



Chapter 4

Precedent Studies

Introduction

Connected Spaces

Bhadli Villiage School

Ingwavuma Orphan Care

Religious Space

Sacred Space

Chapel of Light

Chapel of Porciuncula,

The Miraculous

Glenthorne Cathedral

Shiv Temple

Our Lady of Mount Carmel

Architectural Language

Nelson Mandela Interpretation
Centre

Duduza Resource Centre

Novasun Processing and Distri-
bution Centre

Religious Symbolism

Capela Mae Africa

Instituto Missionário Das

Irmas Do Precioso Sangue

Introduction

Various precedents have been used as informants to assist in the process of formulating an architectural approach and design argument. These examples have been chosen with the scale, function and location of the proposal in mind.

In order to build up an appropriate approach there are several different elements which must be considered. These elements are:

Connected Spaces:

Design approaches that incorporate different functions around connecting spaces that facilitate community meeting.

Religious Spaces:

The design and layout of sacred space, procession and axis. Examples of sacred spaces that are located outdoors have specifically been examined with regard to flexibility, definition of sacred space and place making.

Architectural Language:

These are examples of architectural style, construction and language that would be appropriate for the intervention.

Religious Symbolism:

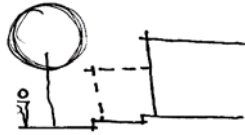
The depiction of Christian religious symbols in architecture.

Together all these elements will combine to begin to lead an architecture that will form the Multi Service Centre for Mamelodi East.

Connected Spaces

Bhadi Villiage School- 2002

Somaya & Kalappa Consultants.
Kachchh, Gujarat, India



The school formed part of a larger effort to rehabilitate a small village of agricultural workers that was destroyed in an earthquake in 2001. The school has 194 students between the ages of 6-14yrs old and a kindergarten which operates in the facility for seven months of the year. The school also houses a library, dining hall and ablutions, while the greater intervention houses a community centre, crèche and meeting areas for women. The complex has since become an informal town square for both Bhadi and the surrounding villages

The complex follows the edges of the site and forms a central courtyard where the internal and external spaces are able to flow freely into each other. Informal meetings are facilitated by covered patios, external hallways and open air rooms. Thresholds are defined through changes in level, partial covered spaces and a progression of open and enclosed areas. The walls are finished with mud plaster that the students and teachers painted.

The Multi-Service Centre for Mamelodi East will focus on formal and informal, internal and external spaces which must flow into one another as a cohesive unit, while still maintaining edges and thresholds and also facilitating community gathering on both small and large scales.

The use of thresholds through defining transitional spaces through intermediate areas is an important aspect. One must not enter sacred or intimate spaces directly. These intermediate areas could be interpreted either into plan or in section, either way, their function remains to prepare the user for the new space that they are about to enter.



Fig.79.(Phaiadon 2008:) Views of Bhadi Village School

Ingwavuma Orphan Care - 2008 New Offices, Hospice and Chapel

Feilden, Clegg, Bradley Studios.
Ingwavuma, South Africa

The centre is located in Umkhanyakude District of KwaZulu Natal and is the northernmost district of the province. Ingwavuma Orphan Care is a community organisation that provides physical, emotional, psychological, spiritual, economic and palliative care services to the people of Umkhanyakude, through direct support and community mobilisation to improve the quality of life.

The new hospice unit will have 10 beds for children and 18 beds for adults. The children's unit will have its own garden, day room and sensory play area.
(Isibani Sithemba , Accessed 09 May 2010)

This centre has been chosen as it successfully links varied functions through intermediate spaces in the form of connecting walkways, where they both connect and define outdoor space. These walkways facilitate the spatial definition of different functions but allow them to also communicate as one cohesive complex.

The Multi-Service Centre for Mamelodi East will incorporate a complex of buildings, housing different functions that must be linked by pathways or courtyards in order to achieve a spatial and architectural unity.

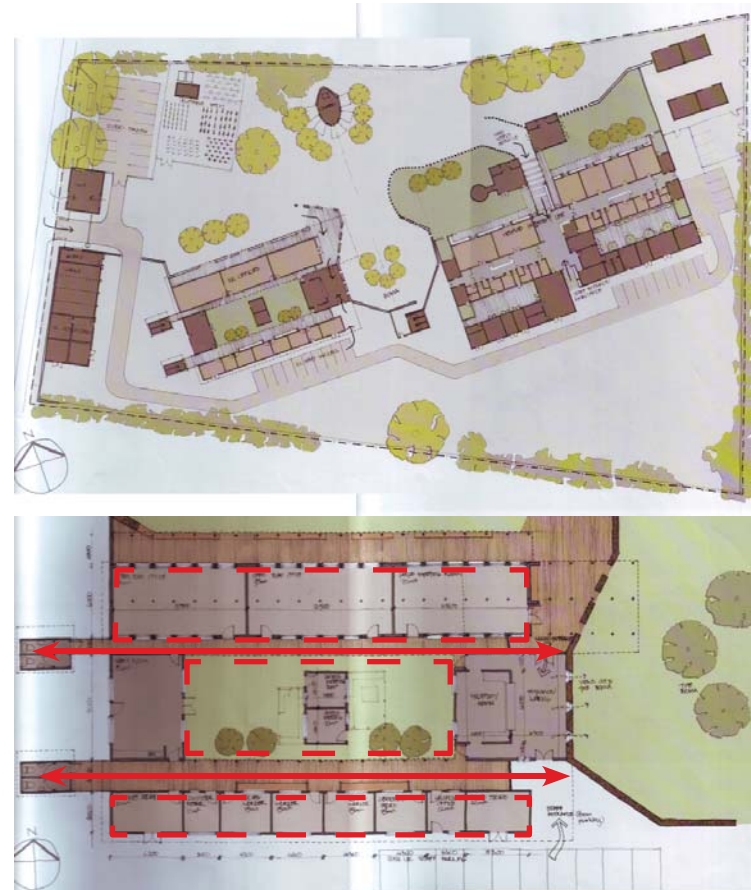


Fig.8o.(unknown:) Plans and 3D views of Ingwavuma Orphan Care

Religious Space

Sacred Space - 2008

A Community Church in Diepsloot

Jennifer Cochrane

Diepsloot, South Africa

Master's Thesis, University of the Witwatersrand

"This Thesis aims to explore the creation of sacred spaces and places of gathering to improve the everyday lives of the inhabitants of Diepsloot"

The intervention is located in the township of Diepsloot, which is a fairly new settlement and its built fabric is mostly composed of RDP subsidised housing and informal shacks. The inhabitants of Diepsloot have many social struggles to deal with, for example: *lack of employment, increase in poverty, substance abuse, prostitution, pollution, unhealthy play areas and limited access to places of recreation.* The Tented Churches and their leaders are a large force in the community, providing aid and a means of upliftment, offering counselling, skills training and food provision and clothing. *Above all, these churches provide a place of gathering where the local people can also find solace and quiet.* (Cochrane 2008)

Like Mamelodi, the residents of Diepsloot live in a highly dense environment, often with more than one family sharing a dwelling and the social and urban issues share much common ground.

This project has been chosen for the successful division of space with regard to a public edge that acts as a both a buffer and threshold space for the scared area behind.

The Multi-Service Centre for Mamelodi East must address many of these issues while also providing for social, spiritual and commercial opportunities.

The flow of space between the public commercial edge [red], the public sacred space, the altar and chapel is of great importance, furthermore, much can be learnt from the flexibility of space in terms of the functions that can be carried out simultaneously.

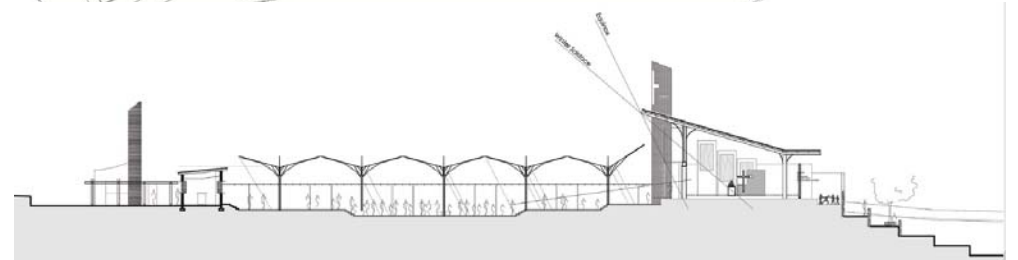
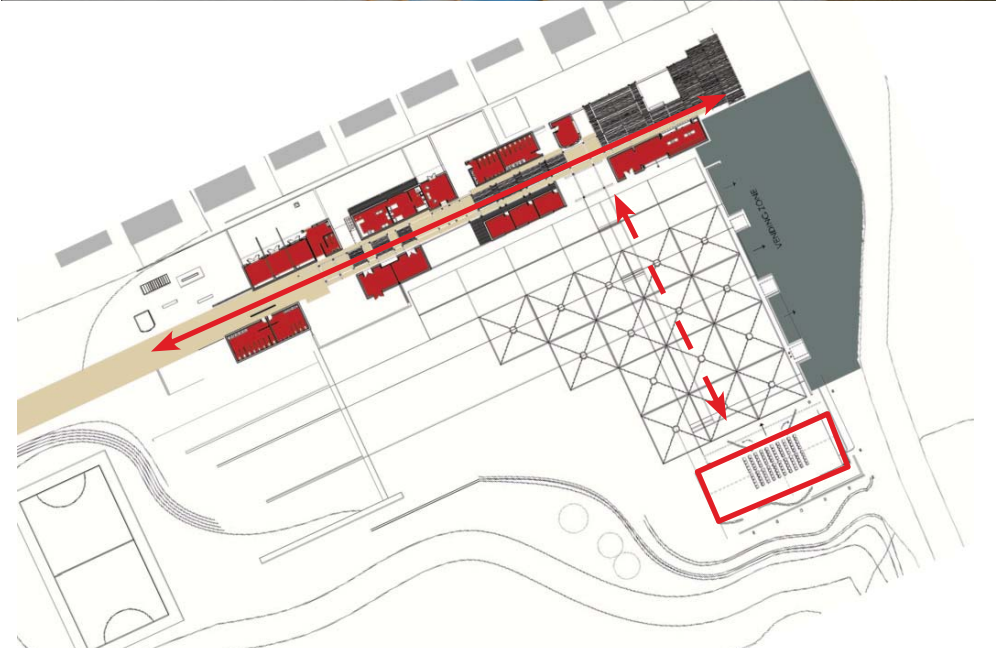
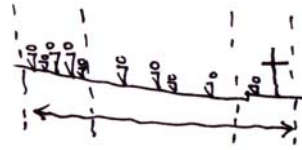
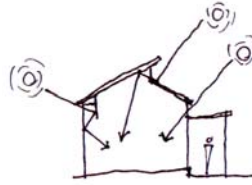


Fig.81.(Cochrane 2008) Conceptual plan and views of Sacred Space: a Community Church in Diepsloot



The Chapel of Light - 2006

Comrie-Wilkinson Architects
Vanderbijlpark, South Africa

The experience of the building is extraordinary. The architects have managed to create a sacred place in anotherwise placeless environment. (Cochrane 2008)

The building is located alongside a park and parking lots in a bleak corner of the campus of the University of Technology.

The aim of the design was to let the building create its own context, by defining external spaces by means of freestanding walls" (Deckler, Graupner & Rasmuss 2006:56)

The architects wanted to incorporate elements used in well renowned religious buildings, regardless of faith these are:

Sequences of approach and progress through space, the hierarchy and ordering of space, light, lightness of structure, the celebration of vertical elements and the use of water. (Deckler, Graupner & Rasmuss 2006:56)

The Multi-Service Centre for Mamelodi East seeks to use these elements of religious architecture, to give new meaning to communal functions, create sacred communal spaces and functions. The use of light and water is highly symbolic and their ability to express sacred space must be explored through design.

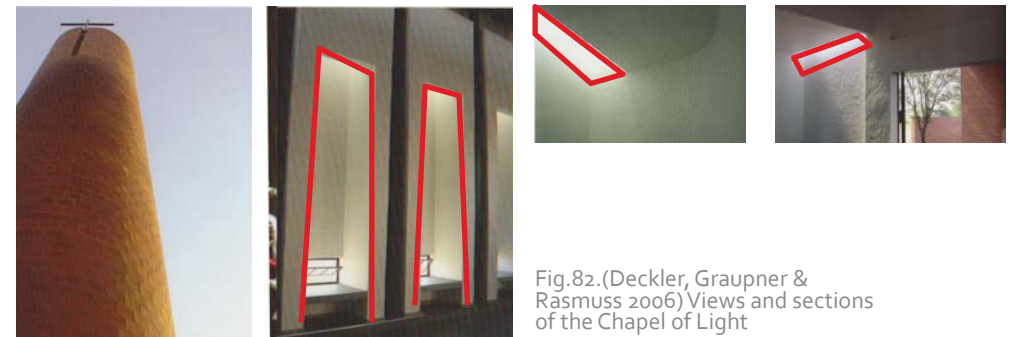
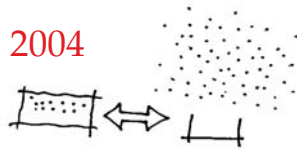


Fig.82.(Deckler, Graupner & Rasmuss 2006) Views and sections of the Chapel of Light

Chapel of Porciuncula, The Miraculous - 2004

Daniel Borilla Arquitectos
Bogota, Columbia



The Chapel is located on a plateau on the outskirts of Bogota. It is sited at the centre of a clearing that is gently sloped and surrounded by abundant vegetation. It is composed of dark stone and wood and stands out from the surrounding landscape of trees and mountains.

The walls are clad with stone tiles both inside and out, which create a sense of solidity while vertically woven timber panels contrast the horizontality of the tiles. The movable metal frames that house the timber panels create a dynamic quality to the building through both the ability to physically move and the changing quality of sunlight admitted throughout the day.

The formal nave is designed to accommodate 30 people, however when the screens are open, it transforms into a large altar for a congregation gathered in the landscape. This design has been chosen for its simplicity and flexibility of space. It uses light and heavy elements to articulate anchor walls and ground the lightweight cladding.

The Multi-Service Centre for Mamelodi East will incorporate a central worship space that is flexible and is able to accommodate different events and size of congregations. Rituals involving procession through the complex and landscape to worship is an important aspect in terms of definition of space and place making.

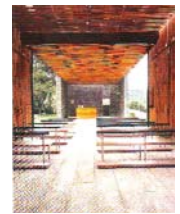
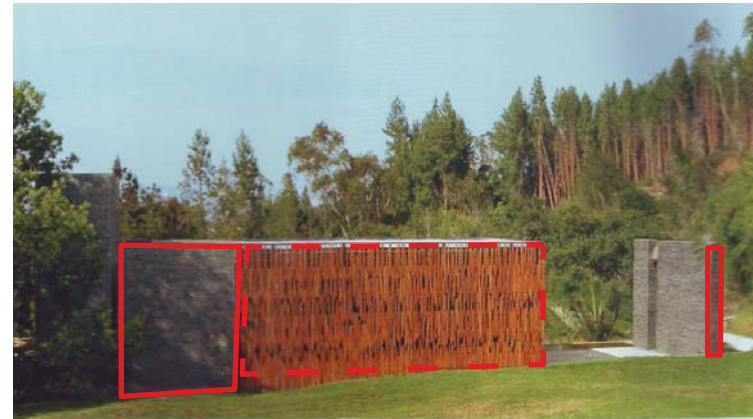


Fig.83.(Phaiadon 2008:) Views and plan of the Chapel of Porciuncula, the Miraculous

Glenthorne Cathedral - 2002

Harber & Associates
Kokstad, South Africa



The Cathedral, located in Kokstad, KwaZulu Natal was designed to be ecologically friendly and is composed of materials indigenous to the surrounding area and was constructed by local builders. The building was commissioned by the Church of the Province of South Africa.

There is a 50 metre-long nave that is open to the sky, leading to the main structure which is made from stone and thatch. The focal point is a semi-circular stone chapel that surrounds the altar and acts as the chancel and sanctuary for a much larger cathedral.

The open-air nave that begins at the bottom of a slope is defined by two parallel trellises of poles. The pathway is split over seven platforms which are symbolic of the 'stations of the cross'. For large gatherings and celebrations a shade cloth is suspended above the nave. There is a font at the entrance of the cathedral which is used both for sprinkling and total immersion baptism.

(Network of Earthkeeping Christian Communities in South Africa, Accessed 28 April 2010)

The Multi-Service Centre for Mamelodi East requires a defined worship space that is not enclosed by formal walls but has a strong sense of axis and procession, and is still highly symbolic. It must be a space that is able to house both small and large gatherings.

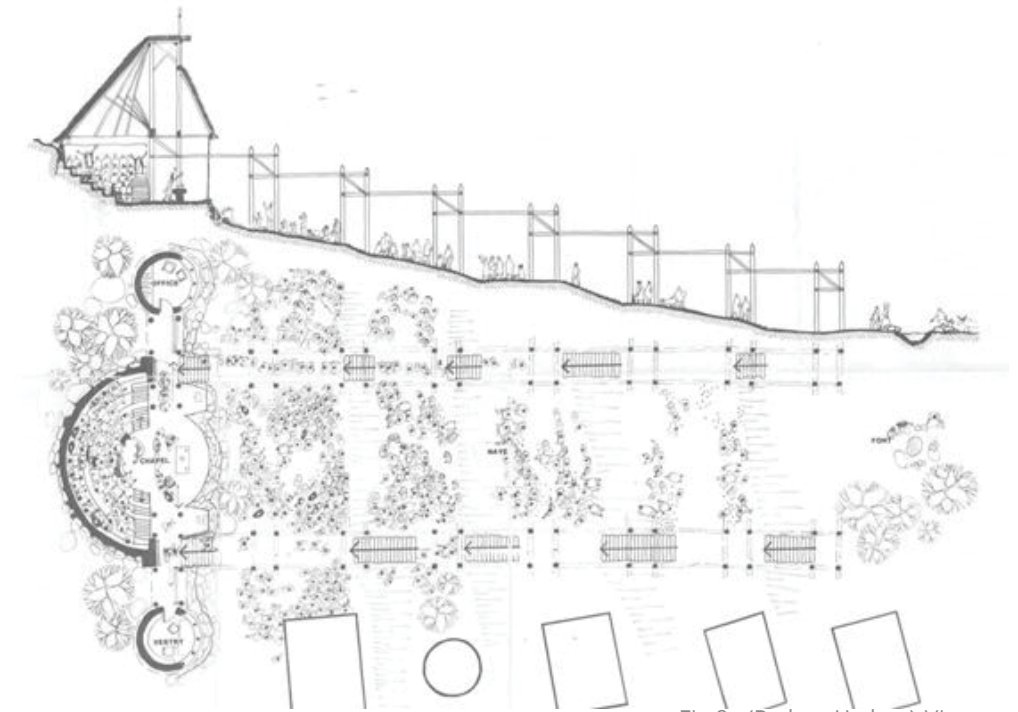
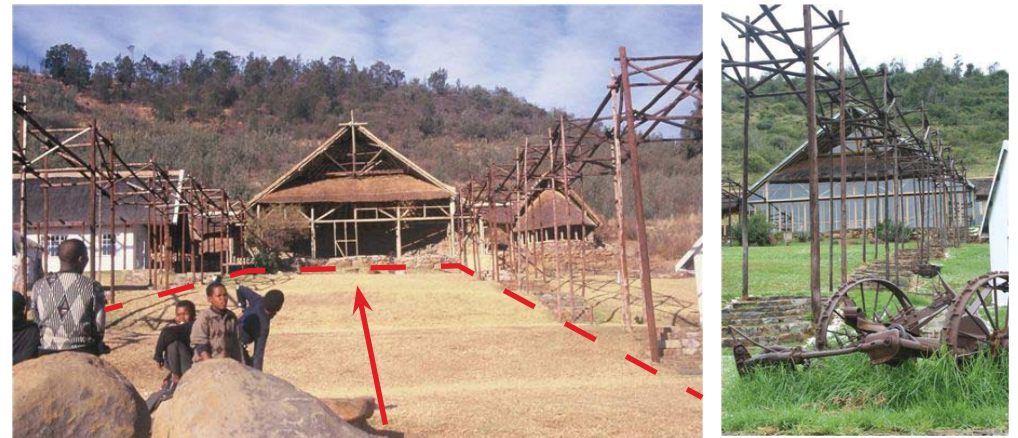
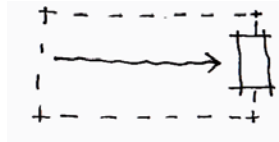


Fig.84. (Rodney Harber:) Views and plan of the Glenthorne Cathedral

Lady of Mount Carmel - c1980

Roman Catholic Church
San Diego , USA



For 20 years this outdoor Church in McGonigle Canyon served the illegal immigrants that found makeshift shelter nearby and employment in local tomato fields. The Church was founded by the Roman Catholic Church in the 1980's and its altar is located alongside a stream and features a concrete altar covered in tiles portraying the Virgin of Guadalupe. The nave consists four rows of benches and six picnic tables.

As of 2006 the canyon was surrounded by large houses whose residents wanted the squatters removed. In December the same year after heavy rains, the Church met and faced its congregation's removal and the Church's destruction which was to be carried out as soon as the soil had dried out, allowing access to the site.

(The Associated Press. Accessed 30 April 2010)

This example was chosen for its simple placemaking in its surroundings and an example of defining sacred space through use.

The Multi-Service Centre for Mamelodi East requires an outdoor worship space that is defined by its axis and a formal altar. Ultimately this space will be defined as sacred through use and perception as such.



Fig.85.(The Associated Press)
Views of the Altar of the Lady of
Mount Carmel

Shiv Temple- 2004

Sameep Padora & Associates.
Shindewadi, Maharashtra, India



The site is located in a wooded area of a rural village and houses an existing makeshift enclosure for a small idol. The design required a more permanent structure and the architects looked to traditional Hindu typologies. The elements were simplified to their basic forms and embodied by a 'single, tapering volume rising from the earth'. There is a square, glass skylight at the apex of the form. The structure was built with locally sourced materials by volunteers from the village.

To the South of the structure an amphitheatre is formed by cutting five levels of seating into the hillside, while to the east a ritual path is defined by two stone walls. This path is levelled in the space between the structure and the amphitheatre to form a community space that is used for both social and community gatherings.

The **Multi-Service Centre for Mamelodi East** requires a community space and ritual paths that are open, yet defined to both facilitate ritual and spiritual preparation.

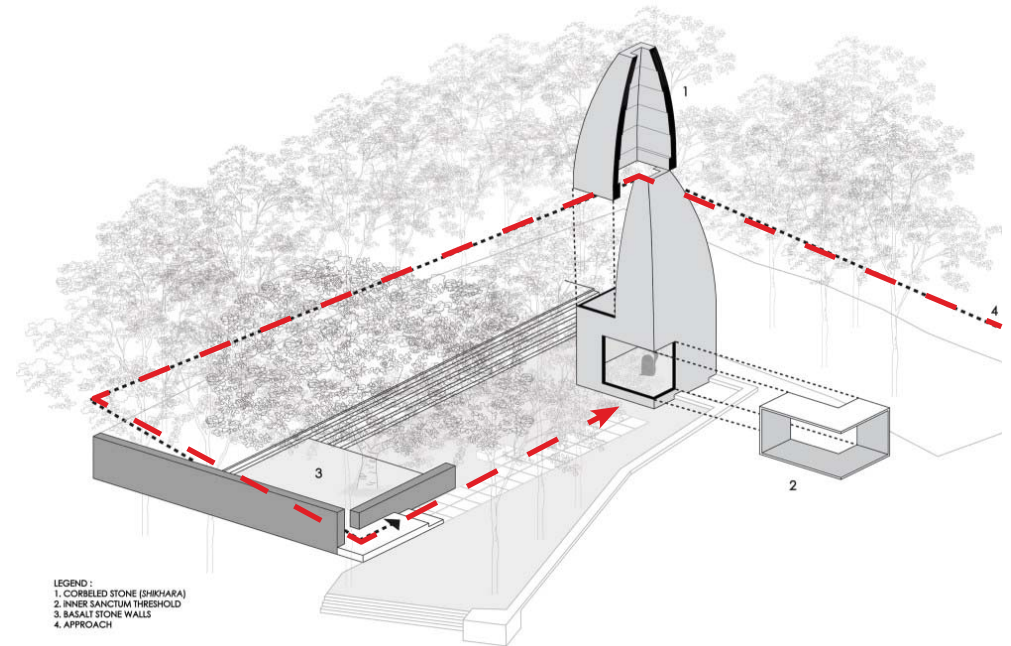
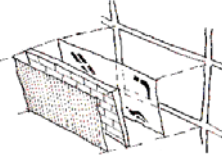


Fig.86.(Arch Daily, Accessed 24 October 2010) View and plan of the Shiv Temple

Architectural Language

Nelson Mandela Interpretation Centre - 2005

Peter Rich Architects
Alexandra, South Africa



Located in the Alexandra Township in Gauteng, the spatial design and materials chosen are taken from the organic yard and street structure of the area. The design reflects both civic and domestic scales and is able to both relate to its surroundings and serve as a landmark. This is done through the choice of materials, careful design of spaces and scale.

A dialogue is set up between rural, handmade, material finishes and urban, recycled, manufactured, waste materials, examples of which are resourcefully displayed in the physical fabric of Alexandra.

Deckler, Graupner, Rasmuss 2006:49

The Multi-Service Centre for Mamelodi East requires a scale that is able to become a landmark and a physical expression of possibility for the area, it must also allow for transformation and growth over time. The construction language is simple and legible, using a steel frame and locally sourced infill materials.

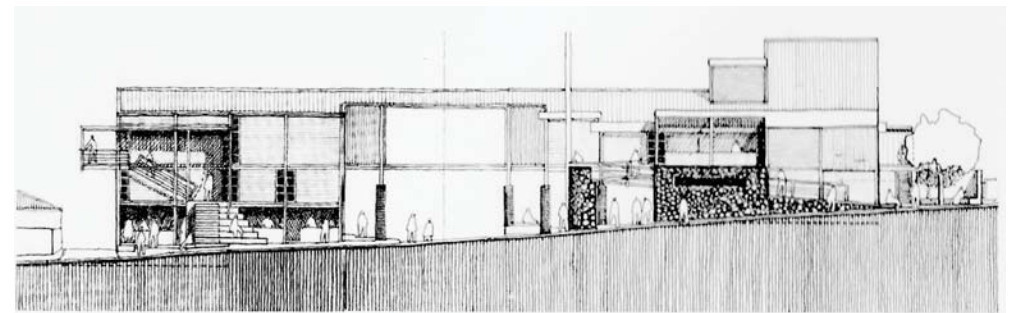
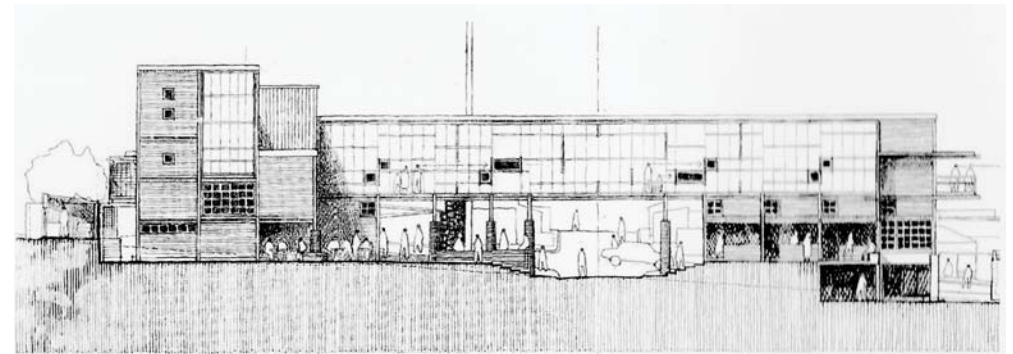


Fig.87.(www.peterricharchitects.co.za.) View and elevation of the Nelson Mandela Interpretation Centre

Duduza Resource Centre- 1990

Noero Wolff Architects
Duduza, South Africa



The resource centre located in the township of Duduza was designed to perform both educational and community functions and encompasses a variety of uses. The intention being that the facility was to be capable of future adaptation as a community college.

The Centre is accessible at all hours by all members of the local community. The facilities are arranged along a linear spine, that reflects the scale and ambience of the local streets. The adjoining glass-fronted 'shops' house various community projects and teaching spaces. There is an open courtyard half-way along the main spine, which is defined on one side by a two storey administration building which acts as the civic heart and spatial focus of the scheme. It also provides an anchor for future expansion.

Responses to climate articulate the main access-way and covered walkways defining routes. (Slessor, Accessed 9 August 2010)

The materials used are able to create emphasis on horizontal and vertical elements while the roof lines create a dynamic element.

The Multi-Service Centre for Mamelodi East requires a central courtyard which will be the spatial focus of the intervention and a linear public edge to encourage and engage with the prominent Mamelodi street culture. The centre also accommodates many varied community functions which are accessible. The intervention will need levels of security both passive and physical which will enable elements to be opened or closed to facilitate a balance between safety and access.

The industrial language of the structure is softened by the use of timber elements. This industrial nature will be able to relate to, yet be different from its informal surroundings.

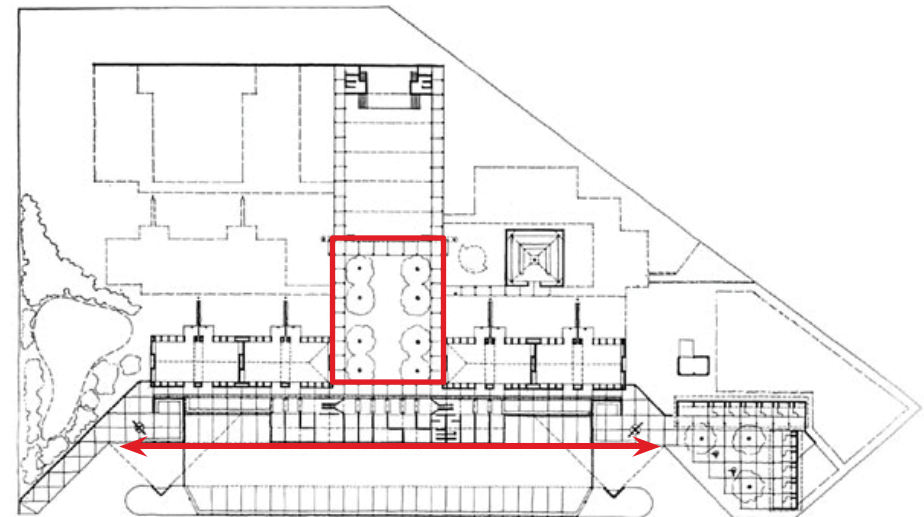
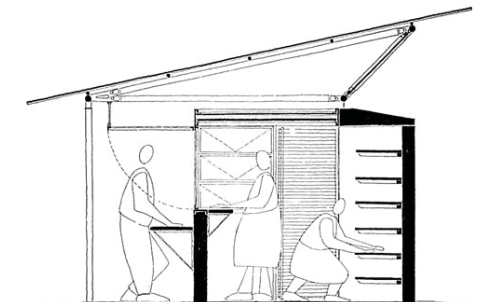
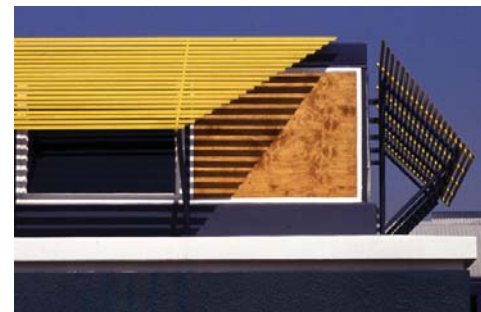


Fig.88.(www.noerowloff.com:)
Views, section and elevation of
the Duduza Resource Centre

Novasun Processing and Distribution Centre - 2008

Neo Dimensions Architects
Midrand, South Africa



Novasun is the major supplier of fresh produce to Woolworths. Their processing and distribution centre was built in Midrand. The design consists of 6,000 square metre cold room and supporting facilities. (Neo Dimensions Architects. Accessed 19 October 2010)

The aesthetics of the design are composed of simple elements and materials that are assembled to create an architecture that has both interest, through varied materials and balance through composition.

The structure has a solid base with a light roof that appears to float above it. The roof as an element becomes a horizontal plane.

The design was chosen as it reflects the desired architectural aesthetics, a balance between different materials and a strong sense of horizontality.

The design is wall dominated and articulating lighter infill and detail materials add interest without overshadowing the simplicity of design.

The Multi-Service Centre for Mamelodi East will incorporate solidity and transparency to define sacred and public areas. The roof plane will define scale and spatial hierarchy as well as forming a horizontal plane.

The language will be industrial but incorporating textured and natural elements to soften what may otherwise become harsh spaces.

In a spatial layout that requires long edge conditions to define space, articulation and detailing of materials become features of interest and facilitate a diversity of spaces to occur.

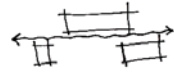


Fig.89.(<http://www.neodimensions.co.za/>) Views of the Novasun Processing and Distribution Centre

Summary



Bhadli Villiage School- 2002
Somaya & Kalappa Consultants.



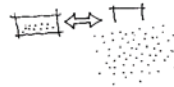
Ingwavuma Orphan Care - 2008
Feilden, Clegg, Bradley Studios.



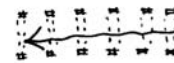
A Community Church in Diepsloot - 2008
Jennifer Cochrane



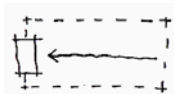
The Chapel of Light - 2006
Comrie-Wilkinson Architects



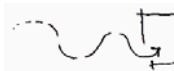
Chapel of Porciuncula, The Miraculous - 2004
Daniel Borilla Arqitectos



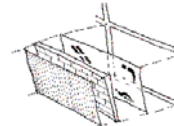
Glenthorne Cathedral - 2002
Harber & Associates



Lady of Mount Carmel - c1980
Roman Catholic Church



Shiv Temple- 2004
Sameep Padora & Associates.



Nelson Mandela Interpretation Centre - 2005
Peter Rich Architects



Duduza Resource Centre- 1990
Noero Wolff Architects



Novasun Processing and Distribution Centre- 2008
Neo Dimensions Architects

Religious Symbolism

Capela Mae Africa - 2003

Jose Forjaz
Maputo, Mozambique



Fig.90.(www.joseforjazarquitectos.com) Views and sections of the Capela Mae Africa

Instituto Missionário Das Irmãs Do Precioso Sangue - 1997

Jose Forjaz
Maputo, Mozambique



Fig.91.(www.joseforjazarquitectos.com) Detail views of Instituto Missionário Das Irmãs Do Precioso Sangue

Tokorozawa Catholic Church Cross - 2009-

Kensuke Watanabe
Japan



Fig.92.(<http://www.kwas.jp/English/>) View of the cross of the Tokorozawa Catholic Church

Chapel of the Holy Cross- 1957

Marguerite Brunswig Staude
Sedona, USA

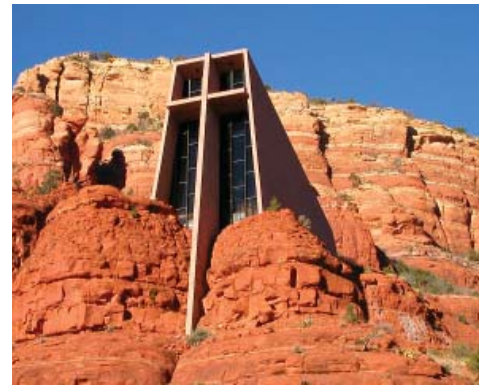


Fig.93.(<http://www.arizona-leisure.com/chapel-of-the-holy-cross.html>) View of the Chapel of the Holy Cross

Church of the Light - 1989

Tadao Ando
Japan



Fig.94.(<http://anuradhachatterjee-arch1201-2009.blogspot.com>) Internal view of the Church of the Light