

Introduction

In our current society that is infatuated with image, sight is often the only sense that is ever stimulated when architecture is experienced. It can be said we are living in an ocular-centric society, and that many buildings today are only designed to be monumental visual statements. These buildings most often are visually amazing and appear to defy the laws of gravity; yet the spaces created within these monumental so-called 'master pieces' often do little to stimulate the other senses.

The aim of this dissertation is to explore the possibilities of architecture as a sensory phenomenon, how we can experience architectural space through all of our senses, and how architecture can influence how we experience our senses in space, which is often referred to as the sixth sense.

The primary research topic for this dissertation is termed Architecture and the Senses, which investigates how architecture can influence our experience of space through the stimulation of the senses.

A number of sub questions have been formulated to substantiate the primary research topic,

and various research methodologies have been employed in the investigation of these sub questions.

Due to the nature of the site and context, these sub questions are explored on a variety of scales, so that informed design solutions can be employed within the design process, while expanding and strengthening the theoretical argument.

This dissertation also explores the notion of sensory space and proposes methodologies about how we can produce a creative urban realm that celebrates our cultural identity, while allowing individuals to contribute to the performance of life. In the creation of an architecturally informative and tectonic methodology, the dissertation explores the notion of architecture as a sensory conductor and how appropriate architectural articulation can conduct, orientate and guide the user successfully through various spatial experiences. The research questions are ordered chronologically, with the aim of building a suitable argument on the chosen subject. The aim of this dissertation is that the final design outcome and all aspects of design will address,

relate to, strengthen and test the theoretical argument.

The idea of what constitutes performance spaces of our current age is also questioned. This investigation has ultimately resulted in the basis of a spatial design brief and provided the basis for the proposed design responses.

These two principal ideas form the basis of the design concept. The similarities between the lack of sensory experience in architectural and theatrical performance space will be used to argue the theoretical and methodologically formative research questions stated previously.

It is the aim of this dissertation to explore the ability of spaces inside this building typology to assist in inspiring and educating each of its occupants, users and passers by.

Introduction to study area

The study area for the dissertation is situated within the Tshwane Metropolitan Area. The specific study area of this dissertation is the Mandela Development Corridor (MDC).

The MDC is situated along Nelson Mandela Drive, an area which can be described as a discarded urban wasteland, that currently acts as a buffer zone between Tshwane's inner city and its higher density residential districts of Arcadia and Sunnyside.

The Apies River Channel which flows through this precinct, is currently an under-utilised and degraded natural (or no longer so natural) resource. It adds nothing to the character of the precinct at present, and has become a liability in terms of environmental degradation and crime.

This urban wasteland has come into being due to the planning inadequacies of the past. Nelson Mandela Drive lies at the intersection of two city grid systems, and this has created many isolated and under-utilised land parcels. Land-banking within the area has also added to the urban decay of the precinct, and subsequently vast tracts of under-utilised space and dilapidated built fabric characterise the precinct.

There is potential for this stretch of land to bridge and foster urban regeneration, and to act as an example for future urban development. The potential for this precinct is explored and outlined in the Mandela Development Corridor, Urban Design Framework (2005)

The new headquarters for the Department of Trade and Industry has been built within this precinct with the intention to act as a catalyst for investment and development within the precinct.

There is a lack of quality public space within the area. Our group proposed development framework has been designed with the aim of creating a vibrant public spine along the course of the Apies River and to encourage pedestrian movement through the precinct in an east-west direction, effectively linking the currently divided areas of the city.

The objectives set out by the Mandela Development Corridor, urban design framework have focused along the extent of Nelson Mandela Drive from Rissik Street in the south up to Vermeulen in the north. According to the Tshwane Metropolitan Council, the key driving forces behind the development plan are as follows:

- **Apies River urban design framework.**
- **Inner city spatial development framework.**
- **Tshwane Metropolitan Area spatial design framework.**

Other related projects that will have a bearing on the development of the precinct, are as follows:

- **Apies River upgrade.**
- **Esselen Street upgrade.**
- **Nelson Mandela Drive edge upgrade.**
- **Proposed library and community centre with square development around existing Oost-Eind school.**
- **Future public transport monorail/cable car.**
- **Proposed corporate head office corridor along Nelson Mandela Drive.**



- 1 Tut Arts campus
- 2 Other research project - Urban water centre
- 3 Other research project - Innovation centre
- 4 Other research project - The journalism precinct
- 5 Sterland
- 6 DTI
- 7 Sunnypark
- 8 The chosen site - Oeverzicht Art Village
- 9 Drie Lelies
- 10 Breytenbach Theatre

FIG 1.1_Location map of chosen study area



FIG 1.2_Sites included in chosen study area



FIG 1.3_Aerial view of chosen site



FIG 1.4_Aerial view of Nelson Mandela Drive



FIG 1.5_Entance/Gateway into the city

From these key driving forces and other related projects, various objectives and solutions have been identified for the precinct. It is from these that appropriate design responses can be generated:

- **Making connections**
 - physical and visual urban integration
- **Creation of a balanced movement network**
 - the city as movement economy
- **A local district network**
 - all amenities within walking distance
- **Broader mixture of uses**
 - appropriate variety to strengthen existing uses
- **Investment in the public realm**
 - urban form to support exchange
- **Spatial guidelines**
 - controls to reinforce community identity
- **Spatial vision**
 - ensuring urban integration and spatial meaning

As well as the above solutions, some problems hampering the achievement of these development outcomes have been identified:

- **Decentralisation and urban wastelands**
- **Poor links/connections between inner city and neighbourhoods**
- **Lack of balanced integration of urban areas**
- **Mismanaged natural features.**
- **Poor management of the informal economy**
- **Lack of mixture and public amenities**
- **Lack of identity and vision for the area**
- **Monofunctional, poorly defined public open spaces**
- **Historical fabric**

The above mentioned problems provided the basis for the initial development framework done for the MDC by Holm Jordaan. Central to the framework is the notion of governmental and private sectors working together towards the same goal of providing a vibrant public realm. This notion is expanded on in the proposed development framework compiled by the MDC group.

This has resulted in the following opportunities being identified:

- **The development of an activity spine along the Apies River Channel**
- **The creation of an urban identity for the Mandela Development Corridor precinct, while providing a focus of a civic nature.**
- **The encouragement of informal meeting and social interaction along the activity spine with vibrant day/night activity, which will provide much needed public surveillance to the precinct**
- **The bringing together of the eastern and western sides of this urban wasteland, once again unifying the city**

Chosen site

The selected site for this dissertation is located in and around the Oeverzicht Art Village located on the corner of Kotze Street and Nelson Mandela Drive. The chosen site's location is extremely important to the project. In order to convey the image of the city as a culturally perceptive city to its urban population and visitors, the site had to be located at a visual node. This site is ideally situated at the southern entry to the city and it is the intention that this development will form a gateway into the city.

The project is situated across a number of sites which will have to be consolidated for the purpose of the proposed development. The sites include those of the historical M.O.T.H. Club and Breytenbach Theatre. The other sites consist of a number of older homes, which are collectively known as the Oeverzicht Art Village. Even though the homes are not historical monuments, they are considered to be of historical importance. These homes are to be maintained and re-used as far as possible in keeping with the guidelines given by the MDC urban development framework, which states:

“The variety of existing historical houses become the focus of this precinct. The framework foresees the extension of the existing fine grained urban fabric with offices, residential apartments and retail activities. The intention is to provide an outlet for arts and cultural activities to strengthen the existing theatres that already exist within the precinct.” (2005:2)

The site falls within the proposed framework for the MDC. The proposed framework is shared by four projects, all of which all form part of a proposed activity spine along the Apies River channel.

The Apies River channel forms part of the western boundary of the project site, and is an important element on the site as the revitalisation of the river system and the use of this river course as an activity spine between open and public spaces, as per the proposed group framework, will enhance the natural beauty and physical attributes of this natural (or not so natural) feature.

The site lies within the arts and cultural node identified in the proposed group framework.

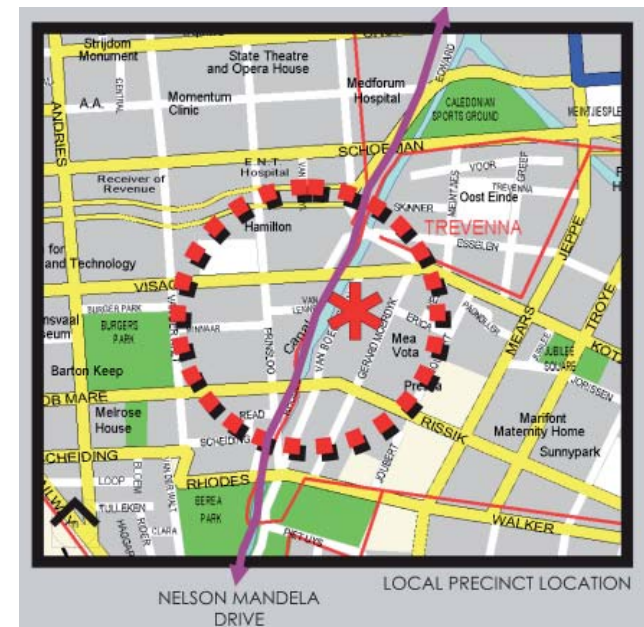


FIG 1.6_Site location within Pretoria

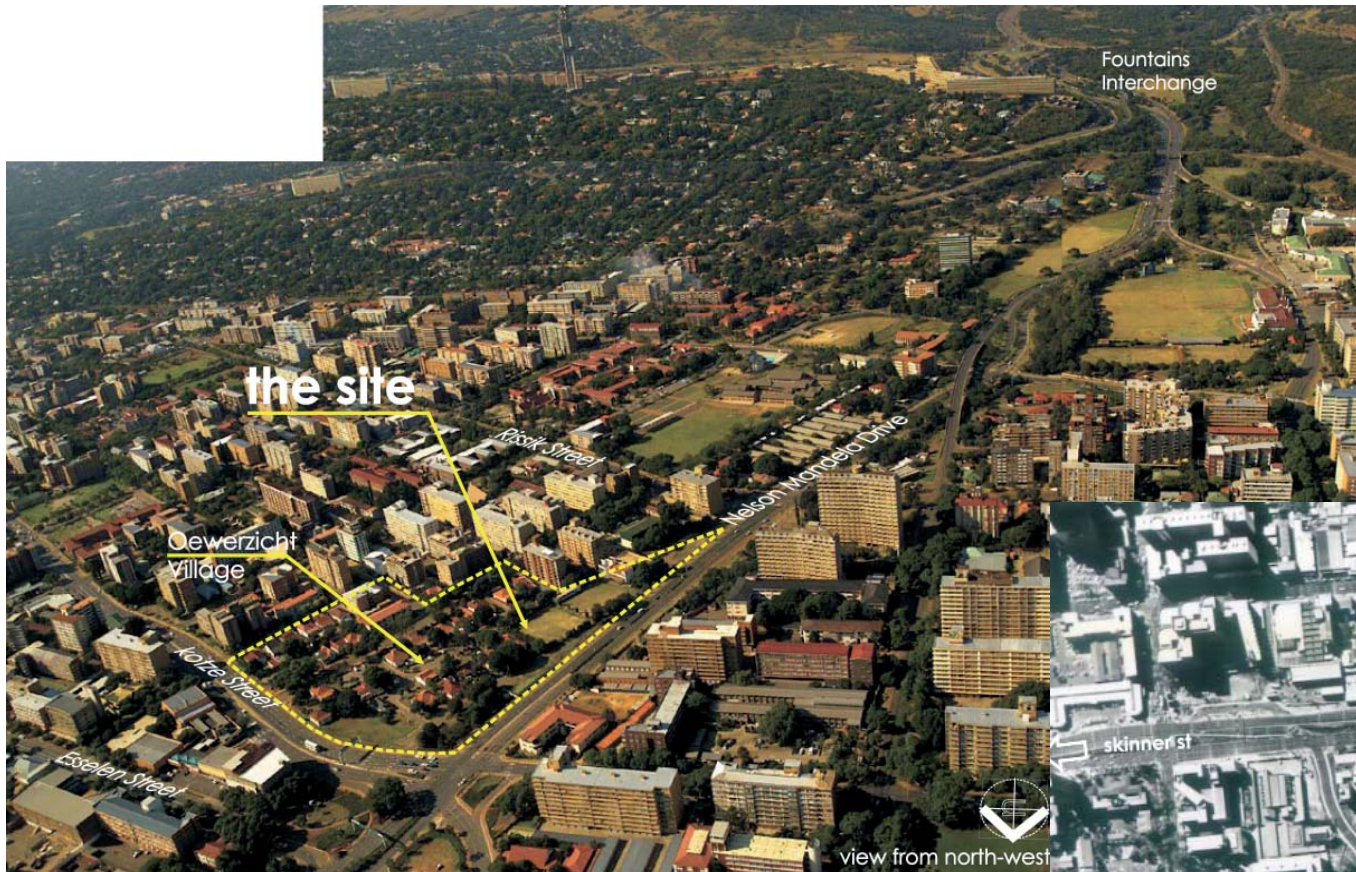


FIG 1.7_Aerial location of site

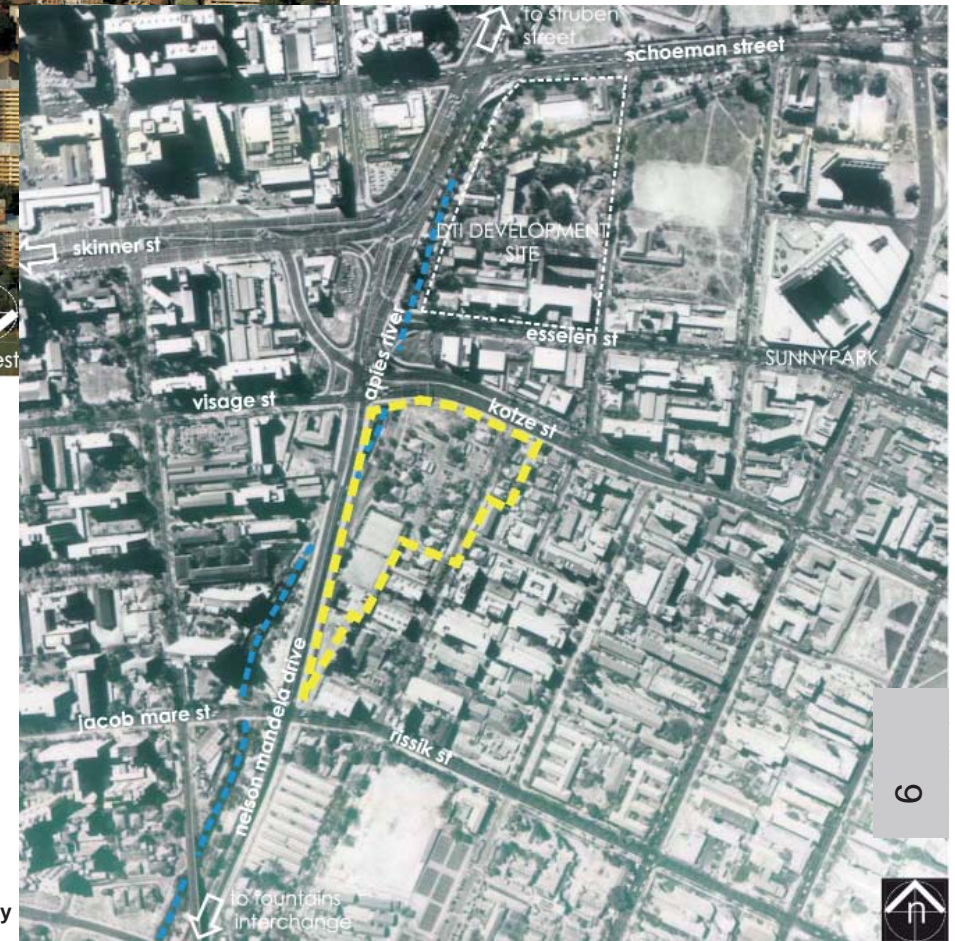


FIG 1.8_Demarcated site boundary



The client

The site is currently council-owned and is thus ideal due for the civic/public nature of the proposed development.

As funding for developments of this nature is often limited, the development will be of a mixed-use nature, containing spaces of a commercial and residential nature that can be rented out to produce a constant income for the project. For this purpose, the development would be a joint venture between the Department of Arts and Culture and City Property, as part of its community engagement responsibilities enforced by government regulations

Working in conjunction with one another would ensure the long term success of the development, as each party's expertise and experience within their respective fields could be best put to use.

This joint venture would not only ensure returns on each party's capital investment, but also provide an enriched urban realm that can be enjoyed by all. This approach would yield a far greater return on investment in the long-term and ensure a longer life span for the project.

The Department of Arts and Culture has set up the Arts and Culture Trust, which funds projects across the spectrum in arts, culture and heritage. The trust focuses on areas of development including job creation, creative skills, management skills, cultural diversity and cultural tourism marketing. Projects currently funded are in the fields of theatre, music, dance, literature, heritage, arts administration, community arts, visual arts, arts education and multi-disciplinary projects. With its funding of these activities, the trust would most certainly be interested in funding a high profile development of this nature that contributes to public wellbeing, which will most certainly improve the public image of the department.

The department's mission statement involves improving the economic opportunities for South African arts and culture nationally and globally through mutually beneficial partnerships.



FIG 1.9_Department of Arts and Culture logo

City Property is one of South Africa's leading property asset management companies. It currently manages over 1 million m² of malls, convenience shopping centres, industrial workshops, warehouses, offices, residential flats and apartments and retail outlets. The proposed development is an ideal opportunity for City Property to expand its portfolio by developing the commercial and residential aspects of the development.



FIG 1.10_City Property logo

Problem statement

In our society that is infatuated with image, sight is often the only sense that is ever sought to be stimulated in the creation of architecture. Many new buildings do little to stimulate the other senses and this has resulted in many spaces possessing little character and providing the users of the buildings with limited spatial experiences. Architecture should be conceived as a sensory phenomenon, where people should experience architectural space through all of the senses.

Research questions

1. How architecture can influence our experience of space through the stimulation of the senses?
2. How can we produce a creative urban realm that celebrates our cultural identity, while allowing individuals to contribute to the performance of life?
3. How can appropriate architectural articulation conduct, orientate and guide the user successfully through various spatial experiences.?
4. How can visual and physical connections be established between the visitors of the centre and the artists and performers, without disturbing their creative processes?
5. How can a building of the nature and scale respond to the existing residential scale of the existing structures on the site?
6. How should an architectural language that enhances the sensory experience of this built environment be developed and explored?
Should we return to architectural place making strategies of the past in order to create spaces and places for people to interact in today?

Resultant design brief

To inspire the creative genius in us all by nurturing artists in an innovative contemporary centre for the performing arts

The traditional role of cultural buildings is changing. Museums and theatres were once seen as isolated monumental objects. They were often intimidating and overbearing in nature, and more often than not stood in isolation. Today, however, they are places that host a much wider range of activities. They are places for entertainment, interaction and the event.

The primary objective of this development is to create a vibrant and interactive destination that will not only provide a much needed creative resource hub for Pretoria, but also provide a place for people to enjoy life and experience the everyday lived experiences of urban living. The resultant architectural intervention will encourage public interaction and make an active contribution to the urban realm by providing a platform for creativity to emerge. Ultimately the user of the realm must feel a sense of belonging within the space and the everyday users of the space should have a connection with the various facets of the performing arts industry. Opportunities must also be created for established and emerging artisans to develop their skills and succeed in their specialised fields.

The main intention of this project is to create a building of regional significance which contributes towards inner-city regeneration and helps to establish the precinct as a location of social, economic and cultural vitality.

The Tshwane Inner City Development and Regeneration Strategy (2006) clearly states that: *“Any capital city needs to also be the cultural centre of that country, which showcases the national culture to the outside world.”* (2006:5)

Cultural facilities also play an important role in the regeneration of cities and places. They are closely linked with tourism and the economic growth of cities. *“No one can say for certain if it’s the cultural embedded in the economic or vice versa, but what is clear that culture and economic growth in cities are closely linked.”* (Evans, 2001:135)

Culture is what makes a place and its people distinctive and unique, and determines how that place is etched into people’s minds and imaginations. *“Culture accounts for the symbolic forms via which people codify, understand and negotiate their everyday lived experience”* (Van Eeden & du Preez 2005:224). Essentially, culture is

about the values and experience of a place, and the range of stimuli that the urban fabric provides on different layers and levels of activity.

The aim of the development is to develop a synthesis between arts, culture, economy and urban vitality by creating a platform for the arts. The resultant development and design intervention should celebrate the performance of life, and respect and pay homage to our unique cultural diversity. The development is to be a place where students, street artists and professionals can share artistic ideas.

This will ultimately create a place where the user is part of the performance of the everyday life, a place that everyone can use and a place where all can just be themselves and let go of their inhibitions.

Research methodology

A combination of descriptive-quantitative research and qualitative research methodologies will be employed in the formulation of this dissertation.

Qualitative research is to be used to gain insight into the character of the chosen site and to determine the potential user groups of the cultural centre, as well as the requirements of the local community. However, the majority of the subsequent information will have to be obtained through quantitative research methodologies.

The first point of departure is to formulate a proper site analysis. Through site visits and information obtained from the municipal council, an applicable urban context analysis will be formulated, existing infrastructure and character of site, characteristics of the river, land use and legal framework are to be investigated in order to properly inform an appropriate design response.

Different aspects of numerous precedents are also to be investigated. They are to be chosen and investigated on the basis of their typology and function, material use and construction

methods as well as design approach. By investigating the precedents in this manner, the various aspects of the relevant precedents can be re-interpreted and aid in making informed design decisions.

An applicable theoretical argument is to be formulated through the exploration of writings of various authors on the topic of sensory architecture.

Various sustainable building practices, methods, technological advances and systems will be investigated. Structural systems based on precedents, will be analysed to formulate a suitable structural system for the proposed project.

Finishes and material investigations and studies will be conducted.

The design discourse will be formulated in accordance to the National Building Regulations and spatial requirements, as set out in Neuforts.

All applicable urban design frameworks relating to the chosen study are to be used to formulate guidelines to which the resultant design brief is

to respond.

The resultant design brief will be formulated from the site and contextual analysis and theoretical premise established for this dissertation.

Assumptions and delimitations

There are various ideologies that exist within the chosen research topic. These varied ideologies have been identified pertaining to the relevance, terminology and method of studying spatial experience through the senses.

Appropriate writings by important writers and philosophers in the fields of sensory architecture and phenomenology have been used as the basis for the theoretical argument. Their points of view have been used as a foundation on which the argument has been built. It has not been the intention to criticise the validity of their thoughts, but rather to create a basis for the creation of an appropriate train of thought for the argument of this dissertation.

Furthermore:

- a) It is assumed that the area will in future serve a broader user group with multicultural properties
- b) It is assumed that the proposals put forward by the Mandela Development Framework are implemented
- c) It is assumed that statistics given by the development framework are legitimate
- e) Establishing the nature and degree of the significance of intangible heritage within the Oeverzicht precinct proved to be difficult.

Theoretical abstract

There are very few spatial experiences that can stimulate the full spectrum of our senses. Most art forms attempt to simulate the sense of lived experience, but architecture is the only art form capable of producing lived experiences. Architecture provides the spatial boundaries within which we experience space, however most experiences of space can be reduced to a singular experience of sensory bliss.

How can an environment of a civic nature be created which addresses the full spectrum of sensory phenomena, stimulating the performance of life whilst allowing individuals the opportunity to master and nurture their skills, and express their unique individuality? How do we create such an environment?

For the proposed space to be successful, it should be easily accessible to all and encourage ongoing and frequent use. It should house a variety of activities, thus sustaining the ever-changing user requirements.

The built intervention should enhance the natural phenomena of the site. Yet how should an architectural language that enhances the sensory experience of this built environment be

developed and explored? Should we return to architectural place making strategies of the past in order to create spaces and places for people to interact in today?



FIG 1.11_The five senses