A Collision in Space and Time

Urban Conservation and Regeneration in Johannesburg

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Johannesburg is by international standards, a young city. Yet in its brief existence, just under 120 years, it has exploded from a mining camp into a metropolis - the economic capital of both South and Sub Saharan Africa (Johannesburg Development Agency, www.jda.co.za).

The rapid, and in most cases, poorly planned development of the city has resulted in the destruction of many of the city’s heritage resources.

Today historical buildings and historical areas exist side by side with contemporary office and residential tower blocks - juxtaposing the city’s past and present in the constant struggle for new space for development and densification. Past and present exist simultaneously, if not always harmoniously - a collision in space and time.
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INTRODUCTION

The aim of this dissertation is to explore the history and diversity that contribute to place value and memory. The area I have chosen is rich in history. This history needs to be conserved and adapted sensitively, so as to fulfill the needs of a 21st century city, and fit into a contemporary urban fabric. What are the key elements to successful adaptive re-use of historical buildings and areas? What factors should be considered when working in a historical environment? How does one overlay different programs, for people from different backgrounds in a successful vibrant crucible?

The city of Johannesburg is an African city - a city of contradictions and juxtapositions. There are seemingly incompatible elements which give the city its unique character and authenticity; these are the elements which should be preserved in future developments and for future generations. A successful development in urban Johannesburg should combine different ideas, functions and contexts, without losing the authentic spirit of place; and address current realities, without erasing those of the past.

The challenge of this dissertation is to create a place of inclusion in the city - an unobtrusive yet memorable building. The program explores a residential and commercial building, which will enhance the urban environment and fit into its historical precinct, contributing to the sensitive regeneration of the surrounding area. The aim is to reinstate the scale and character of the historical street fabric, asserting rather than undermining the integrity of the existing heritage buildings.
**INTRODUCTION**

The inner city of Johannesburg - an area which in the recent past was inhabited only by those with no other choice of location - is in the process of rapid regeneration, as young upwardly mobile, educated, urbanites are re-claiming the city - it is important to provide a place in the city for this group of people. This will contribute to revitalising the inner city and will increase the municipal tax base - affording local government better means to provide for the less affluent city dweller who depends on the public domain for their existence.
By the late 1970’s the Johannesburg CBD began to decline with new development favouring suburban commercial and shopping centres (for example Rosebank, Cresta, Sandton, Randburg, etc) which developed as a result of the process of decentralization. White flight to the suburbs left many buildings in the city centre deserted. When the group areas act was officially repealed in 1986, areas which represented good value for money (like the CBD) were an obvious choice for people previously confined to the townships, who wanted to move closer to the city and their places of employment. The group areas act had resulted in an inequitable distribution of land. Conveniently situated land became unduly expensive and freedom of choice was greatly impeded. (de Vos 1986: 4)

The initial reaction to the changing face of the CBD was negative. More affluent people perceived the area as becoming more dangerous and feared the city centre would soon be overrun by the poor and homeless and begin to degrade. The remaining affluent businesses (With the exception of the financial institutions and AngloGold) began moving to the suburbs. Customers stopped coming to the boutique shops and restaurants and one by one they closed down.

The economist Mancur Olson noted that the decline of nations and regions is the result of an organizational and cultural hardening of the arteries, which he called “Institutional Sclerosis”. Places that grow up and prosper in one era, Olson argued, find it difficult and often impossible to adapt to new organizational and cultural patterns. Consequently, innovation and growth shift to new places. (Olson 1982. 36)

This observation easily describes the plight of the Johannesburg CBD at the time when the apartheid era began to unravel.

Decentralisation

By the late 1970’s the Johannesburg CBD began to decline with new development favouring suburban commercial and shopping centres (for example Rosebank, Cresta, Sandton, Randburg, etc) which developed as a result of the process of decentralization. White flight to the suburbs left many buildings in the city centre deserted. When the group areas act was officially repealed in 1986, areas which represented good value for money (like the CBD) were an obvious choice for people previously confined to the townships, who wanted to move closer to the city and their places of employment. The group areas act had resulted in an inequitable distribution of land. Conveniently situated land became unduly expensive and freedom of choice was greatly impeded. (de Vos 1986: 4)
Pre 1970s
Radial transport routes merged on the city centre. The Johannesburg CBD functioned as the financial and commercial centre of the greater metropolitan area.

1970s – 1990s
PRECONDITIONS:
• Car centred freeway system established.
• Establishment of Sandton in 1969.

PRIMARY EFFECTS:
This period saw the development of suburban shopping centres, office parks and an exodus of people from the CBD.

SECONDARY IMPACT:
• Crime and grime
• Unregulated mini-bus taxis and street trading
• Lack of public amenities
• High vacancy rates and slum lording
• Rapid capital flight

1990s – 2000s
SECONDARY IMPACT:
• Crime and grime
• Unregulated mini-bus taxis and street trading
• Lack of public amenities
• High vacancy rates and slum lording
• Rapid capital flight

DECENTRALISATION

Graeme Reid 2005
Opportunities in the CBD

Now in 2005, Nineteen years after the removal of the group areas act the tide finally seems to have turned. Today the unique cosmopolitan vibe of the CBD is viewed as a major draw card, rather than a hindrance for future development.

The inner city has been identified as an area in need of Government support, to counter decentralisation trends which have emptied the city of its commerce, industry, and revenue, over the past 30 years.

Since around 2003 enormous re-investment has occurred in the Johannesburg CBD. This has been boosted by South Africa’s winning bid for the soccer world cup in 2010, and by various re-investment initiatives driven by the Johannesburg Development Agency (JDA) and Blue IQ. The JDA’S vision is to develop Johannesburg into a world class African city by 2030. Various incentives have been provided, which make development in the inner city very attractive. One of the most notable Incentives being the Urban Development Zone (UDZ) which makes all new building and improvement to existing building stock in the CBD tax deductible to private and business investors.

According to Graeme Reid, chief executive officer of the JDA, building vacancies in the inner city are now the lowest in the whole of the Johannesburg region. Land values are beginning to pick up and executives working at the financial institutions (According to Clive Chipkin, author of Johannesburg Style, the banks were the only commercial businesses to remain in the CBD during its decline) and other institutions which have moved back to the CBD are again looking for residential properties close to their place of work. Up until very recently most of the residential stock in the CBD was concentrated around Bree and Jeppe Streets and had become severely degraded. Most units in this area range in price between R50 000 and R90 000.
While it is important to build on the capitol web of the city to sustain growth and realise opportunities for its large spectrum of inhabitants, it is also necessary to provide building stock for the full spectrum of urban society - from social housing to housing for the affluent. There is currently a demand for a mixed-use upper income residential component in the financial district of the city, close to the executive hub.

According to Katy Essa of the Urban Ocean development group (in a personal interview, April 2005), most upper income property clientele are young single professionals in the 25 – 40 age group. Most have other properties out of town and are looking for a compact luxurious pad in the city close to their places of work. Urban Ocean’s development at the historic Corner House in Commissioner Street is a good example of this type of development, with a 24 hour concierge, doorman, personal shoppers and a gymnasium.
It is important to create a residential component in the financial district of the city - mixed use development contributes to a more sustainable city, injecting life into a region that would otherwise die after working hours. Mixed use encourages a more sustainable, exciting, varied and secure environment.

In the Johannesburg CBD, the first areas to regenerate have been on the South Western side of the city, from Newtown to the financial district, and the new government precinct. (Kopanangong Precinct)

Although to a great extent the city (or at least the western part) has re-generated from a financial and commercial perspective. It still does not offer a relaxation, lifestyle, and interaction place for the new upper income urbanites. Most entertainment, interaction and social opportunities are still located in the northern suburbs.

Pictures: this page and opposite; Urban Ocean's benchmark apartment development is located in the Corner House on Rissik Street, in the heart of the inner city financial district. This historic building, designed by Leck and Emley in 1902 housed the corporate empire of mining magnate Barney Barnato, with billions of pounds worth of pure gold bars stored in its considerable number of bank-like vaults. The building is steeped in tradition, exemplary of heritage and saturated with echoes of old worldly grandeur. (www.cornerhouselofts.com). The refurbishment is by Stefan Antoni Associates.
CONTEXT STUDY

A place in the City

Historically, Johannesburg offered places of residence and entertainment for the affluent. The first generation of colonists in Johannesburg established the Rand Club - “South Africa’s mining magnates and millionaires have been meeting in the imposing Rand Club in downtown Johannesburg for more than a century. The neo-Baroque building is filled with paintings of such celebrated past members as British colonizer Cecil Rhodes and the ubiquitous portrait of Queen Elizabeth II. Built on the wealth of the largest goldfield in the world and the sweat of black labour.” (Time Europe Online www.time.com)

The Rand Club (in the heart of the city), frequented by old money bankers, investors and mining magnets, still embodies the elitist elegance of old Johannesburg. Alternatively there are the street vendors and generic chain restaurants, which serve the less affluent city residents. In her book, One City Colliding Worlds (2004, 58) Lindsay Bremner describes a visit to downtown Johannesburg:- “I came across one rowdy Brazilian Coffee Shop, one Internet Café and a single branch of the CNA, but for the rest, what remains is a succession of loan sharks, wholesale hawker outlets, public phone shops and fast food stores, announced by clumsy drawings of steaming chickens. They serve the cities poor.

There is a need for a pioneering project to create a space representative of the new multi-dimensional Johannesburg. This need is further highlighted by the question asked by the Financial Mail (July 22, 2005) Will there be enough coffee shops, restaurants, cinemas, supermarkets and leisure facilities in the CBD to satisfy the new residents, who could be paying R10 000/ month (and upwards) in rent? If not, investors (in high income residential developments) may have to align their rentals more closely to current inner city levels of R3 000 –R5 000/ month, which will greatly impede new investment in the city and almost certainly minimize chances of creating Johannesburg 2030. A World Class African City.
Urban Development Framework (greater CBD region)
The Johannesburg inner city has been identified as the regional employment and shopping node for Gauteng, South Africa and the countries of the Southern African subcontinent. The area is characterised by dense residential development, and medium to high rise buildings. Public space, historically something to avoid in Johannesburg - synonymous with loitering or insurrection, was frequently declared undesirable in the apartheid days, and erased. (Bremner, 2004: 20) This has resulted in a perceptible lack of parks and open public space - unfortunate in view of the high density residential nature of the area.

Demographics
The population fluctuates at around 220 thousand, but the exact amount is unknown. In many areas there has been a gradual shift, as higher income residents’ move out of the traditional residential areas which are shifting to a lower income residential population, creating a need for new upper income residential building stock in other areas of the city.
CONTEXT STUDY

Housing

There is a diverse mix of housing in the CBD, from severely degraded areas, to more desirable areas. Some buildings are totally neglected and are being squatted in. These buildings are the focus of the JDA’s *better buildings program*, for the upliftment of the inner city.

The Ansteys Building in Jeppe Street (formerly the Ansteys department store), is one of the better examples of the existing housing stock in Johannesburg. Ansteys was probably the most exclusive inner-city residential address in the 1930’s and 1940’s and home to prominent Mkhonto Wesiswe activist and playwright, Cecil Williams. Designed in 1935 by Emley and Williamson, Anstey’s was undisputedly one of the tallest buildings in Johannesburg until the Skyscraper boom of the 1970s. The building is massed in a very elegant art deco inspired ziggurat form. The horizontal ribbon windows are typical of the modern movement. Buildings like the Barbican (on the site developed in this dissertation) desperately tried to mimic American skyscrapers. At 20 stories Anstey’s had brought the true skyscraper to Johannesburg. While Anstey’s is still in relatively good condition, Jeppe Street in general has become a lower income residential area. As urban regeneration spreads east across the city, landmark buildings like Anstey’s are likely to reclaim their position as prime property.
General trends in the area

Deterioration and decline in central Johannesburg seems to be stabilising as the inner city’s new function in the greater metropolitan areas is becoming clear. Renewed private and public sector funding has resulted in drastically reduced crime levels, and a stabilisation of decline and physical decay. Slum lording and illegal squatting is also being addressed by the city. There has been an increased effort by Government to improve the social and recreational facilities of the region. (Johannesburg SDF 2004:50)

Vacant land is very limited and the few existing pockets are strategic in developing a focused approach to regeneration.

Implications

A stabilised CBD will increase employment opportunities and stimulate the local economy. (Johannesburg Spatial Development Framework, 2004:70) Increasing the capacity of the residential component of the city is important, giving people a place to live in close proximity to their work and contributing to a sustainable, vibrant 24-hour city. The residential market is expanding rapidly in the lower and higher income segments. Growth in the lower income segment is a reflection of overcrowding in the existing residential areas. Higher income growth is focused around developments in the more up-market Financial and Newtown districts, North West of the City.
Vision 2030

The current vision for Johannesburg is to develop the city to become a world class African city with service and delivery efficiency meeting world class best practice by 2030. The city’s economy will, it is hoped, operate on a global scale. Strong economic growth should result from the city’s policies which encourage competitive economic practices- driving up the cities tax revenues, private sector profit and individual disposable income. This will stimulate an increase in the standard of living and quality of life of the city’s inhabitants, which should increase in a sustainable manner.

(Johannesburg Spatial Development Framework, 2004. 58)
A new spatial and economic framework for the Johannesburg inner city was approved by the Mayoral committee in 1999, with the primary goal of promoting investment and ongoing maintenance in the region. (Johannesburg Spatial Development Framework, 2004. 60)

The main aims of the framework include:-

Reducing crime and grime

Marketing districts by their specific characteristics

Managing informal trade

Creating and maintaining open space

Promoting strategic linkages between the different regions by encouraging mixed use.

Further it is hoped that the new SDF will attract financial investment, by providing incentives for investment and reducing the perception of the city as an area of crime and grime through enforcing council by laws. (Johannesburg Spatial Development Framework 2004. 60)
Site Choice
Rather than a building which is simply historical but which no longer relates to present society - like a museum piece – this dissertation investigates a context where the past and present exist simultaneously: - a living contradiction - rather than a place where time stands still. However, the historical context has to be preserved or the sense of memory is erased and thus the opportunity for juxtaposition of past and present is destroyed.

The area I have chosen as my site is in region 8, in the centre of the Johannesburg CBD. The site is opposite the Gauteng Provincial Legislature (City Hall) and diagonally opposite is the Old Rissik Street Post Office, which is currently used as a film set for Hardcopy a weekly television programme. The J.D.A has identified the Post Office Building as a prime redevelopment project and is currently in negotiations with private investors regarding its future. (The building is protected in terms of the SAHRA, act 29 of 1999) The site is overlapped by the new Government or Legislative Precinct, the Financial Retail Districts of the city. The site is bounded by Pritchard Street to the North, President Street to the South, Loveday Street to the West and Rissik Street to the East.
The site currently a void in the centre of Johannesburg - is situated within a historical precinct, but its historical integrity has been diminished through mass demolition of the historical buildings on the site for parking space in the 1990s. The site has been separated from the city by a green iron fence. The Barbican Building, the only building left standing on the whole block, looks impossibly tall, and is completely disconnected from its urban context. Its street level porticoes have been demolished, and its ground floors have been bricked up. It stands in isolation, void of any surrounding historical urban context and scale, and almost impossible to understand as a document of its time.

The site is ideal for development. There is existing infrastructure and it is one of very few undeveloped areas within the Johannesburg CBD – identified in the Johannesburg SDF as areas of strategic importance in developing a focused approach to regeneration in the area. The site also falls within the area earmarked as the legislative and government precinct, but is not on government owned land, making it an ideal position for an upmarket flagship development. A private sector project on such a strategic site, literally at the heart of Johannesburg should serve to strengthen investor confidence in the CBD, and act as a primer for further investment in the region. The up-scale nature of the site - being at the junction of the legislative and financial districts of the city - makes it a prime location for a luxury development which should add to the up-market nature envisaged in the Johannesburg Spatial Development Framework, for the area - heightening the sense of place and history and re-asserting the CBD as the heart of the region.
The site is in region 8 - a pivotal location in the metropolitan area. A major economic generator and employment and service centre, with access to major public transport and significant infrastructure. The heart of Johannesburg...
University of Pretoria etd – McKechnie, B K (2005)
Historical Buildings in the Site Context

The Barbican Building - 1929
City Hall - 1909
The Rissik Street Post Office - 1895

University of Pretoria et al. – McKechnie, B K (2005)
The barbican has been cut off from the city. Standing isolated and abandoned in the landscape, preserved as nothing more than a monument. The history and memory of the site has been erased. The site has lost its relation to the city street grid - and pedestrian and vehicle movement along that grid.
Below - The North East retail edge of the site. The Edgars building, corner Pritchard and Rissik Streets.

Above - The South West Legislative edge of the site, with the main entrance to the Gauteng Provincial Legislature directly opposite the South Western corner of the site at President and Loveday Streets.
The Barbican, Post Office and City Hall buildings form three tower elements around the historic Government Square.
ARCHITECTURAL LANGUAGE OF THE SITE

Bank City Viewed From The North West Of The Site

The Rissik St Post Office

Gauteng Legislature Main Entrance - Directly Opposite The South West Corner Of The Site

The Classical Language Of The Rissik St Post Office

University of Pretoria etd – Mckechnie, B K (2005)
CONTEXT STUDY

Districts of strategic importance to the site
The need for the provision of extensive residential development for all income levels has been identified as a priority in the inner city region. The Government and financial precinct fall into region 8 of the city, which includes the whole of the inner city. As the business centre of the city, the vision for this area is that it should offer many top class services and facilities, in line with making Johannesburg a world class African city.

Financial District
Key institutions in this area include: - banking institutions - Bank City, Standard Bank of South Africa, national head offices, SA Eagle, mining house head offices – AngloGold Ashanti and provincial government head offices. The region consists of mixed land uses, chiefly comprising retail and commercial.

Key factors which the Johannesburg SDF identifies for the rejuvenation of this area are the rejuvenation and revitalisation of the areas historic buildings with appropriate new uses. Focus areas include the area around the Rissik Street Post Office and City Hall. (Now the Gauteng Provincial Legislature)

The environment is developing into a secure, clean well managed area, conducive to investment. City Improvement Districts have been implemented and are helping to enforce informal trade bylaws and crime issues which were previously a major problem in the area. Informal trade is now prohibited outside of the Diagonal Street and Kerk Street markets.
The Government Precinct (Kopanong)

This is the area around Beyers Naude Square and City Hall, identified as the new region to be developed as the Gauteng Provincial Legislature and Cultural Heritage Precinct. This precinct includes the Existing Johannesburg City Hall, and the areas around Beyers Naude Square (the old Library Gardens). It is bounded on the North by Pritchard St, on the South by Fox St, on the West by Sauer St and on the East by Rissik St. The precinct is identified as a cultural and heritage area. The Kopanong project is currently under way, and the Gauteng legislature plans to have fully transformed the precinct by 2009. R280 million has already been spent in the area - a good sign of Government's commitment to the project. Kopanong will house ten new government buildings, three new commercial developments and 150 thousand square meters of new construction. New open spaces are planned in the area between Commissioner St, Market St, President St and Sauer St through the demolition of existing buildings of low historical and cultural value. Other areas within the precinct are also planned for pedestrianisation. (Johannesburg Spatial Development Framework, 2004)
**CONTEXT STUDY**

**Climate**

**Johannesburg**

**Position:** 26° 08' S     28° 14' E  
**Height:** 1694m

This climatological information is the normal values and, according to World Meteorological Organization (WMO) prescripts, based on monthly averages for the 30-year period 1961 – 1990.

Precipitation averages range between 600 and 800mm per annum.

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View of the Rissik Street Post office looking North in the 1880s (Chipkin 1993: 21)
Historical Context

The area around Market Square is probably the oldest part of Johannesburg. The tract between present-day Bree and Pritchard Streets was the first public gold field, proclaimed on the 4th October 1886, on the farm Randjeslaagte. The ZAR government had little faith in the permanence of the goldfields and thus the future of the new mining village. They appointed (their surveyor Johann Rissik) to cram as many stands as possible into the area, with as many street corners as possible —as the corners would fetch higher license income, which was further boosted by the multiplicity of plots. This naturally contributed to the latter-day high-rise development of the city. (Van de Waal, 1986.15)
CONTEXT STUDY

In the mine diggings, early trenches were soon abandoned in favour of shallow inclined shafts which followed the reef; however the reef soon gave way to rotten pyretic ores which refused to yield any gold. In 1889 the gold recovery rate dropped so sharply that the city of Johannesburg panicked. Many mines became unpayable, and mining shares dropped almost overnight. “Grass will grow on the streets of Johannesburg” declared the young mining executive, Percy Fitzpatrick. (Van de Waal, 1986.23)

History proved him wrong. By 1893, The Goldfields Company of South Africa sent hopes soaring with the announcement that shafts could be sunk to a vertical depth of 5 000 feet. Johannesburg was saved - its future secured. Pulling out of the slump, its buildings began to reflect solid prosperity. (Van de Waal, 1986.24)

The two predominant architectural styles of the time were: the Victorian Style, favoured by the uitlander miners - for private buildings; and the Dutch style favoured by the ZAR public works department - for government buildings. The old Rissik Street Post Office is probably the only remaining example of ZAR architecture in Johannesburg.

Pictures on this page: The Old Rissik Street post office, as it is today. This structure on the periphery of the site is the only remaining example of ZAR architecture in the Johannesburg C.B.D. The building, (constructed in period Dutch red brick with sandstone detailing on the cornices and window surrounds) was designed in 1895 by Styze Weirde, Head of the Public Works Department of the ZAR. When it was completed in 1897 the Post Office was the tallest building in Johannesburg, a very coveted title. A fourth floor was added to the building in 1904. The building has been “mothballed” for the last ten years; the clock tower has been wrapped in protective sheeting to delay further degradation of its wooden structure.
Relations between the ZAR government and the *uitlander* British miners were fragile at best. The miners resented paying taxes from the lucrative goldfields to a government, which would not allow them the franchise and did not, they felt, represent their best interests. In a letter from Lord Alfred Milner, British High Commissioner in South Africa, to the Colonial Secretary, Joseph Chamberlain, Milner writes, “There is no way out of the political troubles of South Africa except for reform in the Transvaal, or war, and the chances of reform seem slight…” (Muller, 1969, 286) By October 1899 matters had further degenerated and war was declared.

By May 1900 the war was over and Johannesburg was under British control. Once again the town began to flourish. The British colonial architectural style was then adopted for private and public buildings - a status quo that would last until the end of the 1920s. Johannesburg architecture at the time was an attempt to replicate the Edwardian style of the city of London, the financial heart of the Empire. (Chipkin, 1993, 320)

Pictures on this page: The Johannesburg City Hall. This building, with its imposing colonnades and sandstone exterior, is typical of British Colonial architecture. It was designed in 1909 by the Cape Town firm, Hawke and McKinlay. This style was so homogenous that the book, Johannesburg 100 years, (VanRensburg, 1986, 286) incorrectly attributes its design to the British architect Sir Edwin Lutyens. A further two storeys were added to the building in 1903. The central tower of the original building was dismantled and reconstructed above the additions.
By the mid 1920s the architectural style of Johannesburg began moving away from the style of the English post-Edwardian period. The city needed a new style to adopt as its own. By 1920 the dollar’s financial strength was underpinning the fragile post-war economies of Europe, and the world was in awe of the scale of US production - modernisation became synonymous with Americanisation. Johannesburg looked to images of New York and Chicago’s towering modern skyscrapers - masterpieces of materialism (Koolhaas, 1990. 81). ‘Manhattan’ was the talisman for up-to-datedness: there was Manhattans of Eloff St, Manhattan Court, Manhattan confectionary... (Chipkin, 1993. 84) Johannesburg glided into the ‘Golden Age’ like a lithe, elegant ocean liner. Architects designed buildings with graceful spires searching the skies in an effort to proclaim their superiority, and grasp for a fleeting moment the coveted title, ‘tallest building in Johannesburg’. The scale of the late 1930s was unrivalled in Johannesburg - until the building boom of the 1970’s, with the arrival of contemporary skyscrapers like the 50 storey Carlton Towers.

Pictures opposite page: A building which very clearly points to Johannesburg’s aspirations as ‘Little New York’ is The Barbican Building, on the South Eastern Corner of the site. Designed in 1929 by the firm Obel and Obel, The Barbican was ten stories high, and trying desperately hard to appear higher: an extraordinary pile-up of building elements culminated on the corner tower with a surrealist imposition of disembodied classical details used to stake the buildings claim in the growing competition for height and dominance (Chipkin, 1993. 85) The top storey had a glass roof and was occupied by a photographic studio which commanded a spectacular view of Johannesburg. The Barbican building is currently empty. It is owned by the Old Mutual Property Group who have been reluctant to part with it despite interest from various private developers.
Baseline Criteria for Intervention in a Historical Precinct

Although the Barbican Building has not received national or provincial heritage status, it is none the less an architecturally unique building - a good document of the history of the built environment in Johannesburg - and should be conserved. Intervention on the site of the Barbican follows the concept of making intellectual ruins intelligible. The policy of preservation of these ruins relies on the intellectual capacity of the visitor to comprehend the significance and history of the site. The site is made intelligible through doing the minimum.

The street elevations of the building are the only articulated facades, and should be preserved in their integrity. Any further development on the site should re-instate the historical scale of the area, but should not ‘pretend’ to recreate the historical architecture (of the city). Rather the new buildings should be easily readable as insertions in the site; so as not to compete with the heritage building, but rather to reinforce its uniqueness and authenticity.

The presentation of existing fragments would be done with the help of modern structures, without pretending real reconstruction. Additions on the site should be unobtrusive - so as not to undermine the importance of the existing historical buildings, especially the City Hall and Rissik Street Post Office.
Urban conservation design baselines -

Urban design is an act concerned with the creation of activity spaces for people in the public realm. The urban designer should orchestrate development to the satisfaction of the investor and to the advantage of the urban environment in the city. Urban conservation is very important. The context and urban philosophy of the site, the characteristics of the urban environment and the existing architectural language should be carefully considered and understood. (Segal 1991, 77)

Activity - adaptability to suitable contemporary use is very important to ensure the sustainable conservation of a historical building. Appropriate new uses should be identified to rejuvenate the building throughadaptive re-use. The Barbican Building on the site is deteriorating due to neglect. Although adaptations will have to be made to the building in order for it to fulfil a function in the contemporary city this is the best way to ensure its preservation and conservation for present and future generations.
Accessibility – it is important to reinstate the correct historical scale of the area to link the conservation site into the contemporary city. Hierarchical movement systems should be considered as they prevent vehicle / pedestrian conflict. Pedestrian oriented streets should be designed; providing special pedestrian routes; encouraging a variety of activities culminating in the conservation site. It is important to consider pedestrian movement on the site. Both President and Pritchard Streets are major pedestrian routes.

Scale – This is an important consideration to take into account when designing in a conservation area. Different historical periods have different scales of development. In order to integrate the conservation site with surrounding development any new structures inserted into the site should be designed to acknowledge and reconcile the scale and form of the traditional and contemporary contexts. Alternatively new developments could be designed to contrast with the conservation site, emphasizing its unique historical value by forming a backdrop to, or framing the historical building. Any insertions on the Barbican site must be mindful of the historical scale of the area so as not to overpower the important historical City Hall and Rissik Street Post Office Buildings. Attention should also be given to scale and proportion of existing open spaces and squares - How they are defined - The relationship between the built form and open space and how it relates to the human scale. Reinstating a built edge along President Street will define the edge of Government Square - framing and containing this important space.

Legibility – The conservation site should become a recognisable element in the urban design framework. The site should be easy to read and understand. Development on the Barbican site aims to integrate this historical building back into the city fabric.
Landscape – Planting can reinforce conservation design in a natural way. Structured planting can create colonnades and canopies and define spaces and edges. Planting can give clues to the history of the area, and can also be used to reconcile scale. Hardy low maintenance planting is essential for a successful urban landscape. Landscaping is suggested for the plaza in front of the Old mutual Building. This will reduce the effective mass of the building and bring it closer to the scale and form of the historical precinct.

Visual aspects – The visual aspect of a conservation area is very important, particularly in landmark areas. It is necessary to consider views of enclosures, focal points, specific vistas and the skyline. Consideration should also be taken as to where the building can be viewed from and these views should be preserved.
**BASELINE STUDY**

**Sensory perceptions** – These perceptions are an important part of the physical experience of the site. Conservation sites provide opportunities to exploit the senses. Historical architectural detail stimulates tactile sensations. Older areas have specific smells, tastes and sounds. The art of conservation is to re-capture the flavour of the historical environment. The traces of time and patina are important to the authenticity of the building. The Barbican should not be over-restored or its historical integrity and flavour will be lost.

**Identity** – This is what gives the site its unique and authentic character. Respecting the spirit of place, which has developed authentically over time, should be a primary consideration for any development in a conservation area. The intercultural, interclass diversity that makes Johannesburg such a vibrant city should be protected. The building should be tied to the fabric of the city, a part of the life of the city - not a disconnected unrelated monument. Development in historical contexts is particularly interesting in that it creates a collision of the old and new. Attempts should be made to accommodate and reconcile the conflicts which arise as a result, and to learn from the past and use it as an informer for contemporary development.

Unchecked development in conservation areas results in buildings that are over-scaled, unrelated to their context, and built of unsuitable materials. *Carefully considered development is mindful of height controls and traditional outlines of the town map.* (Fox 1998, 104) It has been argued that contemporary buildings in historical contexts should mimic material and design aspects of the historical buildings in the context. This however often results in dull and mediocre architecture. Similar grain or scale of development should be maintained, while avoiding the urge to mimic or recreate the historical architecture. A fresh response to the unique experiences and spirit of the site should be explored.
Key points identified in the 2004 Johannesburg Spatial development framework, to stimulate regeneration in region 8, the Johannesburg CBD are:-

**Conservation:** Natural and human resources should be managed in such a way as to ensure that they are used in a sustainable manner. Conservation includes protection, maintenance and rehabilitation of existing resources. Adaptive reuse of the Barbican will ensure its conservation and preservation. Adapting the Barbican Building to a new use will ensure its conservation.

**Infill:** The development of undeveloped or underdeveloped land within a developed urban context, where support infrastructures are already available. The area around the Barbican - an rare empty stand in the city -is ideal for development and densification.

**Sustainable Development:** Development that meets present needs, while not compromising the ability of future generations to meet their own needs. A dialogue needs to be created between the existing historical buildings and the new building to be in-filled on the site. A way to respect the existing fabric is by designing additions in modern forms and materials. New significance can be imbued into the historical structure through inserting new uses. Preservation should scratch below the surface of mere aesthetics, and further explore the context of historical habitats. The historical scale should be explored, taking into account such varied aspects as: the width of streets, the height of buildings, material textures, and the clearly defined and identifiable language of the architecture.

(Frescura, 1991. 21)
**BRIEF**

**Users**

The development will attract a sophisticated group of users, whose needs are currently not catered for in the CBD.

- **MECs** and members of local government from the legislature
- **Financiers** and **Bankers** from the financial institutions in the area
- **Tourists** visiting the new African cultural centre at **Beyers Naude** Square
- **Executives** who work in town, needing a venue for lunch meetings and networking
- The new wave of **trendy city dwellers** who are investing in up-market residences in the city
- People visiting the various government agencies in the Government Precinct.
- **Television celebrities** from the film set of *Hard Copy* situated in the Old Post Office building
- **Magistrates** and **Attorneys** who practice at the Supreme Court and Magistrates courts
- **Mining Magnets** from AngloGold
- **Heads of government** visiting the ANC headquarters at Lthuli House in the Government Precinct – Due to its strategic location the Kopanong Club will rival the Michelangelo in Sandton as **Winnie Madikizela Mandela** and **Tokyo Sexwale**’s favoured spots to see and be seen.

The project will also create employment opportunities for unemployed residents of the city - Stimulating the local economy and increasing the quality of life for the cities’ inhabitants in a sustainable manner.
Project Description

The vision for the site is to create a flagship development that will highlight the urban renewal taking place in the city, and act as a primer for further development and investment in the CBD. The program should cater to a social space for the new urbanites re-claiming the city, where people of different backgrounds can interact, socialize and experience one another - celebrating life. A residential component should also be included, to cater to a 24hour vibe. The development should have strong ties to the city, celebrating its place in the unique vibrant urban environment that is Johannesburg. Further, the remaining historical building on the site should be retained and conserved and linked into the development, adding to the strong sense of place and history of the precinct; and in line with the Johannesburg spatial development framework’s vision for conserving the history of the built environment.
BRIEF

Design Problem

The envisaged club / residential program will contribute the 24 hour concept essential for a sustainable city. This is critical to the success and sustainability of the precinct and has been identified as a priority by the JDA.

The proposed Kopanong Precinct Club provides an essential social place, (entirely lacking in the area) for the new multicultural generation of urban dwellers, re-colonizing the city. The traditional Johannesburg elite were a culturally homogenous and exclusive demographic – white, male, Christian and English. The new elite is drawn from a far more diverse cultural and social demographic – the only proviso – the possession of capital to sustain a lifestyle of opulence and luxury. Johannesburg is after all a primarily capitalist city – built by opportunists wishing to cash in on the wealth provided by its rich goldfields.

The site is in a rapidly re-generating area, which has been earmarked as a mayoral priority to receive massive funding for its transformation. Historically the area is also particularly interesting, being on the periphery of the old market square, and subsequently the oldest area of development in Johannesburg. The site contains examples of three very prominent phases in architecture (reflections of the different cultural phases in the city’s early development). The Barbican Building, which is to be incorporated in the new development, although not a national monument, is a historically important building. It was Johannesburg’s first ‘sky scraper’ and is an excellent example of the American inspired architecture of the late 1920’s and 1930’s. The historical element of the site is very important to the proposed development. Incorporating a historical aspect into the new project is symbolic of building on the old Johannesburg and weaving it into the contemporary city. We need to learn from the past and incorporate heritage to create a richer, more authentic built environment.
The project is a shared venture between the Johannesburg Development Agency, and Urban Ocean Property Developers. The JDA is a world class, area-based, development agency for the City of Johannesburg, constantly striving towards developing best practice in its developments and operations. The JDA stimulates and supports area-based economic development initiatives throughout the Johannesburg metropolitan area, in support of the Jo’burg 2030 vision - positioning Johannesburg as a world class African city. As development manager of these initiatives, the JDA coordinates and manages capital investment and other programmes involving both public and private sector stakeholders. Urban Ocean is a specialist property developer focused on the re-development of the inner city. They are at the forefront of the up-market residential revival in the inner city, with pioneering developments like the Corner House Lofts and the Franklin residential hotel. Old Mutual will be involved in the financial backing as they own the site, and are interested in re-development which will include preservation of the Barbican Building.
DISCOURSE

Who are the people moving back into the city?

Richard Florida; Professor of economics at Carnegie Melon University in the USA, and author of The Rise of the Creative Class identifies a new segment of society The Creative Class. This group of people is a fast growing, highly educated and well paid segment of the workforce. A typical member of the creative class engages in work which creates new forms. This class includes scientists, engineers, professors, poets, artists, designers, architects…..These people use creative problem solving, drawing on their professional knowledge to solve specific problems. Members of the creative class typically have a high degree of formal education, representing a high level of human capital. These people add creative value, a commodity which is increasingly valued. As creativity becomes more valued, the creative class grows.

According to Katy Essa, of Urban Ocean, a property company at the forefront of urban renewal and reinvestment in the CBD, most of the people moving back into the city fit the creative class profile.

The creative class accounts for 30% of the entire US workforce, up from 10% at the turn of the 20th century, and less than 20% as recently as 1980. (Washington monthly. www.creativeclass.org). Average salaries of members of the creative class are almost double that of working class Americans.
What attracts members of the creative class?

Plug and play environments

Florida, and other economists realize the importance of industries having “low entry barriers” so that new firms can easily enter bringing new vitality into the industry. This works just as well for cities. It is important to have low entry levels for people, ensuring that they can be accepted quickly into the social and economic arrangements of an area. Florida proposes a sort of “plug and play” community, where anyone can fit in quickly. In this type of community, people build a support structure without getting stuck into any one identity. They can put together a life or at least a facsimile thereof within a relatively short time. (Florida, 2004. 20) According to Graeme Reid former CEO of the JDA (Urban Regeneration Seminar 12th April 2005), the present average occupancy for a tenant in the city is eighteen months. The Johannesburg inner city is an environment in constant change, which in turn results in low entry barriers.

Inclusive environments

Many talented people seek environments open to diversity. Creative people often feel marginalized in conventional environments, preferring environments which are open to diversity. They enjoy a mix of influences - different kinds of music, people from diverse cultures, different kinds of food, and places where they can meet and socialize with people different from themselves. Favoured environments offer a wide mix of options, from music venues, art galleries, performance spaces to theatre and a vibrant and varied nightlife (Florida, 2004. 35). A city like Johannesburg on the brink of regeneration and teeming with diversity personifies this type of environment.
Johannesburg is an extremely diverse city. There is no one Johannesburg, rather it is the coincidence in space and time of many societies – a stage, on which many different plays are running simultaneously. Modern metropolises are born from the combination of material power and cultural creativity. By definition, a modern metropolis is a cosmopolitan entity, characterised by hospitality to foreigners and openness to the world in general. A crucible of diversity, ethnic, racial and religious.

(Bremner, 2004, 40)

Unique and authentic environments

The creative class craves real experiences, in the real world. Uniqueness and authenticity are highly valued. These people want to experience real life in a real city. This is a move away from previous attempts to recreate pseudo environments, cities in the suburbs - like Monte Casino or Melrose Arch. Authenticity comes from various aspects of an environment: historic buildings, established neighbourhoods, local culture. It is present in the urban mix in Johannesburg, the juxtaposition of street vendors and international institutions; urban grit alongside renovated buildings; bankers and yuppies walking next to mielie sellers on the street. An authentic place offers unique and authentic experiences. A place full of chain stores and chain restaurants with no relation to the genius loci is not authentic. The CBD is an authentic multi-cultural and historical area, and provides a backdrop for interaction between people from very diverse segments of society.

The current multi-cultural aspect of the CBD makes it the ideal type of environment to attract young, affluent, creative class residents. It is a diverse and inclusive environment. If the heritage aspect of an area is respected, then it will retain its spirit as a unique, authentic, inclusive environment.
The Role of Historical Conservation

An important aspect which should be considered in development in an older urban centre is historical conservation, which will ensure the environment retains its uniqueness and genius loci, and that it will remain an authentic and diverse environment.

The introductory note of the South African Heritage Resources Agency highlights the importance of our heritage as a means to promoting diversity and authenticity:

“Our heritage celebrates our achievements and contributes to redressing past inequities. It educates, it deepens our understanding of society and encourages us to empathise with the experience of others. It facilitates healing and material and symbolic restitution and it promotes new and previously neglected research into our rich … traditions and customs.”

(www.sahra.org.za/intro.htm)

The role of Historical preservation or conservation is to secure the safe transmission of heritage places or sites to future generations. The physical existence of heritage places is important in the sequence of generations. (International Council of Monuments and Sites 2000. 21)

International Council of Monuments and Sites (ICOMOS) the advisory body to UNESCO concentrates on issues pertaining to the preservation of world heritage. In 2000 they prepared a report entitled Heritage at Risk. The report identifies heritage as carrying a message from the past to future generations. Heritage serves as a “living witness” to age old traditions. People are becoming more aware of ancient monuments as common heritage, and the common responsibility to safeguard our heritage for future generations. “It is our duty to hand (our heritage) on in its full richness and authenticity” (ICOMOS 2000.9) Heritage conservation also has significant economic benefits, acting as a primer for heritage tourism and sustainable development.
Problems Threatening Heritage

With social and economic change, heritage buildings that are no longer in use become endangered, prone to deterioration or destruction through neglect (International Council of Monuments and Sites 2000, 11). This is why it is important to give a monument a socially useful purpose in order to conserve it (Venice Charter 2001, article 5). Typical problems regarding heritage conservation in a rapidly developing and re-developing city like Johannesburg are-

Maintenance deficiency – demolition by neglect
This problem is clearly evident in the Johannesburg CBD. Many buildings have been ‘mothballed’ (the buildings are bricked up and left standing empty) as large property owners have chosen to hold on to their stock of city buildings with the hope of realising high property prices once the city regenerates. The reality is that ‘mothballing’ impedes regeneration – it kills the city vibe, and creates an image of the city as a graveyard, full of ‘dead’ abandoned buildings. The deserted buildings are not maintained and neglect sets in.

Economic and social changes, changing land use, gentrification, densification, changing transport infrastructure – increased need for parking. The Barbican Building on the site was cut off from the city when the buildings around it were demolished for parking.

Lack of enforcement of heritage legislation.

Lack of identification of heritage buildings.

Lack of conservation standards.

The use of conservation buildings being perceived as exclusive, rather than inclusive.

Lack of incentives for the maintenance of heritage buildings.
The JDA has now introduced incentives in the form of the better buildings program and the urban development zone.

Lack of training and knowledge regarding conservation issues.

Insufficient conservation standards, facadism and the obsoletion of heritage by new constructions. Up until recently there was little legislation to protect heritage buildings which had not been declared national monuments. The South African Heritage Resources agency is currently working on legislation to ratify this
The world heritage convention suggests that these problems can be overcome by-

**Monitoring and improving the state of conservation.**

**Offering incentives to stimulate and support private parties.** – An example of such an incentive is the current Urban Development Zone tax rebate offered to investors in the Johannesburg CBD.

**Increasing the capacity of conservation institutions to ensure their effective presence.**

**Promoting conservation as part of sound development practice.**

**Improving listing, monitoring and maintenance of heritage.**
(International council of monuments and sites 2000. 25)

Unchallenged and uncontrolled development leads to irreversible damage and loss to heritage. Conservation in urban areas can be difficult. High demand on land has resulted in demolition of entire historic neighbourhoods. Often the more contemporary heritage (20c) which expresses major developments in architecture and society suffers from a lack of recognition and preservation compared to ‘older’, more traditional heritage. (International council of monuments and sites 2000.22)

Many developers justify facadism, citing economic benefits as outweighing architectural, cultural and historical integrity. However facadism is exactly what its title suggests, putting on a faux front. This practice leads to total elimination of genuine, authentic historical fabric. Often when a façade is retained and a new building created within that façade, it is difficult to relate the program of the new building to the existing façade component.
THE DANGER OF MONUMENTALISATION

A further concern in heritage conservation is the tendency toward monumentalisation. A specific building or place is given the status of a monument, without consideration being given to its greater setting. Protection of areas around historical sites should ideally become standard practice. (International council of monuments and sites 2000. 23)

The South African Heritage Resources agency has realised that the declaration of buildings or places as ‘monuments’ is dangerous as the public tends to value only the declared monuments and disregard other heritage areas, simply because they have not been awarded monument status. This has resulted in a great deal of disregard for and destruction of our heritage resources in the past. Merely proclaiming single buildings as monuments is a mistake, it can lead to the perception that other buildings and contexts are less important, leaving them vulnerable to neglect, inappropriate alteration or total demolition. Monumentalisation is ineffective in that it concentrates on a single building whilst ignoring the larger historical context. One should not set out to create monuments, as this stifles development. Rather conservation and adoption of historical buildings should be encouraged in order to create and maintain a richer urban fabric, thus stimulating growth and conserving more authentic environments.

Jane Jacobs, the author of ‘The Life and Death of Great American Cities’, suggests a shift from concentrating on single buildings, to looking at urban issues. Rather than identifying single buildings as monuments, consider groups of buildings which establish a context. It is easy to refer to “historical context”, however this concept is difficult to identify in practice. The historical context is not easily defined and there is no scientific way of determining what exactly the context of a building is. History itself is a variable in context, as are period, place and cultural background. Countries, like South Africa, in the process of political and social metamorphosis are susceptible to significant changes in what is perceived as their history, and consequently what objects and places have historical worth and value. (Fox 1998. 103) Cities are living organisms, susceptible to change, prone to deterioration and obsolescence, and are preserved at a cost. (Fox 1998. 103)
William Kentridge’s work, entitled *Unveiling the Monument* (2004), visually describes all that is wrong with creating monuments. Monumentalisation concentrates all of the publics’ attention on a specific building or object, rather than encouraging the consideration of the artefact as a product of a social and physical context. The monument becomes disconnected from its surroundings and as a result is misinterpreted by the general public.

Buildings cannot be justified as isolated set-pieces. In one way or another they form part of a greater whole, and the spaces around them, whether landscape or cityscape, are just as important as the buildings themselves. The whole is greater than the sum of its parts. (Puttic 1998, 71) Failure to consider buildings as part of a whole (the city) has resulted in the currently dysfunctional, disintegrated urban fabric of many modern cities.
DISCOURSE

The Danger of Monumentalisation: Villa Arcadia, Parktown, Johannesburg.

An example of a building which has received monument status while its historical context has been ignored is Villa Arcadia. This home was built in 1909 by Herbert Baker for the prominent Johannesburg mining magnate, Sir Lionel Phillips and his socialite wife, Lady Florence Phillips. The house has considerable architectural value, and is held by many to be the most interesting of Baker’s Parktown houses. (Radford, Parktown and Westcliff heritage series) The garden also designed by Baker was acknowledged to be one of the finest in Johannesburg. Dorothea Fairbridge, in Gardens of South Africa, describes the view from the terrace - seen through its columns the blue line of the Magaliesberg Mountains shut out the distant veld and below me, falling sharply away from the stoep and melting into the blue green eucalyptus of the Sachsenwald (now the suburb of Saxonwold) stretched a garden of exquisite charm. Terrace after terrace lay below us, with flights of steps paved with the accommodating Transvaal Sandstone. Tall cypresses marked the line of the terrace, but in the Italian fashion and flanked by Italian oil jars in which fuchsias rioted and gleamed in rich purples and reds and pinks... At the end of the long grass walk was an alcove formed by clipped cypresses, in which a group of leaden figures took one back to the gardens of England...

(Dorothea Fairbridge, Gardens of South Africa, 1924, pp31-33)

The house was sold to the Transvaal Jewish Orphanage in 1927 and the Philipses retired to their Cape Town estate Vergelegen. By the late 1990s the house had fallen into a severe state of disrepair. In 2003 the property was acquired by Hollard Insurance to house their new head office. A comprehensive heritage assessment was compiled by Osmond Lange architects regarding the house (which has subsequently been restored). But the gardens were ignored, bulldozed, and are now the site of numerous office buildings.

Pictures this page and opposite: Villa Arcadia and its gardens in 1997.
The Value of Heritage
Heritage should be realised as an indicator of sustainable development. Proper use of heritage places should be encouraged over the creation of new constructions. Land use plans which recognise and protect heritage places and their surroundings should be created. Legislation should be formulated to protect heritage spaces and their surroundings.

Historic buildings have an important role to play in the social dialogue of a city – they carry a 'memory' of the rational and imaginary thought of those who came before us (Jokhileto, 2002. 140)

Intangible Aspects of Heritage
The loss of spirit associated with patina, is something that (is difficult to express) (ICOMOS 2000. 21). It is hard to put a quantitative value on the associated traces of history; the marks of the craftsman’s tools or evidence of weathering over time. In fact, conservation practice can also pose a threat to these elements, focusing on material, design dimensions and over cleansing and upgrading of the site. The marks left by time give an authentic character to an object and once removed they can not be replaced. Once restored – however carefully, a monument partly loses its authenticity. Buildings should be preserved in their integrity, as a testament to their history and origin.

Effective intervention in a historical setting, like the Barbican site should not attempt to reconcile the gaps between different parts, or between the new and the old, but rather to exist as separate parts of a whole - the new and the old re-enforcing each others identities through their juxtaposition. Historical buildings like the Barbican should be rehabilitated and converted to facilitate preservation through new uses.
Historical conservation thinking seems to have started around the 16th century. This period was known as the age of enlightenment. The intellectual movement of thought was concerned with the interrelation of concepts of God, reason, nature and man. Until the 17th century, the Platonic concept of nemesis had been the basic interpretation of visible and invisible things and their relationships - for every action, there is a reaction. Gradually a shift occurred towards the search for the identities and differences in the universe – the search for scientific proof. Mathematics and order were the fundamental reference points in this new exploration and search for knowledge, embodied in the writings of the philosopher Rene Descartes. These concepts were synthesized in Emanuel Kant’s epoch making “critique of pure reason” which formed a fundamental reference for modern philosophy. (JP de la Porte philosophy lecture April 2005)

This shift in philosophy also affected the accepted view of history and historical consciousness. The belief in absolute divine values was contested; history came to be interpreted as a collective social experience. Cultures of different ages and regions were recognised as having their own style and guiding spirit.
When dealing with a historical building like the Barbican it is important to consider how it should be preserved.

**Restoration** - concerned with faithful ‘restoration’ and if necessary, reconstruction of earlier architectural forms. This approach would advocate complete restoration of the Barbican to its original state, and the rebuilding of the historical buildings on the site, mimicking the past.

**Anti-restorationism** - concerned with the concept of historic time, realising that each object or construction belongs to its specific historic and cultural context which it would not be possible to recreate with the same significance in another period. This movement gave birth to the more contemporary viewpoint that the better approach would be the protection and conservation of the genuine material of the original object. This approach would recommend the preservation of the Barbican in its integrity, without erasing the way that history has marked and changed it.

In his book, *Principles of Church Restoration*, (1846) Eduard Augustus Trueman distinguishes three different approaches to restoration, namely; destructive, conservative, and eclectic. (Jokilehto 2002. 159)

**Destructive** – this practice was typical of the efforts of earlier centuries, when past forms or styles were not taken into consideration in new additions and alterations.

**Conservative** – the objective was to re-produce the exact details of every piece of ancient work at the time of the repair, creating a virtual facsimile.

**Eclectic** – this outlook is midway between destructive and conservative practices. The building is evaluated on the basis of destructive qualities and repaired accordingly to reach the best possible result.
DISCOURSE

The architectural restoration critic John Louis Petit (1801-1868), remarks on church restoration:

Delay the ruthless work a while, o spare, Thou stern, unpitying demon of repair,
This precious relic of an early age!
It were a pious work, I hear you say,
To drop the falling ruin, and to stay the work of desolation.
It may be that you say right; but O!
Work tenderly; Beware lest one worn feature you efface-
Seek not to add one of modern grace;
Humble with reverence each crumbling stone,
Respect the very lichens o’er it grown.....
(Jokilehto 2002. 160)

Once restored – however carefully, a monument partly loses its authenticity. Buildings should be preserved in their integrity, as a testament to their history and origin. Restoration has the connotation of being too drastic, and this practice has in fact all too often led to the destruction of the authenticity of historic objects. Contemporary thinking favours the practice of conservation.

The conservation movement was pioneered by the British historian John Ruskin (1819-1900) Ruskin saw a historic building, painting or sculpture as a unique creation by an artisan or artist connected to its historical context. Age in itself contributed to the beauty of the object. The marks of age could thus be seen as an essential element in an object which could only be considered mature in its beauty after the passage of centuries.
Authenticity

The word authentic refers to an original. The concept of being authentic is different to that of being identical. An authentic article is the genuine article, while an identical one is a copy – the spirit of the articles is different even if they appear similar.

Being **authentic** refers to being original, unique, sincere and genuine - real not copied. Being **identical** refers to a representation of something with the same properties, exactly alike - a replica, copy or reconstruction. (Oxford Dictionary)

The authenticity of a work is a measure of truthfulness of the internal unity of the creative process; the physical realisation of the work, and the effects of its passage through historic time. Value is placed on artistic and creative quality and places the work in relation to a historical context. **There can be only one original.**

The Oxford dictionary defines integrity as wholeness, soundness, honesty. Aspects important to architectural integrity would be location, design, setting, materials, workmanship, feeling and association.

Authenticity is a basic concept of contemporary conservation. An authentic construction would constitute an object of genuine material, documenting the different historical phases of the structure. Modern conservation policy has had an impact on promoting an increasing concern for the preservation of historic materials and the consequent methods of survey, scientific studies, guidelines; and on the standards for practice, as well as the development of a variety of techniques required for maintenance, cleaning, consolidation and conservative repair. (Jokilehto 2002. 304) **There is a rising awareness among many architects that the character and charm of a built environment owes much to the use of a particular set of building elements. These are often ephemeral and thus virtually impossible to preserve through declaration of a monument.** (Prins, 1998. 13)
The abstract expressionist artist Mark Rothko explored the concepts of authenticity and integrity in his colour field paintings. He felt that representing natural realistic forms on his canvases created an illusion of reality, but such illusions were not authentic and without integrity. They were simply copies of authentic objects. His colour field paintings explore the concept of nihilism. They are freed of representations of identifiable objects. Rather the work is about the ultimate reality - the experience created when viewed, leading ultimately to an authentic and unique experience. Authenticity is about a unique object or creation. It cannot be duplicated. These explorations hold true for the concept of authenticity in the built environment. Copying historical architecture creates (sometimes with less success than we realise) an illusion of historic authenticity. The resulting creations are void of historic experience and character and are ultimately dishonest, unreal forms.
The role of Historical Conservation in Re-vitalising the Johannesburg Inner City

Contemporary Johannesburg is a cultural, social and economic melting pot, embracing the process of becoming a world class African city. The cultural heritage of Johannesburg deals with a history of segregation and is thus a difficult heritage. During the apartheid era black people were kept separate and never allowed to believe that they could share in the cultural heritage of white South Africa. This is why we have to develop a new Johannesburg. Wishing for Johannesburg to return to its “former glory” is senseless. The old Johannesburg was a city divided, a city thriving on segregation, built on cheap labour and the inequitable distribution of wealth and land. We have to work towards the creation of a new Johannesburg which is an Inclusive, cosmopolitan and diverse city.

We need to stop deluding ourselves that South Africa can afford cities that look like London, New York or Zurich, when our per capita Gross National Product is closer to that of Brazil, Mexico or Turkey. (Fagan, 1991. 24) South Africans have to accept that we will have to adapt our lifestyles to our own urban complexity - to inter cultural, inter class juxtaposition. It is this urban mix that gives the new emerging Johannesburg its unique character.

1. Rothko, Untitled (Red) 1958 (Bailey, 2001. 159)
2. Rothko, Red on Maroon 1959 (Hodge, 1996. 329)
4. Rothko, Violet and Yellow in Rose, 1950 (Knight, 1999. 76)
DISCOURSE

While South Africa is seen as being in the forefront of nature conservation and environmental protection the same is not true for conservation of the built environment, and (in particular) urban conservation. (Segal 1991. 76)

Johannesburg has transformed from a mining camp to a metropolis and has been rebuilt many times in the process. Much architectural heritage has been lost and so naturally, it is of utmost importance, that the remaining heritage should be conserved.

Jane Jacobs identifies a tension between city as aesthetic artefact and the inherent ‘messiness’ of vibrant places. This would account for the vibrant energy of an authentic vibrant chaotic city space, developed over time - like St Marks Square in Venice.
Revel Fox identifies in his book *The Making of Space* (1998, 104) that the single most damaging thing to happen to South African cities was the preparation of the zoning schemes in the 1940’s, which permitted floor area ratios far in excess of what had existed previously and what was in fact justified (for a legible urban scale). This resulted in well scaled old buildings of great quality, with unlimited effective life expectancies becoming obsolete overnight, because of the opportunity for the development of much larger buildings on the same site. An unprecedented rise in land values, due to the possibilities of greater land yields, resulted in mass demolition.

Caring for the historical environment of the city should be seen as a catalyst for economic development in Johannesburg. It encourages investment, speeds up visible regeneration in depressed areas and creates jobs. (Johannesburg News Agency, www.joburg.org.za)

The Johannesburg SDF outlined a policy for arts, culture and heritage services in 2004, which is now seen as a mayoral priority. This program identifies heritage resources as positive instruments for growth and change and major drivers in inner city revitalisation. Heritage resources give the city a sense of place, and promote a sense of local identity - ensuring that a place has historic depths, interest, image and meaning. This is very important if Johannesburg is to realise its goal of transforming into a world class African city by 2030.

The city however does not have a clear heritage policy at this time. This has resulted in the deterioration of much of its stock of heritage buildings, which have been bricked up and mothballed – to slow further decay. There is also no comprehensive register of Johannesburg’s heritage places at present.

*Johannesburg has had a turbulent history in its rise from mining camp to a city of global importance. Johannesburg is re-inventing itself. It has undergone major changes over the last ten years – the end of apartheid, the beginnings of democracy, entrance into the global economy, and neo-liberalism have in many ways shaped a new city.* (Bremner, 2004, 18)
Urban Design Theories

One of the primary functions of developing the site is to restore legibility to the urban environment. The building should function as an integral part of the city, responding to its context and connecting to the urban fabric. It is also important to consider the importance of acknowledging the historical grain and scale of the site. The building should not overpower the historical buildings around it, and the existing street grid, which makes reference to the early town planning of Johannesburg, should be respected. The relation of the built form to the human scale and pedestrian routes is also very important with the site being in an area of high pedestrian traffic. In order to create a building which fits coherently into its city context it is important to consider it in the larger context of the city.

Although the project fits into an existing framework it was important to consider its relationship to that framework through an investigation of basic urban design theories.

New urbanism is a post-modern planning movement, geared towards the creation of a liveable, sustainable, compact and vibrant built environment. Urban living is rapidly becoming the new hip and modern way to live for people of all ages and from all segments of society - where housing, work, shops, entertainment and civic facilities are all within walking distance. New urbanism favours authentic places such as historic urban centres.
New urbanisms principles are aimed at raising people’s quality of life and standard of living, by creating better places to live, and reviving the lost art of place making and fixing and infilling of cities.

The new urbanism charter includes these points as guidelines in urban development.

1. **Walkability**
   - Most functions within a 10-minute walk of home and work.
   - Pedestrian friendly street design (buildings close to street; tree-lined streets; on street parking; hidden parking lots; narrow, slow speed streets).

2. **Connectivity**
   - Interconnected street grid network disperses traffic & eases walking.
   - A hierarchy of narrow streets, boulevards, and alleys.
   - High quality pedestrian network and public realm makes walking pleasurable.

3. **Mixed-Use & Diversity**
   - A mix of shops, offices, apartments, and homes on site. Mixed-use within neighbourhoods, blocks, and buildings.
   - Diverse groups of people of different ages, classes, cultures, and races.

4. **Mixed Housing**
   - A range of different type, sized and priced houses in close proximity.

5. **Quality Architecture & Urban Design**
   - Emphasis placed on beauty, aesthetics, human comfort, and creating a sense of place.
   - Special placement of civic uses and sites within the community.
   - Human scale architecture and beautiful surroundings nourishing the human spirit.
URBAN REGENERATION

URBAN DESIGN THEORIES

6. Traditional Neighbourhood Structure
- Discernable centre and edge.
- Public space at centre.
- Importance of quality public realm; public open space designed as civic art.
- A range of uses and densities contained within 10-minute walk.
- Transect planning: Highest densities at town centre; progressively less dense towards the edges.

7. Increased Density
- More buildings, residences, shops, and services closer together for ease of walking, to enable a more efficient use of services and resources, and to create a more convenient, enjoyable place to live.
- New Urbanism design principles applied at the full range of densities from small towns, to large cities.

8. Smart Transportation
- A network of high-quality trains and public transport connecting cities, towns, and neighbourhoods.
- Pedestrian-friendly design that encourages a greater use of bicycles, rollerblades, scooters, and walking as daily transportation.

9. Sustainability
- Environmental impact due to development limited.
- Eco-friendly technologies used, with respect for ecology and value of natural systems.
- Energy efficiency.
- Less use of finite fuels.
- More local production.
- More walking encouraged.

10. Quality of Life
Together these principles add up to achieve a high quality of life - creating places that enrich, uplift, and...
INFLUENCES

From left:
Herzog & de Meuron, Central signal Box, Basel (Mack 2000, 87)
Herzog & de Meuron, Library of Eberswalde University, (Mack 2000, 70)
Herzog & de Meuron, Institute for hospital Pharmaceuticals, Basel (Mack 2000, 142)
Rob Krier, study for perimeter block with courtyard, Schutzenstrasse Berkin. (Krier 1982, 215)
Rob Krier, Architectural elements - Landsberger Alee (Krier 1982, 99)
Rob Krier, Analogus City (Krier 1982, 212)
Lot-Ek, study of connexions in New York City (www.lot-ek.com)
INFLUENCES

Bank City
New head office for First National Bank, Johannesburg CBD
Revel Fox Associates,

The brief assumed Bank City would be in the same vein as other contemporary city developments. It was assumed it would take the form of a building with a large footprint, a large atrium, a concrete frame, full air-conditioning, conventional services, fully clad in granite, with strip windows and a corporate sign on top. (Fox 1998. 68) The actual design was a drastic departure from that standard.

The building was considered as a part of a greater whole – the city. The existing street grid was respected with streets continuing through the open public spaces which are defined by the background buildings of Bank City.

Fox wanted the building to make a positive contribution to the city; to form part of the city; and relate to its context - rather than to create citadel-like building, removed from the urban fabric and the grit of city life.

Essential factors in the design were:-
Holding the existing building line.
Reducing the buildings height.
Respecting the street grid.

Left: Simmonds Street, looking North towards Bank City. The scale of the new bank building (background) blends harmoniously with the Historical architecture of the Financial District.
The low key inner city urbanist model within the scheme further suggested pulling back facades of buildings fronting onto Kerk Street; and creating large porticos as a way of demarcating bank territory; with the ebb and flow of city life being allowed to continue around the base of the buildings. The then accepted model of a straight atrium and podium building was criticised by the design team. This concept privatises city space for the exclusive use of the elite, whilst authentic city life is externalised and made inconsequential to the building. Buildings on this model, with a single entry and an impenetrable ground floor reduce dialogue between the building and the city fabric. They become contextless, and could be located in any part, of any city.

The Bank City Project aimed at creating dialogue with the street through a more human scale and a penetrable appearance. The bank was envisaged as part of the city, and designed in a way that it would contribute to the workings of the city. The building is low and unthreatening, and allows sunlight into the public spaces. The design reinforces FNB’s confidence in the city. It is not a citadel in the city, from which life passes by, but rather the building and its occupants enter into that life. (Fox 1998. 69)

The four buildings of the complex are symbolically joined together on each side of Simmonds Street into a wall of facades around a civic square; a formal open area around which the buildings can front. The remaining perimeter edges are dedicated to retail and ordinary shopping activity. The public city square is historically important. It gives identity to the bank and is also part of the memory of the Library Gardens (now Beyers Naude Square) onto which the banks original headquarters faced.
Influences

Whilst the design team was unanimous in supporting the urban model of the scheme, many felt its classical language was inappropriate. It was seen as an undesirable linking of the building to the classical sandstone civic buildings of the general precinct, which belong to the old ‘tarnished’ era of Johannesburg’s history. Using these buildings as a major influence in the creation of a new form was seen to communicate a negative message about the bank’s position in the new society. (Fox 1998. 69) Foxe’s argument in favour of the classical language was that it fitted effortlessly into the existing urban context, and forms a timeless model unencumbered by fleeting fashions.

The facades were designed in sandstone, but this was substituted for granite, due to cost and life-span implications. This is unfortunate. The sandstone would have helped the buildings to fit more unobtrusively into the urban context, and would have created a softer urban fabric. The granite does however give the bank city precinct its own distinct identity.

Standing in first place (the central public square) at the opening day of Bank City... we were struck by how powerful the building is... the impact of the building is unquestionable. First Place is a grand civic space, and while we were sitting, listening to the state president give his opening address, I chuckled to myself when I saw a street hawker stroll past him, right through the square, with a mountain of furry toys strapped to his back – the ebb and flow of urban life indeed. (Jacobs 1998. 70)
The Drill Hall, Johannesburg
Michael Hart Architects
The Constitution Hill project has overlaid a new, positive identity onto a site with a less than exemplary history – Creating a place symbolic of inclusion, access and unity in an area which completely represented the segregation, exclusion and brutality of Apartheid South African society. If being lost, disconnected, stripped and physically abused was the extreme of black suffering, being placed in a distancing position of surveillance and control was the lot of white lives. (le Roux, Hell / Whole, Art South Africa, Winter 2004. 39)


The first phase in the development of Constitution Hill was the historical survey of the area by architectural historians Derek and Vivienne Japha and Herbert Prins. The development of the area had to be extremely sensitive to the historic and social history of the prison. The careful documentation of the No 4 and 5 prison blocks ensured that they would remain legible as historical artefacts.
The development explores a programme for mixed use development on a historical site including:

- up-market residential development
- commercial space
- public functions
- public space

Historical elements are woven into a contemporary form - and in the process the spirit of the place is completely subverted – without losing the gravity of its historical connotations.

The Constitution Hill complex has been transformed from a place of exclusion, separation and confinement into one completely connected to its context in the city.
INFLUENCES

The Mobile City

The Artist Explains Her Work
The Mobile City, ABSA Bank, North Tower, Johannesburg
Susan Woolf (Artist), Paul Kawood and Lewis Levin (Architects).

Suspended in the lobby of the ABSA Bank North Tower, Artist Susan Woolf’s Mobile City is the world’s biggest kinetic sculpture. The work juxtaposes the old and new cities of Johannesburg. The sculpture depicts the buildings of Johannesburg, the roads and highways connecting them and the Highveld surrounding the city. Johannesburg is shown, divided into two cities, with the substructure of mine shafts as an underlying connection between the two apparent anomalies. The old city depicts the historical buildings of Johannesburg - representing the past. The new city consists of contemporary buildings – representing the present. The two cities examine the relationship between past and present – between time and memory. The sculpture is driven by three motors and takes 20 minutes to complete a full cycle (up and down). The movement of the two suspended cities creates opportunities for the viewer to experience different visual and spatial relationships between the past and present cities – a collision in space and time – as different aspects come into focus and then disappear. The work not only comments on the differences between the old and new Johannesburg, but also reflects on the simultaneous existence of the two cities.

Woolf’s art concentrates on the symbolic and conceptual aspects of society. She defines her work as, “... the appreciation of heritage and generations, referring to the past, and linking it to the present and future. My art continues to examine, through personal experience, both crises in and solutions to the South African situation” – Issues which are clearly relevant to Contemporary Johannesburg.
Themes that inadvertently emerge when one looks at contemporary Johannesburg are those of identity and universality, enclosure and exclusion, inside and outside, centre and edge. (Bremner, 2004. 24)

An appropriate architecture must be directly influenced by its local context, and be seen to bespeak on its environment - ensuring a sensual, luxurious fit. The architecture should fit the site in the same way a couture garment is tailored to fit a specific body, suiting it in a way which could not be achieved by something standard, off the shelf or mass produced.

The architectural language appropriate to a high profile site at the heart of a world class city should be unique, opulent and luxurious. This provides an opportunity for the creation of juxtaposition between the envisaged future luxe city centre, and the present messy neglected and decaying Johannesburg - It is these contradictions and juxtapositions that give vibrant places their character

In the same way that one should not over-restore a historical artefact – the patina gives it a sense of historic time and authenticity. Johannesburg will never be a completely regenerated city. It is the neglect and blight of the past, overlaid by the new and renovated contemporary city, which creates its unique genius loci. An insertion on such a site should be unique and memorable - yet not in a manner that will cause the insertion to compete with the historical aspect of the context. It should add identity, sense of place and legibility to the area.

The site is within a city of extreme diversity. It is the juxtapositions inherent in a third world, yet world class city, which should be exploited to create an edgy, authentic, vibrant urban fabric.
From the initial concept phase, various important design aspects were identified. Although the language of the building has altered, these aspects have remained – the underlying generators of the final form – namely:

Appropriateness to the city and its history
Responsiveness to the urban context
Respectfulness of the historical city scale and grain
Lightness
Openness – permeability
Connectedness – to the city – between inside and outside

The architecture is about weaving together aspects of different times and cultures into a cohesive contemporary form. The concept of articulating the original four stands on the site is an important design consideration – respecting the historical grain of development. It is important that the building should form part of the city - enriching its urban context. Criticism has been levelled against ‘gentrified’ city developments, which (although situated in multi dimensional urban areas) too often turn their backs on their context. Unfortunately the developers believe that the success of selling these exclusive city developments depends upon creating a security net of separation between the development’s users and the world beyond their doors; creating what Iain Louw, Professor of architecture at The University of Cape Town, refers to as ‘vertical gated communities’ (Heights of Contradiction, Art South Africa, Winter 2005. 53). For this reason, it is important to create a public function which relates to the city at the vibrant street level – The building is semi permeable to the city, allowing its energy to spill over into the street - enhancing the connection between the built form and the city.
Creating a perimeter block to restore the legibility of the street grid is a priority. The perimeter block configuration provides an opportunity for an internalised palazzo style, semi private courtyard space - which makes reference to the service courtyards of historic Johannesburg. Although public space is important (especially in a densely developed city like Johannesburg) – the creation of an external public space in this context would be inappropriate, as it would compete with the open space of Beyers Naude Square - only a block away. Further development on the south side of the site is very important to restore the legibility of Government Square, directly across from the site and in front of City Hall. The present blank state of the site has robbed the square of its historical edge, its legibility and its energy. Given the unfortunate hardness and heaviness of the existing buildings flanking the site, it is important that the new building should create an aspect of lightness and permeability along the street.

The visual link from the city street - through the building, to the internal space of the courtyard - is very important.

It is important that the building to be infilled on the site should respect the scale of this important historical precinct. Unfortunately the 30 storey Old Mutual Head Office, and Game’s 10 storey perimeter block on the periphery of the site are grossly over-scaled, and unrelated to the historical context. This heightens the importance of creating a dialogue between the new building and the historic City Hall, Post Office and Barbican buildings. The scale of the infill building should emphasize the importance of these buildings.
DESIGN DEVELOPMENT

Initial Concept

The brief explored a building which formed part of a perimeter block and contained street level public space. The scale of the building respected the historical scale of the precinct, and the façade articulation represented the original smaller stands on the site (now consolidated into one stand). The concept of a screen was explored along with the idea of overlaying images of the historical streetscape on the screen.

It was decided to revisit these ideas.

Articulating the building as smaller modules resulted in a disjointed form.

No architectural documents of the original buildings on the site along President Street could be located to overlay onto the screen.

The only architectural drawings of the original buildings on the site which could be located at the Johannesburg Municipality:

Right- The Harvey Greenacre and Co general stores and office building on Rissik Street (no date or architect could be traced for the building. The style suggests it was probably from the early part of the 20th century). This building seems to have survived until the site was cleared for parking in the early 1990s. The building occupied a double site in the middle of the block, next to the Barbican. Historical photographs would suggest that the buildings five storeys represented the general scale of the area.

Left- The Barbican Building, by Obel & Obel 1929. This ‘New York’ inspired ‘skyscraper’ still stands on the corner of Rissik and President Streets. The exterior is unscathed - apart from the demolition of the original pedestrian portico. The building has been mothballed since 1990. Unfortunately it was illegally occupied by squatters in 2002 who gutted the interior.
Resolution of Concept

The perimeter block layout has been retained. The elevations have been resolved with a more uniform treatment of glass on the lower levels – creating an aspect of visual permeability and connectedness between to public realm of the city and the internal (public) areas of the building.

The visual link from the hard city street - through the building, to the green internal space of the courtyard, is very important and a unique experience in a hard grey city. The openness of the building – to the city street from the internal courtyard - also creates a play between internal and external space. The pond in the courtyard adds an element of restfulness to the building – creating a place of tranquility in the city. The pond element is repeated in the roof-top, rim-flow swimming pool. Upon entering the pool the city is reflected around you. The transition between the reflection of the city in the pool and the actual city becomes blurred. You float, weightless. The city is all around you, enveloping you - You are part of the city.
DESIGN DEVELOPMENT

The screen aspect of the initial design has been retained and re-worked. The screen serves as a shielding element for the private residential component of the building. The city is, however, still visible from the inside of the building through the screen. The screen is created from willow osiers, woven between steel flats, making reference to the traditional Ndebele method of construction (using wattle, woven between wooden poles and plastered with mud). Although the original concept of depicting the historic streetscape on the screen was abandoned, subtle breaks have been left in the screen along the divisions of the original city stands.

The corner aspect of the site is very important. Traditionally the corner stands in Johannesburg were more sought after, due to their extra street frontage and the opportunity for more volumetric architectural expression - like the towers and turrets on the Barbican Building. The importance of the corner of the site is further emphasised as it is in the direct view of the main access to City Hall, and diagonally opposite the main entrance to the Gauteng Provincial Legislature. The strategic corner sighting affords a very important opportunity to create a strong visual identity for the building by peeling back its screen to reveal the glass-light beacon.
The glass form of the building, like a glazed jewel on the street, sets it apart from its heavy, over-scaled neighbours. At night the building glows from the inside out – forming a light beacon in the dark city. Seasonal silkscreen artworks commissioned by local artists will be stretched over the willow screen. They will enhance the identity of Kopanong as a cultural, as well as government precinct; and give further identity to the area. As the breeze filters through the willow osier screen, the silk artworks billow gently – enhancing the image of the building as a permeable, ethereal object of beauty – a symbol of the re-awakening of Johannesburg.
**TECHNICAL INVESTIGATION**

Technical Investigation

Materials

The choice of materials is very important as the site is in a historical urban area. Unfortunately many of the more contemporary buildings inserted around the site have ignored this historical urban context. They are over scaled, and built from unsuitable materials, creating hard heavy citadel like buildings which do not relate to or enrich, the life of the city. Thus it is important that the materials chosen for this project should be light, transparent, and create a sense of visual permeability through the building.

Salvaged Materials

The Balustrades on the Western street edge of the building is to be salvaged from the garden of Dolobran, one of the landlords houses in Parktown. The balustrade was originally from the Eksteens Building, opposite the first Johannesburg Stock exchange in the CBD, which was demolished in 1906 to make way for the present Corner House. The ballsrtrading was salvaged and reused on the balconies of Dolobran, however the excess ballustrading still stands unused in the garden 100 years later. (there is enough excess unused ballustrading to supply the Kopanong Club – no material will be removed from the balconies of Dolobran)
Steel

The external structural frames on the North balconies are constructed from steel I beams. The screens on the street façade are supported by I beams and steel flat frames welded to base plates which are bolted to the building’s concrete structure. Fastening of the steel members is either by spot welds, or M10 bolts with washers and nuts (unless otherwise specified).

The use of steel sections is intended to give the building a feeling of lightness. It also makes reference to the steel structure of historical Barbican Building. While the Barbican’s steel frame is clad and hidden, the steel frame of the contemporary building is clearly expressed.

Glass Curtain Walling

The glass curtain wall is constructed of Smartglass panels fastened to structural aluminium mullions. The glass is important in creating the image of the building as an ethereal insertion on the site; it also allows for visual permeability into the public areas of the building – creating linkages between the building and its city context. The light and transparent form of the building is a reaction against the hard impenetrable edges of the 1970s and 1980s buildings on the edges of the site.
TECHNICAL INVESTIGATION

The Willow Osier Screen

The screen provides a degree of visual privacy to the private areas of the building – without completely cutting off the visual permeability of the building.
It is constructed on a frame of welded steel flats. Willow osiers are woven in-between the steel flats in the same way as wattle branches are woven between timber poles in traditional Ndebele construction.

The weaving is symbolic of the linking together of different cultures and historical contexts into a coherent, unified present.

Environmental Issues

Solar gain is already minimised through the orientation of the building.
The building is in a densely developed urban area, and thus does not benefit as greatly from summer and winter wind patterns as buildings in more open areas, thus it is necessary to induce natural ventilation. The paved surface of the central courtyard terrace further heats the warm air on the North of the building, causing it to rise, the air is drawn out of the building into the low pressure vacuum which is created – cool air is drawn in turn into the building from the openings on the south thus inducing ventilation and cooling.

In the summer the building can be opened up to the warm central courtyard and the cool south street edge. In the winter or if the summer temperature is uncomfortably hot the building can be completely closed off and the interior temperature can be mechanically regulated.
TECHNICAL INVESTIGATION

Glazing and Shading Devices
Due to the North / South orientation of the building solar heat gain is drastically reduced through minimising the West and East building mass.

Sun screening devices are provided on the North and West of the Building and extensive use is made of openings to the outdoors, allowing for natural ventilation and lighting.
When there is adequate solar lighting and the air temperature is comfortable no further energy expenditure is required.

Mechanical Ventilation
Due to the luxurious nature of the building it is necessary to provide mechanical ventilation to ensure maximum occupant comfort.
Mechanical ventilation is to be provided for the club, dining, lounging, hotel and residential components of the building.

The residential and hotel air conditioning system consists of a basement chiller room which supplies chilled water via pipes running in a duct at the back of the Barbican Building, to separate fan coil systems in the air processing areas on the roof of the building. The air is then sent via the duct – from the air processing units to the different areas of the building. This system makes it possible for separate control of the air conditioning in each room.

The club and dining area air conditioning system consists of a stack system, also in the basement.
Space requirements for this system:-

Plant chiller room in the basement
500mm ceiling ducting to all air conditioned areas of the building (see ducting detail)
Air processing area on the roof

Structure
The primary structural components of the building are reinforced concrete columns and one way spanning concrete slabs. Given that the maximum slab span in the building is not more than 8 metres it is possible to design a 300mm reinforced flat slab which does not require support beams. The structure of the new building is independent of the Barbican Structure. An expansion joint of not more than 12mm is to be left between the two buildings and sealed with neoprene. The building is to be founded on concrete piles, to the engineer’s specifications.

An exposed steel H section and I beam structure on the North elevation supports the suspended balconies and screens.
TECHNICAL INVESTIGATION

Fire Management
All fire requirements are to be in line with SABS 0400.
All exposed structural steel is to be protected by Fire Barrier Intumescenting Paint, with a top coat of non-burnable acrylic paint added in a matt silver colour, matched to natural anodized aluminium.

Other provisions include a smoke activated sprinkler system, fire detectors and alarms, and fire escapes and extinguishers, all in accordance with SABS 0400 regulations.

The existing fire escape stairwell and lift core of the Barcian Building is to be demolished and replaced with a new escape stair, to meet SABS 0400 requirements. A fireman’s lift is also to be provided as the building is over 6 storeys high.
TECHNICAL DOCUMENTATION
Baseline Study

The primary considerations in the design of this project were to create a building that would serve as a flagship for regeneration and reinvestment in the CBD. It was important that the building should be sustainable and responsive to its urban context. Caring for the heritage of the city was also an important consideration. The design had to be mindful of the soul and grain of its existing historical context, in order to create a dialogue between the new building and the heritage buildings on the site.

The Burra Charter, the S.A. Heritage Resources Act and the ICOMOS Heritage at Risk Report acted as baselines for caring for the historical environment of the project.

Heritage as a Baseline Criteria

Urban Heritage

The South African Heritage Resources Agency (SAHRA) preamble states that “...the destruction of our heritage resources that are regarded as part of South Africa’s national estate should be prevented at all costs.” (SAHRA, act 25 of 1999).

The intention of the project is to conserve the Heritage building through adaptive reuse and reintegrate it into the city fabric. The development must also be mindful of the soul of the surrounding heritage buildings. The new forms must be generated in response to the heritage of the site.

Adaptive Re-Use

This is an important concept. It ensures that the heritage building is conserved through giving it a new use. It is also a baseline for sustainability, as existing materials and resources are re-used, resulting in less wastage of resources.
New Insertions:
The new building must respond to the form and scale of the heritage buildings. It must reinforce their importance and help to integrate the heritage buildings into the contemporary city fabric.

Extracts from Article 22 of the Burra Charter 1999

<table>
<thead>
<tr>
<th>Article 22</th>
<th>Relevance to Barbican Site</th>
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<tbody>
<tr>
<td>22,1. New work such as additions to the place may be acceptable where it does not distort or obscure the cultural significance of the place, or detract from its interpretation and appreciation.</td>
<td>The new building should enhance the old building. It should enforce the importance of the heritage buildings rather than detract from it.</td>
</tr>
<tr>
<td>New work may be sympathetic if its siting, bulk, form, scale, character, colour, texture and material are similar to the existing fabric – but imitation should be avoided.</td>
<td>The building should be of a suitable scale and grain.</td>
</tr>
<tr>
<td>22, 2. New work should be readily identifiable as such.</td>
<td>The new building should be a contemporary form, sympathetic to historical sensibilities; but not an imitation of the traditional forms, as this would detract from their integrity.</td>
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BASLINE STUDY

Scale and Form

- The scale of the new building should consider the historical urban scale, enhancing the importance of the City Hall, Post Office and Barbican buildings.
- The form of the building should reinstate the city block, restoring urban and pedestrian legibility.
- Human scale should be considered as the site is along major urban pedestrian routes. The building provides a pedestrian arcade along the street edges, bringing the form down to human scale.
- The form of the new building should express the importance of the corner of the site – historically an important aspect in Johannesburg architecture.
- The massing of the building should step back where it touches the historic Barbican Building – emphasizing the fact that it is an insertion on the site and that it is not “pretending” to be a historical aspect of the site.
- The new building should express the fact that although it is on a stand which is now consolidated, historically the site was broken up into 4 smaller stands.

SBAT as a Baseline

Social Issues

Occupant Comfort

An optimal environment for the users of the building is an important baseline criterion. The following are applicable for the design of the Kopanong Club, residential apartments and hotel:

Natural Ventilation

When the temperature is mild, natural ventilation can be used as an alternative to air conditioning – saving between 10% and 30% of total energy consumption.
Baseline Study

Applicable Criteria for adaptive re-use, densification and historical conservation:

- Materials and form of inserted building must enhance the existing building.
- Connections between old and new building must be carefully considered.
- The existing Barbican building should be sensitively adapted to a new use.
- Adaptive re-use is sustainable since fewer materials are wasted.
- Natural materials should be used where possible, as they do not require large amounts of energy for their manufacture – limiting environmental impact.

Economic Issues
The use of local materials and contractors, where possible, will contribute to a stronger local economy. Furthermore, the building’s function is in the service industry and will create jobs for local people in the service industry, stimulating the local economy through its life cycle.

Adaptability and Flexibility
The project encourages the re-use of an existing building. It is important that the building is not altered in such a way so as to undermine its historical integrity; and also that the alterations are not so drastic that its function can not be adapted again in the future.

Life Cycle Costs
On-going costs should be limited by the specification of robust building materials with low maintenance requirements.
Fig 0.1 Joubert St. Looking North to Ansteys (Author) April 2005
Fig 0.2 Sunset On Fox Street (Author) July 2005
Fig 1.1 The CBD From Berea (Author) June 2005
Fig 1.2 The Rissik St Post Office (Author) January 2005
Fig 1.3 Main Street Looking North (Author) May 2005
Fig 1.4 1930’s Postcard of JHB (Author)
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