity to functionalist doctrine.

The Situationists' prioritizing of the environment and context led to an architecture which became "more of a membrane in an interactive relationship with its surrounding environment rather than an individual building that was isolated from it." (Brayer, Migayrou & Nanjo 2005:23)

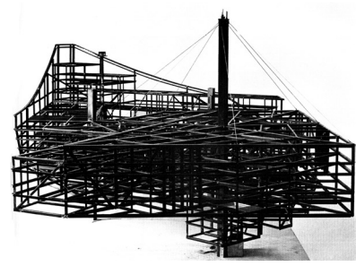
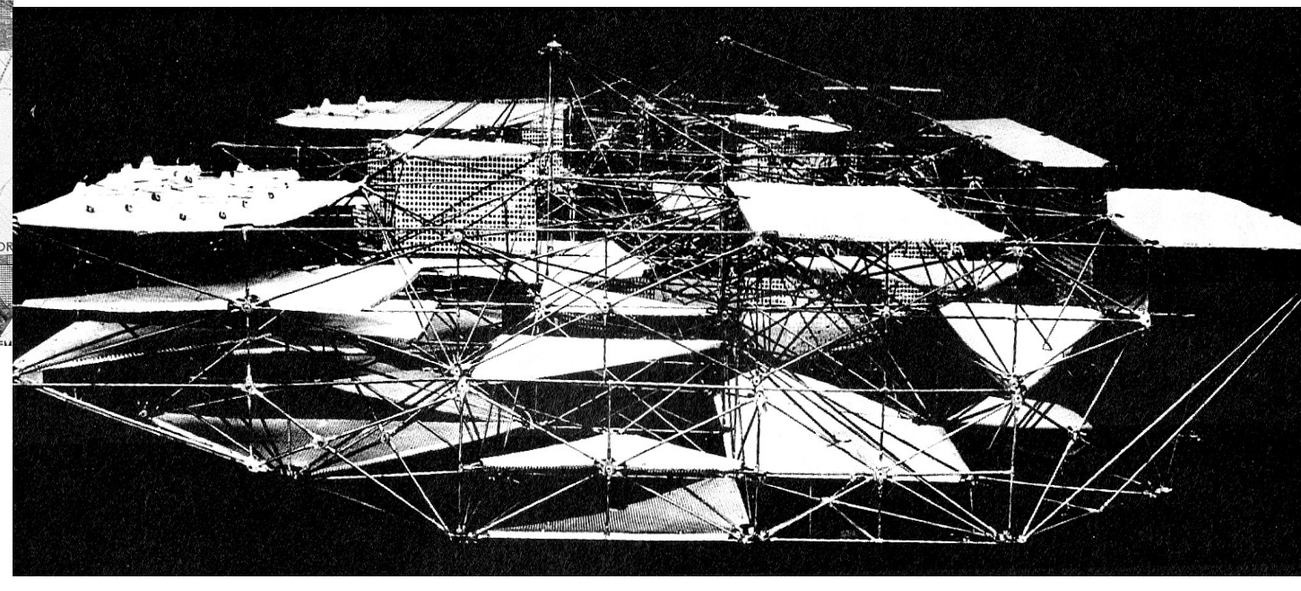


Figure 18

Early version of *Fragment van een sector* (Fragment of a Sector), 62 x 144 x 162 cm

Figure 19

Sector constructie (Sector Construction), metal, 280 x 160 x 160 cm, destroyed



Architecture Principe: Inhabitable Circulation

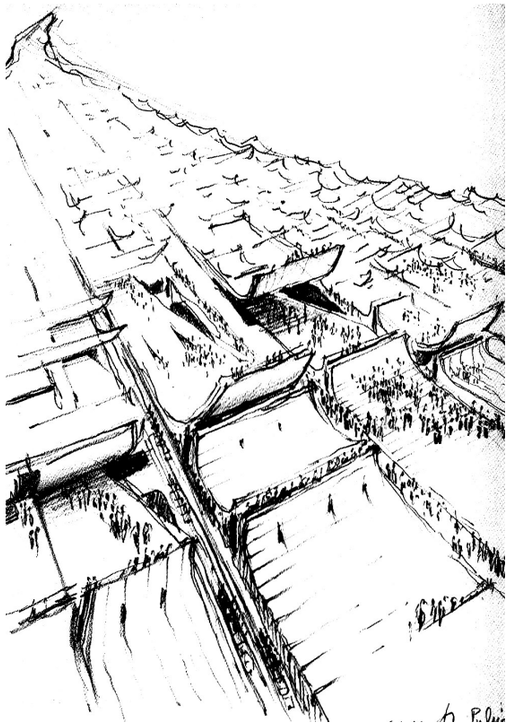


Figure 20

Human Impulse, 1966, pencil paper, 299.7 x 21 cm

Another group contesting modernist urban planning principles was Architecture Principe. The members, Claude Parent and Paul Virilio, implemented their theory of a sloping city, a city based on the 'function of the oblique'. With the oblique city, Architecture Principe sought an alternative to the vertical spatial dimension, as they felt that successions of these verticalities were attempts at social conquest. They viewed the oblique to be the third spatial order, with the horizontal spatial order of 19th century England and the vertical spatial order of Manhattan being the first and second. In his essay, The Mediated City, Virilio questions the identity of aboveground, inhabitable structures which are seen by urban planners as merely a 'means of storage' with the primary definition being their occupation density. Virilio maintains that it is the building's relation to the ground which can alter this characteristic, and that the ground between two verticalities cannot just be regarded as a 'watershed' of residual space. "It can no longer be the 'plinth of verticality', it must become the 'axial line' of the architectonic exercise. While vertical erection had just three possibilities – 1, raising, 2, elongating, 3, shifting – the oblique 'surrection' offers a host of possibilities through its gradients and their countless combinations"(Virilio in Brayer, Migayrou & Nanjo 2005:112). The search for the 'in-between' led to the development of 'mediate' spaces: folding and tilting structures which were both circulatory and inhabitable, providing layers of uses which could change according to the needs of the masses and the time. "Overcoming and liberating are thus shown to be the basic terms of the new urbanisation."(Virilio in Brayer, Migayrou & Nanjo 2005:112)

The oblique city was an attempt to stem the growing feelings of restriction and alienation of the postwar 1960's, a phenomenon which is now the norm within most of the South African built environment. The incline was seen as the medium of unrestricted spatial continuity, lending the route freedom and the gathering spontaneity.

"The incline precedes the human fluidity of the future, based on autonomous flight. It is a gesture of linkage with space."(Parent in Brayer, Migayrou & Nanjo 2005:111)

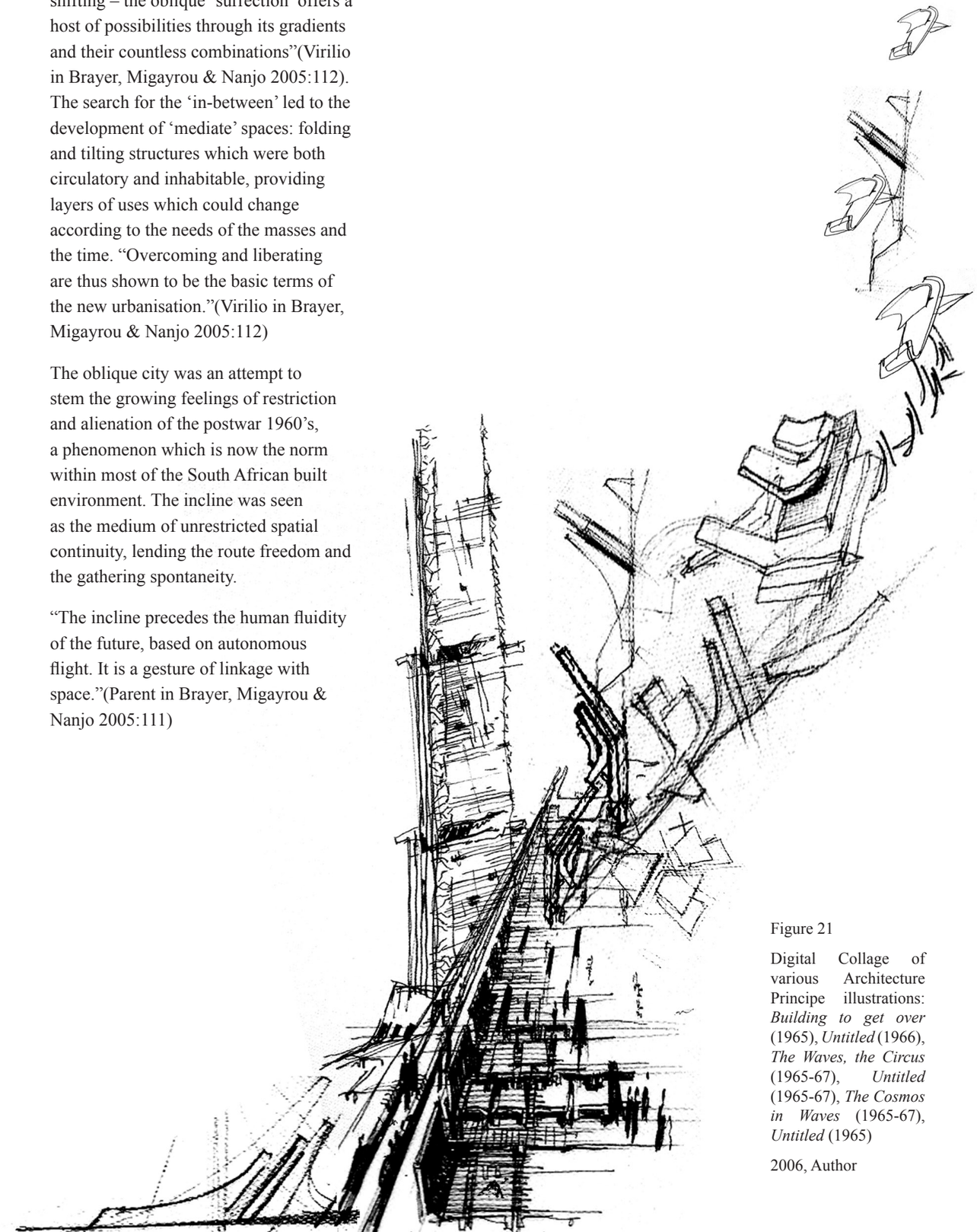


Figure 21

Digital Collage of various Architecture Principe illustrations: *Building to get over* (1965), *Untitled* (1966), *The Waves, the Circus* (1965-67), *Untitled* (1965-67), *The Cosmos in Waves* (1965-67), *Untitled* (1965)

2006, Author

Figure 22

Jonathan Borofsky, *Man Walking to the Sky in front of the Fridericianum during documenta 9*, Kassel, 1992, Fiberglass , aluminium, and ainted steel Pole: 24m long, Man: 198 x 141 x 55cm

Psychogeography Revisited

Although the theories of the Situationists, the New Babylon project and Oblique City have been cited as a result of their time of fruition corresponding to that of the New Brutalists, it is interesting to note that this line of artistic and urban thought is on the rise of late.

While they may not be as influential as the Situationists nor as fanciful as Architecture Principe, contemporary artists are giving us their interpretations of urbanism, and casting new light on the concepts of *psychogeography* and our *society of spectacle*.

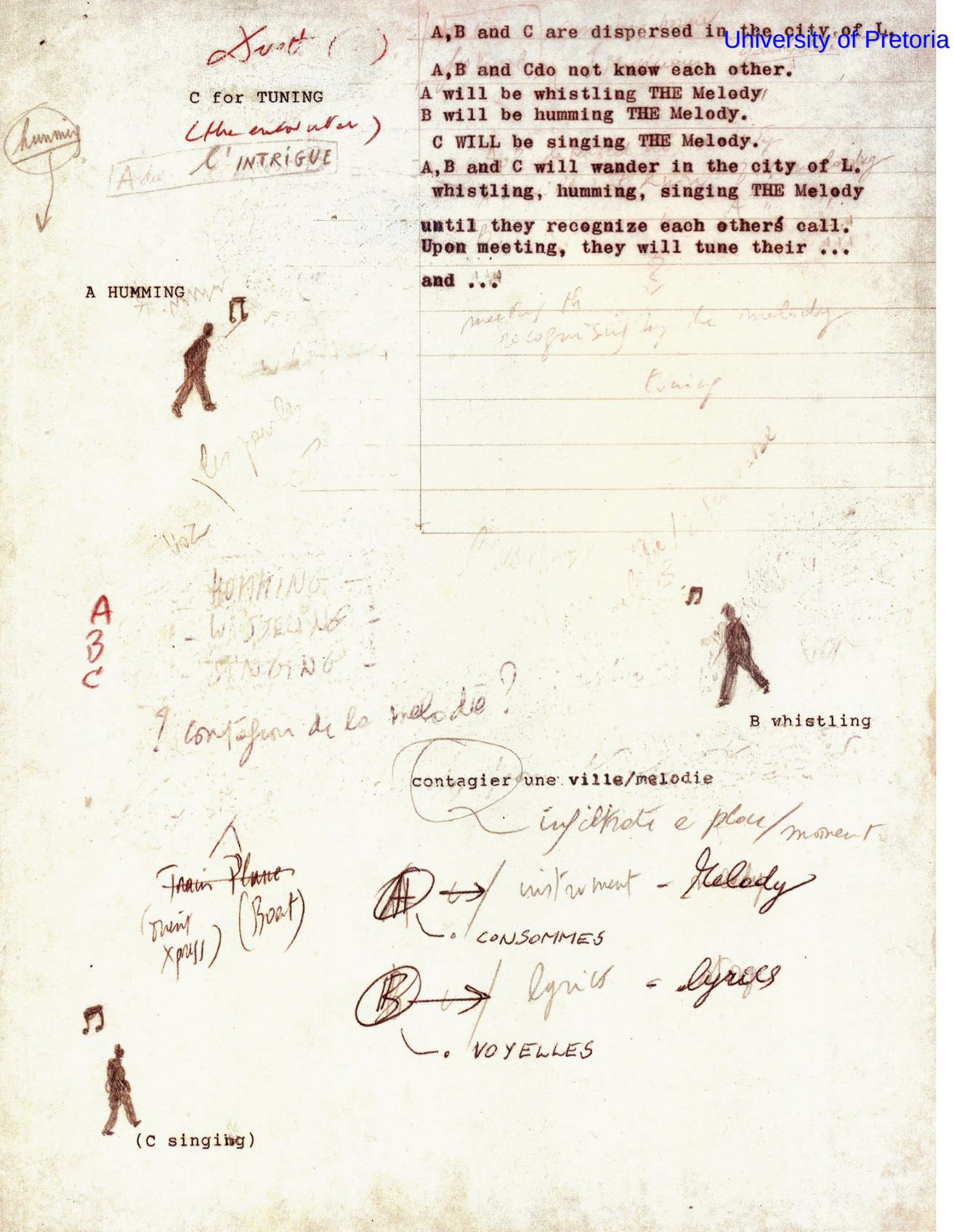


Figure 23

Instructions for A, B, and C; C for Tuning, A for Humming, B for Whistling, 2001, pencil and type on paper, 28 x 20.9 cm

Figure 24

Zócalo (Mexico City, 1999) is a 12 hour video documentary showing the progression of a flagpole's shadow over the city's main public square. The film reveals how chance encounters can be percieved as sculptural situations.

Francis Alÿs

Francis Alÿs was trained as an architect in Europe but soon became more interested in how we inhabit spaces on a more subversive level. He has lived and worked in Mexico City for the past 15 years and draws inspiration from the city's chaotic, sensuous and sometimes brutal streets. Exploring forms of anonymity is one of the chief concerns of the artist. "Precisely in opposition to the modern ideal of individualism, a state of anonymity provides an escape from historically determined cultural identities and prescribed social behaviours."(Matsui 2005:14) Alÿs derives his initial concepts for projects from the simple activity of strolling through the city. Through walking spontaneously through a city, he constantly tries to situate himself in a moving environment. By coupling these strolls with a simple narrative, Alÿs attempts to displace his usual identity within a public space.

For *The Collector* (Mexico City, 1991-92) a small magnetic dog on wheels was dragged through the city. As Alÿs walked, the toy dog gradually built up a coat of the city's metallic debris. *Paradox of Praxis* (Mexico City, 1997) documents the observation that "sometimes making something leads to nothing."(XXX) For this project, he pushed an enormous block of ice through the city streets until it had completely melted, leaving nothing but an evaporating trail of moisture behind it. For *The Leak* (Ghent, 1995) he roamed the streets with a punctured can of paint, leaving behind him a Pollock-like trail leading curious pedestrians to an art gallery in which he exhibited the empty can.

Something reminiscent of the Situationist's nomadic wondering is the investigation of the discontinuity between physical and mental space. In *Narcotourism* (Copenhagen, 1996) Alÿs walked through the city for seven days while being under the influence of a different drug each day. While the theme of anonymity and introspection are synonymous with Alÿs' work, he also documents the unexpected urban occurrences which lead to public interaction. Indeed, as the adjacent image reflects, Alÿs views the chance encounter and other minor anecdotes as the makers of urban life. In *Zocalo* (Mexico City, 1999) he documents in a twelve hour video the chance interaction between strangers seeking shade in a crowded city.

Glexis Novoa

Of particular relevance regarding the impact of the functionalist utopias imagined during the Modern Movement is the work of Glexis Novoa. This Cuban born artist witnessed first hand how the ideals of revolutionary Stalinist architecture degenerated into a dystopian nightmare of anonymous housing projects: dehumanized and oppressive. In his work, he often reflects how these architectural icons have become as hollow as the revolutionary slogans he once knew in Cuba. Drawing on this experience, he offers us startling lessons in appropriation. In one painting, he depicts squatters occupying the Statue of Liberty and in another, a Gothic Cathedral has been converted into an industrial warehouse.

In the depiction of his imagined bland and nondescript future cities, such as *From Murano Grande* (2002), Novoa shares Koolhaas' prediction of the generic city, one that could be anywhere, its culture and identity lost to globalization.

"The cityscapes seem ostensibly prosperous – the buildings are tall, the streets are clean – but are entirely devoid of life. There is not a single soul on the streets." (Gallo 2005:228)

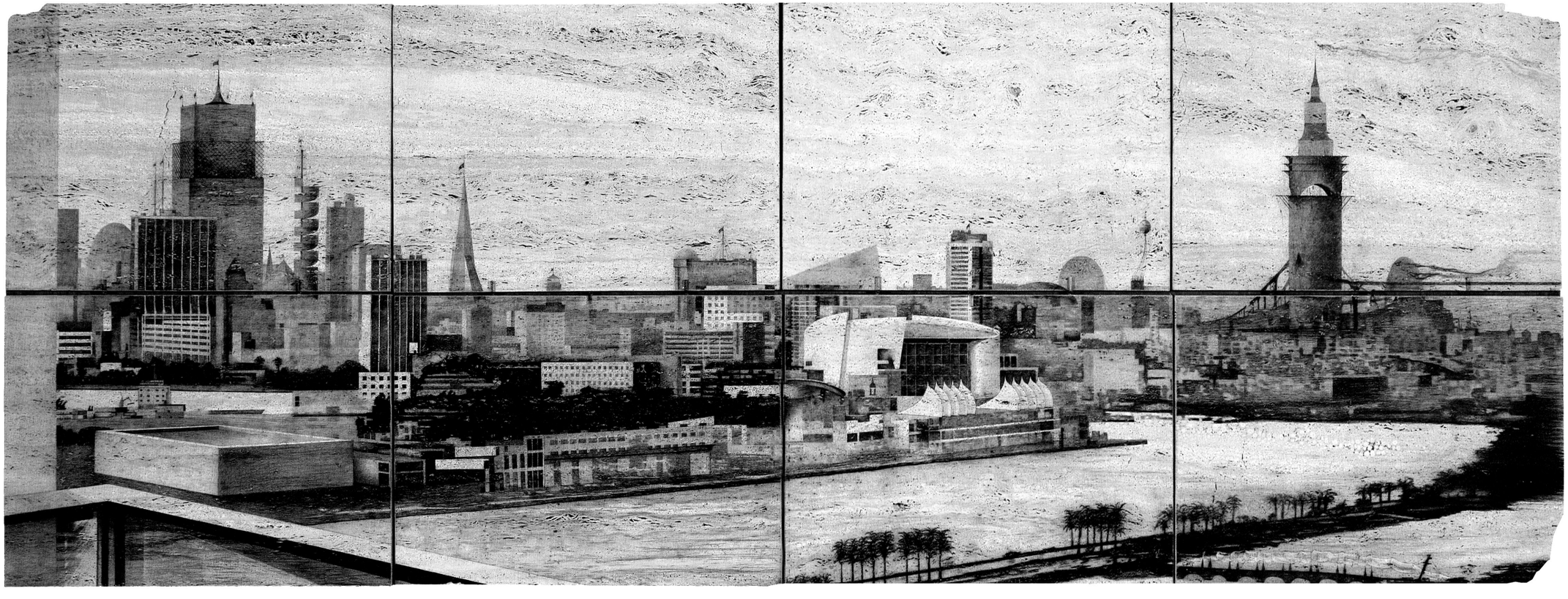


Figure 25

From Murano Grande, 2002, graphite on travertine marble, 91.4 x 304.8 cm

Simon Evans

The work of the two graphic artists featured on this page is, of all the work listed in this document, the most reminiscent of Guy Debord's *Psychogeographic Guide to Paris*.

A dominant theme in Simon Evans' work is a critique of the mundane functionality of everyday life, as well as the visual systems that we have invented to structure it. In *The World* (2003), Evans depicts a directory of the terrain of his own consciousness, "a spatial guide to the artist's own private purgatory."(Molon 2005:98)

Much of his other work involves the process of obsessive list making. In *1000 Smiles* (2003), Evans strips down a fundamentally human characteristic to an anonymous statistic. Through the process of self-defeating list-making, Evans investigates "the futility and absurdity of our many attempts to limit or define the boundaries of the staggering complexity of human endeavor."(Molon 2005:98)

Figure 26

The World, 2003, mixed media on paper, 162.6 x 221 cm

Stanley Donwood

The graphic artist of the band *Radiohead* built on the psychogeographic mapping tradition with his package design of the 2003 album *Hail to the Thief.* Based in Los Angeles during production, Donwood drew inspiration from the city's omnipresent road network and traffic signs. Similar to Evans, the result was an imagined city, a map built up of real and imagined observations and experiences, documenting his own personal purgatory.

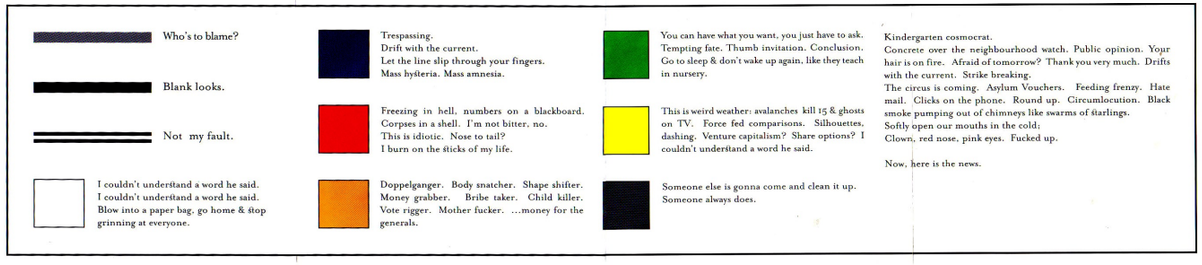


Figure 27

Poster in *Radiohead: Hail to the Thief - Special Edition,* 2003, 70 x 48 cm

Conclusion

Although all the ideas that have been mentioned emerged from a general dissatisfaction with the Modern Movement, each theory's uniqueness is evident. While the influence of the New Brutalists in South Africa resulted in an add-on to Functionalism, the Situationists approached the dilemma from the perspective of human endeavor (a fact which can probably be attributed to their non-architectural inclination). The New Brutalists focused on solving the problem of mundane existence brought about by architecture with architecture, while the Situationists sought the solution with the concepts of *psychogeography* and *détourne*. It is for this reason that the concepts of the Situationists, Constant Niewenhuis, Architecture Principe, Superstudio as well as the contemporary artists listed will be utilized to support the "anti-functional" argument.

As mentioned before, this "anti-functional" will be used in conjunction with the existing (functional) built environment of Sunnyside. The process of its urban implementation will be discussed in the following section.

Figure 28

Photograph of the appropriation of an unused lot into a make-shift night club, Havana, Cuba

2006, Author

Urban intervention: an anti-functional response

"Modernism's alchemistic promise – to transform quantity into quality through abstraction and repetition – has been a failure, a hoax: magic that didn't work. Its ideas aesthetics, strategies are finished. Together, all attempts to make a new beginning have only discredited the idea of a new beginning. A collective shame in the wake of this fiasco has left a massive crater in our understanding of modernity and modernization… …Dissatisfaction with the contemporary city has not led to the development of a credible alternative; it has, on the contrary, inspired only more refined ways of articulating dissatisfaction. A profession persists in its fantasies, its ideology, its pretension, its illusions of involvement and control, and is therefore incapable of conceiving new modesties, partial interventions, strategic realignments, compromised positions that might influence, redirect, succeed in limited terms, regroup, begin from scratch even, but will never reestablish control… …[architecture] exploits and exhausts the potentials that can be generated finally only by urbanism, and that only the specific imagination of urbanism can invent and renew…"(Koolhaas 1995:959)

While most of what the 'making of architecture' constitutes is the addition to an existing fabric, these can usually be viewed as isolated instances of intervention. As Koolhaas mentions above, the ideal of a better city is not the concern of architecture, but rather that of urbanism, with architecture serving as a tool toward its collective good. However influential or useful it may be, architecture serves only one site. Anything more constitutes urbanism. **It is for this reason that this dissertation will focus in depth on the scale of the urban**. It is this and only this that can contribute to the city on a larger scale. The experimental mapping and urbanism dealt with in this dissertation should not be seen as a 'master-plan'. The term, tainted by its functionalist connotations has become taboo to the extent of rendering the profession of urbanism questionable. It is precisely the fact that this dissertation's proposal is in effect a 'master plan' without a 'plan' that makes it valid.

While most of the high density urban fabric that constitutes Pretoria's 'urbanness' is commercially based, Sunnyside and Arcadia are predominantly residential suburbs. The simple fact that there are always going to be people in any desired vicinity within the suburb maintains that the potential for urban regeneration is valid. The usual dilemma of a downtown not being able to sustain itself 24 hours a day due to its commercial nature is not applicable. This dissertation will investigate the possibilities of intervention in the north-south streets within the Sunnyside precinct. The profound Functionalist influence on the development of the area cannot be erased, it can however be enhanced. The depth and complexity vital to any successful urban environment can begin to manifest in the areas which shy away from the high speed motorways which tunnel through its fabric. In so doing, these streets can begin to define a character based on the people that inhabit it, instead of a character rooted in zoning, function and private land use.

The design proposal postulates the possibility of superimposing a Situationist 'grid of nomadic wondering' over the existing functionalist grid. This map, reminiscent of Debord's 'Psychogeographic Guide to Paris' can be implemented in the neglected north-south streets and spaces between the buildings of Sunnyside. The urban strategy of a 'grid of nomadic wondering' is effective precisely because of its 'anti-modernness', working within the existing modernist fabric to provide a synthesis in symbiotic coexistence. The east-west movement corridors will be untouched, left to handle the quantifiable aspects of a city's functioning, while the north-south streets will begin to embody the qualitative: joy; excitement; encounter; hope.

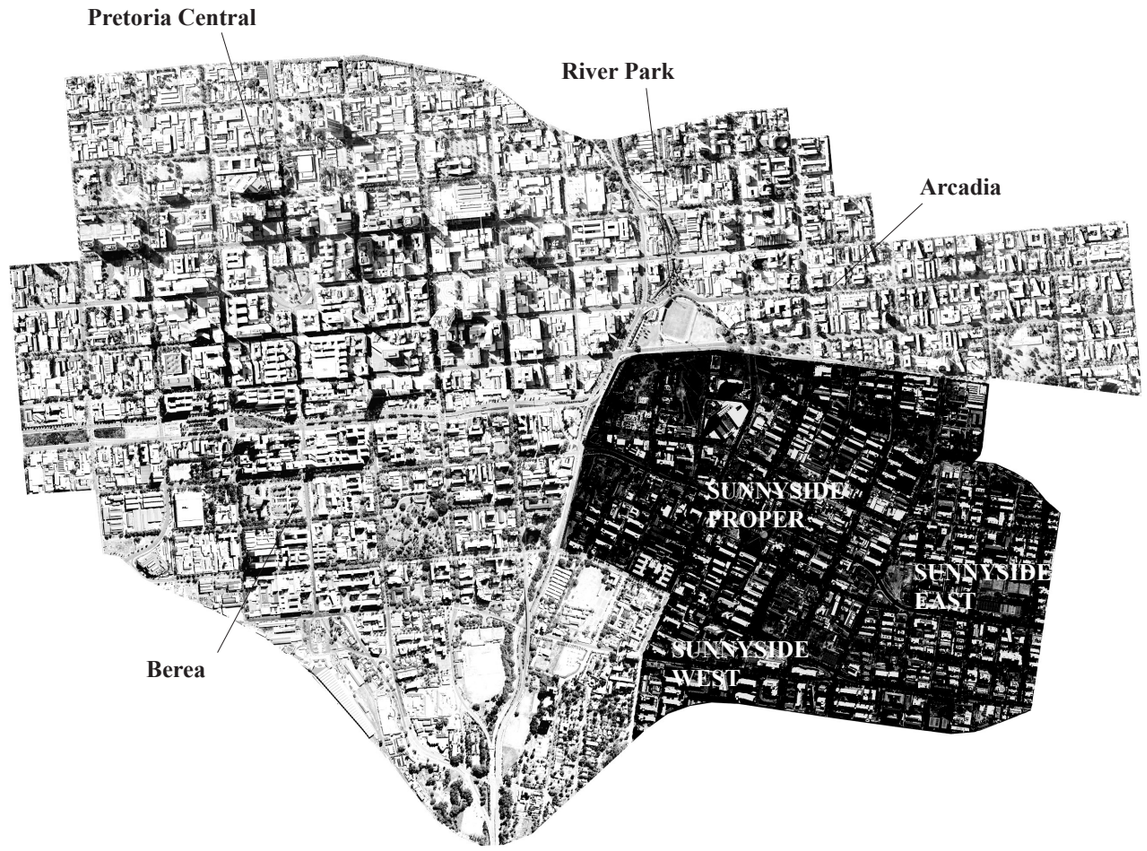


Figure 29

Diagram indicating the precinct (dark) in which the urban intervention will take place. The precinct includes Sunnyside Proper, Sunnyside East and Sunnyside West, the region in which the high density, north-facing residential typology is prevalent. The precinct is flanked by Arcadia to the north, Berea to the west and Pretoria Central to the north-west(light).

2006, Author

Figure 30

Diagram illustrting the east-west road network passing through the Sunnyside precinct. These streets link the Pretoria CBD to the eastern suburbs gaining in prominance as the development of Pretoria continues unhindered to the east. These “tunnels” fissure the urban coherence of the precinct, rendering each city block a separate entity, islands of life in a sea of vehicles.

2006, Author

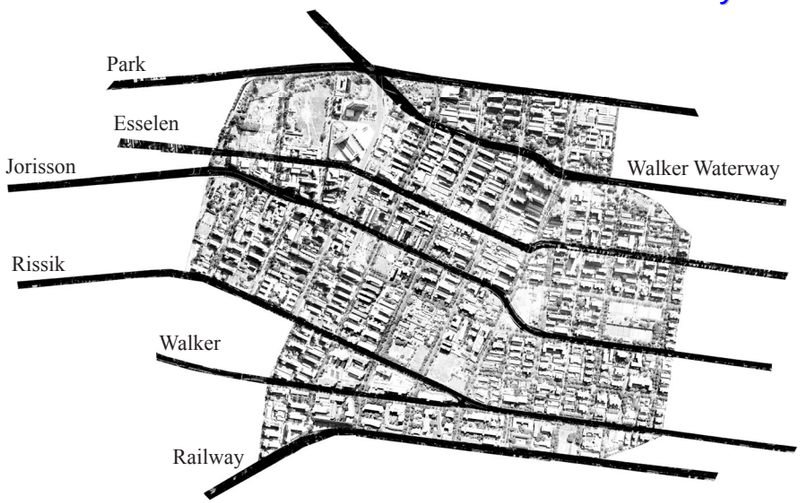


Figure 31

The north south streets which complete the city grid act merely as links between the east-west arterials. These streets can be seen as dead-zones, firstly as a result of their role in the street grid and secondly, because of the north facing flat blocks, which throw dead east and west facades onto them.

2006,Author

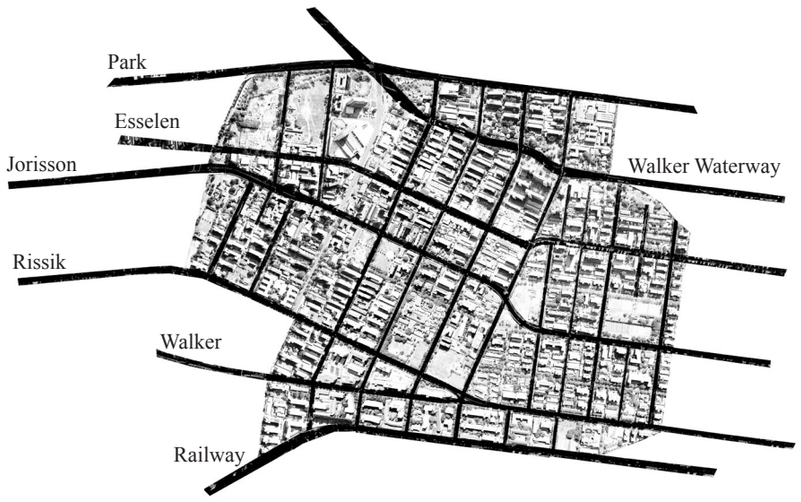


Figure 32

This diagram illustrates the extent of lost spaces in the Sunnyside precinct. While many of these spaces were designed as public space, in accordance to the Modern Movement’s ideal of the free ground plane, they have since been fenced in. These perimeter fences have reduced the precinct’s public space to the streets, further isolating the residents from the urban realm.

2006, Author

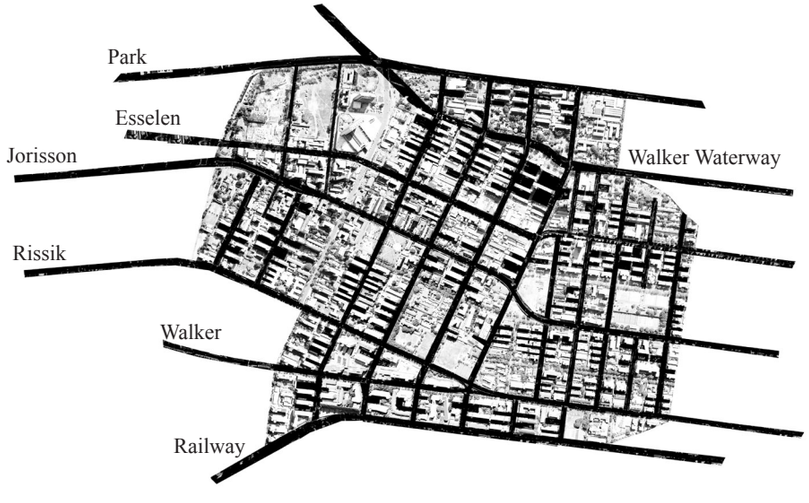


Figure 33

3D Rendering showing the north-south streets with adjoining potential public space elevated above the aerial map of Sunnyside. Note how the potential public spaces correspond to the prevailent building typology below.

2006, Author

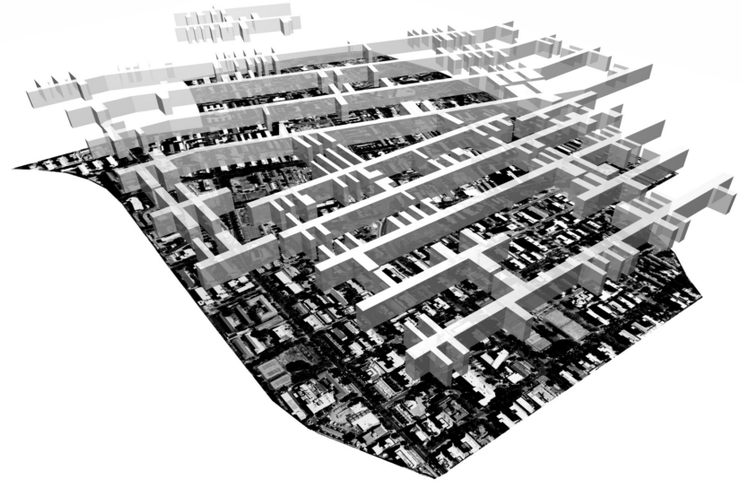


Figure 34

3D Rendering illustrating the concept of potential links between the newly established public spaces.

2006, Author

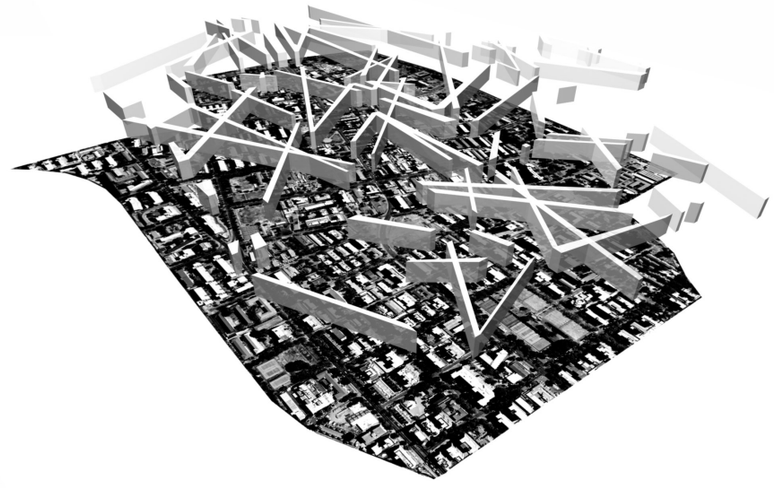


Figure 35

3D Rendering of potential links superimposed onto the north-south streets and adjoining public spaces. The potential public space network offers infinite possibilities regarding pedestrian route choice.

2006, Author

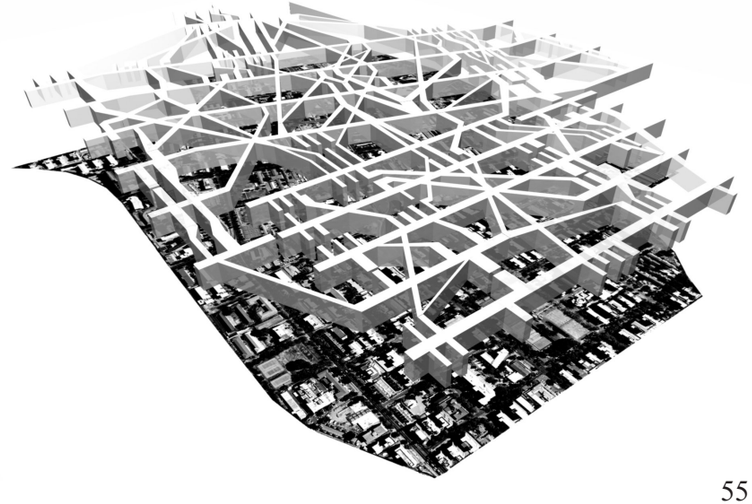


Figure 36

These diagrams are a continuation of the investigation into the lost spaces between the flat blocks which border on the north-south streets of Sunnyside. The shaded spaces in Figure XXXXX have been taken out of the aerial photo context and have been linked to photographs taken from the north-south streets. The images convey the lack of interaction between the built environment and the public space as the pedestrian wanders the streets of Sunnyside. *(Continued overleaf)*

2006, Author

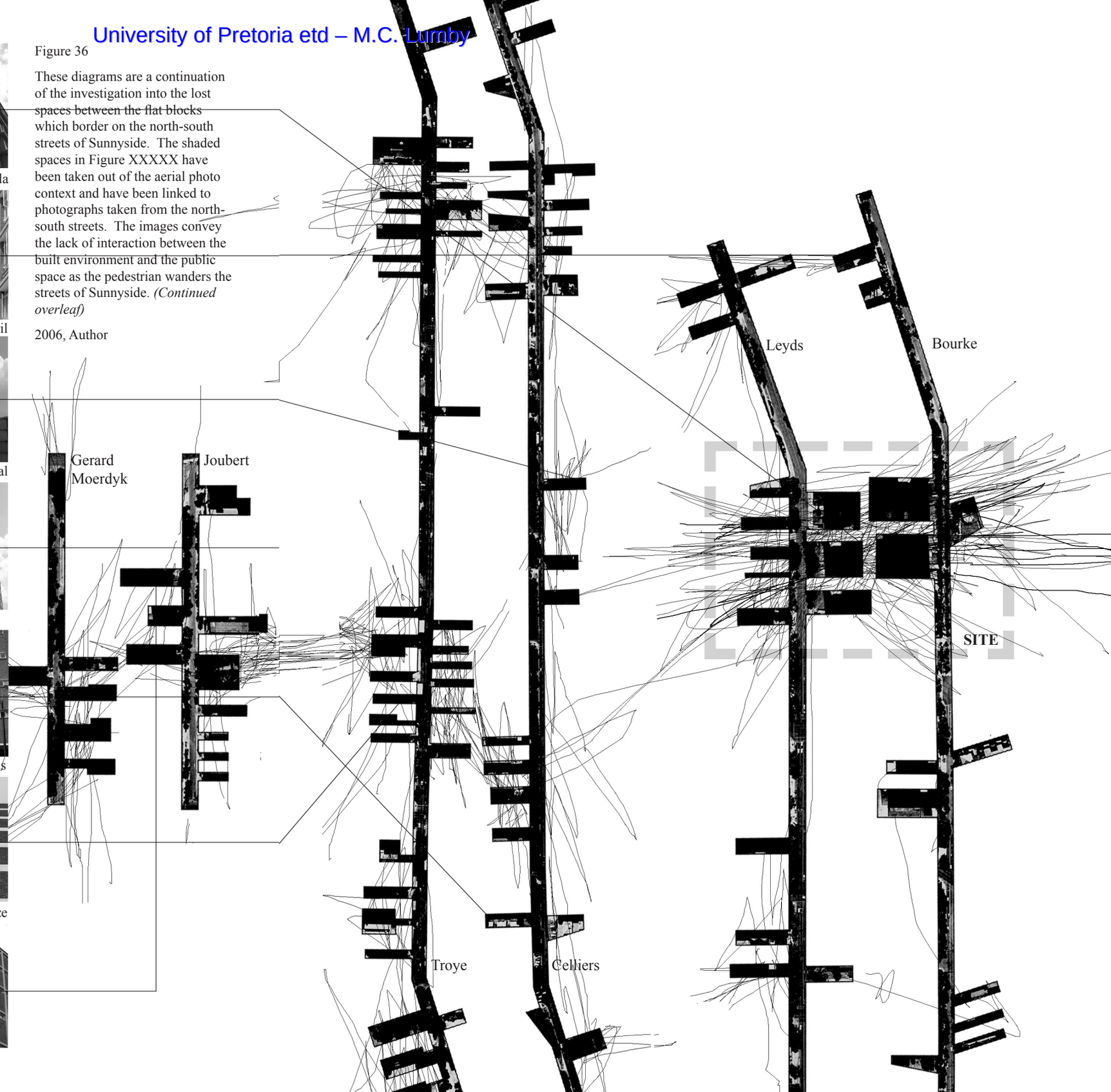
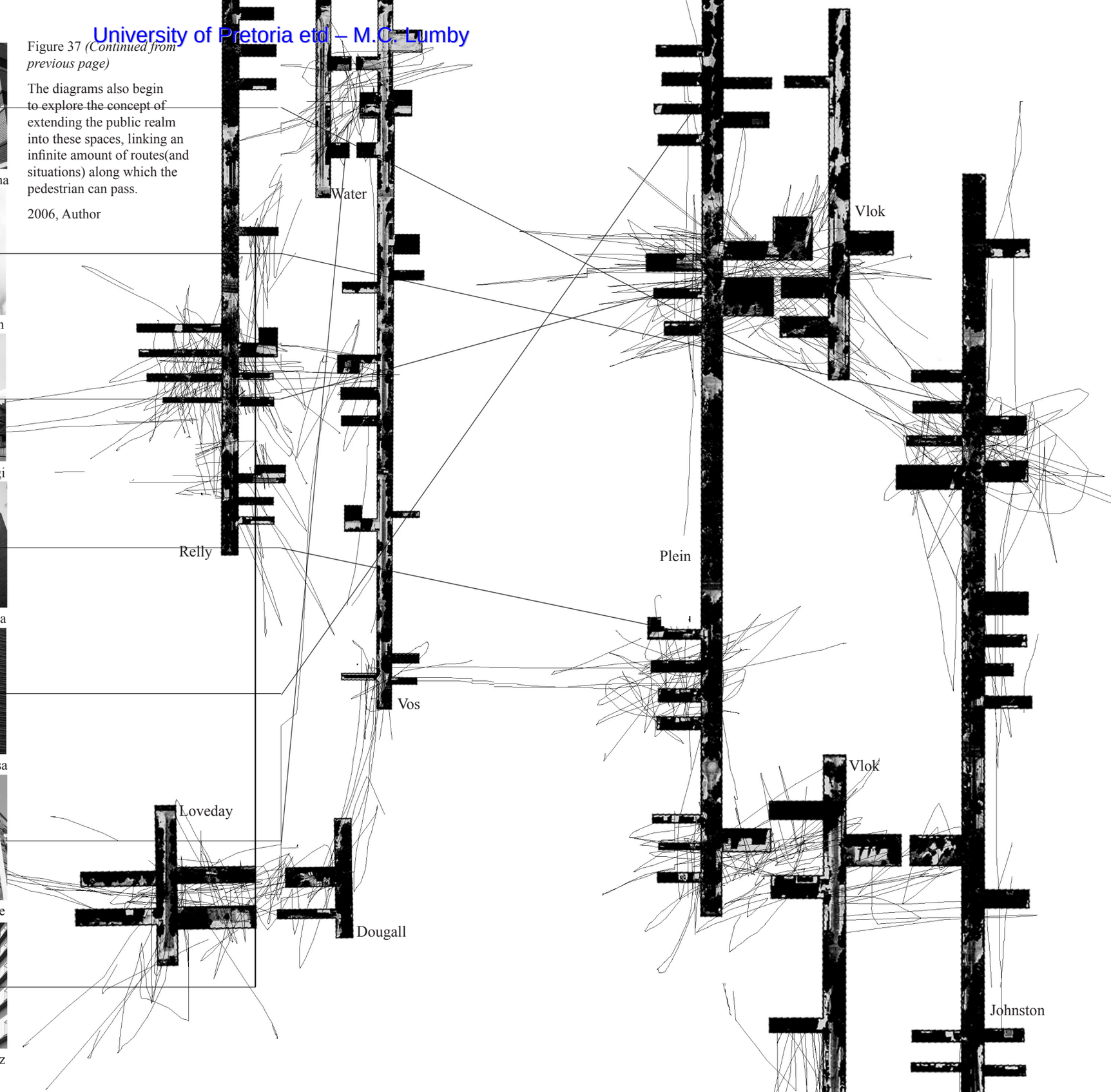


Figure 37 *(Continued from previous page)*

The diagrams also begin to explore the concept of extending the public realm into these spaces, linking an infinite amount of routes(and situations) along which the pedestrian can pass.

2006, Author



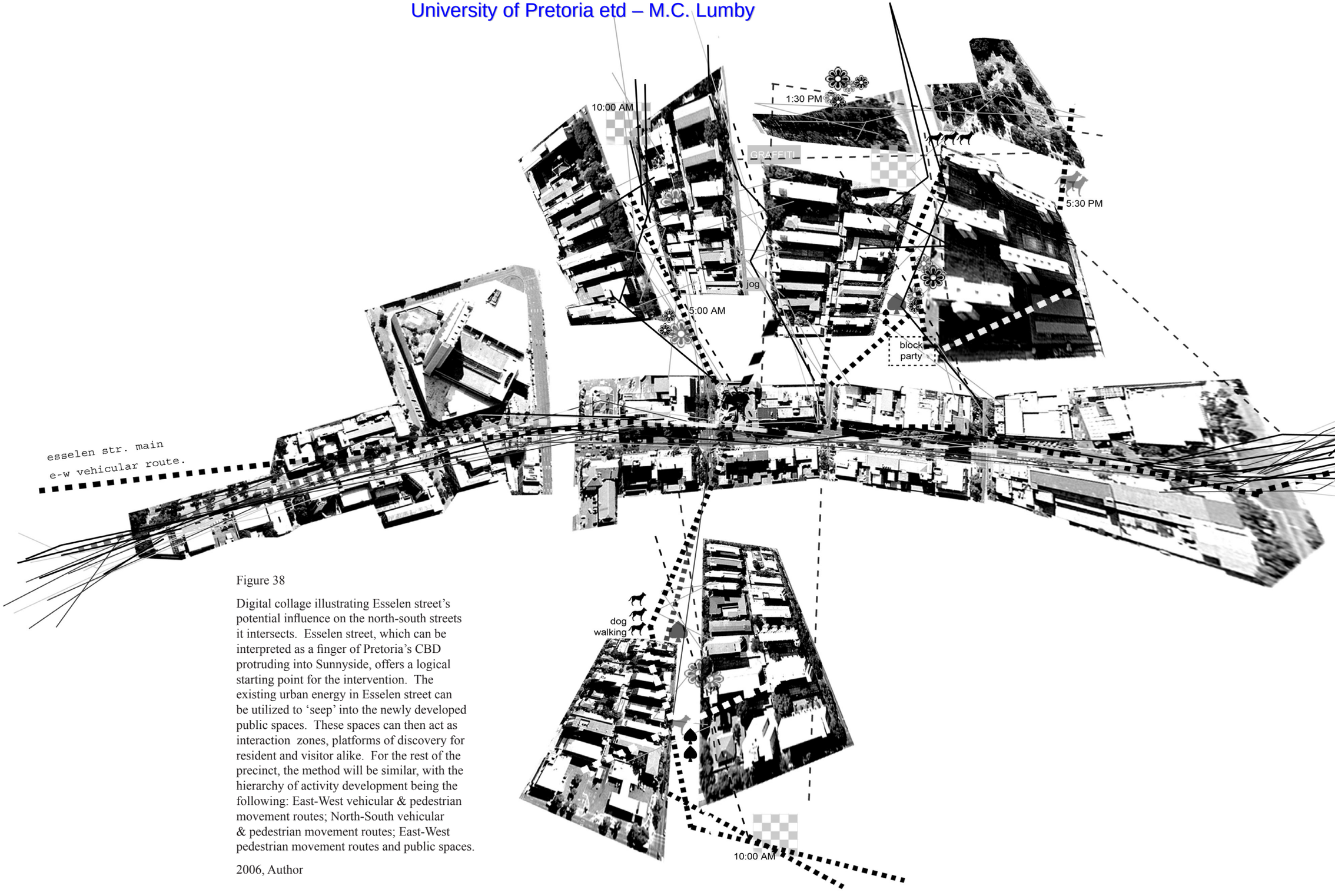


Figure 38

Digital collage illustrating Esselen street's potential influence on the north-south streets it intersects. Esselen street, which can be interpreted as a finger of Pretoria's CBD protruding into Sunnyside, offers a logical starting point for the intervention. The existing urban energy in Esselen street can be utilized to 'seep' into the newly developed public spaces. These spaces can then act as interaction zones, platforms of discovery for resident and visitor alike. For the rest of the precinct, the method will be similar, with the hierarchy of activity development being the following: East-West vehicular & pedestrian movement routes; North-South vehicular & pedestrian movement routes; East-West pedestrian movement routes and public spaces.

2006, Author

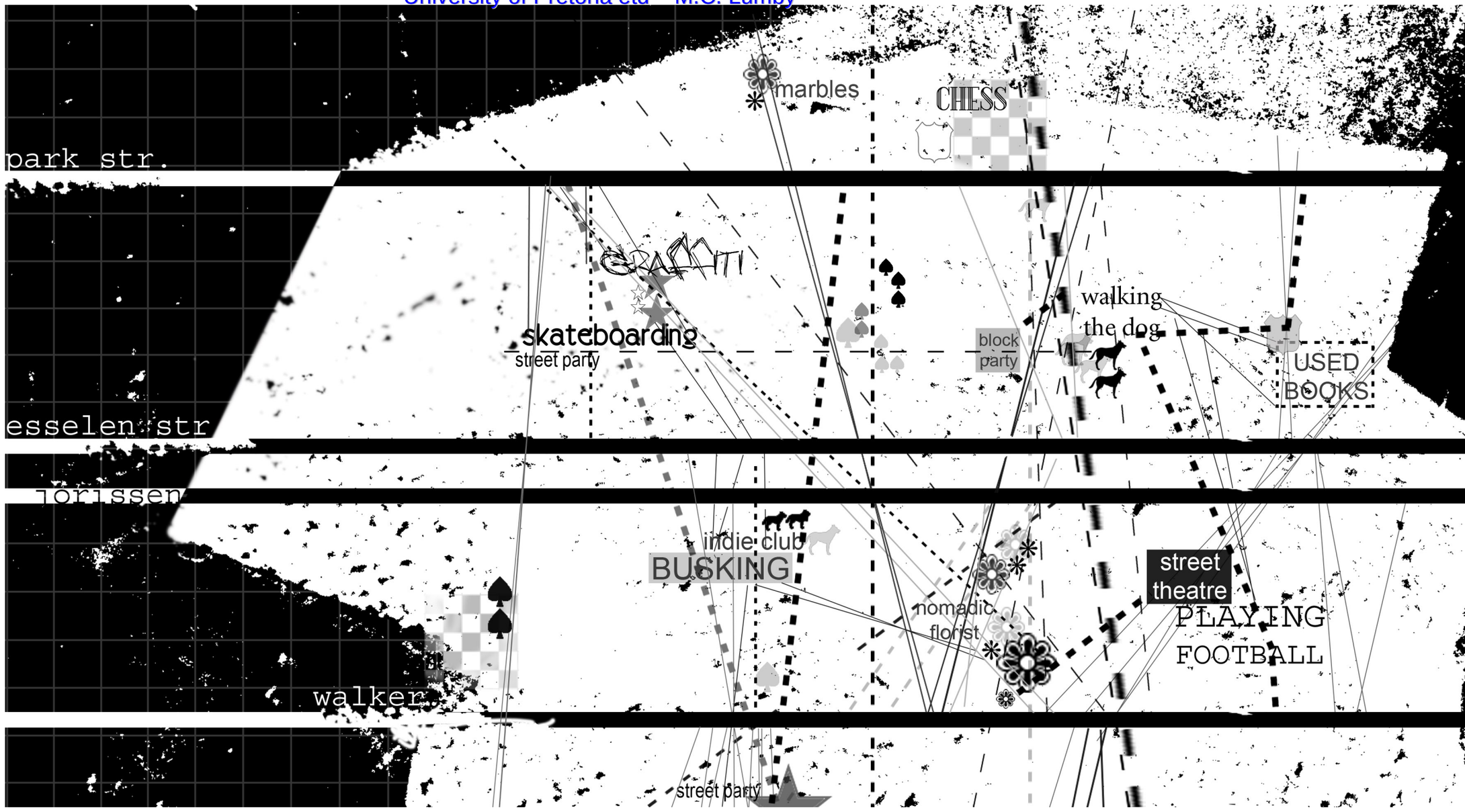


Figure 39

Digital datascape illustrating possible activities which can begin to develop in the newly created public space within the Sunnyside precinct. The horisontal bands represent the four vehicular arterials in the region. The activities occur away from the main roads within the residential realm, hidden from the daily commuter.

2006, Author

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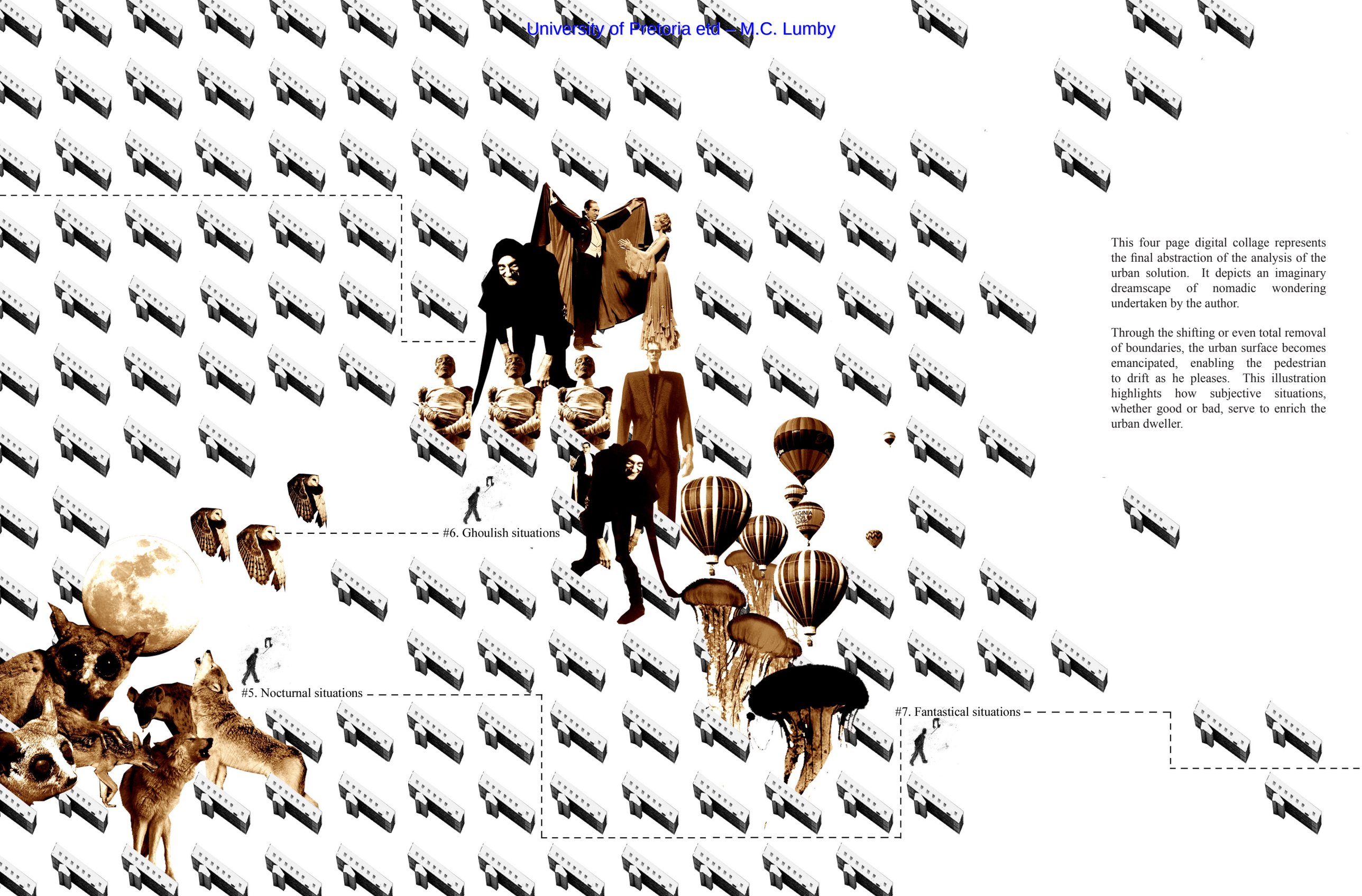
Figure 40

Chance encounters in a perfect world, 2006, Digital Collage with site, Author



#6. Ghoulish situations

#5. Nocturnal situations

#7. Fantastical situations

This four page digital collage represents the final abstraction of the analysis of the urban solution. It depicts an imaginary dreamscape of nomadic wondering undertaken by the author.

Through the shifting or even total removal of boundaries, the urban surface becomes emancipated, enabling the pedestrian to drift as he pleases. This illustration highlights how subjective situations, whether good or bad, serve to enrich the urban dweller.

Precedent Studies

There are four precedent studies listed in this section. The first two deal with a similar predicament to that of this dissertation: the solving of post-war functional architecture within a contemporary context. The third study investigates the possibility of including elevated public space within a new design while the fourth does so in an experimental project within an existing building.

Upgrading of the Public Spaces on Via Basso in the Gratosoglio District: Cino Zucchi

The intention of this project was to create a well defined and protected public space within one of Milan's dispersed satellite towns. The context, similar to that of Sunnyside, consists of post-war functionalist flat-blocks. The plan of the intervention responds to the structures which existed before the flats were built: a farmhouse, a market, a railway line and a road - individual elements brought together to form a cohesive whole.

According to Aymonino & Mosco, the concept of enclosure has always been an act of foundation, protecting a piece of the world "from the profanity of the world itself."(Aymonino & Mosco 2006:103) Perhaps this concrete enclosure, along with its contents (a green dune, a fountain, lighting systems, furniture and blown-up graphics), are an attempt to insulate its users from the oppressive architecture surrounding them.

Fig 41

Aerial view of intervention showing the farmhouse, market and railway as well as the post-war functionalist flat blocks in the background.

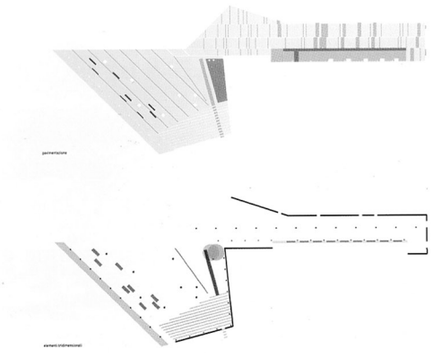


Fig 42 - 44

Progression of views upon site entry: *(Bottom)* Advancing towards the site from a distance; *(Middle)* Entrance threshold with blown-up graphics; *(Top)* Central enclosure with lighting and street furniture.

Fig 45 - 47 *(top to bottom)*

(top) Pavement plan; *(Middle)* Three dimensional element plan; *(Bottom)* Site plan showing existing functionalist buildings to the north (Facing south-northern hemisphere)

Figure 48

"Corviale, monstrosity of modern architecture. Corviale, a symbol of the city's outskirts and decay. Corviale, masterpiece of Italian postwar architecture. Corviale, social laboratory. Corviale, a place filled with immigrants, drug dealers and refugees. Corviale, the place that stopped the spring breeze. Corviale, the utopia. Corviale, for which its architect committed suicide."(Molinari 2005:83)

Corviale Apartment Block: ON

Built during the 1980's, Corviale is a one kilometre long residential block of flats situated on the outskirts of Rome. When it was completed, the ideal of public collective housing had long faded. Its architect, Mario Fiorentino, conceived of it after the problem of mass housing had been substantially resolved, and the monumental residential model had been essentially abandoned.(Purini 2005:75)

Amongst the Italian public, Corviale has become the yardstick of architectural catastrophe, with labels such as "extreme case" and "emergency building".(Purini 2005: 75) Although an option, Corviale's demolition would result in the displacement and dislodgement of 5900 inhabitants, some who have spent most of their lives there, not to mention those who squat in the unfinished amenities area on the fourth floor. Although there have been many attempts at 'correcting' Corviale, none have proved sufficient and highlight the insurmountable challenge posed by these residential monsters. According to Purini, Corviale had no need to be corrected or saved, but only to be completed, used and modified for that which it is, in other words, urban architecture. (Purini 2005:75) Molinari suggests that intervention into Corviale cannot be merely an act of renovation, nor can it simply be about drafting new regulations relating to public order and management. It raises serious questions regarding the evolution of the notion of public space and private living for communities in a fluid metamorphosis.(Molinari 2005:83)

The difficult task of 'correcting' Corviale was undertaken by Osservatorio Nomade (ON), a group of artists, filmmakers and architects in a project called "Immaginare Corviale". The group split into three components: ON/network worked on changing the public image and media's condemnation of Corviale; ON/field focused on the place as a physical, symbolic, and social resource; ON/univerCITY investigated the place as a design experience for future change, focusing on the processes of identification and appropriation of the neighbourhood's spaces.

Through workshops and micro-transformations, ON/univerCITY attempted to probe and encourage appropriation activity by allowing spaces to reach a more imaginative dimension where social and public spaces are created instead of them being privately asserted by the individual. In so doing, they attempted to reach the level of social experimentation so hoped for by the architect.

Figure 49 *(left)*

Digital Collage showing recreational and agricultural spaces incorporated on the southern side (northern hemisphere) of the apartment block.

Figure 50 *(above)*

Photographs of entrance lobby and the view from the external circulation passages.

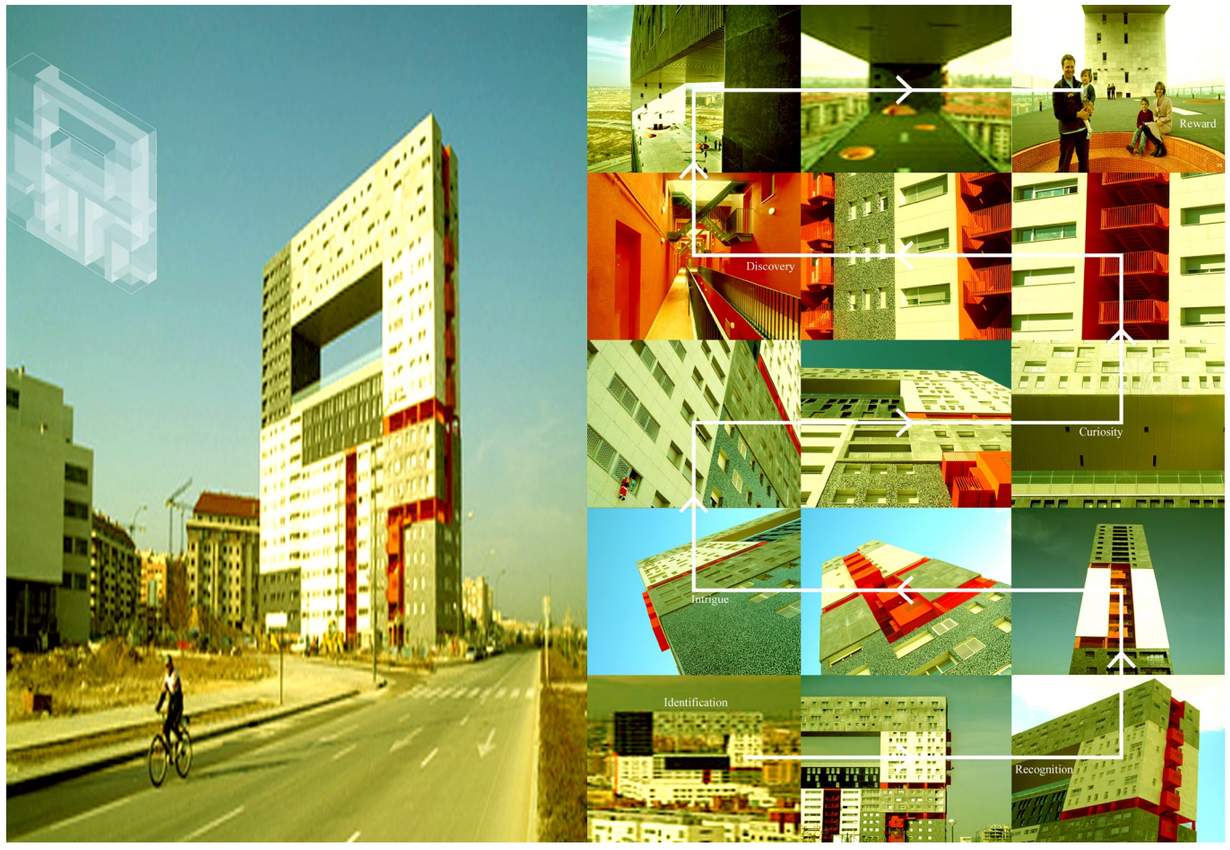
Figure 51

Southern view of Mirador apartment block. The different flat types are articulated on the facade in grayscale while the circulation routes are highlighted in bright orange.

Figure 52

Digital collage of a user's progression through the building. Beginning from its identification as an urban landmark to the view from its elevated public space.

Author, 2006



MVRDV
Mirador Apartment Block

Another work of interest is the Sanchinarro Mirador apartment block, a project by MVRDV built on the periphery of Madrid. A 165 unit block of flats, the Dutch firm chose to reject many of the norms attributed to low cost(in the European context) mass housing. "Mirador rejects the logics of the skyscraper or the apartment building of rationalist stamp, distinguished by a monotonous serial repetition of the basic living unit, in favour of a more complex, articulated solution."(Flores 2005) MVRDV's aim was to integrate different social groups as well as their lifestyles into one building. After investigating the housing typology of the region, 5 to 8 storey homogeneous, courtyard blocks, they decided to turn the typology onto its side, creating a 22 storey apartment block where the 'courtyard space' becomes an enormous 4 storey balcony 40m above the ground. The block incorporates 9 different 'buildings' – the term given to the differing flat unit typologies – around this central void. These 'buildings' are articulated in the block's facade through different colours and materials.

The central void is not the only space dedicated to the public realm. The articulated 'fire escape' staircases and their landings which snake around the outside four facades of the building act as spontaneous gathering spaces for residents and public alike. These landings are configured as red-painted, shaded courtyards and, after only a short while, residents have begun placing potted plants, bicycles and other personal paraphernalia there, providing each enclave with its own identity. An addition proposed by the architects (but left out due to budget cuts) is an escalator leading from the plaza in front of the building into the void above. It was hoped that this would further encourage public interaction with the building's community.

The success of the building lies in that it has given to a previously nondescript, periphery suburb a landmark symbol of "solidarity and public coherence", with an incredible "array of public spaces in a form that proclaims their communal identity." (Betsky 2005:65)

Figure 53

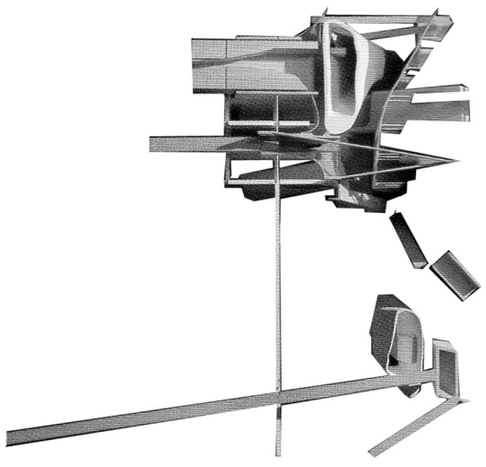
Wolfgang Tschapeller, BVA1, Vienna, 1998; Model of urban rooms and public circulation.

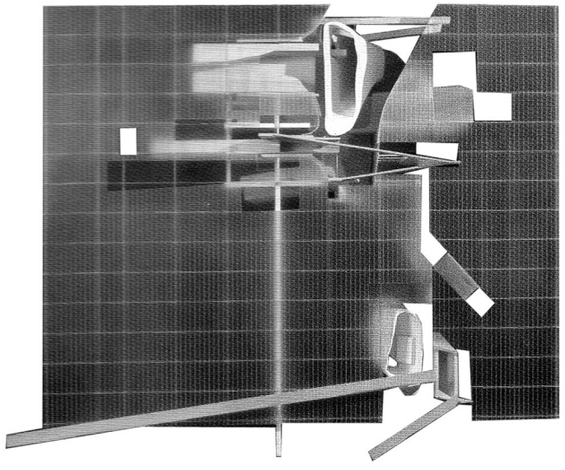
Figure 54

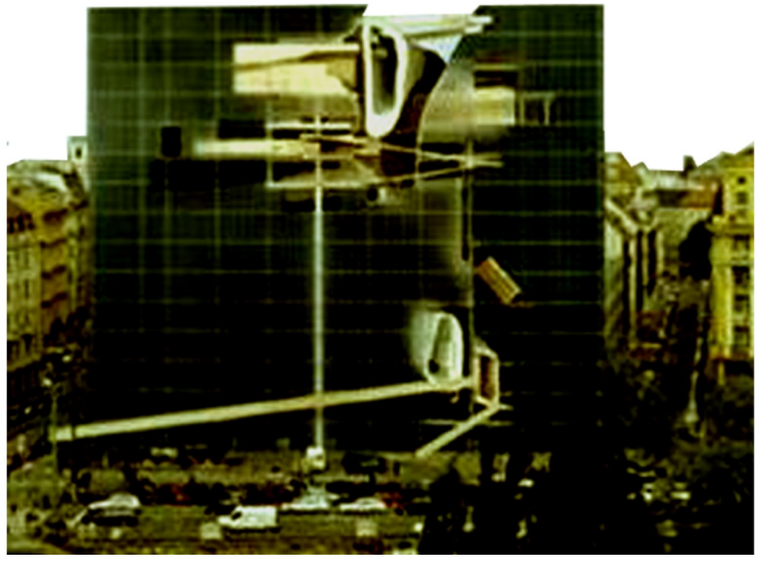
Wolfgang Tschapeller, BVA1, Vienna, 1998; Model of urban rooms, public circulation and glass curtain facade.

Figure 55

Wolfgang Tschapeller, BVA1, Vienna, 1998; Model digitally superimposed into existing context.







BVA1: Wolfgang Tschapeller

Under the title Metamorph, the 2004 Venice Biennale was a world-wide survey and exhibition of projects and works which encapsulated the 'profound shifts' that where being experienced in all disciplines at the beginning of the 21st century. One of the exhibits, an experimental project by the Austrian architect Wolfgang Tschapeller, illustrated the transformational aspects of the Biennale's 2004 title.

Tschapellar, who "has long occupied himself with the idea of transforming given conditions rather than figuring out a way of accommodating them"(Forster 2005:376), is convinced that in the near future most buildings will be accompanied by and even situated within other buildings. The experimental BVA1 project in Vienna (1998) is an attempt to bring about this transformation into building hybridization. The project envisions a concrete office block being reduced to its skeletal necessities, where "discrete levels could be sold off and developed like a plot of land"(Forster 2005:378). These volumes are public "guest rooms", and are only accessible from the outside, but are situated within the confines of the building. Property owners will be forced to commit a percentage of their holdings to public space, allowing for "small public cells [which become] caught in the grid like flotsam." At the 2004 Biennale, Tschapeller's BVA3 project followed on from BVA1 in that it further examined the relationship between the building's skeleton and the 'settlers' that inhabited it. With the project, he attempted to animate how the "two elements react to each other with rhythmical changes of volume and surface."(Forster 2005:378)

Site Analysis

"Unlike the treelike, hierarchical structures of traditional cities, the contemporary metropolis functions more like a spreading rhizome, dispersed and diffuse, but at the same time infinitely enabling."(Wall 1999: 234)

What has probably become apparent by now, is that the nature of this dissertation is predominantly urban. Due to the large scale of possible intervention in the Sunnyside precinct, the choice of only one site becomes almost irrelevant. Although it would be more applicable to approach this dilemma in its entirety in a more abstract manner, a technical investigation needs to be conducted (for purpose of the fulfillment of the curriculum). From this it follows that a specific individual site must be chosen.

After investigation of the residential flat block typology within the north-south streets of Sunnyside, it was decided that the quintessential example of Sunnyside Functionalism would serve as the best example on which to test the Situationist experiment. This was found in the Spruitsig Park development.

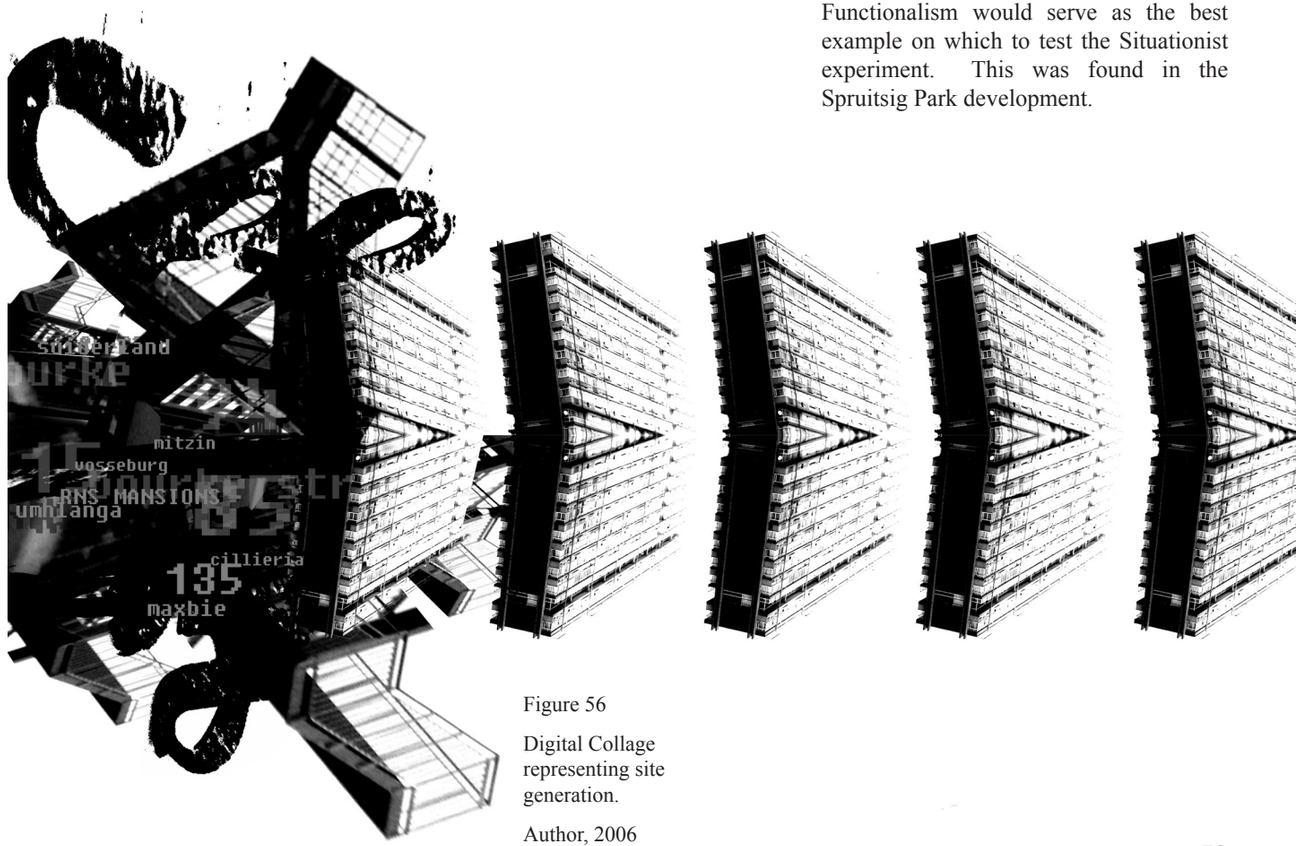


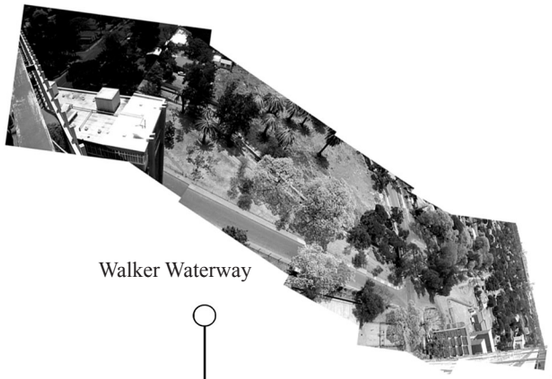
Figure 56

Digital Collage representing site generation.

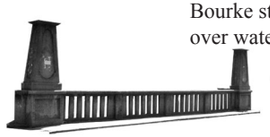
Author, 2006

Locality

Erf no. 5/1201, the site on which the Spruitsig Park development was built, stretches the width of a whole city block. From this it follows that it borders on three streets. Leyds street, a north-south orientated, four lane street, lies to the west of the site. Bourke street, also north-south orientated, is considered to be the symbolic end of the Sunnyside precinct as it lies perpendicular with the end of Esselen street. It runs along the site's eastern boundary. De Rapper street, to the north of the site, is a quiet one-way street which separates the site from the Walker Waterway, with which it runs parallel. One block to the south lies Esselen street, the metaphoric life-blood of Sunnyside. As has been mentioned in the *Urban Analysis* section (pg. 60), Esselen street can be viewed as a finger of Pretoria's CBD extending into residential Sunnyside. It's influence on the succes of the intervention is paramount.

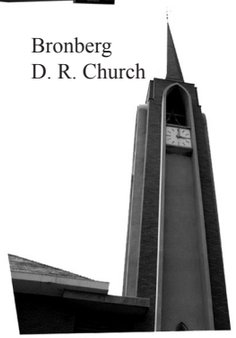


Walker Waterway



Bourke str. bridge over waterway

Shoprite



Bronberg D. R. Church

Figure 57

Locality plan of site. *Top-right*: Dark area shows the position of the Sunnyside precinct within the greater city context. The yellow area indicates the location of the blown up map below. Bottom: Locality plan of site and surrounds. Highlighted areas show landmarks, streets and the chosen site.

Author, 2006

Figure 58 *(above)*

View looking north along Bourke street towards the site from the intersection of Esselen, Spuy and Bourke streets.

Author, 2006

Figure 59 *(left)*

View looking south along Bourke street from 18th floor of the north-east block (Maroela) of Spruitsig Park.

Author,2006

Figure 60 *(left)*

View looking south along Leyds street from 18th floor of the north-east block (Maroela) of Spruitsig Park.

Author, 2006

Figure 61 *(below)*

View looking north along Leyds street towards site at the intersection of Leyds street and Esselen street.

Author, 2006

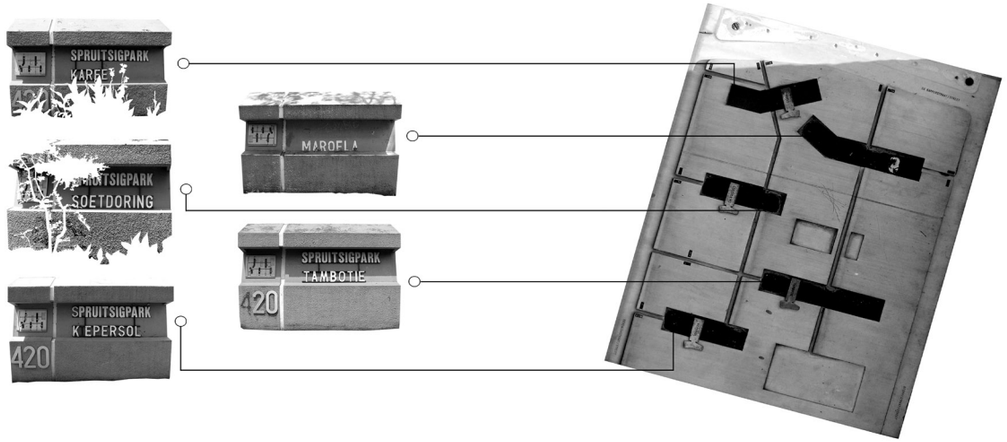


Figure 62 *(above)*

Spruitsig Park key plaque, linked to photographs of individual block sign boards.

Author, 2006

Figure 63 *(right)*

View west towards Pretoria's CBD. Photograph taken from the 18th floor of Maroela flat block.

Author, 2006

The Spruitsig Park development was designed in 1966 by Daan Kesting and completed in 1970 by Stocks & Stocks Construction. It comprises 531 flats in five separate structures, each with a variety of 1 room, 2 room, 3 room and bachelor units. The original client, Sanlam Insurance (the development used to be named *Sanlam Park*) later sold off the development as sectional titles. Today, the majority of the 531 units are owned by Real Estate Coorporations (City Property, Trafalgar & VIP Property to name a few) while the rest are privately owned.

Although Spruitsig Park doesn't represent Sunnyside's ubiquitous 5 to 6 storey functionalist typology, it typifies a confluence of South African Functionalism and Brutalism which borders on the megalomaniacal. The site can be categorised as a 'new' kind of urban site defined by Wall as "the ambiguous areas that are caught between enclaves."(Wall 1999:234) The north-facing, concrete framed structures soar into the air, with its two largest totaling 18 floors. An important aspect unusual for the typology of the precinct is the inclusion of underground parking, a necessity due to the inhabitant density. This has resulted in more than usual unused semi-private space after the erection of a boundary fence.

Figure 64

View looking up from the south side of the Maroela and Karee flat blocks.

Author, 2006

The inhabitants live in the machine endlessly dragged along by conveyor belts, by chutes and pneumatic tubes from the time of birth to the time of death. The machine takes care of everything; along the innumerable routes which intersect, unite and divide according to the incomprehensible programming of the machine. The inhabitants find food and fear, sleep and joy, sex and hope, death and anger, sometimes also rebellion; but they know very well that if they get off the obligatory routes established by the machine, they will inevitably be crushed by its machinery.

Twelve cautionary tales for Christmas: Ninth City. The Ville-Machine Habitée (Superstudio in Lang & Menking 2003:159)

Figure 65

View looking up from the north side of the Maroela and Karee flat blocks.

Author, 2006

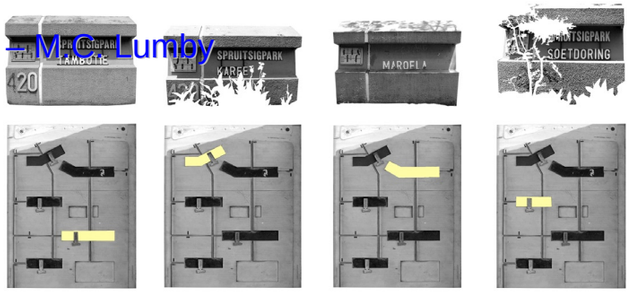


Figure 68

View looking West from the eastern periphery of the site.

Author, 2006

Figure 66 *(top)*

View looking south-west towards site from the Pretoria Art Museum.

Author, 2006

Figure 67 *(bottom)*

View looking south-west towards site from Wessels str.. en route to site.

Author, 2006

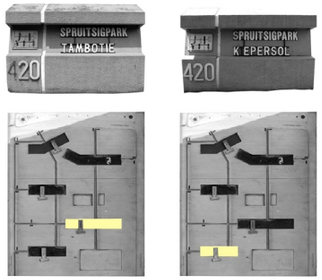


Figure 69

View looking east up at the Tambotie and Kiepersol flat blocks.

Author, 2006

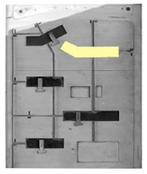


Figure *70*

View looking up from the south side of Maroela flat block.

Author, 2006

Figure 71 *(top)*

View south-west towards site from the 18th floor of Maroela flat block.

Author, 2006

Figure 72 *(mid, left)*

View looking at Kiepersol through the Tambotie and Soetdoring flat blocks.

Author, 2006

Figure 73 *(mid, right)*

View looking at Marula through the Tambotie and Soetdoring flat blocks.

Author, 2006

Figure 74 *(bottom)*

View looking west over unused ground plain in front of the Soetdoring flat block.

Author, 2006

Figure 75

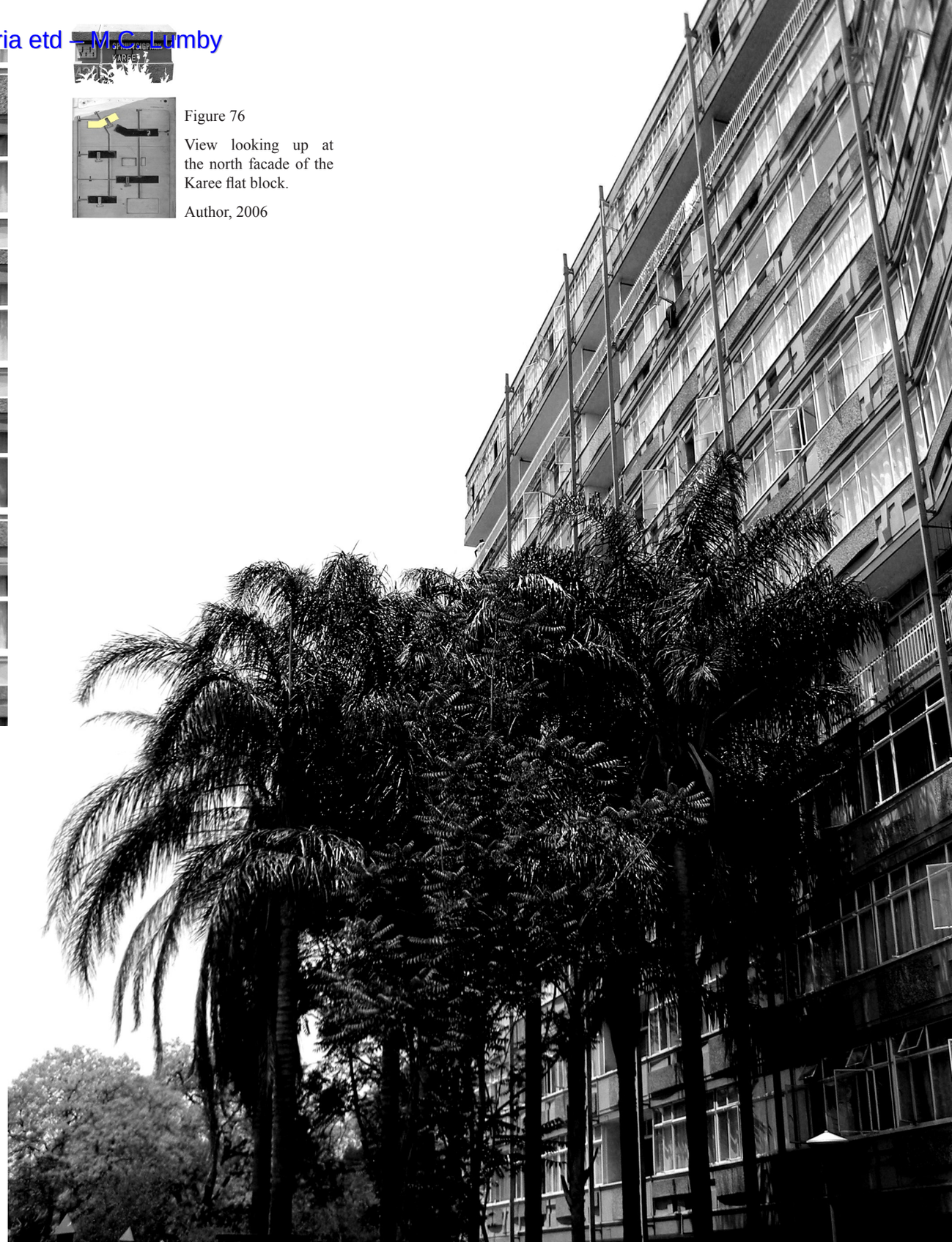
Photograph of the northern facade of Tambotie flat block. Most of the curtains remain permanently drawn in winter & summer, testifying to the typology's inappropriateness for the Highveld climate (Dry & hot with summer rainfall). This is especially so when there is no external solar control)

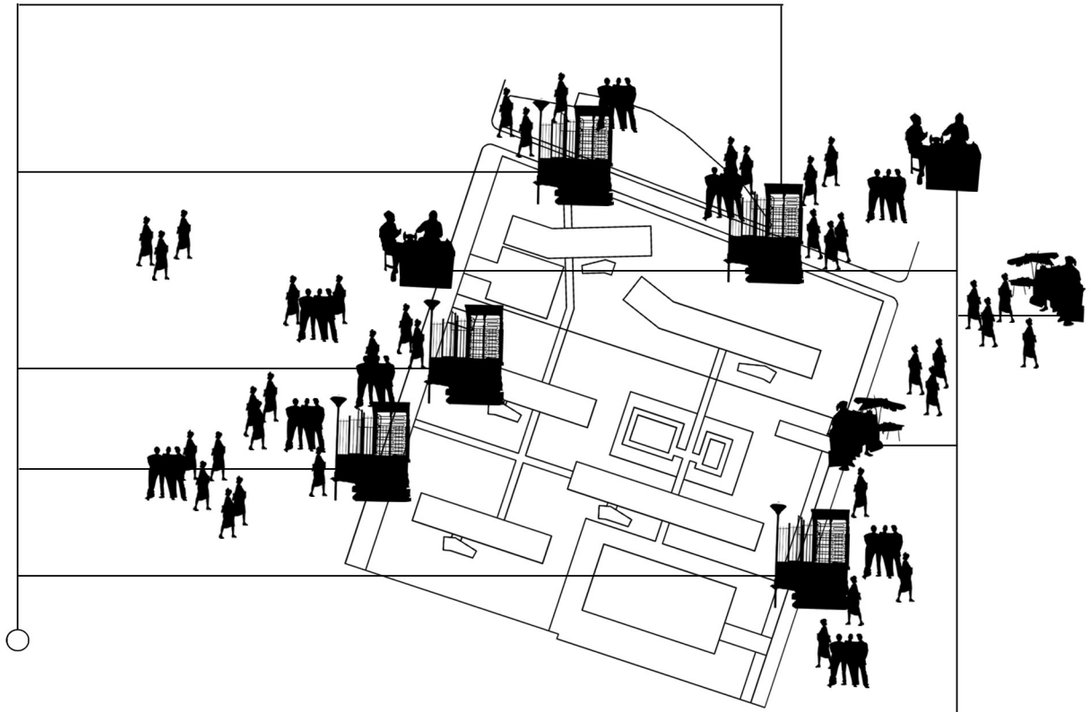
Author, 2006

Figure 76

View looking up at the north facade of the Karee flat block.

Author, 2006





Pedestrian access from the street onto the site is controlled by five revolving security gates. Three of these were erected in accordance with existing footpaths. Although they are meant to restrict entry, their effectiveness is questionable. Few residents carry the key with them which results in sporadic gatherings at these points, everyone waiting for a prepared resident. When he/she eventually arrives, he/she opens for everyone. The fact that the gate can be opened with a lollipop stick adds to their fallibility.

Figure 77

Digital collage illustrating the location and effects of the revolving security gates.

Author, 2006

As throughout most of Sunnyside, the pavements of the Spruitsig Park are littered with informal trade. While these have logically developed near the security gates, the variety of trade is limited to that of a portable nature. By incorporating entrepreneurship with working public spaces, seating and amenities, diversification of trade can occur.

Figure 78 - Figure 83

Photographs of original access routes. (1&2) One of the old pathways leading out from Maroela. Rubbish thrown from a balcony above further deadens the end. (3&4) Newly fenced in connection routes. (5&6) Another pathway to nowhere.

Author, 2006

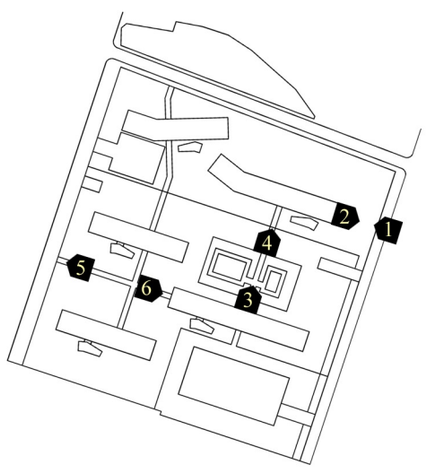


Figure 84

Entrance through piloti into Karee flat block lobby

Author, 2006

Figure 85, Figure 86

Views upon exiting Soetdoring flat block. (2) Through piloti and lobby area. (3) Through piloti and out through security gate.

Author, 2006

Pedestrian Interface

Figure 87-89

(4) View of northern facade of the kiosk situated on the ground floor of Tambotie flat block. Instead of opening towards the open space to the north, its entrance is at the above-ground parking lot. (5) View from inside the northern periphery of the site showing the lack of connection between Spruitsig Park and the children's playpark and waterway. (6) View from inside the western periphery of the site northwards up Leyds street.

Author, 2006

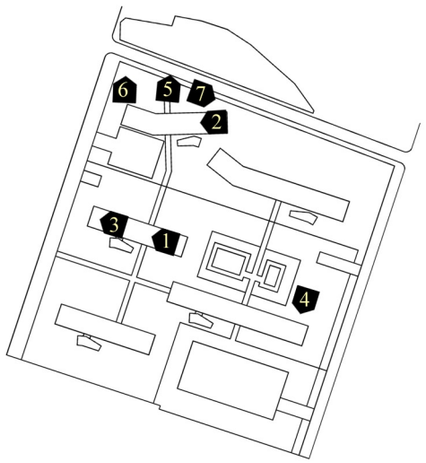
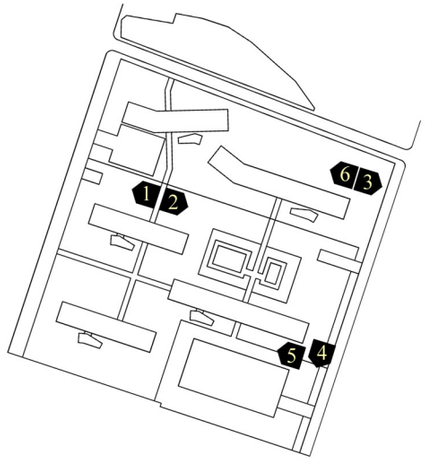


Figure 90

View east up De Rapper street illustrating the Karee flat block's relationship with the streetscape.

Author, 2006



Vehicular Access

Figure 91

(1) Underground parking access from Leyd's street. (2) Underground parking access from Bourke street.

Author, 2006

Figure 92

(3) Entrance into small parking area in front of Maroela flat block from Bourke street. (4) Ramp from Bourke street into raised parking area behind Tambotie flat block. (5) View of ground level and raised parking from kiosk entrance behind Tambotie flat block. (6) Small parking area in front of Maroela flat block.

Author, 2006

Existing Amenities

Figure 93

Diagrammatic representation of existing amenities present on the site. Because the ground plain of the development was designed as public space, these functions can easily revert back from semi-private to public use.

Author, 2006

The security office is situated on the ground floor of the Soetdoring flat block. There are two security guards present 24 hours a day.

The caretaker's office and notice board on the ground floor of the Soetdoring flat block.

Laundry Facilities: The development's laundry is situated on the ground floor of the Karee flat block. The design will accommodate it.

Post boxes and telephones are situated in the lobby of every block.

A kiosk is situated on the ground floor of Tambotie flat block. It faces south towards the above-ground parking area.

Figure 94

View east past Maroela flat block showing the rarely used resident's swimming pool and fencing.

Author, 2006

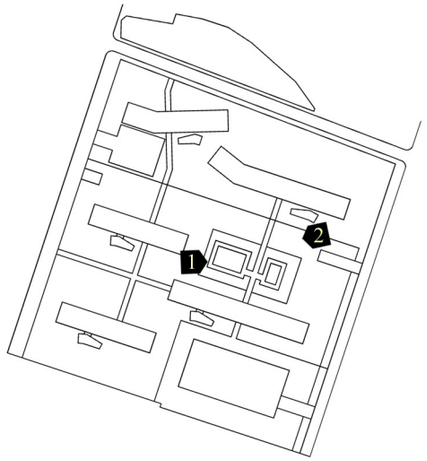


Figure 95

View west past Tambotie, Soetdoring and Kiepersol flat blocks showing the rarely used resident's braai facilities and fencing.

Author, 2006

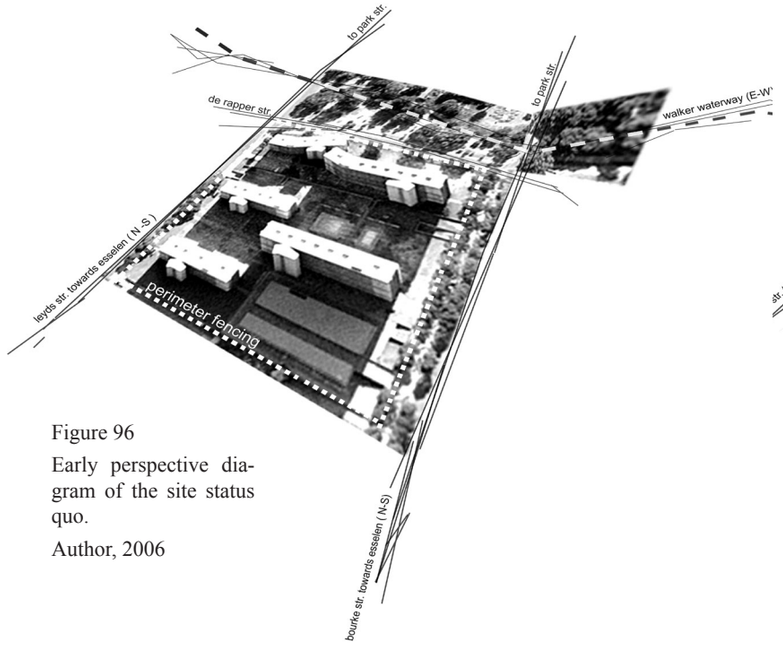


Figure 96

Early perspective diagram of the site status quo.

Author, 2006

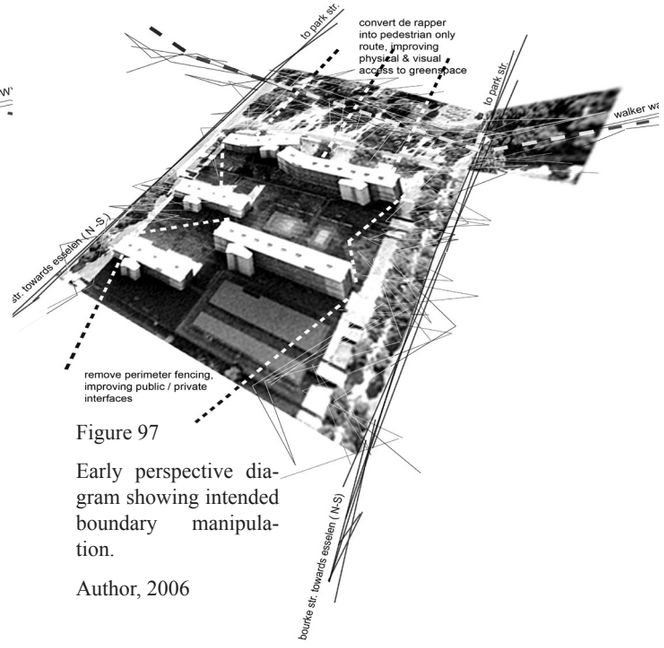


Figure 97

Early perspective diagram showing intended boundary manipulation.

Author, 2006

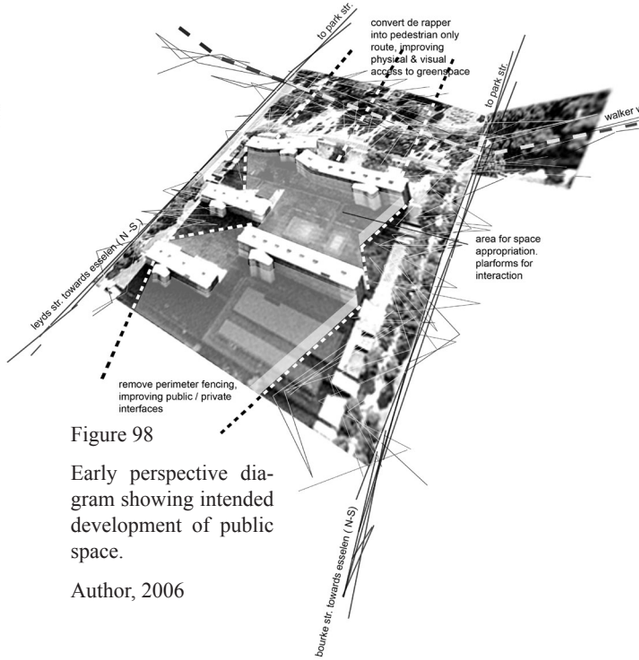


Figure 98

Early perspective diagram showing intended development of public space.

Author, 2006

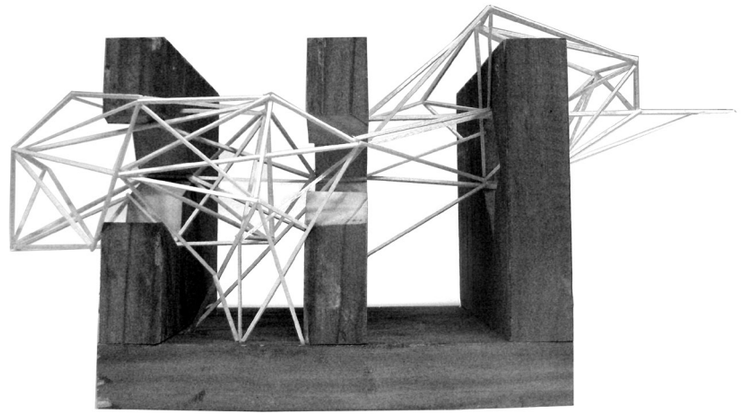


Fig. 99

Photograph of front view of first model. Conceptual form piercing through existing structures

Author, 2006

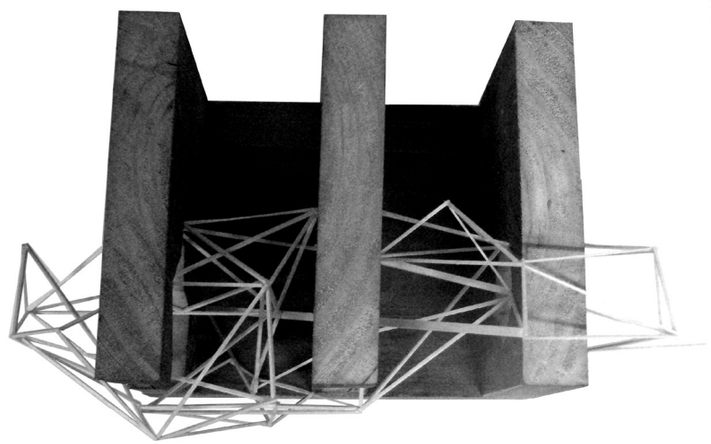


Fig. 100

Photograph of top view of first model. Conceptual form piercing through existing structures

Author, 2006

Thus far, the text in this dissertation has related to the project on an urban scale. The global development of Functionalism and the emergence of an 'anti-modern' have served well to highlight the two polemics within the Sunnyside precinct. For the design resolution and technical components of the dissertation, one site was chosen from a multitude of possibilities. Because of the urban nature of the project, the design and resolution of an individual site becomes problematic. To define the boundaries and limitations for an urban intervention (especially one dealing with surface continuity) seems paradoxical. However, it is important to remember that design solutions discovered in the Spruitsig Park experiment can be applied in a similar fashion to the whole of the Sunnyside precinct.

This section of the document plots the design development, beginning from abstract explorations until a final design is realized. Theory relating to formalistic design concerns will also be dealt with. This has been divided into three subheadings, namely, Fortification, Densification and Hybridization.

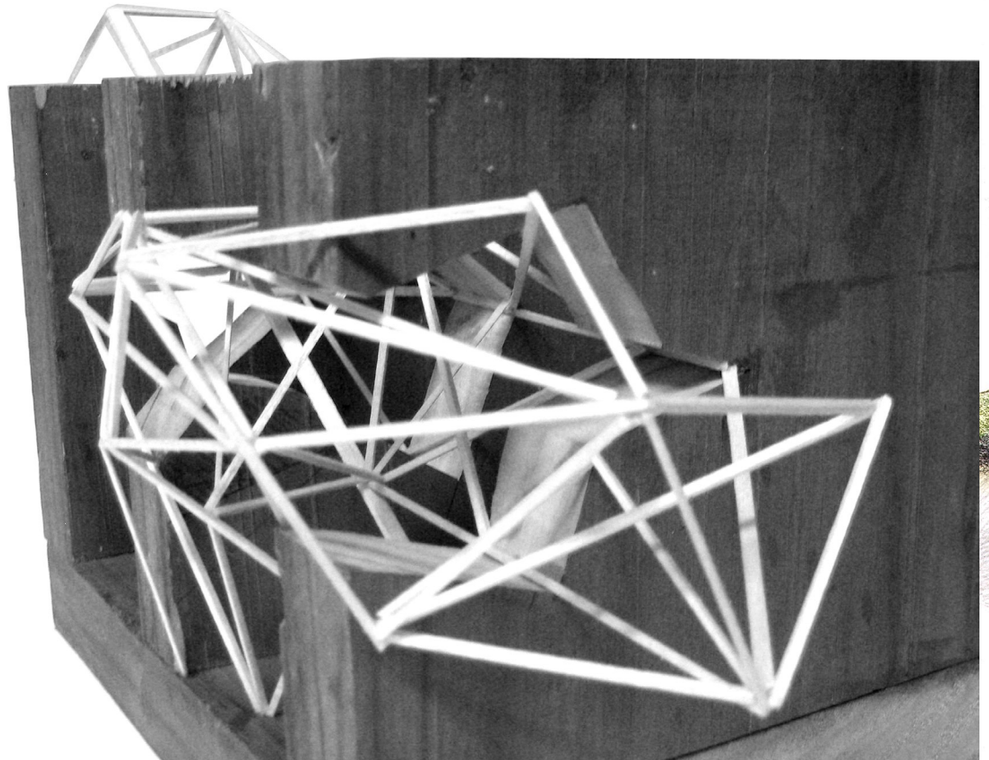
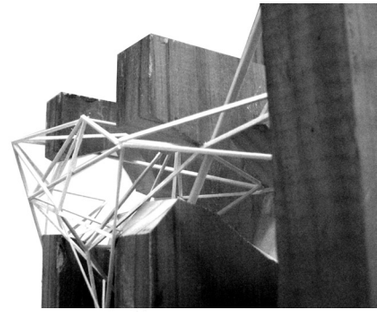


Fig. 101

Photograph of first concept model

Author, 2006



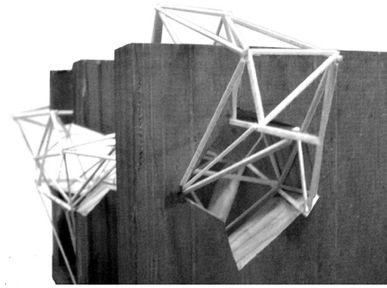


Fig. 103

Photographs of first concept model

Author, 2006

Fig. 102

Abstract dipiction of first concept.

Author, 2006

Fortification

"…the sites in which daily life and face-to-face interaction take place are being sacrificed to redundant zones of oversight and propriety control. This threatens the free exchange of ideas engendering a progressive society. It creates an impediment to the cross cultural communication necessary to knit together diverse publics. It is a rejection of the individual's right to space in which to be."(Flusty 1997:58)

The root of the problem of unused semi-private spaces within Sunnyside, is the phenomenon of fortification. While in the past most of these spaces were public (in accordance to the modernist ideal of the undulating ground plan) urban spaces have undergone drastic changes in the last decade. The implications on the social order are immense. According to Bremner, "…freedom of movement is restricted, chance contact is eradicated and public interaction limited to that between self defined, homogenous groups. And the result is that separation deepens and a sense of shared space is lost." (Bremner 1998:11)

Unfortunately the first and easiest response to crime is to insulate oneself from it. This causes a chain effect, where if one property owner erects a fence, the others in the vicinity feel vulnerable and follow suit. As is the norm, the security obsession came about as a result of drastic social change following South Africa's democratization. This has led to the fragmentation and segmentation of the socio-spatial realm, (Flusty 1997:57) which "…undermines the very concept of civitas, organized community life." (Blakely & Snyder 1997:85)

Architecturally this implicates that open space is subjugated to the need for protective space, and in so doing, "the celebration of our hopes through design gives way to the physical manifestation of our fears."(Sites 1997:120) Although some critics advocate the total removal of borderlines to achieve a free, open society, it would perhaps be wiser to attain a compromise through design. The city's boundaries can begin to impact positively on the spaces they border. In this way, interactive interfaces can replace "…a landscape filled with violent edges, colliding turfs, unstable boundaries, peculiarly juxtaposed life spaces, and enclaves of outrageous wealth and despair." (Read, S & Sezer, C. XXXXX)

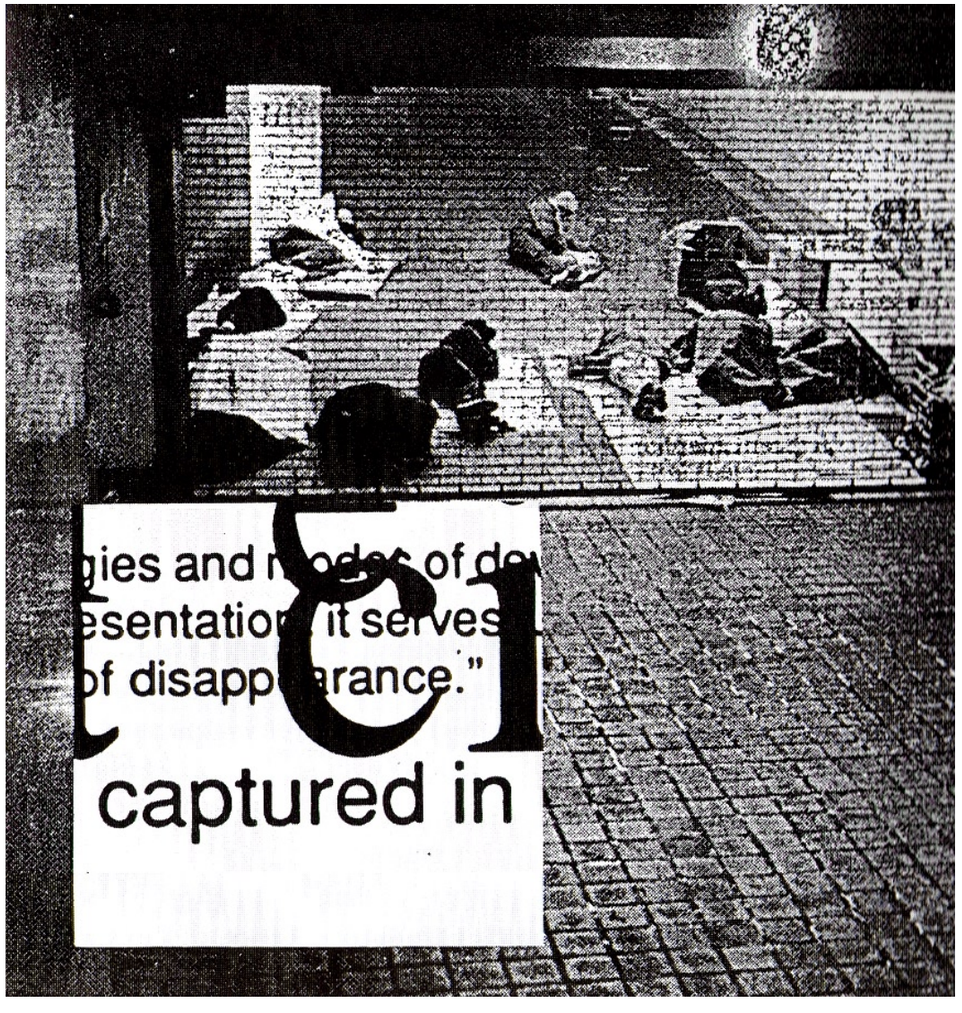


Fig. 104

Fred Dewey, *Captured In*, 1994.

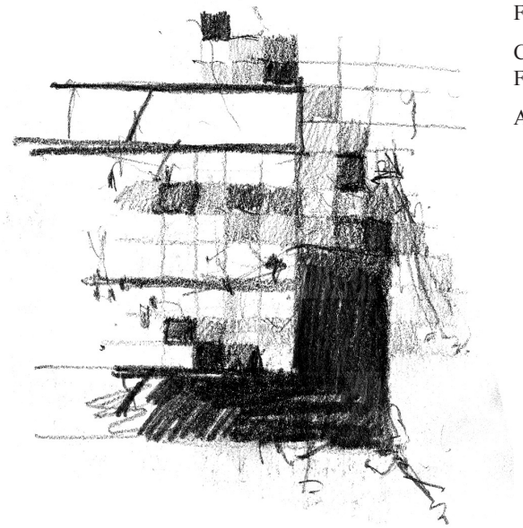


Fig. 105

Conceptual Illustration: Fortification

Author, 2006

Figure 106

Diagrammatic representation of possibilities of arrangement regarding the hierarchy of public, semi-private and private space.

#1: Status quo site lines showing pedestrian pathways between flat-blocks, above-ground parking and perimeter fence.

#2: Status quo spatial arrangement showing the majority of open space being subjugated by unused semi-private space with public space confined to the street edge.

#3: Spatial arrangement as the designer intended, utilizing the Modern Movement's ideology of city as public park space.

Design arrangement #4: Transform the pavilion typology to a terraced typology, improving the interface between street and site and providing more secluded semi-private space behind the new additions. Unfortunately, the scale of the existing buildings does not allow the viability of this option.

Design arrangement #5: Similar to #4, this arrangement allows public space under the new additions into secluded public and semi-private spaces behind. The safety of this option is questionable and the construction of a boundary between public and semi-private is undesirable.

Design arrangement #6: An attempt at rectifying #4 through reduction of scale. Enclaves of public space form between the new buildings.

Design arrangement #7: An attempt at rectifying #5 through reduction of scale. The issues of safety and boundary are still apparent.

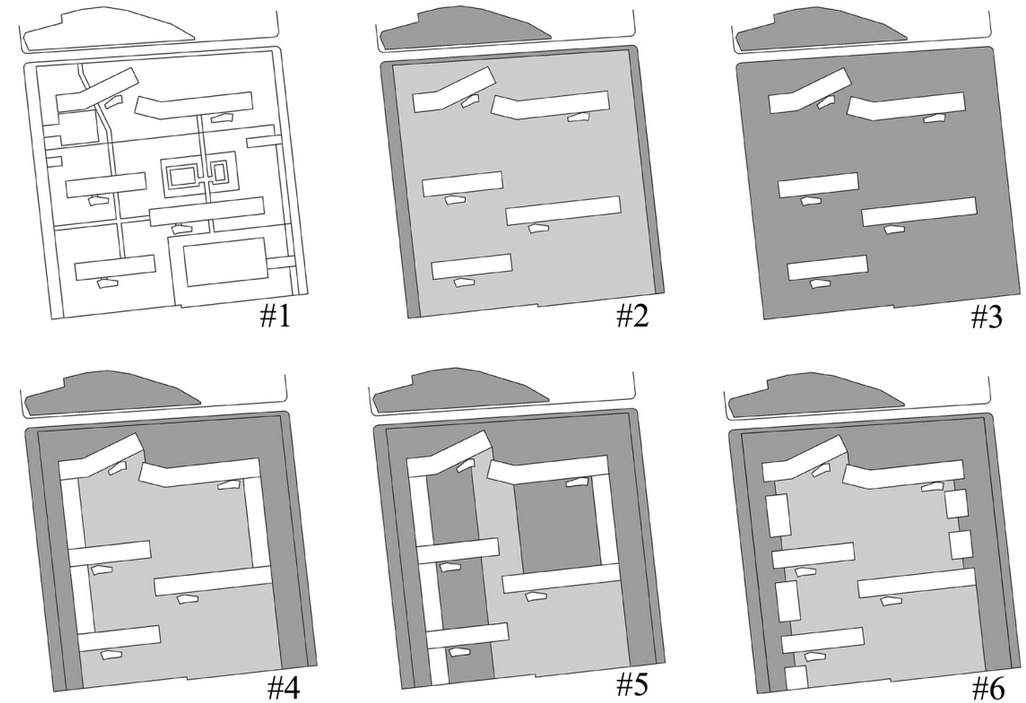
Design arrangement #8: Similar to #4 but with circulation shafts situated within the semi-private realm. In this way, the correct hierarchy of spaces is maintained.

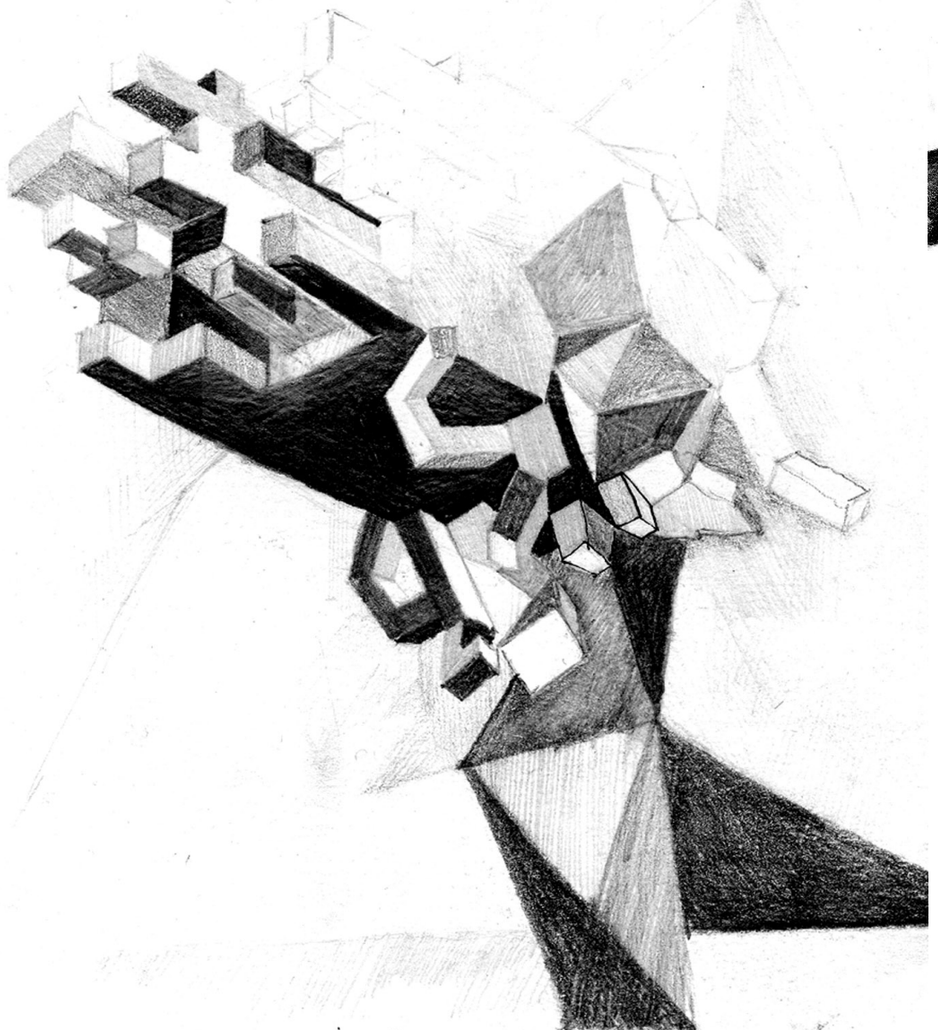
Design arrangement #9: In this case, boundaries are placed as to maximize public space on the site, while ensuring the spatial hierarchy. Semi-private buffer zones are placed around all the private structures, including the circulation shafts.

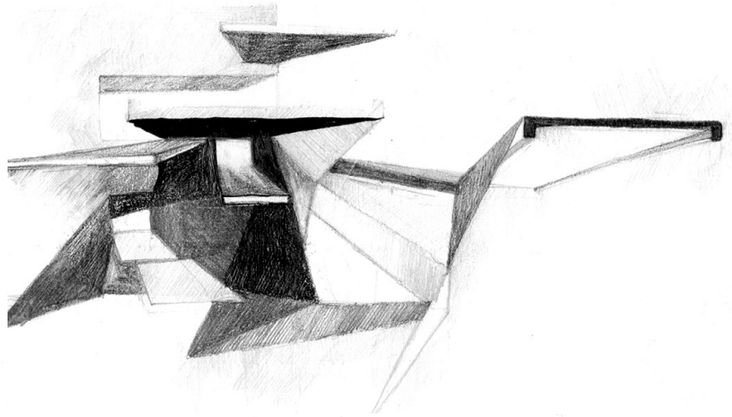
Design arrangement #10: Similar to #9, but with a rearrangement of circulation shafts. This serves to further maximize public space, but to the detriment of semi-private space.

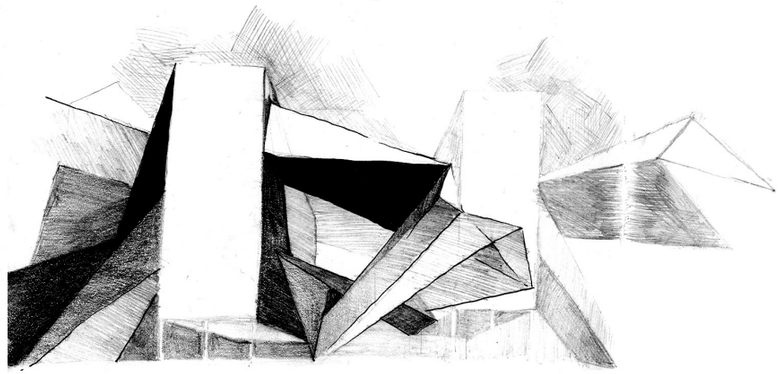
Design arrangement #11: This layout connects all the semi-private spaces on the site. It coincides with the flat complex's existing amenities.

Design arrangement #12: Similar to #11, but with public through routes connecting larger public areas. It is this diagram from which the design will develop.









Densification

Surface Continuity

"The grafting of new instruments and equipment onto strategically staged surfaces allows for a transformation of the ground plane into a living connective tissue between increasingly disparate fragments and unforeseen programs."(Wall 1999:235)

In this text the term 'densification' is not used in conjunction with population statistics, building footprints, coverage ratios or the amount of stories. Instead it relates to the density of human activity, particularly that which occurs on the public urban surface. Alex Wall defines the contemporary urban surface as "the ground structure that organizes and supports a broad range of fixed and changing activities in the city." This 'field' consists of the buildings, open spaces, roads and everything else that forms part of the urban fabric. Most importantly though, is that this membrane not only connects these objects and spaces, it also contains the city's dynamic events as they move through it. The urban surface is "dynamic and responsive; like a catalytic emulsion, the surface literally unfolds events in time."(*Ibid*:233)

Figure 107 *(adjacent page)*

Parasite in SI units, conceptual illustration

2006, Author

Figure 108 *(top)*

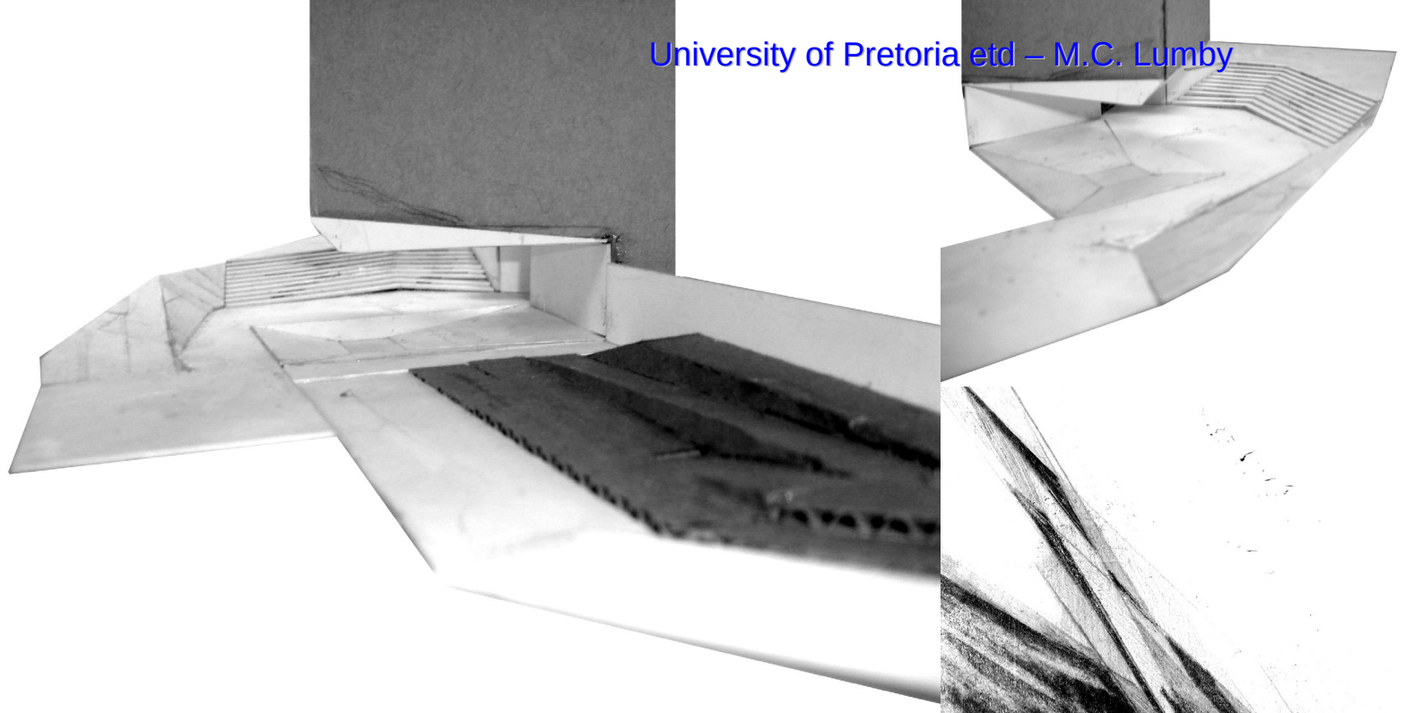
Arms outstreched, conceptual illustration

2006, Author

Figure 109 *(bottom)*

Fire with fire, conceptual illustration

2006, Author



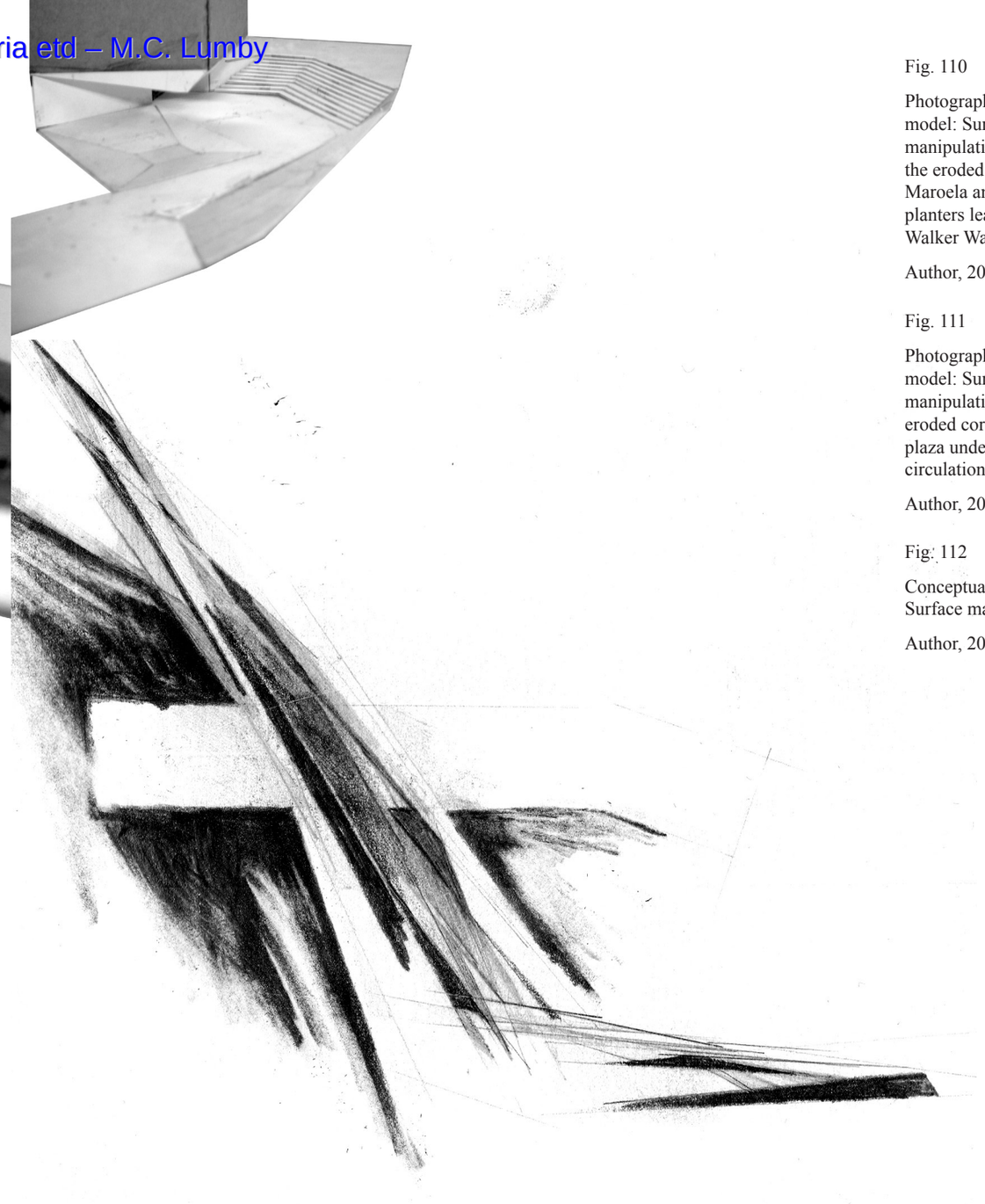


Fig. 110

Photograph of concept model: Surface manipulation showing the eroded corner of Maroela and stratafied planters leading to Walker Waterway.

Author, 2006

Fig. 111

Photograph of concept model: Surface manipulation showing eroded corner with plaza underneath and circulation steps.

Author, 2006

Fig. 112

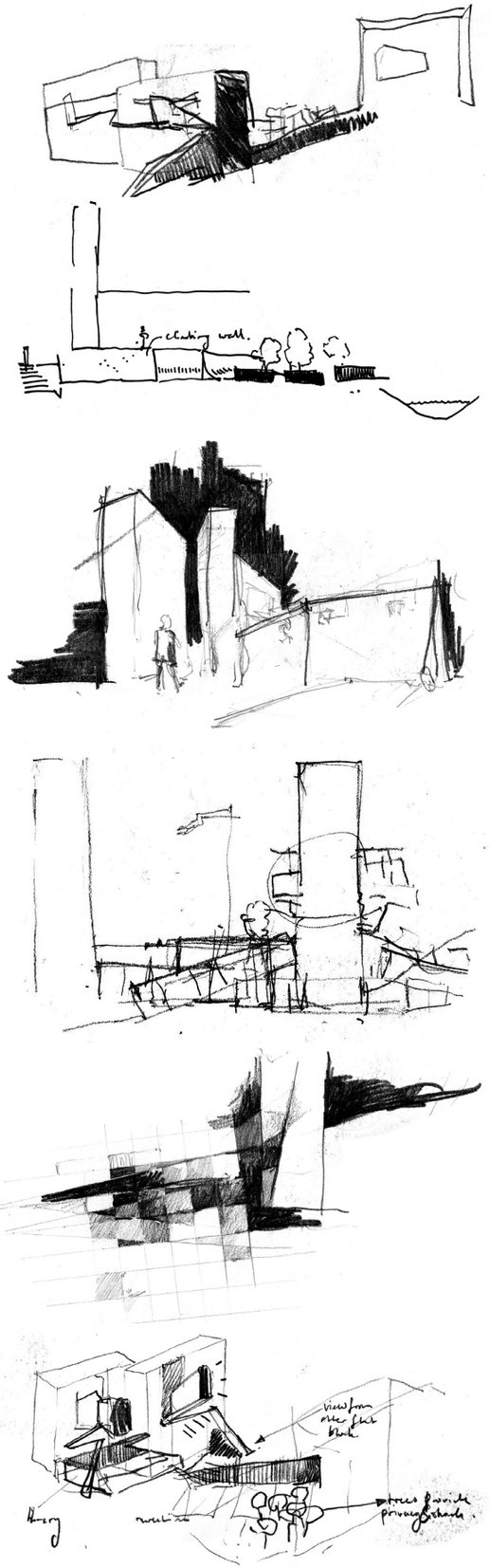
Conceptual illustration: Surface manipulation

Author, 2006

The concept of the urban surface and its related design issues originated in post war Europe, when many cities had to be rebuilt. The urban renewal policies of the time stimulated new ideas regarding large scale landscapes and urbanism. Superstudio, one such group of urbanists, developed the concept of the *Supersurface,* which utilized the device of the grid to suggest a "pure, planar landscape, providing both a metaphor and an instrument for the networks of energy and information that could extend to every corner of the earth."(*Ibid*:235)

From the text already put forward in this dissertation, it is clear that the urban surface presiding in Sunnyside is defunct. Instead of an active landscape which constructs the situations for new relationships and interactions among the things it supports, Pretoria's urban surface has become anti-space. It succeeds in isolating each individual site with impenetrable boundaries, allocating the majority of urban surface to the semi-private realm which, in turn, becomes unused. The buildings of Sunnyside are "no longer interested in belonging, in being part of the web, but a needle, standing simply on its own. It is in downtown, but not of downtown," (Koolhaas 1995:856) and the city disintegrates into a cluster of autonomies.

This dissertation will attempt to begin to rectify this dilemma by improving the continuity of Sunnyside's urban surface. For Lebbeus Woods this continuity is paramount, and states that "The flow of energy in space is an architecture of change: one thing affects another in ways that cannot be exactly predicted. (Woods 1992:27) This unpredictability is a vital energy in the making of a city, where architecture is not undertaken as a "passive ameliorant", but rather as an "active accelerant, staging and setting up new conditions for uncertain futures."(Wall 1999:233)



Un-Volumetric Architecture

A concept inextricably linked to the 'staging of conditions for uncertain futures' is that of un-volumetric architecture. While the urban surface can perhaps be seen as the city's connective tissue in the two-dimensional ground plane, urban un-volumetric architecture can be defined as that which provides the frameworks for the three-dimensional voids situated within the surface. According to Kim, "urban voids are neither residual nor excremental, but potential fragments of contemplation and obsession." (Kim 2006:164) Un-volumetric architecture is the enabler for the realization of this potential. In addition, it is within these social containers or platforms that the "occasional discovery and the chance encounter of destinies occur" (Ibid:164), providing a new status for architecture "far removed form the mono-functional blocks indicated by building codes." (Ibid:163) The concepts of urban surface programming and un-volumetric architecture mark a shift with an architecture of programmatic concerns. Instead of an architecture of functionality, one rooted in activity and play can develop. By providing frameworks or platforms where these activities can take place, architecture can begin to 'connect the inhabitant with events in the world around him and within himself." (Betsky 1990:180) Instead of viewing these voids or 'absences' negatively, they can now be seen to contain enormous potential and "indescribable essence." (Kim 2006:163)

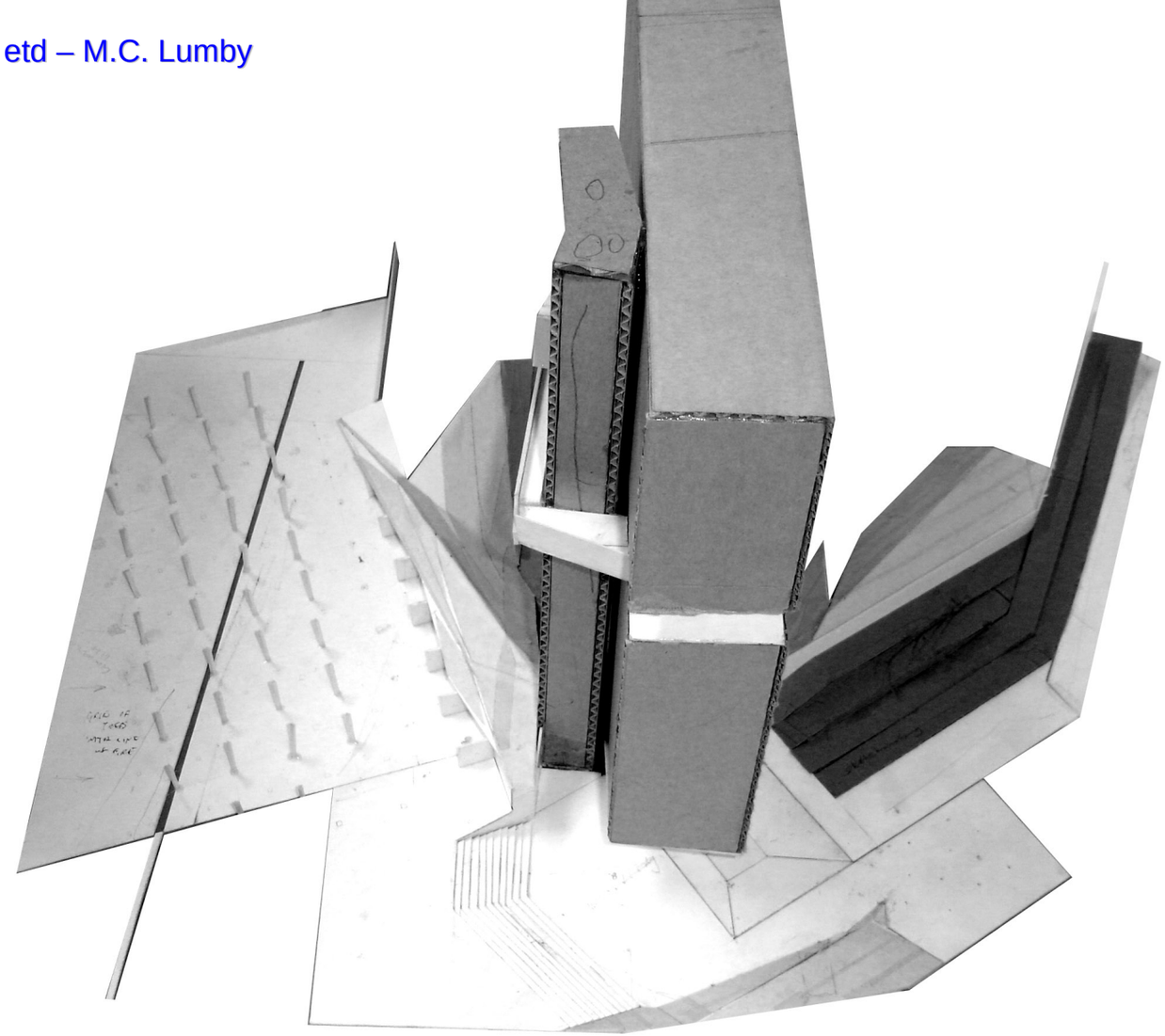


Fig. 113 - Fig.118

Conceptual illustrations: Surface manipulation

Author, 2006

Fig. 119

Photograph of concept model: Surface manipulation with grass berms as interface typology, public circulation ramp and eroded corner.

Author, 2006

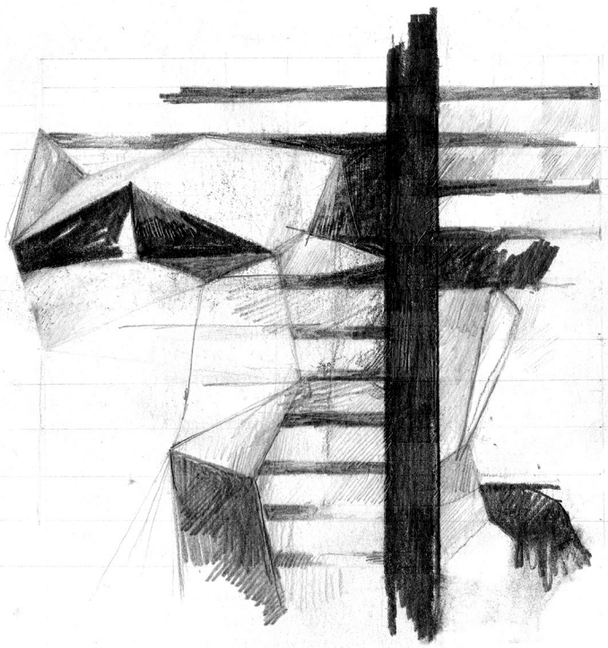


Fig. 120

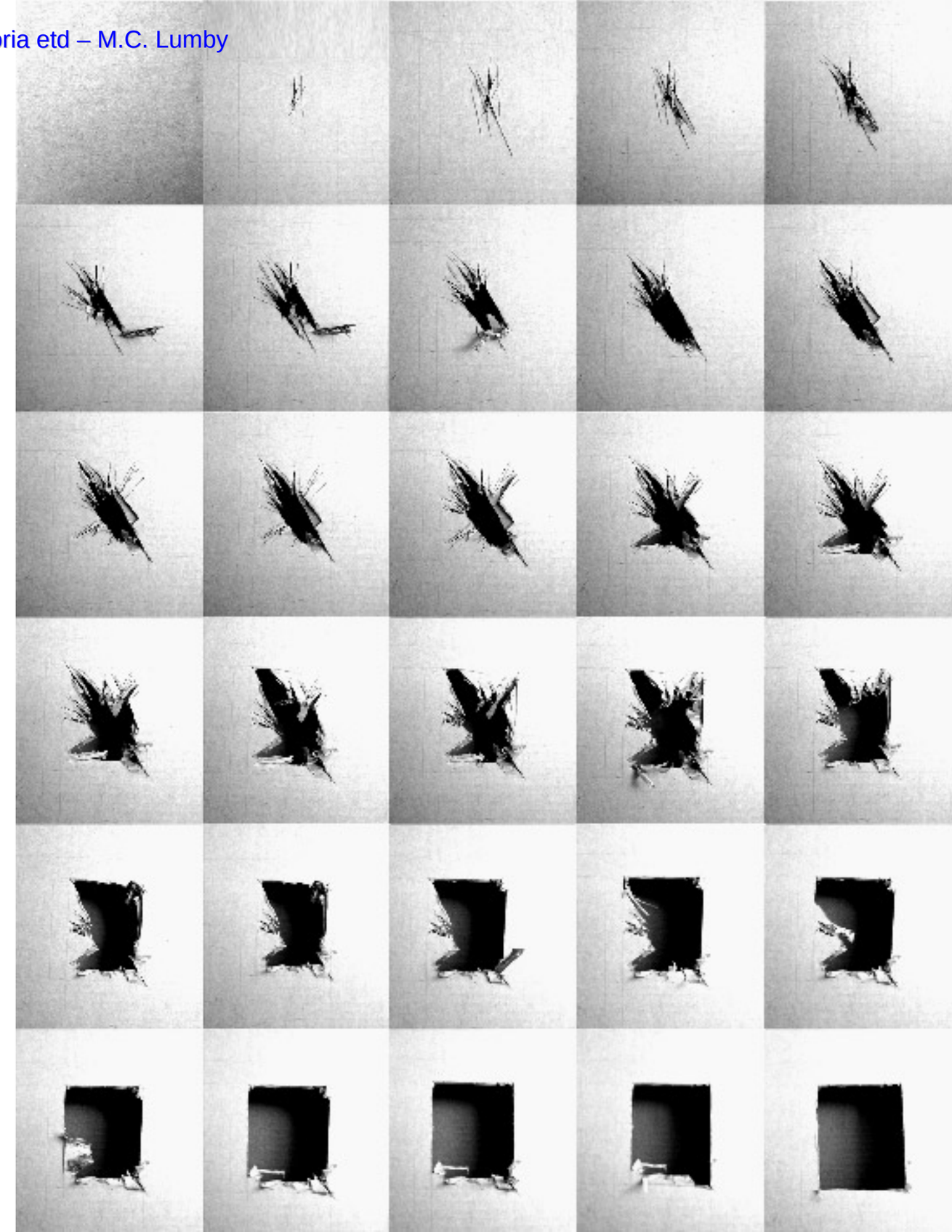
Conceptual illustration: Unnamable Hybrid

Author, 2006

Fig. 121 *(right)*

Photographs of concept model: Void #3

Author, 2006



Hybridisation

As previously mentioned in the introduction, the overarching concept of this dissertation relates to the establishment of free flowing energy throughout the urban environment. Up to now, it has manifested in the manipulation of the two dimensional urban surface. For the completion of the concept, the design will now proceed into the third dimension: that of the vertical. The theory relating to surface continuity and un-volumetric architecture which informed the 'freeing-up' of the urban surface can be applied to the emancipation of vertical structure. In this way, public space can begin to extend from the floor plane up into previously inaccessible locales.

"An extreme blurring of architectural properties into cohesive oneness implies an extension of the single surface organization from a primarily horizontal structure to a three dimensional organization encompassing the vertical and the diagonal as well... …Enriched by light, sound & movement, a situation emerges in which the unified organization is permeated with changeable substances." (Berkel & Bos 1999:83)

The insertion of elevated public space within the large north-eastern block (Maroela flat block) provides continuity of concept into the architectural realm, transforming an ordinary block of flats into a hybrid of flat units and un-programmed spaces. UN Studio defines the architecture of hybridization as "the fluent merging of constituent parts into an endlessly variable whole, [which] amounts to the organization of continuous difference, resulting in structures that are scale-less, subject to evolution, expansion, inversion and other contortions and manipulations."(*Ibid* 84) **It is important to note that this is not 'multifunctional' design where various functions are placed adjacent to each other in a logical arrangement**. An un-programmed void becomes an edifice that is free to assume different identities, inviting appropriation, diversification and reinvention.

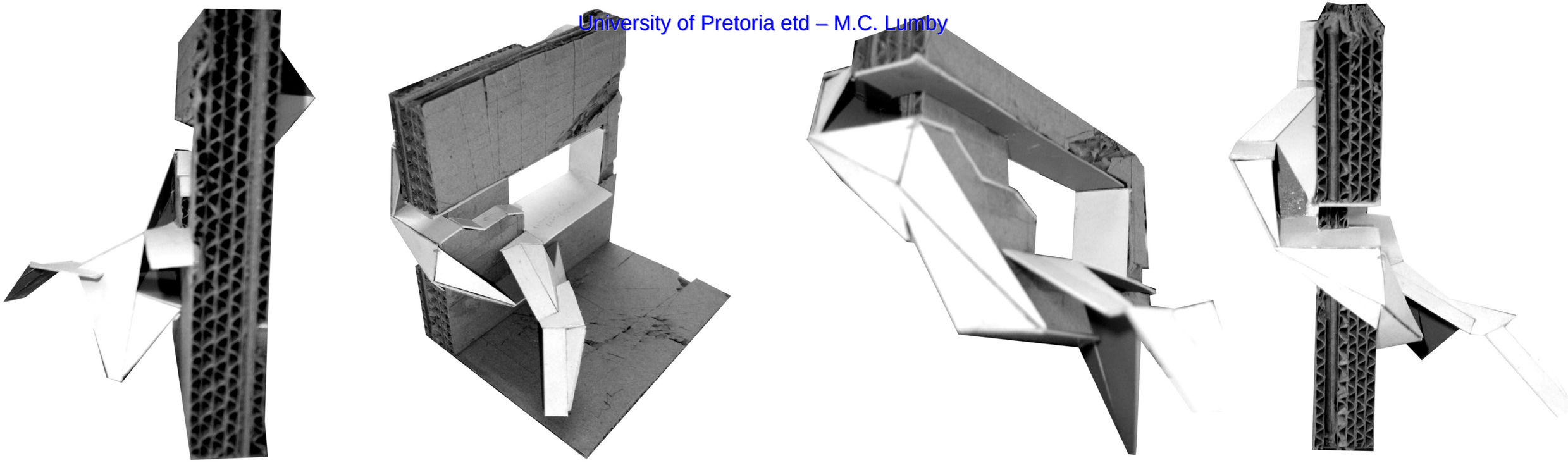


Fig. 122

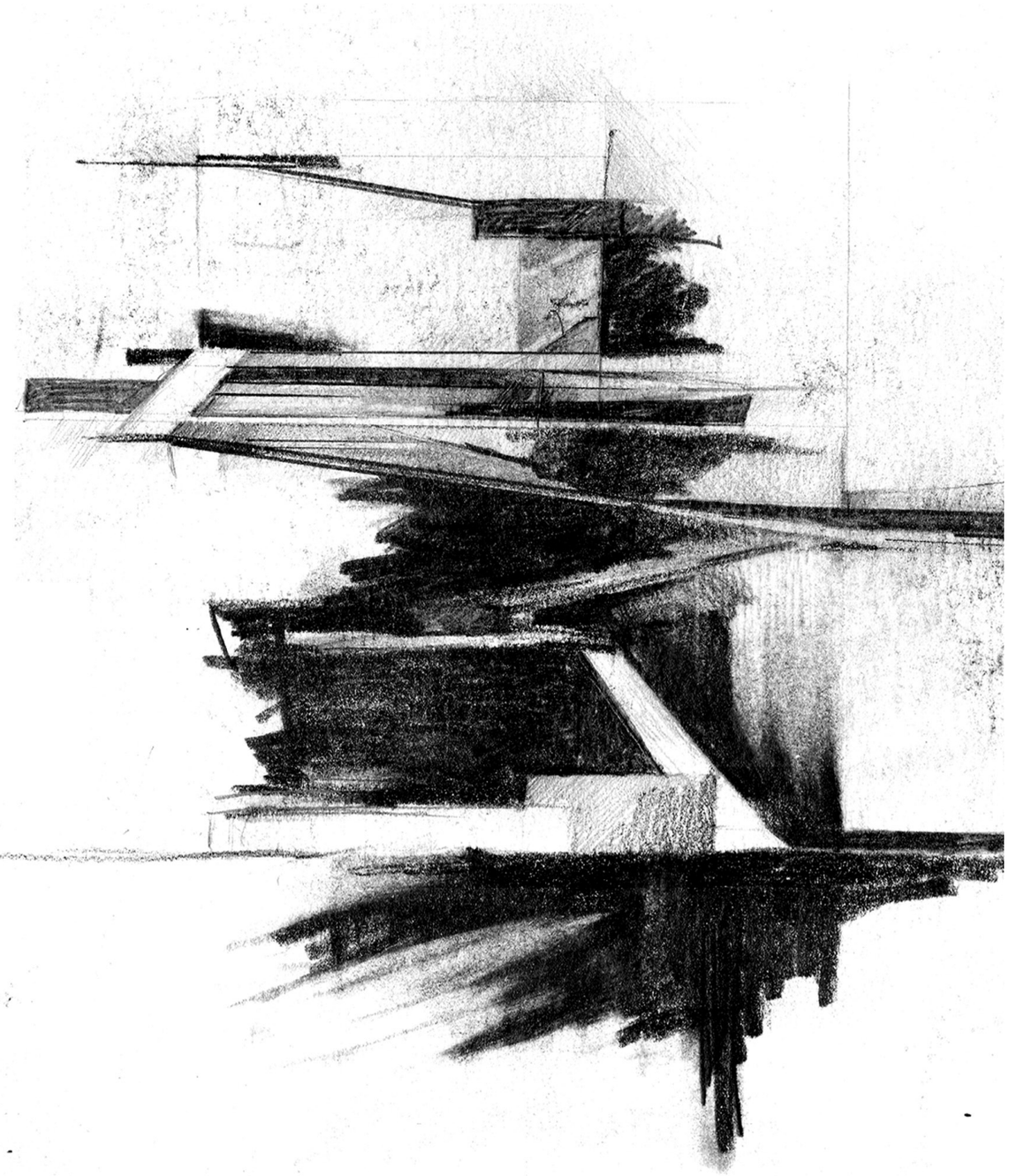
Photographs of concept models: Ladder #3 & Ladder #4. Public circulation and void.

Author, 2006

Fig. 123 - Fig. 126 *(above)*

Photographs of concept model: Ladder #2. Public circulation from Leyds street into void in Karee flat block.

Author, 2006



"The social is hybrid; it is a gathering into form, a morphogenesis, that consists of discursive and non-discursive, human and non-human elements, which form coherent assemblages. Society is held together through this gathering which happens in an urban 'space of gathering' or 'situation'. This is a matter of 'concrete universals'; categorical universals, assemblies of similars, is not the issue here; what we are talking about are gatherings of *heterogeneous* elements into situation or place. We do not attempt to fill in the whole surface either with order or with contingency. There is nothing but networks and we do not attempt to fill in what is in between local pockets of order. They propose also however another kind of space, a *fluid*, where neither boundaries nor relations mark the difference between one place and another. In these spaces boundaries may come and go, allow leakage or disappear altogether, while relations transform themselves without fracture. Latour proposes that by following circulations we can get more than by defining entities, essences and provinces. I would go further here to say that this involution is a progressive generative folding or pleating or 'space-filling' at ever finer scales as we zoom in from the ultimate scale of the city which is given by the (ultimately global) limits of its connective and communicative networks and infrastructures." (Read, S & Sezer, C. 2005)

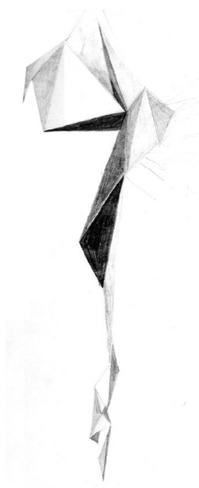


Fig. 127

Conceptual illustration: Ladder #1

Author, 2006

Fig. 128 *(left)*

Conceptual illustration: Ladder #5. Public circulation into Maroela flat block

Author, 2006

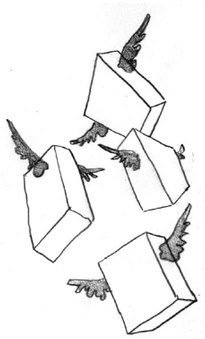


Fig. 129

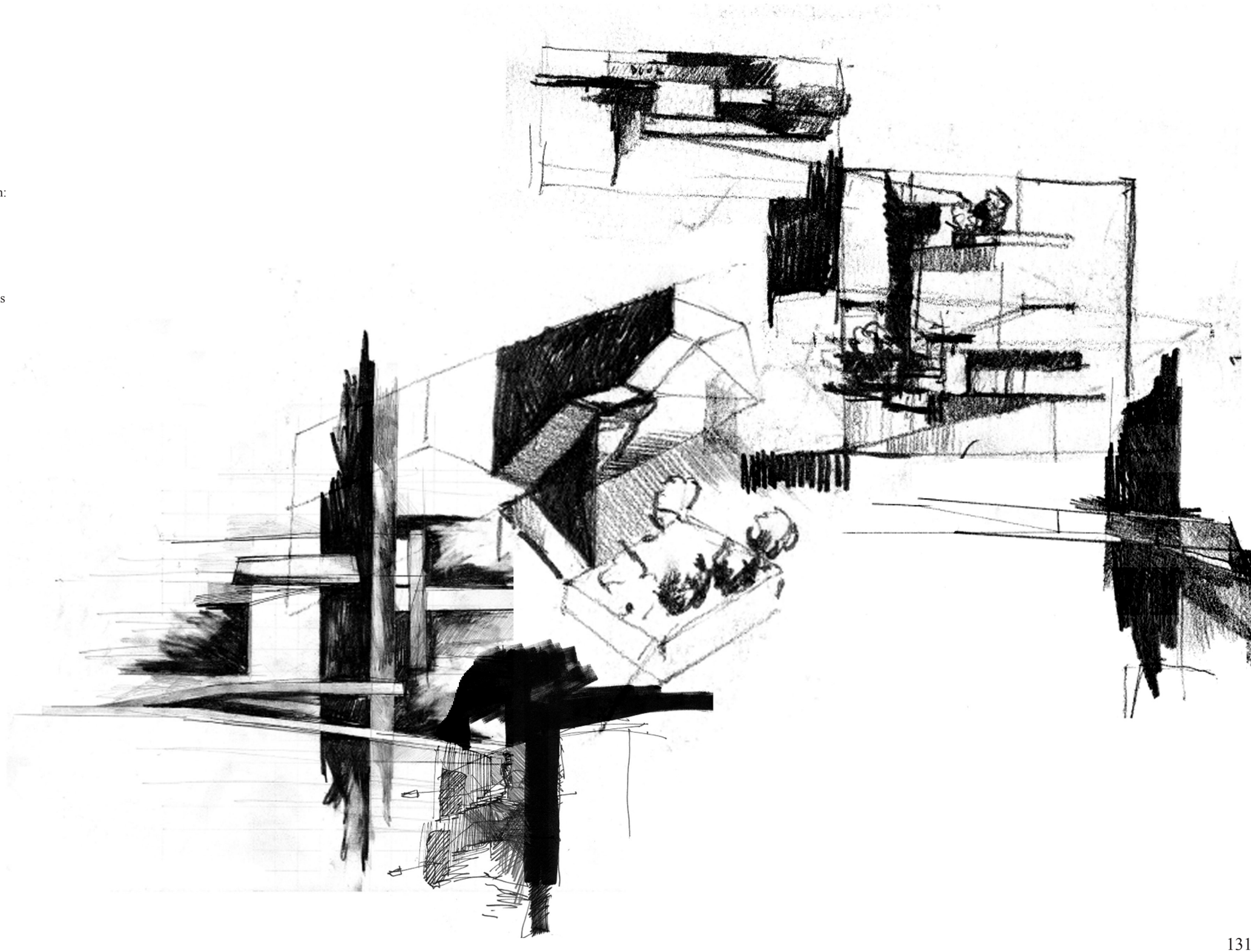
Conceptual illustration: Flock of Block

Author, 2006

Fig. 130

Digital Collage of conceptual illustrations for Marouela void.

Author, 2006



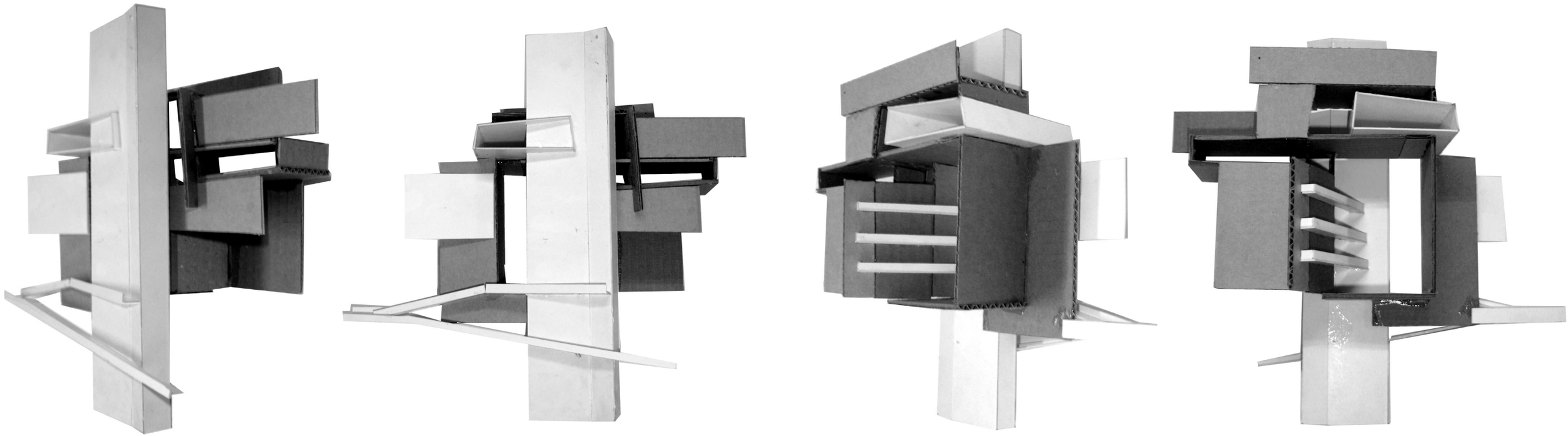


Fig. 131

Conceptual Illustration: Void #1. Inversion of form

Author, 2006

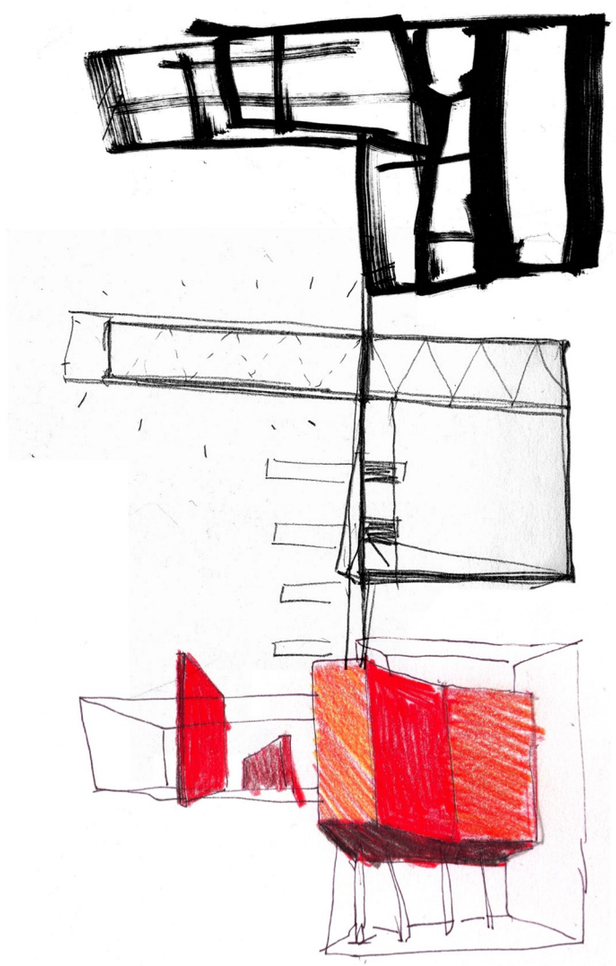
Fig. 132 - Fig. 135

Photographs of concept model: Void #2 showing public circulation and urban rooms.

Author, 2006

"[the] structures betray no familiar routines of use or habitation. Yet clearly there are activities accommodated here."

(Sorkin in Woods 1991:80)



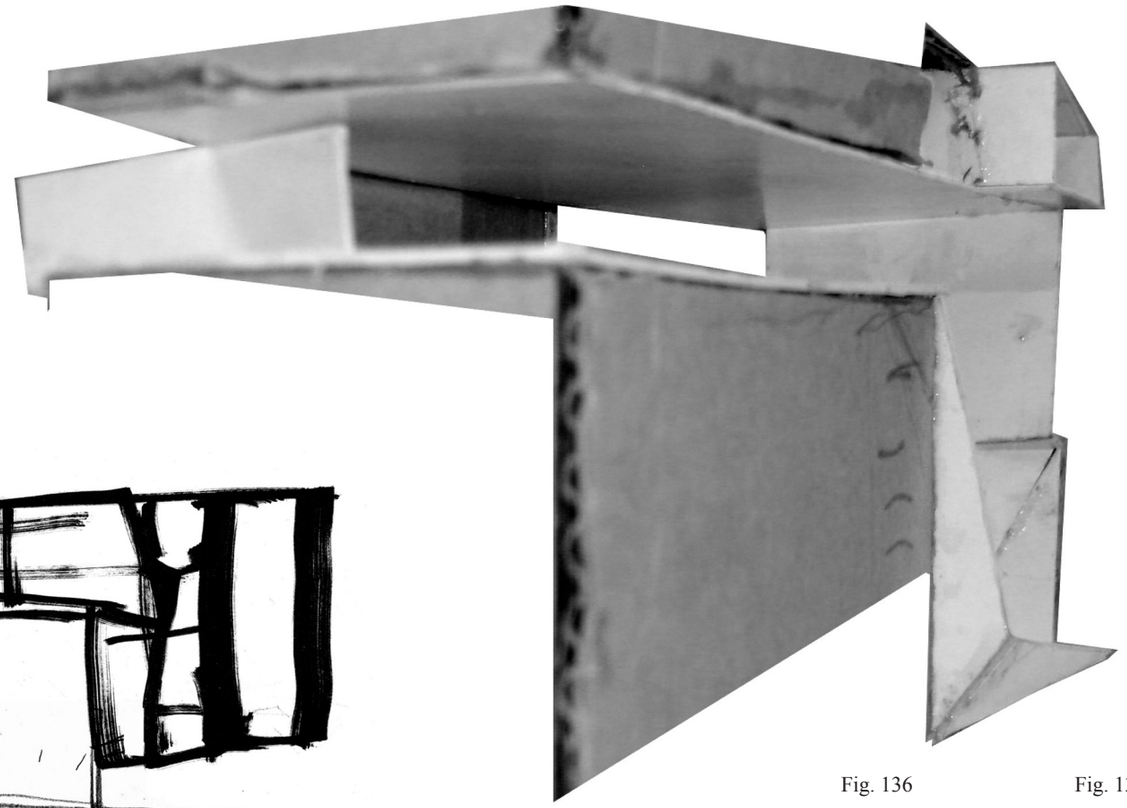


Fig. 136

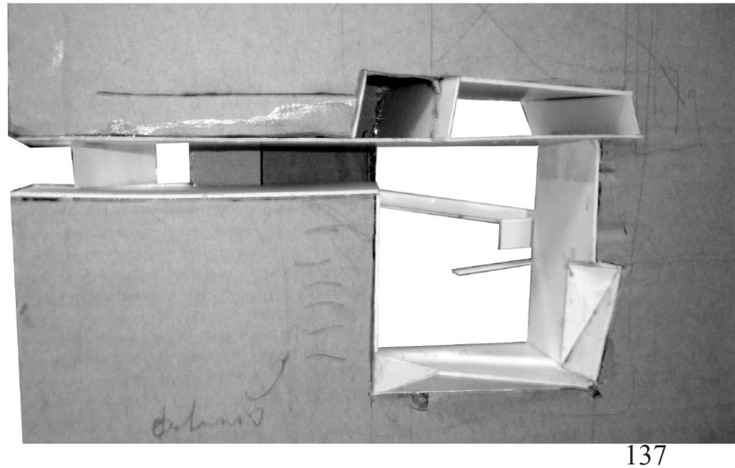
Conceptual Progression: Development of Public Space composition

Author, 2006

Fig. 137

Photograph of concept model: Void #3 showing public seating area

Author, 2006



"it will no longer be about meticulous definition, the imposition of limits, but about expanding notions, denying boundaries, not about separating and identifying entities, but about discovering unnamable hybrids; it will no longer be obsessed with the city but with the manipulation of infrastructure for endless intensifications and diversifications, shortcuts and redistributions – the reinvention of psychological space." (Koolhaas 1995:959)

Fig. 138

View from public space void

Author. 2006

Fig. 139

Photograph of Void #3: Addition and Subtraction

Author, 2006

Figure 140

Digital Collage of conceptual illustrations relating to the design development of a free standing tower to the east of Maroela flat block. Its purpose is to visually link the elements of the design (elevated public space and public surface) into a unified whole.

Author, 2006

Technical Investigation

In the previous section design related theory was discussed alongside conceptual images. During the process three main design components emerged as the scale of resolution reduced. The first component was a direct interpretation of the urban concept, the manipulation of the site's surface into usable public space. The second component emerged as the concept ventured into the vertical dimension. It involves the inclusion of an elevated public space and urban rooms within the Maroela flat block. After these two components were in place, the third component was developed to link them. A tower block stretching from the surface to the elevated public space connects the components. To further unite the intervention, the concept of the tree as signifier of public space was utilized. This visual association extends public space from the pavement to in-between the buildings and up to an elevated locale. In this section, the three components will initially be discussed separately.

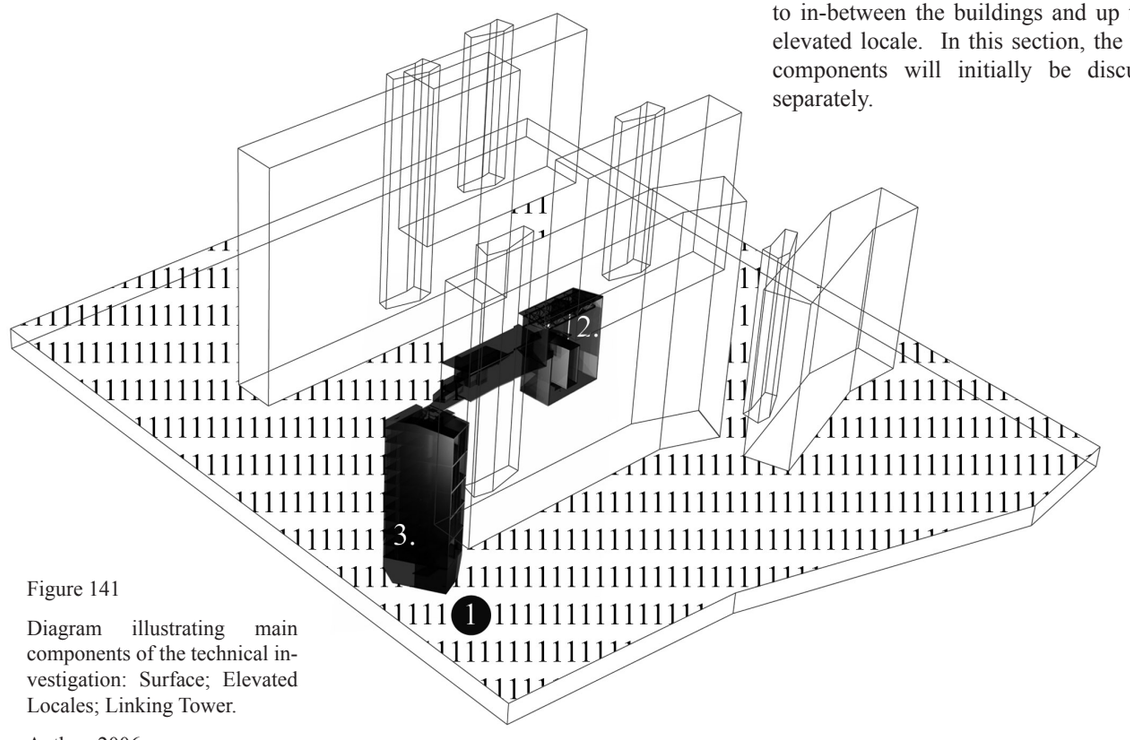


Figure 141

Diagram illustrating main components of the technical investigation: Surface; Elevated Locales; Linking Tower.

Author, 2006

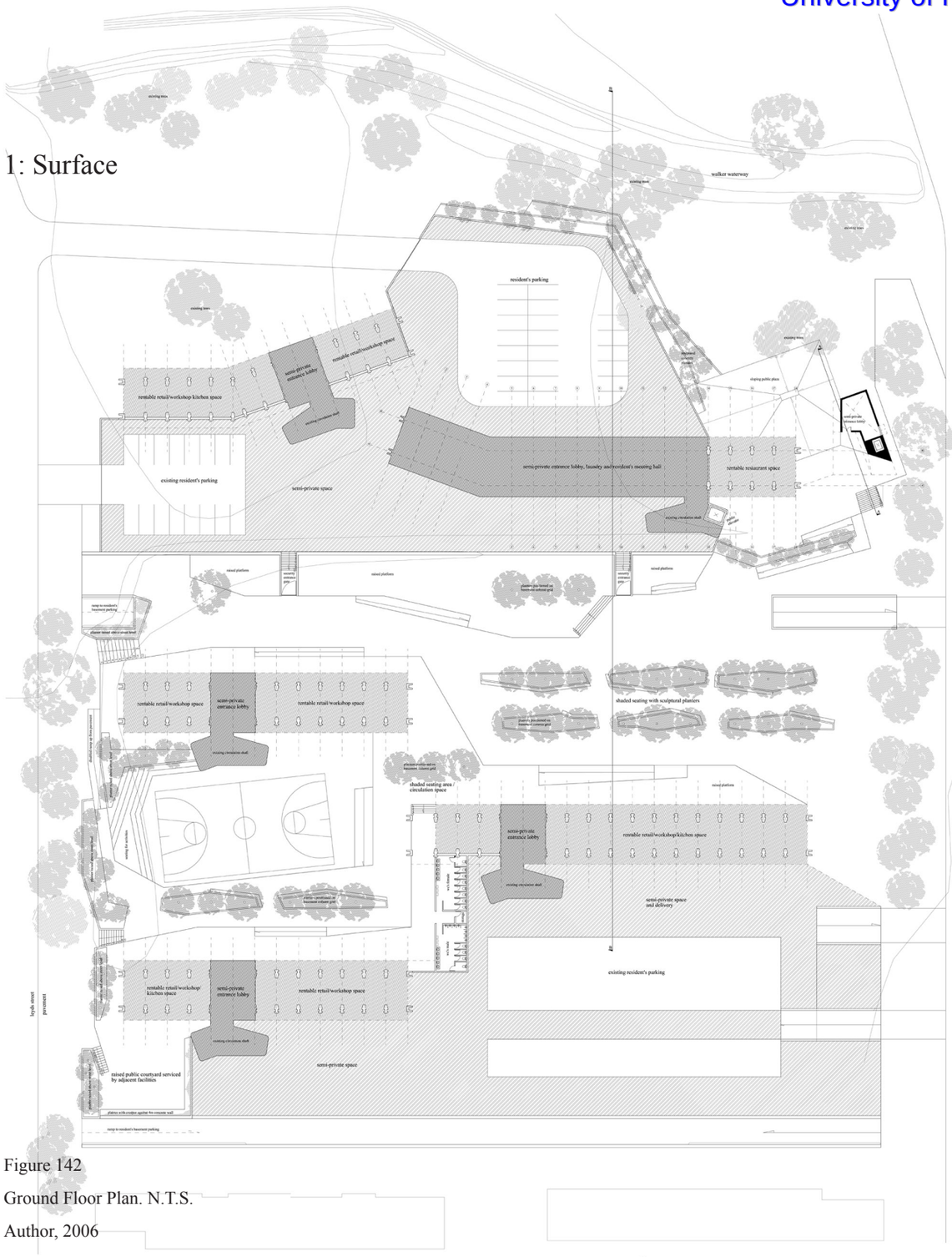


Figure 142

Ground Floor Plan. N.T.S.

Author, 2006

GROUND FLOOR PLAN

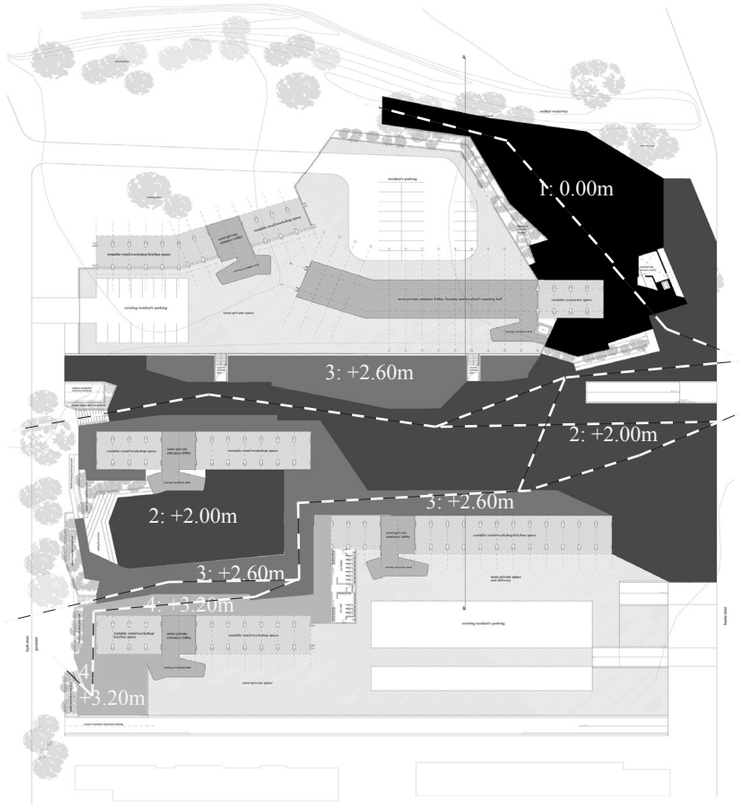


Figure 143

Site plan illustrating different ground levels beginning at the level of Walker Waterway. Note how the elevated platform in front of Tambotie flat block becomes the intermediary level in the main space between the Karee & Kiepersol blocks. Also included are the main public pedestrian routes.

Author, 2006

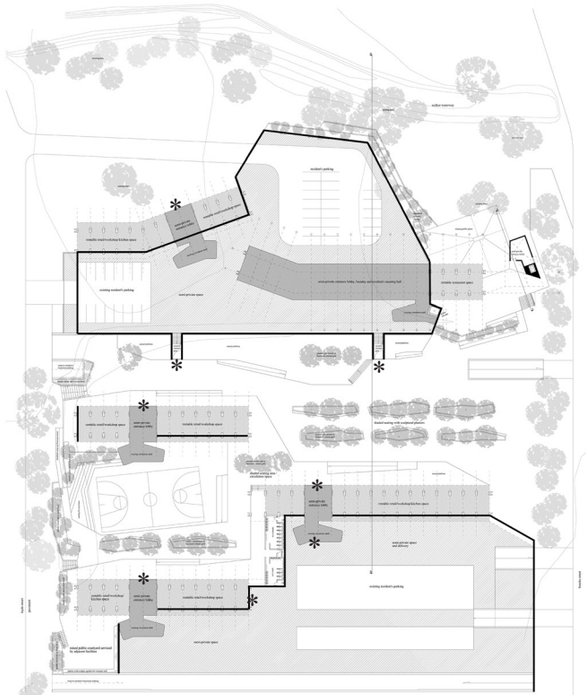


Figure 144

Site plan illustrating the proposed brick enclosure walls. These wall define the new boundaries between public and semi-private space. Existing amenities such as the laundry, above ground parking spaces, lobbies, post boxes and administration offices were taken into account. The parking in the north-eastern corner was moved and De Rapper street converted into a one-way access route, affording the area a better interface with the street and with the Walker Waterway to the north. Also included are the new resident access points (*).

Author, 2006

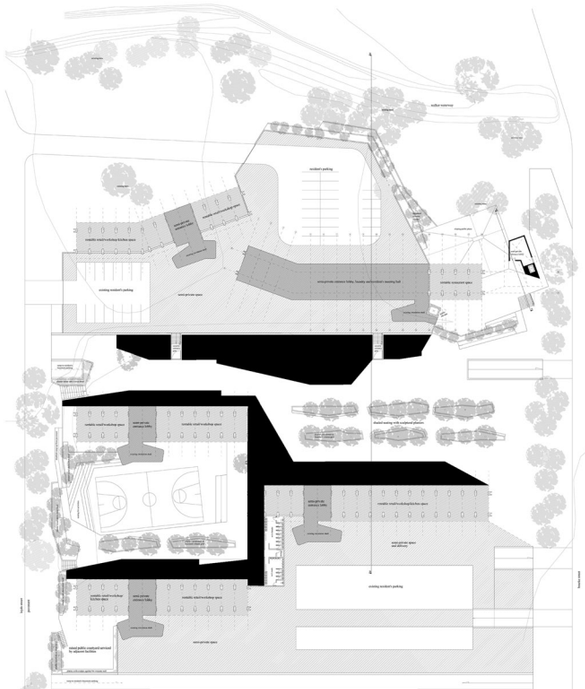


Figure 145

Site plan illustrating raised platforms situated on the northern side of Tambotie, Karee & Kiepersol flat blocks as well as on the southern side of the main public space's enclosure wall. The platforms, 220mm concrete slabs are supported by the existing underground parking columns (and have been designed in accordance with them) and represent rest areas from the main through routes with public furniture and lighting. They also act as interaction zones for the new workshop and retail spaces on the ground floor of the existing flat blocks. Access is gained to these platforms by means of ramps and staircases. There is a 380mm void between the bottom of these platforms and the top of the underlying level. This allows for natural ventilation for the underground parking as well as providing atmospheric lighting for the public spaces at night.

Author, 2006

Figure 146

Site plan illustrating planted areas within public spaces. (1.) On the western boundary where the underground parking has caused a level difference between the site and the street, planters act as retaining walls and provide shelter and privacy from the street. They have been interspersed with access stairs and a ramp. (2.) Concrete sculptural planters 1500mm high (2000mm in total) allow for medium sized trees in the main public spaces and have been placed in accordance with underground parking columns. The planters define quiet zones and have built in concrete seating. Atmospheric lighting is provided by fixtures attached to the underside of the furniture. (3.) Shallow planters for creeping plants. The creepers soften the imposing nature of the enclosure walls. (4.) Undulating planters house medium to large trees. Again, they soften the enclosure walls.

Author, 2006

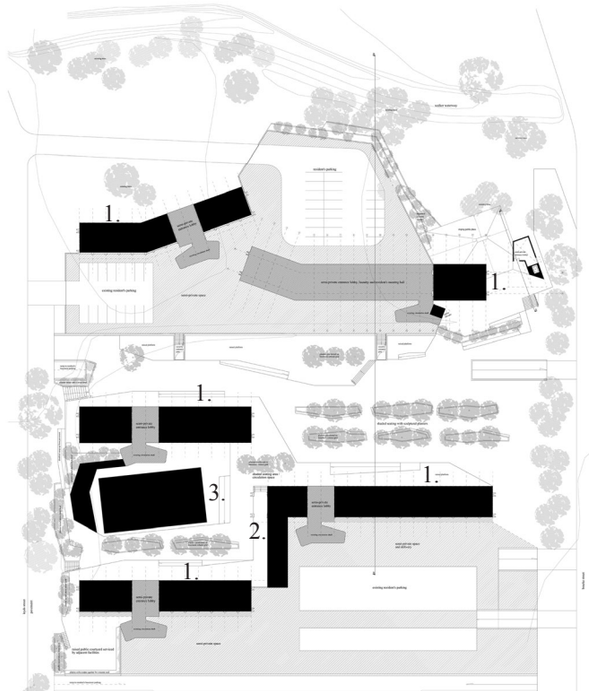
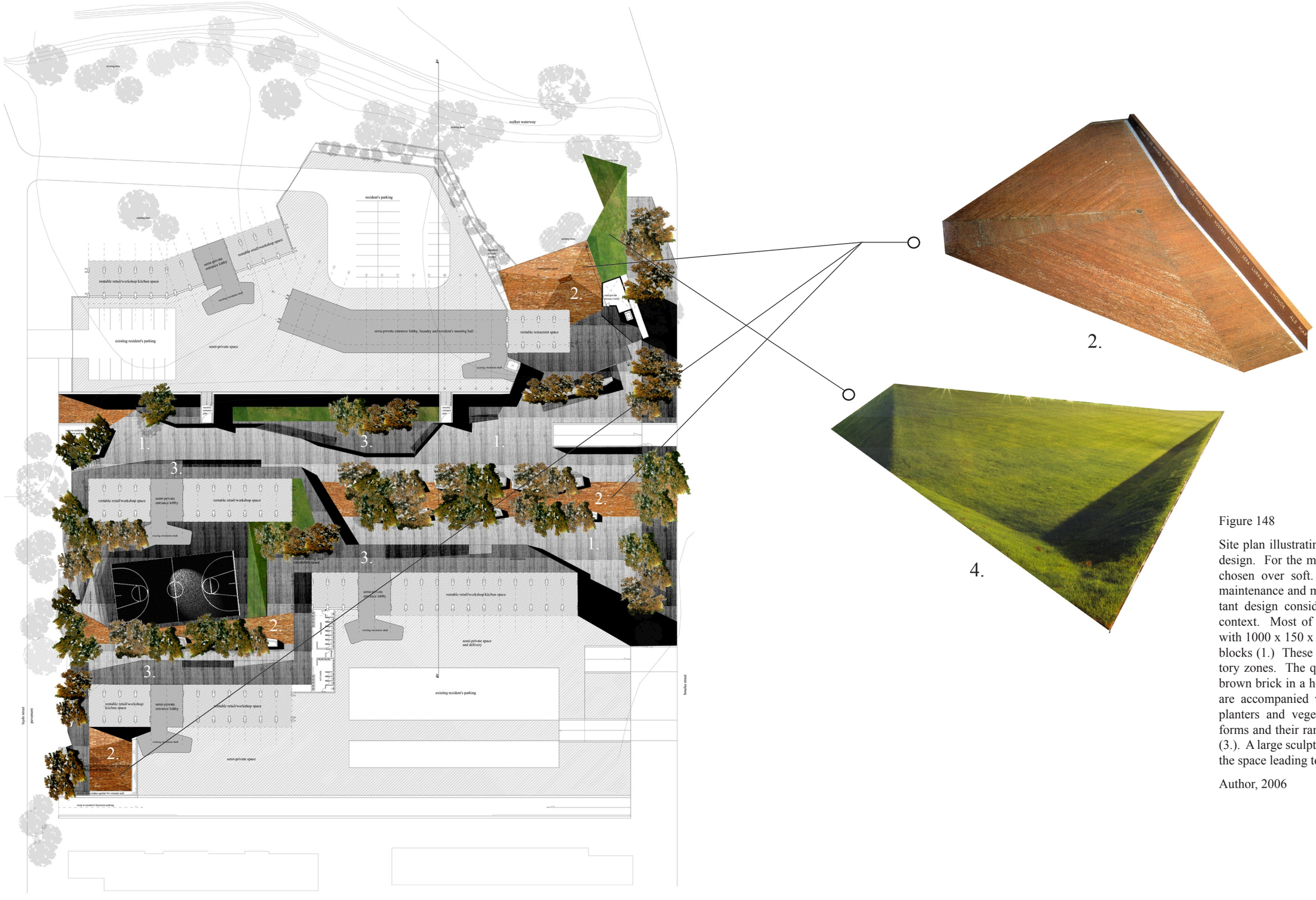


Figure 147

Site plan illustrating new amenities. (1.) In between the piloti rentable retail, restaurant and workshop spaces will live out onto the public spaces, improving the interface between public and private. (2.) Public ablution block. (3.) Public basketball court with lighting and seating amphitheatre.

Author, 2006



2.

4.

Figure 148

Site plan illustrating the materiality of the site design. For the most part, hard surfaces were chosen over soft. This allows for minimal maintenance and maximum robustness, important design considerations for the Sunnyside context. Most of the public surface is paved with 1000 x 150 x 150 precast concrete paving blocks (1.) These represent the busier circulatory zones. The quieter zones are paved with brown brick in a herringbone pattern (2.), they are accompanied with cast in situ sculptural planters and vegetation. The elevated platforms and their ramps are cast in situ concrete (3.). A large sculptural grass berm (4.) contains the space leading to the Walker Waterway.

Author, 2006

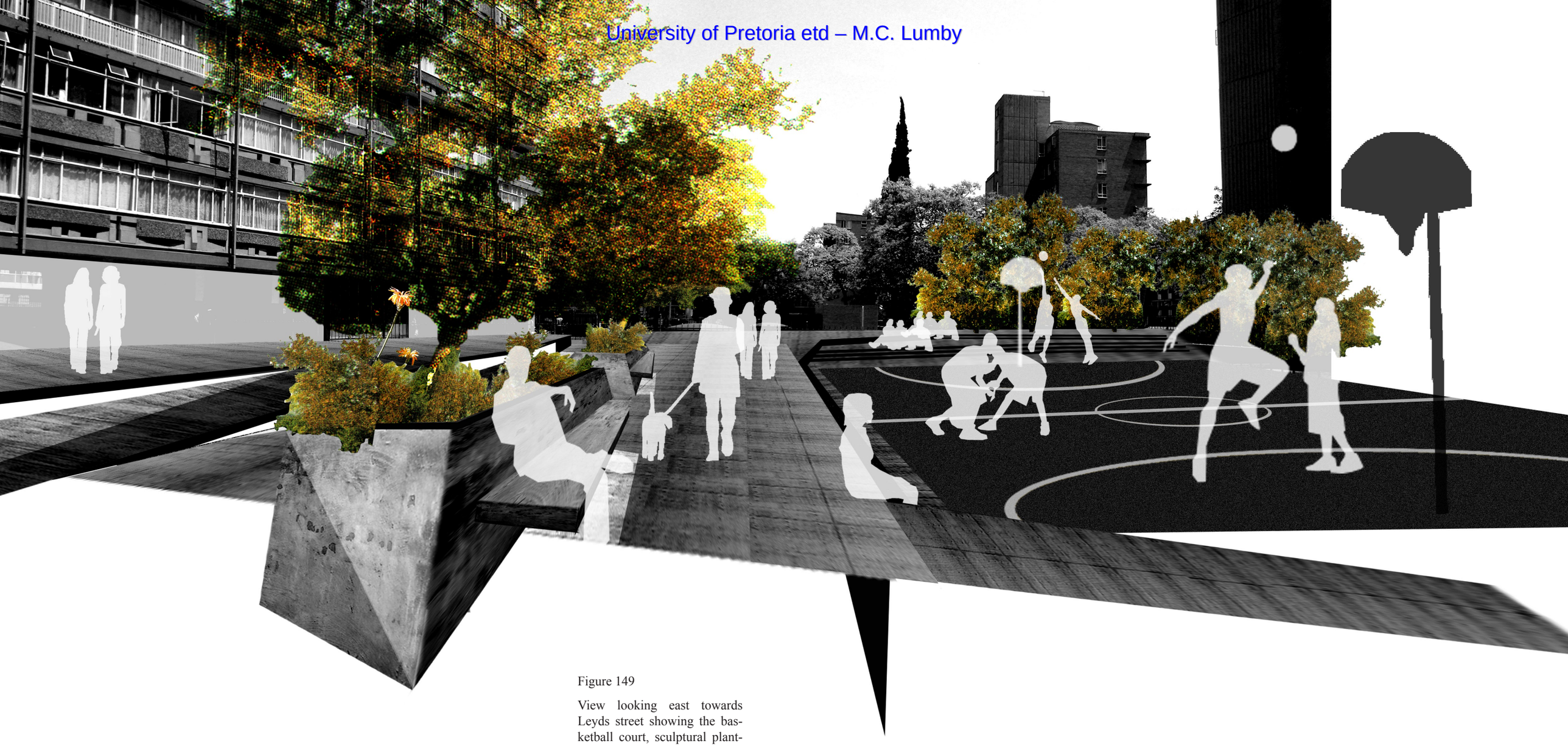


Figure 149

View looking east towards Leyds street showing the basketball court, sculptural planters and raised platform between Soetdoring and Kiepersol flat blocks.

Author, 2006

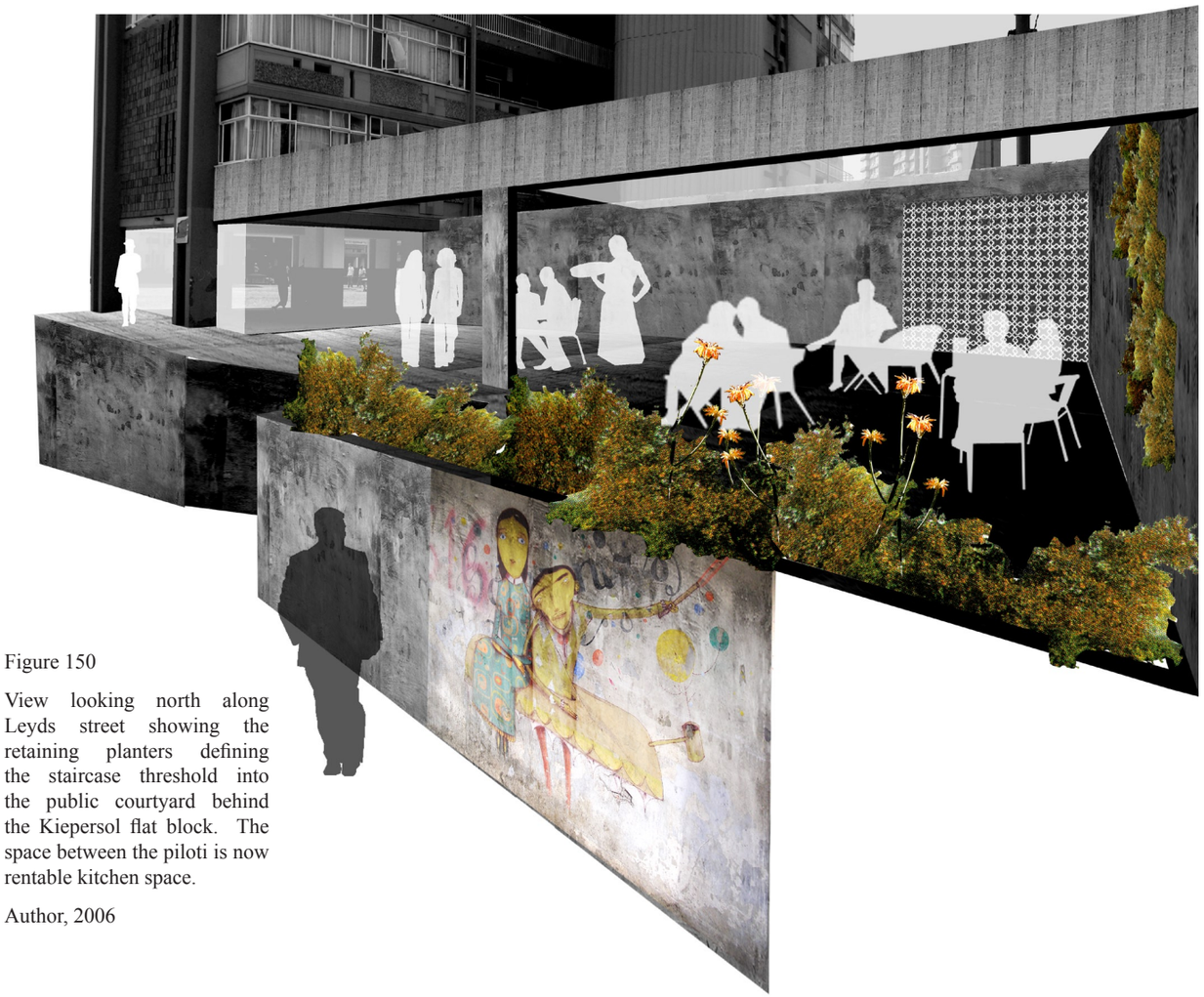


Figure 150

View looking north along Leyds street showing the retaining planters defining the staircase threshold into the public courtyard behind the Kiepersol flat block. The space between the piloti is now rentable kitchen space.

Author, 2006

Figure 151

View looking south along Leyds street. Retaining planters are interspersed with staircases and a ramp which lead into the public space between the Soetdoring and Kiepersol flat blocks. (pg 148,149).

Author, 2006

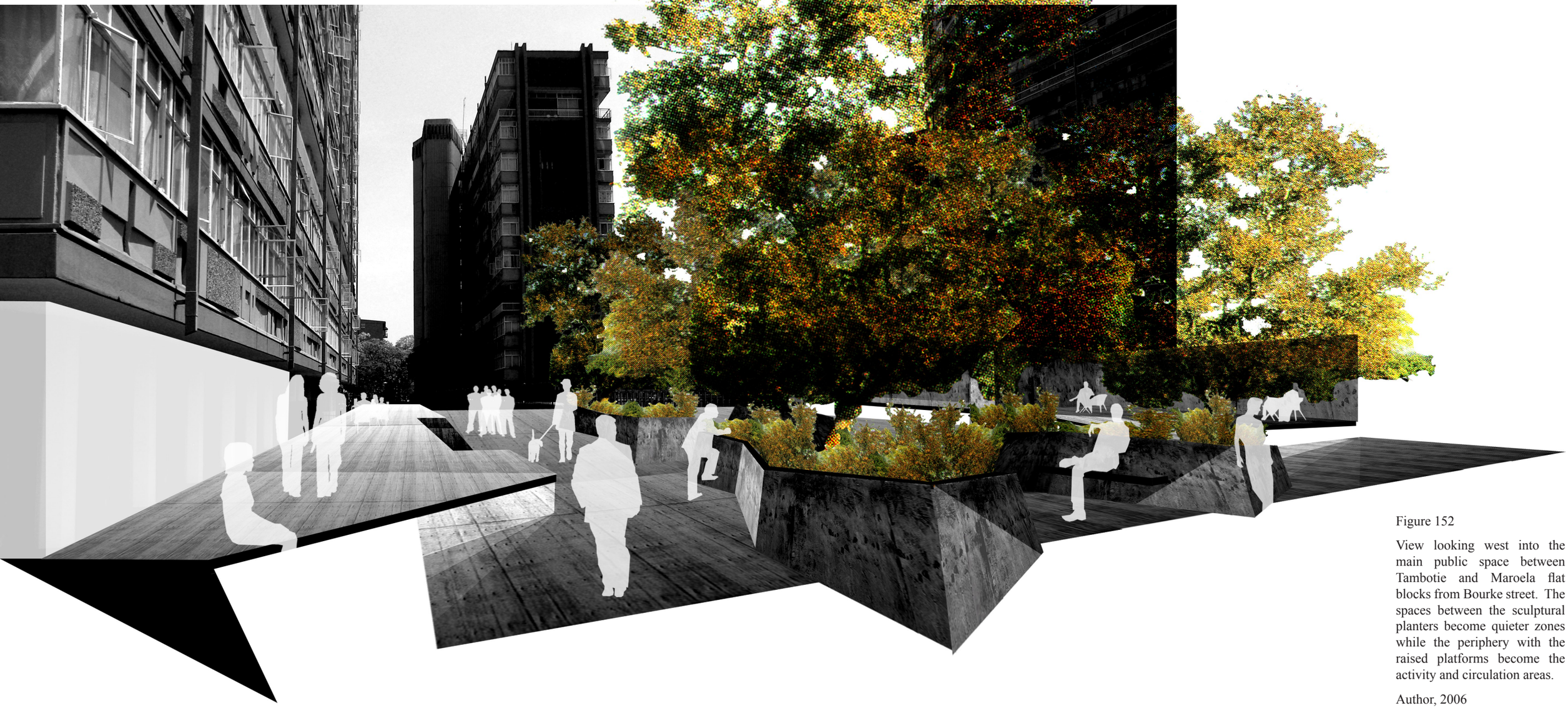


Figure 152

View looking west into the main public space between Tambotie and Maroela flat blocks from Bourke street. The spaces between the sculptural planters become quieter zones while the periphery with the raised platforms become the activity and circulation areas.

Author, 2006

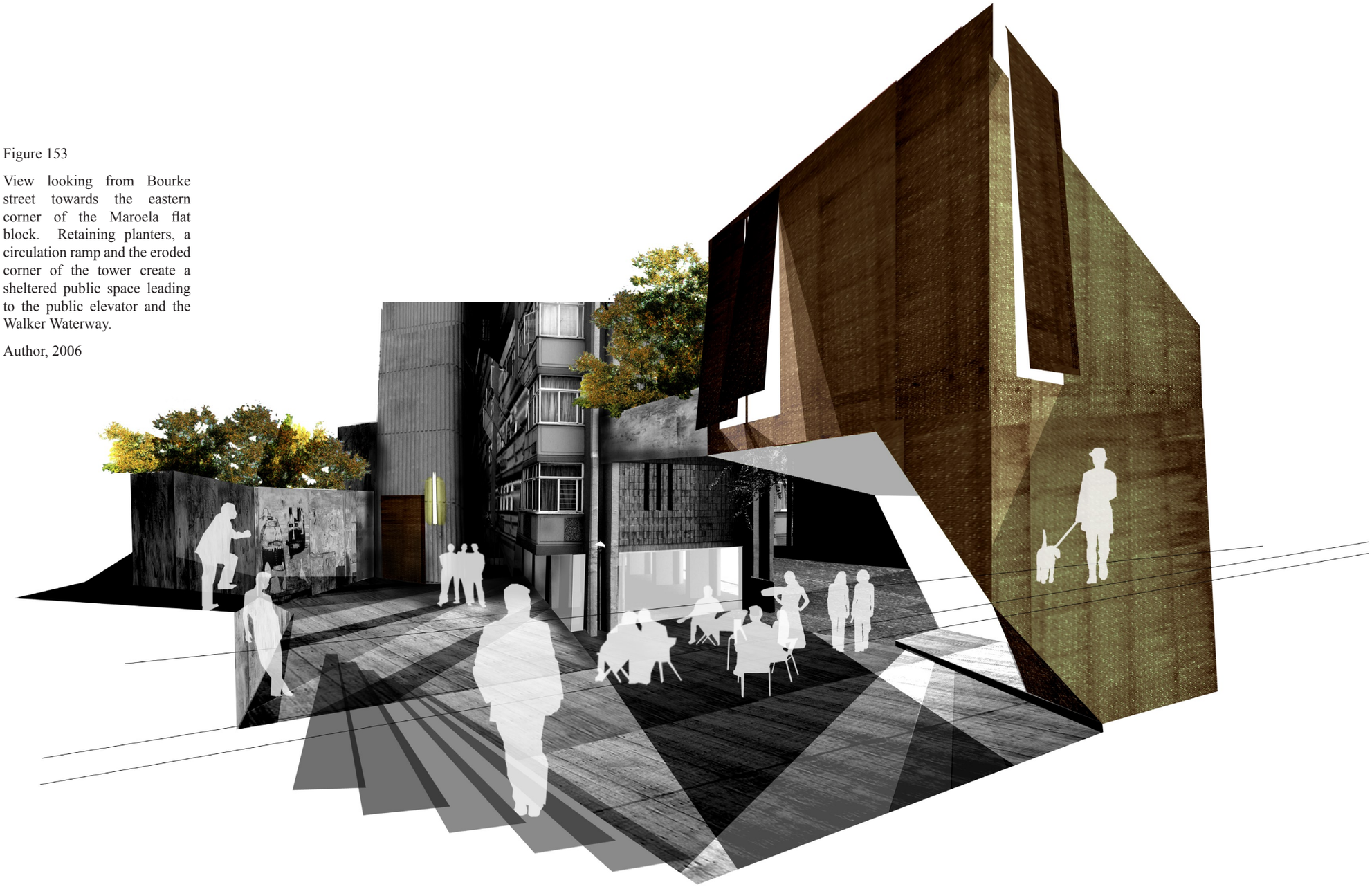


Figure 153

View looking from Bourke street towards the eastern corner of the Maroela flat block. Retaining planters, a circulation ramp and the eroded corner of the tower create a sheltered public space leading to the public elevator and the Walker Waterway.

Author, 2006

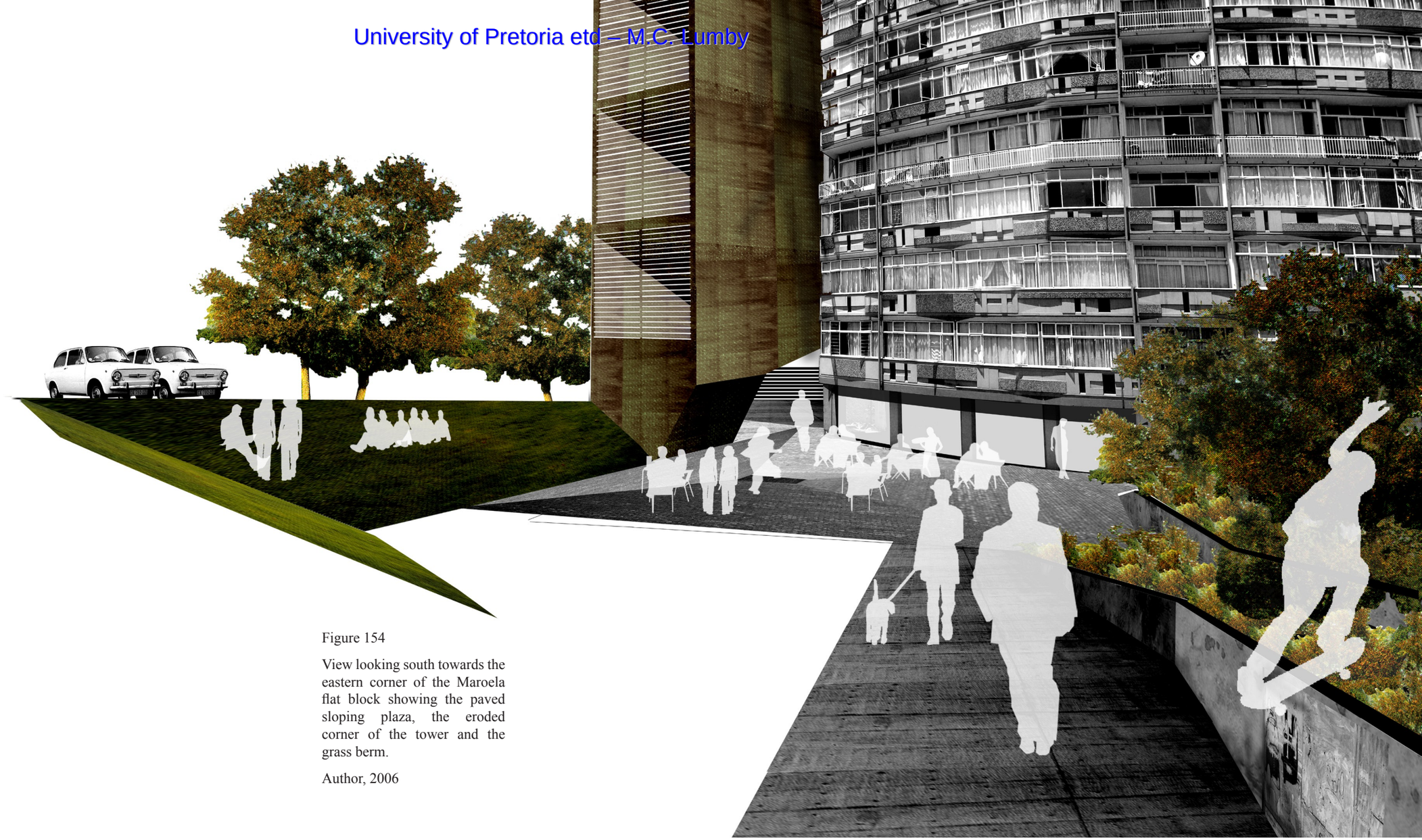


Figure 154

View looking south towards the eastern corner of the Maroela flat block showing the paved sloping plaza, the eroded corner of the tower and the grass berm.

Author, 2006

2: Elevated Locales

Figure 155 *(right)*

Axonometric and 3d rendering showing an exploded view of the elevated public space. The programmatic elements have been arranged in order to create permeability in the space, permitting diffused northern light to the public space below. Not included are the restaurant, the bathrooms and the main seating area.

Author, 2006

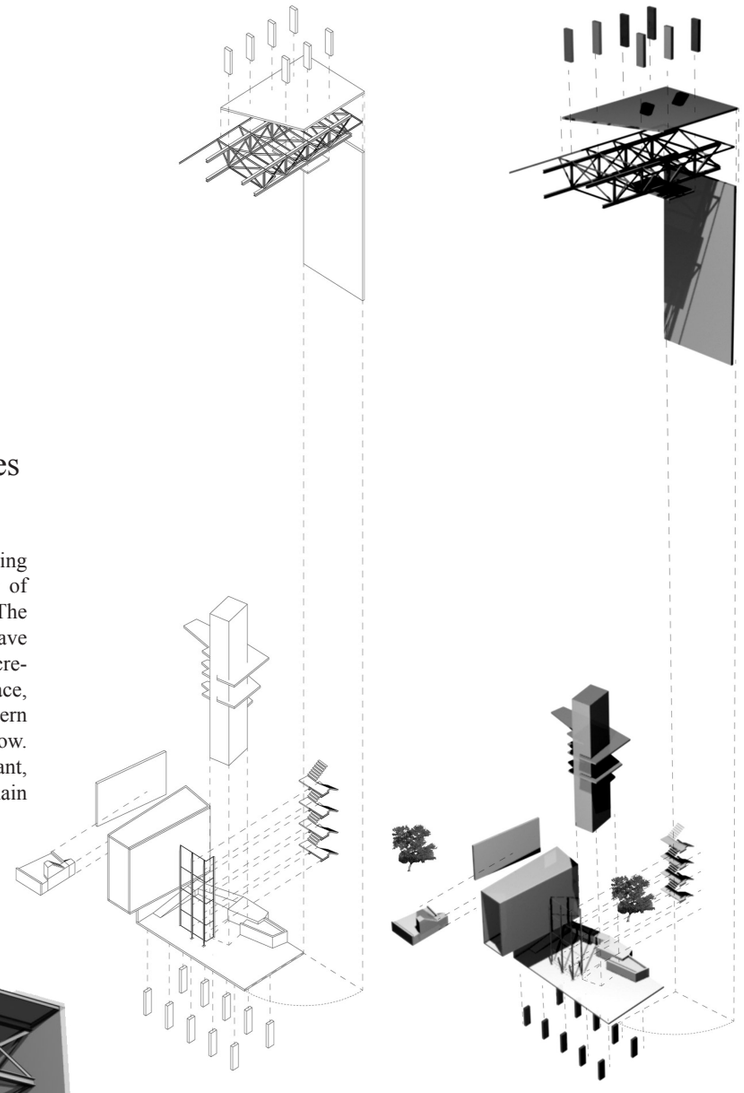


Figure 156 *(left)*

3d rendering showing a northern perspective view of the elevated public space.

Author, 2006

Free-standing public elevator shaft. The shaft is cast in situ concrete and is aligned with four columns in the existing grid.

Public circulation and viewing platforms wrapped around elevator shaft and linked to staircase and urban room. Cast in situ concrete with steel and expanded metal balustrades.

Four flight public staircase. Steel frame structure with timber decking at landings and expanded metal stairs.

Viewing deck on top of urban room. Precast concrete blocks inserted between steel framing structure.

Concrete structural wall cantilevering past existing building perimeter.

Concrete 1500mm Planter with concrete staircase to viewing deck on top of urban room.

Urban room cantilevering 5m past existing building perimeter. Steel framed and braced structure with concrete floors, roof and mezzanines. Copper cladding inside and out with fluorescent lights on inside.

Expanded metal and steel mesh screen attached to front of staircase, steel structure of the urban room and concrete elevator shaft.

Planter with ramp down from elevator.

Existing column grid underneath reinforced floor slab.

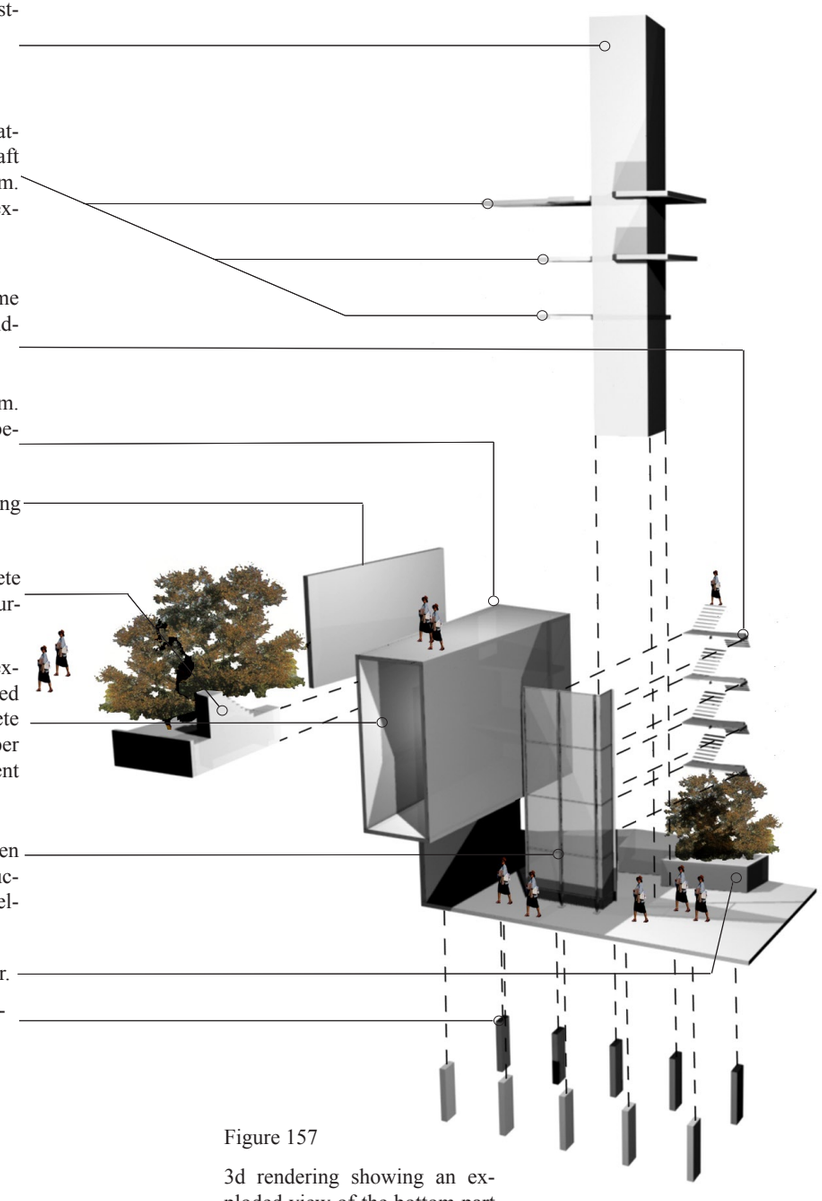


Figure 157

3d rendering showing an exploded view of the bottom part of the elevated public space. Not included are the restaurant, the bathrooms and the main seating area.

Author, 2006

Figure 158

View north from the triple volume urban room situated in the elevated public space. The copper clad steel precipice can also be used for public installations.

Author, 2006

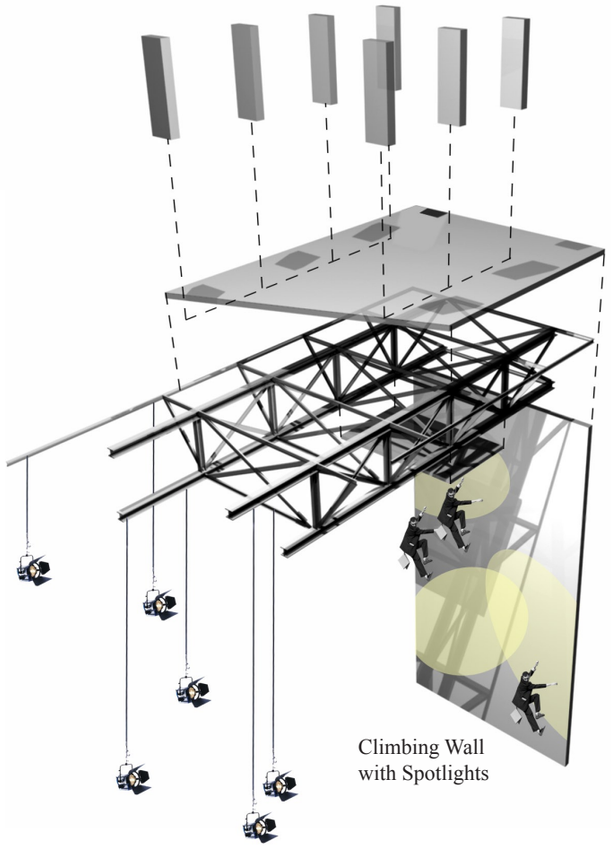
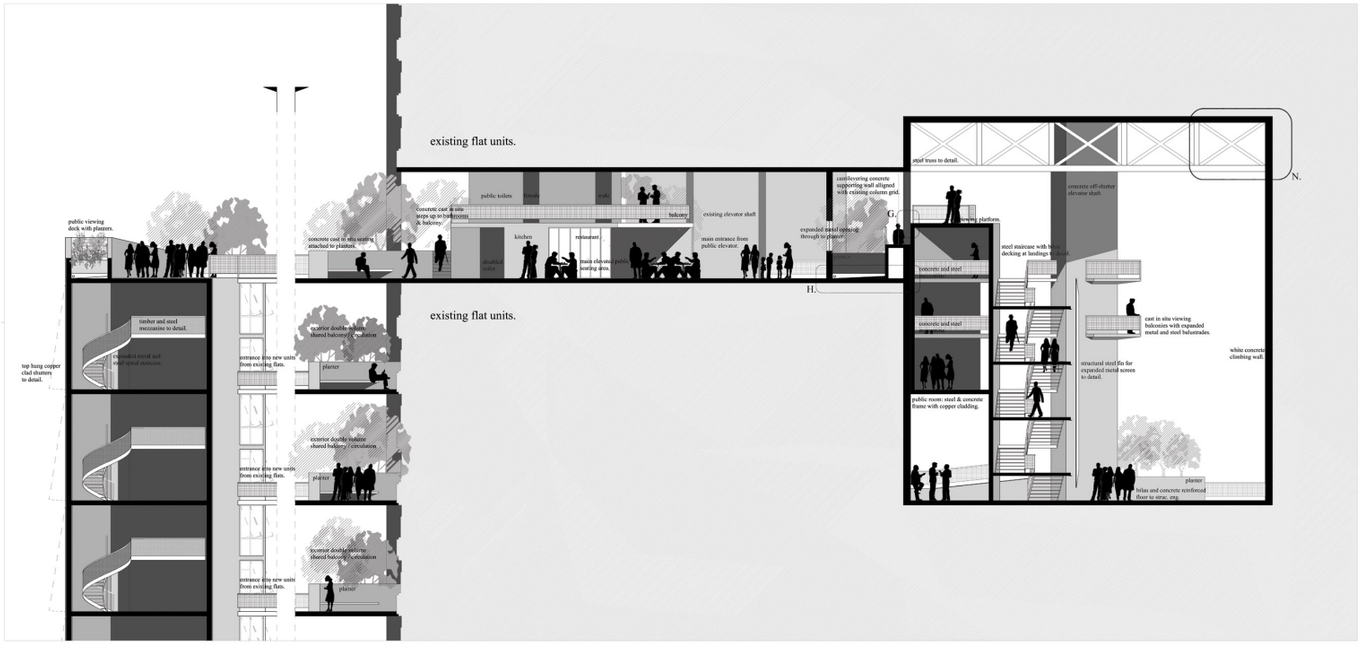


Figure 159

3d rendering showing an exploded view of possible programs accommodated on the western wall of the elevated public space.

Author, 2006

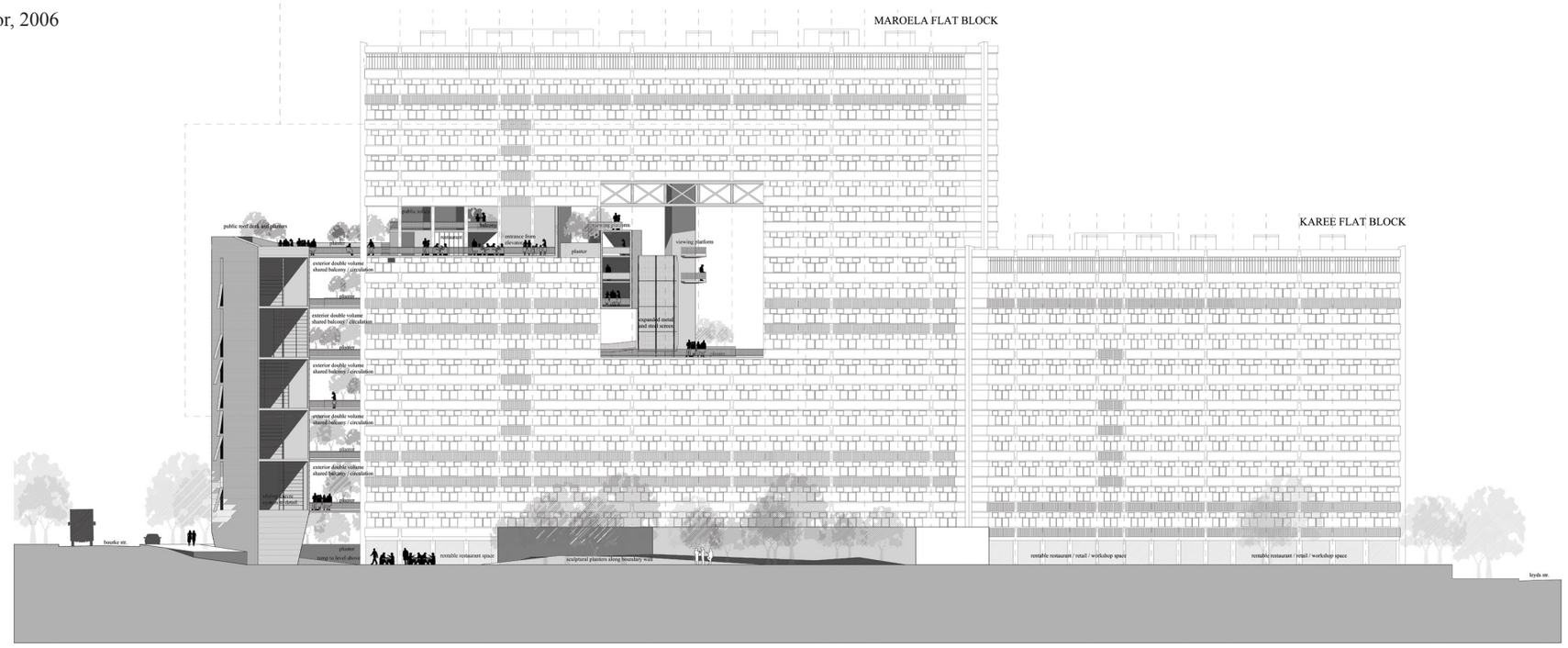


SECTION DD
N.T.S.

Figure 160

Northern elevation and section DD.

Author, 2006

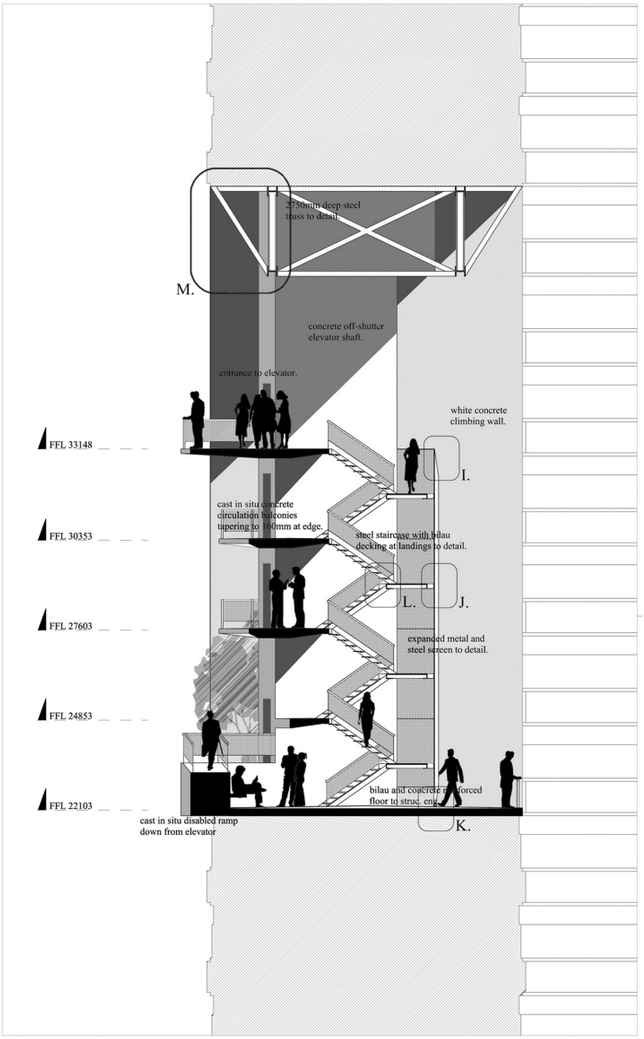


NORTH ELEVATION
N.T.S.

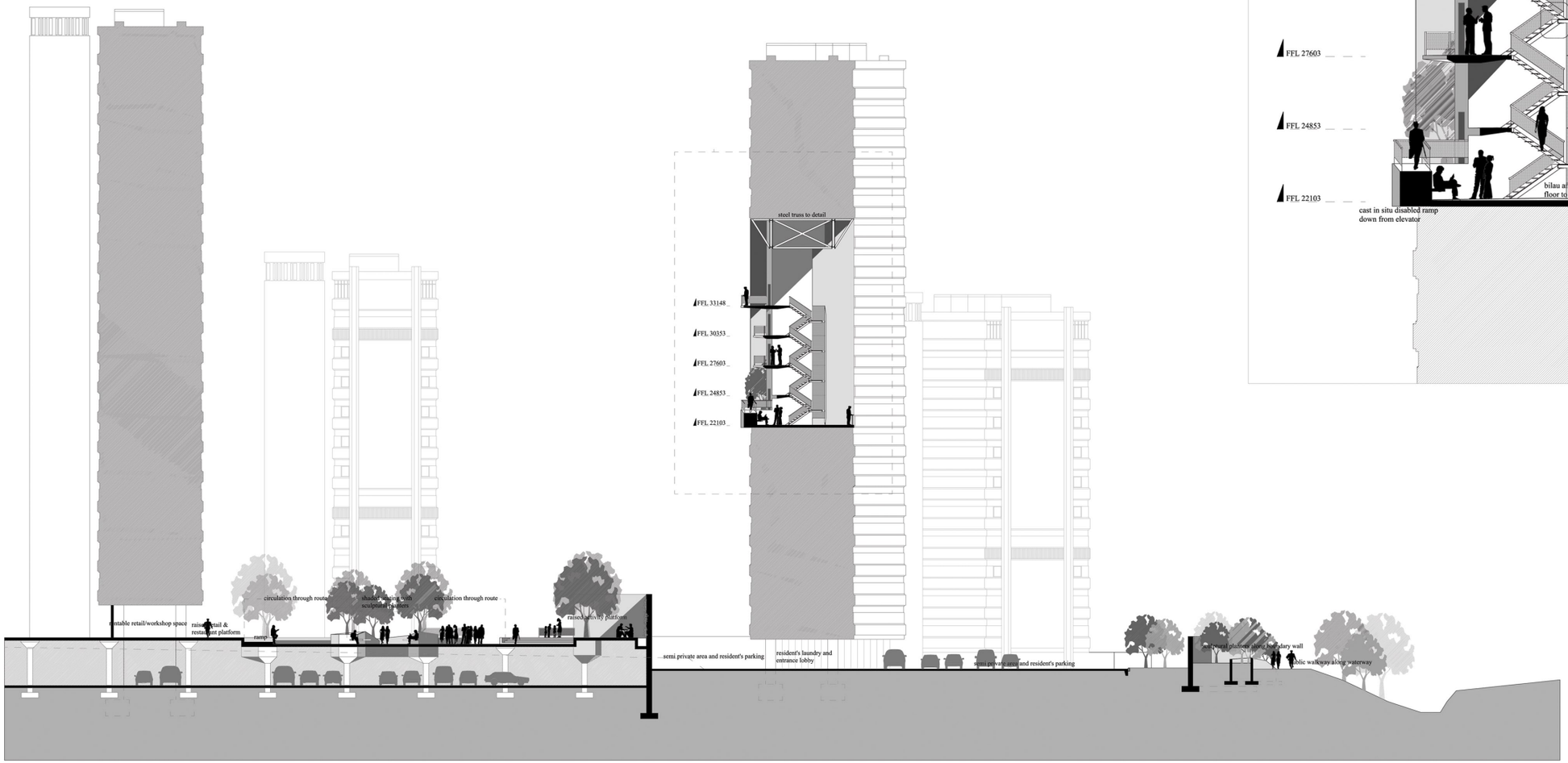
Figure 161

Section BB.

Author, 2006



SECTION BB
N.T.S.



SECTION BB
N.T.S.

Figure 162 *(left)*

3d rendering of the steel truss detail.

Author, 2006

Figure 163 *(bottom left)*

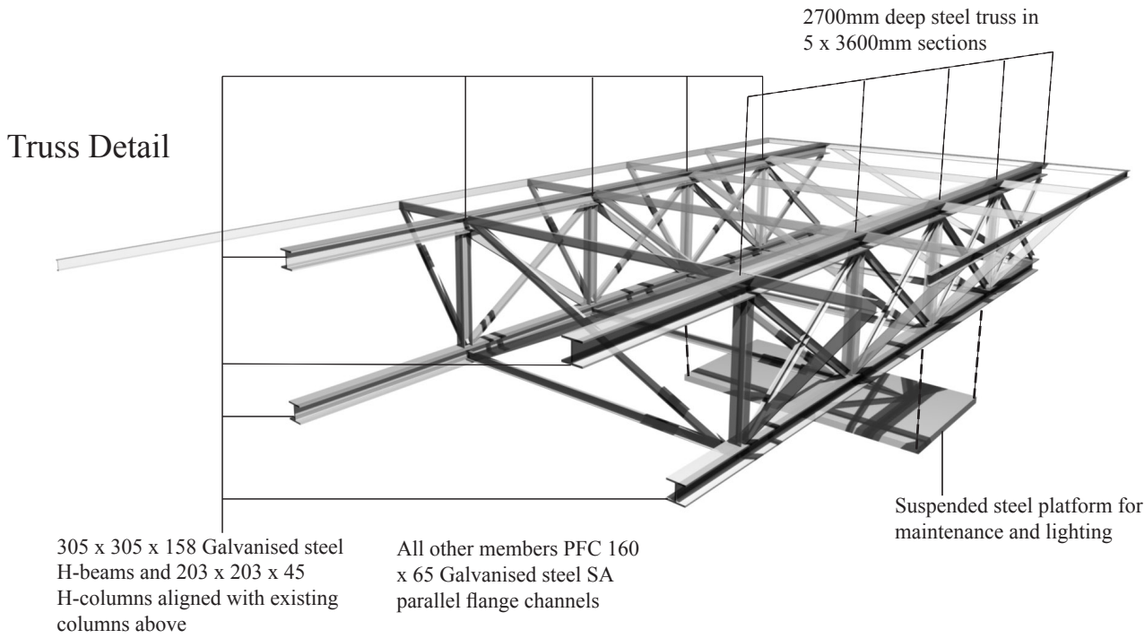
Detailed section of truss detail.

Author, 2006

Figure 164 *(bottom)*

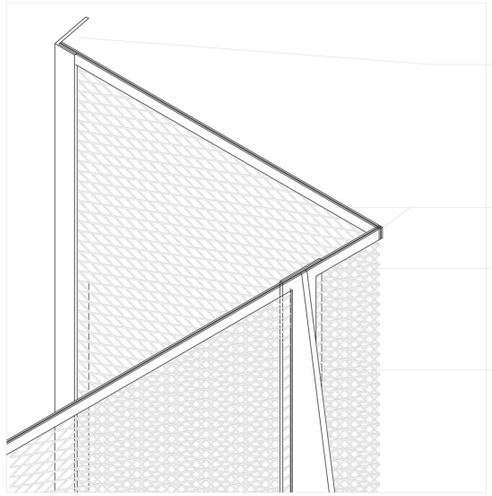
Detailed elevation of truss detail.

Author, 2006



M. TRUSS DETAILED SECTION
N.T.S.

N. TRUSS DETAILED ELEVATION
N.T.S.



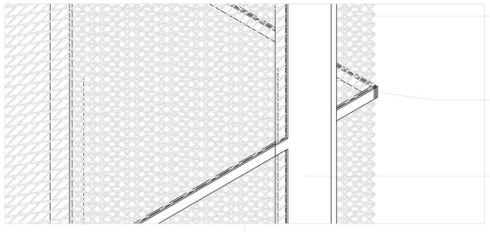
I.

150X75X10 GALVANISED STEEL UNEQUAL ANGLE WITH LONG LEG BENT BACK AND BOLTED TO CONCRETE ELEVATOR SHAFT WITH M10 RAWL BOLTS

3MM STEEL PLATE CAPPING WELDED TO T-SECTIONS AND EXPANDED METAL

30 X 80 X 3 GALVANISED FLATTENED EXPANDED METAL SCREEN WELDED AT EDGES TO T-SECTIONS OFF SITE.

2 X 150 X 75 X 10 GALVANISED STEEL UNEQUAL ANGLES WELDED TO FORM 150 X 150 T-SECTION WITH WEB CUT TO TAPER TOWARDS TOP OF SCREEN.

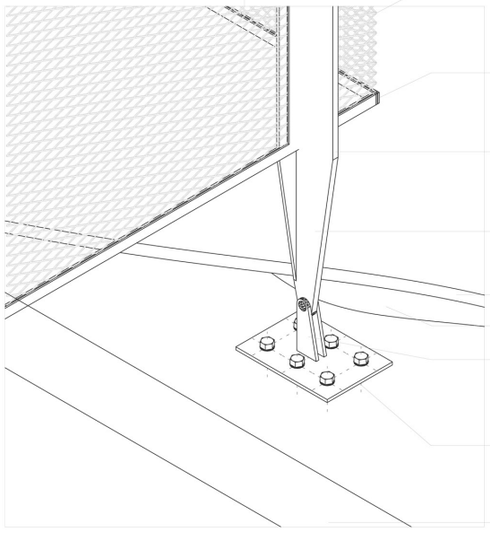


J.

30 X 80 X 3 GALVANISED FLATTENED EXPANDED METAL SCREEN WELDED AT EDGES TO T-SECTIONS OFF SITE.

3MM STEEL PLATE CAPPING WELDED TO T-SECTIONS AND EXPANDED METAL OFF SITE.

2 X 150 X 75 X 10 GALVANISED STEEL UNEQUAL ANGLES SPOT WELDED TO FORM 150 X 150 T-SECTION



K.

30 X 80 X 3 GALVANISED FLATTENED EXPANDED METAL SCREEN WELDED TO T-SECTIONS OFF SITE.

3MM STEEL PLATE CAPPING WELDED TO T-SECTIONS AND EXPANDED METAL OFF SITE.

2 X 150 X 75 X 10 GALVANISED STEEL UNEQUAL ANGLES SPOT WELDED TO FORM 150 X 150 T-SECTION

FLANGES AND WEB CUT TO TAPER TOWARDS FOOTING

SCREED TO FALL

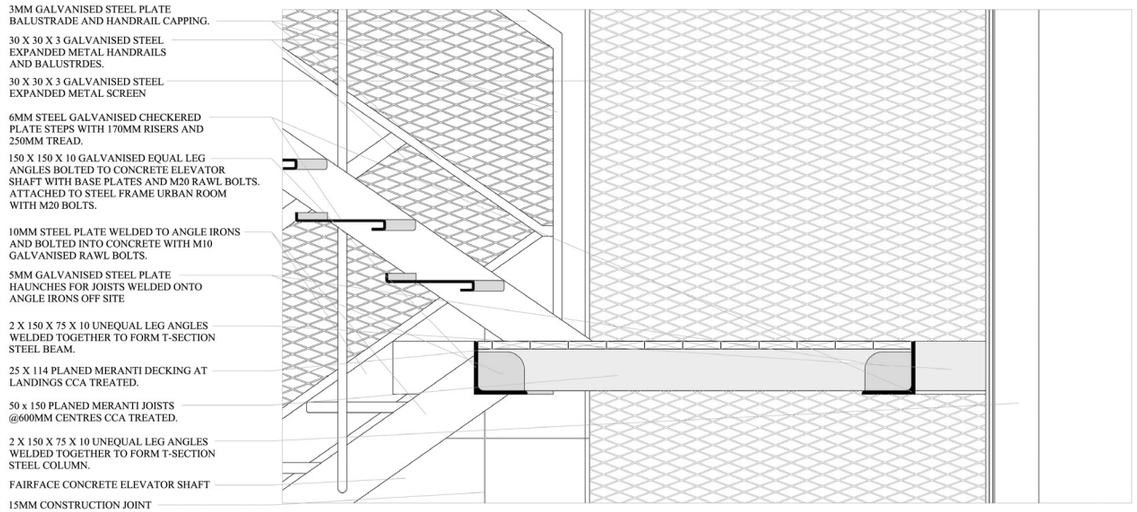
BITUMINOUS TORCH ON WATERPROOFING

2 X 10mm GALVANISED STEEL PLATE PURPOSE DRILLED AND CUT AND WELDED TO FOOTPLATE

250 X 350 X 10 GALVANISED STEEL FOOTPLATE BOLTED INTO CONCRETE SLAB WITH 6 M20 RAWL BOLTS.

250mm REINFORCED FLOOR SLAB TO STRUCTURAL ENGINEER.

SCREEN DETAIL
N.T.S.



L.

STAIRCASE DETAIL
N.T.S.

Figure 165 *(left)*

Detailed axonometric of expanded metal and steel screen.

Author, 2006

Figure 166 *(above)*

Staircase detail.

Author, 2006

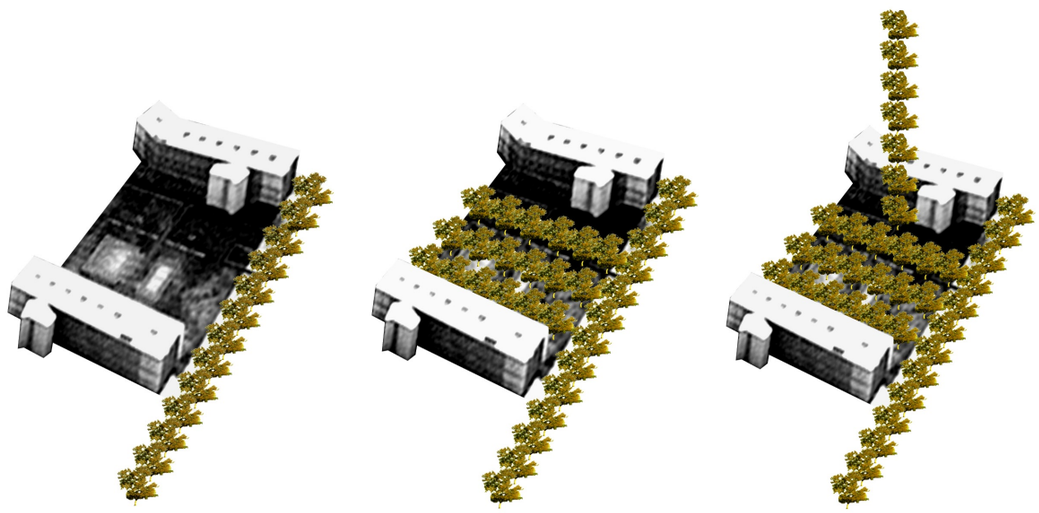


Figure 167 *(above)*

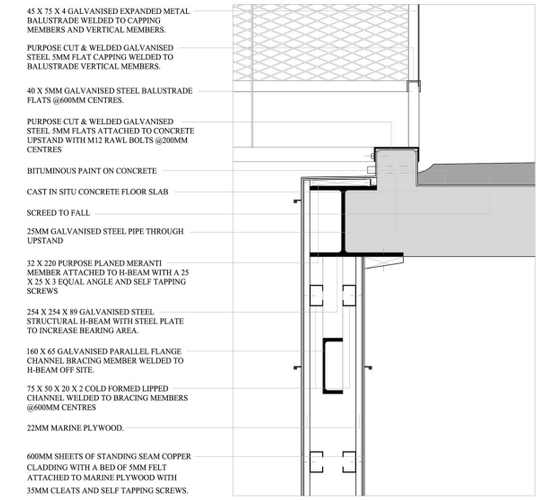
Digital Collage of tree as signifier of public space.

Author, 2006

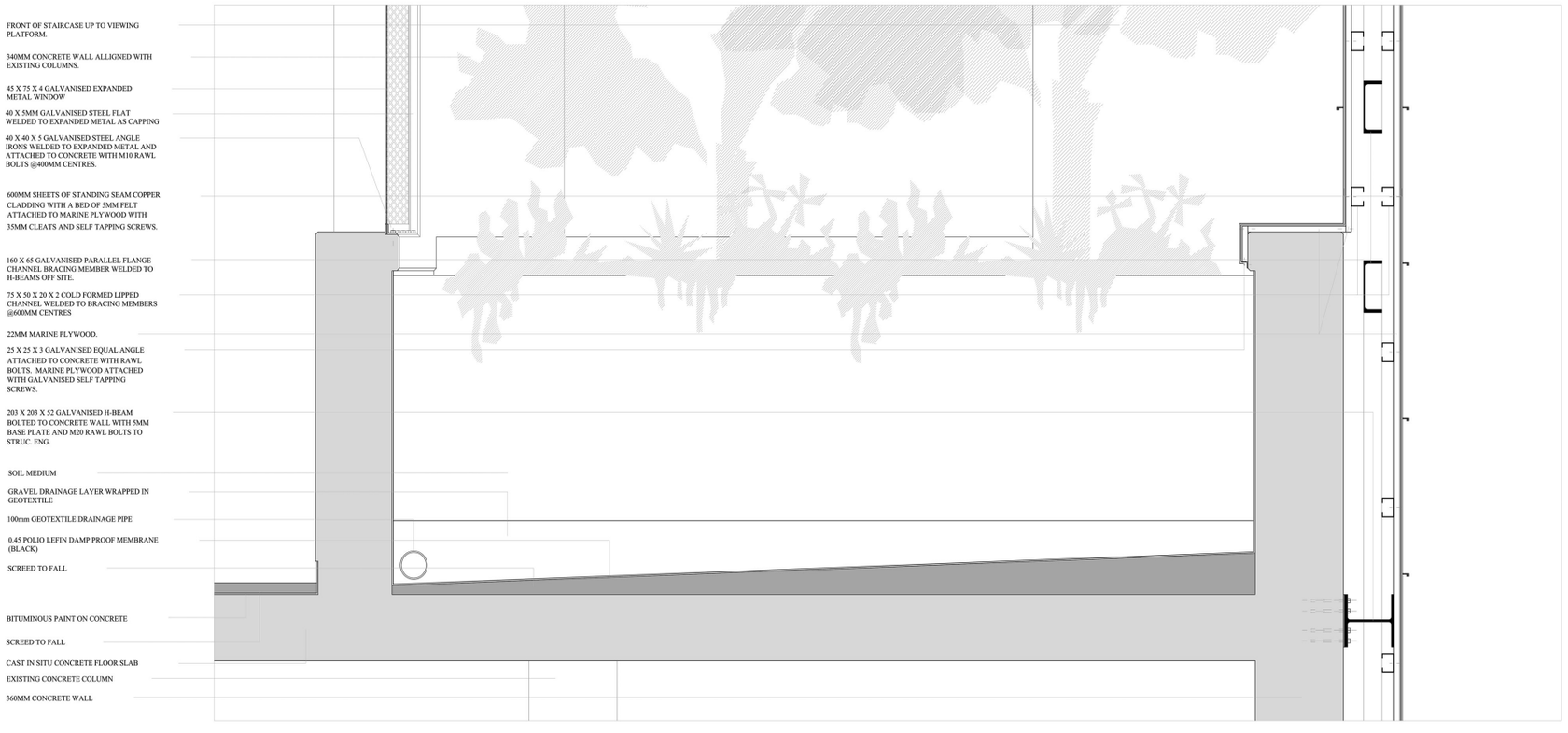
Figure 168 *(right)*

Urban room and planter detail.

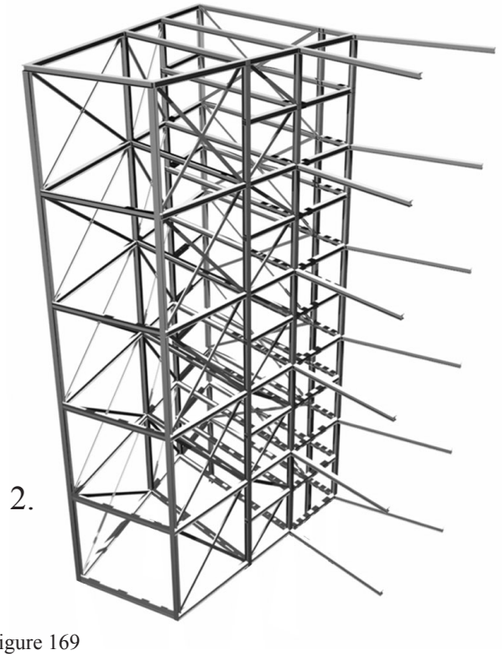
Author, 2006



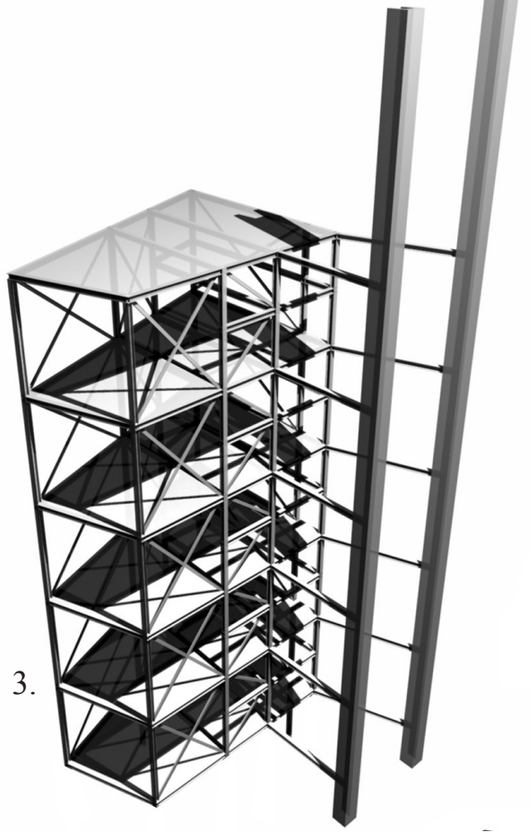
G. VIEWING PLATFORM DETAIL
N.T.S.



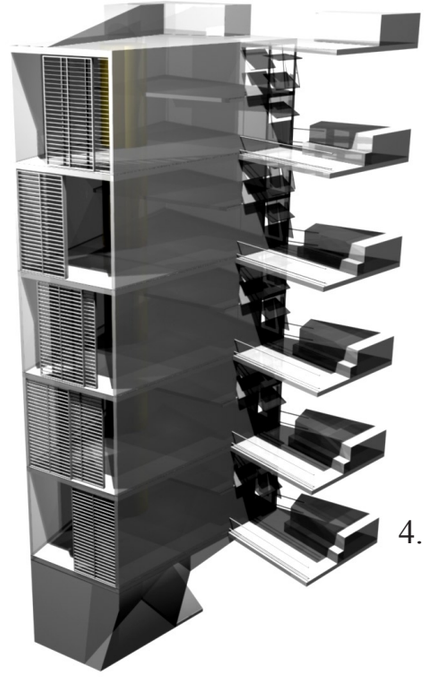
H. PLANTER AND PUBLIC ROOM CONNECTION DETAIL
N.T.S.



2.



3.



4.

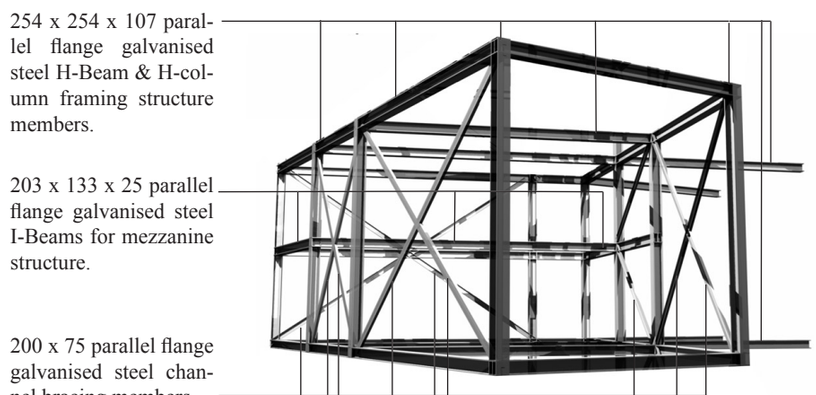
5.

Figure 169

(1.) Illustration showing the structural members present within each unit. (2.) Illustration of the tower's structural frame. The tower is attached to the existing flat block by means of 2 x 254 x 254 x 107 H-beams. Pin joints at the columns allow for deflection of the new structure. The tower effectively 'leans' on the existing structure (3.) Concrete cast in situ floors between the H-beams provide rigidity in the horizontal plane, while the steel bracing channels do so in the other two directions. (4.) 3D rendering of completed tower showing solar control on the northern facade and eroded bottom corner. (5.) With vertical garden.

Author, 2006

1.



3: Tower

As was mentioned previously, the tower was conceived as a linking element to unify the public spaces on the ground plain and the elevated public locales. It affords the intervention cohesion. The concept of eroding the corner of the Maroela flat block (pg 120,121) was transferred over to the bottom two storeys of the tower. The entrance into the tower sits within this corner. The rest of the tower consists of 5 double volume spaces with: These can be used as home offices, private offices, flat extensions(studio space etc.) or private flats. A vertical garden separates the tower from Maroela flat block. These double volume exterior spaces can be used as balconies for the new private flats/offices or as circulation routes from existing flats into the new private office/flat extension. A public roof garden, accessible by means of the existing Maroela elevators, links the tower with the elevated public space.

Figure 170

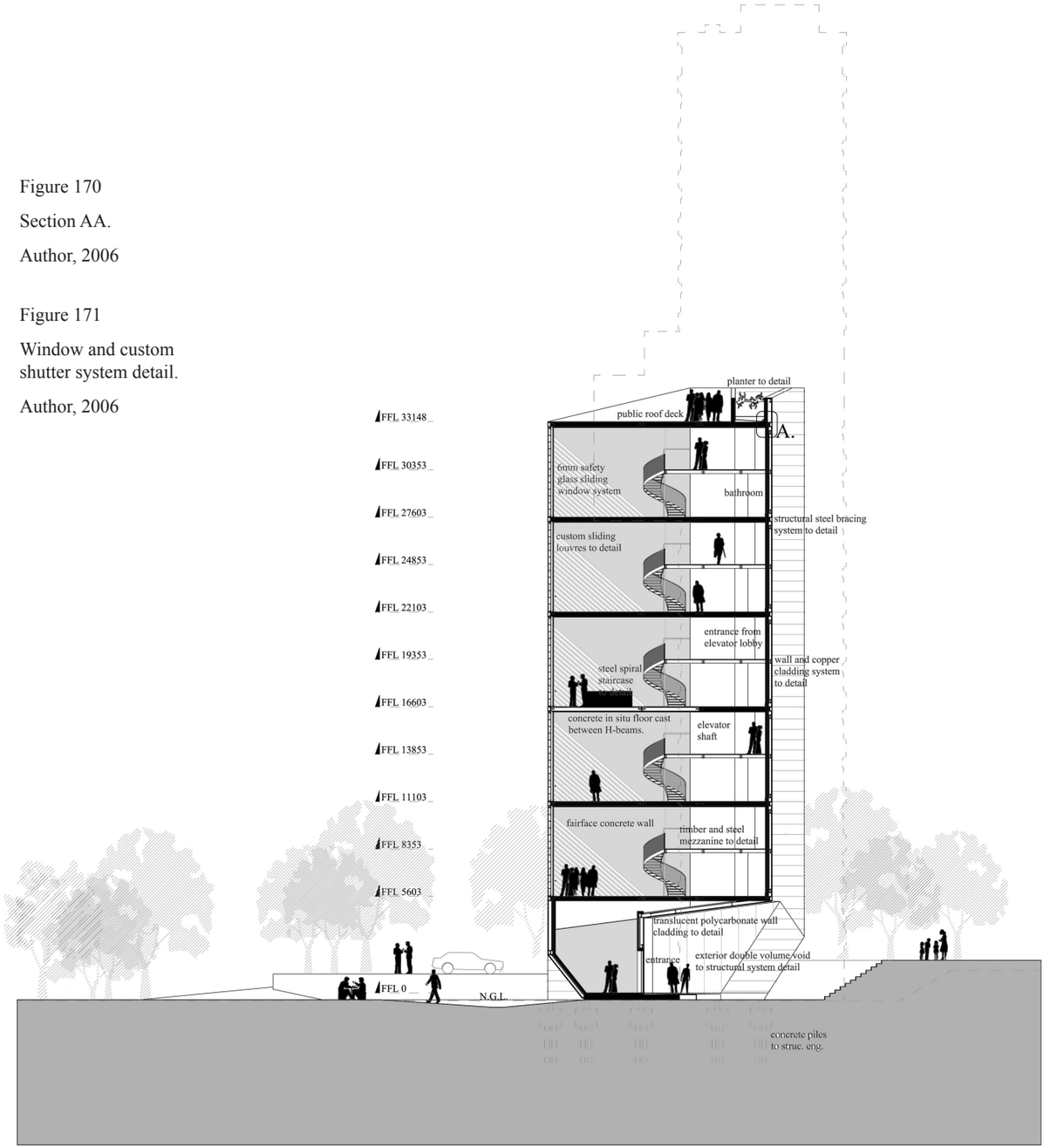
Section AA.

Author, 2006

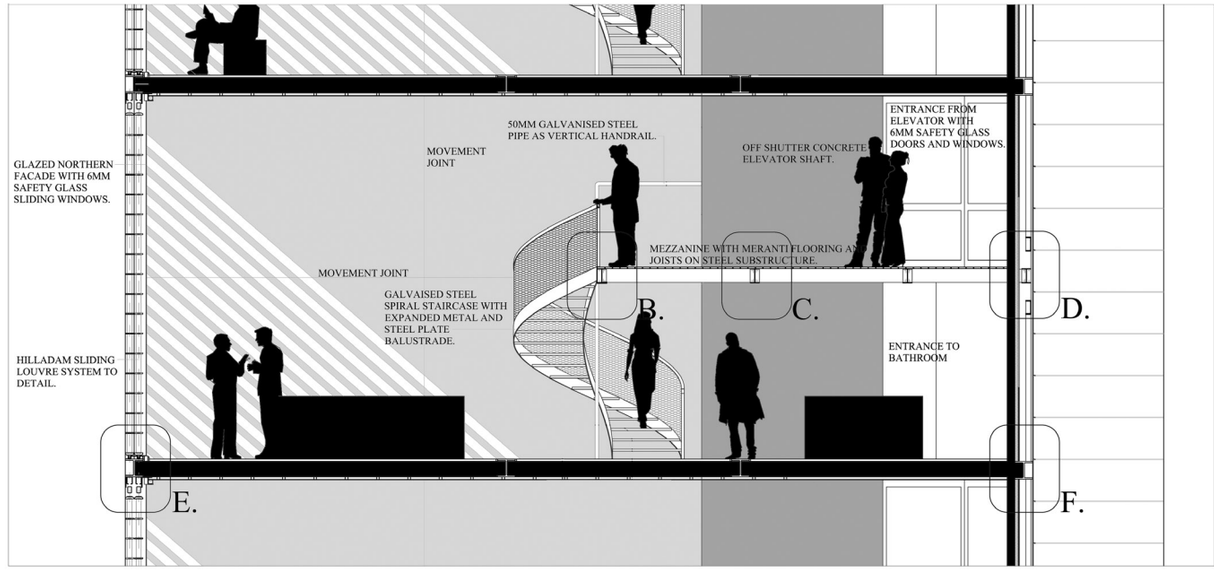
Figure 171

Window and custom shutter system detail.

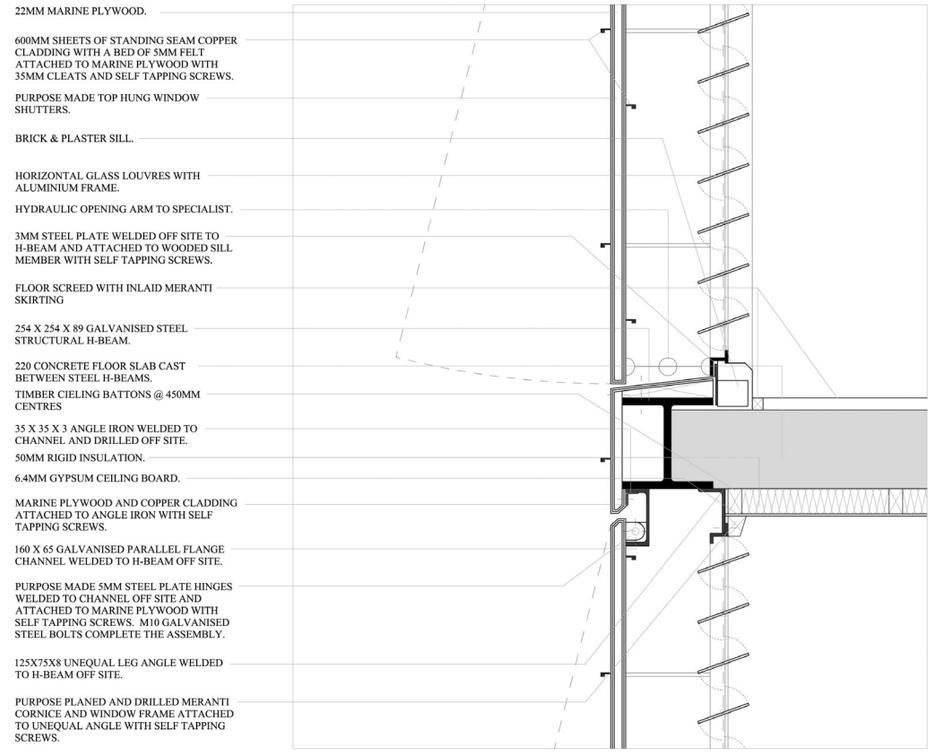
Author, 2006



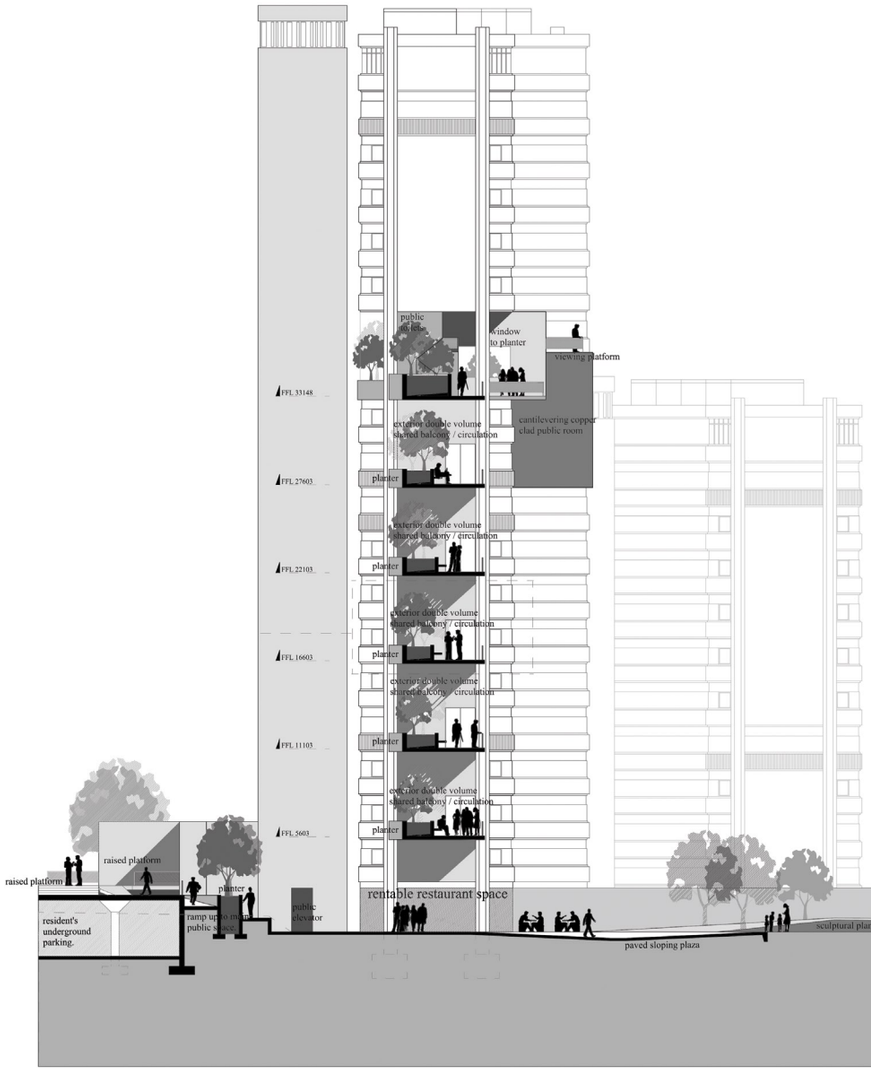
SECTION AA
N.T.S.



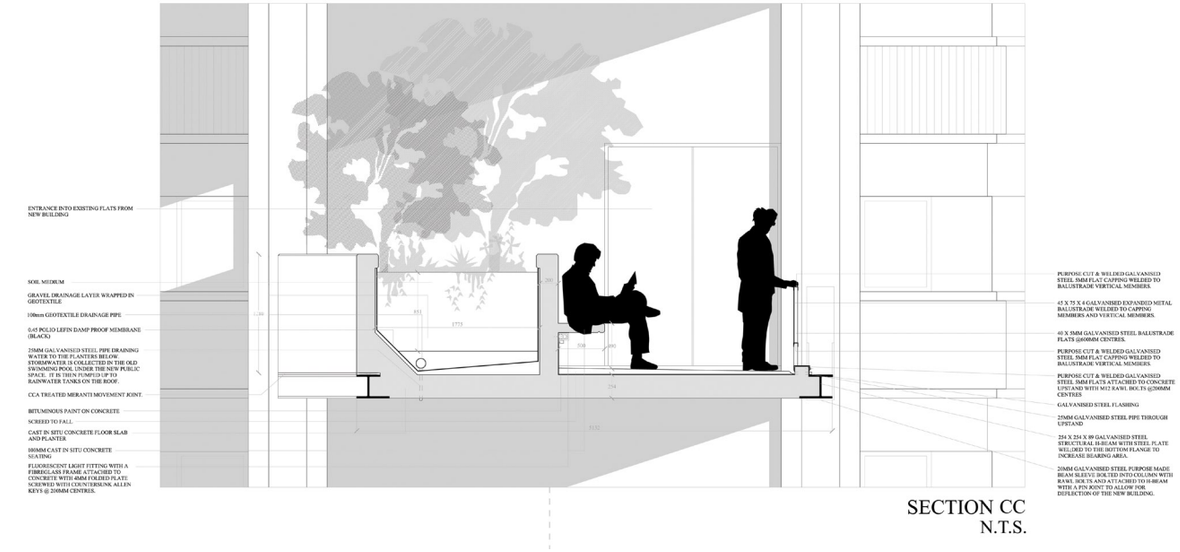
SECTION AA
N.T.S.



WINDOW AND SHUTTER DETAIL



SECTION CC
N.T.S.

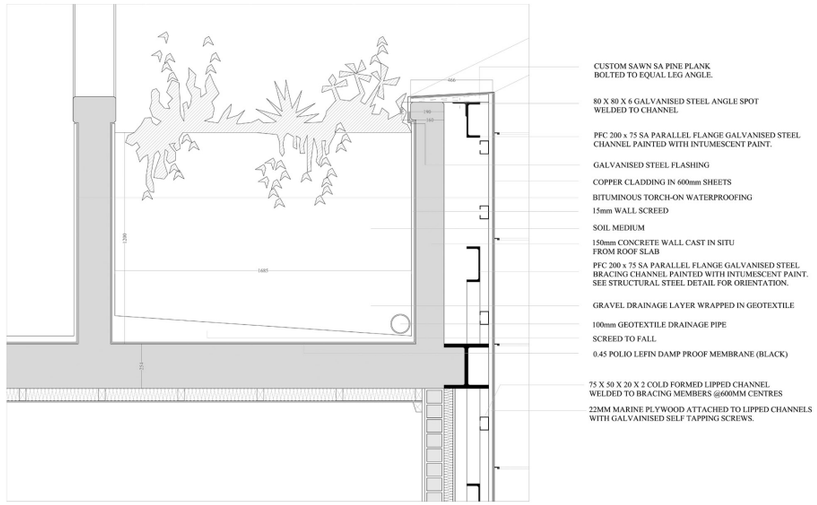


SECTION CC
N.T.S.

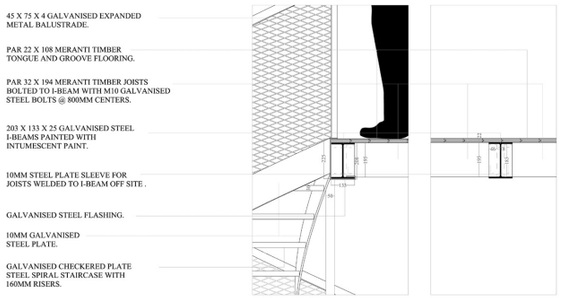
Figure 172

Section CC and connecting planter detail.

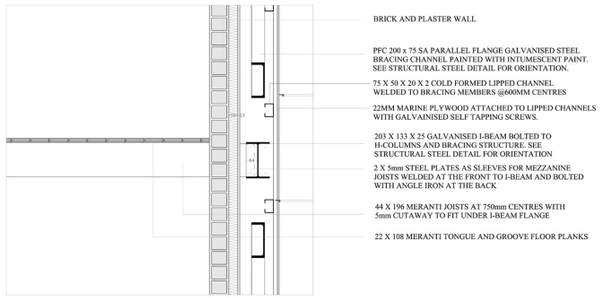
Author, 2006



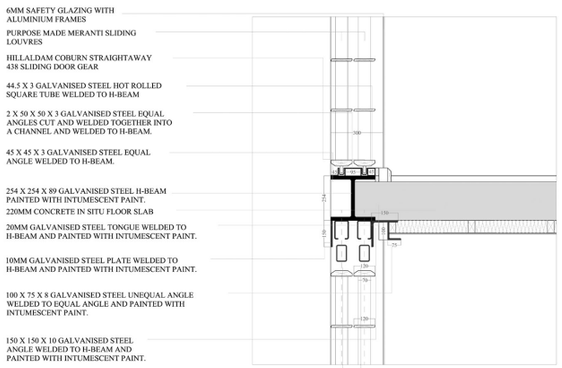
A. ROOF PLANTER AND WALL SECTION DETAIL



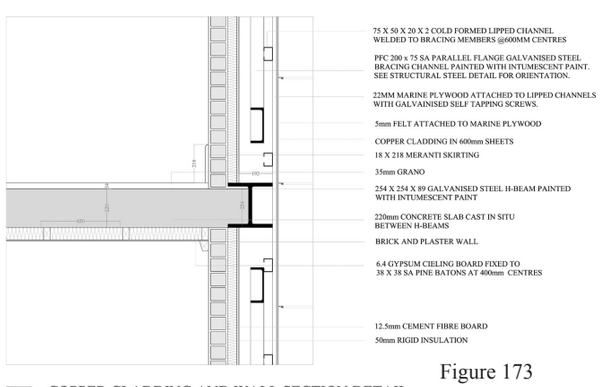
B.& C. MEZZANINE DETAIL



D. MEZZANINE AND WALL SECTION DETAIL



E. SLIDING LOUVRE DETAIL



F. COPPER CLADDING AND WALL SECTION DETAIL

Figure 173

Facade section details of tower block.

Author, 2006

Figure 174

Plans of elevated public space and tower

Author, 2006

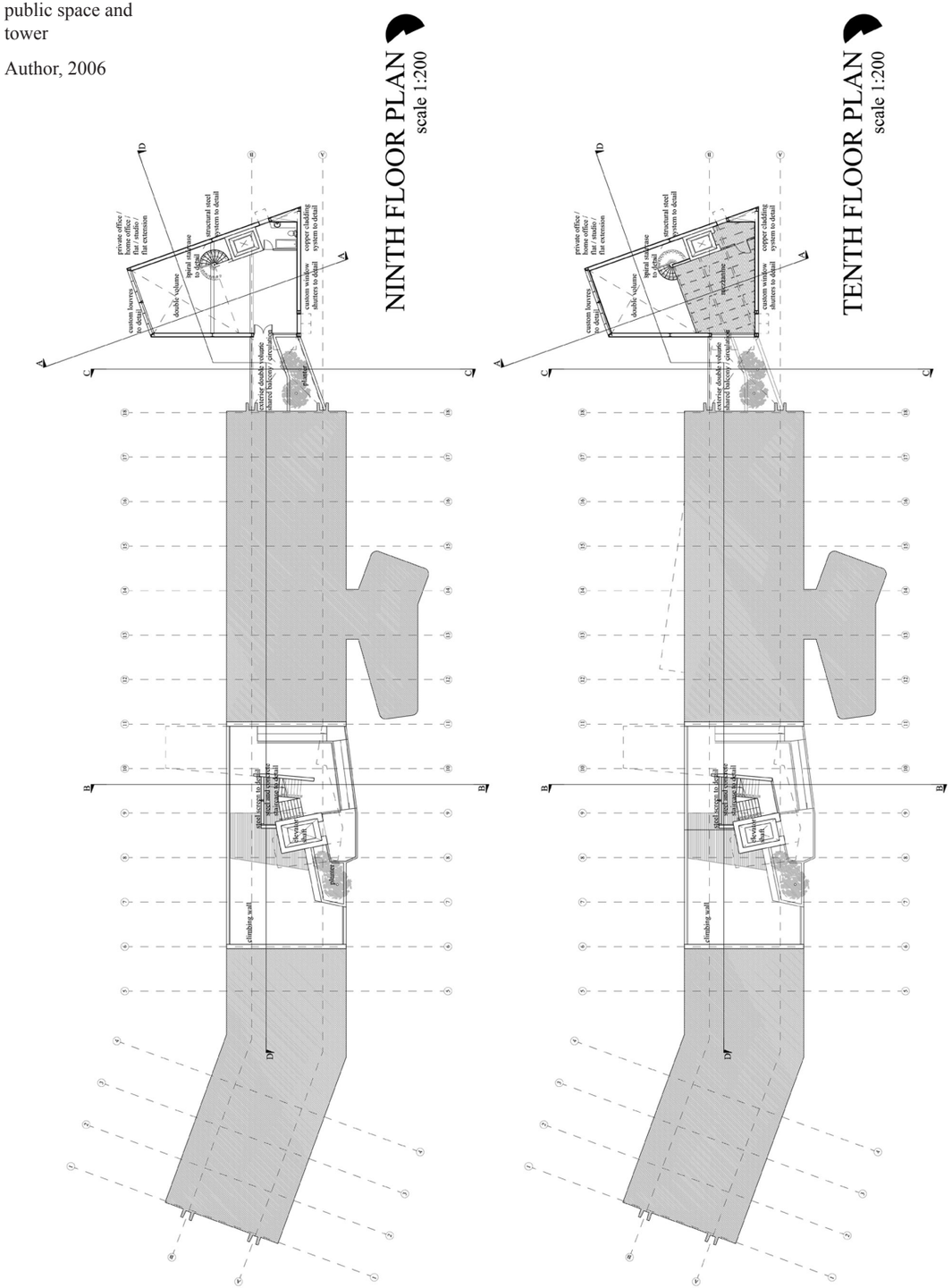


Figure 175

Plans of elevated public space and tower

Author, 2006

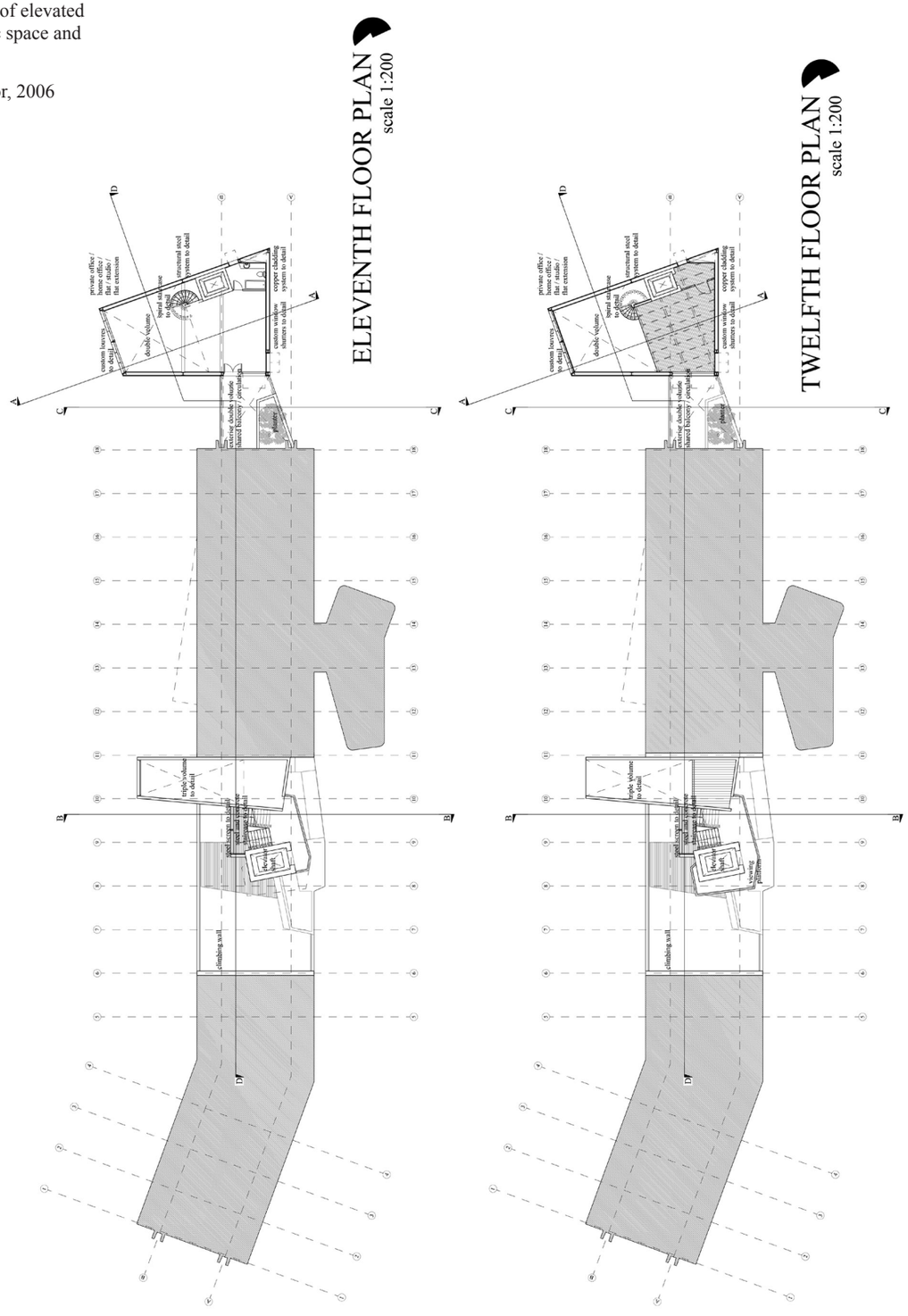


Figure 176

Plans of elevated public space and tower

Author, 2006

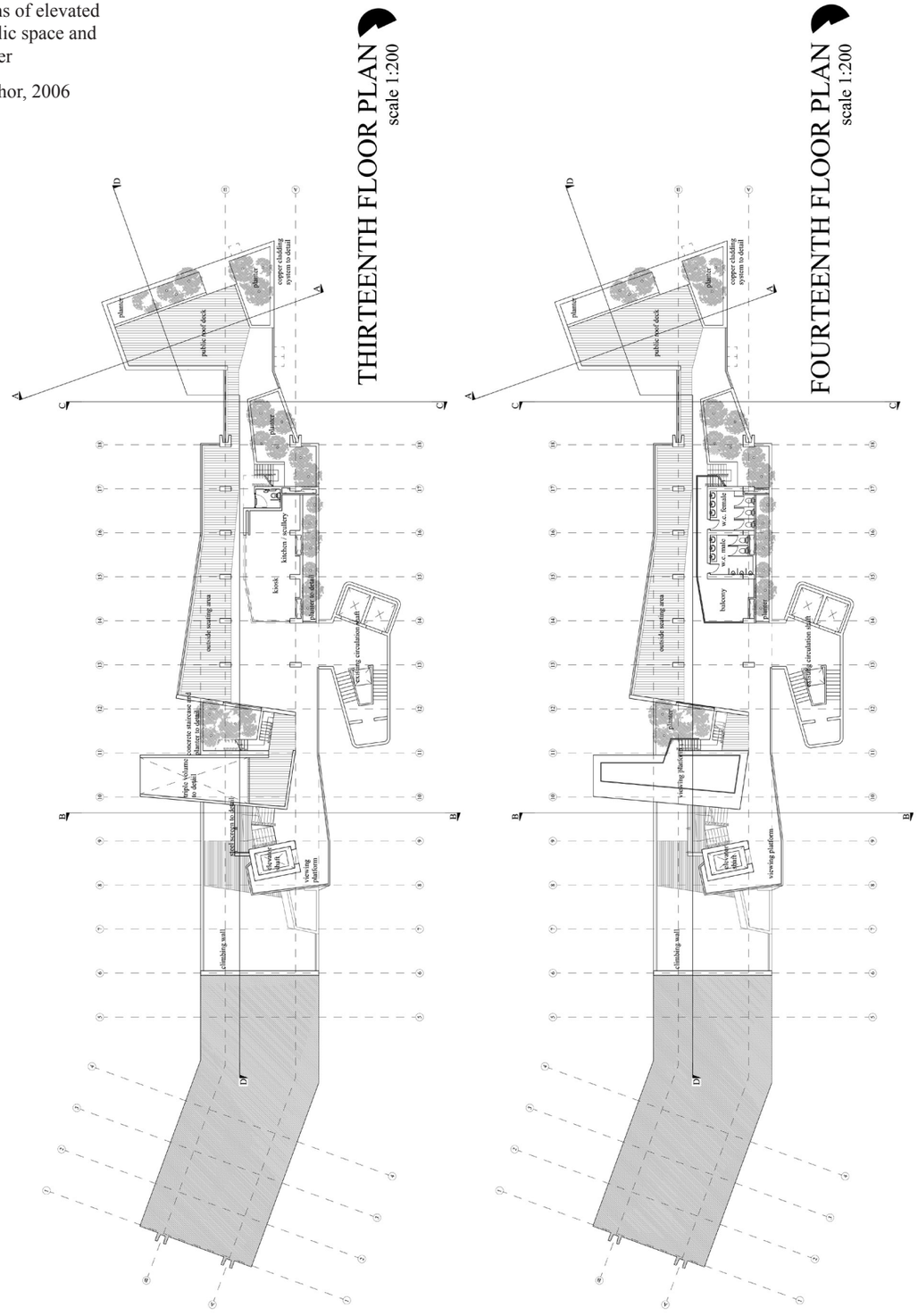


Fig. 177

Digital Collage of tower and elevated public space in Maroela flat block.

Author, 2006

Conclusion

In an attempt to curtail the trend of fortification, this dissertation embraced the concept of an unrestricted urban realm – a city without limitations. It began with the unclaimed surface, the two dimensional plane of the pedestrian. From there it moved up into the vertical, claiming for itself the vantage points and ridges, previous strongholds of privatized, economic exclusivity. As the days past, visions of utopia emerged. Anonymous blocks of flats became tangible communities. Citizens switched off their televisions and came outside. They explored the city anew, gathering experiences as they went. The city was reclaimed.

This kind of idealist jargon is nothing new. It is in fact, devastatingly similar to the edicts of the post-war Functionalism that this dissertation attempted to rectify. One failed utopian dream substituted for a revised one. Although the critique is valid, the critical question is why. From Howard's garden city to Corb's radiant city, from TEAM X and the New Brutalists to a Unitary Urbanism, from Inhabitable Circulation to a Supersurface, radical shifts in the urban paradigm have failed. Perhaps it is after all impossible for urbanism to be the cultural revolutionary it always thought it was. The satirical aspect of radical urbanism's predicament is well illustrated by Superstudio's anti-utopian sentiments. Reacting against the Modern Movement, they called for a world 'without cities, castles or roads'. According to Tafuri however, this "anti-utopian regression was therefore fated to give birth to new utopia's."(Lang & Menking 2003:62)

Urbanism's predicament will not go away. As with all creative disciplines, architecture will continue to attempt to revolutionize our cities and the societies which live in them. The drawback to this of course, as opposed to the art world, is the legacy it leaves behind – the permanence that is architecture.

Fig. 178 - 180

Digital Collages of the effect of the urban intervention on the site and surrounds.

Author, 2006

University of Pretoria etd – M.C. Lumby

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Go straight,
go straight until the red light.
Turn left, left again
and then right.
No rest, no respite.

Look up and see the city unfurled.
Turn left at the end of the world.

Fig. 181

Conceptual illustration of elevated public space.

Author, 2006