Picketing Sides
Fence as | Social | Service | Urban | Device

Rikus Charl de Kock
Study Leader: Arthur Barker
Course Co-ordinator: Arthur Barker

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Engineering, Built Environment and Information Technology at the University of Pretoria
Pretoria, Republic of South Africa
The Moments of Distress I put my supervisor through.
Sexual Offences’ and Childrens’ Court

Pretorius square, 151 Paul Kruger St

Proposed Court Precinct

Social Service Zone

Pretoria CBD

South Africa

S 25°45'11.02"

E28°11'18.42"

Magister of Architecture [Professional]

Human Settlements and Urbanism

Keywords:

| Fence Fetish |
| Contemporary Architectural Plinth |
| Social Space |
| Threshold Space |

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God for His unfailing love, and His unmerited favour during the last 5 years.

He’s forever faithful.
Preamble

This dissertation investigation is divided into three parts. These include:

VOLUME 1 - The Inevitable
by Justin Coetzee and Rikus de Kock

VOLUME 2 - Picketing Sides
by Rikus de Kock

VOLUME 3 - Ma[r]king
by Justin Coetzee
Abstract

Architecture has often been described as a reflection of society and its current human condition. The converse opinion states that architecture continues to play a major role in constructing that very same society, long after it is built. These statements are most evident where architecture has been intentionally used as a tool of dominance and control. Within a new democratic South African society, the invisible walls of Apartheid have been replaced by physical fences used to ensure ‘the public’ of their safety and security. This has resulted in the fence fetish.

The fence fetish is a common phenomenon around the world, as global architecture trends promote autonomy, object buildings and the urban bourgeois. Reinterpreting the notion of the fence as a series of thresholds, allows architects to use design as a tool for disclosing accessibility to the public realm, intentionally fostering democratic, collective and interpersonal space within the emerging urban landscapes.

Samevatting

Argitektuur is al dikwels as ‘n spieëlbeeld van die samelewing en sy huidige staat van die mensdom, beskryf. Die teenoorgestelde opinie toon aan dat argitektuur ‘n kardinale rol in die bou van daardie selfde gemeenskap speel, selfs lank nadat dit voltooi is. Hierdie stellings is grootliks sigbaar waar argitektuur intensioneel as instrument van dominasie en beheer gebruik word. In ‘n nuwe demokratiese Suid-Afrikaanse gemeenskap is die onsigbare mure van Apartheid deur fisiese heinings vervang om ‘die publiek’ te verseker van hul veiligheid en sekuriteit. Die resultaat is ‘n onnatuurlike beheptheid met die heining.

Die beheptheid met ‘die heining’ is reg oor die wêreld ‘n algemene verskynsel omdat globale argitektoniese tendense en onafhanklikheid in die bedryf dit bevorder. Die her-interpretasie van die gebruik van ‘die heining as ‘n reeks drumpels’ gee argitekte die geleentheid om ontwerp as instrument te gebruik wat toeganklikheid vir die publiek bewerkstellig. Dit vind wel plaas deur die intensionele ontwerp van kollektiewe en interpersoonlike ruimtes wat demokrasie in ‘n ontwikkelende stadsomgewening bevorder.
1. Brief Backdrop
"divorcing architecture from current social conditions..."
Brief Backdrop

1.1. Preface.

Within the architectural profession the perception that buildings serve as vehicles to produce return on investment is frowned upon, yet being too principled may cost architects their work (Samuel, 2013:51). The greed of the developer has dominated the way in which commercial architecture has evolved within South Africa, and is the main culprit why our architecture, especially within an urban context, lacks in care, context, environment, heritage, the public and the end user (Samuel, 2013:51). The result has been that the public and some architects that have taken a public stance, has little or no faith in and empathy with developers and ‘their architects’ (Samuel, 2013:51). Sadly these architectural trends, showcased by commercial architecture, is busy shaping the way in which public buildings are conceived within the South African urban environment, especially where redevelopment strategies are being implemented.

It is safe to conclude that the South African architectural discourse has evolved into, and allowed for the overemphasis of private space, and the production of object buildings. Paying little or no attention to context has allowed architects to create their own notional context, divorcing architecture from current social conditions, which desperately need attention. This furthers the continuation of our commodity fetishism and determines how we produce space. The question then is whether or not the architect will act as a mere pawn within these current political, economical restraints (Till, 2007:130)? Will the architectural student suffer the same fate?

This dissertation envisions adapting the current approach to the making of public architecture in South Africa. This includes taking into consideration the current social, political and economical context, whilst taking responsibility of expressing the intangible environment through built form. Architecture that is beyond economic investment and political agenda, by understanding social needs and human fragility in order to design accessible public spaces. These spaces should also leave room for contingencies and growth, creating resilient cities and future relevant architecture.

This dissertation will not critique the notion/need of privatized space, but rather the effect of the fence fetish, which it blatantly promoted. Public Government buildings have fallen victim to this phenomenon through the implementation of fences within new and regenerative projects. This leaves public space within the city of Pretoria in jeopardy.

Fig.2: ZK Matthews Building, School of Government, with an enclosed public space (Author, 2014).
Fig.3: Environment House, Department of Environmental Affairs, having a 6 Star Green Star rating, separated by a combination of two fences.
"...architecture has the ability to be constitutive of the very same social processes..."
1.2. Normative Stance.

Architects have the privilege of ‘speaking’ both to themselves and society, through process [design] and product [artifact] (Gutenschwager, 1998:263). It can thus be said that they work both for themselves and society, leaving the architect with great responsibility, in shaping the tangible environment of society. Expanding on this notion, they have power to influence those who access and respond to space, which they create or alter. Architectural space is: space intentionally dictated by human beings. Buildings bear witness to the human ability to construct these spaces (Zumthor, 2012:11).

Although our architecture is but a mere reflection of society, it can even reveal the state of our current human condition (Cruse, 2000:68). When architecture and its discourse act as mirror to society, it is actually constituted by the current social processes. However, is it not also true that architecture has the ability to be constitutive of the very same social processes (Harvey, 1997:20)? Confirming this idea Deyan Sudjic (2005:433) states that architecture has the ability to trigger emotional responses at a personal and large societal scale. His reason: architecture reflects our vanities, aspirations, weaknesses, ambitions and complexes. Why is it that architects have given up hope on the ‘naïve’ idea that they can change the world? Is it because this ‘utopia’ is unachievable?

“A map of the world that does not include Utopia is not worth even glancing at, for it leaves out the one country at which humanity is always landing. And when Humanity lands there, it looks out, and, seeing a better country, sets sail. Progress is the realisation of Utopias”

(Oscar Wilde in Tally, 2013:152).

Our never-ending search for ‘utopia” has resulted in the over-obsession with progress. This is because ‘utopia’ is not a destination but an ever-changing state we find ourselves in. Whether it be technological, social, financial, economical or political progress. Unfortunately it has always been in favour of those in power. From Caesar and his empire, to the Duke, Count and the Lord, which has evolved into our now ‘democratic’ and ‘free’ CEO’s and Head of State. Capitalism has allowed for progress to be dictated in favour of those who already benefit from the system.

Utopia is available for a select few.

In theory, South Africa has become the most open and inclusive of societies, as a result of the new constitution founded in the most liberal form of democratic pluralism (Penfold, 2012:993). This could have changed the notion of the unachievable utopia to that of utopia that is a realizable ideal context. Sadly the tensions between private and public space and the segregation cause by old hierarchies have remained in place (Penfold, 2012:994). This is mainly as a result of the prevailing anxieties of the new South Africa (Penfold, 2012:994). Former invisible spatial boundaries have become current physical boundaries: The Fence.
Fig. 5: Illustration of the inner-city of Pretoria [Area of Investigation] (Author, 2014)
1.3. General Issue

Our architecture is but a mere reflection of society, and can even reveal the state of our current human condition (Cruse, 2000:68). Should this statement be true, it can be argued that our architecture is limited to 'response'. -It is constituted by our current social processes. This is in line with Manfredo Tafuri's pessimistic view of architecture; not being able to precede great social change (Kaminer, 2007:63).

This dissertation however wishes to investigate the notion described by Harvey (1997:20); that our architecture is constitutive of the very same social processes that it creates. Social change then depends just as much on architecture as it is a dependant of it. It is an inescapable cycle. In actuality, this could allow for both a downward or upward cycle, which can positively contribute, or negatively affect current and future social conditions.

Realising that an architect's professional role is limited to that of altering and designing the nature and character of space/buildings, leads to the inquiry of an accessible architecture, which benefits society at large, and not merely a select few.

1.4. Urban Issue

Urbanization ranks as one of the most significant dynamics affecting current South African Society (Dewar, 2005:244). Despite the unprecedented rate of urbanization in the major metropolitan areas of South Africa, there is little consideration about where it is heading (Dewar, 2005:244). Bostrom (2007:1) states that we need realistic pictures of the future, in order to make sound decisions now. An urban trend, negatively responding to current social conditions in South Africa will be explored in this design dissertation. These trends are coined: ‘Urban Pathogens’. Urban pathogens within the context of Pretoria include notions of: Privatisation of space, Globalization, the contemporary ‘plinth phenomenon’, and the general tendency towards fence fetish. These ‘urban pathogens’ are becoming the typical response to current local and international social conditions.

Cities throughout the world have been using the tool of design to evict the ‘unwanted’ from public space (Coetzer, 2013:49). The problem however lies within the new development of local public buildings. This had led to government enclaves, which are already following contemporary commercial tendencies, of exclusivity and division through these ‘pathogenic’ design tools. Inaccessible service spaces and poor service delivery contributes to urban decline and decay happening within the inner-city of Pretoria. Should all government buildings relocate, as proposed in both the 2011 ARUP vision and CoT 2055 Vision, public space will also be in jeopardy within the inner-city. This is most evident at the Pretoria City Hall (Pretorius square), which is already fenced off. It is also surrounded by both government and public buildings, and located on the fringe divorcing areas of progress and decay in the proposed future city.
1.5. Architectural Issue

“Architecture in South Africa is at a crossroads. After years of repression and isolation during which contemporary architecture lost its way, there is now a desperate need for architects to respond to the social and cultural challenges of a society riven by massive material contrasts.”

(Sanders, 2000:68)

Dewar (2005:245) describes three spatial patterns characterizing South African cities. They are: sprawl, segregation and separation. Architecture commonly found across the urban landscapes of South Africa still portrays these characteristics as if they are still subject to the old ideologies of separation.

There are two main methods of dealing with security in an urban environment, through the use of architecture. They can be referred to as the ‘encounter model’ and ‘enclosure model’ respectively (Cozens, 2011: 490). Encounter model refers to the idea of visibility creating safety through the promotion of permeable streets and spaces. However within the South African condition, the scars of apartheid architecture has remained in place, following the enclosure model, not allowing the streets adjoining public buildings to become the much needed opportunities of democratic space (Penfold, 2012:994).

Object buildings and the universalization of space promoted through globalization further contribute to this notion of enclosure. Architecture becomes an introverted practice, completely missing the opportunity to react to context, and having a positive effect on its surrounds. Sadly these notions of globalization and object buildings, reinforced with the scars of South Africa’s history, are depicted in both commercial and public buildings within the South African City.

This type of public architecture does not reflect the South African Constitution of inclusivity.
1.6. Research Question.

How can architecture successfully deal with the social requirements of the fence [current and future], and in turn create better, more accessible and inclusive public spaces within an urban context?

1.7. Sub-questions

Is architecture limited to a mere response of current economical, political and social requirements, or can it pro-actively contribute in bettering our current social condition?

How should new South African public architecture deal with the current urban landscape, which is scarred with old hierarchies of segregation?

How can architecture resist the notion of commodification of public space?

Can one create architecture that specifically deals with the social conditions of its surrounds, rejecting the notions of globalization and architectural autonomy?

How does one specifically create interpersonal/social/collective space within a Post Apartheid South African Urban context?

Can one positively portray the South African Constitution of democratic pluralism, in the way public space is created?
1.8. Architectural Intent

“People and Space depend on one another, they show each other their true colours.”
(Hertzberber, 2002:30)

If one has to pick a side, the dissertation will investigate both the cause and effect of the fence fetish found in architecture, whilst the idea of fence as social service urban device, will attempt to deal with the condition of fence as an architectural response within an urban context. The investigation will include both the negative and positive aspects of the fence, placing focus on understanding the notion of thresholds, as a design parameter allowing the student to deal with this condition.

The dissertation will also attempt to deal with the dualities of security and accessibility within the public realm, through the purposeful designing of interpersonal and collective space. This includes both the notion of public/collective space fostered by the building and its relationship to the surrounds, as well as the building being open and accessible for public use - becoming an indoor extension of the city (Hertzberger 2002:39).

The architectural intent attempts to create a building, which acts as a fence between two extreme conditions proposed within a future Pretoria urban context. It should act as a ‘social service’ urban device fostering ‘accessible’ public space, through the mediation, continuation and delineation of space. The architecture should take into account its ability to trigger emotional responses at a personal and large societal scale (Sudjic, 2005:433), fostering the possibility of social spaces both through basic design principles of movement and threshold conditions (Hertzberger, 2002:38).

1.9. Research Methodology:

The combination of the following research methodologies were utilized in the design dissertation, informing the design process.

CRITICAL ANALYSIS
The design dissertation finds merit in the critical analysis of the current physical and social condition of the inner-city of Pretoria [through the process of mapping, critiquing the City of Tshwane Vision 2055, identifying spatial patterns over time], which allows for a grounded future speculated vision of the inner-city of Pretoria to be used as a contextual and appropriate design informant.

THEORETICAL RESEARCH METHOD
The theoretical research method acts as bridge between the critical analysis and the design process. A critical look at the current emerging urban landscapes, architectural trends and its effect on society, has led to the investigation of theories of social space conducted and performed by Hertzberger (2002, 2009), Madanipour (2002) and Penfold (2012). The application of these required social spaces have been further investigated through detail design experimentation on a qualitative level.

STUDY OF PRECEDENTS
Buildings with an inherent public nature, similar to that required by the design dissertation, is used as inspiration and validation of design principles used within the dissertation.
1.10. Delimitations

The dissertation is not the definite future condition of the inner-city of Pretoria, and should be viewed as a speculative and postulated future condition of the inner-city of Pretoria grounded in the exaggeration of the current notional context. Due to the nature of the dissertation, the vision has only been developed in part as to allow for appropriate architectural response.

Due to the scale of the design, being that of a 275m long urban fence, the scheme has been delimited to the detail design of only part of the fence, which deals and responds directly to the specific programme used to explore the varying threshold conditions that deal with the investigated fence fetish.

No heritage impact assessment has been performed within this design scheme, as the intent of the dissertation is to respond to a postulated future condition and not to develop an approvable appropriate approach to heritage. Even though heritage considerations have been made, the design scheme wishes not to contest current HIA procedures and protocol.

1.11. Assumptions

The inner-city of Pretoria is currently undergoing an urban regeneration process, and it is assumed that the ‘Clear-Vu’ fence encapsulating Pretorius square is a fence of permanent nature.

The artist’s illustration of Tshwane House, as published in the Pretoria News (23 June 2014:1) is assumed to be the final design to be completed in 2016.

Government Enclaves, as proposed by Arup (2011), will be implemented to the North (current development) and South (Salvokop, yet to be developed) of the inner-city of Pretoria, which will leave Pretoria City Hall vacant and susceptible to a new programme should this mass migration occur.

The City of Tshwane 2055 Vision (Dajo & Myeza, 2014) is also assumed to be implemented to an extent, allowing the dissertation to be grounded in a plausible postulated future condition, which are both critiqued and exacerbated in the group urban framework.

1.12. Concept

Fence becomes building through a series of thresholds. The fence becomes an urban device, which allows for various conditions fostering public space through and around it.
1.13. Terminology

PUBLIC SPACE

‘In public’ refers to a place or state open to public view or access, it is openly organized and carries the interest of a collective community (Madanipour, 2003:95). Physically it refers to streetlife, public parks and even spaces between buildings, which promotes interaction and recreation through its accessibility (Madanipour, 2003:108). According to Madanipour (2003:215) public space is a place of simultaneity and duality, which acts as a test of reality. It is a site for both display and performance, allowing for the exploration of difference and identity. This representation of difference leads to the awareness of the self and others.

PRIVATE SPACE

Privatus refers to being withdrawn from public life (Madanipour, 2002:34). Private space therefore refers to places in which the owner reserves right of admission and in which access to the public is restricted. It is personal in the sense that it allows exclusivity and the individual to express themselves as they deem see fit, and impersonal for excluded from the space.

QUASI-PUBLIC SPACE

Quasi refers to something that seems apparent, but when it is closely inspected, is actually not so. Hence quasi-public space refers to privately owned space, which has some but not all the characteristics of public space. For a specific group of people the nature of the space seems public, while for the marginalized contradictory characteristics include the reality that their right to admission is reserved and their access may be restricted for no particular reason. This is both the most prized and most feared rights any civilization can confer on its members (Madanipour, 2003:47).

COLLECTIVE SPACE

It cannot be deemed strictly public or private space, but is often defined as large spaces, where a large number of people congregate which may impose a sense of like-mindedness and fellowship through the overarching of common interests (Hertzberger, 2002:38).

INTER-PERSONAL SPACE (SOCIAL SPACE)

The realm of sociability where face-to-face communication takes place between strangers (Madanipour, 2003:96). Hertzberger (2002:40) describes it as a place wherever people happen to meet. It is ambiguous in its very nature as it can be interpreted as both public and private.

COMMODIFICATION OF SPACE

Buildings can be said to be a commodity, as it [a building] is worth amounts of money when purchased, exchanged or sold (Dickens, 1993:149). Within a social condition where return on investment has greater importance than the quality of space, has contributed to the notion of the commodification of space. Stripping a place of the unwanted is both a cause and effect of gentrification, which increases the value in both the area and specific property.

VENEER/ ZONE OF REDEVELOPMENT

A utopian urban landscape in continuous search of progress and reinvention, often implemented through nodal development. This is used by cities to enhance their image through the boosting of place identity, which often results in the promoting and selling of the city as a commodity (Gospodini, 2006:312). The Avant Garde is no longer the result of economic prosperity but is consciously used as means of economic development. This leads to gentrification and the exclusion of ‘undesirables’ and unneighbourly functions.
GLOBALIZATION
Can be seen as a natural and historical progression towards the dismantling of artificial barriers towards international commerce and investment opportunities (Ali, 2005:13). It promises that it would lift the poor above poverty, dissolve dictatorship, protect the environment and integrate cultures (Ali, 2005:11). However within this scheme focus will be placed on the negative aspect of globalization, which in reality is bringing about the devastating destruction of traditions, allowing for the continued subordination of poorer countries by richer countries in the West (Ali, 2005:11).

UNIVERSALIZATION
A term closely related to globalization, which refers to creating uniformity. More often than not this global integration and homogeneity is achieved at the expense of local integration (Ali, 2005:14). Universalization can be seen as the complete opposite of a regionalist approach.

POST-INDUSTRIAL SOCIETY
The stage of economic development that follows industrialization. The emphasis moves from the production of goods, to the production of services. This is seen to be taking place more and more within an urban environment. (The American Heritage: New Dictionary of Cultural Heritage, 2005).

URBAN-PATHOGEN
Is a fabricated term, used to describe disease-producing agents within an urban environment. Urban diseases range from physical inner-city decay, which includes social segregation to that of gentrification and the loss of character of place through re-invention. Identified urban pathogens include, globalization, privatization and commodification of space, non-place and physical decay.

ENCLAVES
Refers to a small or a distinct area enclosed or isolated within a larger area. Typically this is seen when within a foreign or uncongenial environment. Within this dissertation, enclaves refer to proposed government clusters that become inaccessible due to the nature of the fence.

FENCE
Is defined as a boundary that separates two realms. It is the embodiment of a physical divide and sometimes an enclosure (Madanipour, 2003:51).

FENCE FETISH
The continuation of the erection of barriers, as prevailing anxieties and social fears provide no alternate method of achieving and experiencing safety (Penfold, 2012: 994).

THRESHOLD
It can be defined as the starting point of a new state of experience. It is also referred to as transitional space, and reinforces the idea of liminal space (Bhonsle, 2010:31).

“EDGE CITY”
Loren Kruger in (Penfold, 2012:995) defines an edge city as “a city with volatile boundaries that is torn between the extreme of utopian dreamworld and dystopian nightmare”.

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2. Cultural Space
“There is no doubt whatever about the influence of architecture and structure upon human character and action. We make our buildings and afterwards they make us. They regulate the course of our lives.”

Winston Churchill (1924); Addressing the English Architectural Association,
2.1. Preface.

This dissertation investigates the relationship between architecture and its 'interaction' with past, current and postulated future social conditions. If architecture is limited to response, it cannot be a sustainable practice. Considering that we live in an ever changing environment there is the need to design with future social conditions in mind. Even though Manfredo Tafuri claimed that revolutionary architecture would never precede a social revolution (Kaminer, 2007:63), it cannot be accepted as the norm. Investigating current cultural space, may allow for postulated future conditions to be grounded in an existing notional context. The truth is that all buildings are predictions, and all predictions are wrong (Brand, 1994:178). Perhaps, contrary to belief, it is possible to design in such as to positively affect the collective. This would then also prove that we, as architects, are responsible for negatively contributing towards society as a whole.
"...becoming places which are mostly used to move through."
2.2. Civil(ized) Society:

2.2.1. The Social product of Industry

The rise of industrial capitalism and the growth of cities had a drastic effect on the nature and foundation of social relations. Kinship, clan and belonging changed into a society based on contracts, exchange and choice (Madanipour, 2003:99). Choice more than often resulted in the action of rejection, compared to the inherent acceptance usually assured to a person within a specific community. People were now able to distinguish between true close friends and those relations, which would serve as utilitarian gain. The city became a place of strangers and aliens needing to cohabitate with one another, especially now, since it has grown to become the refuge of the majority of the world's population (Madanipour, 2003:102).

The pinnacle of the industrial society [including capitalism and secularism], which removed men from their homes, has led to the notion of family as refuge and allowed the decline in public life (Madanipour, 2003:108). Public spaces within the city are often abandoned, becoming places that are mostly used to move through (Madanipour, 2003:108). As this globalization trend increases, expressive and meaningful personal exchange becomes even more valuable than ever before (Madanipour, 2003:102).

In South Africa no one really knows how big the major cities are, or even precisely how fast they are growing (Dewar, 2005:244). What have been evident however, are the increasing levels of poverty, inequality and unemployment, which are accompanied by this dynamic growth (Dewar, 2005:244). The combination of these two social conditions [pinnacle of industrial society and the urban densification after the abolishment of the Segregations Act] within the South African city enabled urban decay to flourish at the start of democracy.
2.2.2. The Post-Industrial Post-Apartheid Relationship

On a global scale it is said that the means and forces of production determine society, while architecture can only react, corresponds and represent these changes (Kaminer, 2007:63). However, if design can be understood as an instrument of control (Sudjic, 2005:293) mere reaction, corresponding and representing these production changes seems a very limited and restricted view. Surely architecture has the ability to be constitutive of social processes, in turn empowering the architect more than is often admitted? The question is whether the architect is but a mere pawn in the hand of those in power, creating a ‘utopia’ for a select few? Within the South African context, how was it ever possible for a ‘white’ minority to rule over a ‘black’ majority?

It is no secret, given South Africa’s history, that the built environment often serves political purposes, having societal consequences in support of the current social power (Fisher, 2012:6). This is seen in the typical apartheid planning divorcing cultures from one another by using natural and man-made elements such as ridges and railways. The ring-road freeway proposed for Pretoria would have destroyed Pretoria’s character (Jordaan, 1989:28) with the sole political agenda of relocating people living in Marabastad, ‘cleansing’ the city of the unwanted’. This spatial pattern, known as fragmentation, happens when the grain of cities are still relatively coarse, allowing development to occur in discrete pockets or enclaves which are frequently bounded by freeways or buffers of open space (Dewar, 2005:245).

In a Post-industrial society where the rendering of services is becoming the means of livelihood, Dewar (2005:250) proposes the philosophy of ‘compacting the city’ by imploding growth as an urban management method. The more compact the system becomes, the more services can be experienced on foot. Densification allows the city to become more resilient. Within these compact systems services are less vulnerable to demographic change, as wealth are not tied to a specific group of people anymore (Dewar, 2005:250). This step seems to be one in the right direction.
Sanders (2000:7) states that some South African Post-Apartheid community and civic architecture is actually discovering new expressions rooted in the vernacular, culture spirit and technique but contemporary architecture has remained in a vacuum. Reason being that community and civic architecture is still fuelled by local, social and political agenda.

Contrary to this notion, South African commercial architecture is looking toward global trends, fashion, theories and formalism for the sake of keeping clients and developers happy. Samuel (2013:52) states that we as architects should be blamed for developers and fellow professionals referring to the architectural profession as being the shallow notion interested with “lookability” compared to the substance it should have.

Twenty years into democracy our urban condition is in a state of flux as it approaches the end of our industrial revolution. The South African city, like all other major cities are not immune to the ‘urban decay’, which is ironically the ‘product’ of our capitalist society. Instead of focusing on the social issues at hand as mentioned by Sanders, strategies of regeneration and new capital investment and return are commonly used to ‘salvage’ this urban decay. This type of urban regeneration typically promotes social filtering and gentrification instead of healing our fragmented society (Akkar, 2007:130). According to Massey (1991:24) there is this idealized notion of an era where places will be inhabited by homogeneous communities creating the desired ‘social coherence’ set against the current fragmentation and disruption currently found within our built-environment. Diamond (2004:24) however argues that public space within a democracy will never be stable. He continues to state that democratic space is about constant negotiation between multiple conflicting groups, individuals and even the nation-state, in order to allow for a contingent co-existence. Diamond (2004:24) concludes that public spaces are therefore not territory of shared values, but rather an arena where differences and conflicts are revealed.

With the rise of globalization, even our public and civic architecture may become obsessed with this notion of “lookability”, ignoring context and the social issues. This ignorance towards context and social issues are often sustained through the creation of object buildings and inaccessible spaces. If we believe that the built environment is not simply constituted by social processes, but is in fact constitutive of them (Harvey 1997:20), how will we approach future civic space and place making within our current social South African condition? In order to prevent Pretoria from following the trend of becoming a globalized city, it is perhaps necessary to understand the notion of globalization.
Fig. 11: Globalization: Homogenous and Autonomous Architecture (Krier, 2009:185).
2.3. Universal is the Issue:

2.3.1. Globalization.

A positive perspective towards globalization is attributed by its ability to promote “international interconnectedness”, and can be equated as the deterritorialization of space. This notion allows for the stretching of local and global relations, linking social contexts allowing for growth and development (Ali, 2005:13-14).

Contrary to common belief globalization is 'neither innocent nor neutral' in many of its uses (Douglas Kellner in Ali, 2005:14). Globalization and its universalizing tendencies, such as homogeneity and a typical disregard towards typology and context, within our capitalist society is also not something new (Milgrom & Rahder, 2004:28). Douglas Kellner (in Ali, 2005:14) argues that globalization has served to replace older discourses such as ‘imperialism’ and ‘modernization’. The end result is Global integration at the expense of local integration, revelling in the ‘positive effect’ of the first and ignoring the latter. This will only allow for further ‘Western domination’ and ‘hegemony’ within developing countries (Ali, 2005:17). In many instances developing nation-states are still too small to solve global problems but now also has become too large to deal with their local ones (Adam, 2008:76).

Therefore it also comes as no surprise that the result of globalization increases uncertainty about what is meant by the term ‘place’ and how we relate to it (Massey, 1991:24). The notion of facadism and disregard to context is product of globalization trends. Sanders (2000:70) writes that South Africa has played host to some of the most vulgar indulgences in facadism, which he calls the window dressing of meaningless works. Globalization within our current context continues to do exactly that. The effortlessness of sharing trends and theories across the globe leaves room for ‘quick’ architecture that does not deal with the local circumstances. Reality is that architectural judgements are often driven by universal theories, opposed to the methodology of being driven by particular circumstances within a specific context, which also allows for contingency and the conjecturing of future conditions (Raz, 2003:204).

The problem however is that we find ourselves stuck at either side of the pole when faced with globalization. We tend to be ‘controlled’ by our homogenized approach to space, or secondly be seduced by this notion of becoming the next notorious autonomous architect. This is all as a result of our short-termism geared towards instant profits (Dickens, 1993:148). When undertaking an architectural venture, which in its very essence is capital intensive, one needs to either save as much money as possible resulting in these homogenized spaces (often repeated in an urban scale), or secondly spend as much as needed to make the building beyond special so it becomes the very icon which will boost tourism in the proximity.” Neither seems to be quite responsible, or particularly relevant to the resilience of the everyday local society.
2.3.2. Autonomous Anonymous? - Universalization

According to Deyan Sudjic (2005:392) the universal theme in current contemporary design is the search for architectural icon. Architecture now has the ability to have a much wider effect on culture than before, due to the fact that it gets noticed (Sudjic, 20005:393). This is not a coincidence.

As modernism failed to bring about a utopian city, Manfredo Tafuri (in Kaminer, 2007:63) cynically concluded that revolutionary architecture would never precede a social revolution. Architects sharing his view distanced themselves from social pretense and embraced architectural autonomy as means to resist consumer society (Kaminer, 2007:63). Instead of being the resistance to this consumer society, they gained unprecedented popularity in the early 1990’s, and brought about the commodification of architecture (Kaminer, 2007:63).

The architect and especially the autonomous architect has given up on trying to persuade the public that buildings have the power to make lives better or worse, notwithstanding the fact that they can prevent a roof from leaking and allow a wall to carry a roof standing up straight or even at a slant (Sudjic, 2005:434). That is why architects now pose as artists, liberating themselves from the restrictions and constraints of function (Sudjic, 2005:433). Ironically, in spite of the architect’s intentions, they usually end up being defined not by their own rhetoric, but rather by the impulses, which drive the rich and powerful that employs them (Sudjic, 2005:434).
Considering global trends and developing markets, it is not strange that the demand for autonomous star architects is quite high, even though they are unable to rely on the study of local grain and the culture of their locality. More than often they rely on conceptual and theoretical approaches, not improving local conditions due to inappropriate architectural response. This specific strand of autonomy among architects have re-enforced the idea of inscrutable exteriors (Adam, 2008:75-76) and even the creation of spaces, which cannot be synthesized (Gutenschwager, 1998:269). This is the ultimate example of the emphasis on the production of 'objects in space', which Lefebvre (in Milgrom & Rahder, 2008:30) contests with his ideal notion: "the production of space".

Both mass production and its large-scale homogeneity and the autonomous movement do not allow for contextually appropriate architecture, and more often than not result in "objects in space". Focusing on the image and this self-expression results in an 'ethical numbness' deliberately detached from a notional 'real world' (Raz, 2003:207). This compels the architect to understanding why spaces are created; taking the responsibility of how it can affect the social and physical context it is placed in, contributing towards a common good.

Do we not realize that striving towards this notion jeopardizes our inherent need for acceptance, belonging and contribution that we have to offer to the very environments that shaped us? Regional architecture is not given as the sole architectural response to an area, but can it be stated that there is this need for contextual architecture beyond the limits of the tangible and evident genius loci of space often used as design informants? Asking a site what it needs to become within the next 40 years but also allowing it to change and be contingent to inevitable growth, to be resilient.

1. Inscrutable: impossible to understand or interpret
2.4. Architecture: Object/Space/Place?

2.4.1. Publically addressing the Object.

Jose Forzaj (in Sanders, 2000:67) states that architecture has very little meaning as an isolated object, and that our urban environments will only be conducive and liveable when we understand social and cultural contrasts and acknowledge them through some sort of expression or resolution. The question however is whether the product of architecture is a building [end] or if it is creating a certain human condition through the built-environment [means to an end]. The answer is: “Yes”. Architecture is inclusive of product, process and effect. Instead of viewing architecture as the object, it should be seen as a building [spatial intervention] placed within a current environment, which has an effect on the current and future social conditions through what it allows or inhibits. Liberation often falls victim to the inhibiting resolutions created within architecture. Architects and developers often place their buildings/icons on a platform, creating spaces, which are not comfortable keeping away undesirable people (Burden, 2014). Amanda Burden (2014), New York’s current city planner, views public space as the reason why cities work, a city is about people and not buildings as often referred to. She states that open space is often viewed as opportunity for commercial investment and development, even though it also has the opportunity for the common good of people. These two outcomes are often not aligned and in that lay the conflict: A plea for public space. Looking at our cities as networks, fostering relations between buildings and public spaces will allow for architectural discourse to be removed from its vacuum. Through the conscious design of buildings and its effect on public space, a positive urban environment can be created.

Fig.12: Guggenheim Abu Dhabi by Frank Gehry and Partners, being an object building from its inception (http://shinesquad.files.wordpress.com)
|2.4.2. Public Statement.

Public space emphasizes the necessity of access. This includes, physical access to place, access to the activities within the space, access to information and access to resources (Madanipour, 2003:96). Public space is public because anyone is entitled to be in them physically. It is however possible to have access to place but not to the activities found within that space which still allows for interesting relationships to be formed.

Allan Silver in (Madanipour, 2003:96) refers to private space as being personal, whilst public space refers to the impersonal. This however completely ignores the concept of interpersonal space. The interpersonal realm refers to meaningful face-to-face social encounters, which happen between strangers (Madanipour, 2003:97), and can be seen as opposition to both personal and impersonal space as it defies the notion of conduct expected between strangers, limited to that of contract and exchange.

Cities have grown to house the majority of the world’s population, and as globalization increase, personal exchange becomes even more important (Madanipour, 2003:102). Sadly our cities have become places to move through, as public squares and streets have given way to suburban living rooms (Madanipour, 2003:108). This enables the city to become socially desolate. This affirms Burden’s (2014) view of people being the life force within our cities. Is it possible to design buildings that foster accessible and comfortable public spaces within our cities once again?

Hertzberger (2002:38) states that public life is not only enacted in the public part of the city, but is just as much enacted within publicly-used buildings. He further states that it is possible to create accessibility in such a way that it becomes ambiguous, allowing the relationship between the street and the building to dissolve. An example he (Hertzberger, 2002:38) uses is the ability of arcades to feel like public streets, being experienced as an extension of the cityscape.
2.5. Social / Interpersonal / Collective.

“Cities are inviting, and uniting, the place where everything happens - both place and space” (Hertzberger, 2002:35).

Social space is to be found everywhere in the collective domain, whether this is inside or outside. It is the place wherever people happen to meet, whether this is through mere chance, being passers-by or even when people converge when they are meeting (Hertzberger, 2009:150). This term is closely linked to the term interpersonal space. Interpersonal space refers to social encounters, often between strangers that can be perceived as both private and public. Its ambiguous nature can be seen as the threshold between the typical stance of private and public space. The beauty lies within the ability of the architect to deliberately create these kind of social spaces. Sadly the sheer range of complexity of these spaces is often over-simplified, especially when social space is linked to the negative-connotation of charity (Hertzberger, 2009:150).

It is no longer an uncommon phenomenon to see a collectively used building stand as an independent object with a pronounced entrance (Hertzberger, 2002:39). However the possibilities of fostering collective space within the city should not be restricted or even reduced to this notion. Hertzberger (2002:39) describes that collectively-used buildings have the possibility to open up in such a way as to ‘carry’ people into the building. The building could be experienced and perceived as the indoor continuation of the city (Hertzberger, 2002:39). Interpreting the term ‘indoor continuation' requires the building to place equal emphasis on the duality of creating accessible, continuous space, as well as creating a definite threshold to define it as an interior condition.

In order for buildings to play an explicit part in urban social life, it has to make the internal urban organization as legible as possible, even from the outside. (Hertzberger, 2002:39).
3. Emerging Landscapes
“Space is no longer the container, the frame or the context of social processes but a social process in itself.”

Henry Lefebvre (1991)
3.1. Preface

Urban landscapes are in a continuous state of flux, as existing markets change and new sectors emerge. In order for emerging urban environment to be sustainable, it has to adhere to three critical components namely; protecting the environment, viable in regards to economics and have a positive social contribution (Bratosin, 2014). The design dissertation seeks to understand the change in the global urban landscape and its effect on the South African city. Intercity competition, the emergence of quasi-public space, the commodification of space and the obsession with Green Star ratings are often pursued to the detriment of the social condition. The social condition within the South African urban environment is a vulnerable one, where the preoccupation with safety is often used to support the argument for privatized space. Dovey’s (1998) two models of promoting a safer urban environment are investigated; indicating which strategy the Pretoria CBD is currently adhering to.
Fig. 13: The Emerging urban Landscape (Gospodini, 2006:313)
3.2. Change in Urban Landscape

3.2.1. The Global condition

The condition of 20th century capitalism dramatically changed the way in which land was used, moving from a mixed land-use to that of more ‘effective’ land zoning. This allowed flourishing economic activities to be grouped in a much larger scale than ever before within the CBD of most cities (Gospodini, 2006:313). These activities have been characterised by commerce and service, in close concentrated vicinity. Demand for office space within such a CBD in the 1950’s and 60’s have given rise to high-rise buildings, following the existant fordist model of industrial economy. This modal of the modern city, is mostly responsible for making public spaces unpopular urban environment, mainly due to the inherent characteristic of mono–functionality. Global economic recession in the 1970’s and 80’s allowed for the emergence of new service sectors. This change was a result of externalized production, and an increase in specialized divisions of labour (Gospodini, 2006:314).

According to Gospodini (2006:313) there has been a new tendency in the last decade. New urban activities such as high-level financial, technology intensive and knowledge–based firms, culture and leisure activities and institutions that tend to cluster outside the centres, are now placed in special parts of the inner–city through urban redevelopment. They promote a new form of consumption ethic (Gospodini, 2006:314) having a higher sensitivity towards heritage and aesthetics. They tend to upgrade these cities as service poles in a larger global economy whilst creating new cultural and leisure clusters.

It is said that the city has been re–invented as a positive socio–cultural sphere in the last 40 years (Goonewardena et al. 2008:293). This allowed for the ambiguous claims of oppositional centrality and difference. The city became the place where multiculturalism, ethnic and sexual diversity and avant–garde cultural practice is celebrated. However superficial versions of these claims are integral components of bourgeois urbanism and gentrification, which are more in line with the current reality of cities on a global scale. This bourgeois urbanism and gentrification are occurring due to trends of ‘rediscovering the city’, which are the successful attempts of powerful social groups to appropriate and monopolize the urban (Goonewardena et al 2008:293). The new tendency can be described as the commodification of the urban, subjected to privatization, marketization and competitive entrepreneurialism (Goonewardena et al. 2008:294).
Fig. 14: Illustration of the Branding of Johannesburg as a World Class African City, being subject to International City Rivalry (Author, 2014)
3.3. Noble Intentions [Redevelopment]

3.3.1. The Emerging South African Landscape

Considering that the South African Constitution is founded on the most comprehensive, most liberal and most inclusive democratic pluralism; what effect did it have on the post-apartheid adaptation of sharing space (Penfold, 2012:993), especially since the end of apartheid had a radical change in the way space was perceived and used? The Constitution allowed for the fundamental personal freedoms, which includes the freedom of movement (Penfold, 2012:393). On paper South Africa is supposed to be one of the leading nations in regards to open and inclusive societies. Another question that arises is working out what remains of the past, and how do we relate to the past and its traces within the present (Nuthall, 2004:732)? Will South Africa, adopt the global trends like all developing nations?

“Tshwane 2055 vision is about remaking of the South African Capital city. The creation of a new identity and ensuring that the city becomes a well-connected, well governed and managed city.” – Kgosietshe David Ramokgopa
(Executive Mayor of Tshwane in Dajo Associates & Myeza, 2014:7).

3.3.2. The “World Class City”

According to Gospodini (2006:312) cities enhance their image through the boosting of place identity, which more than often results in the promoting and selling of the city as a commodity. This is aimed mainly to the ‘flaneur’ or ‘urban pleasure-seeking voyeur’, which refers both to the visitor and the ‘new’ city resident. As with cities around the world, the inner-city of Pretoria is not excluded from this challenge of economic and cultural globalization (Gospodini, 2006:312), which tends to lead to ‘identity crises’ of cities. This is not strange considering the process of transformation required to change the City of Tshwane into a multi-ethnic and multi-cultural society (Dajo Associates & Myeza, 2014:7). Will local integration suffer as a result of the global integration?

Pretoria is subject to periodic crises in government and finance, and as local manufacturing starts to disappear in our post-industrial city, allowing culture to become the business of cities (Gospodini, 2006:316). Capitalism is moving towards the commodification of human culture as a whole. Mayor Ramokgopa states the City of Tshwane should be liveable, resilient and inclusive (Dajo Associates & Myeza, 2014:6). Its citizens should enjoy a high quality of life.
Fig. 15: The Flaneur’s Guide to Pretoria: a Cool Capital Initiative (coolcapital.co.za).
3.3.3. City Rivalry

When one enters a competition it usually comprises of a strategy to win. More than often it happens to the detriment of the original intent. Major competitiveness between cities derives from the global and local interface, which are being shaped by cultural and economic industries within these cities (Gospodini, 2006:317). Cultural consumption and the industrial niches it provide, fuels the city’s symbolic economy, which results in gentrified downtowns. Evictions are often conducted on the belief that it will reduce crime and anti-social behaviour, removing the ‘jobless masses – the ‘undesirables’ (Penfold, 2012:998).

Intercity competition in a globalized society has led to the reverse of Avant-Garde design of space, which usually reflected the economic growth of a specific city (Gospodini, 2006:312). In turn it is consciously used as the means for economic development. Cultural expression, especially ones for the ‘flaneur’ and ‘urban pleasure-seeking voyeur’ is less of a socio-economic practice but is regarded as the driving force behind urban economy (Gospodini, 2006:317). Within the same metropolitan area, local governance authorities are trying to attract prosperous economic activities with the hope of safeguarding development which in-turn amplifies inter-city competition (Gospodini, 2006:327).

Is our South African society really open or is it as open as the privileged few allow it to be? Will this global trend of intercity competition force South African cities to displace their social deficiencies to peripheral areas, removing them from the sight of prospective economic investment? In order to keep up with opposing cities, external investment is necessary. This is often detrimental towards the local physical and social conditions, as the city becomes more and more ‘privatized’.

3.3.4. The Commodification of the Urban

Multinationals are seeking property in both the competing and competitive local authority centres, as the global trend in terms of development is towards the service industries (Ballard & Schwella, 2000:740). The effect includes a major increase in property values as well as a rapid rise in rentals. This notion of space becoming more expensive within the have been valorized by local authorities, who with great eagerness to attract investment to their specific municipal areas have sold their scarce public land to willing investors (Ballard & Schwella, 2000:740). In most metropolises around the world, the affluent middle class have been moving to the suburbs, which are situated on the urban fringes.
3.4. Poor Execution [Urban Pathogens]

3.4.1. Emergence of the ‘Quasi Public’

People used to gather together in churches, public bathhouses and even in the stoa, but this has been replaced by shopping malls (Hertzberger, 2002:38). It is as if our sense of space is attuned to things that impress due to their sheer size. It creates the illusion of like-mindedness and through overarching common interests (Hertzberger, 2002:38).

“Under the influence of globalization and privatization policies, city marketing and imaging programmes and urban regeneration projects, the new landscape of post-industrial cities has witnessed the emergence of attractive and alluring public spaces” (Akkar, 2007:115).

It is still no secret that architecture often served as regulatory force, used to control and influence public behaviour (Bratosin, 2013). Bratosin (2013) continues to state that direct use of architecture can change the make-up of certain demographics whether this is race, as in the apartheid years, or that of wealth and social class in the current condition. Policies of business districts and shopping centres first identify the typical visitor, allowing them to design in such a way as to remove the unwanted, the hawker and the homeless to the periphery. This is done in order to ‘revitalise’ these impoverished areas through redevelopment programmes.

Approach 1 as seen in (fig 16) is the result of typical urban renewal schemes used within developed and developing countries. This affirms Burden's...
Emerging Landscapes

(2014) remark that urban opportunities are often used by developers as economical investment, rather than creating a liveable environment for the people in the neighbourhood. Focus is placed on the lettablity of major commercial developments, creating ‘impressive’ and ‘distinguished’ public space merely to enhance the longevity of the investment (Akkar, 2007:125). This type of urban renewal often leads to gentrification, moving the problem to a more ‘desirable’ location.

Cities throughout the world have been using the tool of design to evict the homeless from public space (Coetzer, 2013:49). The question Coetzer (2013:49) then poses is how we can take pleasure within the beauty of new designed landscapes, when we know about its aggressive origins? It is as if we do not view this problem as a design constraint but rather an urban pathogen, which one can eliminate. Realistically speaking, the propertyless is rendered dependent on those who actually do own property, and exploited within the struggle to better their condition (Long, 2011:162).

Architecture in South Africa has done very little to create more liveable cities, and actually frequently acts against this notion. The mindset that allows for this notion is the view of buildings solely as objects in space, with little or no regard to context or potential role of buildings in making public space. The architectural profession views buildings as the building blocks of cities (Dewar and Louw, 2012:57) compared to the idea of public, communal and civic space being the core of our cities. The second problem is there is pre-occupation with form, for its own sake, often leading to comfort problems within a building, which becomes technology dependant (Dewar & Louw, 2012:57).

Dewar and Louw (2012:60) state that the public realm should be viewed as the highest order of social institution, promoting integration and mixed-used development. Approach 2 (fig 16) showcases the desired outcomes of social cohesion within urban renewal or adaptive strategies. The missing link between opportunity and a better socially integrated society is still to be discovered.

An exaggerated notion towards public space can also be problematic; hence a call for an honest approach towards the limits of both the public and private sphere should be seen as part of the design resolution (Nagel in Madanipour, 2003:110). Excessive frankness in the public sphere and a decline in privacy will lead to the rise of hypocrisy, which is just as undesirable as the trend towards a fragmented society.

*The challenge of the designer is to balance concealment and exposure, as key to civilized social space.*

There is a lack of shared ethical concern, considering the quality of environments produced within South Africa, which should be based on two pillars: Environmentalism and Humanism (Dewar & Louw, 2012:55). Environmentalism has become a global trend but a humanistic approach calls for decisions to be sensitive to the understanding of human needs, inclusive of the individual and the collective and are often biased towards corporations, personal gain and exclusion.
3.4.2. Critiquing the Vision of Tshwane

“...acknowledging the fact that public interests are not the same for everyone... The City of Tshwane is, however, poised to take its place among the world’s successful, modern and sustainable economies.”

Lindiwe Kwele (Dajo Associates & Myeza, 2014:9)

Beyond the upscale of future developments and current redevelopments as seen within the proposed plans for the inner-city of Pretoria, is the familiar downside of gentrification and marginalization. Reid (2014) describes that both of these characteristics are equally pronounced within the re-invented African city. It is believed that this form of urban rejuvenation will simply lead to the displacement of the existing problems. “Money talks, and the poor walks” (Reid 2014).

The current goal of the CoT Vision 2055 (Dajo & Myeza, 190) is to invest in infrastructure in support of new urbanism, which they believe will in turn support liveable communities. The intended outcome will be that of compaction and densification which they believe will reduce inequality (Dajo & Myeza, 2014:197).

The opposite is true as there appears to be no political will to address current processes of displacement and marginalization. In reality the City is prioritizing higher income groups, hopefully attracting private investment as they continue to upgrade infrastructure within the city. If well governed spaces function well because they have been privatized, what happens to the marginalized and the people outside of the stigma attached to a certain area? It this the reflection of an inclusive democratic South African society? Or is the redevelopment plan implemented by the City of Tshwane intentionally or even unintentionally aimed at segregating the poor from the wealthy?

3.4.3. Effective Exclusion.

“We demand that they [metro police] stop stealing our stock. We are still oppressed in Tshwane by Ramokgopa.” – Vendor (SAPAab, 2014).

Since the release of the CoT 2055 vision vendors have been removed from their ‘retail’ spaces, this includes the space all along Lilyan Ngoyi Square and along Paul Kruger where BRT infrastructure is currently being erected. Jan Foster Rivombo was shot point blank and killed by Metro Police, after refusing to give over his stock, his source of income in January 2014 (SAPAa, 2014). He was shot in public, right in front of other hawkers and civilians. The hawkers that tried to intervene were arrested and detained for a period of time (SAPAab, 2014).

“The Metro Police tell us nothing will happen to them as long as Ramokgopa is in charge” – Vendor (SAPA, 2014b).

Pretoria is undergoing a similar situation as Johannesburg, where government funded redevelopment in the inner-city has sparked the interest of commercial developers (Reid, 2014). With a national unemployment rate of 25.5% one can understand that buildings within the CBD are often “hijacked” and used for affordable accommodation. “You see how dirty this city has become. They don’t concentrate on giving service to residents, but focus on chasing the poor out of the city.” – Vendor (SAPA, 2014a).

Dystopian traits found in Pretoria inner-city can be attributed to the accelerated pace of progress and subjective abandonment of custom, beliefs and identity (Penfold, 2012:1006).

“A city must live with its wounds and in time grow scar tissue around them – We don’t just get to build a new one.” (Samuel, 2013:52).
3.5. A realistic view of Pretoria CBD

3.5.1. Defensible Space

“The physical environment cannot cause behaviour, but neither is it neutral” (Franck in Dovey 1998:2)

Anthony Giddens (in Dovey, 1998:2) states that the built environment ‘structures’ social behaviour through the combination of “enabling” and “constraint”. The most common structure is that of a wall, which constrains movement and enables privacy (Dovey, 1998:2). The built-environment is said to only prevent crime, violence and uncivil practices within the urban environment. Dovey (1998:2) continues to state that physical interventions cannot sustainably solve the social problems that exist within the urban environment. However, returning to Franck’s statement that built form is not neutral, two typical methods of mediating between danger and safety are used within the urban landscape. These are classified as the ‘enclosure’ and ‘encounter’ model (Dovey, 1998:2).

ENCOUNTER MODEL

This model can be summed up by the argument of Hillier (in Dovey 1998:3) in regards to safety: “Strangers police the space, while inhabitants police the strangers”. Contact with strangers, which are promoted by collective and interpersonal space, can be seen as protected and protective space. The encounter model promotes passive reinsurance, which in turn encourages reliance and encounters between strangers. In order to positively contribute towards the current social condition in Pretoria, these encounters between strangers need to be cultivated. Even though permeability and mixed use give rise to crime opportunity (Cozens, 2011:493), the core of city life is found within its meaning. The city is the construction of space wherein behaviour is mediated by notions of civility, politeness and courtesy (Dovey 1998:4). This implies a respect for difference, the encountering of strangers and learning to live with these differences. This is a closer to Diamond’s (2004:24) description of a democratic city, which is not necessarily a territory of shared values, but rather an arena where differences and conflicts are revealed.

ENCLOSURE MODEL

The ancient response to safety was to either retreat or enclose (Dovey, 1998:2). Within the South African city, invisible walls [distance between the self and the perceived threat] were erected during the time of apartheid, and has subsequently changed to physical and much more tangible barriers. The enclosure model creates a private zone of ‘safety’ within the urban realm, gaining market advantage from the deterioration of the public environment (Dovey, 2998:6). As these enclosed projects merge into larger hybrids, ‘private cities’ are created (Dovey, 1998:6). This diminishes corporate willingness to deal with poor social conditions, leading to the continuation of public danger, by merely displacing them towards the peripheries. As cities grow, the peripheries continue to be extended further and the displacement of the ‘undesirables’ continues. The delineation and enclosure of space contributes towards the marginalized condition found within Pretoria CBD.
Fig. 18: Edge conditions of public space within the inner-city of Pretoria

Fig. 19: Info-graphic displaying the prevalence of crime within the inner-city of Pretoria
Fig. 20: Sites of heritage significance and its relationship to building decay found within the inner-city of Pretoria (Author, 2014).
RESIDENTIAL PATTERNS

In order to understand the spatial conditions within the postulated future vision of Pretoria CBD, the relationship between open green space and high/low density residential areas are investigated.

Large open green spaces are closely situated to high-rise developments, which indicate that a redevelopment strategy promoting a ‘private city’ will lead to even more gentrification within the CBD. It is therefore necessary to deal with the factors of security and danger especially within these open spaces, in order to promote better public space, and a more coherent society. These open spaces are integral in maintaining equilibrium between density and openness within the city.
As Pretoria CBD is already progressing towards a post-industrial society, business enclaves will either grow and expand within the city, or find the need to relocate to alternate locations such as Menlyn, Hatfield and Brooklyn.

The 2055 CoT vision promotes redevelopment within the CBD with government investment in infrastructure and creating development opportunities. This map indicates that business hubs will most likely continue to expand towards the east, exploiting public space until the east of the city is fully developed and saturated.

As industry continues to move westward out of the CBD towards industrial areas such as Rosslyn, public green spaces situated within the west of the CBD are likely to be in jeopardy.
The promotion of government enclaves to the north [CBD towards Gezina] and to the south [Salvokop] and towards the east [Nelson Mandela Corridor] as proposed by ARUP (2011) and CoT 2055 (Dajo & Myeza, 2014) indicates where most money will be spent in upgrading infrastructure. State property in the west will either be sold to multinational companies for redevelopment purposes, or it will be rezoned as service zones within the city.
Areas of high crime are situated mostly to the north, the west and the north-west of the inner-city. In close proximity to these areas, is physical decay of the built environment. This illustrates that the first phase of future redevelopment will take place in the south eastern quadrant of the city, as well as where the proposed urban fringe, separating these areas of redevelopment and decay will take place. As the fringe expands towards the north and west, the areas of decay will possibly be sold to multinationals seeking cheaper property within the capital city.
Indicated within the mapping illustration, is the amount of public space within the city. Approximately 25% of spaces within the CBD are deemed public, which are also inclusive of streets. Public space does not necessarily mean accessible space, as it includes civic areas [State Theatre, Transvaal Museum], which requires entrance fees.
Most of the CBD comprises of private space as indicated within the illustration. These private spaces comprise of business, industrial and residential areas.
Of the identified public spaces within the city, the promotion of accessibility is determined by the boundary conditions of the site. These boundaries are classified as having hard edges, and fenced spaces. Hard edges can be seen as plinths, walls and buildings on edge, which allows for no public interaction. Fenced public spaces, account for visual accessibility, and physical access at specific points, which may be reserved.
Overlaying the different conditions within the CBD has resulted in the urban vision proposed by the group. Various levels of decay are proposed for the western part of the CBD, as the redevelopment strategies continue to focus on eastern development, especially that of the Nelson Mandela Corridor.
4. The Fence
“Good fences

make

Good Neighbours”

Robert Frost.
4.1. Preface

Inherent to the properties of a fence is its role to enclose space. The intention may differ ranging from confinement, the prevention of entrance or clearly demarcating a boundary. The fence has both an influence on the people it includes and excludes. It is a physical barrier indicative of the current separation between groups of people.

This section will investigate the global fence fetish, and the reason why it exists and why it is still apparent in our global ‘integrated’ society.
Fig. 22: The Great wall of China (http://thursdayglobal.files.wordpress.com/2013/04/huanghuacheng-great-wall-of-china2.jpg)
4.2. Global Fence Fetish

4.2.1. The Great Wall of China

“Historians believe that many early villages built walls for two purposes: to slow down invaders, giving villagers a chance to arm themselves or flee, isolating the people inside from the outside world.”

China built walls for many years (Richardson, 2006:6), and it would be misleading to believe that it served a single purpose (Langerbein, 2009:11). Between the years 481 and 221 BC the people of China were divided into many tribes. The land was divided into 10 states and each state had its own king. During these times the different states also fought violently against each other in order to gain more land and resources. All of these Chinese dynasties ordered long walls to be built along the borders of their state allowing them to protect their land. These walls increased as each state grew (Richardson, 2006:6). The wall, which is a static element, took on a dynamic form. All of this was the result of villages within the different states that initially built walls as a means of defence. (O’Neil, 2009:10).

“China was quickly becoming a land of walls.” (Richardson, 2006:8).

For many years the different states continued to fight many battles, but by 221 BC the Qin State dominated all the other states and for the first time there was only one Emperor of China, Qin Shihuangdi. The Emperor wanting to unite both the country and his people ordered the all of the long walls to be combined for the first time (Langerbein, 2009:11). Another reason for the commencement of this large continuous wall was also due to the fact that the nomadic people who lived in the North constantly invaded China. More directly Langerbein (2009:11) states that the primary purpose was to separate the civilized Chinese heartland [Hua] from the barbarian territory of the North. The barbarian territory refers to the Mongol Horsemen. Their tactics were swoop, dash and retreat for they neither had the skill nor time to conduct a proper siege (Hart, 1910:438). These walls served as great obstacles for the Mongols as they could not get their horses over it. This allowed for a complete separating between the Mongols and the Chinese heartland.

The early walls were made primarily from tamped earth; this entails compacting mud in a framework of wood or reed. The separation characteristics of natural barriers such as cliffs, ravines and valleys were also used to their advantage. Since the first construction of these walls, the wall has been re-built, renovated and extended several times (Langerbein, 2009:11). In 120 – 80 B.C. the Han Emperor Wu ordered a new wall to be built all the way to the Taklamakan Desert in the west, allowing him to extend this empire. (Langerbein, 2009:11)

In most cases the current masonry wall consists of a stone foundation 3m-3.6m deep, with a 15m tall large masonry brick wall being built on top of it. At the most top part of the wall, where preserved, is a paved road with a parapet that has openings intended for crossbows (Hart, 1910:439). The wall has been declared a World Heritage Site, with no intention of being taken down.
Fig. 23: Construction of the Berlin Wall, with the Brandenburg Gate visible in the Background (http://images.flatworldknowledge.com).
The Berlin Wall served both as a physical and symbolic barrier between West Berlin and East Germany, separating the Democratic West from the Communist East (Rosenberg, 2014).

After the Second World War Germany was divided into four zones, conquered by the Allied Forces. These were the United States of America, Great Britain, France and the Soviet Union. The relationship between the Soviet Union and the other allied powers quickly disintegrated because of the difference between democratic and communist ideals, forcing a divide between the East and the West (Rosenberg, 2014).

By 1950 the capitalistic West flourished socially and economically while the opposite of the East was true. Soon people living in East Germany could not stand the repressive living conditions wanting to flee and move to the West (Rosenberg, 2014). By 1961 the East had already lost 2.5 million people to the West, and East Germany (Soviet Union) desperately needed to stop this mass exodus. At midnight 12 August 1961, trucks with soldiers and construction workers started the construction of the Berlin wall, digging trenches and stringing barbed wire between East and West Berlin.

The wall went through four major transformations (Rosenberg, 2014).

- Barbed wire with concrete posts.
- Concrete blocks topped with barbed wire
- Concrete wall supported by steel girders.
- 3.6m x 1.2m Concrete slabs with a smooth pipe running across the top to hinder people from scaling the wall.

Only after 28 years and several failed escape attempts, costing the lives of approximately 200 people, did the wall come down. This wall significantly altered the social condition within Germany and had far reaching consequences.
Fig. 24: The Israeli West Bank Barrier stretching into both the urban and natural environment (http://upload.wikimedia.org/wikipedia/commons).
4.2.3. Israeli West Bank Barrier

Israel began building the approximate 700km separation barrier in the West Bank in June 2002 (Tristam, 2014). To current date, 66% of the wall has been completed. The fence serves both a physical and psychological separation between Israel and Palestine, which solidifies the notion of a two-state nation.

The main idea of the barrier comes down to the idea of a ‘Separation Fence’, which the government of Israel constructed to isolate themselves from the Palestinians (Trottier, 2007:105). The creation of the fence is said to be a result of a ‘security dilemma’ (Trottier, 2007:105), which can be defined as “…[A] social structure composed of intersubjective understandings in which states are so distrustful that they make worst-case assumptions about each others' intentions…” (Wendt, 1995:73). Within the Israeli West Bank Barrier the result also manifests in the promotion of self-interest, at the expense of the other party involved (Trottier, 2007:105). The fence has been perceived as part of an extensive security measure, a method to prevent ethnic mixing with Israel as well as solving the problem of accessing foreign manpower (Trottier, 2007:109-110). The inception is however grounded in the prevention of suicide bombings in Israel, which claimed 335 Israeli Civilians (Tristam, 2014). This 700km fence has a positive and negative effect on the social well-being of both the Israelis and Palestinians.

To the Israelis the fence serves as a physical reminder that they are unsafe. It feeds the mentality that they are victims of terror, compelling them to build and maintain the wall to ensure both safety and existence (Trottier, 2007:125). This method used to create social fear has narrowed the perception of the ‘separation fence’ as the only solution deemed viable for Israeli society (Trottier, 2007:126).

The Palestinians mainly perceive the ‘separation wall’ as a violation of their rights. It also deprived the wealth villages used to generate through farms and orchards, both through the devastation of land and access to water sources (Trottier, 2007: 125). Similarly to the Israelis, Palestinians also experience a sense of victimisation, mostly through the economic dis-empowerment caused by the separation barrier (Trottier, 2007:125).

This serpentine fence creates enclaves. The very same enclaves, which allows geographical superposition of ethnic groups, ensuring their isolation (Trottier, 2007:126).
4.3. South African Fence Fetish

4.3.1. Advent of Democracy, and its limitations

“Class and wealth now bring about segregation instead of race and colour.”
(Penfold, 2012:997)

Sadly apartheid’s legacy has allowed two socio-spatial divides to greatly coincide with one another. The socio-spatial divide has merely shifted from an unconstitutional segregation of race, to that of a ‘more acceptable’, ‘subtle’ and ‘global phenomenon’ seen in the segregation of class and wealth (Penfold, 2012:997). This tension is merely amplified in the way of public and private space are used in the city. Both current and postulated future conditions, accurately portraying the relationship between public and private space allows Pretoria to be defined as an edge city. Pretoria is following similar redevelopment trends as that of the city of Johannesburg, trying to deal with its own edge city condition (Penfold, 2012:995). Johannesburg has attempted to foster public through local government investment in infrastructure, hoping to attract world leading businesses (Penfold, 2012:995). The problem as previously identified is that local government practices of urban revitalization often employ the language of military and colonial patterns, evicting the ‘poor’/ illegal households in the inner-city, leading to gentrification and the removal of the unwanted (Penfold, 2012:997; Reid 2014). Penfold (2012: 998) takes this a step further, by stating the reason behind these evictions:

“Evictions are often performed on the premise that they will reduce crime and antisocial behaviour through the removal of the ‘floating masses’.”
Will this continue to be a feasible process within the South African urban environment, now that the national unemployment figures has risen to a dramatic 25.5% (Steyn, 2014)? If the majority of past equalities has remained in place (Nuthall, 2004:731) after an invisible divide of apartheid, what scale of physical division will be used to deal with all the ‘undesirable floating masses’ within our country? Is this perhaps the reason for the fence fetish occurring in South Africa? Does this prove that our South African architecture is merely a response to the current social conditions? It is no longer strange to accept Allan Morris’s opinion (in Penfold, 2012:999) that the high amount of antisocial and criminal behaviour is shaping the use of public space. The construction of boundaries is seen as paramount to security, even though it continues to foster general mistrust between fellow citizens. The formation of community is very difficult to foster within these conditions. Referring back to the Israeli West Bank Barrier, this view seems all too similar. As crime continues to proliferate since the advent of democracy (Penfold, 2012:1000), an exaggerated amount of security measures are being erected within South Africa.

“Society is open only to the degree that the privileged few allow it to be”
Clusters are often stimulated and encouraged by the public sector and local planning authorities (Gospodini, 2006:317). The problem of clusters is that they tend to expand and move towards a functional specialization resulting in a mono-functional identity (Gospodini, 2006:318). Part of the initiatives defined by the CoT 2055 vision (Dajo & Myeza, 2014:244) is to enhance the governance cluster approach to support the city’s governance model.

The moving of all branches of government to one location is promoted by the CoT 2055 vision. It is stated that the region of Pretoria is likely to have more political clout as the region is competing to dominate economically (Dajo & Myeza, 2014:90). Clustering represents the next stage in on-going use of culture as an urban growth engine (Gospodini, 2006:318). According to Dajo and Myeza (2014:7) cluster programmes will be used to deliver agendas of liveability, resilience and inclusivity.

It should be noted that epicentres corresponding to multifunctional clusters face a significant risk of a recession after a significant boom (Gospodini, 2006:326). This recession includes economical, political and social conditions to become obsolete in times of great change.

Government clusters within the city have already been formed, and rarely caters towards the notion of fostering public space. This can be seen at both current and planned interventions. The full city block fence found at the Departments of Health and Basic Education is being duplicated at the newly built Department of Environmental Affairs located on Steve Biko drive in the Northern Government Enclave as proposed by GAP architects in the year 2006.
Even the Department of Trade and Industry’, which was initially designed with a public route through the building, has been closed off just like the rest of the government buildings located within Travenna. The experience within Travenna is becoming seemingly more apparent as a future enclave. This enclave will soon manifest as the new proposal for the Nelson Mandela Corridor (Dajo & Myeza, 2014:98), as illustrated (Fig. 26), forms part of the zone of redevelopment.
Fig. 28: An artist's illustration used to reveal the 2 Billion Rand Headquarters to be built in Pretoria inner-city (Mudzuli, 2014:1).
4.4. Tshwane House

Tshwane House: the new ‘iconic’ building (Mudzuli, 2014:1) should be ready for occupation by the last quarter of 2016. This is to become the new municipal head office of the City of Tshwane, replacing the old Munitoria building which was deemed an ‘urban pathogen’ by the city of Tshwane and was imploded in July 2013. Even though this is an artist’s impression of the building, it clearly illustrates the example of future public development within the city of Pretoria. High value is placed on pursuing a six-star rating from the Green Building Council of South Africa and pursuing sustainability (Mudzuli, 2014:1). As previously described by Bratosin (2013) sustainability has three major components: Environment [planet], Economics [profit] and Social [people]. A sustainable design, considerate of the environment, should be protecting the earth or even designing with regenerative processes in mind and the building achieves this based on its Green Star rating. This is a 2 billion Rand scheme and the budget has been approved and deemed a viable venture for the state, which means without too much further enquiry it also seems economically sustainable. Thirdly, and this is what the design dissertation contests, it shows little or no accessible public space which does not promote a healthy social condition within the inner-city of Pretoria. This is evident in the creation of a plinth, and a quasi-public space on top of this plinth. The parkade is shown as the main entrance into this building, which neither promotes a vibrant streetlife, or an encounter between strangers. This type of future development does not cater for a democratic South African city, but rather destroys interpersonal and collective space through following the enclosure model (Dovey, 1998).

“A picture can speak a thousand words”,
5 critical ones come to mind:

• Accessibility?
• Public?
• Circa?
• Plinth?
• Parkade?
4.5. Fence/Plinth

When entering a building, or a room within a building, or even a defined exterior space, it requires the penetration of a vertical plane to distinguish between different spaces (Ching, 2007:250). Contemporary architecture trends, also seen in South Africa, has created a different notion of fence, by elevating the base plane. This has resulted in the quasi-public plinth, which like a vertical plane distinguishes between inclusive and exclusive spaces. When raising part of the base plane, an implied vertical plane is created. This phenomenon is also to be deemed a simple fence within the 21st century. The current obsession with plinth buildings in South Africa, contrary to the threshold of the Roman plinth, has the ability to create a completely new social space within the City of Tshwane. If the use of these plinths were exacerbated, a complete new social space may cause a ‘private city’ to form. This seems like a much more efficient approach to building fences, however, as previously stated the enclosure model, is not sustainable in the long run.

Interestingly another way that a fence can be created through the alteration of the horizontal plane, can be seen at the Cape Town foreshore development (Fig 29). The fence constitutes of sharps rocks placed on ground floor, which are very uncomfortable even when attempting to bridge. This type of a fence has the innate ability to be a physically harmful element within our urban landscapes.

Fig.29: Diagrams portraying the two main methods of building fences (Author, 2014).
Fig. 30: A postulated future urban condition, by drawing parallels between the fence and a possible plinth condition (Author, 2014).
Fig. 31: Cape Town Foreshore Development, Horizontal Plane surface as Fence (Coetzer, 2013:49).
Inconsiderate horizontal surface as Fence.
Fig. 32: Ntsele Building, making use of a plinth and fence to restrict access (Author, 2014).
Plinth as fence, re-enforced with extended vertical plane.
Fig. 33: Poynton Building Pretoria inner-city. Scale as fence (Author, 2014).
Scale of Vertical Plane as Fence.
Fence as Fence
Fig. 34: Photos of the social fence designed by Tejo Remy and Rene Veenhuizen (Remy, 2014).
4.6. Possibilities of the Fence.

Social Fence / “Playground Fence” / Ontmoetingshek

**Designer:** Tejo Remy & Rene Veenhuizen  
**Year:** 2007  
**Constructed by:** Gelmo Hekwerken  
**Showcased:** Inhabitat: Reclaiming Design Event

The question posed by Dutch designer Remy (2014) is whether a fence can become a meeting point or even a sitting area? This is a playful re-interpretation of a playground fence, showcasing that a fence can become so much more than the mere delineation of space. This fence can be described as a distortion of the existing rhythm of the original fence, which in turn creates meeting places on both sides of the fence (Remy, 2014). Even though this fence still acts as a barrier it allows for interaction and a sense of mediation between the two sides of the fence, through the provision of nooks, seats and even play spaces for children.

Though the scale of such project seems quite small, it will positively contribute the social condition of its surrounds. It provides space for parents to observe their children as well as a place to rest as children tire. The use of this type of fence promotes interpersonal and collective space shared by parents, children and the every day users of space, not necessarily by its specific design, but rather by the events and activities it promotes. Architects and designers of public spaces should use this principle of re-interpretation as a part of the design process. A fence within an urban setting needs not be only another fence.
4.7. Theoretic Approach to Fence  
4.7.1. Threshold Space

The notion of access to place, and its different relations with access to activities, resources and information is where the idea of much needed threshold spaces become important and apparent.

“We have grown very Poor of Threshold Experiences.” – Walter Benjamin
(Teyssot, 2008:33)

No matter how separate space might seem, it is always connected to public space (Lefebvre, 1991:61). Lefebvre reminds us of the small, yet overlooked, actuality that a building always has both an interior and an exterior. This enables the architect to define the inside-outside relationship between space, which can also be used as a tool for social action, coherence and integration (Lefebvre, 1991:127). It is better defined as: The “threshold space”, or can also be referred to the “meeting place” or the “shape of the in-between” (Teyssot, 2008:33). Thresholds within the urban environment can therefore be seen as the transition between the interior and exterior of a building, but also the relationship between building and context.

As much as thresholds can be seen as the bearer of inter-human events, it was noted that current social conditions have forced thresholds to be expressed with hard edges having an even more negative effect on social and public life (Bhonsle, 2010:32). These thresholds become:

• The boundary between household and outer world
• The separation between the public and private world.
• The separation between the public and common property.

Things however have been arbitrarily divided by the emphasis on efficient production in the technological age, allowing the focus on the threshold to reconcile the dual realities of man, namely production and merely being (Teyssot, 2008:34). Positively embracing the liminal states found between internal and external space, activity and movement, production and being, allow architects to create socially relevant architecture. It defies the ‘economic driver’ as single and most important driver in creating architecture, whilst being constitutive of the desired society.

Zumthor (2012:24), a well-known architect states that one should start by carefully observing the world and its concrete appearance, enhancing that which seems to be of value and appropriate and even create anew that which is detrimental. In this case it is the identified globalization, commodification and privatization of space, poor thresholds and the effect that it has on society and public space. Relevant architecture needs to resist contemporary architectural trends, and intentionally fosters interpersonal and collective public space [range of thresholds] between buildings.
5. Brief In-depth
“The topic of slavery is like an electric fence. Touch it and people will react.”

Edward Ball
5.1. Preface

The ability of a building to stand the test of time has nothing to do with its intrinsic physical properties but rather with the social system itself (Till, 2009:72). As the dissertation continued, the student has accepted that architects have no control over this social system, but it would be ignorant to deny architects their social responsibility. Considering this responsibility of architects, it would be fitting to assume that it requires the ability to positively contribute to current and possible future conditions through the creating of both responsive and response evoking architecture. This can and should be done, irrespective of whether the social system radically improves or deteriorates. As professionals our architecture should contribute to the benefit of all citizens, and not just a select few as seen happening in our current fence fetish. In the face of uncertainty the architects is thrown back to their irreducible ethical core and are asked to make choices; not certain or even perfect choices, but conscientiously the best possible choice in the name of others (Till, 2009:186).

As previously pointed out, the current fence-fetish as seen in government and public buildings in the CBD of Pretoria is a reason for great concern but it also allows for the opportunity to create architecture, which recognizes both the physical requirements and the implication of this fetish. The polar change in the use of the fence as the representation of ownership to the forceful nature of separation leaves for a series of thresholds to be explored. This series of thresholds requires an appropriate immediate context within the future service vision of Pretoria CBD as well as a programme that encapsulates the dualistic nature of accessibility and privacy. In line with the postulated vision of Tshwane, the programme needs to be of service to the city.

In order to challenge the current use of fences within Pretoria, an appropriate immediate context had to be chosen, in conjunction with an appropriate public programme where the dualistic nature of accessibility, privacy and security are to be explored.
Fig. 35: Location of service zone and indicating various levels of decay within the city (Author, 2014).
5.2. Urban Vision*

In order to portray the urgency of dealing with the consequences of a globalized response to redevelopment in the inner-city of Pretoria, a postulated urban vision is created using an exaggerated approach. The vision is grounded through the combination of studying and understanding the history of Pretoria [in time], extrapolating information from current conditions [process of mapping], and critiquing the future development plan for the inner city of Pretoria [City of Tshwane Vision 2055]. Even though this approach is not necessarily the most accurate portrayal of future development, it allows the latent effects as discussed in previous chapters, associated with redevelopment schemes, to become apparent before its effects become irreversible.

“The phenomenology of the margin between the Veneered and Decayed zones is an investigation into the formation and establishment of the margin itself as a product of social and cultural conditions and as a product of accretion and resignation over time, ultimately forging a condition in which control and division is spatially tangible and there is a clear disservice and degradation to people and place.”**

The design dissertation, therefore has to adhere to the requirements of both the current urban condition found within inner-city of Pretoria and the proposed urban vision [definite fringe/margin within the inner-city of Pretoria].

*Refer to Group Framework (The Inevitable - The Certain(c)i)ty for more information
**Excerpt of Group Framework (The Inevitable - The Certain(c)i)ty
Fig. 36: Service Zone precinct (Author, 2014).
5.3. Immediate Context

5.3.1. Site Choice

After the attempt to create an urban analysis, portraying the complexity of the inner-city of Pretoria, and postulating a relevant future condition grounded in the current notional context, a specific area was chosen to deal with the ‘Urban Pathogen’ of fence fetish.

The site is located in the South West District of the inner-city and forms part of the proposed service area for Tshwane. This aligns with the current and postulated redevelopment strategies of the inner-city. The services that need to be provided range from the physical to the social. This service zone is separated from development nodes, identified by both the CoT Vision 2055 and the postulated future condition by means of an urban fringe/the margin. Urban fringes can be defined as “spatial belts encircling the city [now parts of the city] and in some cases penetrating into the urban core, while abutting to natural features such as rivers, constructions and railways” (Gospodini, 2007:321).

The fringe acts as a defined threshold space between the ‘city’ and unneighbourly functions. Unneighbourly functions can be classified as sewage plants, power stations, industrial plant, transportation service and warehouses. This forms part of the past, the existing and proposed service zone in Pretoria inner-city. Within a South African context, unneighbourly functions also include riots and any form of protest, informal trade and street vendors, as well as openly seen poverty and deficiencies in our social culture.

5.3.2. The social service zone

The social service zone is proposed at the existing Pretorius Square, as it is the only way the urban vision will allow for the mediation between the zone of redevelopment and the service zone, which can effectively be utilized as true collective and interpersonal space [penetration of the urban core]. This decision was informed by the already existent Metro court within the precinct and the suitable appropriation for a vacant City Hall, which are to be used as a new typology for a labour court. Further the route between the historical Transvaal and the Natural and Cultural museum (Museum Mall) is bridged through this notion of social justice. Accordingly it is proposed that home-affairs will extend their offices into the social service precinct, as this has been proposed by De Villiers (2010), a former masters student at the University of Pretoria. Buildings that constitute the fence [fringe] have been given functions, which are applicable to both sides of the fence, whether it is the management of South African Social Security Agency, or commonly shared interests [Human Rights Headquarters, Media House, Trade Union]. The square is envisioned as both a place of public protest [classified as an unneighbourly function] and public interest [democratic space], allowing for collective and interpersonal space to form, while using the encounter model to promote safety and security.
Fig. 37: Illustration of current condition at Pretoria City Hall (Author, 2014).
5.4. The Current Fence Condition [Site]

The most abrupt fence found within the inner-city of Pretoria is situated inside the proposed service zone, and manifests as a ClearVu fence, separating Pretorius Square and City Hall from its surrounds. This current fence condition was a clear informant used to establish the prosed fringe/margin within the postulated vision, which makes the edge of Pretorius Square a sensible and viable site to deal with the ‘fence fetish’.
Reinforcing an existing fence, by making it more permanent.

*Israeli West Bank barrier Approach*

Facadism can create the illusion of an inclusive and open society, while hiding services and actual social deficiencies.

*Las Vegas Approach Approach*

Investment in open land, and the using buildings [often on as plinth] built on edge to create internal courtyard spaces.

*South African Commercial Architecture Approach*

Complete demolishing, creating a object building, establishing tourism, redefines a precinct.

*“Gehry’esque Approach”*

**Fig.38:** Series of Diagrams illustrating the possibilities of dealing the fence condition at Pretorius Square (Author, 2014).
5.5. The Globalized response to fence

The permanence of the ClearVu fence as constructed around Pretorius Square, gives no indication that it will be taken down anytime soon. This statement in conjunction with the postulated future vision, allows for present methods of constructing and re-interpreting the fence to be explored.

Four main approaches in dealing with the fence (defence) can be described as:

- The Israeli West Bank Barrier approach
- The Las Vegas Approach
- South African Comercial Architecture Approach
- “Gehry’esque” Approach

All of these approaches can be seen as ‘possible’ and appropriate methods of dealing with the fence within the proposed urban framework. In order to actually deal with the ‘fence fetish’ in Pretoria a blatant and outright fence is required in order to clearly illustrate the current negative social effect [consequences and connotation] to the fence.

The most appropriate approach in achieving this call for a blatant fence, is seen in the Israeli West bank Barrier approach.
Rikus de Kock

Fig. 39: Precinct Informants [Programmatic] [Author, 2014].
CURRENT CONDITION

OFFICE CONSTRUCTION TO BE ERECTED AT THE BACK OF THE CITY HALL IN THE YEAR 20

COURTYARD TYPOLOGY CREATED BY BUILDING ON THE EDGE OF PRETORIUS SQUARE

HERITAGE WILL EVENTUALLY GIVE WAY TO DEVELOPMENT, IF IT IS NOT VALUORIZED THROUGH TOURISM OR MONETARY GAIN

Fig.40: Understanding the local context in the current and postulated future conditions (Author, 2014).

Fig.41: Conjecturing a series of developments which will change the genius loci of Pretorius Square, as the CBD of Pretoria densifies (Author, 2014).
Fig. 42: Possible 2016-2022 fence condition at Pretoria City Hall (Author 2014).
5.6. The Postulated Future Condition [Site]

Using the principles as seen in the Berlin Wall, the fence is seen to endure various stages of construction in reaching its main objective of permanent separation. It is speculated that the fence will first increase in height, before it will be translated into a more permanent material. The fenced space between the Labour Court [City Hall] and the Transvaal museum, will act as a platform of social protest and civil unrest to the authority of governance, as this is the most strategic place to demonstrate civil and social matters within the postulated future vision.
Fig.43: Postulated future addition to the Transvaal museum within the zone of redevelopment [the creation of quasi-public space] (Author, 2014)
Fig. 44: Illustration of the social service zone, which houses unneighbourly functions (Author, 2014).
REPORT ON THE RE-ESTABLISHMENT OF SEXUAL OFFENCES COURTS

MINISTERIAL ADVISORY TASK TEAM ON THE ADJUDICATION OF SEXUAL OFFENCE MATTERS

August 2013

Fig. 45: Cover page of the document released by the DOJ & CD (2013) indicating the re-establishment of the sexual offences court within South Africa.
5.7. The devolution to Programme.

In order for the dissertation to reach its full potential, the choice in programme was subject to a number of requirements:

- It should be relevant in current and postulated future conditions, positively contributing to the current social condition programmatically.
- It has to be a social service for the city, which stretches across the full spectrum of the current socio-spatial division.
- It must have an inherent public function, which could or has been privatized over a period of time.
- It should have to deal with the dualistic nature of accessibility and security.
- The programme should allow for various thresholds within the building, dealing with conditions ranging from the most public to the most private in terms of its spatial requirements.

5.7.1. Substantiating the Social Programmes

In South Africa and the rest of the world a trend of social decline has been identified. In broad terms, there has been an increase in crimes committed against vulnerable groups, and more specifically these crimes are committed against woman and children. Sexual violence in South Africa has increased to inconceivable levels, where there are frequent media reports of rape cases committed against these vulnerable groups, especially children (DOJ & CD, 2013:6). It is further explained that the impact of sexual abuse on these children has far-reaching emotional, psychological and developmental effects. South Africa has not been immune nor oblivious to these heinous crimes with the call to re-establish both the Sexual Offence courts, as well as amending the current Sexual Offences Act to include the new Human Trafficking Bill in 2013. Human Trafficking has become the second largest criminal industry in the world with an estimated worth of $32 Billion (Human Trafficking Statistic, 2008). These types of criminal activity, which attacks the very nature of humanity, has the ability to bring people from all different spheres of life together to fight this common enemy. The Department of Justice and Constitutional Development (2013:i) states that these marginalized and vulnerable groups needs specialized infra-structure, which can no longer be overlooked. It is thus required to re-establish the Sexual Offence Court.

In 2010, Pretoria's magistrate court caught fire, and left the Children's Court without a home. Currently the Children's Court is situated within the remaining part of the Pretoria Magistrate Court. This is however, not an environment suited for children, as they are in constant contact with people involved with crimes ranging from murder to civil law-suits (de Meillon, 2014). Adele de Meillon, a social worker working at the SAVF for the last 10 years, has been exposed to both the current and previous conditions of the Pretoria Children's Court. She recommends a family court complex in contrast to both of the previous methods. As with the Sexual Offences Court, a sensitive approach needs to be taken in regards to the child’s experience of safety, and allowing for an ease of accessibility to the courts. De Meillon (2014) states that within her professional opinion, the interaction between the Sexual Offence and Children's Court is beneficial towards both the efficiency and the amount of time spent on cases. Children's Court and Sexual Offences Court proceedings transpire concurrently, although they serve two very particular but different roles within society.
5.7.2. The Sexual Offences Court

The Sexual Offences Court has specific objectives, all related to the prosecution of an offender. The Sexual Offences Court can be classified as a regional court dedicated exclusively to sexual offences (DOJ & CD:2013:21) committed with specific outcomes to:

• Provide for the effective prosecution and adjudication of sexual offenders;
• Increase the reporting and conviction rates;
• Reduce the cycle time of cases; and
• Reduce secondary victimisation for survivors.

The first Sexual Offences Court was introduced in South Africa as an innovative measure to ensure the adjudication of sexual offences (DOJ & CD, 2013:17). This first court was located in the Western Cape [Wynberg district] in 1993. Initially it had three main known objectives (DOJ and CD, 2013:17):

• To reduce insensitive treatment of victims.
• To adopt a coordinated and integrated approach among the various role players dealing with sexual offences.
• To improve the investigation and prosecution, allowing for better reporting and conviction rates in sexual offence cases.
Several measures have been taken to reduce secondary traumatisation of victims, and has since been included in a set of blue print requirements developed especially for the sexual offences court.

The Blueprint requirements are (DOJ and CD, 2013:20-22):

- A minimum of two prosecutors must be assigned to each Sexual Offences Court.
- The Court should incorporate victim assistance services to reduce secondary victimization. These include:
  - Effective dissemination of information to the victim.
  - Counselling.
  - Assistance with Protection Order.
  - Preparing the victim for court.
- Court Preparation Officers, who need to familiarize the witness with the court and court process.
- Provision of support services.
  - Counselling Services are to be provided at each of the Sexual Offences Courts by dedicated social workers.
- Specialized Courts [Structure and Equipment].
  - Prevent Contact between witness (victim) and accused (offender).
  - Separate Waiting Rooms for children and adults.
  - CCTV system or a one way mirror system.
- Intermediary room.

2 offices/ S O Court. 20 m²

2 Counselling Rooms/ S O Court

Publically accessible administrative office

Office / S O Court

Social Workers Office / S O Court

35 - 72 m² Courts [Range for different cases]

Testifying Rooms

Children's Play Park

Adult Waiting Area

25 m² Secured Room
The Children’s Court is all relating to the care, protection and well-being of the child (Children’s Act No. 38, ss 45[1]).

Contrary to the role of the Sexual Offence Court, which is to prosecute offenders, the Children’s Court has to do with the well-being and safety of the child.

Typical cases relate to the matters of:
- Family Relations
- Temporary Places of Safety
- Removals
- Adoptions

The Children’s Court hearing must, as far as practical, be held in a room which:

(a) Is furnished and designed in a manner aimed at putting children at ease.
(b) Is conducive to the informality of the proceedings without compromising the prestige of the court.
(c) Is not ordinarily used for the adjudication of criminal trials and
(d) Is accessible to disabled persons, and persons with special needs.

The Children’s Act No. 38 of 2005 ss 42[8]

Attendance of a Children’s Court is closed, and may only be attended by:

• a person performing official duties in connection with the work of the court,
• the child involved in the matter, and any other party involved in the matter,
• a person who has been instructed by the clerk of the court (usually family members)
• legal representation
• a person who has obtained permission to be present from the presiding officer
• the designated social worker managing the case.

The Children’s Act No. 38 of 2005 ss 56
5.8. Summary

The combination of the sexual offence and children's court is a perfect fit, in order to explore the notion of fence within an urban environment. These programmes deal with a very tangible form of social demand, being public functions of a private nature. This allows the student to investigate the full range of thresholds present within the public realm and the different ways it can be interpreted spatially.
6. Develop, Design, Defence
“Good fences make good neighbours”

Robert Frost.
6.1. Preface

The design process of the scheme comprise of two major lines of thought, specifically dealing with the current fence fetish. The design attempts to deal with both the root and symptom of this fetish, resulting in a fluctuation of thoughts and scale. Continual reflection and reference back to the original design intentions and is relationship to site and programme, was used to validate both the design progress and its overall viability.

Even though this was all but a linear process, an attempt will be made to explain the scheme through the explanation of the two major lines of thought, desired spatial characteristics and the compromise found between theory, site and programme. Diagrams, architectural illustrations and thought-releasing doodles are used to explain this process.

It should also be noted that the initial approach to creating the “new fence” did not adhere to the proposed urban vision [Group framework], which requires a clear distinction between the nodes of redevelopment and the service zone, but was valuable in reaching the design conclusion.
Fig. 46: Changing of plinth to a permanent element of access (Author, 2014).
Fig. 47: Dissertation dealing with urban Liminal Space (Alkayyali), 2010:59.
6.2. The Initial Approach: The subtle fence/softening the fence

The initial idea of the design dissertation was to replace the notion of ‘the fence’ with a series of buildings, comprising a combination of exposed and concealed spaces. This series of buildings fostered public space, through the framing of Pretorius Square and becoming social and interactive platforms. This was done by investigating the duality of spatiality being resultant of such a series of buildings. In this way the idea of ‘the fence’ would be softened through the notion of ‘landscape buildings’ within an urban environment. This could foster an accessible public and social space on top of and around the buildings. Concealed entrances to these buildings were proposed to deal with the constraints of security, as well as creating defensible space through the use of the encounter model. By creating accessibility from street level, perpendicular to the orientation of the buildings, creates a notion of privacy, as ease of access and concealment are both equally important. This allows a victim to be concealed when entering such a building, reducing secondary traumatization. In order for the public to understand the proceedings within these courthouses a building comprising of transparent spaces has also been considered.

By using basic architectural elements such as stairs, the introduction of submerged buildings and permeable pedestrian routes, an attempt to create collective space is pursued. However to successfully re-create a fence it still needs to read as a whole, which these designs did not adhere to. The materialization of the design intent which combines a series of concealed and exposed spaces does not successfully disclose accessibility to both the public sphere and people needing to use the facilities located in the building, and needs to be better refined in order to deal with the idea of ‘fence’, and its social implications.

Fig.48: Vignette’s of early design intentions (author, 2014).
INITIAL DESIGN RESPONSES
[April 2014]

Building resembling a fence, but acting as platform.
Shifting the linearity of the fence.
Building become part of landscape.
Dividing Pretorius Square, fostering smaller scale public spaces.
Landscape becomes building.
Investigating building as fence, with the intent of acting as a large and deep threshold.

Removing the plinth and decreasing the density, allowing for the exploration of buildings to foster public space as it is currently known. Building as both threshold and edge.

Transparent building acting as fence, creating an awareness of the internal public function, yet allowing for external public use.
"Don't ever take a fence down until you know why it was put up."

Robert Frost
6.3.1. Designing a fence.

Without pretense a simple fence delineates space. The second design approach is an adaptation of the initial approach, which attempted to 'soften' the fence through the creation of a series of buildings. The second approach can be translated to 'fence as a series of thresholds'. The original simplistic fence becomes a building through a series of various thresholds. It is hypothesized that both subtle and blatant disclosure of accessibility [an adaptation of 'concealed' and 'exposed' spaces] will support the theoretical approach, which needs to provide for collective and interpersonal spaces within the city, through the use of the encounter model. At an intimate scale the fence needs to clearly disclose accessibility, through subtle changes in thresholds. On a larger scale, the fence needs to act as physical barrier, which separates the redevelopment zone from the service zone, allowing for a 'harmonious' urban environment. The fence needs to relate directly to the current activities found on site, which includes the heritage axis between the City Hall and Transvaal Museum, the continuation of museum mall and the direct building link to SASSA and the Human Rights headquarters. Awareness of the current social condition is also portrayed by the varying degrees of reflection and permeability found within the fence, by creating focal points indicative of proceedings within the Sexual Offences Court.

Putting up [with] the fence for the right reasons.
The fence is but a mere reflection of our society. And to be honest, the current South African society is all but inclusive. Also within this social service zone, the courthouse will deal with heinous crimes committed by people - The very people walking or driving down the streets of Pretoria. If according to Hertzberger (2009:156), we are able to create spaces in which the collective are shared, and private space is honoured out of mere respect for human life, we won't need fences. But till then, we need to reinterpret the notion of 'fence' with a positive effect on the current social condition.
Current condition [2014]

Exaggerated condition [2022]

Fence as Social and Physical Service to the City
6.3.2. Postulating the fence.

Before it will be possible to design the 'new fence', an understanding of how the fence could evolve will allow for the architectural intentions to be grounded. With the increase of fence fetishism found within the inner-city Pretoria landscape, the current separation between both the public interface and the existing buildings [City Hall and Transvaal Museum], gives no indication that the two fences will be removed. Instead it is speculated that the 'fence fetish' will become worse, even more so as the urban vision suggests that part of the urban fringe will be found on Paul Kruger street between these two buildings. As indicated in the diagram, it is highly possible for the Transvaal Museum to add a 'Norman Foster type*' addition in order to create a quasi-public social space, deemed appropriate for the zone of redevelopment. The fence currently delineating Pretorius square is seen to become the urban fringe, proposed by the urban vision. The reinterpretation of this inevitable fence [Fringe, Pretorius square fence] will need to act both a physical and social service towards the city, as it forms part of the service zone in the inner-city.

The first attempt at spatially interpreting the fence had come the conclusion that the fence could be perceived as a space, needing to relate differently to either side of the fence.

Fig.51: Fence to be created as a combination of thresholds stretching from SASSA to the Human Rights HQ (Author, 2014).
Fig. 52: Diagrams illustrating fence as building and its requirements. Sequel to previous diagrams (Author, 2014).

Fence as building:
The fostering of collective and interpersonal space.
[Ssexual Offences- and Children’s Court]

Fence as building:
Acts as mechanism of control, yet in favour of public opinion.
[Trade Union and Protest Square]
6.3.3. Design of a building

The first attempt at designing a fence as building gave rise to the qualities of space that needs to be achieved in and around the series of buildings.

An intrinsic quality that remains relevant through the course of the design development is the subtle invitation into the square via the Sexual Offences- and Children’s Court. The combination of the way in which the fence is curved and the extension of a level walkway onto the ground plane of the new courthouse, allows the pedestrian traveling in a northern direction, to be confronted by both the invitation into the square, as well as creating a sense of awareness through displaying the route of the offender showcased through an opaque glass surface which serves as focal point.

Sufficient interaction is created, even for a passerby, as the fence legibly portray courthouse proceedings, also promoting collective and interpersonal space as people move through the building.

Fig.53: Early plans of how the fence could be translated into a building (Author, 2014),
Fig. 54: Diagram showing detachment of buildings within the structural frame (Author, 2014).
6.4. Designing structure.

A liberating design realization was that the fence could become the primary structural system, which in turn allows buildings to be placed within the fence.

The architecture therefore finds meaning within the liminal space of the fence. This affirms the idea of fence as series of thresholds’ deeming it to be an appropriate architectural design response.
Fig. 55: Isometric illustration of the existing conditions at Pretorius square (Author, 2014).
6.5. Graphic Translations of the fence.

6.5.1. Simple Fence

A Simple fence rarely contributes to bettering the urban condition, especially as the transparent nature of the existing Clear-vu fence found at Pretorius Square gives no indication of accessibility. In contrast, it indicates how previously used public space, has become inaccessible.
Fig.56: Isometric illustration of the articulated fence as dictated by responses required by site (Author, 2014).
6.5.2. Articulated Fence

The Articulated fence has been developed through translating the series of diagrams into a 3-dimensional and physical manifestation of the desired ‘fence thresholds’. Main focus still being the subtle disclosure of accessibility through the intended ground floor plane at the Sexual Offences- and Children’s Court.

Fig.57: Isometric illustration of the articulated fence (Author, 2014).
Fig. 58: Isometric illustration of the fence as structural system (Author, 2014).
6.5.3. Fence as structure

In final conclusion to designing the fence, a structural system in accordance to a newly proposed Pretorius Square allows for the courts to be fitted within the fence. The structure is based on the articulation of the fence, and should be interpreted as the refined fence, allowing for various thresholds to occur. Both at the various scales and proximity.

Fig.59: Isometric illustration of the fence as a structural system (Author, 2014).
Rikus de Kock

Fig. 60: Isometric of the initial enclosing of the structural system (Author, 2014).
6.5.4. Enclosing the structure.

The subtlety of the fence as illustrated in site plan, is quite contradictory to the illustrated enclosure of the fence. Creating a double volume space underneath the buildings, allows for collective space to be formed, which in turn contributes towards the accessibility into and through the building.
Fig. 62: Diagramatic and 3D illustrations showing the various conditions of the screen in relation to the side of the veneer (Author, 2014).

Boundary as guide becomes a reference for movement.

Scale promotes discomfort obliging a side to be chosen.

Inaccessibly from afar, fostering security in close proximity.

Ambiguous nature of screen used to guide movement in a North South direction, with complete discomfort from an Eastern approach.
6.6. Designing the screen.

The design of the screen had to re-interpret the current aesthetic of a simple fence. As prescribed by the proposed vision of Pretoria, a literal fence is still required to separate the service zone from the zone of redevelopment. Using a consistent design language in creating the various screen elements, allows the fence to be still perceived as a single fence in its totality, even though there are subtle changes in design, disclosing accessibility at various ranges of proximity. The purpose of the fence changes from keeping the ‘unwanted’ out of the zone of re-development to keeping the people who wishes to remain ignorant of the current social condition in the zone of redevelopment. The screen is used as the main aesthetic of representing the fence as a definite fringe between the two zones.

With the understanding of future development grounded in current notional trends [fence fetish, emergence of the plinth, scale of buildings] which hides access from the public, the streetscape becomes the important and vital arena in which accessibility can be disclosed, indicating the way one would move through and into the building. The function of the screen dually serves as fence aesthetic needed in the future vision [group framework], and more importantly, it fosters collective and interpersonal space on the ground floor in the way it draws and discourages movement.
6.7. Architecture of the fence

Graphic illustration of the final screens to be used as fence, in conjunction with both the Eastern and Western elevations showcasing the different conditions to be dealt with. Note that the elevations were done in conjunction with the actual design of the courthouse.

Fig. 63: Isometric of final overall screen design (Author, 2014).
Fig. 64: Western and Eastern facade sketch design: Dealing with the intended legibility of the courthouse (Author, 2014).

A series of diagrams illustrating the architectural intent of creating the courthouse through a series of thresholds.

Fence as space.

Fence allowing threshold spaces. Public circulation is to be placed in the centre of the fence to allow for the most secluded part of the fence to become public.

Lifting the skirt of the fence in conjunction with a small plinth allows for the fence to still be evident. Connecting the circulation route to the sky becomes important in contributing towards its public nature.

Fig. 65: Series of diagrams indicating the translation from fence to building as a series of thresholds (Author, 2014).
A clear indication of the courtroom should be illustrated both visually from an internal and external perspective. The judicial service are to be separated from the public realm internally without distorting the legibility of the building.

The eastern screen houses the judicial service, reflecting a sense of order towards the Veneered zone.

The service precinct needs to still provide physical services to the city, and is done through underground parking. This parking will allow for various entrances into the building, separating victims, offenders, and the judicial service.

In order to promote the public nature of the building, the roof becomes an open invitation into the courthouse and promotes collective and interpersonal space within its close proximity.
6.9. The Basement

The basement serves as physical service to the city, by means of providing parking to Pretorius Square and the surrounding buildings that form part of the social service zone.

The basement adheres to maintaining heritage of the old Pretorius square by only allowing specific spaces to be excavated. Through the safeguarding of specific the trees [which used to demarcate the square], the lily pond and statues of King Tshwane, Andries and Marthinus Pretorius, part of the genius loci of Pretorius Square can be retained.

Even though the basement serves as a physical service to the city, it is compartmentalized with access restrictions in order to separate offenders, victims, and the judicial service. The exclusive access to space is thus moved below ground level, as to promote collective and interpersonal space on ground level.

The basement plan was used as the grid informant on site, which in turn affected the spacing between the final structural model of the fence.

Fig. 66: Basement plan [not to scale], indicating different degrees of access to the courthouse and the new Pretorius Square.
6.10. Ground Plane

The ground plane contests the idea of fence by manipulating space which allows for the duality of security and accessibility to be attained. It must however be noted that the entrance into the building has a minimal fence which can be completely open during the day and closed when needs be. Limiting the enclosed space also allows for the ease of enclosing the space.

Access to the basement is allowed from the ground plane, as to allow for private entrance into the courthouse. An open elevator strategically placed perpendicular to movement allows for accessibility to be disclosed only through the subtle change in floor surface. The main staircase can be experienced as a continuation of the collective space fostered underneath the building, as it is parallel to the general direction of the fence, yet perpendicular to movement through the building and into Pretorius square.

As the enclosure model is not followed to maintain safety on site, the encounter model is given high value and importance on site. This can be achieved through spaciously designing the intended collective and interpersonal space, having a security office visible to all members of public especially where the entrances into the building are situated. The ground floor entrances do not serve as the main security checkpoints, but rather as inhibitors of possible forms of disorder that wants to gain access into the courthouse, which in turn promotes social and collective space, through a less invasive ‘relaxed’ approach [encounter model].
Fig. 68: Series of diagrams indicating the various routes of access in the building (Author, 2014).

Fig. 69: Final hand drawn plan of the courthouse [not to scale] (Author, 2014).

Fig. 70: Brief overview indication of allocated spaces within the courthouse (Author, 2014).
6.11. The Separation of 3

The typical floor plan consists of a series of thresholds in which physical access are separated from all the various parties. In line with a victim-centred approach as required within the Sexual Offences Act blueprint, offenders and victims are never in contact.

The judicial service space is used as delineation between the public realm and the secure space of the offender. However the judicial service space, at very specific times, act as a definite and deep threshold in which special attention is given to victims and offenders. This happens in Intermediary rooms dedicated to judges and victims, as well visual and audible access between clerks and the offenders route, used to confirm the security status of offenders.

Much emphasis is places on the public circulation route as to create a subtle yet definite threshold between circulation and waiting areas. The circulation route, was therefore further investigated to utilize Hertzberger’s (2002:38-41) theories of extending the public realm into the building. The social grammar of this public building is defined through the design of the main circulation space.

The courts, can be seen as entities part and apart from the main structure, and serve as the main threshold space, where all parties converge [Public, Judicial, Offender]. The very same court structure, on a different level, is to be used as secluded testifying rooms [Vicims], adhering to the same conceptual approach of using the most private yet accessible threshold, to be legible as a place of safety from the both the outside and the inside of the building. This disclosure creates a sense of security [victim] and transparency [public].

Fig.71: A typical plan of the courthouse, as finalized in October (Author, 2014).
Fig. 72: Path Space Relationships (Ching, 2007:278).
6.12. Circulation

6.12.1. The Path-Space Relationship

A fence delineates space, and it is often an unnoticeable reference point, used to define a path of movement followed by many. A fence also restricts or grants access at specifically controlled points, most commonly in a perpendicular direction to that of the movement implied by the fence. A fence can therefore be seen as a tool of control, re-enforcing the specific route it wants you to follow, and it is done in two specific ways. Firstly it forces you to follow the route by framing the route, acting as both a barrier and a guide. Secondly it forces the user to use specific access points. Whether this be a gate or even an intentional void in the fence. Taking this notion further one discovers that the path space relationship of a building adheres to a similar rule. It can be defined as ‘Pass through space’, ‘Pass by space’ and ‘Pass into space’.

Typically pass through spaces promote interaction between different people and spaces through a series of rest and motion. This can be beneficial towards creating inter-personal space, and allowing for a sense of general awareness to be created within a building. This is similar to Hertzberger’s idea of circulation as social space. Pass through spaces can also act as barriers for fluid movement and circulation through a building, acting as restrictors and inhibitors in some instances. This relationship works well for a linear process, or even overlapping linear processes within a building, and it promotes interaction between people even though all may not desire it.

Pass by space is considered to be the opposite of pass through spaces, as it allows the user to move through a dedicated circulation zone, maintaining the integrity of adjacent joining spaces through its implied separation. This creates an ease of access with specific desired spaces within the building, without being forced to relate or converse with others. This method may be used to create a stronger threshold between different spaces, and may not necessarily compel a user to follow a desired process within the building.

Termination into a space can be seen as the point of arrival or even the end of a specific route. All routes lead to some sort of termination, whether it be a vast open space, or that of a closed and defined space. It is however very frustrating for a user to be led to a termination space without being able to fulfil the intended task, or even when a continuation of the path was still expected.

The current fence fetish found in public buildings within Pretoria has however undermined the path to space relationships, as termination of paths occur without being granted access to a building in the first place.
Fig. 73: Continuation of Hertzberger's (2008:156) diagrams portraying circulation as social space (Author, 2014).
6.12.2. The intended Social Space.

It is important for people to encounter one another within a building, if the building is to function properly (Hertzberger, 2009:156). Hertzberger further explains that this is achieved through the invitation of short-term and long-term stays, whether it be through formal or informal seating arrangements, or even creating sufficient 'place-like' areas within the building.

One specific area within a building which allows for inter-personal reaction is circulation routes. Contrary to current construction norms which promotes vertically congruent circulation, Hertzberger challenges the notion of interaction between different levels through the staggering of these circulation routes, creating a visual awareness of what is happening within the building, without necessarily granting physical access to those spaces.

In order to have a continuous route within a building adhering to social space principles, it may even be necessary to combine place-like areas with the dedicated circulation space. If this method is followed, it allows for the pass by spaces to become small pass through spaces which allow for the positive attributes of both the required privacy and social interaction to be achieved.

Allowing for a bustle within the main circulation route allows for a lesser amount people to seem more apparent, creating privacy in adjacent spaces through the masking of sound and allowing ambient noise within specific and focussed parts of the building.
Fig. 74: Path Space relationship illustrated in Cooper Union Building. (Morphopedia.com)

Fig. 75: Plans of the first 3 levels in the Cooper Union Building, indicating the path space relationship (Morphopedia.com)

Architects: Morphosis Architects
Location: New York
Commissioned: 2004
Completed: 2009

41 Cooper Square is the new academic building of The Cooper Union for the Advancement of Science and Art, which aspires to manifest the character, culture and vibrancy of both the 150 year old institution and the city it is located in (http://www.archdaily.com). Peter Cooper had the radical and optimistic idea of providing education as “free as water and air”. This rationale of Cooper is presumptuously shown in the way Thom Mayne attempts to interpret both the notion of accessibility, illustrating the way in which circulation can act both as a path and social space.

The building is symbolically open to the city by means of visual transparencies, but it is also physically open to the city, by means of public spaces that connect the institution to its physical and social context (http://www.archdaily.com). This seems like the manifestation of Hertzberger’s (2009:150) notion of the cityscape continuing into the building.

As seen in the section, plans and photograph, the steel frame which extends to the top floor in conjunction with the balustrade seems to subtract from the simplicity and beauty called for by the staircase as it seems too bulky and out of scale. Even though the circulation is a successful element within the scheme, more consideration could have been given to the actual movement through the space and limiting focal points through in the circulation zone by establishing a more disclosed form of hierarchy.

Kineasthetics, better known as the sense of moving through space (Groak, 83:1992), is determinant in the way screens and partitions are created within the main public circulation route in the building. Instead of relying on a solid wall to create privacy, experimenting with vertical and horizontal slats have allowed for both privacy and an awareness to be created visually within the building, especially during motion.

This concept namely: Promenade architecture, as made famous by Le Corbusier, allows for the user to experience the public circulation route as an ever changing experience, being linked and separated at the same time from the adjacent waiting areas.

Considering a division, fence, or screen created by means of vertical elements, the observer will only by able to observe detail in a close and focused area, as the peripheral vision of the human body is quite limited in the vertical direction. This means that as one move through space, a sense of openness will only be experienced close to the observer. This is contrary to the experience of using horizontal elements. Horizontals create a much larger field of view, however it limits the observer view to eye-level. Even though horizontal elements have the ability to create a sense of privacy and awareness it is much more prone to visual penetration and serves as less of an experienced and comprehensible threshold.
The design of the circulation space within the courtroom therefore uses the principle of deep vertical slats, to create the desired threshold between the route and the waiting areas. The desired threshold can be explained as: a definite yet permeable threshold between the waiting rooms and the staircase, which discloses a visual link to different floors and physical access at predetermined spaces, as one moves through the circulation space. This visual link allows for the public realm to access the required waiting areas, with both sides of the screen being aware, to an extent, of what is happening in the building. The staircase is also wide enough to accommodate social interaction, which allows people to experience different ranges of privacy on the staircase. Visual access within the circulation shaft, promotes a sense of collectivity and adheres to Hertzberger’s (2009:156) ideas of circulation being social space in the building.

Another consideration is the continuation of the screen towards the North past the circulation zone, which allows for the framing of the sky as it will be visible at the bottom stairs. This allows for a direct visual link to the sky to the most inner-part of the building. The top staircase which leads toward the South has a series of clerestory windows allowing the circulation zone to be filled with diffused light.

Fig.78: Design of the vertical slats [threshold] between the circulation area and waiting areas in-front of the courtrooms (Author, 2014).
6.14. Court configuration


**Architect:** Richard Rogers Partnership  
**Location:** Bordeaux, France  
**Commissioned:** 1992  
**Completed:** 1998

“The design was for a building that would, through a feeling of transparency and openness, create a positive perception of the French judicial system”  
(Rogers Stirk Harbour + Partners, 2014).

Rogers (2014) states that the creation of public space and the integration found between the courthouse and the existent urban landscape served as key elements in the design development. Public entrance into the building are restricted by means of an access controlled flight of stairs situated on the side of the complex. The staircase leads to a platform where lawyers, public and clients meet.

Broadly the building can be described as a glass box, with protruding pods. The glass box serves as an attempt to make the complex seem more transparent, as it wishes to portray the transparency within the judicial system. The pods, which can be seen as objects within the building, legibly discloses to the public where the courts are situated, and where exactly justice are implemented. ‘Liberating’ the courtrooms from the box (Rogers, 2014) was part of the initial design concept, as it encourages a sense of orientation, allowing an internally focussed typology to seem accessible again.
Fig. 81: A linear translation series of spatial qualities within the court design (Author, 2014).

Fig. 82: Early spatial and programmatic plans of the courthouse (Author, 2014).
|6.14.2. Shaping the Court.

The initial approach in designing the courtroom, was based on the following main ideas:
- The courtroom should clearly be legible as the last threshold within the public realm.
- The courtroom should be used in such a manner as to define spaces and organise the routes inside the building.
- A combination of authority and sensitivity should be integral in the way the courtroom is created spatially.
- It should accommodate separate entrances to allow for a victim-centred approach to be maintained.

The spatial form of the court was created by contesting the current generic rectangular form of the Children’s Court in Pretoria. With the intent of softening the internal space, curved vertical elements were introduced. This contributes both towards creating hierarchy within these courts in a spatial manner [importance of judge, importance of different entrances, disclosing of natural movement in court, main focal point for testifying screens to be installed], as well as dealing with very tangible requirements such as dealing with the reverberation of sound. The intentional language differentiation to the structural language of the building directly discloses the courtroom [final threshold] to the public realm within the building. Originally the shape of the courts was arranged according to specific cases, whether it be paternal matters, temporary places of safety, adoptions, removals and the various degrees of sexual offences. This did however not contribute to the building being legible from the outside, as the courts did not necessarily relate to one another in their positioning. For this reason, an object element was introduced, not for the sake of hiding the internal use of space, but rather highlighting the areas of safety and justice within the building. By doing this the final threshold is disclosed to everyone. This allows for awareness and legibility for both passers-by within Pretorius Square, and the intended users within the building.
Fig. 84: A design perspective of the Courthouse as viewed from the City Hall [Labour Court] (Author, 2014). c
6.15. A Glimpse

6.15.1. Legibility of the courts

The legibility of the courts are can clearly be seen from any vantage point within Pretorius Square, and dually serves its purpose of being concealed and exposed. Awareness of court proceedings are shown through the aluminium vertical louvres, while still adhering to the much needed privacy inside the building. The roof is constructed in such a way, as to invite people into the public collective and inter-personal space underneath the building, which allows for accessibility into the building to be disclosed from afar, yet allowing for a subtle reveal of the entrance into the building.

The offender’s route, is the only other solid barrier indicated within the perspective, which will create a general sense of ease for the public, and victims intending to attend court proceedings. This also contributes towards the legibility of the building, adhering to the functional requirement of security and the qualitative requirement preventing secondary trauma to be experienced by a witness/victim, yet still allowing for an awareness of internal proceedings.
Fig. 85: 3D illustration of the fence as built as viewed from the proposed addition to the Transvaal Museum (Author, 2014).
6.15.2. Experiencing the fence

The experience of the fence from the eastern environment hides most internal functions of the court proceedings, as required by the future vision. Specific focal points are created in the design of the fence, and has to manifest in the way the courthouse is placed inside the fence.

Moving from North up Paul Kruger street allows for court proceedings to be made apparent through the public display of offenders [important focal point]. Entrance into the square is promoted by its proximity the heritage axis, which only serves as a visual access. Movement along the fence [close proximity] allows accessibility to be disclosed to members of the public, and also allows for a covered sidewalk promoting a desired route/path to be used by the general public, which ensures the encounter model of its use within the precinct.

Glimpses of interior space inside the courthouse is revealed to the Veneered zone, by protrusions through the fence, acting as internal vantage points, linking interior and exterior spaces.
Fig. 86: Design section through the courthouse (Author, 2014).
7. Technical Resolution
“The job of buildings is to improve human relations:

architecture must ease them,

not make them worse.”

Ralph Erskine
7.1. Preface

The technification of the building was not the mere completion of the scheme, but a continuous process of exploring and interpreting the physical manifestation of the fence. During this chapter the physical make-up of the structure, the material choices used to gain the required aesthetic effect of thresholds, passive climate control, service systems and detail design will be shown.
Fig. 87: Technical concept indicative of major design thresholds to be resolved (Author, 2014).
7.2. The Technical Concept

The tectonic concept can be interpreted as the physical manifestation and detailed refinement of fence as a series of thresholds. The rationale of these thresholds are determined by the various forms of accessibility [Physical, Visual and Auditory] as well as security required by the 4 main parties [Victim, Public, Judicial Service and Offenders] within the building. These multifaceted thresholds serve as guideline for the detail design. Thresholds, as previously discussed, are found within the vertical and the horizontal axis. Much focus is placed on circulation through and into the building allowing for a collective social space to be formed.
7.3. The Material Palette

The change of materiality is used as the most rudimentary form of suggesting and implementing definite thresholds. The sequence of the material palette has been defined according to the required disclosure of accessibility, which provides a sense of both security and safety. Material choices are also based on its direct influence on spatial requirements, both internally and externally. The application of materials are defined by its proximity to the observer/user allowing for the duality of security, privacy and accessibility.

ON GROUND PLANE

The material palette on ground plane needs to achieve two main objectives in regards to thresholds. Firstly a series of subtle material changes needs to connect the hard surface of the sidewalk to the soft vegetation of the park. This will allow for successful movement through the building, which allows for a better social and collective space. Secondly, as Hertzberger (2002:39) described; the architecture needs to draw people in towards the building enabling it to become an indoor extension of the city. This allows for the duality of accessibility and security. The current walkway in front of Pretorius Square consists of slate blocks and will be re-used in such a manner as to retain its heritage value. This walkway needs to extends both into, through and past the building with main intention of drawing the users into the newly designed square and external and open foyer of the building. Being drawn into these spaces allows for considered collective space underneath the building to emerge, with the ability to extend further into the remainder of Pretorius Square. This is achieved through the in transition of harder materials in the form of slate to concrete tiles being joined to the vegetation of Pretorius square through the use of grass blocks. This successfully allows for the desired accessible and social space by using the encounter model as basis of the groundplane design.
FENCE AS BUILDING

The main objective of the western and eastern facades differs, and therefore requires a different response in materiality. The western facade of the Sexual Offence-and Children's Court has to respond to the social service zone of the city of Pretoria, requiring a sense of openness towards Pretorius Square. This requires a series of thresholds that will allow visual access into the building and by doing so it creates a legible and general understanding of proceedings inside the court. The courtrooms need to be identifiable not only in its shape but also in its materiality. This is achieved through the means of cladding these protruding courts in a black brushed anodized aluminium, showcasing the areas of safety within the building. The rest of the western facade deals with the openness towards the square and its ability to deal with the heat gain of the western sun. This is done through a first layer of aluminium louvres spanning two floors, concrete walls and a secondary threshold of a double glazed curtain walls and windows which are shaded by the overhang of floors. An attempt is made to reduce heat transfer before it enters the building through this series of layers.

The eastern facade has to deal with the dystopian future of progress and redevelopment, needing to be seen and understood as a fence. In order for the eastern side to be appropriated as a fence, it needs to read as a single and solid element from afar. As one would move towards closer proximity of the fence [fringe of the city], the fence needs to be experienced as a definite yet open threshold into Pretorius Square, which requires permeability produced by a perforated material. The threshold range is thus limited and defined by using GKD pre-crimped Lago metal fabric [mesh] supported by the range of galvanized structural steel frames to create the screen [fence]. This effectively contributes to both the concept of fence as building, also providing for the interior spatial requirements by only allowing 44% of natural light into the building, significantly reducing the solar heat gain of the eastern side of the building.

Fig. 90: Material palette of the western and eastern screen (Author, 2014).
THE CIRCULATION ROUTE + PUBLIC REALM

The main circulation route makes use of materiality to indicate both accessibility and security within the building.

Accessible space, both physically and emotionally are portrayed through the use of wood. The wood palette consists of ethically sourced bamboo used as both floor surfaces, and wall cladding. The bamboo is also appropriated and used to build the main wooden frame within the public circulation space. The frame is built using the principle of kineathetics and the architectural promenade, creating a definite yet subtle threshold. Floor surfaces range between wooden bamboo flooring [used to disclose typical movement through the building] and concrete [used to disclose areas of waiting articulating privacy].

Space, more inaccessible to the public, is portrayed using ‘hard vertical elements’ such as exposed face brick, concrete and 28mm bulletproof glass. The use of these materials is attributed to keeping the judicial service safe from the public realm. The use of face brick is implemented to the south of the building, where both the judge and prosecutors office are situated, acting as the barrier between the public realm and that of the offenders.

Fig.01: Material palette used in the circulation and private realm (Author, 2014).
THE ROUTE OF THE OFFENDER.

The threshold series imposed by the material palette used in the offender’s circulation space is purposeful harsh and cold. The offender’s circulation space also serves as focal point in the design, which allows legibility of proceedings to be shown through a seamless curtain wall fitted with opaque safety glass to the south. The remainder of the space consists of epoxy sealed floated concrete floors, and off-shutter concrete walls, which allows for easy cleaning of the offender’s space. Floors are secured by means of security gates made of hot rolled galvanized steel frames in which a GKD Delta 16 mesh is placed on every floor. The void in the middle of the circulation space is also enclosed by the same rigid GKD mesh. A definite threshold into the court is achieved through the continuation of darker materials [Black brushed anodized aluminum sheet] with the final introduction to the court being that of a radiant white painted Rhinolite finish.

THE COURT/ TESTIFYING ROOMS.

The court and testifying rooms is to be seen as the most final and definite threshold experience within the building, yet with the requirement of disclosing accessibility to all parties within the court. This is achieved by continuing the floor finish of the public route and that of the offender into the court, disclosing to the various parties [public, offender] where they are allowed to tread and move. The definite transition from a black anodized aluminium exterior, to that of a radiant white painted Rhinolite finish in the interior of the court, indicates that this is indeed the final and most vital threshold. Within the testifying rooms, which also occurs within the safety of these secondary structures, the interior finish of the Rhinolite should be painted in soft yet colourful pastel colour, as to promote a sense of safety and a soothing environment in response to the traumatic experience of testifying.
Fig. 94: Isometric representations of the primary structural system used in the design (Author, 2014).
7.4. Primary structure

The primary structure of the fence/building needed to adhere to the conceptual approach of permanence, required by the urban vision fringe. It is therefore suitable to use reinforced concrete cast in-situ as the main structural material within the building. A final conclusion in sizing the reinforced concrete column and beam construction has been reached after consulting with Carl van Geyso (2014), a structural engineer, who has been rendering services to the master students at the University of Pretoria.

The spacing of the columns had to adhere to the spatial requirements of a parking bay, as stated in the SANS 10400 [spacing 8160 = 2720 x 3, min 2500]. The size of the columns, as determined by the engineer, has been finalized as a rectangular reinforced concrete column 450 x 600 with a 1200 x 1200 square RC footing. This series of columns carries a 340 mm 2 way floorslab with integral reinforced concrete beams [450x600] spanning between the RC columns. Secondary structures, such as the courts, the roof and screens, are attached to the primary structure only after it has been fully erected.

A similar structural system is used in the basement under Pretorius Square. The 450x600 column are duplicated and spaced at 8160 and 5550 C in order to allow the load of the new square to be carried successfully.
TYPICAL ROOF CONSTRUCTION

Lightweight steel truss consisting of 98 x 38 x 10 cold formed galvanized steel channels to engineer specification are bolted to a 305 x 165 x 46 Galvanized steel I-beam at 1360mm C. The I-beam with end-plates are bolted to a 254 x 254 x 107 hot rolled parallel flange H-column to engineering specification. The baseplate of the H-column is fixed to steel holding-down bolts placed within the existing primary concrete structure to engineering specification.

100 x 50 x 3 cold formed galvanized angle cleats are bolted to the lightweight steel truss at holes pre-drilled in the truss. 150 x 75 x 20 x 3 cold formed galvanized steel lipped channel purlins are bolted to both the lightweight steel truss and angle cleats with 4xM16 bolts respectively at 1500mm C. Pre painted hot dipped galvanized chromadek steel roof sheeting, nominal thickness 0,53mm and width 1225mm, fixed to purlin with galvanized steel self drilling screws with a neoprene washer.

EASTERN SCREEN FRAME.

The eastern screen frame construction consists of galvanized steel IPE 160 I-beams with end plates fixed to anchor bolts, placed within the reinforced concrete floor slab to engineering specification. Galvanized hot rolled steel PFC 180 x 70 parallel flange channels are pre welded to two galvanized unequal legged 100 x 65 x 8 angles, which allows the external frame to be bolted to the IPE 160 I-beams to engineering specification.

STAIRCASE CONSTRUCTION

2100mm wide tapering straight run staircase, with 3 steel stringers constructed off-site, designed to engineering specification. It has a tread of 300mm and a riser of 150mm with a floor to floor height span of 3600mm, inclusive of a 900mm landing at 2100mm above floor finish. The tread consists of a 5 ply 40 x 300 x 2080 solid laminate bamboo panel fitted in a steel frame, made of 5mm flat steel braced at the bottom to which angles are welded and finally fixed to the stringers by means of bolts and nuts to engineering specification.
ROOF SHEETING [BOTTOM]

40 x 40 x 1,6 cold form angle is fixed to the bottom of the light weight steel truss with galvanized steel self drilling screws. A 50,8 x 50,8 x 1,6 cold rolled galvanized steel hollow square tube is fixed to the angle and the lightweight steel truss. One end of the pre-sized 3 mm Black brushed anodized aluminium sheeting is fixed to a 40 x 40 x 1,6 cold formed aluminium angle bar, and the other is wrapped around the square hollow profile. The sheet is then fixed to the square hollow tube by means of self drilling screws. This allows for an almost flush sheet joint.

TYPICAL FLOOR

Walkways: 340mm in-situ RC floor with a 25 mm sand cement screed cast specifically at the designed walkways. A 15 mm Solid bamboo flooring is installed on top of the 25 mm screed. The rest of the floor area has a 40mm floated screed cast onto the concrete floor, with a sealed polished concrete floor finish. The bamboo walkway is to be flush with the polished concrete floor.

INTERMEDIARY ROOM / PROSECUTORS OFFICE

Exposed face brick masonry construction is used within the scheme to disclose the private nature of intermediary rooms and prosecutors offices. 220mm Corobrik Roan Satin face brick walls are built flush to fair face concrete soffit, having an effective height of 3260mm.

COURTROOM CONSTRUCTION

The courtrooms are a secondary structure, consisting of an interconnected galvanized structural steel system, which is fixed to and, suspends from the concrete floor.

WAITING AREA WALL CONSTRUCTION

Plastered 220mm masonry brick walls are built to delineate space between the Sexual Offences- and Children’s Court. These walls are to be cladded with 15 x 120 x 1200 DASO XTR carbonized bamboo wall cladding, fixed with adjustable 316 stainless steel fix clamps with a 5mm gap, backed by a 9mm thick Genesis Acoustic board.

Fig.96: Detail Assembly drawing of bottom roof sheeting (Author, 2014).
ROOF DETAIL
The circulation shaft protruding the roof requires an adaptation to the typical roof design. The smaller lightweight cold formed steel truss is fixed to the concrete wall by means of a galvanized steel wall hanger designed to carry the load of the roof, all needs to adhere to engineering specification.

Black brushed anodized steel sheets are fixed to 50,8 x 50,8 galvanized steel cold rolled square hollow sections which are fixed to the lightweight steel construction by means of self-drilling screws and cold formed aluminium angles. Double Glazed Curtain wall with 100 x 67 aluminium mullions @ 2720 C in a are fixed to concrete floor and light weight

STAIRCASE [EXTERNAL]
Cast in-situ concrete staircase [450mm tread, 150mm riser] on top of a well compacted soil in layers no more than 150mm. 25mm Pre-cut Slate stone square edge tread coping to be fixed to in-situ concrete with a portland cement mortar.
FLOOR FINISH (TOP FLOOR)

Outside:
Reinforced concrete slab with a sand cement 40mm screed to fall 1:70 towards fulbore inlets in Ø110 uPVC rainwater downpipes cast in column. 50 x 76 Pine floor joists fixed to screed @ 400 C and waterproofed with torched on bitumen covering joists and screed. Carbonized bamboo decking [straight edge] to be fixed to joists with a 4mm gap [secret nailing].

Inside:
50 x 76 Pine floor joists fixed to screed with bracket. Carbonized bamboo decking [tongue and groove] to be fixed to joists [secret nailing].

CIRCULATION SCREEN

40 x 300 5 Ply Glulam solid bamboo fixed to side of concrete floor with concealed galvanized steel bracket. The Glulam spans floor to floor, and lap joined to span full effective height.

BULKHEAD

A perforated 20mm Rhinolite Gypsum Board is fixed to an aluminium bulkhead subframe with self drilling recessed screws covered with , which is suspended from the concrete soffit.

FLOOR

105/155 Unpropped QC Decking Spanning between a 300 x 100 x 42 hot rolled galvanized steel Channel. 170 mm Concrete cast in-situ on QC decking. 38 x 114 Pine Timber joists fixed to concrete floor with a 50x75 joist bracket.
ROOF CONSTRUCTION:

[All steel sized and fixings to engineer specification]

Roof finish
0.58 x 1225 pre-painted [charcoal grey] Z275 hot-dipped galvanized Chromadek Mystim fixed to purlin with galvanized steel self-drilling screws with neoprene washers.

Purlins
150 x 75 x 20 x 3 cold formed galvanized steel lipped channel purlins bolted at 1500 c/c to angle cleats with 4 x M16 bolts.

Truss
100 x 50 x 3 cold formed galvanized steel angle cleats, bolted to light weight steel truss at pre-drilled holes with 2 x M12 bolts.

Light-weight steel truss comprising of 98 x 38 x 10 cold formed galvanized steel channels at 1360 c/c bolted to I-beams with a 50mm spacer.

Roof terrace ceiling
40 x 40 x 1.6 cold formed galvanized steel angle bolted to light weight steel truss at pre drilled holes with 2 x M12 bolts.

50.8 x 50.8 x 1.6 cold rolled galvanized steel hollow square tube at 750/c/c fixed to light-weight steel truss and 3 respective angle cleats with galvanized steel self-drilling screws.

Pre-sized 3mm black brushed anodized aluminium sheet fixed to 40 x 40 x 1.6 cold formed aluminium bar and square hollow with self-drilling screws.

Truss support
305 x 165 x 46 galvanized steel parallel flange I-beam with welded 6mm galvanized steel end plate, bolted to H-column at pre-drilled holes at an angle of 6.55° with 4 x M24.

254 x 254 x 107 hot rolled galvanized steel parallel flange H-column with welded 8mm galvanized steel base plate bolted to galvanized steel holding down bolts cast into primary concrete structure.

770 x 105 x 1.6mm galvanized steel sheet box gutter supported on purlins.
ROOF TERRACE WESTERN FACADE

1150 x 1360 Unisert aluminium adjustable glass louver system, fitted with 150 x 1300 x 6mm laminated clear glass louvers.

230mm clay brick wall plastered both sides with cement sand plaster.

300 x 230 Africote matt sealer finish on a sand cement plastered in-situ RC beam

7 panel [1150 x 3000] aluminium sliding folding door

200 x 1100mm fairface in-situ RC ballustrade wall.

15 x 97 x 1970 carbonized black-stained bamboo decking secret nailed to 50 x 76 and 50 x 152 treated SA pine joists at 400 c/c screwed to screed with galvanized steel bracket respectively.

Joists and screed waterproofed with torched on bitumen

255 in situ RC slab with a 40mm cement sand screed to 1:70 fall.

Fullbore outlets to ø110 uPVC rainwater downpipes cast in columns.

COURTS [PODS] WESTERN FACADE

[All steel sized and fixings to engineer specification]

Walls

Primary Structure

Pre-manufactured framing rings of 200 x 90 x 30 curved hot rolled galvanized steel parallel flange channels bolted to 300 x 100 x 42 hot rolled galvanized steel parallel flange channel in turn bolted to in-situ RC floor with M45 bolts at 400 c/c.

Pre-manufactured hot rolled galvanized steel IPE 160 studs bolted to 300 x 140 x 6 galvanized steel bracket at +- 600 c/c welded to framing rings.

Secondary Structure

98 x 38 x 10 x 2,5 vertical cold formed galvanized steel channel studs at +- 450 c/c bolted internally to primary structure with 2 x M12 bolts.

98 x 38 x 10 x 2,5 curved horizontal cold formed galvanized steel channel noggins screwed to studs at 1800 c/c.

Cladding

3mm black brushed anodized aluminium sheeting blind riveted to IPE 160 with 354 x 100 black brush aluminium formed sheet coping.

100 mm Isotherm mineral wool thermal and sound insulation

15mm Gyproc Firestop Rhinoboard fixed to studs.

12.5 mm Rhinoboard fixed to Firestop Rhinoboard, with a 2,5mm Rhinolite skim plaster, painted with a matt white enamel.

Floor

105/155 1,6 unpropped QC decking supported in 300 x 100 x 42 framing ring.

15 x 97 x 970 carbonized black-stained bamboo decking secret nailed to 50 x 114 treated sa pine joists at 400 c/c.

50 x 114 SA pine joists @ 400 c/c fixed to concrete floor with angle cleats.

20mm plywood sub-floor.

170mm cast in-situ concrete floor.
7.5. Creating the Court

The form and placement of the courts should be interpreted as the end destination for many users, as well as the final threshold where all parties involved converge. It is therefore integral that the court reads both as separate and part of the structure of the fence. Considering the restrictions of the primary structure, the opening of space required at ground level and the tapering of the court, has contributed to the structural development of the court.
THE STRUCTURAL JOIN

The courtrooms, reading separate from the building within close proximity, requires a different approach to structure than merely continuing the concrete beam and column construction. This is due to the additional cantilever of 4500mm from the floor slab at level 3, which becomes less as one progresses upwards. A steel skeleton structure is therefore parasitically placed onto the existing primary structure of the building after the primary structure is completed. The steel skeleton consists of welding a 300 x 100 x 46 parallel flange channel (rolled and welded to the specific shape) to a 200 x 90 x 30 parallel flange channel (also rolled and welded to the specific shape) off-site. A 10mm Flat steel join is welded onto the 300 x 100 x 46 PFC in order to have lateral support (IPE 160) bolted to these joints, spanning from floor to floor, on site. This pre-assembled steel base is moved to site, where it is rawl bolted into the slab at engineering specification, both at the vertical and horizontal connections. A 1.6mm unpropped QC flooring of 100/155 with a concrete slab of 170mm is proposed to span the 4500mm within the profiled 300 x 100 x 46 PFC.

Fig.99: The effective cantilever achieved in the courtroom construction (Author, 2014).
Fig. 100: Illustration of the construction process of the cantilever wall connection (Author, 2014).
Fig. 101: Cantilever connection detail (Author, 2014).

DETAIL DESIGN: WALL - CANTILEVER

The detail design of the court wall is based on creating a definite threshold both through materiality and depth. Depth of the wall is 343mm with the cavity to be filled with 100mm of Isotherm mineral wool insulation. This will act both as a thermal and acoustic insulation, as the plasterboard will be perforated at 1500-1800mm above floor finish.

Double layer of 100mm isotherm mineral wool insulation
98 x 38 x 10 x 2.5 cold formed channel bolted to 3 x 75 x 50 x cold formed angle
IPE 160 bolted to 10mm flat steel welded joint
3mm black brushed anodized aluminum sheet riveted to IPE 160
15mm Gyproc Firestop Rhinoboard fixed to Studs
12.5mm Rhinoboard fixed to Firestop Rhinoboard, with a 2.5mm Rhinolite Skim Plaster, painted radiant white.
Bamboo flooring edge trimming
Pre-manufactured 200 x 98 x 32 and 300 x 100 x 46 hot rolled steel channel ringbeam welded together later being galvanized.
15 x 97 x 970 Carbonized black-stained bamboo flooring with edge trim
1.6mm cold rolled profile fixed between plasterboard
20mm Plywood subfloor
38 x 114 Pine Joists @ 400C fixed to concrete floor with angle cleats
170mm Concrete floor
100/155 1.6mm Unpropped QC flooring
0.25 Polythene vapour barrier
Fig. 102: 3D Internal connection of court to floor.

**DETAIL DESIGN: POD WALL - INTERIOR**

The construction of the internal wall design is similar to the connection of the court wall, which cantilevers from the slab. By placing small elements such as a shadowline at the bottom of the internally perceived court, allows for further experience of court as final threshold.

- Double layer of 100mm isotherm mineral wool insulation
- 98 x 38 x 10 x 2.5 cold formed channel bolted to 3 x 75 x 50 x cold formed angle
- IPE 160 bolted to 10mm flat steel welded joint
- 3mm black brushed anodized aluminum sheet riveted to IPE 160
- 15mm Gyproc Firestop Rhinoboard fixed to Studs
- 12.5 mm Rhinoboard fixed to Firestop Rhinoboard, with a 2.5mm Rhinolite Skim Plaster, painted radiant white.
- Bamboo flooring edge trimming
- Pre-manufactured 200 x 98 x 32 and 300 x 100 x 46 hot rolled steel channel ringbeam welded together later being galvanized.
- 1.6 mm cold rolled aluminium profile fixed between plasterboard
- 1.6 mm cold rolled profile fixed between plasterboard
- 15 x 97 x 970 Carbonized black-stained bamboo flooring with edge trim
- 20mm Plywood subfloor
- 340 mm Concrete floor
Fig. 103: Part of an isometric illustration, showing the of mentis grating screen (Author, 2014).

Fig. 104: Internal perspective of building, indicative of light quality through mentis grating vertical screen (Author, 2014).

IPE 160 beam bolted to anchor bolts in floorslab

1200 x 2040 RS40 Mentis grating panel bolted to angle cleats on IPE160

IPE 160 Frame bolted to end-plate of IPE 160 beam
7.6. Eastern screen design

MENTIS GRATING

The initial idea of constructing the eastern screen was to use RS40 50 x 5.5 x 1200 x 2040 Mentis grating panels as vertical shading devices, which were to be bolted to the series of galvanized steel IPE 160 frames constituting the secondary structure. Even though the amount of open area of the mentis grating is quite significant, the depth of the aperture allowed it to be a viable shading device to be used in the building. The mentis grating had also created the desired internal aesthetic required by the courtroom, but in the end did not suffice as its embodied energy was too much in order to justify its use as a mere shading device and fence aesthetic.

A second reason for not implementing the mentis grating as vertical screen device, was the amount of structure needed to carry the heavy load of the mentis grating. An alternative method of designing the screen had to be implemented.
MATERIAL
GKD Pre-crimped Lago Anodized in colour EV1
Aluminium Mesh.

The electrochemical process of anodizing, is used to create protective layers on the aluminium wires.

FIXING
Flats with Clevis.

Both ends of the fabric are clamped by flat bars. Clevises with threaded rods are added for tensioning by nuts. This is to be fixed to the secondary galvanised structural steel frame, as per previous designs.
GKD METAL FABRIC SCREEN

Re-exploring the possibilities of the fence, was dictated by using a much lighter material, with a much lower embodied energy. The exploration has resulted in the study of metal fabrics and its applications. In choosing from the vast range of metal fabrics on the market, it was decided upon the pre crimped Lago mesh, as it is a rigid mesh allowing for the shape of the screen to be maintained, and to be created from a combination of 316 Stainless steel and anodized aluminium. This allows for a much lower embodied energy to be used as a screen, with the ability to be recycled easily if its use is no longer required. The PC Lago mesh has an open area of 44% and significantly reduced weight of 7kg/m² compared to the mentis grating. The aesthetic of the mesh will have a similar effect to the internal timber frame, as its vertical rods will disclose and hide parts of the building as one moves through.

CASE STUDY: GKD screen required at north east facades.

An Ecotect test has been conducted and published, by GKD South Africa (www.gkd.co.za), illustrating the efficiency of the Lago metal fabric at 11h45 facing an orientation 45 degrees off-north covering a double glazed curtain wall with a solar heat gain factor of 0.39. In the base case where no screen was used, a significant amount of heat gain was detected inside the building (approximately 250 000 W-h). GKD has also proven in the same study that by using Lago metal fabric 2/3 distance of the effective height, will amount in almost no heat gains to be detected inside the building.

GKD is therefore an effective way to prevent solar heat gain and proves to be a fitting substitute to the initial approach of mentis grating.

Fig.107: Ecotect diagrams, analysing the solar heat gain of a base case and using PC Lago GKD mesh (Sustainability in Design. [Sd].)
Hot rolled galvanized steel PFC bolted to galvanized steel anchor bolts placed in in-situ RC floor at 2720 c/c.

Hot rolled galvanized steel parallel flange channel pre-welded to 2 x 100 x 65 x 8 hot rolled galvanized steel angles which are bolted to IPE 160 with 6 x M12 bolts.

8mm hot rolled galvanized steel flat bolted to PFC with 3 x M12 bolts.
180 x 70 hot rolled galvanized steel parallel flange channels are bolted to the 8mm thick flat steel at the bottom and the middle with 3 x M14 galvanized steel bolts.

3750 x 2720 GKD pre-crmped Lago anodized in colour EV1 aluminium mesh clamped to flat bars.

The flat bars are bolted to the 8mm steel galvanized flat steel by means of a clevis.
EASTERN SCREEN

Mesh
3600 x 2720 GKD Pre-crimped Lago anodized in colour ev1 aluminium mesh clamped to flat bars.

Fixing
Flat bar is fixed to the clevises with threaded rods at 450 c/c and tensioned between flat bar

Screen Structure
8mm hot rolled galvanised steel flat bolted to PFC with 3 x M12 bolts.

180 x 70 hot rolled galvanized steel parallel flange channel pre-welded to 2 x 100 x 65 x 8 hot rolled galvanized steel angles which are bolted to IPE 160 with 6 x M12 bolts.

Hot rolled galvanized steel IPE 160 are bolted to galvanized steel anchor bolts placed in in-situ rc floor at 2720 c/c

RS40 50 x 5.5 x 750 x 2720 Mentis grating to be placed on IPE 160 to prevent bird nesting, serving as walkway to clean windows.
Fig. 110: Timber Frame - Circulation detail design (Author, 2014).
7.7. Internal Timber Screen

The internal timber screen acts as the main threshold between circulation space and that of waiting areas within the courthouse. Continuing with the notion of kineasthetics, the timber frame was subjected to seamless vertical elements, spaced at 230 c/c to allow for enough perforation, and in turn required a railing according to SANS10400.

**Structural Connection**
Pre-manufactured welded 5mm thick galvanized steel connector plate bolted to RC slab with 4 x M14 galvanized steel rawl bolts at 230c/c.

**Composite Screen**
40 x 300 5-ply glulam carbonized strand woven butt-jointed bamboo vertical ballusters bolted by a Ø100 316 grade stainless steel shear plate with a M20 countersunk bolt [Allen Key Drive] and in turn bolted to connector plate at top and bottom with 6 x M12 countersunk bolts.

Ø4mm 316 grade stainless steel wire swage bolted to composite bamboo beams with 316 grade stainless steel swage stud.
Using the Natural stack of the Public route to extract warm air.

Cool and warm water sources are managed by a computer that defines the correct amount and flow of each source to be used in the cooling and heating of air.

Fresh cool air to be used in building.

Cool Humid air to be used in Basement.

Parabolic Solar Water Heater

Hot Water Tank

Primary Source of Ambient Air

Radiator Heat Exchange

Using the Natural stack of the Public route to extract warm air.

Secondary Source of Ambient Air

Secondary Source of Ambient Air

Roof Catchment of Water

Water Sprayed over Membrane

Cool Water Storage Tank

Fig. 112: Diagrammatic explanation of the Indirect cooling and heating implemented within the building (Author, 2014).
7.8. Ventilation - The Hybrid System

Successful ventilation is attained in the building through a hybrid system, adopting both a fully air-conditioned court [closed spaces within the building, which requires a controlled temperature and a sufficient air flow rate], while the rest of the building is mechanically ventilated through the indirect heating and cooling of ambient air.

INDIRECT COOLING

In order to cool the primary source ambient air used to ventilate the building, an indirect evaporative cooling method has been applied to provide the building with fresh air of the correct temperature, without changing the humidity. Water gathered through rain water collection, is sprayed over a copper radiator which is covered by a membrane inside the southern shaft of the building [which acts as a cooling tower]. A mixture of water and propylene glycol, which circulates through this radiator [closed system], is cooled by fanning ambient air through the water spray and wet membrane. The cool mixture of water and propylene glycol is stored in a tank and used on demand. The primary source of ambient air [air to be used in building] is fanned through a second heat exchange radiator, which are connected to the cold water storage tank, inside the ventilation ducts that removes the heat of the air [cooling down] right before it enters the public spaces within the building.

The warm and used air, is extracted through the main circulation space of the building by means of whirley birds, using the principle of stack ventilation.

INDIRECT HEATING

The heating of air is attained through the use of indirect heating. A mixture of water and propylene glycol [in a closed system] is heated through parabolic solar collectors placed on the roof of the building. After water has been heated, it is stored in hot water storage tanks, available to be used on demand. A similar process in the cooling of air applies to the heating of air. The primary source of air is fanned through the ventilation ducts, where a heat exchange element, connected to the hot water storage is used to heat the air before it enters the public space of the building.

REGULATION OF AIR

Both the heating and cooling of air is applied through the principle of that of heat transfer used in a radiator. It is possible to use both the heated and cool water to create air of specific temperatures on specific floors of the building. Even though the building has large western and eastern sides, the use of indirect heating and cooling of air is a much more appropriate method compared to that of the trombe wall. This is as a result of extensive use of mesh used to screen the building as required by the design intentions.
The Hybrid systems allows for the heating and cooling strategy to be combined, in order to create the desired temperature within the building as required per floor.

Fig.113: Hybrid heating and cooling strategy, in order to create desired temperature (Author, 2014).
COOLING STRATEGY: INDIRECT EVAPORATIVE COOLING

PHASE 1
1. Rainwater is collected and purified by means of a UV filter.
2. A secondary ambient source of air fanned into the evaporative cooling tower
3. Cleaned rainwater is lightly sprayed over a hydrophobic porous membrane which for a heat exchange between the water in the copper pipe and that of the water pipe is transferred pipe radiator
4. Cool water is stored below in a tank in the basement
5. Cool humid air is fed into the parking garage

PHASE 2
6. The cool water is fed into a second shaft where it acts as another heat exchange radiator as primary ambient air moves through these radiators.
7. Cool ambient air is fed into the lower parts of the waiting areas of the courts.
8. Heat is removed through the circulation zone, by means of the stack effect.
9. The stack effect is promoted through the use of whirley birds and mechanical extraction fans, which are subject to the airflow monitoring system inside the building.

MECHANIZED AIR-CONDITIONING
10. The courtrooms use fully adaptable air conditioning units to allow for a controlled court room environment. The location of the chiller plants are found below the court spaces, and fed through a vent shaft situated where the courts are situated closely to the ground.
11. The ventilation shafts are situated between the studs, and feed into the courts at multiple locations on ground floor.
12. At ceiling height, the stale air is extracted and fed into the circulation shaft by means of a duct.

HEATING STRATEGY
INDIRECT EVAPORATIVE COOLING

PHASE 1:
   a. Water in a closed water loop is heated by means of a parabolic solar heater on the roof of the building.
   b. This water is store in a hot water geyser until water for indirect heating is required.

PHASE 2
   c. Similar to evaporative cooling hot air water used within radiators are used to warm the primary source of ambient air in order to achieve a desirable internal condition.
   d. Hot air is fed through the same lower part of the waiting areas.
   e. Stale air is remover through the circulation zone, by means of the stack effect.
   f. The stack effect is promoted through the use of whirley birds and mechanical extraction fans, which are subject to the airflow monitoring system inside the building.
8. Mediating Sides
8.1. Conclusion

In the aim to prove that our architecture is constitutive of social processes, the design dissertation both investigated and addressed the current fence fetish found within Pretoria, concluding the following:

**FENCE**
The notion of a simple fence constructed within the public realm of Pretoria, should be seen as an unresolved design condition, as it only deals with the social demand of security. This in turn, negatively effects society, as marginalization and fear of the 'other' continues to increase. By changing the notion of a fence, into a series of thresholds, through the implementation of Hertzberger’s and Lefebvre’s grammar of social space, it is deemed possible to create public architecture that deals with both the need for security and accessibility. This allows for the creation of interpersonal and collective space; much needed within the city. Interpersonal and collective space contributes towards achieving social cohesion between people of different socio-economic backgrounds, as they are joined together by being given a sense of like-mindedness through the sharing of common interests.

**THE PROGRAMME**
Through the re-establishment of the Sexual Offences- and Children’s Court, overarching common interests are shared. By placing this programme within a fence building, it is possible to mediate between the dualities of privacy and accessibility in combination with globalized facadism through implementing this series of thresholds. The programmes positively contribute to fostering a like-mindedness in our current social condition, but also allows the architecture to reflect the same nature.

**BUILDING**
In order to create space, one has to define space. This often results in the exclusion of interpersonal and collective space within the city, especially evident through the use of fences. However by replacing the notion of fence with a series of thresholds, allows the ‘new fence’ to foster public interpersonal and collective space, both within and around the building. The design investigation illustrates that it is possible to foster collective spaces between buildings, as well as extending these spaces through and into the building. The ideal of extending the urban landscape into a building [with a public nature] as described by Hertzberger should only be discarded after critical evaluation, which prove the required security completely unattainable. The dissertation proves that this is rarely the case.

**SOCIAL SERVICE**
More than a mere programmatic response to the ‘new fence’ as a social service, accessibility and inclusion can be disclosed to the common city dweller through the combination of subtle and definite thresholds displayed within the design investigation. A fence rarely acts as a means of inclusion, but through the understanding of scale, proximity and materiality, design can be used as a tool to effectively guide people through the city, creating a sense of awareness and confrontation with both the ‘other’ and social conditions often avoided. Instead of continuing with object buildings and facadism, the use of thresholds and the legibility of proceedings in public buildings can positively affect our current social condition.
FINAL CONCLUSION

Architecture should not be a discipline, where being too principled may cost you your job. Architecture has the ability to be more than the mere reflection of our society, it should rather be seen as the reflection of the selfless ideologies and principles of our inclusive democratic society.

If our public architecture is based on the social inclusion prescribed in our constitution, the responsibility of architects need to extend past the perimeter of sites.

Design remains a tool of power, whether it be to control the political, economical or even social condition. The way the architect intentionally or even unintentionally designs the series of thresholds from its surrounds to its internal use, discloses accessibility to the public interface. By intentionally creating collective and interpersonal spaces around, through and into these buildings, within the vast range of scale, is a design parameter that cannot and should not be replaced by a ‘simple fence’.
THE ARCHITECT’S OATH

“I swear to fulfill, to the best of my ability and judgment, this covenant:

I will respect the hard-won gains of those architects in whose steps I walk, and gladly share such knowledge as is mine with those who are to follow.

I will apply, for the benefit of everyone, all measures that are required, avoiding the twin traps of over-designing and narrow-mindedness.

I will remember that there is art to architecture as well as science, and that warmth, sympathy, and understanding may outweigh the architect’s pen or the engineer’s scale.

I will not be ashamed to say “I know not,” nor will I fail to call in my colleagues when the skills of another are needed for a holistic solution.

I will remember that I do not design a single building. Every element of architecture is connected to the world as a whole. My responsibility includes these related problems, if I am to provide adequately for people’s needs.

I will remember to preserve and help regenerate the environment, both natural and built.

I will not waste materials, preferring to reuse what I can and recycle what I can’t. Above all, I will use quality materials and superior craftsmanship.

I will spread my knowledge whenever I can, for preventing problems is preferable to fixing failures.

I will not build to make a name for myself, but to make the world a better place to live in.

I will remember that I remain a member of society, with special obligations to all my fellow human beings, those sound of mind and body as well as the handicapped.

If I do not violate this oath, may I enjoy life and art, respected while I live and remembered with affection thereafter. May I always act so as to preserve the finest traditions of my calling and may I long experience the joy of improving the lives those who seek my help.”

Benjamin Dockter’s (2011) appropriation of the Hippocratic Oath (Lasagne, 1964)
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