_03 precednts

The location of site is now established, as is a possible building programme. An inquisition is now launched into those projects that exist - specifically focusing on trade and transport amenities.
This analysis hopes to support the building type concept outlined, and possibly inform an accommodation schedule. The arrangement of the building's contents within a project as a whole is also studied.

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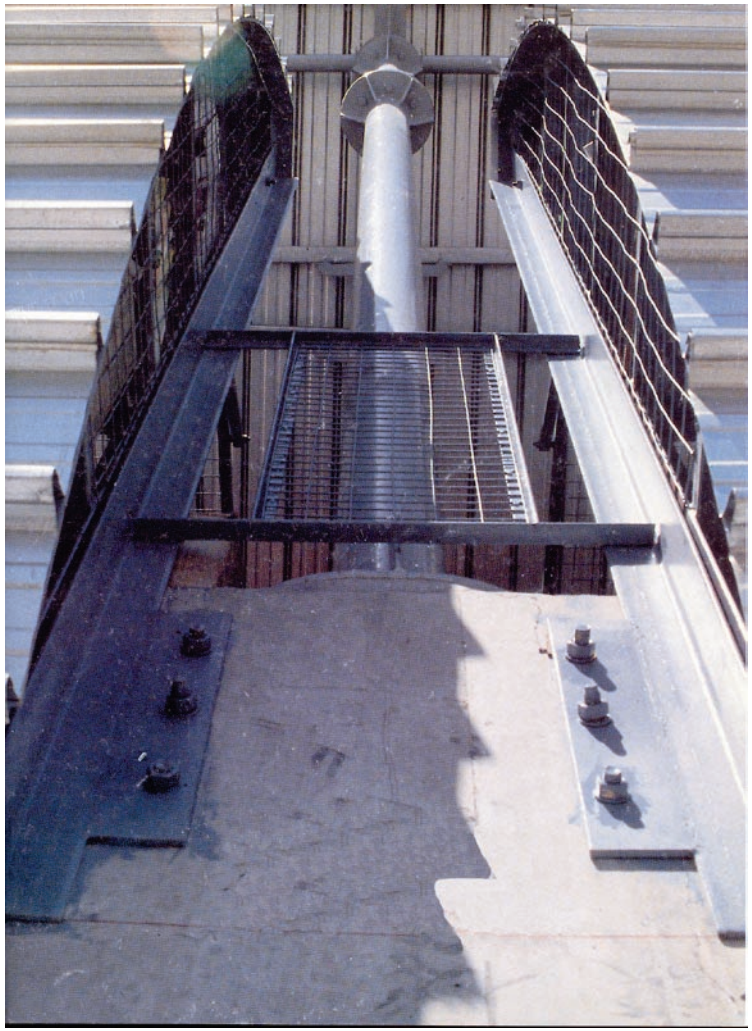

Figure 3.1. Steel coposite detail at Nyanga Junction

Figure 3.2. Advertisement boards fixed to steel tubing

Nyanga Junction Shopping Centre
Guguletu and Manenberg,
Cape Town
GAPP Architects and
Urban Designers
GAPP ARCHITECTS & URBAN DESIGNERS. 1994 Nyanga Junction Shopping Centre, *Architect and Builder*. December 1994, vol 94/12, pages 2-11.

Placed in-between and accessible by the N2 highway, GAPP were commisioned to design a building that would essentially capture commuters and 650 000 potential users to the highway's eastern borders, at Nyanga Junction in Cape Town.

As station precinct, the brief asked for accommodating the mixed range of users and money earners, an estimated 35 000 of which use the public transport of train and taxi provided there.

One of the driving concepts to this venture was the focus of empowering and serving those people previously denied access to convenient shopping and business facilities.
Job creation during construction and operation phases of the project was a major factor as well - principles complimenting goals described already in this paper.
Admirable of the project was the solution to the tight budget constraints, with financial aid received by support of the corporate and community bodies respectively, all working in conjunction with Black developers.

The black businessmen who recognised the potential of the site founded an entrepreneurial spirit. This theme oriented the occupation and empowerment of a variety of commercial users in the terminus.
Specific of the brief, and most notable in application to the Trade and Transport Terminus in Makhado, was the provision of some 12 000m^2 of building capable of housing major retailers, national, regional and local traders in a single "all embracing structure".
For GAPP architects, the roof was to achieve this, allowing any number of facilities to be placed under the structure, unifying and orienting the programme contained therein.

A very imortant retailing and marketing strategy employed is the positioning of Pick 'n Pay with a high and expensive market profile as anchor tenant at one portion of the building, and in another portion, a number of traders renting on a daily basis.
While the retail type content of the building in this paper is defragmented, branding and identified brand names are still important consumer orienting tools that need to be employed.
The differentiation of retail type and locality is also important, as user movement is initiated throughout the entirety of the building.

Aspiration of the architects also, was to liberate the building from established norms of "themed retail experiences", producing an "honest architectural expression of the necessary building components". Ostentatious devices were thus avoided, with the majority of materials

Figure. 3.3 Aerial photograph of the complex, showing roof as enclosing element

Figure 3.4 The simply detailed structure encloses the concrete block and frame buildings

comprised of exposed block, off-shutter concrete and steel work, with finishes limited to brick an porcelain tile, Nutec painted panels, roller shutters and Klip-lok bulkheads.
The industrial aesthetic characteristics of the building are applied robustly, with the modular structure exploited to create innovative detailing. Exposed services, and natural lighting and ventilation were used where possible, further supplementing the concept.

The colour of the malls contained under the roof structure are also understated so as not to retract from the identities brought by the traders, both formal and informal, as well as the shoppers.

The building successfully captures the bulk of pedestrian movement from the surrounding main arterials.
Pertinent to this is the anchor tenant of Pick 'n Pay, whose users then spill over to other smaller formal and informal traders.
The building also successfully conveys people over into other modes of transit in the terminus.
This aspect has particular relevance, as the new Trade and Transport Terminus will have to attract movement to and within it, independent of natural cross movement to other transit types.
Thus, the new building is not a link between different transit types, but rather a link to a new mixed type comprised of amalgamated users, predominantly dependent on the public transport terminus already established there.

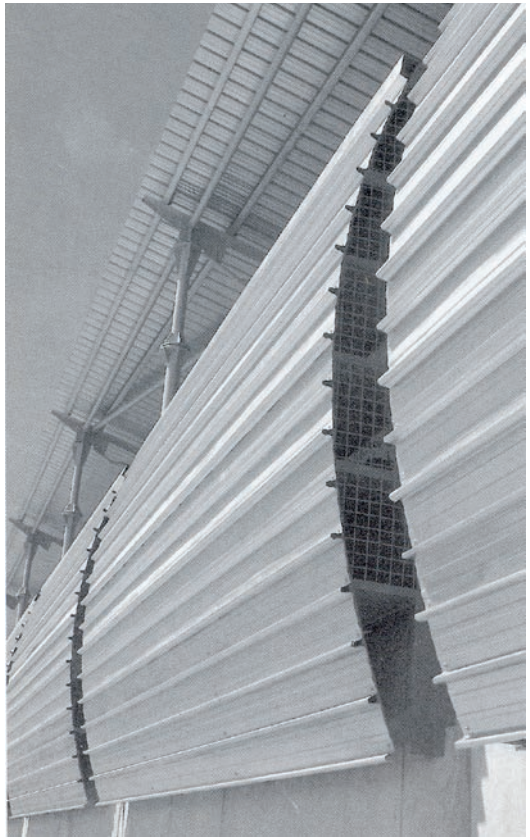

Figure 3.5
The robust matal cladding skin compliments and maintains the overall aesthetic of the complex

Figure 3.6
The roof structure helps define the public passage. The pitch of the roof opens this facade, celebrating the funcions that align it

By the brief description above, Nyanga Junction is free of cultural stereotypes or preconceptions, and in abstract only, refers to the engineering of rail and station architecture, striving to humanise the commuters experience and providing a common social platform in a politically neutral environment.
Reflective of the context described in previous chapters, this element of social security must ultimately be applied to the proposed Transport Terminus in Makahdo, as cultural tension is still very prominent.

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Figure 3.7
The drums of industrial waste sold quite aptly by the "Drum ladies"

Mansel Road Bus Facility
Greyville, Durban
Harber Associates
HARBER, R. 1997. Return of the Poor Man - Mansel Road Bus Facility. *Journal of the Kazulu-Natal Institute for Architects*, 1997, vol. 22, no 4, p.6-7.

The first example denotes the accommodation of different users of different types of transit to a avtivity of trade. Also, the potential for empowering a community, advantageous to both the developer and lessee was realised. The next precedent is similar with respect to economic empowerment and the facilities provided for, but encompass the trade point as a pavilion/ destination point reaching far further than the immediate public transport facilities provided.

A large portion of vacant land in Greyville, Durban, owned by SARRC was identified as a possible site to accommodate the relocation of a growing and needy trading community who have since the relaxation of exclusion laws flocked to perceived opportunities offered by the CBD.

With these traders, the influxes of long-distance bus charters that have contributed to the trade activity are catered for too. Groups of villagers as far a field as the Limpopo Province (Northern Province) band together and send representatives on overnight bus excursions with cash to buy from Indian traders and street vendors in Durban.

Women selling industrial waste were most influential to the project, as they and there dependents lived on the streets. Up to forty families shared one tap and two chemical toilets provided by the "apprehensive" Health Department.
The majority of these families have since been allocated living, storage and selling space within the new bus facility.

Figure 3.8 depicts the different space allocation, with the storage court favourable for more private outdoor space for the renters of the living/trading unit.

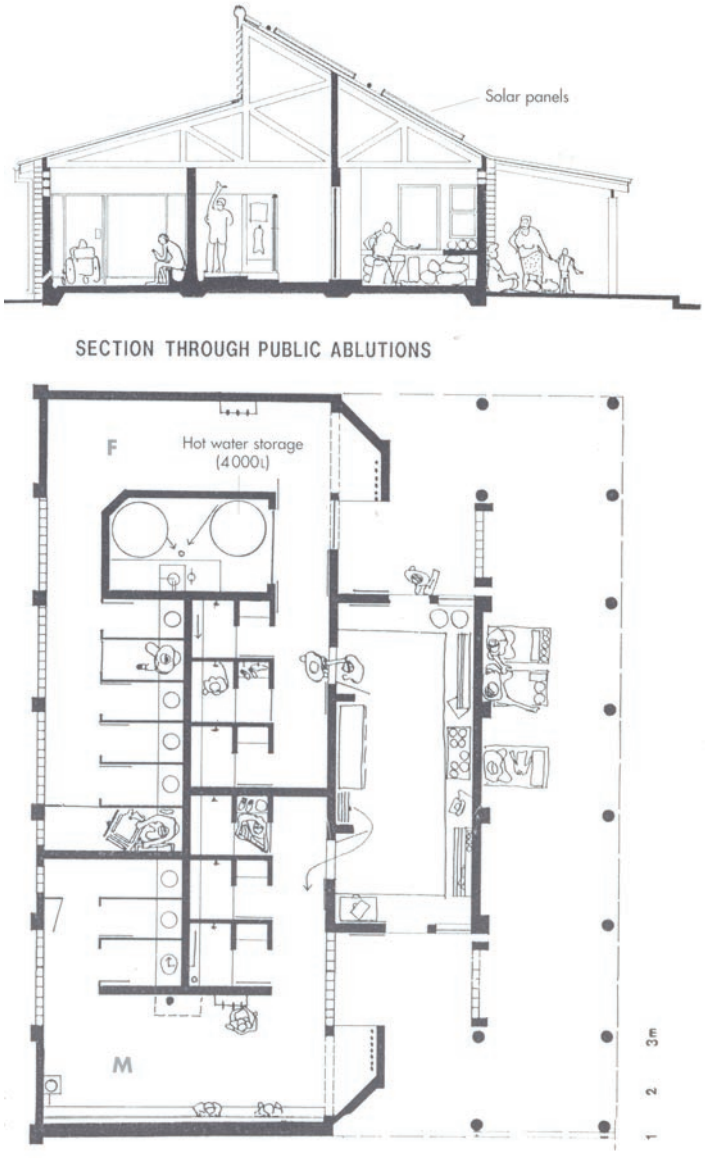

Figure 3.8 Above: A section and plan of the public ablution facilities. Solar panels fitted to the roof provide cheap harvesting of power, used to warm the water used.

mansel road

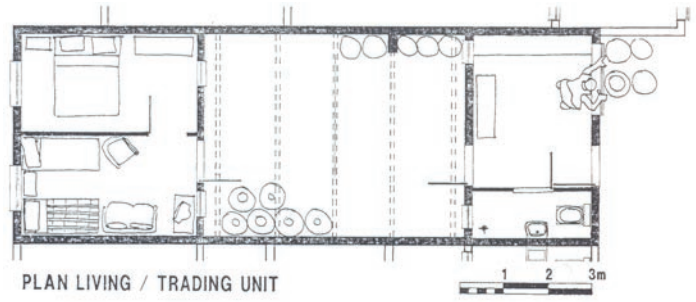

Figure 3.9: Plan of the living and trading unit, with the strorage area used as private dweeling space for the unit's residents. The structure overhead is made of blue-gum poles with a removable tarpaulin cloth to regulate solar gain into the cour.

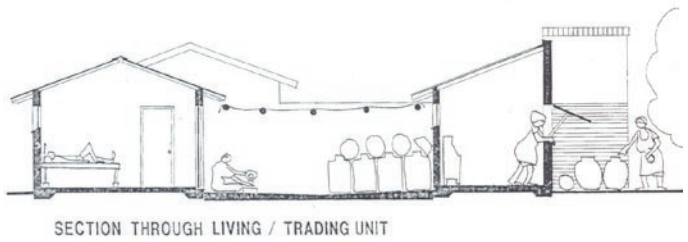

Figure 3.10: Section revealing the description given Figure x, as well as the interface the unit shares with the public realm of the trader and buyer.

Communal toilets were rejected by all families, which pushed up the development costs considerably. The ablution facility is comprised of a small central "shop" where luggage can be left or items bought, and the "shopkeeper" keeps the toilets clean to stimulate trade. Hot water showers are also provided at R1 for two minutes. An applicable solution that provides incentive for a self-regulated and well-kept facility.

As programme component to the Trade and Transport Terminus in Makhado, the application of a structured ablution facility described above will be considered.

The site also provides 180 covered stalls for "car-boot sellers" - (Figure 3.11), 180 bays for pinafore ladies, a 24-hour crèche, learning centre and accommodation for drivers in which to relax.
This precedent is also of particular relevance, by example of the labour source used. "Emergent contractors" were used to build the units, and interested black contractors who tendered on their mark up took part in a workshop on the Bills of Quantities, providing education in skills management and not merely the physical building process.

The Mansel Road Bus Facility ultimately offers sufficient facility for the poor people resident to this part of Durban, by its mixed-use application

Figure 3.11: The carboot traders market

of trading, living and training. Simple yet effective construction is employed to cater for basic amenites, whose spacial definition is also well defined.

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warwick junction

Warwick Junction
Urban Renewal Project
Berea, Durban
Architects: Lee and Short, Kooblal and Steyn, OMM Design workshop, Langa Makhanya and Associates, Laren Beni Architect, Barbara Van Zyl, Mike Legg Architects CC

DOBSON, R. 2001. Warwick Junction Urban Renewal Project. *Journal of the Kwazulu-Natal Institute for Architects*, 2001, vol. 26, no 3, p.6-13.

Bisected by "urban freeways" and the N3 Eilat Viaduct overhead, Warwick Junction is one of the country's busiest transport and commercial nodes. Berea Road Rail Station, Victoria Street Bus Terminus, taxi ranks and numerous markets of both formal and informal nature constitute a rather run-down area of Durban. In 1997 the municipal council, together with an agglomerate of urban designers and architects, began to address the rejuvenation of this precinct in consultation with the various user groups found there.

The junction accommodates two thirds of Durban's informal traders in the inner city with some 300 000 daily commuters sustaining an annual turnover of approximately R1 billion. The existing roads and railway station, and their aspired connection determine the structure of Warwick Junction, an array of various trading type making the infill of these spaces. These are comprised of trader's stalls on main streets and pedestrian bridges utilising existing structures as framework to adapted form of infill. The application of more formal structures to previously derelict informal trading now collects the activity, allowing for robust infill of user material and the display of goods. The remains of vehicular on and off-ramps to an uncompleted freeway adapted by the OMM Design Workshop is of special mention, whereby sheltered stalls and connecting bridges were placed on the abandoned structures to cater for herb traders lining the pavements. This development then also allowed for access to the CBD from the

Figure 3.14: View of the abandoned high-way before occupation by the Herb Traders

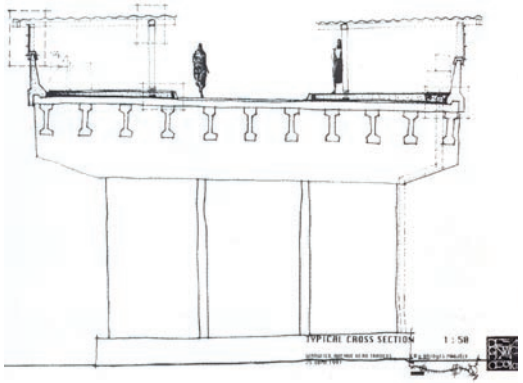

Figure 3.15: Concept sketch of the pro-posed development by OMM Design Workshop.

Figure 3.12 Left: A simple robust canopy structure protects the informal vendors from the elements and allows room for free expression of display character there-under.

Figure 3.13 Right: A view towards the city of the now established Herb Traders. Note how the street lights suppliment a market street character and suggest an overarching enclosure to the middle por-tion - defining more trading space.

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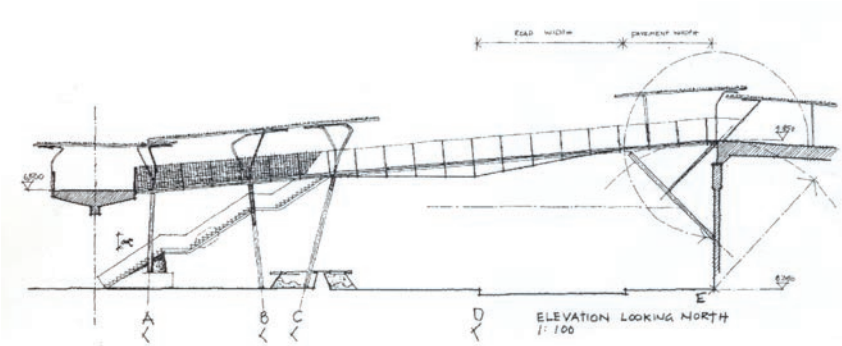
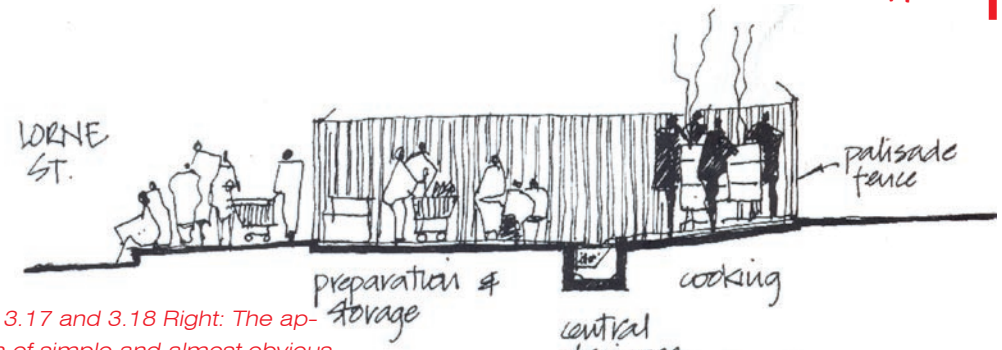


Figure 3.16 Above: Concept sketch by project architect of OMM Design Workshop, Andrew Makin - for the structural addition to the pedestrian bridge.

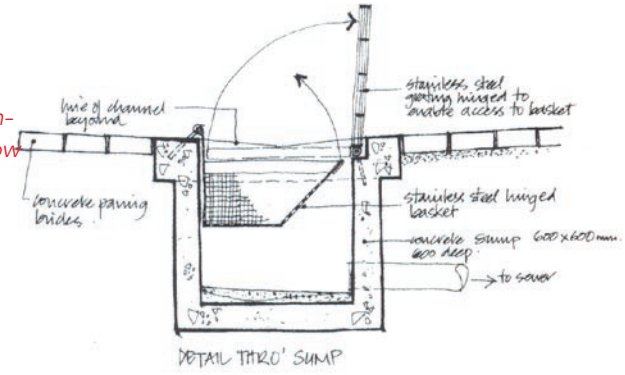
Victoria Street Bus Terminus and various other taxi ranks.

Other specialised infrastructure includes lockable water points and pre-paid electricity points accessed by various traders. Chemically spoilt floors are maintained by provision of "specially designed sumps lined with stainless steel sleeves to catch solid waste", with trading bans handed out to traders if these and other trade principles are not practiced.

Of particular interest to this thesis is the application of formal type systems that cater for the growth of the informal. Often, new systems are employed that only provide more secure and hygienic footholds in which to participate – achieved by a process of mere observation and thorough consultation with the various trade types. Underpinned by economically viable development, the resulting architecture is not sacrificed of quality, but allows the freedom of creativity and expression within a robust structure.



Figures 3.17 and 3.18 Right: The application of simple and almost obvious material and mechanical systems help define different areas of space use within the Mealie cooker's facility, The detail depicted of the sump reveals an effective solution to cleaning and waste management. The materials used are firmly fixed to the concrete structure, making them theft and vandal proof, while at the same time allow for easy access and maintenance.

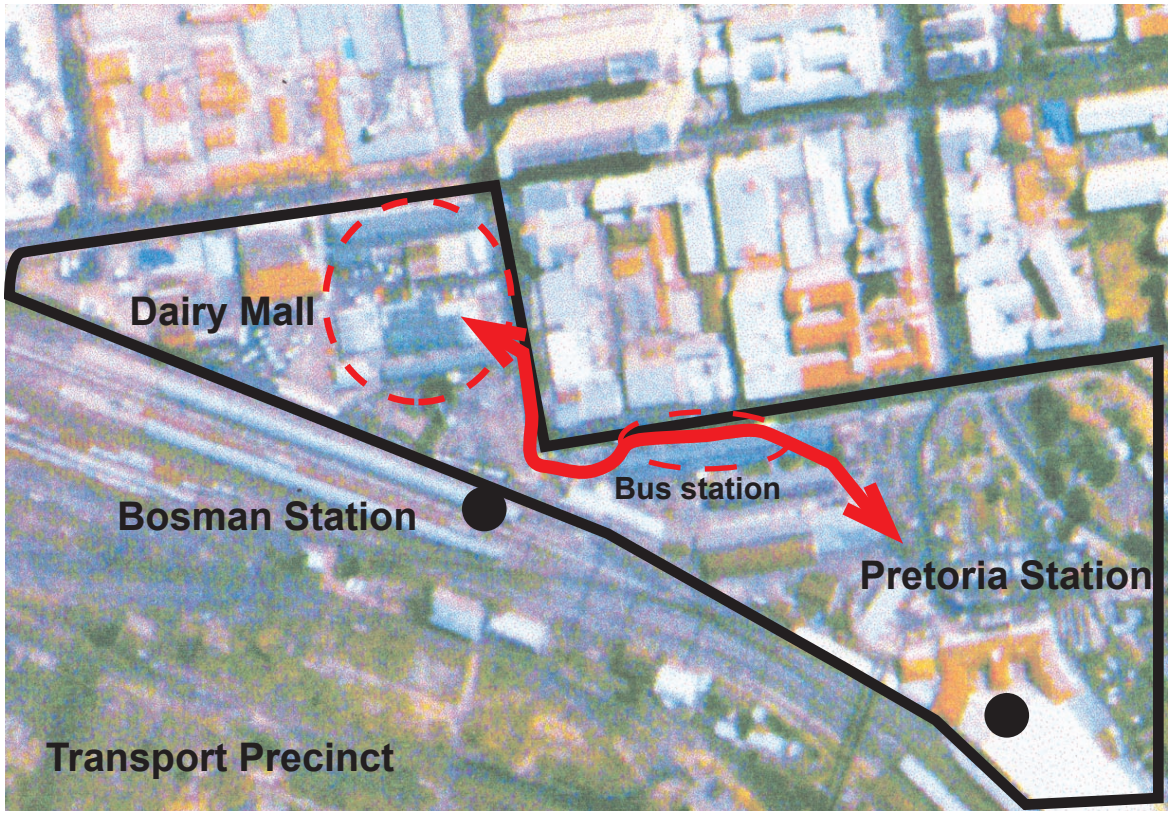


Figures 3.19

Figures 3.20

Figures 3.19 and 3.20 depict the spatial qualities achieved by filitering light through wattle lats. Also, the detailing of the loadbearing structure overhead is sculptural and of free form, creating a morph like element along the movement channel.

Figure 3.21: Locality photograph of the staion precinct



The following precedent is set amongst the transport precinct of Pretoria and Bosman Stations in Pretoria.

This analysis investigates the amalgamation of users of different transport types along the length of the movement spine indicated in figure 3.21. Emphasis is placed on the compilation of user activity in, and the progression of these spaces attributed to the respective travelling modes.

These include: rail and bus commuters moving from Pretoria and Bosman Station into the city's CBD. A large collection of taxi's circulating this precinct that provide for the bulk public transport are found here too.

Beginning just west of the main station, clever and simple design of seating supports the design language of the precinct.

scheidng street bus station

Figures 3.22 and 3.23: The use of old rail lines for street furniture copm-pliments the overall image of the

Figure 3.24: View of Scheiding Street bus station

Figures 3.25 and 3.26 depict the ordering of social to hard space by the mass and collonade arrangemnt of the columns

The Bus Station serves commuters travelling in and out of the CBD from the surrounding townships of Atteridgeville and Mabopane.

The station building itself is an awesome structure that houses the collection of busses and their passengers, as well as informal traders serving these users.
Exposed roof trusses help accentuate the scale of the internal volume, complimenting the building's scale for its function. The front view of the station in figure 3.24, depicts this principle, collecting the busses within one continous form, while also sustaining the scale of the urban fabric.

This northern facade's spacial definition is clear, with the progression broken by basic lines from road and bus stop zone, to sidewalk and trading space. Thick walls define outside and inside activities - figures 3.28-3.29 , and perhaps for climatic conditions, control the solar gain from the north into the interior.
Lettable shop space is also provided here, further accentuating this as the active edge.
The column and pediment configuration of this facade and its visual mass responds well to the language prescribed by the Pretoria Station building, and equally well to its own proportioning system.

The configuration of these components, as well as the skylight above the exposed trusses, help illuminate the interior of the building.

Figure 3.27

Figure 3.25 shows the adaptation of seating arrangements.
The ballustrading is preferred, as it faces directly onto the active edge of Scheiding Street, sustaining visual and social interaction.
The seating provided within the same architectural content of the building is less used, as its configuration is circular, thus users would turn their backs onto the busses. The seating is also placed to far into the sun's reach and thus avoided. The scenario would perhaps be quite different on a cold day, as the brick benches would retain heat, and make warm seating areas.

Figure 3.28

Figure 3.29

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bosman station and dairy mall

Figure 3.30.

bosman Station and the bare piece of land in front of itis an important urban space, as hundreds of commuters pas through it every day.
The edge of this derelict land plays subjext to a spine of informal trading (fgure 3.30), that serves the passing commuters and those en-route to Diary Mall.

Figure 3.32.

Dairy Mall was originally developed as an industrial complex for the "Transvaal Koelkamers" who produced a variety of dairy products.
The industrial character of the builgings is still visible, while the function within have been totally redefined.
Serving as taxi depot for both local and long distance travellers, the buildings at Dairy Mall are now occupied by a variety of tradesmen and storage space. These facilities support the large numbers of people moving through the site.

Most notable is the applied character of the buildings and spaces inbetween that the users have created against the industrial backdrop

What makes this site extremely appealing is the density and close proximity of activities, ranging from trading stalls and larger retail shops, to taxi waitng and collection areas and eateries.
A vibrant and symbiotic relationship is shared between all, experienced at surging intervals of arrival and departure times of both the taxis and trains at Bosman Station.

Figure 3.33.

The Mall is essentially a collection of builidngs that by space arrangement and connectivity, are perceived almost as one.

The builidngs merely provide the formal structure from which the users animate the spaces and surfaces while performing their daily roles.

Figure 3.31. Photograph of Dairy Mall from the fire station

Figure 3.34.

Figure 3.35. View of the Mall's main trading street.

Figure 3.36. Unused street furniture.

Figure 3.37. Inside the trading street

Efforts to intiate this character early on, such as the traditional pattern painting to walls and columns seems uncomplimentary at first, and perhaps a little patronising. What is revealed however is the canvas of colour that these surfaces provide, resonating the colours found in the rest of the visual spectrum.

Street furniture and manufactured trading stalls in figure 3.36 try to compliment the archtectural language of these buildings, but fail to be used largely because they are placed in a dead area.

Figure 3.38 depicts fruther adaptation of space. What used to be a large shop is now converted into communal space adjacent to a take-away restaurant. The result is somewhat crude, but speaks of the nature of retail there and the need for such a space. A space sheltered from the elements that reaches full occupation before long-distance taxis depart for other provinces in the country.

Understanding the application of components and allowing for adaptation to an eveironment that is predominantly informally created is difficult, but important for this paper.

This study of the Staion Precinct has revealed a number of important design determinents both for building programme and design.
While the buildings analysed carry an architectural content reaching further than just its adapted application, images reveal how the consequential design of surfaces and spaces are performed simply
Presented against the backdrop of these builidngs' basic form and space defining characteristics, the user is by their everyday activities an informant of texture, colour, material and spatial qauality.

Figure 3.38.

Figure 3.39

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rocky street market

Figure 3.40.

Built by Urban Solutions, Rocky Street Market in Yeoville, Johannesburg, was opened in 1999 to cater for informal traders of the area.

This study serves as precedent for its building type and programme, but more importantly for the materials used.
As already identified, Makhado's surrounding districts play home to a large industry of tree plantations, namely pine and eucalyptus. A variety of timber products and the acompanying workmanship is thus readily available, and thus considered for the Trade and Transport Terminus.

The market in Yeoville consists of two large roofed trading and storage areas and trading cubicles surrounding a courtyard - where items are sold also. The cubicles align the peripheries of the main streets and advantageously engage with pedestrians along the streets' active edges.

Items bought here differ in type and quantity from those for sale to the interior of the market. The spectrum of products is thus not limited to one edge (the street) and partially ilimi-natescompetition of buying power. Single purchases of small items are conducted on the periphery and perhaps generate a better turnover than stalls inside the market.

If bulk purchases are required however, buyers are quickly directed to the appropriate stall inside, where that difference in turnover is compensated for.
There are also other incentives for trading within the roofed spaces, such as easier access to ablutions, and cleaning facilites specifically for foods.

The courtyards house social spaces where food and drink can be purhcased and enjoyed, as well as a pay-on-entry bathhouse. Traders surrounding these spaces enjoy the purchasing power of these users.

As in the study of Dairy Farm, a relationship of mutual understanding and respect is maintained by the different trraders who essentially need eachother to survive - the smaller traders attract buyers from the bussling sidewalk, who are then enticed to buy other goods inside the market.

The compostion of volumes both within the larger roofed trading areas and the street cubicles are cleverly detailed with simple materials in an almost raw state. The tresholds of spaces occupied by passing and purchasing pedestrians respectively, are well define.
Figure 3.42 depicts the compostion of timber column and beams used to support this principle on the street edge, with lathes making up the canopy cover.

Figure 3.41. View of courtard walls made of lathes

Figure 3.42. Trading units fronting the street.

Figure 3.43. View of courtyard

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The structural compostion of the interior trading spaces is such that the volume is elevated, leaving a deep roof cavity for hot air to escape. Clerestory windows puncture this volume aslo, and allow light to penetrate the interior.
The thick nasonry columns are proportioned well to compliment the scale of the volume also.

A covered walkway connects the streets of Hunter and Rocky that run on the markets eastern and western boreders respectively. Again, simple detailing to a well arranged composite of materials express an honest clarity of structure. The cobination of masonry, timber and steel members are well executed, each revealing their function - figure 3.46.

This triple volume movement spine also predicates the height and material finishes of the courtyard “walls.” At every possible section, the structure and its added skin is exposed, and is sustained throughout the market building.

This study reveals the potential of timber construction from structural component right through to deatailing., complimented with masonry and steel work.

Figure 3.44 Inside a covered trading area

Figure 3,45.

Figure 3.46.

Figure 3.47.