



Precedent studies



3



3.1 Project: Nelson Mandela Interpretation Centre Location: Alexandra, Gauteng, South Africa Architects: Peter Rich Architects

This community owned museum facility is situated in a high-density urban community. It hosts jazz archives, internet cafés, a food court and youth centre with workshop areas. The building is designed on both a civic and domestic scale through the use of materials and the manipulations of space. The language of the design reflects resourcefully selected material use, consisting of recycled and waste materials, rural materials and urban materials combined with a more sophisticated use of polycarbonate walling. The visual and physical culture of Alexandra is celebrated with the loose-fit composition on the terrain and the views the building creates because of its open-air qualities. "The centre is dignified while being appropriately tough in a context of poverty and neglect." (DECKLER ET AL:2006:46-49)



001 IMAGE COLLAGE BY AUTHOR (DECKLER ET AL 2006:46-49)

Materials used:

- Cement blocks.
- Clay bricks.
- Steel H-columns and I-beams.
- Polycarbonate sheeting.
- IBR profile metal sheeting.

Influences:

- The new intervention is both carefully and elegantly designed to engage with the existing structures on site with the addition of new structures to enhance and not take away from what was on the site.
- A combination of materials, influenced by the context, as a play on spatial quality, texture and gradation
- Although this building is set in a township it is designed to an urban scale creating a sense of dignity.

3.2 Project: Thomaston Farmer's Market, 2000

Location: Thomaston, Newbern, United States of America.

Architects: Rural Studio

The Thomaston market is the Rural Studio's first foray into architecture to advance economic and town development. It is a civic building that hosts a farmers market and is mainly columns and a roof, a butterfly of corrugated metal with a prominent drain at its centre. The roof's supports – ribbed metal purlins, horizontal steel piping, and piped steel columns – are all welded. (OPPENHEIMER, A:2002:134-137)



002 IMAGE COLLAGE BY AUTHOR (OPPENHEIMER, A:2002:134-137), SKETCH BY AUTHOR

Influences:

- The roof is light and airy in appearance but is anchored to the ground with its steel columns in concrete. The steel columns are fixed in concrete column-footings which give the columns their bulky appearance without the waste of expensive material to achieve it.
- The proportion and "lightness" of the structure and the effective use of material will be investigated and applied to the recycling yard that will consist of a series of roofs.

Materials used:

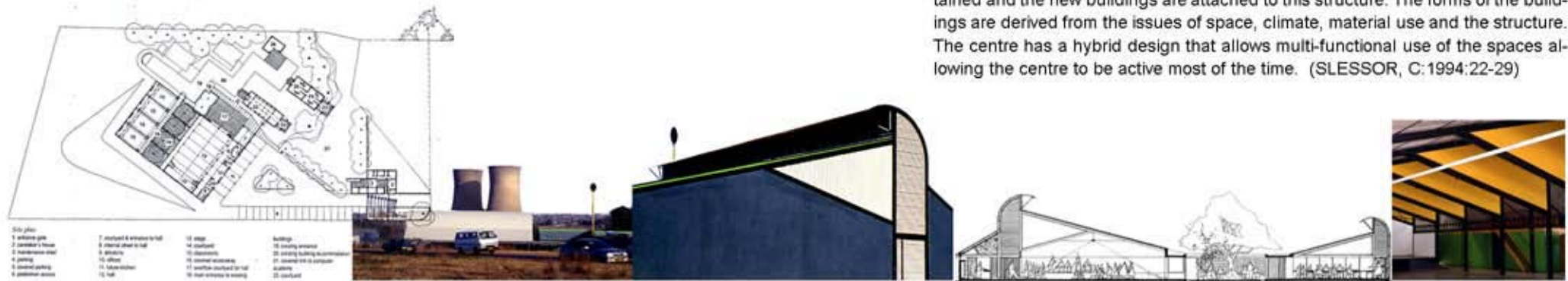
- Steel columns and trusses.
- Steel wire mesh.
- Cast in-situ concrete that is painted.

3.3 Project: Soweto Careers Centre

Location: Soweto, Gauteng, South Africa

Architects: Jo Noero

The centre creates a community focus and relates well to its context, topography, site limitations and existing buildings on the site. It has a variety of well designed spaces suitable for a mixture of functions. A sense of drama is created with innovative designed scooped roof structures what could easily remained portal framed buildings. Materials were resourcefully selected and typical vernacular materials of self-built houses were used to demonstrate to the users the good aesthetic and functional performance potential there of. The original structures of the site are retained and the new buildings are attached to this structure. The forms of the buildings are derived from the issues of space, climate, material use and the structure. The centre has a hybrid design that allows multi-functional use of the spaces allowing the centre to be active most of the time. (SLESSOR, C:1994:22-29)



003 IMAGE COLLAGE BY AUTHOR (SLESSOR, C:1994:22-29)

Influences:

- This centre influences the choice and use of materials in the dissertation.
- The hybrid designed spaces create an open variety of functions within one complex development. This can be introduced into the dissertation where it is also placed in a context with heterogeneous functions.

Materials used:

- IBR profile metal sheeting.
- Steel columns and truss work.
- Plastered and brightly painted masonry brick walls.

3.4 Project: Supershed and Pods, 1997 - 2001. Location: Alabama, United States of America Architects: Rural Studio

The barnlike Supershed rises 6 meters and stretches 43 meters. It shelters self designed and built student cottages and pods, which fit between the bays of the roof columns. The two parallel rows of pods are an assortment of diverse materials, textures and colours, but forms a coherent whole with the supershed creating a public promenade or circulation axis covered by the roof. The metal-roofed superstructure is supported with robust timbers recovered from a former railroad trestle and keeps the rainwater off the pods. At the one end of the promenade is a cardboard-bale classroom and on the other ablutions. This results in a quirky vernacular aesthetic. (OPPENHEIMER, A:2002:70-83)



004 IMAGE COLLAGE BY AUTHOR (OPPENHEIMER, A:2002:70-83)

Influences:

- The promenade forms a movement and circulation spine to which other elements are attached and is celebrated by the oversized roof that covers this circulation spine.
- The oversized roof can give an urban quality to the functions taking place underneath it.

Materials used:

- Wax impregnated cardboard-bale
- Timber
- An assortment of diverse recycled materials
- IBR profile metal sheeting

3.5 Project: Duduza Resource Centre

Location: Duduza, Gauteng, South Africa

Architects: Jo Noero

The Resource Centre in the Duduza Township has a dual educational and community function. It accommodates a series of informal education projects and is designed to cover a variety of uses and be capable of future adaptation as a community college. The facilities are arranged on a linear circulation spine, intended to replicate the scale and character of the street. The spine opens halfway into an open courtyard defined by a two-storey administration building which acts as the civic heart of the centre. (SLESSOR, C:1994:22-29)



005 IMAGE COLLAGE BY AUTHOR (SLESSOR, C:1994:22-29)

Influences:

- The resource centre interweaves educational and community functions to become a public building.
- The hybrid design allows for different programmes in the same centre maximising the functions and functionality of the building.

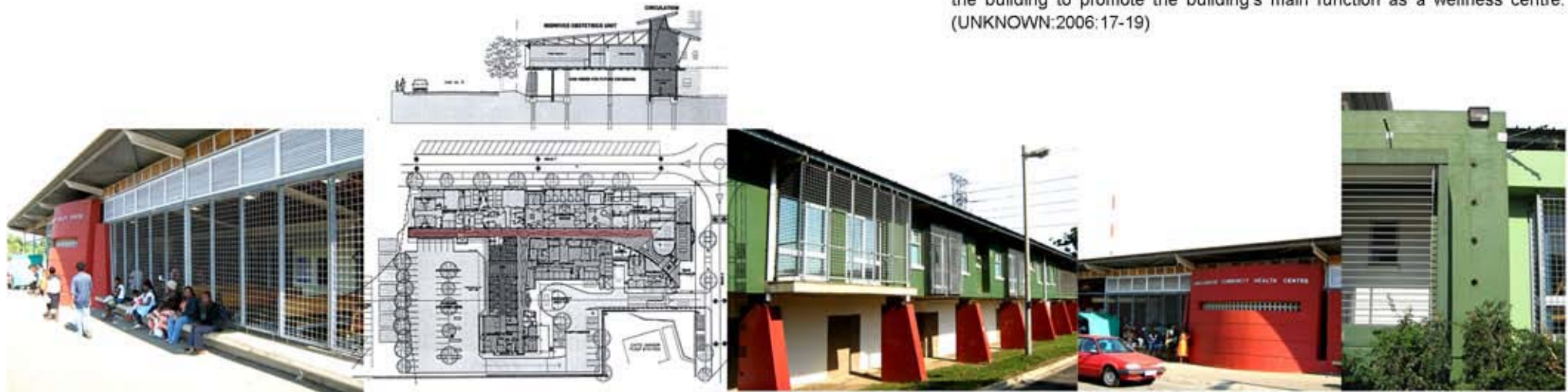
Materials used:

- IBR profile metal sheeting.
- Steel columns and truss work.
- Plastered and brightly painted masonry brick walls.

3.6 Project: Umkhumbane Community Health Centre

Location: Cato Manor, KwaZulu-Natal, South Africa
Architects: Robert Johnson with ZAI Consultants

This hybrid design engages with its site and is very successful in terms of the different programmes using the spaces designed. It engages rather than alienate the users on a functional level as well. Although its main function is to provide health care to the local Cato Manor community, the building forms a penetrable façade interacting with the street through articulated treatment of building components. This ensures that some of the deplorable elements of the public sector health system, like endless numbered queues, are transformed into public waiting places that are used for church assemblies on Sundays. The care facilities are organised in pockets and is structured along an ambiguous spine that is naturally ventilated. This spine allows fresh air and sunlight into the building to promote the building's main function as a wellness centre. (UNKNOWN:2006:17-19)



006 IMAGE COLLAGE BY AUTHOR (AUTHOR'S OWN)

influences:

- On urban scale and size, the building sets a strong precedent for future development on this high road.
- The robust design of the building is still very elegantly designed especially the mentis grid and steel mesh panels, for security, in front of the windows and courtyards of the building. The use of mesh-walls rather than solid walls allows the public to interact with the users of the building and let the outside into the building.

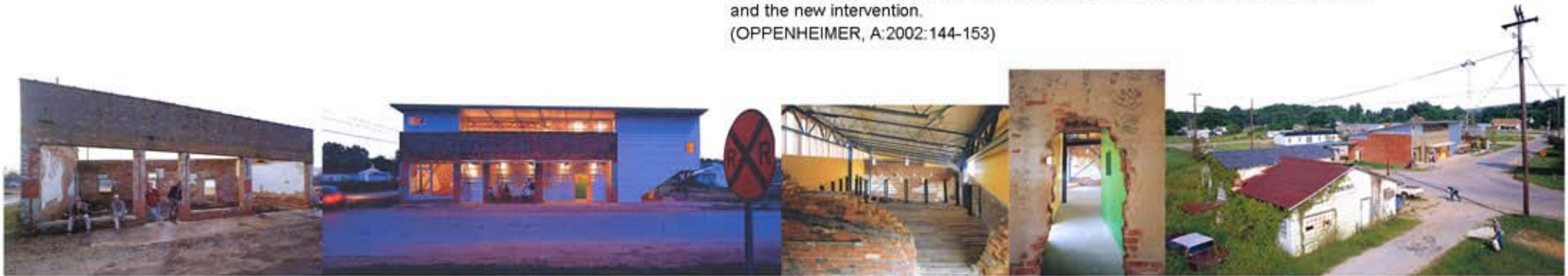
Materials used:

- IBR profile metal sheeting
- Plastered and brightly painted masonry brick walls
- Steel mesh and mentis grid

3.7 Project: Akron Boys and Girls club, 2001. Location: Akron, United States of America Architects: Rural Studio.

This club is a supervised gathering space for children when most of their parents are at work outside of town. Before Rural Studio intervened, it was a deserted weathered red brick husk of a former store. The students retained the old existing walls and topped the structure with a slanted roof, build off-kilter interior walls, and created a metal-wrapped add-on containing a small classroom, a computer lab, a bathroom, and a utility room. The interior is turned into a stage and brings the town inside. As the building is in a more rural-suburban environment, urbanity is added by a canopy and street furniture that extends the side-street wall and reinforces the path between the town's laundrette and gas station. Exciting architecture is achieved through material use and the language between the old existing structure and the new intervention.

(OPPENHEIMER, A:2002:144-153)



007 IMAGE COLLAGE BY AUTHOR (OPPENHEIMER, A:2002:144-153)

Materials used:

- Clay bricks.
- Steel columns and trusses.
- IBR profile metal sheeting.

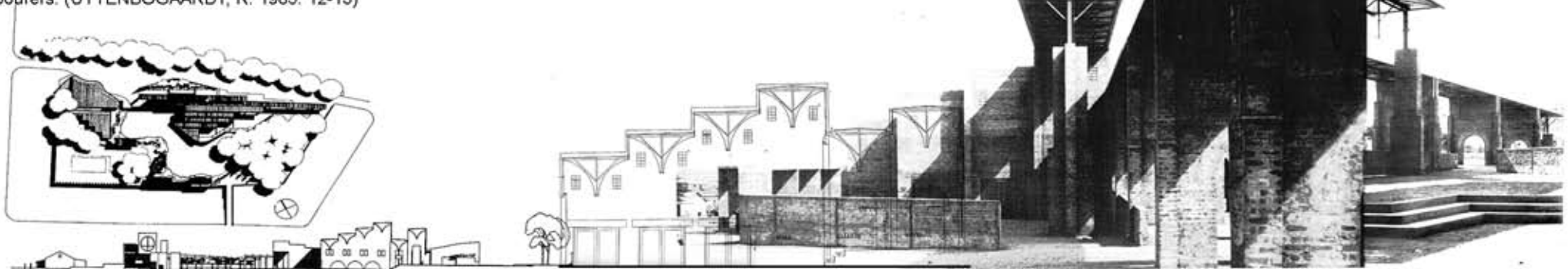
Influences:

- The new building's steel columns are respecting the existing structure and is therefore built behind the existing walls.
- The existing walls are kept in their original state as a remembrance of what was.
- The building material selection was informed by its surrounding context.
- Street furniture connects the interior and exterior of the building and forms a link with the street and surrounding buildings.

3.8 Project: Steinkopf Community Centre, 1978-80

Location: Steinkopf, North-west Cape, South Africa
Architects: Uytendogaardt & Rozandal

The building answers the primary needs for place and shade in this very hot and arid landscape. It creates a permeable place of shelter, shade, colours, trees and spaces that enriches the experience of urbanism. To strengthen the defined space, three peripheral walls enclose it with the principle circulation space of the town acting as the fourth wall. The programmes added to these walls consist of a library, visitor town houses, a crafts centre and a swimming pool. The main programme is the multi-functional community hall free-standing from the three walls to create interrelated outside spaces. The building's construction and material selection complements the local pragmatic light steel farm buildings with infill brickwork done by semi-skilled labourers. (UYTENBOGAARDT, R. 1985: 12-13)



008 IMAGE COLLAGE BY AUTHOR (UYTENBOGAARDT, R. 1985:12-13)

Influences:

- The high walls of the community hall steps gradually down in height to become orientated to a more pedestrian scale.
- The multi-functionality of the community hall is strengthened and maximised with the added different programmes to the complex.
- Urbanism is achieved through the placing of the community hall in the public space and the volumetric scale of the building.
- The public space is defined and activated by the programmes surrounding it creating an urban square.

Materials used:

- Mild steel frames and roof trusses.
- IBR profile metal sheeting.
- Unplastered masonry brickwork.