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public library in inner city johannesburg

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This document is submitted in partial fulfillment for the degree:
Bachelor of Architecture or Master of Architecture (Professional)
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in the year 2007.

Declaration

I, Frances Mary Joynt, am a student registered for the course of Master of Architecture (Professional) in the year 2007. I hereby declare the following:

I am aware that plagiarism (the use of someone else's work without permission and/or without acknowledging the original sources) is wrong. I confirm that the work submitted for assessment for the above course is my own unaided work except where I have stated explicitly otherwise. I have followed the required conventions in referencing thoughts, ideas, and visual materials of others.

For this purpose, I have referred to the Graduate School of Engineering and the Built Environment style guide. I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that it is not my unaided work or that I have failed to acknowledge the source of the ideas or words in my work.

7 December 2007

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Dave
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Kathy Oakes

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Your own
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bibliotheque nationale de france
british national library
norwich public library
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SUBJECT OF THE INVESTIGATION

In his essay entitled 'Buildings and Society' (Farmer & Louw 1993: 119), Anthony D. King quotes Prior in an exploration of the role of buildings in society: 'If buildings are socially produced, they are also socially consumed. Buildings, and the larger built environment in which they exist, do not simply 'reflect' or 'represent' a particular societal and social order, they actively engage in the constitution of social and cultural existence...' (Prior 1988).

In light of this statement, my thesis will propose that architecture, particularly in the realm of public institutions, has the capacity to influence Johannesburg's society and culture to embrace the condition of urbanity: the concept of connectivity and communication between opposites, transcending criteria such as education and class through common accessibility.

This thesis identifies accessibility as the primary factor in the constitution of a truly public building. The consideration of accessibility in the public realm has resulted in the decision to design a public library, where accessibility as an agenda bears relevance at various levels and stages of its conception. In terms of accessibility, the need to reinvent the public library, in its role as a public building within its physical and socio-economic context and in its role as a library within the context of modernity, becomes apparent.

SIGNIFICANCE OF THE INVESTIGATION

Currently Johannesburg is comprised primarily of private 'objects' as opposed to public space: the opportunity for interaction is therefore limited, in turn limiting the city's culture. This is compounded by the fact that many of the current public facilities in the city are largely aimed at primarily middle to upper class and educated sectors of the population. The fabric of the city is unsustainable and indeed undemocratic in its class-based exclusion and division of its people (Kotze 2006).

Louis Kahn described the city as a place of availabilities or of assembled institutions, with its greatness as a place in which to live resulting from the character of its institutions, which are in turn measured in their ability to accommodate new agreement (Lobell 1979: 65). The description of the city's institutions as 'availabilities' points to the importance of their accessibility in terms of their location in the city and their relation to their immediate surroundings in the positioning, form and design of the buildings. Where accessibility enables the availabilities, legibility makes people aware of the availabilities: the building's need to be communicative or legible in their design as public institutions.

Besides the physical implications that accessibility as an agenda has on public buildings as discussed here in terms of their location and design, the design of a public library in the context of inner city Johannesburg in the 21st century presents additional challenges arising from the socio-economic conditions of the context.

In his essay entitled 'Critical Architecture: Between Culture and Form' (Baird 2000: 436), K. Michael Hays is quoted in discussing architecture as an instrument of culture: 'the first position emphasises culture as the cause and content of built form, the task of the interpreter becomes the study of objects and environments as signs, symptoms and instruments of cultural values...' The investigation of accessibility in architecture through establishing the role of a public library in inner city Johannesburg takes on significance through the various contextual factors to be considered.

The selected location requires specific consideration of the needs of the population of the inner city. The population of the inner city is predicted to double over the next twenty to twenty-five years. The Johannesburg Municipality has accordingly budgeted R100-million for the daily upkeep of the inner city over the next year, and R300-million for the construction of new high-density, low income housing in the inner city over the next year. The objective is to accommodate rapid growth and development in a way that best suits the needs of the citizens (SABC News, 12 July 2007). This predicted growth of the population will require not only the development of new housing, but also adequate facilities to support the people living in these high density, low income conditions. The role of libraries as 'institutions that used to be bastions of intellectual power and elitism' (Sanchez 2004: 39) is entirely inappropriate in the context of inner city Johannesburg, where poverty and high density have resulted in a shortage of resources, both public and private. The provision of access to information and literary resources, which is generally the primary role of libraries, is compounded with other needs given the socio-economic context of the inner city.

The role of a public library also becomes an important issue to investigate given the speed of modern urban life and the dominance of technology, which has given rise to new means of accessing information as well as a more globalised, fast-moving lifestyle and culture. In reference to O.M.A.'s recent design of the Seattle Central Library, Rem Koolhaas states that, 'The modern library, especially in a cyber city such as Seattle, must transform itself into an information storehouse, aggressively orchestrating the coexistence of all available technologies' (Olson 2004: 89).

In the context of inner city Johannesburg, technology needs to be examined in a different light – it is not yet as accessible to the majority of the population as it is to Seattle's population due to poverty and computer illiteracy. In its nature, however, technology is a more accessible and essentially a more democratic medium than printed material – the Internet is in essence a vast global database that

constantly evolves to reflect, and even affect, changes in our modern society. Koolhaas identifies 'a drastic cultural shift toward the domination of the visual', as evidenced by the Internet (Olson 2004: 89).

The issues surrounding the design of the Seattle Central Library largely relate it to the challenges of designing a public library in another city today: "Koolhaas casts the library at the vortex of the two most dramatic changes in modern life over the last decade: the erosion of the public realm and the explosion of new technologies. 'The city used to be free. Now you have to pay for it,' he says" (Olson 2000: 121). Koolhaas' solution was to 'balance the explosion of information with the library's increasing role as a social center' (Olson 2004: 89). He achieved this by reconsidering the design programme and making it fresh by considering what is redundant and what required reinvention (Olson 2004: 98). The result is an extension of the public realm (Olson 2004: 98), where the library 'retains identity in a multiplicity rather than an exclusivity' (Sanchez 2004: 39). According to Seattle's city librarian Deborah Jacobs, the new Seattle Central Library 'celebrates democracy' (Olson 2004: 41).

The achievement of a 'celebration of democracy' and diversity sums up what the goal should be in the design of a public library in the context of inner city Johannesburg. The building should extend the opportunity to encounter the 'other' into a richer experience of a common database, a shared community arena and a shared general experience. The issues of designing a new public library in the city as explored in the design of the Seattle Central Library are relevant but need to be reconsidered within the context of inner city Johannesburg, through which the emphasis between them will shift, and new issues will become apparent.

APPROACH TO THE INVESTIGATION

The research problem will be approached with the goal of developing the findings into an architectural design. The theme of accessibility will be examined in terms of its application to various aspects of the design of a public library in the inner city, addressing the general issues of public buildings and then scaling down to specific issues arising from the chosen context. Scoping the topic at various levels and scales will inform each stage of the subsequent process, including the selection of the site, the programme and the design of the library.

The design of libraries through the ages has evolved in response to social changes. The historical development of libraries will be examined as a vehicle for exploring the challenges which socio-economic and cultural changes present to libraries and consequently their designers today (Edwards & Fisher 2002: 15). This study will also provide a comprehensive understanding of the reasons behind different elements as used in various existing libraries which have established the library as a distinctive building type. This understanding will aid in the design process by enabling informed decisions; where certain elements may still be relevant in the functioning of libraries today, while others may be redundant as a result of contextual changes.

In order to more accurately establish the role of the proposed library within its context and hence ensure its relevance, I will investigate the current situation of the public libraries in inner city Johannesburg. This will be done through interviews conducted with Granville Schenker, the regional director of the libraries throughout Region 8, who is based at the central library in the inner city, as well as through studying and analyzing the Johannesburg Central Library in terms of its accessibility. The current challenges and consequent future plans for the central library, as identified by the relevant parties, will also be outlined. The theoretical conclusion will discuss the specific role of a public library in inner city Johannesburg by relating the role of accessibility (theory) to the clarity provided by the study of the status quo (reality). The theoretical conclusion will represent the starting point of a brief for the proposed library by exploring needs and related opportunities in the design of a new public library.

Precedent studies will influence and enrich the library's programme as well as the design. Each of the precedent studies will be explored in terms of the ways in which they respond to the issue of accessibility at various levels. The conclusion of this section will briefly discuss what the case studies have revealed in their success and failures in terms of accessibility. This will further inform the approach to be taken in designing the proposed library.

The resolution of the role of a public library in the inner city will inform the specific location of the site within the inner city. The brief, and consequently the programme, will result from the role of the library as established, as well as the specific needs and conditions of the site's immediate context. It is hoped that the outcome of the investigation will be a library that responds to the needs and aspirations of the public.

issues



ACCESSIBILITY

In this section, the concept of accessibility is explored in three sections, the first being a general overview of the role of accessibility in the constitution of a truly public building, and the second and third discussing the role of accessibility in the design of a public library in inner city Johannesburg in the 21st century.

1 - Accessibility in the constitution of a truly **public** building

2 - Accessibility in a public **library** in the context of **modernity**

3 - Accessibility in a public **library** in the context of **inner city Johannesburg**

1 - Accessibility in the constitution of a truly public building

The Collins Shorter English Dictionary defines 'public' as

1- of or concerning the people as a whole
2- open to all
3- well known
4- serving, or for the use of, a community
5- the community or people in general

According to this definition, a public building in the true sense of the word should be commonly accessible to all sectors of the public. It is important that the building's function and accessibility are expressed, i.e. legible, through its design in order for the public to be made aware of the facilities which the building offers, and hence be drawn to it. In the design of a public building in the context of inner city Johannesburg, the issue of accessibility has various implications for the design.

Site

The location of the site will to a large extent determine the user groups within Johannesburg's population to which the building is accessible. In selecting a site, the public nature of the proposed building should therefore be an important consideration; in other words, the site should be located close to existing primary public transport nodes and within walking distance of lower income groups. The inner city of Johannesburg provides this opportunity, with the added benefit of being a centrally located, high-density area. It is also close to existing precincts which have functions relating to the functional programme of the proposed building, thereby further increasing the number of potential users.

Programme

The multi-functionality of the building in terms of its resources and facilities will broaden its user profile and public accessibility. The programme should specifically address the needs of the population of the inner city as the primary user group. Modernity implies a continual reassessment of the library programme to ensure that it remains relevant, exciting and attractive to the public. The possibility of accessibility at night could also be realised through the functions of the programme.

Design

The relationship between the building and its site influences the ease with which different user groups access the building from its urban surroundings. This includes issues such as the positioning and orientation of the building; the building's form; the interaction between the building and its surroundings, and the number and nature of entrances into the building. The possible relation of the building to a large outdoor public space could give the building an added dimension by drawing more users and extending the programme.

2 - Accessibility in a public library in the context of modernity

As identified by Koolhaas, the condition of modernity has given rise to two challenges: 'the explosion of new technologies' and the 'erosion of the public realm' (Olson 2000: 121). In order for a new public library to be relevant culturally and socially, these factors need to be primary considerations in the design.

New technologies

The advancement of new technologies and the possibilities that they provide in terms of accessing information call into question the future of the printed book. However, Rem Koolhaas claims that 'The paradox is that the new media have only reinforced the aura of the book...in the age of the virtual, its realness is a universal relief' (Sanchez 2004: 39). This contrast between virtuality and reality between different forms of media could be exploited as a design concept to create a varied, stimulating environment. The dichotomy of virtual and real also spans the gap between computer illiterate (or uninitiated) and computer literate patrons. It is also less alienating than only providing the latest technology because it enables different levels and means of accessibility in the presentation of information. In addition to this dichotomy, technology could also enable easy access to books through the provision of advanced search techniques. Strategies such as this could help free librarians from mundane tasks, enabling them to provide patrons with assistance in the use of technology and in sifting through information on the Internet, as has been achieved at Seattle Central Library (Olson 2004: 92).

The Internet also provides new opportunities for communication and networking, thereby facilitating a new global connectivity and essentially expanding the public realm even beyond the boundaries of the library and city. Facilities for this interface could be accommodated in the programme, being aimed at the youth in particular.

The rapid growth and advancement of technology makes the future difficult to predict. The building needs to be designed in such a way as to provide flexibility for the accommodation of an unknown future.

The public realm

The 'erosion of the public realm' places new demands on public buildings, where they are required to extend beyond the provision of facilities and services for the individual by providing a platform for the interaction of the collective in order to achieve a sense of community and culture.

The design therefore needs to incorporate communal areas related to the functions of the programme, where the related spaces feed off, and hence enliven, each other. This idea could also extend to the relation of the building to a public outdoor space. The concept of collective culture could be extended and further encouraged by the provision of communal cultural facilities, for example recital areas and graffiti walls. An analysis of the selected site might provide further insight to the type of public spaces and facilities that would be valuable to users.

3- Accessibility in a public library in the context of inner city Johannesburg

While the discussion on what a public library should be in the context of modernity is a global issue, it is also necessary to examine what the role of a public library should be within a particular city, as each city presents its own unique set of characteristics. The role of the library within the library system to be established later in the document will define the primary user group as the population within its immediate surroundings, although people may also commute from outlying areas to use it. The identification of this user group will determine the role of the library within the specific socio-economic system.

For much of the inner city population, technology has a significant role to play in making information and other resources commonly accessible; through its democratic nature and its exploitation of visual literacy it transcends literacy, language and class barriers. However, while certain sectors of the population may be familiar with the latest technological advancement, other sectors may be computer illiterate and will require assistance or training in order to be able to use these facilities. This gives rise to the possible need for training centres and assistance of patrons by librarians.

As already discussed, the 'erosion of the public realm' necessitates the incorporation of platforms for communal interaction within the library. The provision of safe and inviting communal areas becomes particularly pertinent given the exclusive, dangerous nature of Johannesburg. It is anticipated that a survey of the user group will indicate a need for other resources which may be as relevant as the need to access information within this particular sector of the population.

Legibility should express accessibility or 'public-ness' beyond the act of physically being able to access the building, to an expression of the building's function/programme and nature as a truly public building which promotes a sense of communal ownership. The legibility of architecture becomes a means by which people identify with their surroundings and establish their role or place in the city; this effectively enlivens the city as the public relates to, and consequently uses, its spaces and buildings in their everyday activities. In an article on one of Jo Noero's community housing projects, Diane Ghirardo writes, 'the challenge for architects is to design not their dreams but the dreams of others' (Baird 2000: 414). This challenge becomes particularly pertinent in the design of a public building within the existing social and urban fabric of inner city Johannesburg.

THE HISTORICAL DEVELOPMENT OF THE LIBRARY

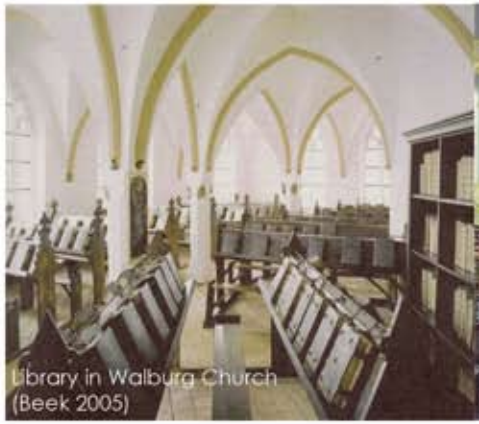
This section will briefly trace the historical development of libraries through the ages in response to social changes. As defined by Edwards and Fisher, the library is a 'controlled environment designed for the benefit of both book and reader' (2002: 3).

The modern library as previously defined emerged in the Renaissance in the sixteenth century. The beauty of books was showcased as the spines were 'framed in their ornate bookcases and became the wallpaper of the library' (Edwards & Fisher 2002: 13). The libraries were centrically arranged, so that all their contents could be viewed from a single point. The libraries and the knowledge contained within them were a metaphor for the world, implying control and measure (Edwards & Fisher 2002: 14).

This concept was applied in the circular library, where space was used as a means of ordering knowledge (Edwards & Fisher 2002: 14). In plan, the reading space took the form of a circle placed within a square shell, which contained circulation and administrative functions. The reading room was roof-lit and surrounded by a ring of bookshelves, and was expressed in a 'grand, often domed space' in celebration of the cultural value of reading and scholarship (Edwards & Fisher 2002: 14). This treatment of the reading room defined the library as a public space, where 'the intellect had in a sense won over the book', and lateral thinking was facilitated through the unification of space (Edwards & Fisher 2002: 14). An example of such a reading room is that at the British Museum, designed by Sydney Smirke in 1852.

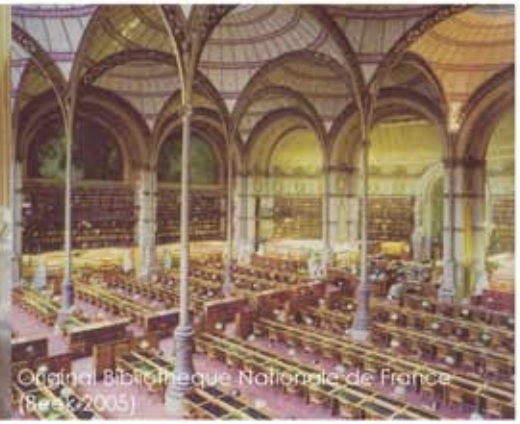
With the development of society, the need to accommodate the growth of library stock and specialisation of knowledge placed new demands on the planning of libraries. The result was the arrangement of several subject libraries where potential expansion occurred on the periphery, retaining the central reading room as 'the library's most important inheritance as a building type' (Edwards & Fisher 2002: 14). This specialisation, compounded with new, increasingly complex classification systems, spatially divided the library, effectively discarding the original symbolism of the library as a platform for collective learning (Edwards & Fisher 2002: 14). Edwards and Fisher interpret this development as a 'victory of functionalism over meaning' (2002: 14). The twentieth century saw a displacement of the 'formal repertoire of recognizable forms', spatial organization, and hence traditional symbolism, in favour of a more open, 'fluid space' to accommodate 'fluid functions' (Edwards & Fisher 2002: 3). The primary generator of this arrangement is flexibility, whilst reflecting a spirit of democracy.

According to Edwards and Fisher, the challenge of modern libraries today is to balance the symbolism of the library with increasingly complex, diverse, and growing functional demands, which are spatially resolved in the 'balance between single monumental spaces and functionally specific ones' (2002: 14). The application of this concept will be explored later in the document in the precedent studies.


Library in Walburg Church (Beek 2005)


British Museum Reading Room (Edwards & Fisher 2005)


Playfair Library Hall, Edinburgh University (Beek 2005)


Original Bibliotheque Nationale de France (Beek 2005)

THE CURRENT SITUATION OF PUBLIC LIBRARIES IN INNER CITY JOHANNESBURG

This section deals with the current situation of public libraries in inner city Johannesburg, primarily through a study and analysis of the central library in an attempt to determine what the role of a public library in inner city Johannesburg should be. The information has largely been extracted from an interview with Granville Schenker, the regional director of the libraries throughout Region 8, who is based at the central library in the inner city, as well as information that Mr. Schenker has subsequently aided me in accessing.

Schenker believes that traditional libraries are on the decline and will be extinct within the next ten years if they do not adapt in order to become accessible within the context of modernity internationally and within the context of the needs of the South African population locally. The decline of the use of books as a result of advancements in technology is a worldwide phenomenon. In the local context the high rate of illiteracy, the shortage of personal resources, and unemployment are major factors to which the role of modern public libraries must respond.

According to Schenker, public libraries should form an integral part of the African Renaissance in terms of offering knowledge and education that is relevant to the African context. Colonial collections are no longer accessible to users and consequently there is a definite need to Africanise the collections by including material about South Africa and Africa, material written by Africans, as well as material published in African languages. The failure to respond to this factor will result in the library's collection becoming redundant.

The structure of the existing public library system will be discussed and analysed, following which the central library will be analysed. The accessibility of the central library will be discussed and analysed in terms of its relationship with its surroundings and the external approach to the library; the design of its interior spaces, and its programme. Interviews with users from different user groups will be conducted in order to establish who uses the library, how they use it, what they think of the library, and what additional facilities they would like the library to offer. Finally, the current challenges and consequent future plans for the library, as identified by the relevant parties, will be outlined.

Structure of the existing public library system

The library system is a network of public libraries which caters for a broad range of user needs. The Carnegie Corporation in New York is funding the construction of the new National Library in Pretoria as well as the development of four model public libraries in Johannesburg, Cape Town, Durban and Pietermaritzburg. The central library is to become Johannesburg's model library through a renovation process, which will be discussed later in the document.

The national library houses legal resources and stores books and other material of national importance. A copy of every book published in the country is stored in the national library. It is situated in Pretoria because Pretoria as the capital is regarded as the seat of the government.

Public libraries house books and other material primarily for loaning purposes, although they do contain reference sections. In the public library system, central libraries act as the 'headquarters' for a number of 'satellite' branch libraries within that particular region. The central library in inner city Johannesburg is currently the largest library in the country.

Within the Johannesburg public library system there are eighty-three branch libraries. These branch libraries fulfil the traditional functions of supplying reference materials and lending materials to their members. There are currently ten branch libraries in the inner city, each staffed with between one and six people. The specific locations of these branch libraries were relevant at the time of their establishment but in many cases are no longer appropriate. This is as a result of the subsequent change of the usage and nature of their surroundings, with factors such as noise and overcrowding becoming problematic in many cases. Figure 1 shows the new organizational structure for the existing libraries in Johannesburg. This structure has recently been proposed and is currently under discussion.

Figure 2 shows the populations that the various libraries in and around the inner city serve at different distances. These figures have been mapped in figure 3. The figures for the different libraries reveal the demand for libraries in different areas with by far the highest demand (population served) amongst the libraries in the inner city. This is despite the fact that there are more libraries in the inner city per unit area than in more affluent parts of the city to compensate for the difference in density and needs of the population in different areas. Another obvious trend is the huge increase in the population served from the 2.5 km radius to the 8.5 km radius by libraries in low-density areas that are close to the inner city, for example the Rhodes Park Library, the Mayfair Library and the Southdale Library. This indicates that the majority of the users of these libraries commute from the inner city in order to use them as a result of a shortage of libraries in the inner city. The need for more libraries in the inner city will further increase drastically as the population of the inner city increases as has been discussed.



Figure 1 - Organogram showing the proposed new organisational structure for Johannesburg's public libraries (still in discussion phase). Information courtesy of the Johannesburg Central Library

Library	Population @ 2.5 km	Population @ 3.5 km	Population @ 8.5 km
Central Library	± 650,000	± 800,000	± 1,200,000
Hillbrow	247,853	284,322	645,236
Mayfair	73,312	198,684	835,869
Murray Park	206,989	295,164	570,364
Rhodes Park	95,702	145,897	497,287
Southdale	72,043	97,236	774,272
Yeoville	248,342	288,860	774,761

Figure 2 - Table showing the service populations at different distances of the libraries in Region 8 (in and around the inner city). Refer also to Figure 3. Information courtesy of Johannesburg Central Library



Figure 3 - Map showing locations of public libraries in inner city Johannesburg, with corresponding service populations at different distances (refer also to Figure 2) (information courtesy of Johannesburg Central Library)

STATUS QUO AND ANALYSIS OF THE JOHANNESBURG CENTRAL LIBRARY

External approach to the building and relation the urban surroundings

Wilks interprets the Johannesburg Central Library as 'a cultural symbol of power' (2005: 58). This image of power has been achieved through the design of the exterior of the library and its relations to its urban surroundings. The library presents a hard edge to its northern, eastern and western facades, which do not communicate it as a library, or even as a public building and do not in any way connect with passers-by, either visually or physically. The library therefore appears as a defensive, opaque, monolithic 'fortress'.

The building is accessed on its east side, which overlooks the Library Gardens, or Beyers Naude Square, via a grand flight of stairs which leads up to three tall entrances. In its scale, the staircase proclaims the 'publicness' of the library, yet ironically it also mitigates the library's accessibility. While the stairs act as a threshold between the gardens and the library and are well utilized, mainly by the library users during their breaks, they also reinforce the image of the library as a symbol of power. In the case of ancient classical architecture, particularly that of Greek temples, buildings were elevated and accessed via grand staircases, psychologically evoking respect and humility within their users. Despite this being the most 'public' facade of the building, it contains even fewer windows than the other facades, retaining its visual impermeability. The library has been designed as part of the original civic spine, which also includes the Library Gardens, the Rissik Street Post Office, and the Johannesburg City Hall. Although this urban design approach implies the public status of the Central Library and a connection between the library and the Library Gardens, the relationship between the library and the gardens remains primarily formal and one does not directly experience it from the gardens, and even less so from within the library.

Although undeniably beautiful, the library's colonial style of architecture does not relate to the inner city's population's aspirations and culture, instead reinforcing its image of what Sanchez would refer to as an inaccessible 'bastion of intellectual power and elitism' (2003: 39), and undermining its relevance within its context.

Schenker believes that, by its very definition, a public library needs to appear open, available, warm and welcoming to its users. This is achieved in the central library by having no security directly at the front door; instead patrons are required to leave their baggage at the front desk to avoid theft. Despite this there are major issues of library materials and equipment being stolen; there is therefore a need to balance accessibility and security.

Photographs of the library's exterior showing its relation to the urban surroundings and the external approach to the library (Joynt 2007)



Design of interior spaces

The entrance foyer into the library is a grand, double volume space that is overlooked by a mezzanine level. From the foyer, several public functions on the ground floor can be accessed. Each of these functions is enclosed in a separate space. This allows for functional efficiency as well as distinct spatial identities. However, it deprives the users of the sense of community essential to a truly public building, which would be achieved through the interrelation of different spaces and functions within the building. This sense of community is lost on another level through the detachment of the building from its surroundings – the opportunities to experience the activity outside the building are limited due to the small windows and the repellant effect of all but one of the building's edges. The separation of spaces also inhibits legibility and hence navigability between functions in the building. Despite continual changes in the programme of the library since its construction, the logical relationship between service and public spaces has generally been maintained on all floors.

The courtyard in the centre of the building serves merely as a source of light and ventilation to what would otherwise be very deep, gloomy spaces. It is inaccessible to the users of the library, acting merely as a static service space, a dead core. The courtyard presents great potential to become a public space of grand proportions, as an extension of the entrance foyer, which could then serve to interrelate the library's various spaces and the users, becoming the library's primary public space, or common ground, and enlivening all of the internal spaces on its perimeter.

Photographs of the library's interior spaces (Joynt 2007)





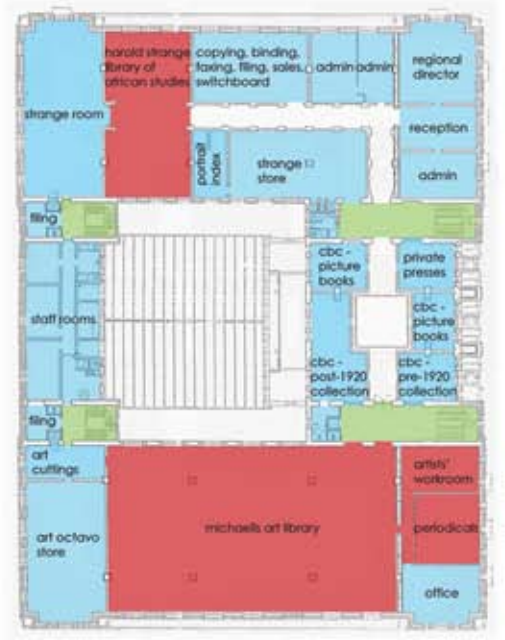
Semi-basement



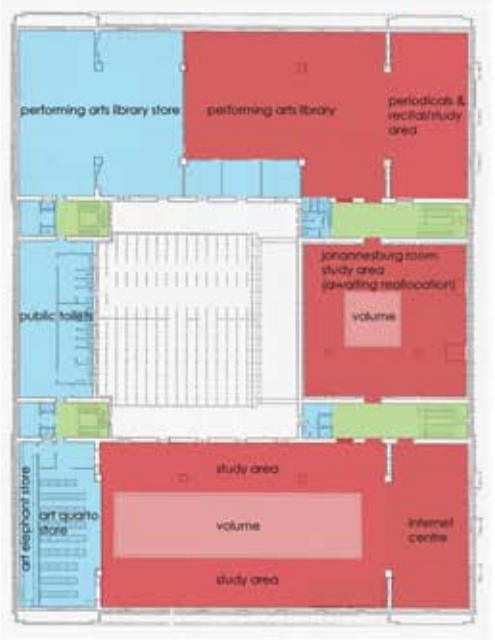
Ground floor



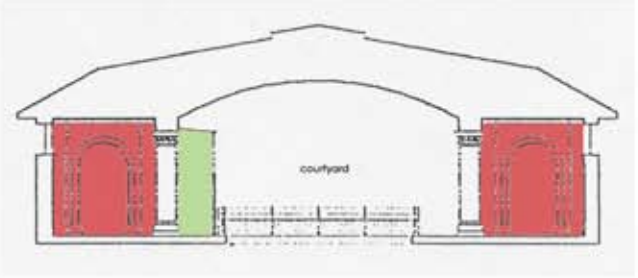
Mezzanine



First Floor



Second Floor



Typical Section

Floor plans and section showing functions of spaces
(Copies of plans courtesy of the Johannesburg Central Library)

- **Public spaces**
- **Service/ admin/ collection**
- **Volume**
- **Circulation**

Programme of library

According to Schenker, the community that the library serves has changed over the last fifteen years. The previous users, predominantly from the suburbs, no longer use the central library as a result of the general perception of the city as dangerous, grimy and congested. This user group has migrated to their local suburban libraries instead, or otherwise no longer use the services of public libraries. Currently the central library predominantly serves the inner city population. The traditional usership of the library for the purposes of lending and referring to materials is largely down, with the library's main functions being the provision of a space in which to study, as well as aiding in finding employment and starting small business ventures through the provision of information and computers.

In a recent user survey, a strong demand emerged for an extension of the library's current operating hours (8am – 5pm during the week and 9am – 1pm on Saturdays). This would extend the clientele base to include the working class, to whom the library is currently inaccessible as a result of its operating hours. Functions that the library could fulfil for this working class user group could include access to computers, the Internet, novels, and the screening of educational movies. Schenker believes that public transportation in the form of taxis is demand driven and hence would become available for evening users of the library.

Main user groups and functions

- The central library is currently used primarily by the urban youth - students studying through inner city colleges or doing distance education. Immigrants from other African countries constitute a large percentage of this group. Students use the space to study and bring their own materials. In this capacity, the library therefore acts as a safe, warm and relatively quiet working environment.

- A big demand is placed on the library as a provider of resources for unemployed people seeking jobs - as a facility for them to type their CV's, to look for advertisements in newspapers, and to use the material in the business corner.

- People interested in starting their own small businesses, for example street traders, use the library's resources to learn basic business skills and concepts. The library also conducts workshops and seminars to support this function.

- Education in this country is not regarded as a function of the city's civic facilities (e.g. the library), but rather a function of the Department of Education. However, because the library is essentially a source of knowledge and education for the public, the central library has established a literacy centre or 'Adult Basic Training Centre' in the library, funded by the private sector, to train adults in literacy as well as to teach them English and numeracy. The library trains the community at large and is involved with certain bodies, for example the Street Trading Agency, in teaching its members numeracy. Training runs from 8am to 5pm daily. Currently, 70% of the class is constituted of French speaking migrants from the Democratic Republic of Congo.

- The children's library is used by school children from the age of five upward, who come to do their homework, projects, and for entertainment such as story telling. The library has a collection of educational games as well as computers with Internet and educational computer games.

The library's computer facilities are limited, with fifteen computers in the children's library, twenty in the literacy centre and twenty in the Internet centre. There is a definite demand for more computers throughout the library, which will further increase in the future.

The main user groups of the library as discussed raise questions relating to the relevance of some of the older facilities and functions of the library, most notably in terms of its various specialist collections and archives. According to Schenker, there is a disparity between the needs of the collections and the needs of users. For example, valuable heritage collections are stored and dispersed throughout the upper floors of the library yet are neither made available to, nor required by, the clientele. While these collections are obviously irreplaceable and hold great value, the space that they occupy would be put to much better use in satisfying the needs of the main user groups. These collections could possibly be transferred to a less central location such as a facility specifically for storage, and if requested by a user, items could be delivered to the central library.

While the library has tried to reallocate functions of spaces as the needs of changing user groups have arisen, these spaces have become inadequate due to the constraints of the existing built fabric as well as existing functions. In light of this, there is a definite need to assess the current challenges, and formulate future plans to accommodate these, as well as future growth, through renovations. The next section outlines the challenges that the relevant parties have identified and the adaptive process that the central library will undergo in order to make it more relevant and ultimately more accessible and successful within its socio-economic context.

Photographs showing various functions in the library: A student in the Africana Library; job seekers in the news room; the Computer Centre; Heritage collections



Photographs showing various functions in the library: The Children's Library; the Study Centre; The Music Library; Heritage collections



(All Joynt 2007)

USER INTERVIEWS

children's library



Sibusiso Kubeka, 9
Grade 3 learner

Lives in Kibbler Park near Southgate
Goes to Task Academy in Mayfair
Takes a minibus from school to the library

Comes to the library every school afternoon
Uses the library for computers for games and research;
a place to do homework
taking out books for homework and for fun

children's library



Stephanie Solomon, 12
Grade 7 learner

Lives in the inner city
Goes to FPS Ferreira Primary in Marshalltown
Walks from school to the library

Comes to the library every school afternoon and sometimes on the weekend
Uses the library for computers for games and research;
a place to do homework and use reference books
taking out books for homework and for fun
watching educational movies on fridays

reference library



Tebogo Makhubela, 19
Grade 12 learner

Lives in Bertrams
Goes to Jules High School in Jeppe
Walks from school to the library

Comes to the library four times a week
Uses the library for studying space - mostly brings own materials
sometimes uses books in the reference library
sometimes uses computers for reference purposes

reference library



Thembalihle Mthembu, 22
Student

Lives in Newtown
Goes to Wits University
Walks to the library

Comes to the library four or five times a week
Uses the library for studying space - brings own materials

USER INTERVIEWS

newsroom



Thobela Hantini, 25
Currently unemployed; planning on studying next year

Lives in the inner city
Walks to the library

Comes to the library twice a week
Uses the library to read magazines and newspapers

newsroom



Lucas Tshabalala, 27
Currently unemployed

Lives in Yeoville
Walks to the library

Comes to the library three times a week
Uses the library to look for employment -
in newspapers
on the internet
to type C.V.

lending library



Lucas Mdaka, 25
Currently unemployed

Lives in Soweto
Takes the train to the library

Comes to the library twice a week
Uses the library to read fiction books
sometimes uses the internet to look for a job

lending library



Willem Botha, 41
Handyman & student

Lives in Newtown
Studies through UNISA
Walks to the library

Comes to the library twice a week
Uses the library for studying space
research in the reference library
research on the internet
taking out fiction from the lending library

USER INTERVIEWS

michaelis art library



Noma-Afrika Magodongo, 18
Grade 12 learner

Lives in the inner city
Walks to the library

Comes to the library every day lately
Uses the library for studying space (brings own materials)
research in the reference library
study guides in the reference library

michaelis art library



Jabulile Khumalo, 22
Interior design student

Lives in the East Rand
Takes a taxi to the library

Comes to the library three times a week
Uses the library to do research in -
the Art Library
the Reference Library
the African Studies Library

computer centre



Amanda Ndebele, 18
Grade 12 learner

Lives in the inner city
Walks to the library

Comes to the library four times a week
Uses the library for studying space
research in the reference library
internet for research and leisure

foyer



Linda Tahane, 28
Criminologist

Lives in Boksburg
Works in the inner city
Takes the bus to the library

Comes to the library every weekday
Uses the library for research on the internet
research in the reference library

The user interviews revealed who uses the central library, what they use the library for and how often, what they think of the library, and what additional resources they would like the library to offer.

Whilst the majority of the users live or work in the inner city, some people choose to commute from distant areas specifically to use the central library. Some people living in the inner city use the central library instead of their local branch libraries, for example the Yeoville and Hillbrow libraries, because the central library is quieter and more spacious and provides resources that many of the branch libraries don't, such as computers with Internet.

All of the users interviewed use the library at least twice a week, with students and school children coming to the library almost every day of the week. This indicates that the library has become an essential resource for most of its users, as opposed to an occasional luxury.

The extensive space within the central library is the primary attraction for most of the users. However, there is a definite need for more study space and reading space, as well as more computers with Internet.

Most of the users interviewed use the library gardens during their breaks, where they play soccer or just sit and relax.

'This library is like home because we always come here every day.' - Stephanie, 12

'This is a great library ... Hillbrow library is too small, noisy and chaotic.' - Tebogo, 19

'I would like the library to offer more space to study and sit.' - Willem, 41

'I would like the library to provide more computers and Internet.' - Stephanie, 12

'I don't use any other libraries because this library provides all the necessary facilities and other libraries just have books.' - Lucas, 27

'This library is quiet, relaxing, and accommodates lots of students.' - Amanda, 18

'I like this library because it has the gardens.' - Sibusiso, 9

'The Michaelis Art Library is the best because it is open and has good ventilation.' - Jabulile, 22

'I think they should revamp this library and make it more user friendly - all the different libraries here are scattered.' - Linda, 28

'I like this library because it provides lots of space.' - Thobela, 25

Future plans

Renovations for the central library have been planned over the next few years in order to restore it and convert it into a 'model library'. The renovations have been divided into three phases according to the various intentions:

1- House-keeping – the repair and upgrade of the existing building, including roof repairs, upgrading the lifts, resolving electrical issues and making the building disability friendly.

2- Facilities and functions – identifying and exploiting the synergy between certain existing functions within the programme, as well as re-assessing the relevance and demand of each function, and spatially rearranging and reprioritising them accordingly.

3- Integration - integrating the library into its dynamic, changing surroundings by responding to evolving needs and in a sense marketing this integration. Future changes in the context include the proposed new Gauteng Provincial Legislature Quarters as well as the optimism of the rejuvenation of the inner city and subsequent property investments and upgrades. In the future the city will be a safe, walkable place during the day and night; the library must respond by becoming accessible at night.

Conclusion: The role of a public library in inner city Johannesburg

In order to ensure that the proposed library is relevant within its context, I will explore the role of the public library in inner city Johannesburg given the current demands and challenges that the central library faces.

The role of public libraries in inner city Johannesburg today is primarily as a provider of resources which relate directly to the advancement of its users on a far more pragmatic, everyday level (for example employment, basic adult education and tertiary education) through the provision of space, hands-on education and computer and communication facilities and a limited collection. This is in opposition to the traditional, more limited and exclusive role of libraries as containers of extensive collections, much of which was for leisure purposes. Many of the library's users are unemployed, and require practical resources to aid them in finding employment or starting their own small enterprises, including newspapers, the Internet, books on business, and facilities to type and print c.v.'s. Daily classes, workshops and seminars to empower the inner city population are in great demand. In order to attract the working class, public libraries should extend their hours and offer an exciting, relevant programme for this sector. Students who use the library require, in addition to studying space, reference resources in the form of an up-to-date physical collection and the Internet. As the Internet is becoming an increasingly common pastime, Internet facilities for leisure purposes will also attract users, in particular young adults and students. Children in the inner city continue to use the library for leisure purposes, making use of the fiction collection, educational games and educational computer games. Children also use the library for school purposes to do their homework and to use the non-fiction collection and reference section, as well as the Reference Library for assignments. An educational movie is screened in the Multimedia Library every Friday. This is targeted at young adults and students, but also attracts children.

Although the central library has adapted to some extent in an attempt to accommodate the current user demands, these demands have not yet been adequately met – a study of the space usage through an analysis of the floor plan reveals many specialist functions and collections which are no longer relevant given the library's context. In order for a public library in inner city Johannesburg to be relevant, its programme needs to be an inversion of the traditional library's programme – where the traditional library placed much emphasis on access to its physical collection as a resource, this focus should be shifted to the provision of space as a physical resource. The physical collection should be limited, consisting of material selected for its relevance to the context of modernity and inner city Johannesburg. The provision of technological resources is also an important consideration.

The provision of space as a primary amenity presents the potential for the library to become a lively, uplifting building consisting of several relatively open, interrelated spaces. This is echoed in Lawrence Cheek's article on the Seattle Public Library: '...while yesterday's libraries encouraged the quiet and private quest, this one is about community...' (2004: 45). The library would therefore become an inviting extension of its surrounding urban context. The openness and interrelation of internal spaces also allows for a certain degree of flexibility.

Ideally, the library should relate to a public outdoor space that the users could use during their breaks. The meaningful interrelation between the library and the outdoor public space as well as its urban surroundings would aid in inverting the image which traditional libraries project as intimidating, uninviting symbols of power. This public space could also aid in activating the library and enhancing its accessibility by integrating it into its urban surroundings. Johannesburg currently suffers from a lack of meaningful public space, therefore the provision of a well-designed public space relating to the library would act as a major draw-card for the library.

The outdoor public space could be programmed in such a way as to extend the library's programme as well as to address other needs which the selected site presents; Wilks states that 'The presence of a relevant social programme engages the public responsibly and entices many different users...' (2005: 57). If designed as an extension of the library, the usage of this space will correspond with the usage of the library – hence an extension of the library's hours as will be proposed will result in the public outdoor space also being used over a longer period.

precedent studies



The precedent studies have been selected for the distinct qualities which each demonstrates in relation to accessibility. The ways in which the accessibility of each has been influenced, or articulated, will be explored in terms of:

1- The relation of each library to its **urban surroundings and the external approach** to each library

2- The design of the **interior spaces** of each library

3- The **programme** of each building

The conclusion at the end of the case studies will briefly discuss what the case studies have revealed in their success and failures with regards to accessibility in an attempt to distil principles that can then be applied to my proposal.

BIBLIOTHEQUE NATIONALE DE FRANCE, PARIS – DOMINIQUE PERRAULT (1995)

The design of the Bibliotheque Nationale de France is a clear, bold statement of national pride (Edwards & Fisher 2002: 119). Perrault has approached the design rationally, distinguishing the two primary functions of storage and reading space by separating them spatially and giving each a distinct architectural expression. This separation of functions facilitates the library's operation and security. It consists of four towers in the form of 'open books' (Brawne 1997: 157), enclosing offices and book stacks, set at each corner of a low podium of public reading rooms, which surround a submerged forest.

The entire design, from the building forms and geometries to the interior, is governed by simple, orthographic geometries. The structural elements, and consequently the layout of the interior, are arranged according to a square grid, resulting in constructional logic and flexibility for future changes (Edwards & Fisher 2002: 123).

1- External approach to the building and relation to urban surroundings

According to Edwards and Fisher (2002: 122), the Bibliotheque Nationale de France is 'abstract...and coolly indifferent to place or context, failing to acknowledge the presence of the River Seine which runs past it. The only potentially public space outside the boundaries of the library is a plinth, which is overlaid with timber boards, with wide treads stepping down to the Seine River. Although Brawne refers to it as a 'public esplanade' (1997:157), the podium does not function in relating the library to its surroundings, possibly because it is elevated, and because the entrances to the library have deliberately not been articulated, making the external approach to the library ambiguous (Edwards & Fisher 2002: 122). The four towers therefore act as the primary 'anchor for the building in the urban scene' (Edwards & Fisher 2002: 122). The elevated position of the esplanade, as well as the lack of human scaled design details, make it unwelcoming and alienating as a public space, leaving the user feeling exposed. The two entrances are connected by the esplanade and approached via sloping escalators, leading to the edge of the forest.

Although the initial design concept was one of openness and transparency, according to Spens, in terms of the external approach, 'Perrault has created a monolith which is opaque, rather than transparent... From a distance the Paris skyline appears punctuated, in no unique manner, by yet another business complex of towers... The superstructures of bureaucracy and the greyness of institutionalism have prevailed' (Brawne 1997: 24).

Photographs of the library's exterior showing its relation to the urban surroundings and the external approach to the library



2- Design of interior spaces

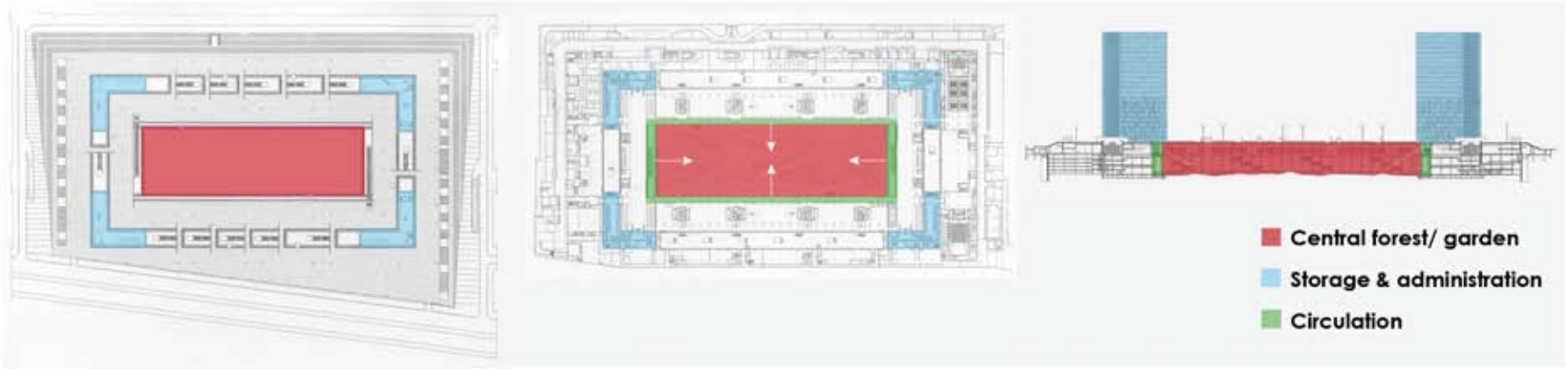
In plan, the building forms a rectangular circuit, with the entrances and receptions on each of the short sides, and a 'succession of thematic reading rooms arranged along the long sides' (Edwards & Fisher 2002: 122). The upper level contains half a million volumes which are available to the general public, and other public spaces such as retail, cafes and an audio-visual facility. The lower level is exclusively for scholars, consisting of research areas and special collections. Public and academic users are therefore 'separately enshrined...the scholars in their cloister seem to lurk in confinement' (Brawne 1997: 24).

The walls facing into the forest are entirely glazed, connecting the building to an outdoor environment whilst providing natural lighting, views, and a point of orientation. The outer edge of the garden is surrounded by a 'wide, carpeted promenade', with double volume reading rooms to the other side. In contrast to this openness, the reading rooms have 'long cliffs of timber boarding, interrupted periodically by views into the study areas' (Edwards & Fisher 2002: 123). According to Edwards and Fisher, the study material within the towers, although access controlled, is visible from public areas within the building, hence communicating its significance and availability to the library users (2002: 122). Sunlight is controlled by means of blinds and timber shutters, which automatically adjust according to the sun's movement.

Perrault has made extensive use of glass, both on the external facades and inside the building for partitions, in conjunction with what Edwards and Fisher describe as 'the fluidity of internal space' (2002: 122). While Edwards and Fisher view this as a means of 'evoking the democratic nature of the building and giving the experience of reading and research a clear public expression' (2002: 122), Spens states that 'there is no evocation of *la civilization francaise*, even metaphorically' (Brawne 1997: 24).

While Edwards and Fisher interpret the nature of the Bibliotheque Nationale de France as 'democratic' primarily through its materiality (2002: 122), the overall form of the building and spatial division of functions through layering implies a definite segregation and hierarchy between the collection and the users, as well as between different categories of collections and different categories of users. Although spatial distinction between different functions is necessary to a certain degree for the efficient functioning of any library, such extreme application effectively mitigates the 'publicness' and hence the overall accessibility of the library. The forest, as the common focal point of the different interior spaces, could have potentially served as a connecting element celebrating community and the 'publicness' of the building. Instead, it acts merely as a scenic backdrop; it 'provides a calm, contemplative environment for concentrated study' (Brawne 1997: 157).

Overall building plan; Upper garden level plan; Longitudinal section (after Brawne 1997: 158 & 159)



3- Programme

Apart from the library collection, and reading rooms, the Bibliotheque Nationale de France includes cafes, shops, exhibition galleries, an auditorium, and meeting rooms. While this public element may draw more people to the library, its 'publicness' is mitigated by the overall design of the building.

Photographs of library's interior spaces



BRITISH NATIONAL LIBRARY, LONDON - COLIN ST. JOHN WILSON AND PARTNERS (1998)

Unlike the Bibliotheque Nationale de France, the British Library building does not use its status and large scale as a national library to make a bold, public architectural statement. While appearing modest on the exterior, the interior of the building has been described as 'spectacularly beautiful...an uplifting vista of sleek white lines and exhilarating perspectives' (Edwards & Fisher 2002: 119).

1- External approach to the building and relation to urban surroundings

According to Spens, the British Library has contributed greatly to its immediate urban surroundings, 'paying all due homage to the Scott masterwork of St Pancras Station Hotel' (Brawne 1997: 25). The materials, namely red Lincolnshire brick, Welsh slated roofs, and granite facings, have been chosen to match with St Pancras. The development of the library enabled St Pancras to be designated as the principal point of arrival for the Channel Tunnel rail link (Brawne 1997: 25).

The library is set back on the site, allowing for a public forecourt across which the library is accessed. The route to the building from the street front is a sequence of 'symbolic gates, terraces, a portico building and finally across a large piazza to the library steps' (Edwards & Fisher 2002: 119). The route is designed in order to provide the user with views, and hence comprehension, of the building. The design of the forecourt 'has a welcoming blend of formal and informal elements' (Edwards & Fisher 2002: 119), which also aid in screening it from the 'hubbub of traffic on Euston Road...allowing the reader to regain the tranquility lost to the street'. Apart from being the threshold between the library and its urban surroundings, the forecourt also serves as a platform for events and a gathering point for groups visiting the library.

While visually connecting it to St Pancras, the exterior materiality of the library in terms of the use of brick cladding and pitched roofing over wide spans aesthetically relates it to supermarkets (Brawne 1997: 24). According to Spens, 'ironically this...may ultimately work in its favour', aiding in the 'democratization of culture' (Brawne 1997: 24) by establishing the library as part of the everyday and as a common public resource. This metaphor could also extend to the implication of the library as a place of 'trade of goods' in the exchange of knowledge. Spens suggests that 'Perhaps the triumph of this aspect is to have built a major institution for a consumer society that speaks in that society's chosen material: here is a rare monument that offers a benign yet absolute monumentality of its time' (Brawne 1997: 25).

Through the use of materiality, and variation in scale and space, the exterior of the building has been designed in such a way as to balance its presence as an important institution on a national scale with its role of acknowledging and serving the individual.

Photographs of the library's exterior showing its relation to the urban surroundings and the external approach to the library



Brawne 1997: 208



Blundell Jones 1998: 37



Brawne 1997: 209

2- Design of interior spaces

In section, the roof and consequently the internal volumes step up along the length of the building, allowing for spatial variations according to functions, and drawing users through the library: '...one moves through the entrance lobby to the great spatial experience of the soaring ceiling structure...' (Brawne 1997: 23). The entrance foyer is a grand, roof-lit space, where visitors are divided and routed according to their intentions; readers are taken in one direction and other users in the other. Light is used in conjunction with physical architectural elements as a mechanism in communicating the route. The various functions have been subtly divided among several interrelated volumes (Brawne 1997: 25).

The King's Library, a freestanding, six-storey glass tower showcasing George III's collection, rises through the center of the entrance hall, forming a centerpiece in the building which acts as a navigation point for various areas in the library (Edwards & Fisher 2002: 121).

According to Brawne, the main objective in the design was to achieve harmony between 'the lone scholar and a huge building' (1997: 207) - 'Internally, he has followed Kahn's maxim, placing the individual reader's satisfaction as the highest priority' (Brawne 1997: 25). This has been done primarily through the manipulation of scale, where various elements have been incorporated throughout to mediate scale (Brawne 1997: 207). The design solution is therefore essentially a product of the functional requirements - the users and the needs of the collection in terms of conservation and accessible storage solutions, each of which requires different spatial solutions in terms of scale, lighting, ventilation and general character.

The asymmetry of the plan relates to the incorporation of different functions and their related patterns of use. The western side of the building contains the Humanities Collections, which is primarily occupied by readers, while the eastern side contains the Science and Patents Collections, which consists mainly of open-access shelves.

In the Humanities Reading Room, the central space is dedicated to collective study beneath a high, coffered ceiling, allowing long-range views across the expansive room to enable stimulation by means of the contrast to the intimacy of study (Brawne 1997: 207). Reference materials, and smaller, more intimate study areas, are located on the periphery of the room. In the case of Science and Patents, this relationship is inverted, with the open-access shelves occupying the central space, with readers' tables positioned on the periphery. In both cases, the various readers' table configurations offer the reader choice.

A parallel with the design of the Exeter Library by Louis Kahn is evident in different spatial solutions through the adaptation of light sources, as well as scale, according to specific circumstances. In the Humanities Reading Room, daylight is admitted into the center through clerestorey and lantern lights, while in the Science and Patents Room, the light sources are more intimate side windows adjacent to the readers' tables. This use of varying light sources occurs throughout the building, with top lighting generally being used in large circulation and study areas, and smaller windows being used in offices and small study areas (Edwards & Fisher 2002: 122).

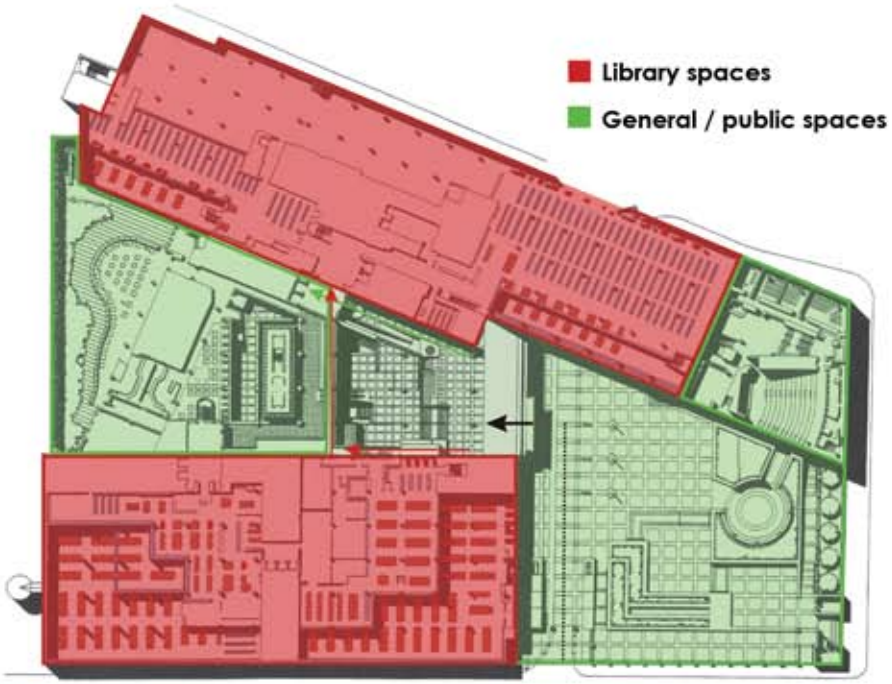
Different spatial solutions have also been applied to the collection. A small number of books is stored in open shelves in reading rooms, with the majority of the collection being stored in a four-storey basement in stable environmental conditions. Material in the basement can be requested by users by means of a computerized catalogue retrieval system.

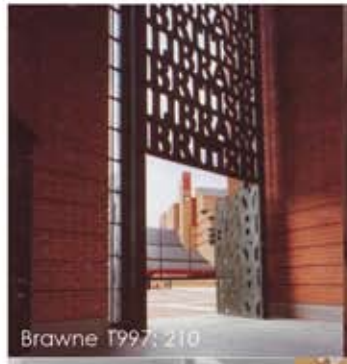
Brawne attributes the 'free, adaptive form of architecture' to the initial requirement that the library be buildable and usable in various stages over time due to the size and continuous growth of the collections (1997: 207).

According to Edwards and Fisher (2002: 122), the library is different from other recent national libraries through its spatial variation; 'the design shows that a building housing the world's most important collection can have a human touch'. Whilst proclaiming the grand scale of the collection, the design places equal emphasis on the importance of scholars (Edwards & Fisher 2002: 122).

3- Programme

The entire collection of the British Library is for reference purposes, with an emphasis on research and scholarship. Apart from the library collection, the British Library encompasses three exhibition galleries, lecture theatres, a conference center, a bookshop, a restaurant and cafes. This mixing of functions means that people visit the building for functions other than the library collection, so that despite the academic nature of the collection, it is accessible to anyone by virtue of its nature and functions. Edwards and Fisher describe it as a 'blending of library, museum and civic activities', recalling 'classical precedents such as the ancient Alexandria Library' (2002: 119).




Brawne T997: 210

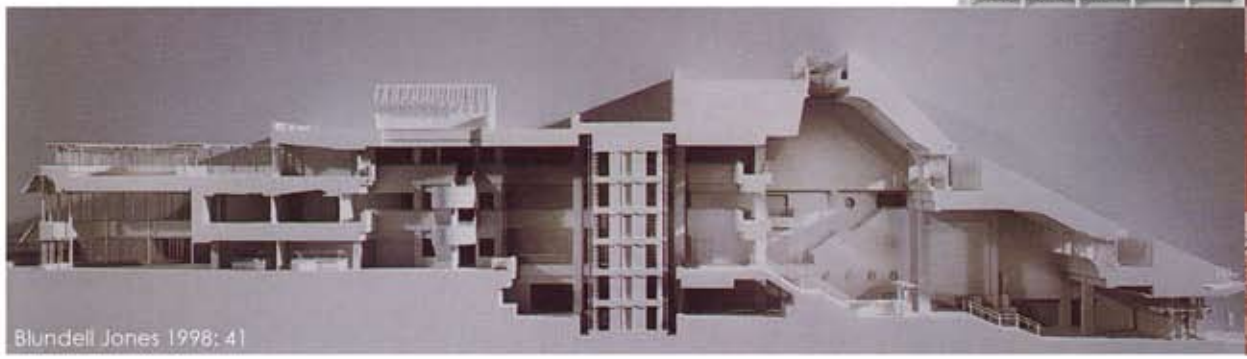

Brawne 1997: 210


Edwards & Fisher 2002


Brawne 1997: 2


Brawne 1997: 211


Brawne 1997: 213


Blundell Jones 1998: 41


Blundell Jones 1998: 42


Blundell Jones 1998: 43

NORWICH PUBLIC LIBRARY IN THE MILLENNIUM CENTRE, NORWICH – MICHAEL HOPKINS AND PARTNERS (1996)

The Norwich Public Library is contained in the Millennium Centre, the brief of which was a 'centre of knowledge, information and learning on a prominent site in the heart of the city' (Davey 2000: 74). The library is a substitute for the original library which burnt down in 1994, and was the precursor for the development of the Centre. The Centre was conceived as a civic landmark in celebration of the new millennium (Edwards & Fisher 2002: 143). It takes the form of a three-storey horseshoe shaped building containing an atrium.

Sir Michael Hopkins described the brief as 'exacting and complex with a number of unusual interactions between people, space and the wonderful buildings around the site' (Williams 2001: 46).

The Millennium Centre was 'conceived as an accretive extension of the public realm' and hence 'adds to the city's social, intellectual and civic life' (Davey 2000: 74) through its relation to the surroundings, extensive programme and interaction between the various functions of the programme.

1- External approach to the building and relation to urban surroundings

The relation of the Millennium Centre to its urban surroundings was the primary consideration in the design. In an analysis of the library in the Centre, Edwards and Fisher write about 'the blurring of functionality and the blending of civic concerns' as a 'precursor for library design' (2002: 147).

The site is located on the south-west corner of the Norwich's busy market square, and opposite the fifteenth-century church of St Peter Mancroft.

The atrium has been placed at the crossing of two pedestrian axes, one on the axis of the church and the other along the colonnade of the City Hall. This anchors the library within the pre-existing urban fabric and pedestrian routes. The accommodation of the library is visible through the glazed façade, and appears as 'an extension of the urban scene' (Edwards & Fisher 2002: 143). According to Edwards and Fisher (2002: 143), the resulting effect is an 'ambiguity as to what is inside and out...which removes pomposity and invites use for a variety of purposes.' In other words, the library effectively becomes more accessible.

The atrium serves as a public square by forming the informal, social focus of the Centre, with its open side focusing on the church. A large glazed wall on the eastern end of the library's horseshoe formation dissolves the boundary between the library and the adjacent pedestrian route, hence drawing pedestrians into the atrium as 'part of a continuous network of pedestrianised spaces in central Norwich' (Edwards & Fisher 2002: 143). The atrium has been glazed in the tradition of nineteenth-century arcades (Davey 2000: 74) as are pre-existing in the surroundings (Edwards & Fisher 2002: 144), hence providing a protected, 'generous public space' (Davey 2000: 74). 'Here people can meet, congregate and linger in a café or get their bearings before making use of the building's facilities' (Davey 2004: 74).

The footprint of the library, as well as its height, have been determined in relation to its immediate surroundings. The dimensions of the atrium were determined to correspond to the footprint of the church, allowing it to slide into the space conceptually' (Edwards & Fisher 2002: 143). The church's tower and spire rise above the library, providing a point of orientation from within the library, whilst also serving to signify the position of the library on an urban scale (Edwards & Fisher 2002: 143). The height of the library corresponds with that of the City Hall (Edwards & Fisher 2002: 143).

2- Design of interior spaces

On the ground floor, the library accommodation is arranged in a continuous curve at the back of the atrium, which provides an entrance accessed across a large public space. The 'horse-shoe' has been made twelve metres deep in order to ensure the adequate penetration of daylight. Daylight pours into the atrium through the glass roof and large glass wall, while the spaces in the horseshoe receive daylight through smaller, more traditional side windows. Apart from daylight, other environmental considerations also played an important part in the design as the aim was to achieve a low-energy design representative of the new millennium. The design is summed up by Edwards and Fisher as being '…a public building in the full sense of the term' and 'providing a range of facilities to support the community…in a building which is conspicuously accessible' (2002: 144).

3- Programme

The Centre is described as a 'cultural and recreational building for the whole community' (Williams 2001: 46). The 20,000 square metres of the Centre incorporates, in addition to the library, the Norfolk Heritage Museum, the local BBC operations center, a heritage visitor center, tourism information, outreach projects, offices, retail and a restaurant. The atrium offers a flexible public space around which all of the other functions are wrapped.

The programme of the library is complex, incorporating traditional library functions, including various specialist libraries, such as the USA Air Force Memorial Library; a multimedia auditorium, and learning and business centres. The library functions have been placed in continuous, open spaces in order to provide flexibility. As the central library, it is connected electronically to branch libraries around Norfolk.

Site plan; Longitudinal section; sketches, model & 3-D graphic **Atrium** **Building interior**

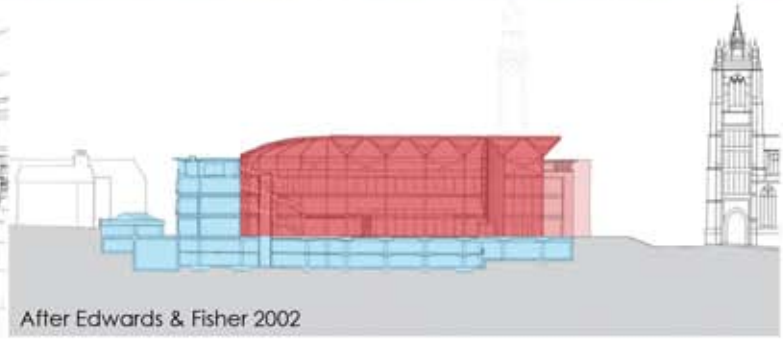

After Edwards & Fisher 2002


Davey 2000: 74


Williams 2001: 46


Edwards & Fisher 2002


Edwards & Fisher 2002


After Edwards & Fisher 2002

LIBRARY AT PHILIP EXETER ACADEMY, NEW HAMPSHIRE - LOUIS I. KAHN (1972)

Louis Kahn described society as a collection of institutions, where 'institution stems from the inspiration to live…the three great inspirations are the inspiration to learn, the inspiration to meet, and the inspiration for well-being' (Lobell 1979: 44). For Kahn, the motive for the establishment of institutions was human agreement or the sense of commonality. Kahn saw educational institutions as 'houses of the inspirations', being defined by the inspiration to learn and the need for learning to be nurtured within a supportive community; for a complex mix of individual and collective activity (Brownlee 1992: 94).

In an interview, Willie Meyer, a previous student of Kahn, discussed Kahn's approach to architecture as a synthesis of 'form' and 'design'; 'form' being the predefined, impersonal will of the building to be, and 'design' being the architect's personal expression of the 'form', or 'the personal good of the architect' (Fisher 1998: 283). The form of the building would be determined by the building's typology in relation to a 'harmony of systems', or a 'sense of Order' (Lobell 1979: 28). This would refer to an arrangement of spaces as well as the expression of a specific order.

The expression of a specific order is obvious in the Exeter Library, with 'certain people or functions occupying the centre and others relegated to the periphery' (Lobell 1979: 100). However, Kahn did not use architecture as a tool to express hierarchy within society, but rather the different roles of people and consequently the way they use buildings: 'by reflecting a full range of human complexity…within his buildings, Kahn restored a richness to architecture…' (Lobell 1979: 100). In the Exeter Library, Kahn 'places the individual reader's satisfaction as the highest priority' (Brawne 1997: 25).

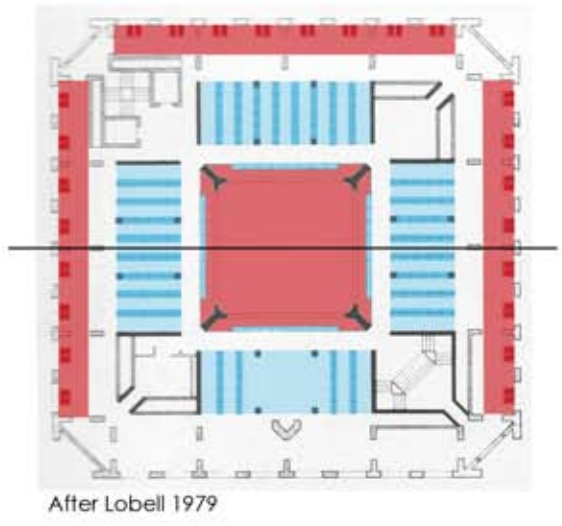
1- External approach to the building and relation to surroundings

The library is situated on the Philips Exeter Academy campus. It is contextualised within the traditional campus through the choice of brick as the material for the exterior of the building.

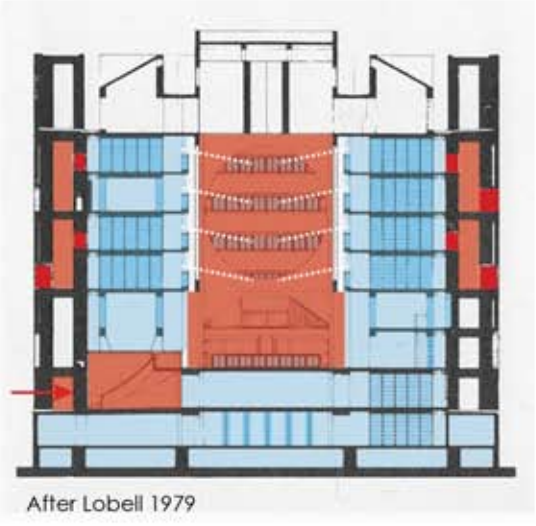
Photograph of library's exterior; First floor plan and Section

Users' spaces **Collection/ Admin space**





After Lobell 1979



After Lobell 1979

2- Design of interior spaces

In plan, the hierarchy of functions is clearly expressed, with the character of each space varying according to its function through the choice of materials, scale and lighting. The main feature of the Exeter Library is the great central space, which is surrounded by an 'inner ring' of reinforced concrete in which the books are stored so that they are protected from the light. The 'outer ring' consists of study carrels, and is finished in brick. (Giurgola 1979: 79).

Lobell (1979: 100) quotes Kahn discussing his impression of the library: 'I see the library as a place where the librarian can lay out books, open especially to selected pages to seduce the reader. There should be a place with great tables on which the librarian can put the books, and the reader should be able to take the book and go to the light.' This impression is reflected directly in the relationship between, and character of, the spaces and functions in the Exeter Library.

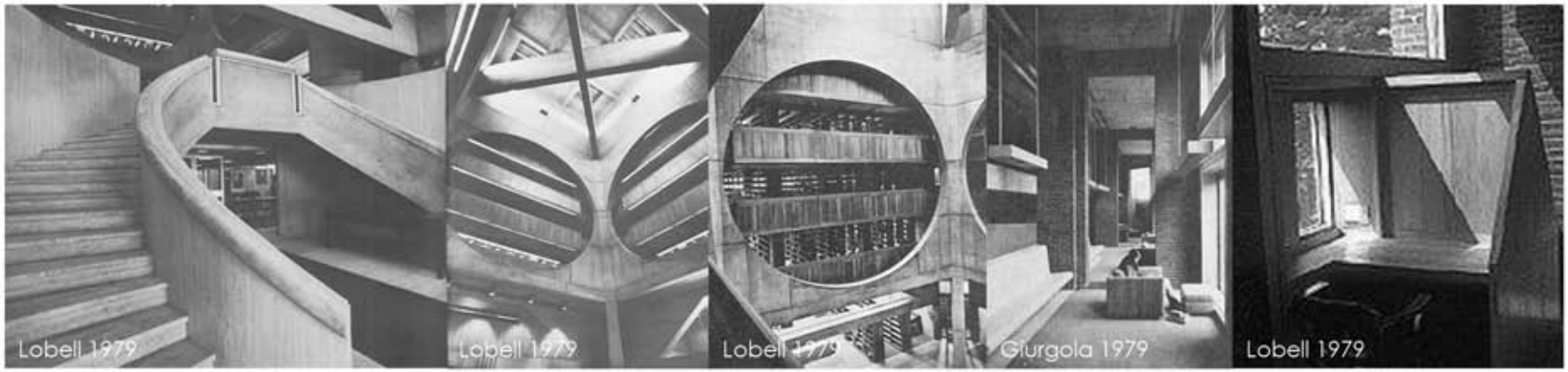
The entrance hall of the library is occupied by a grand staircase which one must climb in order to reach the great central space – this is a parallel with the architecture of Classical temples, by which Kahn was greatly influenced. This procession delineates the significance of the central communal space, and marks the beginning of a ritual which Kahn has choreographed through the concentric layering of the different functions and spaces in the library.

The great central space, which is lit naturally from several sources, is dedicated to the display of books. Balconies containing book stacks overlook the central space. A series of study carrels are arranged on the periphery of the library. According to Spens (Brawne 1997: 25), Kahn had been inspired by the medieval reading carrels provided for the monks at Durham. The carrels are lit by high-level windows, as well as individually by small windows positioned at eye-level, each with a sliding wooden shutter (Lobell 1979: 100). This imparts a sense of intimacy and control as they can open or close the shutter according to their needs. This sense of intimacy is further exploited by the use of wood, which is used wherever people are in physical contact with the building (Lobell 1979: 104).

3- Programme

The situation of the library within a pre-existing university campus implies a pre-existing network of interrelated functions. The programme of the library is therefore limited to the traditional functions of a library.

Photograph of library's interior



SEATTLE CENTRAL LIBRARY, SEATTLE – O.M.A. (2004)

The design of the Seattle Central Library was largely governed by the programme that O.M.A. formulated according to their vision of what a public library should be, given the challenges presented by modernity.

It houses the city's main collection of books, government publications, periodicals, audiovisual materials and technology with which to access information from the physical collection online. The building is divided into eight horizontal layers, each varying in size according to the function it accommodates. A structural steel and glass skin contains these various layers.

To Koolhaas, the advent of technology and the possibilities it offers in the storage of knowledge within a virtual space, presents the potential to reassess the role and design of libraries: 'new forms of storage enable the space dedicated to real books to be contained; new forms of reading enhance the aura of the real book' (www.arcspace.com). O.M.A. began the process with an investigation into the future of the book, seeking a balance between printed materials and technology. Koolhaas discusses this approach: 'It's not a matter of and/or...the modern library...must transform itself into an information storehouse aggressively orchestrating the existence of all available technologies.' The other primary concern was the balance between the explosion of technology with the library's role as a social centre (Olson 2004: 89).

1- External approach to the building and relation to urban surroundings

The library is situated on a sloping site and occupies a whole city block between 4th and 5th street. A covered walkway which leads to the entrance lobby runs across the 5th Avenue façade, drawing pedestrians outside into the lobby.

The glass façade has been manipulated and angled to maximise natural light and views from the library's various levels of the surrounding skyscrapers and the distant mountains (Olson 2004: 101). According to Seattle's City Librarian, Deborah Jacobs, 'It looks like an arbitrary shape, but once you step inside, you get it' (Olson 2004: 89). This comment raises the question of whether the library is in fact entirely accessible from the exterior to the 'man on the street'.

According to Olson, 'its aggressive silhouette and the apparent scalelessness of its diamond-grid cladding' enable the 11-storey library to 'hold its own among office towers three times its height' (2004: 89). Russell writes that '...the seemingly alien form of the exterior fits uncannily well...' (2004: 98). Indeed, to an uninformed outsider, the library may appear to be a trendy office block. Its exterior form does not relate to the scale of the pedestrian - no attempt has been made to break the mass and façade(s) into smaller, legible and more relatable sections – instead it appears unfamiliar or 'alien' and ultimately unapproachable.

Despite the fact that the skin of the building is primarily glass, the library is not visually permeable because the glass is tinted; hence the theme of community is restricted to the inner boundaries of the library, mitigating the 'publicness' of the building. The aesthetic of the building, with its 'aggressive silhouette' (Olson 2004: 89), does not communicate it as a library, or even as a public building. Russell compares the exterior form of the building to a 'chunk of glacier that has somehow run aground in the middle of downtown, which evokes the unconquerably primordial nature of the Pacific Northwest's landscape' (Olson 2004: 98). Surely the image of an 'unconquerable mass' is in direct conflict with the essence, (or as Kahn philosophized, the 'form') of a public library?

In order for the library to truly 'celebrate democracy' (Jacobs quoted by Cheek 2004: 41), and become commonly accessible, the design should foster a participative relationship between the library's interior and the people inside, and its external surroundings and passers-by in order to contribute meaningfully to its context whilst attracting more users.

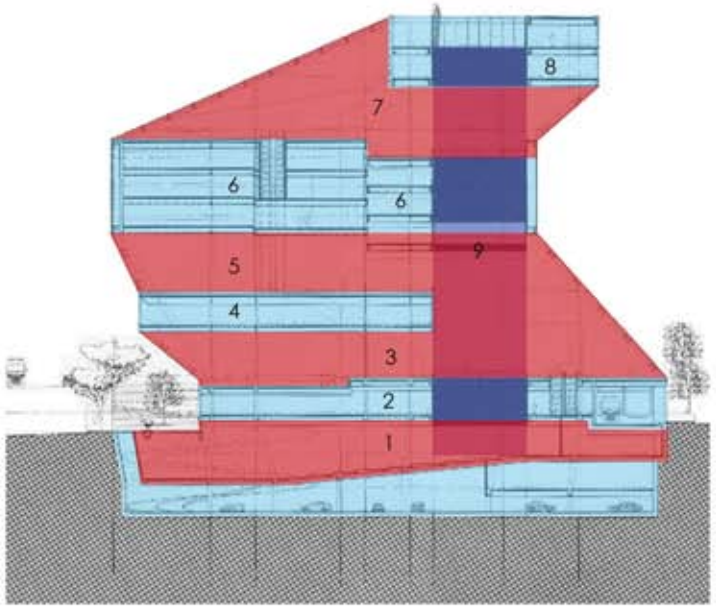
2- Design of interior spaces

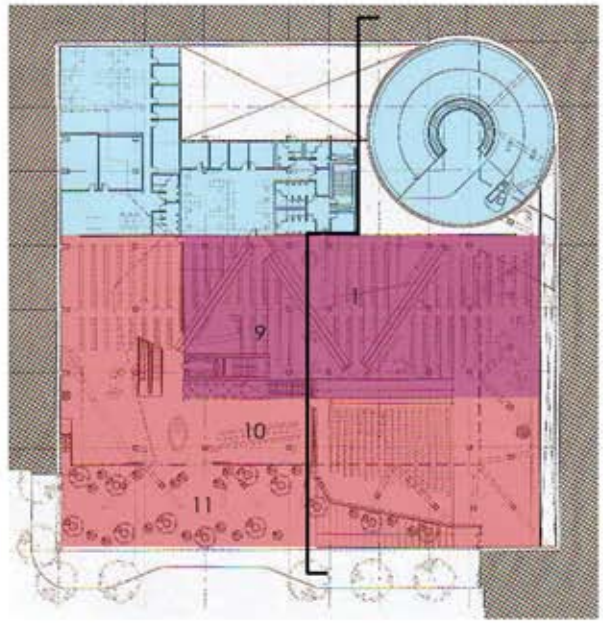
Despite its failure in being entirely accessible from outside, the design succeeds in creating a grand communal interior with dynamic relationships and common accessibility between the various spaces and functions for the library's users. The dynamic exterior form of the building comes into play on the interior, being reflected by, and enabling, multiple views and interactions between different levels as well as views out of the building.

In order to spatially conceptualise the library, O.M.A. began by assessing the relationship between the programmes and media in the library. The programmes were assessed in terms of their relevance within the context of modernity and re-weighted accordingly. Similar functions, which were previously fragmented, were grouped together, hence identifying five 'programmatic clusters', which were then each assigned a 'platform...that is architecturally defined and equipped for maximum, dedicated performance.' The purpose of each platform determines its scale and nature. Spaces were then inserted between these platforms to act as 'trading floors' for the exchange of information between librarians and patrons. These spaces represent interfaces between the five platforms, with 'spaces for work, interaction, play and reading' (Kubo & Prat 2005: 26).

The various levels have been staggered in order to maximise views out of the library and between the levels and functions. Large volumes also cut through the library to further enhance the interrelation of different spaces and hence the sense of community and participation. The 'Living Room' is the library's 'great civic space': a large, open space which contains the fiction section and periodicals, where users can relax, socialise, read, and wirelessly connect to the Internet: 'As the major...free public space in Seattle, it provides an inspiring and inviting amenity for the city' (Kubo & Prat 2005: 93). A gently sloping four-storey ramp called the 'Books Spiral', with the capacity to house 1.4 million books or other materials, houses the non-fiction collection, allowing people to browse along a continuous route (Kubo & Prat 2005: 34).

The library, as described by Koolhaas, becomes 'a custodian of the book, a showcase for new information, a place for thought, discussion and reflection – a dynamic presence' (www.arcspace.com).





Section & Ground Floor Plan
(after Olson 2000:125)

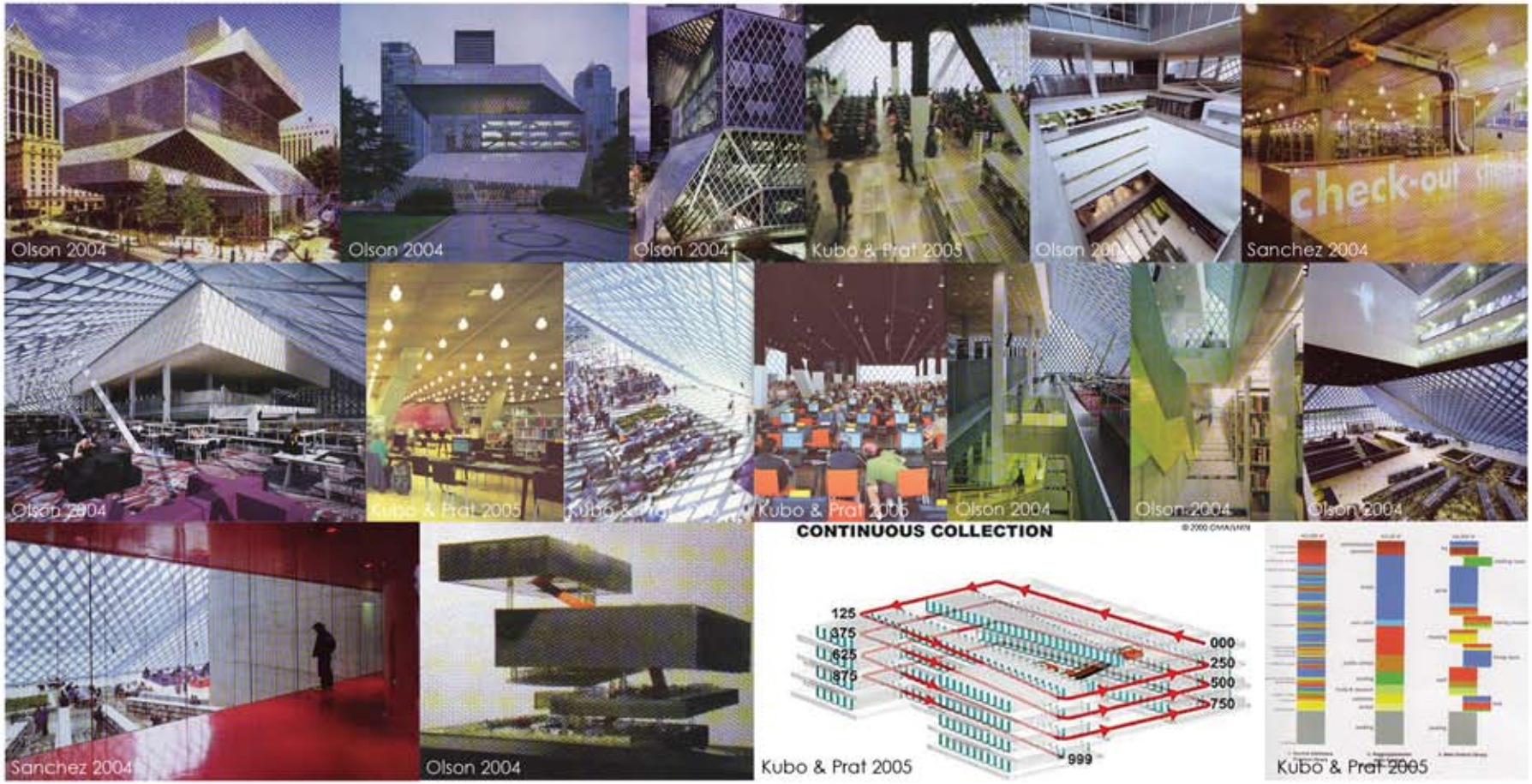
1- Children/ Multi-lingual
2- Staff
3- 'Living Room'
4- Meeting Room
5- 'Mixing Chamber'/ Reference
6- Stacks
7- Reading Room
8- Administration
9- Atrium
10- Lobby
11- Entrance Lobby

User spaces
Collection space & services
Atrium/ volume

3- Programme

The programme of the library responds directly to the challenges which modernity implies for the role of the public library. The functions of the programme have each been allocated a separate level, each of which has been designed for its specific function. This allows for flexibility within each level, but not across levels. The placement of open public levels ('trading floors') between each of these levels is in acknowledgement of the increasing role of the public library as a social center.

The success of the library can largely be attributed to the intensive research process taken in formulating the programme, which has ensured that it is relevant and accessible within its specific context.



PALO VERDE LIBRARY & MARYVALE COMMUNITY CENTRE, PHOENIX – WENDELL BURNETTE & GOULD EVANS (2005)

Maryvale's population consists of a diverse mixture of low-income immigrant families. Since its establishment in the 1950's, the town has declined economically and there has been no infrastructural development, with the public buildings and facilities from the 1950's remaining. The intention behind the Palo Verde Library and Maryvale Community Centre was to reinvigorate Maryvale's civic core, making it larger, more relevant and more accessible to the current population, through the replacement of the existing library and community centre with a new, larger, mixed-use facility that would connect with the park and its surroundings.

The main concept of the new Palo Verde Library and Community Centre is the duality of the realms of mind and body, as accommodated by the provision of a library and sports hall within the same building, with the aim of producing a 'successful community hub' (Pearson 2006: 125). This concept is expressed by 'two equally proportioned, crisply pristine boxes', which house the library and the sports hall (Slessor 2006: 51). These boxes form column-free spaces and are naturally lit from the top and bottom.

1- External approach to the building and relation to urban surroundings

The site for the building was a pre-existing community precinct, consisting of a generously scaled park with a children's playground, a library, a community centre, a swimming pool, a baseball diamond, and basketball and volleyball courts. The new buildings have been placed on axis with the existing pool along the east edge of the site in order to retain as much of the park as possible, as well as the diamond and playing fields (Pearson 2006: 125).

The buildings front 51st Avenue, giving them a strong public presence. The architects have introduced several elements into the design in order to allow a view of the park from 51st Avenue, as well as a strong connection between the buildings and the park. They have effectively 'pulled the park through the buildings' (Jay Silverberg, head of Gould Evans, quoted by Pearson 2006: 126) by means of 8-foot high bands of glass wrapped around the base of each building. Apart from the important urban link that this creates, it also aids in security through passive surveillance (Pearson 2006: 126). The activities and functions within each building are showcased in the manner of 'continuously animated shop windows' (Slessor 2006: 51). The effect is 'democratic and welcoming', with the buildings becoming 'an integral part of the public realm' (Slessor 2006: 51).

A tree-lined pedestrian promenade runs along an east-west axis between 51st Avenue and the park, connecting them and serving as a 'linear plaza' between the two buildings (Pearson 2006: 126). Perpendicular to the promenade is another route which carries through as a corridor in each of the buildings and acts as a covered walkway between them.

The desert landscape has been expressed through the 'reductivist language of orthogonal geometries and a limited palette of materials' (Slessor 2006: 51). The materials have been selected and incorporated in their ability to cope with the harsh climate and relate to the pre-existing urban fabric, whilst enhancing and communicating the building's intentions as a contemporary, accessible public facility.

2- Design of interior spaces

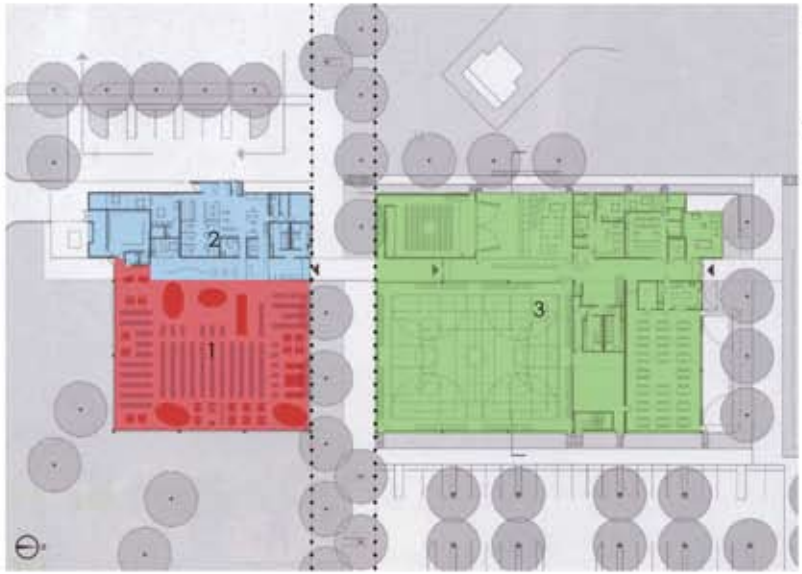
According to Pearson, 'Although simple in layout and construction, the two...boxes that house the library and the community center deliver a memorable architectural experience by balancing opposing elements – exercise for the min...and the body...: glass...and...steel: and a low-ceilinged corridor that compresses space as you enter and 24-foot-high volumes that shoot up as you arrive in the two main function areas' (2006: 127). Daylight is admitted through tubular skylights, and through the 8-foot-high bands of glass that wrap around three sides of each building's base.

The cost saved through the design of simple, relatively inexpensive 'box structures' allowed for extra elements on the interiors, which include a mezzanine-level running track around the gym as well as separate teen and senior lounges (Pearson 2006: 129). The interiors have been designed with the taste of the youth, the primary users of the building, in mind. The effect is friendly, bright spaces, through the use of bold primary colours in the furniture and fittings. Finishes are robust and economical, such as cork for the library floors and recycled rubber tree wood for the sports hall floors (Slessor 2006: 55). According to Slessor, the success of the internal organization is a result of the 'cultivation of a sociable sense of being aware of other things going on around you', where lines of sight enable a visual connection between different activities and spaces (2006: 55).

The success of the complex is reflected in the usership, which exceeds five thousand people daily. According to the architects, the usage of the library has increased by more than 65 percent, and the gym and community center are attracting both African-American and Hispanic users, which are the two primary groups in Maryvale (Pearson 2006: 129). These statistics are concrete proof of the common accessibility that the Palo Verde Library and Maryvale Community Centre has provided through a design and programme that encourages interaction.

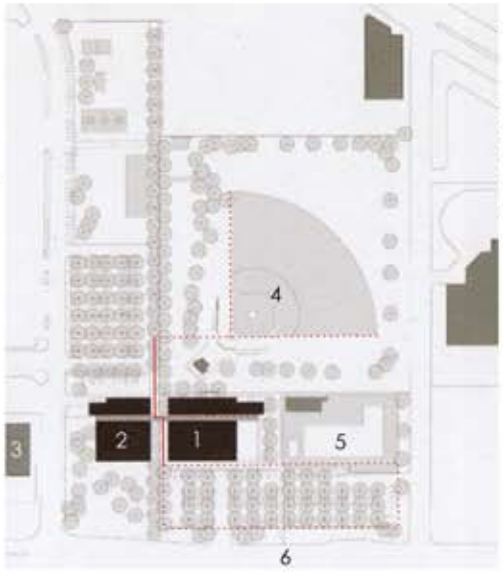
Apart from the new character of, and approach to, each function, this can also be attributed to their proximity and the concept of duality in the design, so that each function acts as a draw-card for the next. Slessor describes it as 'a suburban oasis capable of stimulating both mind and body, as well as making a wide contribution to urban well being' (2006: 55).

Ground floor plan and Site plan (both after Edwards & Fisher 2002)



Ground floor plan

1- Library - public area
2- Library - services area
3- Community Centre



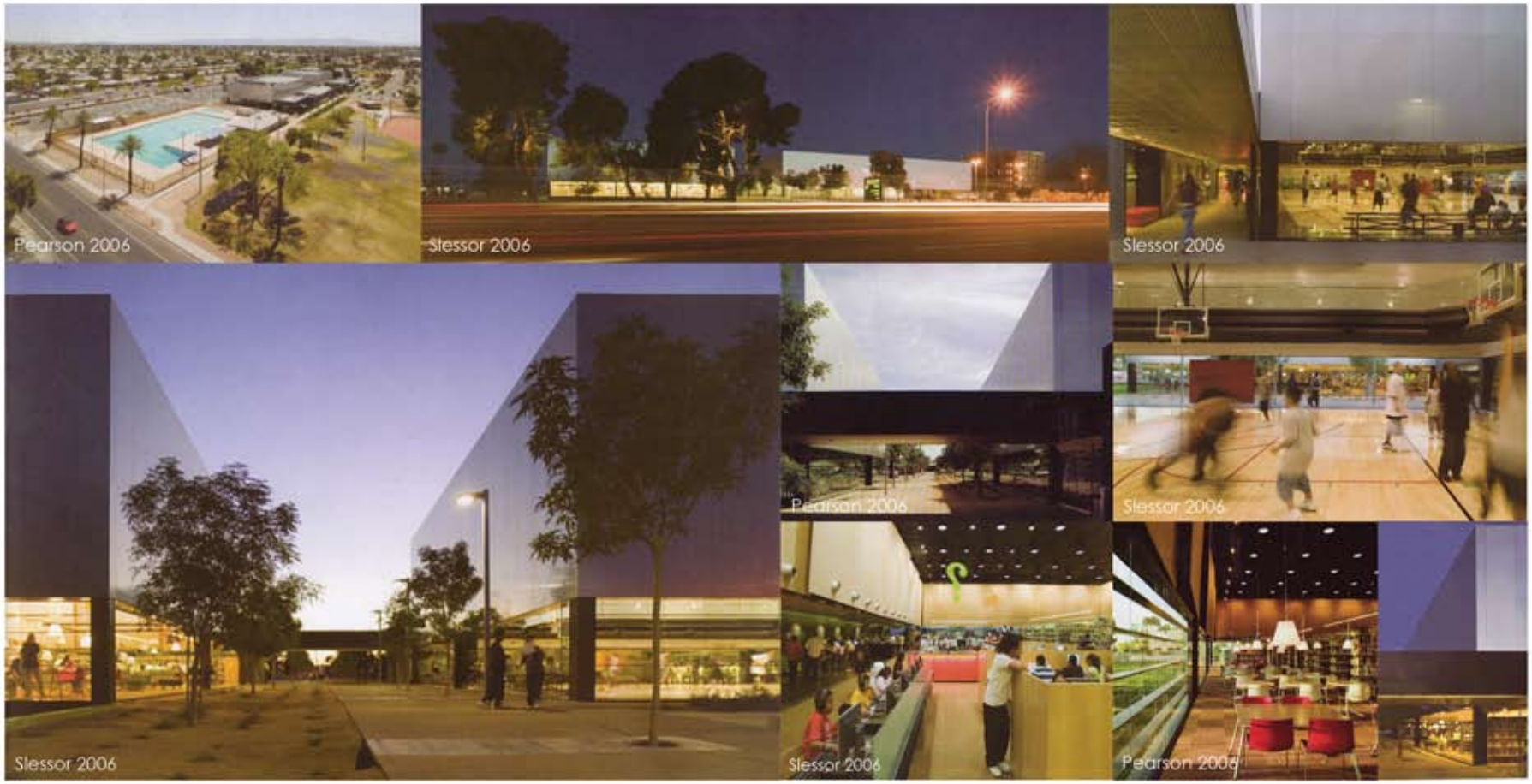
Site Plan

1- Community Centre
2- Library
3- Ex. Theatre
4- Ex. Ball Field
5- Ex. Pool
6- Street

3- Programme

The programme of the building is a library and sports hall, where the design exploits the relationship between these essentially opposing functions in order to create a dynamic environment. The two activities feed and enrich one another, as well as building on the existing provision of park and pool. In this exploitation, the programme as stipulated in the brief was therefore the primary informant of the design concept.

Photographs of library



PRECEDENT STUDIES CONCLUSION

The precedent studies reveal several different ways in which accessibility can either be enhanced or mitigated.

The relation of each library to its urban surroundings and the external approach to each library

The public library's relationship to its surroundings needs to communicate it as public and accessible. In the case of the Bibliotheque Nationale de France, ironically the attempt to communicate the building as public and as a 'symbol of national pride' (Edwards & Fisher 2002: 119) has largely sacrificed its accessibility through its monumental, alienating scale. The architecture has become more of a celebration of itself than a celebration of the public for which it was intended – it turns its back on its context, instead looking in on an inaccessible space and effectively inverting the essence of a public building. The Seattle Central Library also presents a monumental, 'alien form' (Olson 2004: 98), presenting an illegible image which does not communicate it as a public building. The British Library achieves a balance between monumentality and urbanity by dedicating an exterior public space to the surroundings. The entrance façade is modest and unintimidating, inviting the public in before soaring into a grand, public space inside. The Millennium Centre, which contains the Norwich Public library, has literally become one with the grand public atrium which forms the visual and spatial focus of the scheme. This large, transparent atrium serves as a public space for the town and for the Centre's users – as an extension of each realm, it effectively merges the two. In the Palo Verde Library and Maryvale Community Centre, accessibility from its surroundings has been achieved by relating the building's two functions, as well as the adjacent pre-existing public space, by means of transparency and permeability between the various functions and the street.

The design of the interior spaces of each library

In order for the different functions within the library to be commonly accessible, as well as for the interior of the library to be navigable, they somehow need to spatially interrelate to one another. In the Bibliotheque Nationale de France, the different functions within the library are clearly distinguished spatially through layering on different levels. The only 'common' space between these functions is the central forest, which is inaccessible. This rational approach allows for optimal functional efficiency, but breeds isolation as there is no sense of connection, even visually, between each area. The various functions in the British Library have been divided amongst interrelated volumes, allowing mediation and hence a sense of participation and accessibility. A similar approach has been taken in balancing individual and collective activity, as well as library and other public functions, resulting in a rich, stimulating experience. Although the Exeter Library is situated on a university campus, it is a valuable, timeless and global precedent, as its design represents a concretisation of a 'harmony of systems' (Lobell 1979: 28). Kahn has effectively composed and balanced the interrelation of individual and collective activity through the layering of spaces, each of which has been specifically designed to nurture its function. Each public level in the Seattle Central Library has been dedicated to a specific function and conceived as an open-plan 'trading floor' (Kubo & Prat 2005: 26). The concept of 'trading', or interaction, has been carried through in the dynamic interrelation of the various levels by means of views between them across huge volumes of space. Although the design of the Palo Verde Library and Maryvale Community Centre separates each respective function into its own 'box', a duality and tension between the two has been achieved by means of 'shop windows' (Slessor 2006: 51) that wrap around each box, allowing for visual interconnection.

The programme of each building

The relationship between libraries as public spaces and other public programmes enhances their accessibility and acts as a mutual draw-card for the libraries and the other functions. This aspect falls under the 'programme' of the building but can be further exploited through several design techniques. In the British Library, although a distinction is made between the library and public spaces and they are separately routed from a common entrance foyer, they are visually and spatially interrelated in order to enrich one another. The Norwich Public Library is part of the mixed-use Millennium Centre, which acts as a 'centre of knowledge, information and learning' (Davey 2000: 74). The horseshoe configuration and transparency of the building on the inside of the horseshoe allows for visual connectivity between the various functions and the atrium. The reformulation of the programme was the starting point for the Seattle Library, ensuring its relevance as a public library in its socio-economic context. The mixed-use programme in the Palo Verde Library and Maryvale Community Centre served as an overriding concept throughout the project and has been instrumental in operational success.

From the different approaches taken in the design of each library, various **design principles** can be distilled and selectively applied to my design in order to aid in the achievement of an accessible, successful design. The design principles derived from each library are listed in point form.

Bibliotheque Nationale de France

1- The **spatial separation of storage and reading space** to facilitate operation and security
2- The use of an **orthogonal grid** to generate a constructional logic, flexibility for future changes, and the expression of order
3- The inclusion of a **central, outdoor space** which acts as a means of orientation, a common focal point or unifiying element, a source of natural light, and a generator of ambience

The British National Library

1- The selection of **materials as a means of integrating the library** into its urban surroundings
2- The **incorporation of a large public outdoor space** which serves as a threshold and common element between the library and its surroundings
3- The use of **materiality and variation in scale and space as a means of balancing** the library's status as a national institution with its role of serving individuals
4- The **variation of space** through adaptations in light conditions, scale and furniture configurations according to **different functions in the library and to offer users choice**
5- **Different storage solutions for the collection** – the majority of the collection is stored in a giant basement, with a limited collection in the reading room. This maximizes public space and allows for the growth of the collection in the future
6- **Large open spaces** allow for flexibility

The Norwich Public Library in the Millenium Centre

1- The conception of the design as **'an extension of the public realm'** makes it more accessible, inclusive and democratic
2- The primary **consideration of the relationship between the Centre and its surroundings** in the design
3- **Visual and spatial permeability** of the Centre form its surroundings through the footprint, orientation and materiality of the building
4- The **twelve metre depth** of the 'horse-shoe' allows for adequate natural light as well as visual permeability
5- The placement of the library functions in a **continuous, open space** ensures flexibility

The Library at Philip Exeter Academy

1- The **layering of space in plan and section according to a preconceived notion of what the essence of a library should be**, with an obvious **hierarchy from the center to the periphery**. This layering and hierarchy is further enhanced by the **manipulation of scale, light and materiality**. The result is a **sense of order and timelessness**.
2- It is apparent that this arrangement or layering of space is according to Kahn's philosophy, and possibly also according to the specific location of the library. While the approach of layering space imparts a sense of order that is undoubtedly essential to a library, the **nature of each space or 'layer' could be adapted** according to a different approach or philosophy as well as a different socio-economic and physical context in order to ensure relevance. In other words, if the dominant theme is accessibility and space as opposed to the collection, the central space or focus could be an outdoor communal space that draws in people from the urban surroundings. This concept will be explored further in the design.

Seattle Central Library

1- The creation of a **grand communal interior with dynamic relationships and common accessibility** between the various spaces and functions
2- **Multiple views** between the different levels and multiple views out of the building
3- A **programme which responds directly to the challenges** which modernity implies for the role of the public library in the context of Seattle.

Palo Verde Library and Maryvale Community Centre

1- The design enables a view of the park from the street through the buildings and establishes a strong connection between the buildings and the park and creating an **important urban link** and aiding passive surveillance
2- The activities and functions in the buildings are showcased as the **building is visually permeable**
This aids in the buildings becoming an **integral part of the public realm**, as they are 'democratic and welcoming'
3- The **interiors and furniture have been specifically designed** for the user group
4- The **programme explores the catalytic effect** of the proximity of different functions

site


Johannesburg
Public Library
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WORLD

CHOICE OF LOCATION

In the exploration of accessibility as an issue, the capacity of the choice of location of the site, as the determinant of the user group, in the constitution of a truly public building was discussed. This gave rise to the establishment of the following factors to be considered in the site selection:

1 - The proximity of the site to **public transport nodes and existing pedestrian routes**

2 - The proximity of the site to **existing public facilities and spaces**, as well as to **existing precincts which relate to the function** of the proposed library

3 - The location of the site within a **high density residential area**

The design opportunities that the selected site offers will be discussed in relation to each of the above factors. The chosen site for the library is situated in Newtown. Newtown is located in the west of the Johannesburg city center. Newtown's central location makes it accessible to 'a broad spectrum of city users' (GAPP & Urban Solutions 2004: 3).

THE HISTORICAL BACKGROUND OF NEWTOWN

The history of Newtown is significant as it defined the current built fabric of Newtown, as well as Newtown's current designation as Johannesburg's primary 'Cultural Precinct'. It 'has become synonymous with the heritage and culture of South Africa and especially Johannesburg (www.joburg.org.za).' The following brief historical background has been derived from www.joburg.org.za.

Newtown was originally bought by the ZAR government the year after gold was discovered as part of the 'Braamfontein' farm. It included the Fordsburg Spruit, as a water source to supply the fast-growing mining camp. The area was found to be rich in clay, attracting brick makers who supplied the brick for many of Johannesburg's early buildings, and it was consequently named 'Brickfields'. The population of Brickfields grew fast, consisting of people of all races in formal and informal housing.

Its proximity to the center of the city and the railway line made it an ideal investment and business opportunity, and many businesses and immigrants bought stands and established trading companies, banks, brick companies, a brewery, fisheries, and goods yards. The road to the station (now named Carr Street) became lined with Indian shops and cafes. It was renamed 'Burghersdorp'.

In the early twentieth century, because of its high land value, the British declared Burghersdorp 'unsanitary', enabling expropriation, demolition and redevelopment. In 1904 the inhabitants were forcibly removed and the entire area torched to eradicate the bubonic plague outbreak. It was renamed 'Newtown' and redeveloped primarily as a commercial area for food production, storage, and merchandising, with a fresh fruit and vegetable market (now Museum Africa and the Market Theatre), an abattoir, a livestock market, a corn exchange, restaurant, bank, post office, railway office, shops and large storage sheds.



Figure 4 - Aerial photograph showing the location of Newtown and the proposed site in the context of inner city Johannesburg (after www.joburg.org.za)



Figure 5 - Map showing existing nodes and uses

DESIGN OPPORTUNITIES

1- Public transport nodes and pedestrian routes

The construction of the Nelson Mandela Bridge and the M1/ Carr Street interchange has resulted in enhanced accessibility, respectively from the north as well as the south, east, and west of Johannesburg. The Nelson Mandela Bridge forms a primary link between the inner city and Braamfontein, carrying high volumes of pedestrian and vehicular traffic, with the pedestrian traffic consisting primarily of students and youth, as determined by the existing transport nodes and functional precincts.

Metro Mall is located on the border of Newtown, between Simmonds, Sauer, Ntemi Piliso and Gwigwi Mwrebi streets and incorporates the Bree Street taxi rank. On a daily basis, it is used by an estimated 150 000 taxi and bus commuters. Apart from its integrated transport facility, Metro Mall serves as a shopping complex, accommodating an informal traders' market and formal retail shops along Bree Street. These shopping facilities serve not only the commuters, but also the growing number of residents in Newtown. Metro Mall largely determines the volume of taxi traffic and passengers in the area, with large numbers of pedestrians on the North, South and West edges of my chosen site. My chosen site is located close to Metro Mall, and is within walking distance of Park Station.

Figure 6 overleaf shows the traffic patterns in Newtown.



Figure 6 - Map showing pedestrian and vehicular traffic patterns

2- Existing Functional Precincts

The cultural precinct of Newtown and the educational precinct of Braamfontein and adjacent areas have given rise to a high number of students, school children and youth within the area. As already mentioned, Nelson Mandela Bridge is used largely by students moving between the inner city and tertiary education facilities in and around Braamfontein and Parktown. Although Newtown is recognized primarily as a cultural precinct, it also houses various educational and developmental facilities and initiatives aimed at various age groups, within the realms of culture, media, crafts and design and information technology. Apart from Newtown's cultural precinct, there are other precincts that play an important role in defining the character and usage of Newtown. The Newtown North Urban Design Framework prepared by Urban Solutions and GAPP (2004: 3) divides Newtown into four distinct development zones.

- Cultural Precinct
- Metro Mall
- Brickfields
- The Mills Precinct

Figure 7 indicates the above precincts. Figure 5 indicates the position of existing nodes and uses within these precincts that present opportunities for the proposed library.

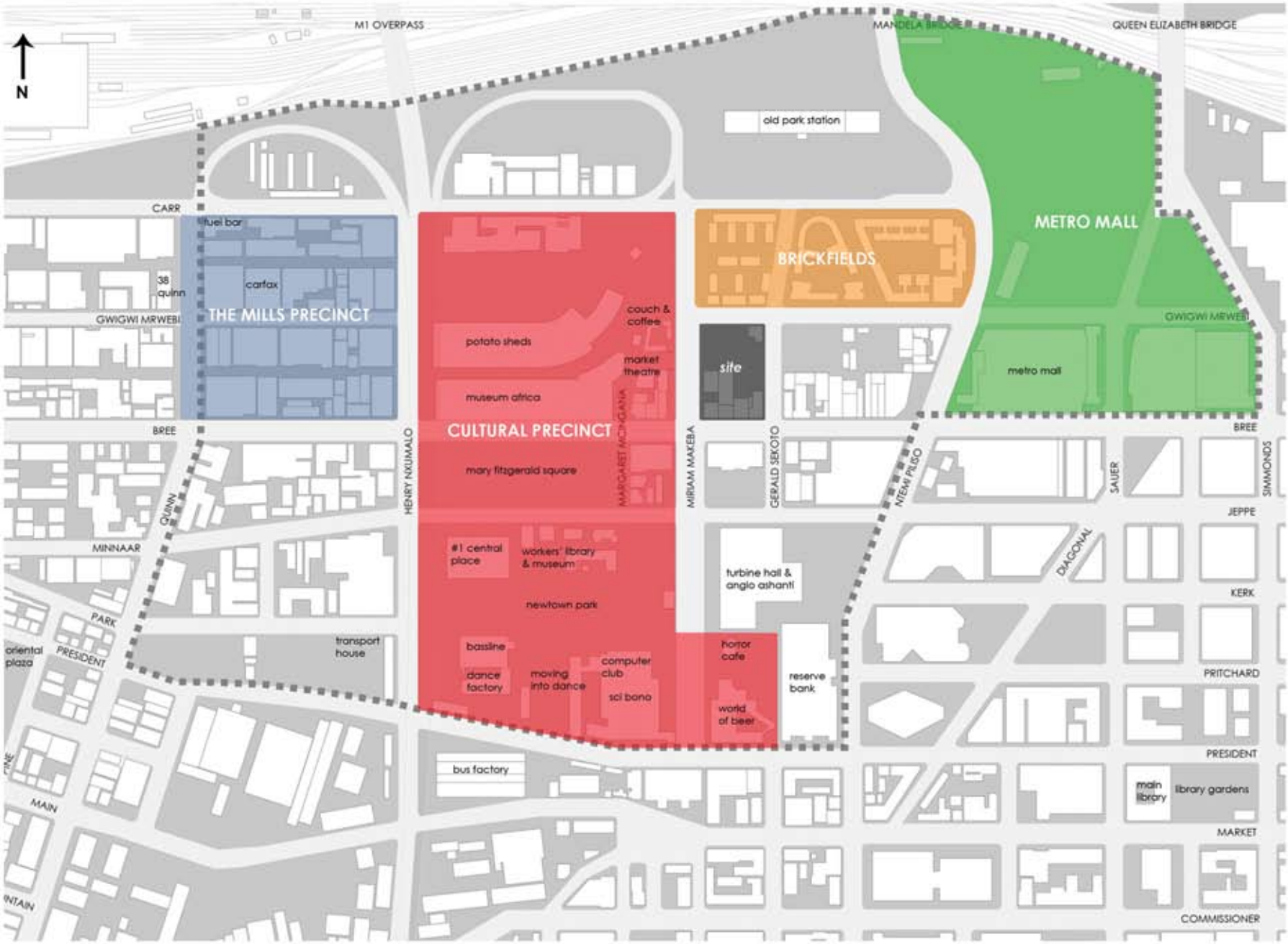


Figure 7 - Map showing the four development zones in Newtown and uses within them

Cultural Precinct and associated public outdoor space

The cultural precinct is the largest of the precincts and determines Newtown as the primary cultural precinct of Johannesburg. The cultural precinct consists of various cultural facilities as well as open public spaces that accommodate cultural events and activities. These existing functions and facilities could reinforce, and be reinforced by, the library. Through a study of what they offer and the patterns of usage, potential synergies could be identified and incorporated into the library programme. The catalytic effect of the relationship between the library as a public building and an adjacent public outdoor space has been explored in some of the precedent studies. The site is diagonally opposite what is currently an open parking lot for the Market Theatre complex.

The Market Theatre/ Museum Africa Precinct Plan (GAPP 2006) has proposed the construction of new buildings, and the extension of existing buildings, in this parking lot (parking to be relocated), which would then form a pedestrian walkway, or 'gateway', to the cultural precinct. The incorporation of a park behind the existing potato sheds, which would be sheltered by the new buildings and new extensions on its perimeter. It would be accessed via pedestrian walkways that would connect it to other outdoor public spaces, forming an open space network. The existing functions and facilities that currently comprise the cultural precinct are briefly discussed in the following section.

Photographs of Cultural Precinct. Thumbnail locates each photo (Joynt 2007)



Mary Fitzgerald Square has the capacity for over 50 000 people, acting as an outdoor space for various public events, including outdoor film festivals, concerts, markets, carnivals and exhibitions.

Museum Africa houses a permanent display on the history of Johannesburg in the 20th century, from the discovery of gold to the struggle for democracy. Apart from its historical displays, the museum also houses the South African Rock Art Museum, the Bensusan Museum of Photography and the Geological Museum.

The Market Theatre houses three theatres, a bar, an art gallery and Moyo restaurant. Adjacent to Moyo is Gramadoelas restaurant. The Market Theatre faces onto Margaret Mcingana Street, a paved, pedestrianised walkway with informal traders, 'retaining the ambience and spirit of a marketplace' (www.joburg.org.za).

The old potato sheds behind the Market Theatre Complex were converted into Afrika Cultural Centre, an arts centre for children and young people, hosting an interactive Child Active Programme teaching creative ways of making the world a safe, loving and friendly place to live in through visual arts, craft and design, dance and music, and media.

Photographs of Mary Fitzgerald Square, Museum Africa, The Market Theatre and the old potato sheds (Afirka Cultural Centre). Thumbnail locates each photograph. (Joynt 2007)



The Workers' Museum and Library is situated in a restored municipal worker's compound, which served the electricity department for the city. The worker's museum commemorates the history of the African migrant workers and their living conditions. The library contains a collection of labour related materials. Its current location is relevant and appropriate for a specialist library. The programme of my proposed library will therefore not take the Workers' Library into account.

The Sci-Bono Discovery Centre accommodates 6 000m² of interactive exhibition space relating to maths, science and technology, with a pre-school discovery centre, a career centre and an education center (www.joburg.org.za).

The Intel Computer Club is aimed at the inner city youth from the ages of nine to nineteen. It offers them an opportunity to learn about computers and technology. It is primarily used by school pupils in the afternoons for the purposes of recreation and learning, as well as to do school projects. Many of these children commute form Soweto to use this facility. It is situated next to the Sci-Bono Discovery Centre.

Bassline, formerly 'Mega Music', is a popular venue for live music events, as well as music rehearsals and dance training space, serving both established and up-and-coming performing artists.

Photographs of The Workers' Museum and Library, The Sci-Bono Discovery Centre, The Intel Computer Club and Bassline. Thumbnail indicates where each photograph was taken from (Joynt 2007)



The Dance Factory is a dance centre that conducts dance classes, workshops and performances, particularly aimed at previously disadvantaged communities. The Dance Factory frequently hosts performances by acclaimed local and international dancers.

Moving Into Dance is the most successful primary professional dance company and training institution in South Africa. It has a professional performance company, runs teacher-training courses, provides dance teachers to disadvantaged schools, and offers open dance classes to the public.

The National Design and Craft Centre is situated in the former Bus Factory. It houses an integrated business co-operative specialising in manufacture, marketing, sales and export of South African inspired craft, jewellery and home decor products.

The SAB World of Beer offers daily tours that trace the history and process of beer making and its history throughout the development of Johannesburg.

Photographs of The Dance Factory, Moving into Dance, The National Design and Craft Centre and The SAB World of Beer. Thumbnail locates the photographs (Joynt 2007)



Metro Mall

Metro Mall acts as a public transport node as well as a shopping complex. It attracts large volumes of pedestrian and taxi traffic in and around Newtown, as already discussed.

Photographs showing Metro Mall and surrounding pedestrian traffic. Thumbnail locates photographs (Joynt 2007)



Brickfields (High density residential)

Residential development in Newtown is regarded as an important factor in the regeneration of Newtown, with the Brickfields Project being the most ambitious residential urban renewal initiative in Johannesburg to date (GAPP & Urban Solutions 2004: 3). The aim is to provide high quality rental housing in mixed-use developments for mixed-income groups. The Brickfields development includes 1000 units with various accommodation options. The buildings are multi-storey perimeter blocks that enclose semi-private courtyards. The units in Brickfields are fully let (www.joburg.org.za), pointing to the demand for high density, mixed-income residential development in the inner city. The Newtown North Urban Design Framework proposes the further development of numerous high-density residential blocks in combination with other uses throughout the area (see Figure 10).

This extensive development implies the escalation of Newtown's resident population and the consequent need for additional social facilities and public amenities within Newtown. It means that a large proportion of the user group of the library could potentially be residents of the surrounding high-density residential developments. The library programme and design therefore need to respond to the needs of this user group. Brickfields is occupied primarily by working class families with young children. The complex has a crèche and jungle gyms, but there is barely any grass or outdoor area dedicated to play, and no communal areas for indoor learning, recreation, and homework, which would be well utilised in this high density context. In its design and programme, the library could incorporate facilities to accommodate these needs, both within the building and in its surrounding outdoor spaces. Since the parents generally work from 8am to 5pm during the week, the library would have to extend its hours in order to become a resource for them. The programme must consider the needs of working class people in its programme in order for it to be relevant to this user profile.

Photographs of Brickfields. The thumbnail locates the photographs (Joynt 2007)



The Mills Precinct

The Mills Precinct is located to the west of the freeway, between Henry Nxumalo and Malherbe Street, and Bree Street and the railway lines. Currently the land use us still industrial and retail (mainly wholesale), with some buildings being bought speculatively by small private owners for the purposes of refurbishment and conversion into offices, entertainment venues, loft apartments and other residential uses. As mentioned, there is a high demand for residential units of all types in the area.

The primary example of new development in The Mills Precinct is The Mills Development, which comprises residential, commercial, and entertainment/ retail. '37 Quinn Street' is the refurbishment of the former Premier Milling Companies head office into fifty-five luxury apartments.

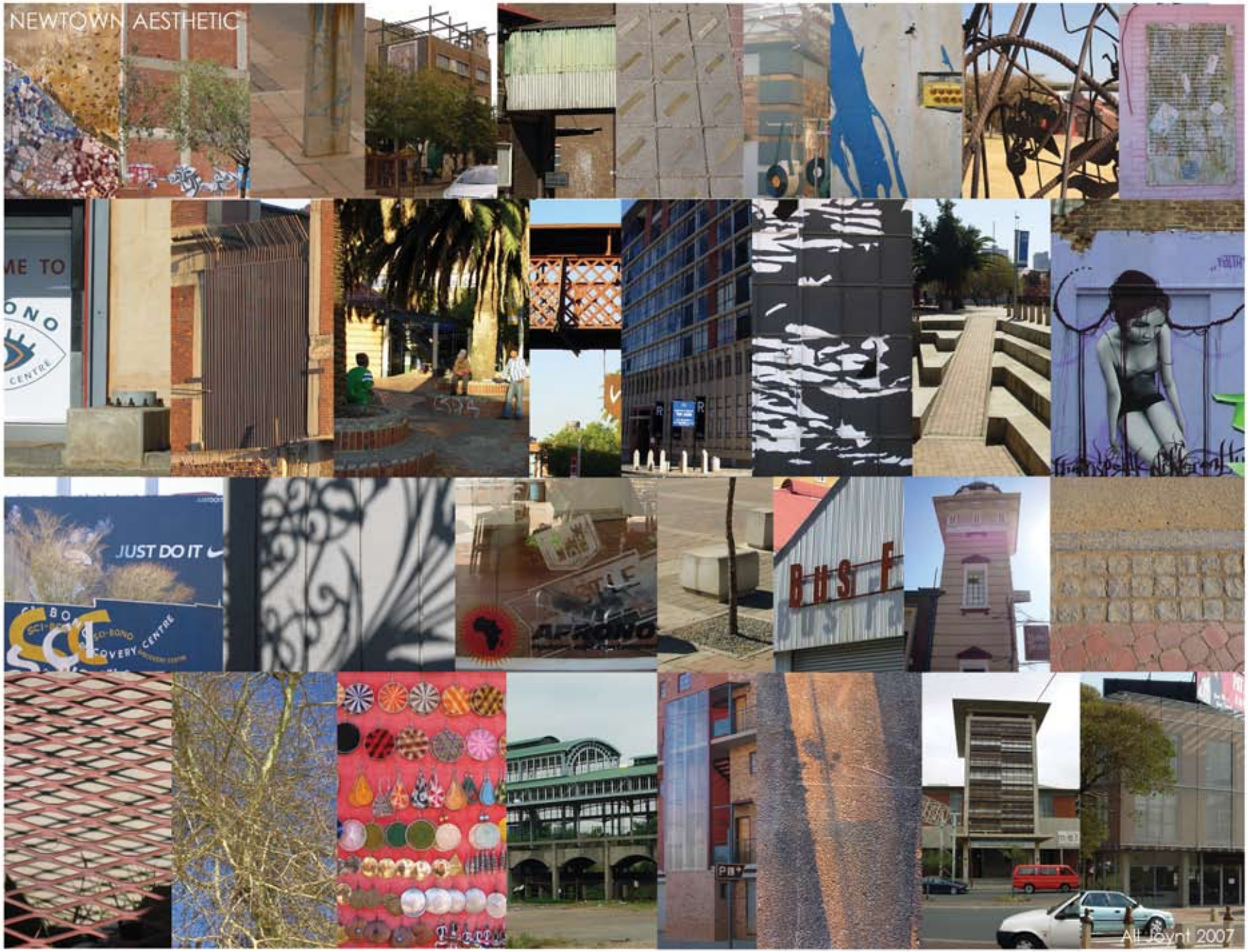
Photographs of The Mills Precinct. Thumbnail shows where each photograph was taken from (Joynt 2007)



The aesthetic of Newtown

The Market Theatre/ Museum Africa Precinct Plan makes reference to the unique aesthetic character of Newtown due to the presence of its many heritage buildings, with 'their rich historic industrial textures, materials and character'. They propose that 'new development should...sensitively...respond to the...rich textures and raw materiality', with new buildings being 'contemporary in design' whilst 'reflecting the scale, materials and essence of the heritage buildings' (GAPP 2006: 23). The many materials, textures, colours and artworks throughout Newtown speak of the multiple layers of history that make it a unique, memorable place.

I intend on incorporating some of these aesthetic elements into my design as a means of integrating my building into its surrounding fabric. However, the approach to the design will be that of an important institution which embraces a new ideology and presents itself as a modern alternative. This approach implies an alternative aesthetic to the historic industrial aesthetic that currently dominates in Newtown. The design will therefore combine traditional and new elements in its aesthetic.


NEWTOWN AESTHETIC
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Proposed Site

In this section I will justify and analyse the site that I have proposed. The proposed site for the library is the city block bound by Gwigwi Mwrebi Street to the north, Bree Street to the south, Gerald Sekoto Street to the east, and Miriam Makeba Street to the west.

As already discussed, the choice of site has been influenced by the proximity of the site to public transport nodes and existing pedestrian routes; the proximity of the site to existing public facilities and spaces and to existing precincts which would have a catalytic effect on the library through their functions, and the location of the site in a high density residential area. The specific site is located at the junction between the Cultural Precinct (Miriam Makeba Street) and Brickfields (Gwigwi Mrwebi Street).

The Cultural Precinct currently seems divided from the rest of Newtown at Miriam Makeba Street and Henry Nxumalo Street. This is because Miriam Makeba Street cuts through what was existing built fabric at Newtown. The western edge of the street is therefore a solid, decorated wall that is the back of what are mainly old, single-storey, industrial style buildings (previously food storage facilities), which are currently vacant, behind the row of primarily retail buildings which face onto the active pedestrian boulevard across for the Market Theatre. Kate Otten Architects has designed a mixed-use, five- to six-storey building running from Bree Street to the existing French cultural building designed by GAPP Architects (not including this) and between Margaret Mcingana Street and Miriam Makeba Street. This will be called 'The Majestic' and will comprise retail on the ground floor, and offices and apartments above. The proposed building is intended to have a positive relationship with all street frontages with shops opening onto the streets. This proposal presents exciting design opportunities for my chosen site, which is directly opposite this proposed building, and could respond to this proposed active edge.

The land to the north of the French cultural building currently serves as a parking lot for the Market Theatre, which has been proposed in the Market Theatre/ Museum Africa Precinct Plan (GAPP 2006 – refer to figure 10) to be developed and redesigned as the pedestrian entrance, or 'gateway', to the cultural precinct with the parking being relocated. The pedestrian walkway would also link to a series of outdoor public spaces, forming an open space network. This network presents further opportunities for my chosen site as it could be extended into a new outdoor public space relating to the library, thereby incorporating the library into the cultural precinct. This would aid in diffusing the cultural precinct into what is currently a relatively inactive area, effectively activating it and providing a new orientation point for the Brickfields development, which currently feels quite isolated, as much of the land around it is vacant and the rest contains private commercial buildings which are at most only two storeys high.

Photograph of the street edge opposite the site on Miriam Makeba Street (to the west of the site) - Joynt 2007



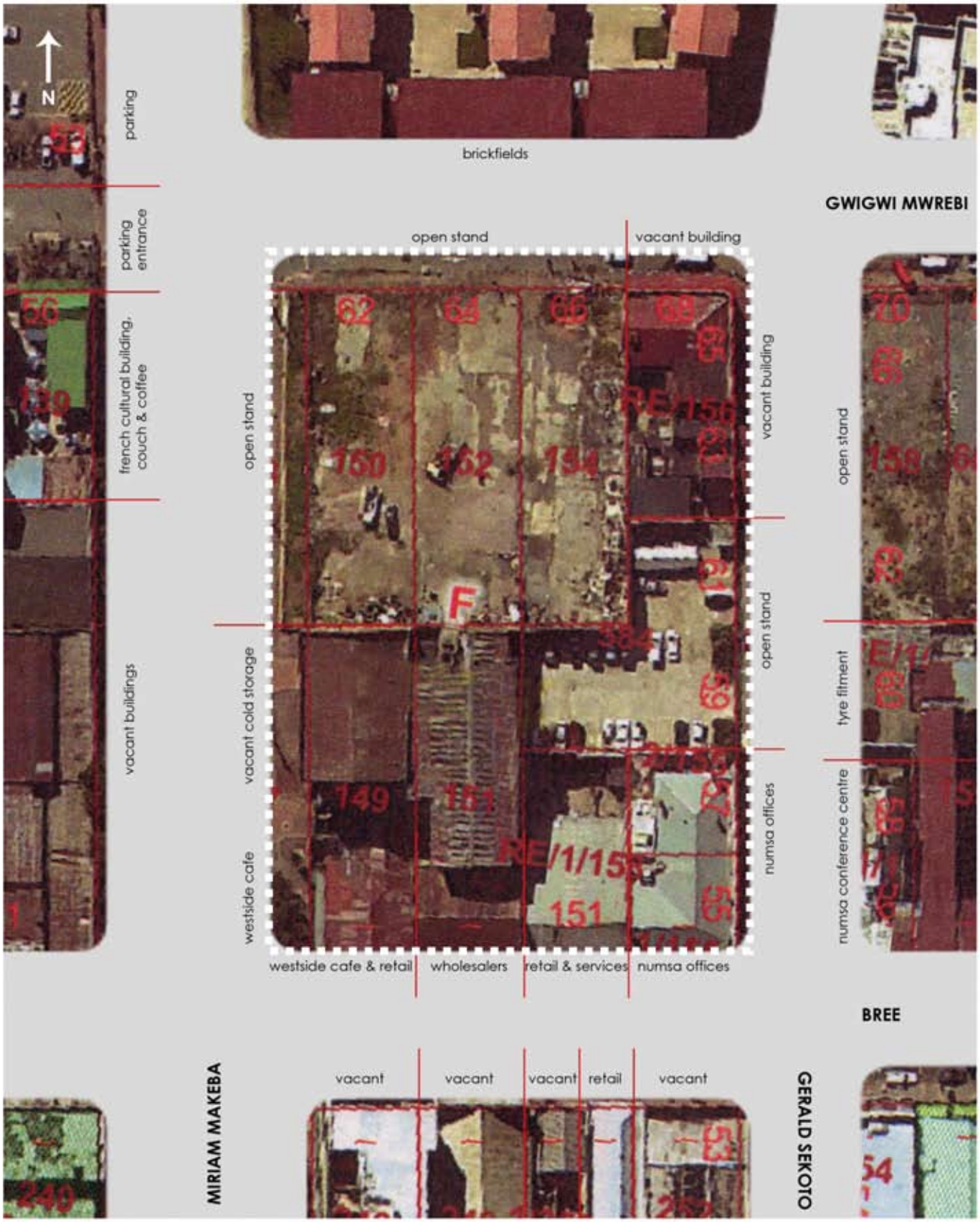


Figure 8 - Diagram showing current uses of buidlings on and around the proposed site

Currently, about 75% of the site is constituted of vacant land and buildings. The National Union of Metalworkers in South Africa (NUMSA) owns the section of vacant land, as well as the vacant building to the north of their existing Head Office, which is on the corner of Bree and Gerald Sekoto streets (the old Standard Bank building). Plans are in place for NUMSA to build a new, three-storey office block on the vacant stand, with the ground floor consisting primarily of parking. NUMSA also intends to restore the vacant building on the corner of Gwigwi Mwrebi and Gerald Sekoto Street, which it owns, with retail on the ground floor and offices on the first floor. While this intervention would develop and activate what is currently dead space, it would not contribute to Brickfields or the development of the cultural precinct in any way.

The row of buildings along Bree Street to the west of the NUMSA Head Office is occupied by relatively successful wholesalers and other forms of retail, services such as a salon and copying/ phone facilities, and Westside Café on the corner of Bree Street and Miriam Makeba. These buildings have positive relationships with Bree Street and attract the business of the pedestrians on Bree Street. With the exception of Westside Café, all of the buildings on this edge of the site are heritage buildings. The first floors of these buildings act mainly as storage space for the retail below.

The yards behind each of these buildings are relatively unused. The huge four-storey face-brick buildings behind Westside Café and the building to its east were originally constructed as cold storage sheds when Newtown was still a commercial food area, and are vacant, with no material proposals in place for their future use. The Market Theatre/ Museum Africa Precinct Plan (GAPP 2006) has proposed that the large vacant stand behind them become a multi-storey parking facility to service the cultural precinct. This would further divide this area from the cultural precinct, establishing it as the 'backyard' for the cultural precinct and becoming an eyesore for the residents of Brickfields. My design will propose the construction of a basement parking under the library that could service the library and the existing cultural precinct.

Photographs showing all of the edges of the selected site (Joynt 2007)

South edge of site (Bree Street)



East edge of site (Gerald Sekoto Street)



North edge of site (Gwigwi Mwrebi Street)



West edge of site (Miriam Makeba Street)



Bree Street is the busiest of the streets around the site, serving as a bus route and containing high traffic volumes in terms of taxis, and pedestrians, which can be largely attributed to the presence of Metro Mall and Mary Fitzgerald Square, as well as high volumes of cars. For this reason, the entrance to the library as a public institution should be on Bree Street. This would relate it to Mary Fitzgerald Square, further reinforcing its public status. The opposite street edge of Bree Street consists primarily of what was previously retail and residential or commercial, with all but one of the buildings currently being vacant. There is a proposal in place to demolish all of the buildings on this block and build a multi-storey hotel with retail on the ground floor, which would draw more tourists to the area, whilst establishing a positive relationship with Bree Street and Miriam Makeba Street, and further activating them.

The live/ work units on the ground floor of Brickfields front onto Gwigwi Mwrebi Street, to the north of the site. The majority of these units are currently unoccupied, as opposed to the living units, which are in full occupancy (www.joburg.org.za). This part of Brickfields is five storeys high, as opposed to the surrounding, relatively low buildings.

The opposite street edge of Gerald Sekoto Street, to the east of the site, is composed of 50% vacant land, which is aligned with, and of a similar width to the large vacant stand on the proposed site. The Newtown North Urban Design Framework prepared by Urban Solutions and GAPP (2004) proposes the vacant land to be developed as high-density, low-income housing similar to that in Brickfields (see figure 10). The rest of this street edge consists of a tyre fitment centre, and the NUMSA Conference Centre, which has recently been renovated.

Miriam Makeba Street and Gwigwi Mwrebi Streets also have relatively large volumes of vehicular traffic and moderate pedestrian flow. Many informal traders cart goods in wagons or trolleys on these two streets, particularly on Gwigwi Mwrebi, mainly from wholesalers in the area near The Mills precinct and Fordsburg (for example Astor Cash and Carry), to sell to commuters in Metro Mall. Another activity that is common on Gwigwi Mwrebi Street is taxi drivers washing their taxis, which they park along the street edge. Gerald Sekoto Street has little vehicular or pedestrian traffic. Informal trade occurs mainly on Bree Street due to the high pedestrian traffic (see figure 9).

Photograph of the street edges opposite the site:

1 - on Bree Street (to the south of the site)
2 - on Gerald Sekoto Street (to the east of the site)
3 - on Gwigwi Mwrebi Street (to the north of the site) - All Joynt 2007





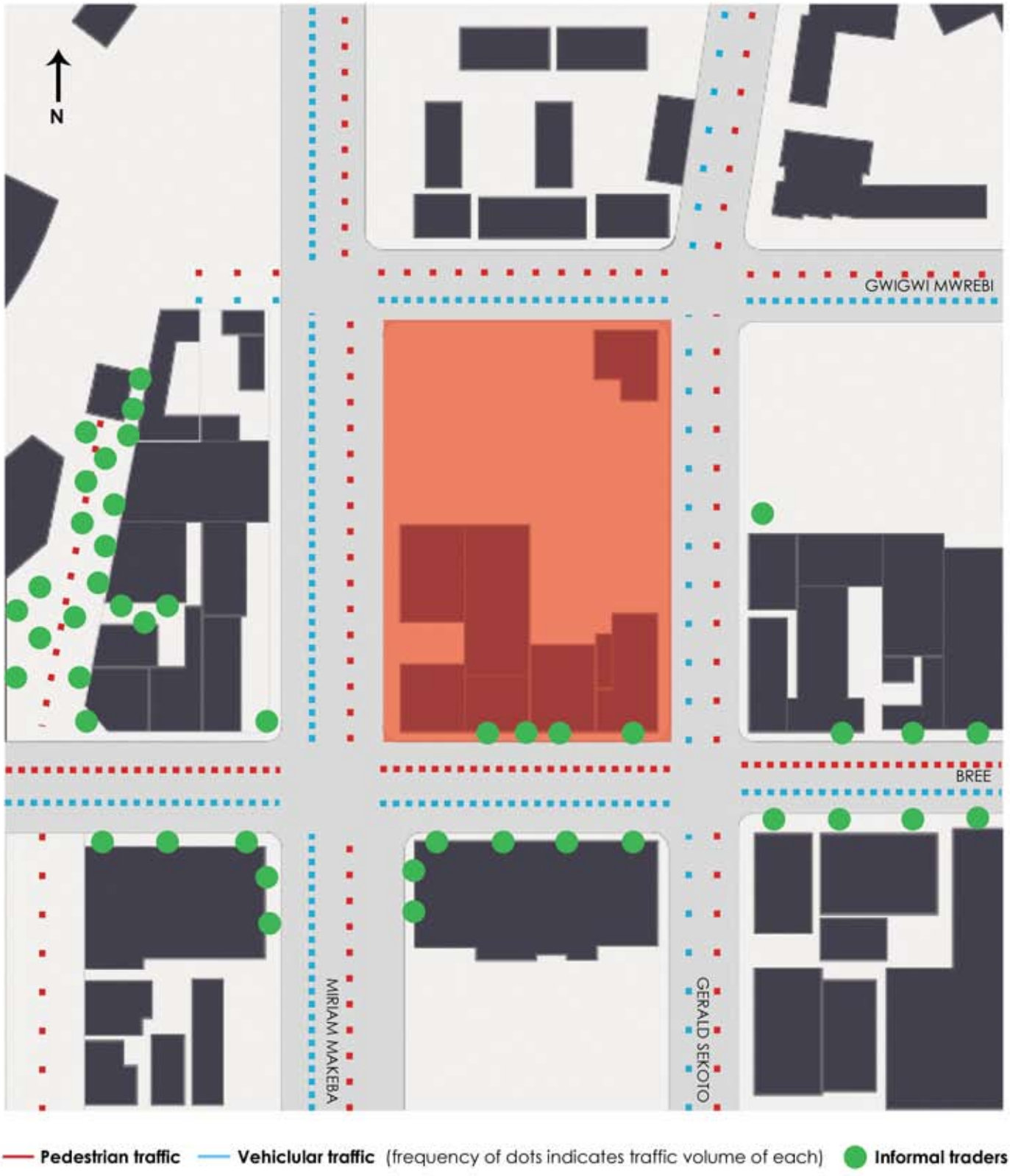


Figure 9 - Map showing pedestrian and vehicular traffic and informal trade


NEWTOWN ACTIVITIES
All Joynt 2007

EXISTING FUTURE PROPOSALS

The approach to the redevelopment of Newtown as an area with the potential to attract investment in the creative industries, culture and tourism is to exploit Newtown's history 'as the hub of exchange and the original centre of Johannesburg' (www.joburg.org.za). Newtown is envisaged as 'the creative capital of Johannesburg and South Africa: dynamic, vibrant, sophisticated and cosmopolitan, boasting the best cultural offerings in Africa' (GAPP 2006: 1).

The Urban Design Frameworks prepared by GAPP and Urban Solutions accommodate cultural, recreational, commercial, retail and residential uses, as well as public open space, based on the character of existing cultural facilities. These proposals, as well as other future developments, are illustrated in terms of their location and proposed use in Figure 10.

The proposal of an open space network (refer to Figure 11) throughout Newtown presents an opportunity for the library to be integrated into its surroundings through the inclusion of its own public outdoor space, which could then become part of the network.

Perimeter blocks are the dominant typology in the proposal, and already exist in Brickfields, and also in a sense the buildings that flank Margaret Mcingana Street, including the Market Theatre (refer to Figure 12). Perimeter blocks present an opportunity to create a meaningful relationship between a building and its related outdoor space.

It is important to note that these proposals have been accounted for in the design of the library, with the exception of the multi-storey car park that has been proposed on my site.

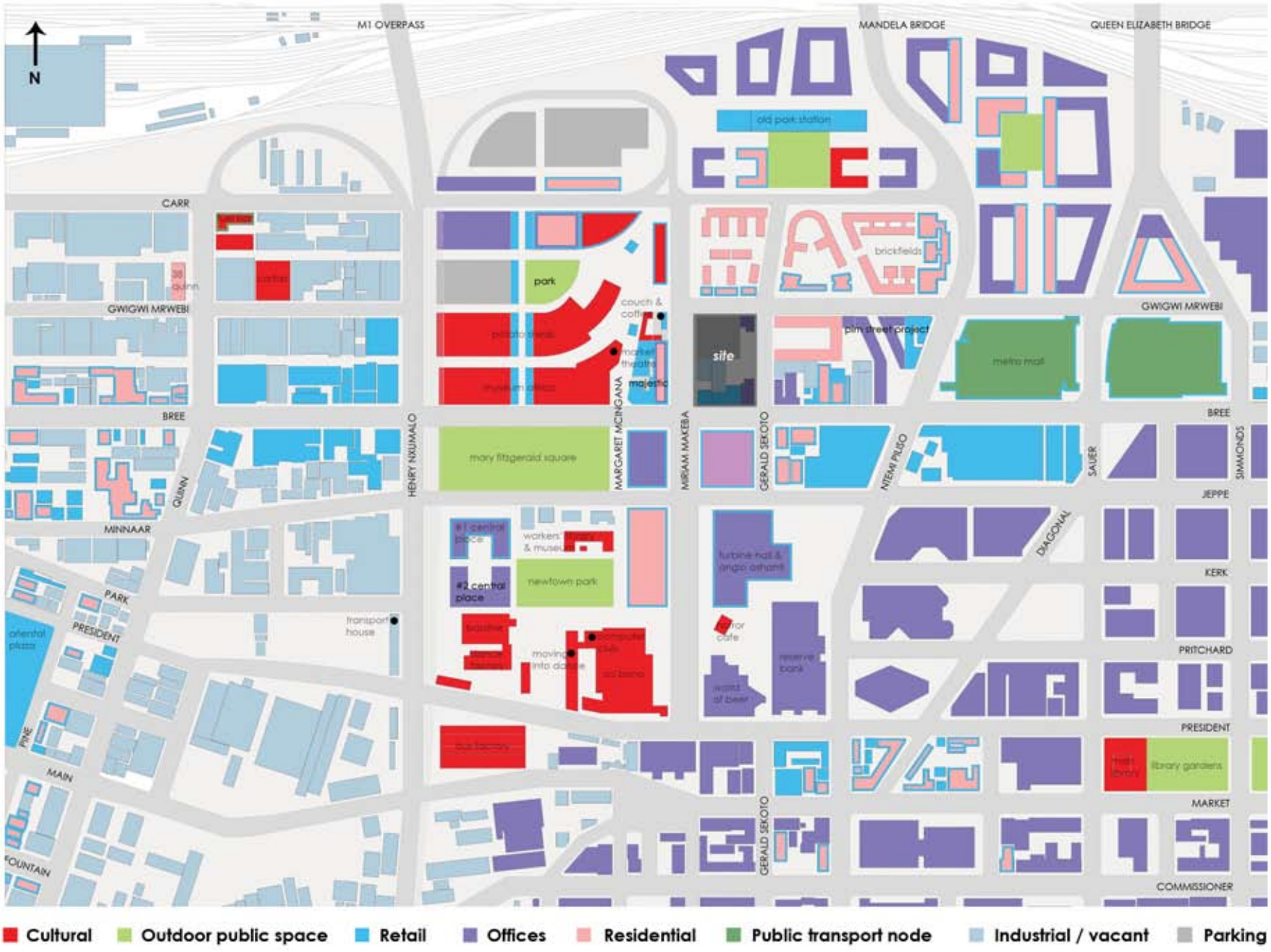


Figure 10 - Map showing existing future proposals

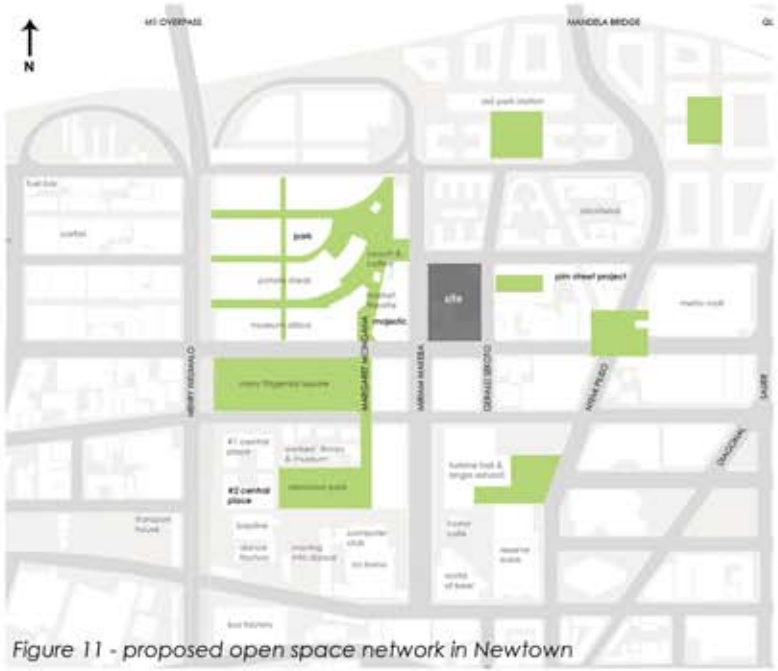


Figure 11 - proposed open space network in Newtown

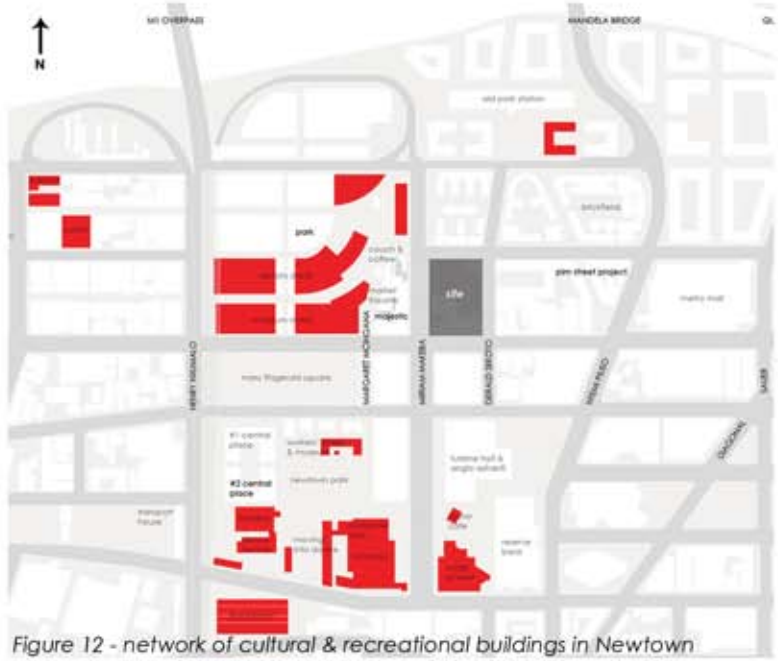


Figure 12 - network of cultural & recreational buildings in Newtown

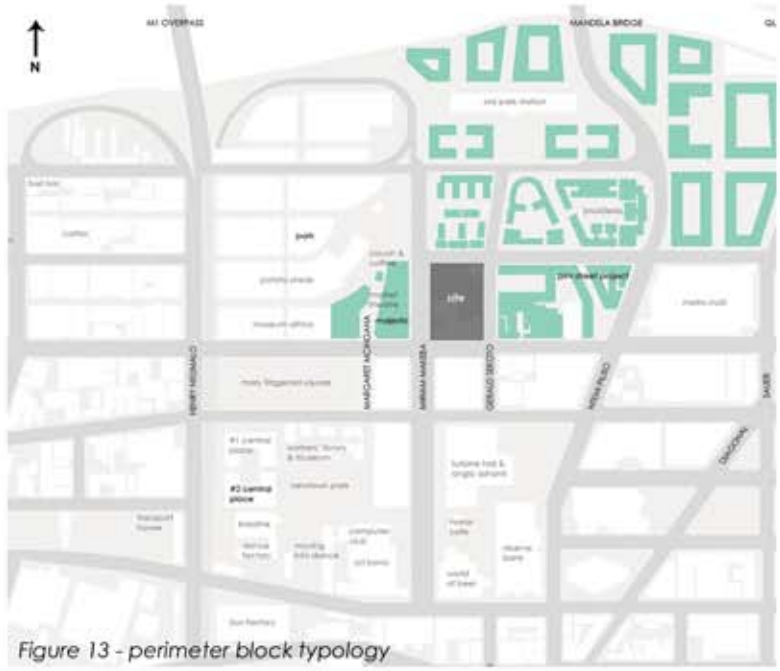


Figure 13 - perimeter block typology

brief


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As has been discussed, the current socio-economic conditions and the projected growth of the population in the inner city demands the creation of accessible public facilities, both indoors and outdoors, and to support the population's needs. This is reflected in the challenges that confront the Johannesburg Central Library.

The proposed scheme is a new inner city public library in Newtown which addresses the issue of accessibility, and is relevant at all scales of its context. It should act as an alternative to the Central Library, inverting some of the architectural qualities of the Central Library and other similar traditional libraries in order to emphasise and enhance its role as an inviting, inclusive and truly public institution. Given the demand for larger libraries with a wide range of facilities and large spaces as established in the study of the Central Library and interviews with its users, the proposed library should be of a similar scale to the Central Library but should reassess and re-prioritise the various resources in accordance with the users' needs.

Although the library will be large and will target the user groups as currently identified in the Central Library, it will not deprive the Central Library of users because of the magnitude of the demand for resources, which is set to increase further as the inner city's population increases, and also because the new library will attract new users. Specific user groups which have been identified include the large number of students which move between the inner city and the educational precinct of Braamfontein; the residents of Brickfields and similar future developments; commuters who use the Metro Mall; unemployed people seeking jobs or wanting to start small enterprises such as informal trade, and the people who use the current facilities in the Cultural Precinct, which is set to develop further, attracting more people.

The relation of the library to a large public outdoor space will be an important factor in enhancing the library's accessibility, representing it as public by relating it to the most easily recognizable and accessible form of public space, hence attracting the public. The library will secure the park by means of passive surveillance. The successful interrelation of the library and the outdoor space will hence result in the activation of both spaces. The outdoor space could accommodate events that relate to the functions of the library to enhance this relationship whilst effectively extending the library's programme. Such events could include book launches and slam poetry sessions. The design of this public outdoor space as the focus of the library, as well as the design of the library building itself, will communicate the library's primary role as a provider of space for its users.

The library will act as a new orientation point for the Brickfields development and will function as a resource for the residents of Brickfields in terms of its physical resources and indoor public space, which is particularly valuable in a high-density context, and in terms of its related soft-landscaped public outdoor space, particularly for children.

The Cultural Precinct currently seems divided from the rest of Newtown at Miriam Makeba Street and Henry Nxumalo Street. Through its functionality and spatiality, the library will act as an extension of the adjacent public Cultural Precinct, effectively dispersing the Cultural Precinct beyond its current borders and unifying it with the Brickfields precinct. The library's public outdoor space will form part of the network of public outdoor spaces as proposed in the Market Theatre/ Museum Africa Precinct Plan (GAPP 2006), ultimately linking it to Mary Fitzgerald Square. The library's public outdoor space will act as an alternative to Mary Fitzgerald Square, which is a huge, open, exposed space with hard landscaping that is suitable for mass gatherings and huge events. The library's public outdoor space is envisaged as a smaller, more intimate, more sheltered public space with primarily soft landscaping, which will serve as a stage for the everyday activities of individuals and occasionally for small to medium sized public events. This type of space is more appropriate given the site's proximity to residential functions, and represents a scaling down, or gradient, from the Square to Brickfields. It is also more appropriate as the focal point of a library, which essentially functions as a relatively quiet place for people to work, learn and relax.

The large number of informal traders present in the site's surroundings, either trading in Newtown or otherwise moving through Newtown, is an important part of the everyday experience of Newtown. As discussed, the vast majority of the informal trade on the site edges occurs on Bree Street where there are large volumes of pedestrian and vehicular traffic. This could be accommodated on the Bree Street edge but needs to be designed for in order to maintain some measure of control and allow easy access to the library. The theme of trade, or exchange, relates to the activities in a public library, where knowledge stored is exchanged, and the communal interaction that occurs in a truly public space becomes an exchange in itself. This interrelation between what would usually be considered as two opposing concepts, given the perception of libraries as 'cultural symbols of power' (Wilks 2005: 58), is representative of the idea of accessibility and 'publicness' in its true form. It is also an important concept in the creation of a truly African space in a culture that embraces community, participation and sharing as opposed to the exclusive nature of western culture.

The following points sum up the objectives of the proposal:

- The design should enhance and emphasis the accessibility of the library;
- The resources currently provided in public libraries need to be reassessed and re-prioiritised in order to meet ensure that the library is accessible to potential users by meeting their needs;
- The following user groups need to be considered:
  - students;
  - unemployed people seeking jobs and unemployed people or informal traders seekinng basic
  - entrepreneurial skills;
  - children attending school in the inner city or living in the inner city or surrounding areas;
  - young adults attending school in the inner city or living in the inner city or surrounding areas;
  - adults seeking basic education;
  - adults living or working in the inner city, and
  - visitors to Newtown.
- The meaningful integration of a public outdoor space accessible form the urban in the design;
- The provision of large, open, flexible spaces in the building, and the reflection of this space in the external appearance and overall design of the library;
- The effective extension of the cultural precinct and unification with Brickfields;
- The accommodation of the informal traders currently on the Bree Street edge of the site in the proposed scheme.

programme


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The programme of the library is to be conceived based on the main user groups, functions and needs as revealed in the study of the Johannesburg Central Library; the potential user groups that have been identified around the site, and the existing uses and precincts which exist around the site, which inform the user groups.

In terms of the new organizational structure for the libraries in Johannesburg, as illustrated in figure 1, the proposed library will be of a similar scale to that of the regional libraries, but will have a significantly smaller staff as it is not intended as an administrative center. It will also have a significantly smaller physical collection, with the emphasis being on space for users – this will also reduce the number of staff required. I have chosen to design a library of a 'regional' scale as opposed to a that of a 'medium-sized local library' because of the high demand for libraries in the inner city as already discussed, as well as the limitations of small libraries and the consequent popularity of larger libraries such as the central library, as was outlined in the user interviews.

The programme will prioritise the provision of space for the users as opposed to space for an extensive collection. In order to be relevant in the context of inner city Johannesburg, the library will offer resources which meet the practical everyday needs of the projected users, for example job seeking, basic adult education and facilities relating to primary, secondary and tertiary education.

As a public facility, the library will incorporate a public outdoor space that will be directly accessible from the urban surroundings, as well as general public functions such as a café. It is anticipated that this will draw more users to the library, as well as generating a more dynamic, stimulating, public atmosphere and enriching the programme. The outdoor public space will be designed as a relatively clear space to allow for flexibility for mixed programming.

The study of the central library revealed a need for longer operation hours. While this will be applied to my proposed library as a whole to accommodate all the users, possibly staying open until 7 or 8 pm, allowance should be made in the programme and design for a study area which is secured off from the rest of the library and which could stay open twenty-four hours a day. This area could also potentially accommodate seminars, classes and film screenings during the daytime and in the evenings, continually being reprogrammed according to demand cycles (for example, during exam periods, the entire area could be designated as studying space).

It is important to note that the programme of any library should not be rigid - in order for the library to remain accessible and relevant in the context of the constant changes which modernity presents, the programme needs to be continually reassessed. The design should therefore not rely entirely on the initial programme, but should prioritise flexibility.

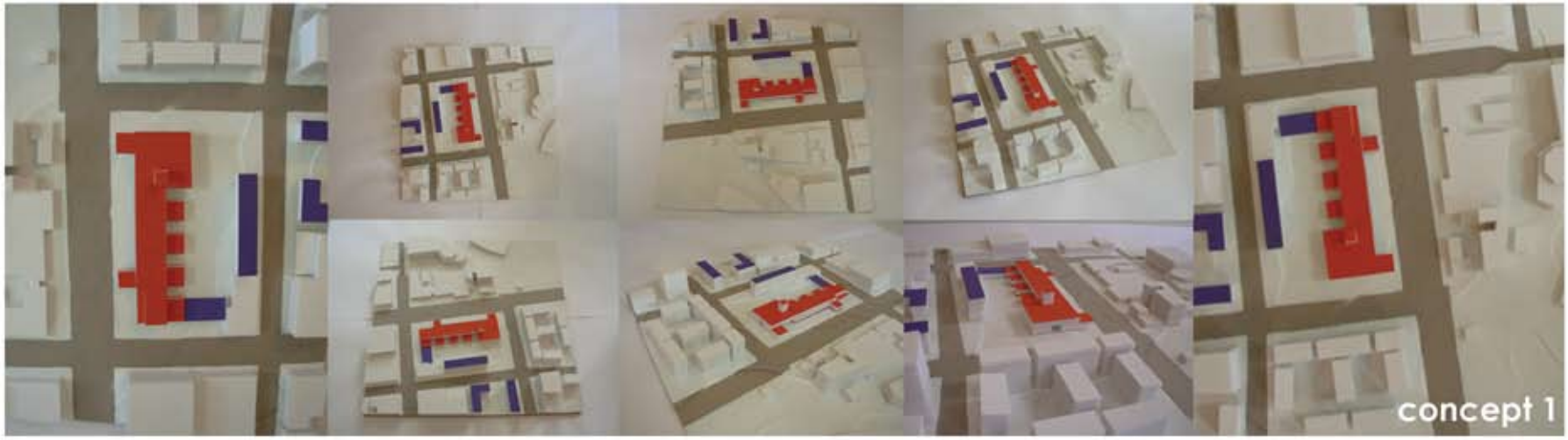
The table overleaf shows the proposed facilities that the library will offer to the potential user groups, as well as to the staff.

Potential Users	Facilities
Students	• Study area (day time) • Reference books • Computers with Internet (for reference purposes) • Study area/s (night time)
Unemployed people and informal traders – Careers section	• Newspapers • Computers with Internet (for reference purposes) • Temporary office stations with computers • Notice boards
Children living in the inner city Children from the Intel Computer Club Children learning at Newtown's education/ cultural facilities	• Children's fiction • Reading space • Storytelling • Educational toys and games • Playing space • Computers with educational games and programmes • Children's non-fiction • Reference books • Computers with Internet (for reference purposes) • Homework space • Children's garden • Outdoor mural space (ground floor)
Young adults living in the inner city Young adults from the Intel Computer Club Young adults learning at Newtown's cultural facilities	• Young adults' fiction • Reading space • Computers with Internet (for leisure purposes) • Young adult's non-fiction • Reference books • Computer with Internet (for reference purposes) • Homework & study space
Uneducated Adults	• Classrooms equipped with computers with 'Adult Based Educational Training' programme
Adults living in the inner city Adults working in Newtown Adults learning/ training at Newtown's cultural facilities	• Adults' fiction • Reading space • Regular media publications • Computers with Internet (for leisure purposes)
Staff	• Staff 'workshop' (binding etc.) • Staff offices • Boardroom • Break room • Staff service core with dedicated service lift, toilet, kitchen and lounge • Store rooms
General	• Entrance foyer – enquiries, returns, exhibitions • Outdoor covered entrance area onto Bree Street – public phones, bus stop, spaces for informal traders • Coffee shop / canteen (accessible at night) • Seminar / screening / class/ study rooms (ground floor - accessible at night) • Outdoor hard cover multifunctional covered spaces (accessible at night) • Outdoor soft cover multifunctional park • Roof Gardens with seating • Multimedia Library – computers with Internet and headphones, educational CD's and DVD's • Public book store • Service counter – copies, faxes, printing etc. • Washrooms • Basement parking

Figure 14 - table showing potential user groups of the proposed library and dedicated facilities for these groups

design


Johannesburg
Public Library
Your own
JOIN THE
FRIENDS
WORLD


concept 1

CONCEPT 1
(see plans overleaf)

The entrance to the library is placed at the most active corner of the site - the corner of Bree Street and Miriam Makeba Street.The placement of the entrance on the most public part of the site is symbolic and signifies the library's role as a public institution open to everyone. This is enhanced by Mary Fitzgerald Square's situation on the same street.

The corner of Miriam Makeba and Gwigwi Mwrebi Streets is the most important, direct link to the cultural precinct. In concept 1 it is established as a focal point.

The building links the two corners visually and in terms of movement, thereby activating the Miriam Makeba edge of the site. The building becomes an enclosed axis, or spine, between two open, transparent points.

On the interior, various platforms with different functions are arranged along the length of the ramp, punctuating the procession along the ramp.

The focal point is the main collection, which is the central element in the main reading room on the first floor.

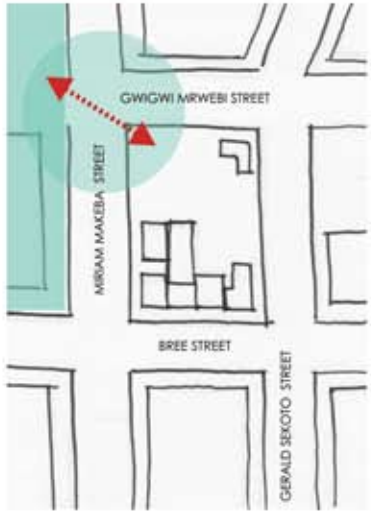
The main reading room on the first floor forms a canopy on the corner of Gwiigwi Mwrebi and Miriam Makeba Streeets, with several transparent pavillions which can be accessed separately from the library (also at night) as a spatial resource. These 'pavillions' are arranged around the focal point (the collection).

The variation in scale between the western, public side of the site (cultural) and the eastern , private (proposed residential) side of the site is echoed in the volumes of the interior space, as well as the respective elevations.

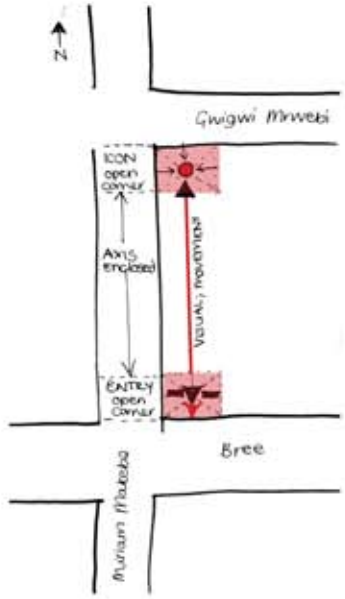
The library has its own separate, enclosed outdoor area on the west side of the library. The outdoor area on the east side of the library acts as a public park and playground for the residential precinct.



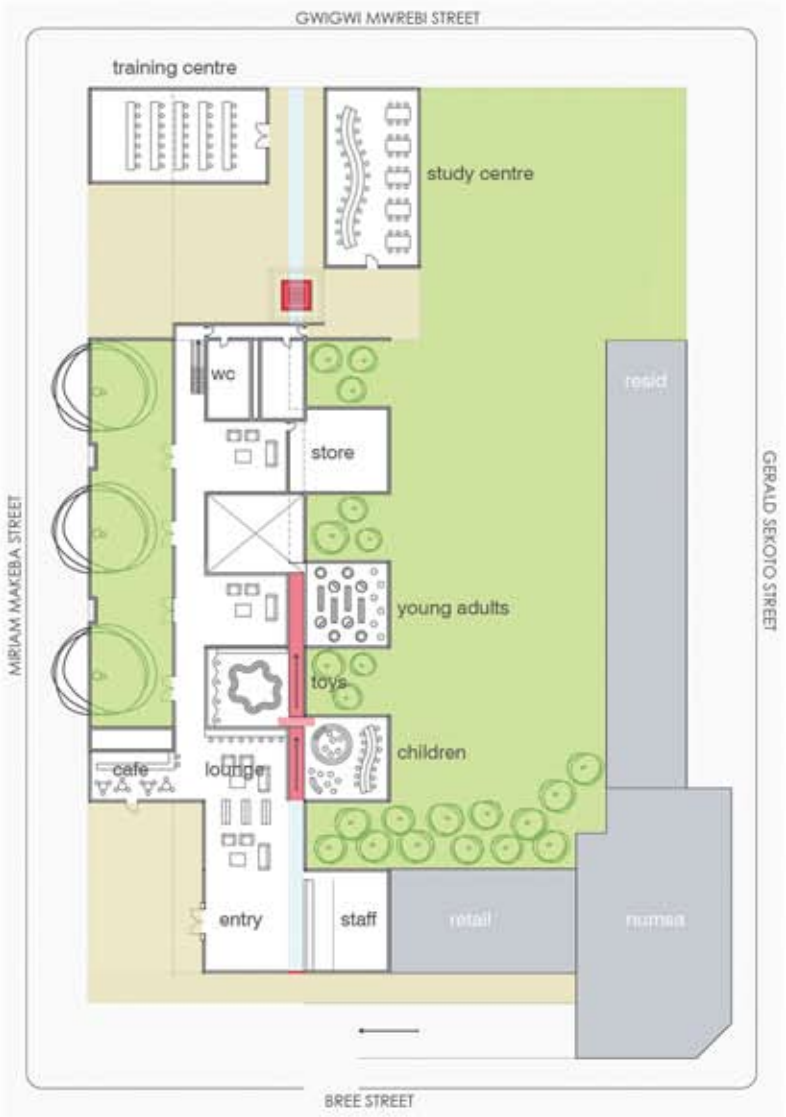
The corner of Bree and Miriam Makeba Streets is the most active on the site



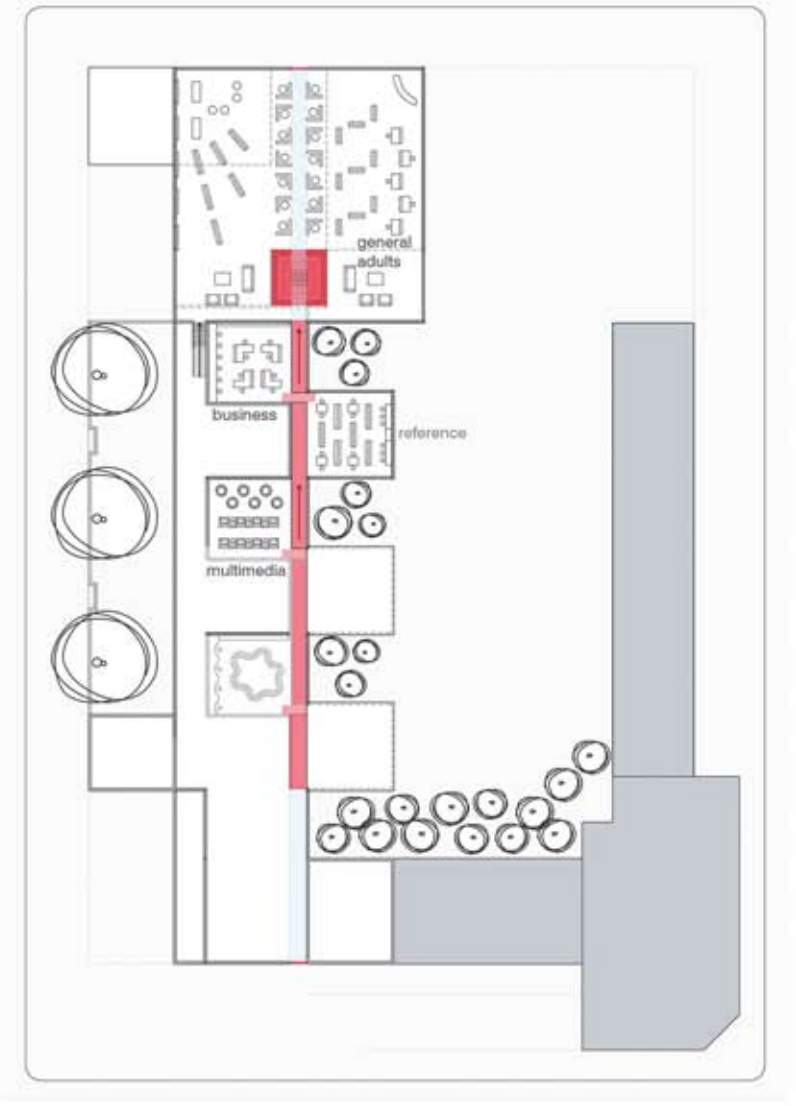
There is potential to link the library to the cultural precinct on the corner of Miriam Makeba and Gwigwi Mrwebi Streets



Linking the corners & activating Miriam Makeba Street



GROUND FLOOR PLAN



FIRST FLOOR PLAN



EAST ELEVATION

CONCEPT 1

Upon asssessment, it was found that Concept 1 presents the following problems:

The library is too small to establish it as a significant resource in the inner city. The building also does not respond to the height of Brickfields.

The library's relationship with its associated outdoor spaces, especially the proposed park on the east side, is not meaningful.

The building acts as a barrier between the cultural precinct and the proposed park and does not effectively unify the cultural precinct with the residential precinct. Apart from at the corners it is visually and physically impermeable.

In its solidity, the building does not activate the Miriam Makeba edge of the site. It does not respond to the positive relationship which the Majestic will establish with Miriam Makeba Street.

Within the building, there are no alternative vertical routes apart from the ramp.

Establishing the main collection as the focal point is contrary to the objective of emphasising the space as the library's primary resource.


concept 2

CONCEPT 2 A

Idea of creating a counterpoint to the Johannesburg Central Library and other traditional libraries primarily through an alternative relationship between a public outdoor space and the library.

Retains the axis between two points across the site as established in Concept 1.

Entry at the corner of Bree and Miriam Makeba Streets into a huge, relatively transparent 'box' (altered existing cold storage shed structure) via a small public square.

The concept of counterpoints is echoed in the relationship between the two corners or focal points - the counterpoint to the extruded box on one end of the axis is the sunken courtyard on the other (corner of Gwigwi Mrwebi and Miriam Makeba Streets).

The central ramp from Concept 1 has been retained with different functional strips branching off it. Different conditions or spaces are arranged along each of these functional strips. Different light conditions are created along the strips for the different functions. The various ways of bringing natural light in along each strip are expressed as different design elements in the park. The relationship between the park and the library is emphasised, with views into the library from the park.

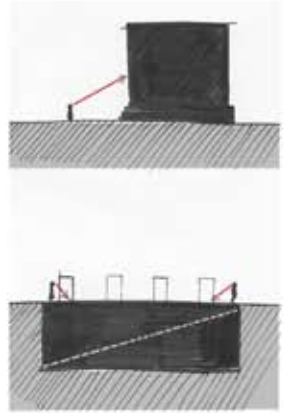


Diagram showing relationships between building and outdoor space - conventional and alternative



Diagram showing relationship of two focal points

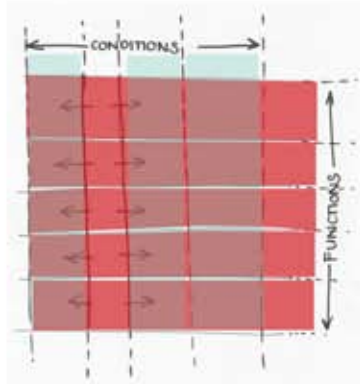
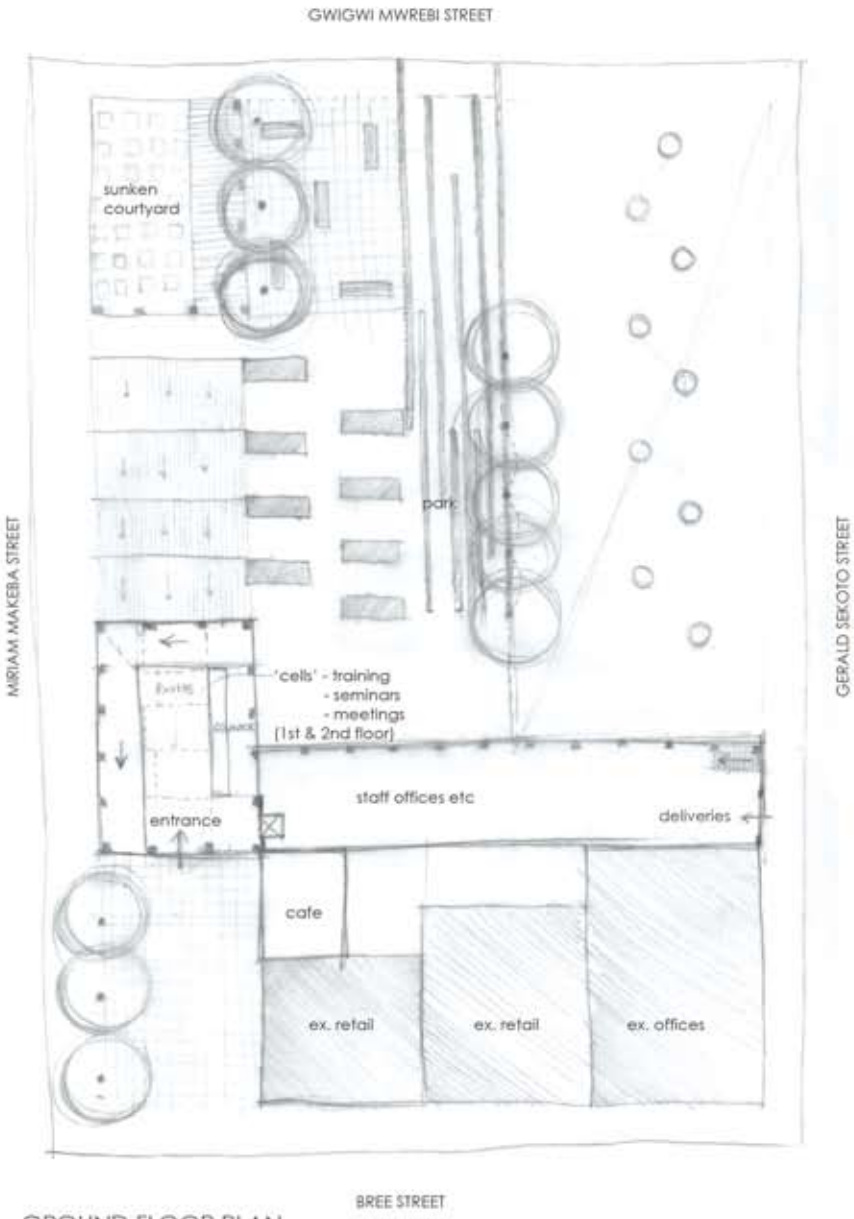
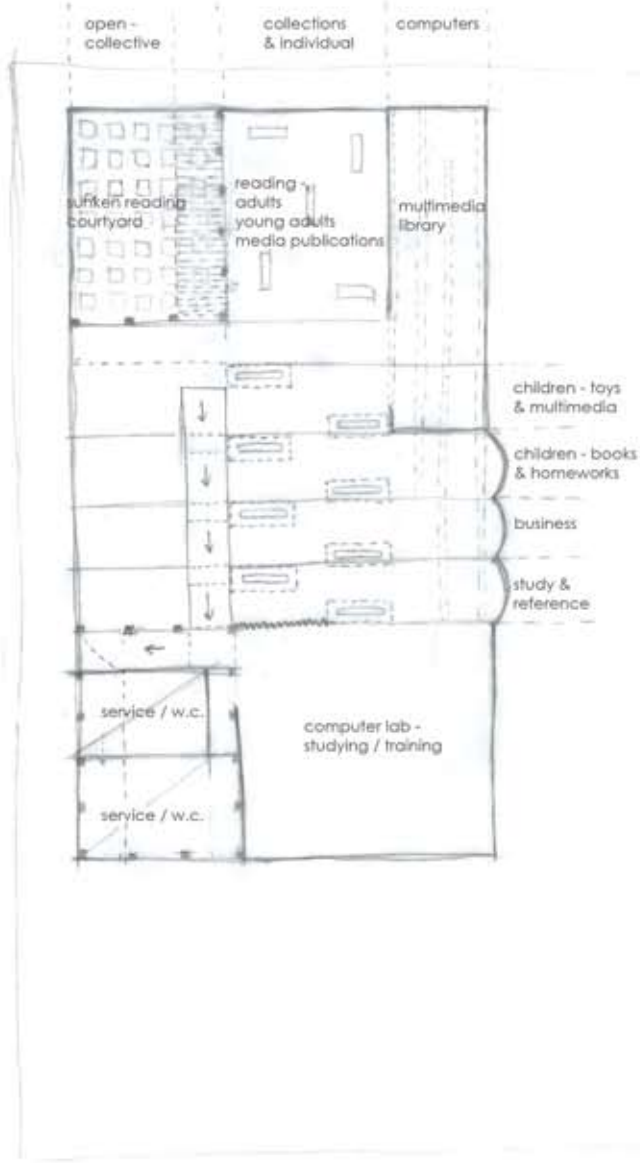


Diagram showing arrangement of different conditions along functional strips



GROUND FLOOR PLAN



BASEMENT (-1) PLAN

CONCEPT 2 A

Upon asssessment, it was found that Concept 2A presents the following problems:

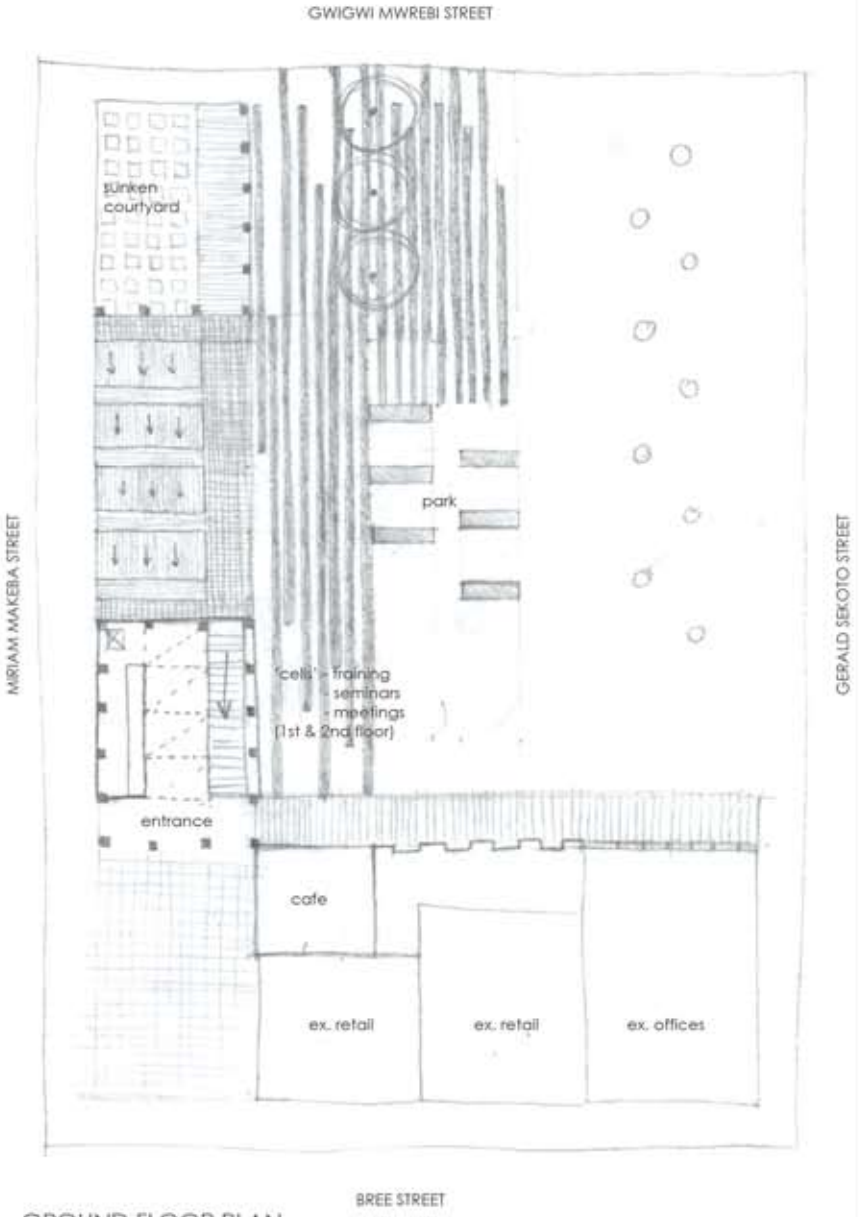
The library is too small to establish it as a significant resource in the inner city. The building also does not respond to the height of Brickfields.

The building is too functionally specific (light conditions are specific to functions), and does not allow for any degree of flexibilty.

Within the building, there are no alternative vertical routes apart from the ramp and a lift.

The participation between users of the library and the users of the park is limitted, with no views from the library to the park, and limitted views from the park to the library.

The participation between the library and the urban surroundings is limitted.



GROUND FLOOR PLAN

CONCEPT 2 B

Concept 2 B attempts to enhance the relationship between the library and the park by introducing a glass box along the back of the existing buildings on the site and allowing more views and admitting more light into the library. However, the participation between the library and the park is still not optimal, and the other problems which Concept 2 A presents still exist.

CONCEPT 2 C

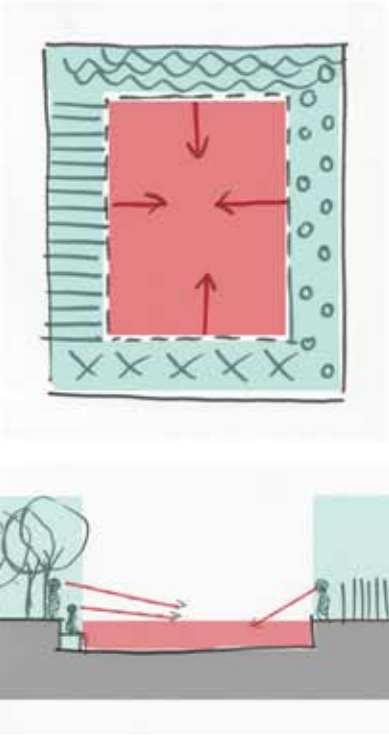
The design process in Concept 2 A is reversed - where in 2 A the design / layout of the library generates the park, in 2 C the park is designed first and generates the library.

The design elements, which almost take on a decorative function in the park in Concept 2A, are moved to the perimeters of the park to act as buffers while generating different kinds of intimate, more usable space.

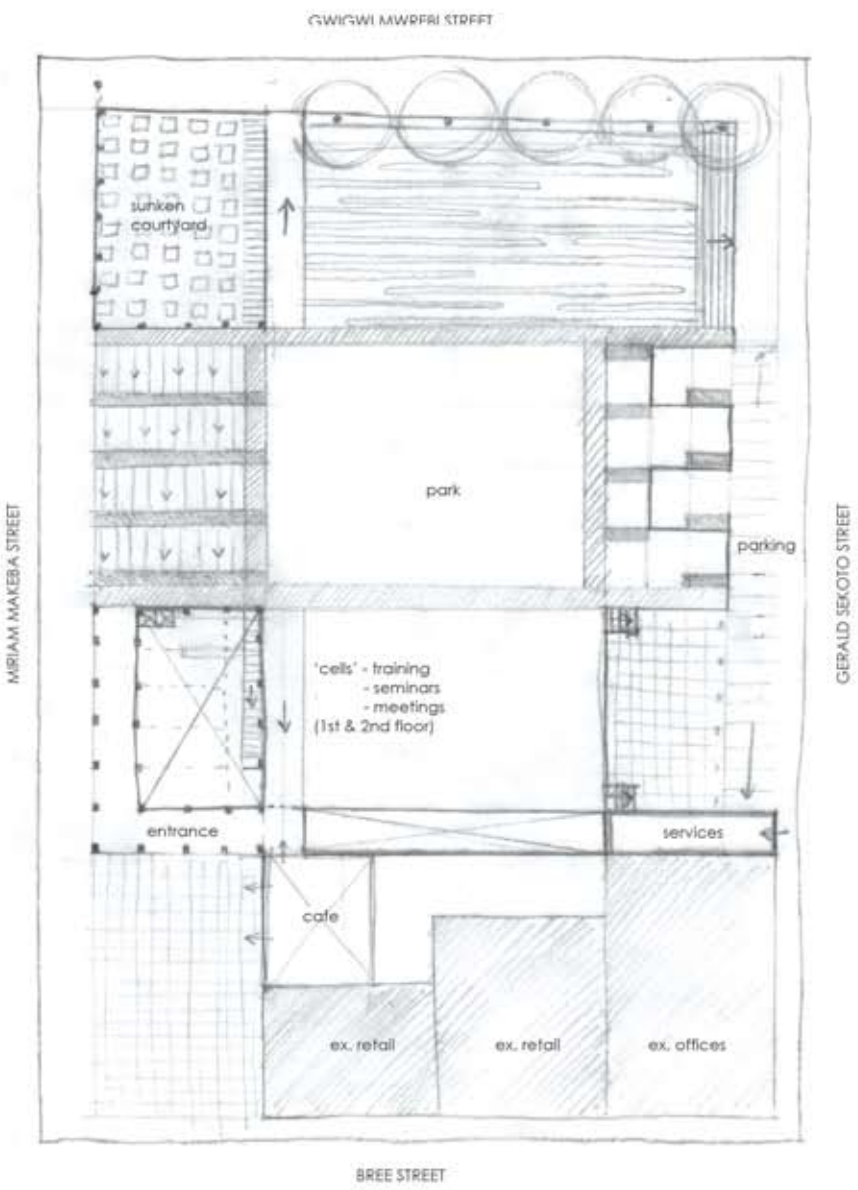
The central space of the park is opened up, becoming the focal point. The spaces on the perimeter become tools for passive surveillance of the central space.

Passive surveillance is further enhanced as the whole park is sunk by one metre, making it feel more sheltered.

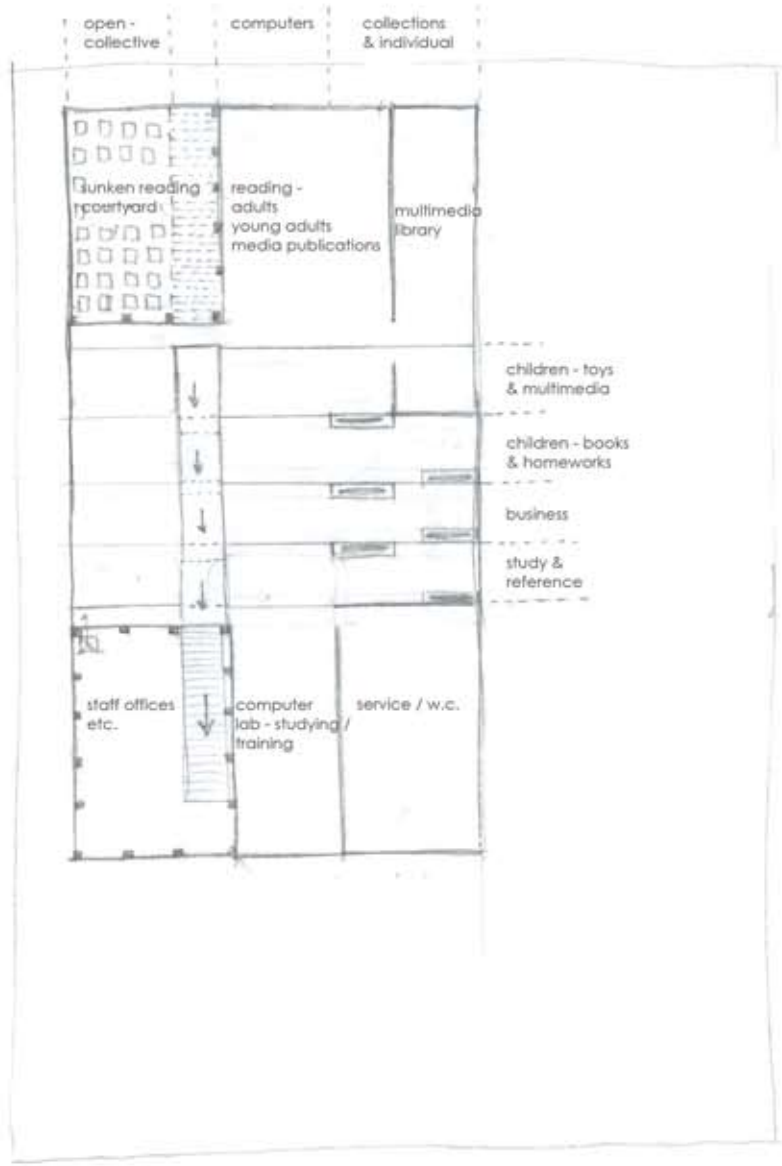
Upon assessment, it was found that Concept 2 C still presents the same problems associated with Concept 2 A. It was therefore necessary to take a completely new approach to the design.



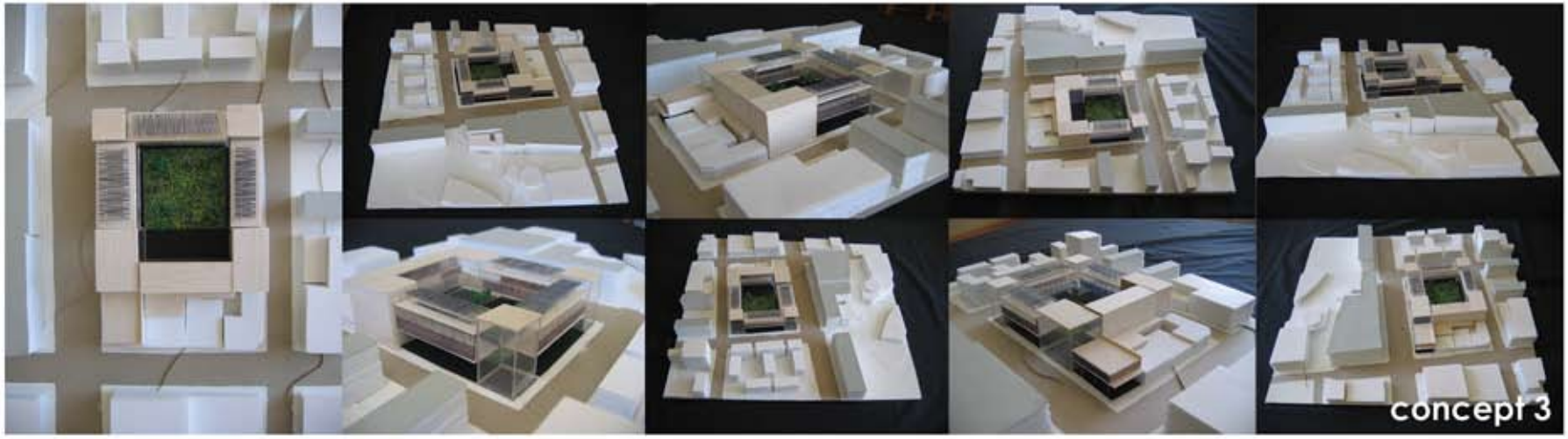
Diagrams showing the park the focal point of the perimeter



GROUND FLOOR PLAN



BASEMENT (-1) PLAN


concept 3

CONCEPT 3 A

The concept of a central, open outdoor ground floor space with designed, more intimate edges sheltering and overlooking it is retained from Concept 2 C.

These sheltered edges are generated by the library, which is a rectangular perimeter block floating at first floor level, anchored by a tower at each corner of the site. This echoes the architectural emphasis placed on the corners of many of Newtown's older buildings.

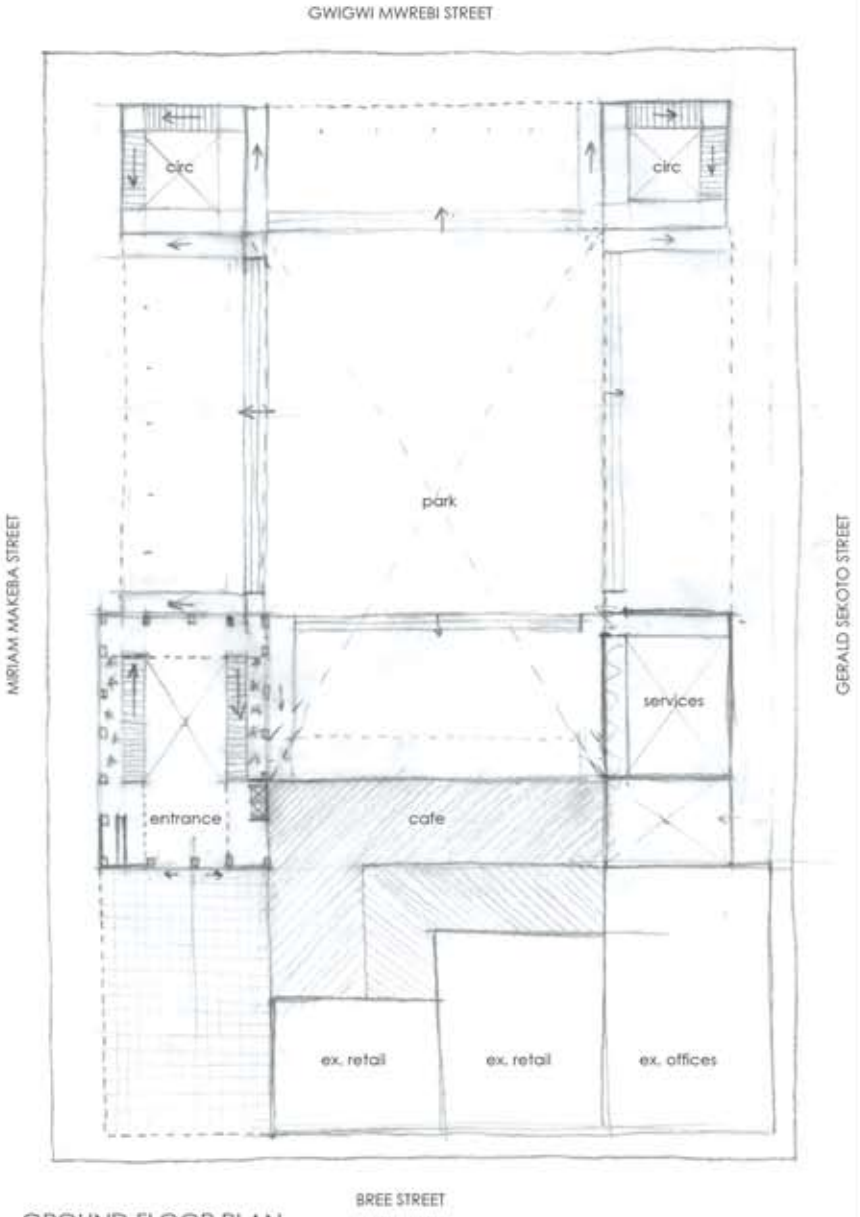
The entry point is retained at the most active, public corner of the site - the corner of Bree Street and Miriam Makeba Streets. It takes the form of a glazed 'box', with circulation and space for exhibitions. The entrance foyer is set back from Bree Street - the first floor cantilevers over the open corner, providing a double volume entrance canopy.The cafe opens onto this area as well as onto the foyer and park.

The towers on the corners of Gwigwi Mwrebi and Miriam Makeba Streets and Gwigwi Mrwebi and Gerald Sekoto Streets are important as they relate to the cultural precinct and residential precinct respectively. They take the form of glazed circulation cores between the various levels, allowing for animation of the building as users move up and down - and bringing light into the basement. These towers represent the connection and interrelation between the different functions and spaces (accommodated on different levels), or different realms, and hence common accessibility for a wide spectrum of users.

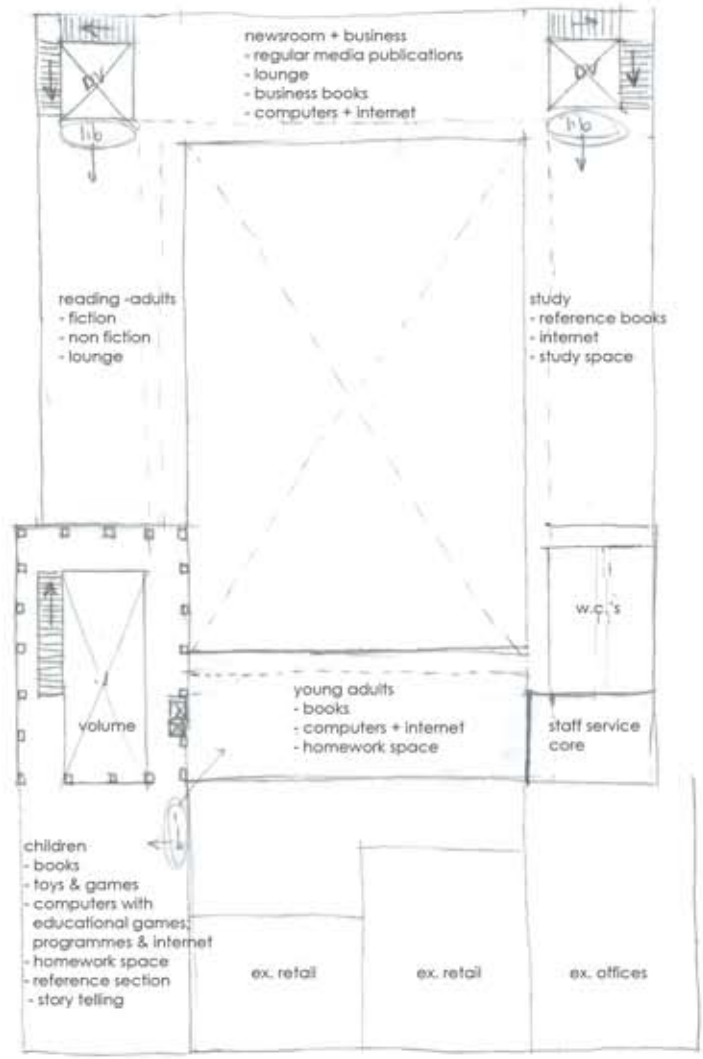
The tower on Gerald Sekoto Street acts as a service and ablutions core as it is on the quietest edge of the site.

The layering of functions and corresponding spaces in plan and section speaks of order, which is essential to the concept of a library, as an institution which represents the ordering of knowledge.

In section, the ground floor is entirely public; the first floor contains large communal spaces for all of the library's users, and a more limited, general collection and the basement has areas for more specific groupings of users and storage of a more specialised collection.



GROUND FLOOR PLAN



FIRST FLOOR PLAN

CONCEPT 3 A

Upon asssessment, it was found that Concept 3 A presents the following problems:

The library is too small to establish it as a significant resource in the inner city. The building also does not respond to the height of Brickfields. Given the primary need for space as a resource, it could be feasible to add more areas dedicated entirely to the provision of space, i.e. separate areas for the collections and use of the collections and separate areas just for space. This will enhance the experience of the library as an interrelation between various realms.

The horizontal circulation needs to be defined as a relatively separate element in the building to avoid interference of people reading, studying, etc. by people moving around the building. This would also aid in securing the collection.

There are currently no informal traders on Miriam Makeba Street, although this may happen in the future given future proposals. In the meantime, it may be more feasible to accommodate them on the Bree Street edge only, where there are already informal traders. However, their activities need to be controlled to still allow for pleasant, easy access to the library.

Night time accessibility to parts of the library is an important consideration. There is therefore a need for a multipurpose section of the library (without collections)which can be secured off from the rest of the library and accessed at night time.

There may be a need to control access to the park a bit more for security reasons. An additional indoor section of the library could be inserted in one of the currently open sides.

The staff offices are all currently in the basement. This is not the ideal working environment for people who are there everyday and are vital to the library's functioning. The staff offices should be relocated so that they receive adequate natural light and ventilation.

FINAL CONCEPT: CONCEPT 3 B

Concept 3 B celebrates the interrelation of different realms through the layering of a series of spaces and functions in plan and section. The concept of layering is also reflected in the materiality and tectonics of the interior and of the facades, and in the relationship between the library as a perimeter block and the park in the centre.

The park acts as the 'heart' of the library; a common focal point and ordering device for all the different parts of the library, establishing a sense of community between the different functions, which is further enhanced by the views between the functions within the library, and the views between the library and the park itself. The concept of a public outdoor space as the 'heart' which generates life in the library inverts the relationship between traditional libraries and their adjacent outdoor spaces, emphasising the importance of community and accessibility in a library, or in any public institution.The significance of the park is further reinforced through the inner walkway, which frames it.

The ground floor has been treated differently on each side of the building according to the conditions which the urban fabric presents. On the two busiest edges, the ground floor is left relatively open, yielding flexible, permeable, covered public spaces.

The main entrance to the library is on the corner of Bree and Miriam Makeba Streets, under an entrance canopy. Allowance has been made for the informal traders who currently trade on Bree Street to trade under cover on this active corner, with built in concrete platforms placed along the edges, allowing for a clear central passageway into the library foyer.

On Miriam Makeba Street, the building is suspended between the two towers in response to the positive relationship which the Majestic is proposed to have with the street front. This visually frames a view of the park and allows for visual and physical permeability into the park. It spatially extends the cultural (public) precinct from the proposed Majestic to across Miriam Makeba Street. Visitors to the cultural precinct will be able to access the park and the library entrance foyer via this covered this space.

The ground floor of the Gwigwi Mrwebi Street edge is occupied by mulitpurpose spaces which can be secured from the library and therefore accessed separately twenty-four hours a day. Possible uses could include study venues, seminar rooms, film screening venues, and classrooms. These spaces are visually permeable from the street and the park, and accessible via a foyer from Gwigwi Mrwebi Street. At night they will glow from inside, attracting people and securing the street.

The ground floor on Gerald Sekoto Street accommodates the ramp to the basement parking, as well as access to the service core, because Gerald Sekoto Street is the quietest of the site edges. Walls from the ground level to the underside of the building screen the ramp off from the park and could be used for murals by children and young adults who use the library.

The facades of the library allow for visual permeability from the site's surroundings and from the park, consisting primarily of glass with various perforated materials to protect from glare whilst still allowing views into and out of the building. Here, once again, the objective is accessibility and participation between different realms. The facades are animated by the activity and movement of the users, and on the east and west facades by the adjustment of the internal perforated sheet metal, folding shutters according to the movement of the sun. On the perimeter of the building, the shading devices are all made of metal in response to the urban surroundings and the prominent use of metal throughout Newtown. The facade of the inner walkway framing the park consists of timber shutters sandwiched between glass, suggesting a softer, more organic and protected core.

The foyer and the two circulation towers are intended to be clearer elements, reflecting their role as neutral, common spaces which connect the varoius functions. The solar shading of these elements has therefore been achieved by printing the glass with pixelated graphics and words which relate to the library. This will double as signage, being visible during the day and when it is backlit at night. The density of the 'pixels' or dots of the print varies according to the orientation of the glass.

The service core will also reflect its role as a neutral, common space in its light aesthetic and by being lit along with the other 'towers' at night. It is a masonary structure clad in sandblasted channel glass. The openings in the masonary appear as dark shapes behind the flush glass facade during the day, and emit light at night. This visual play on depth relates to the architecture of the existing old buildings on the site, where an illusion of depth has been created on the elevations through the use of engaged columns.

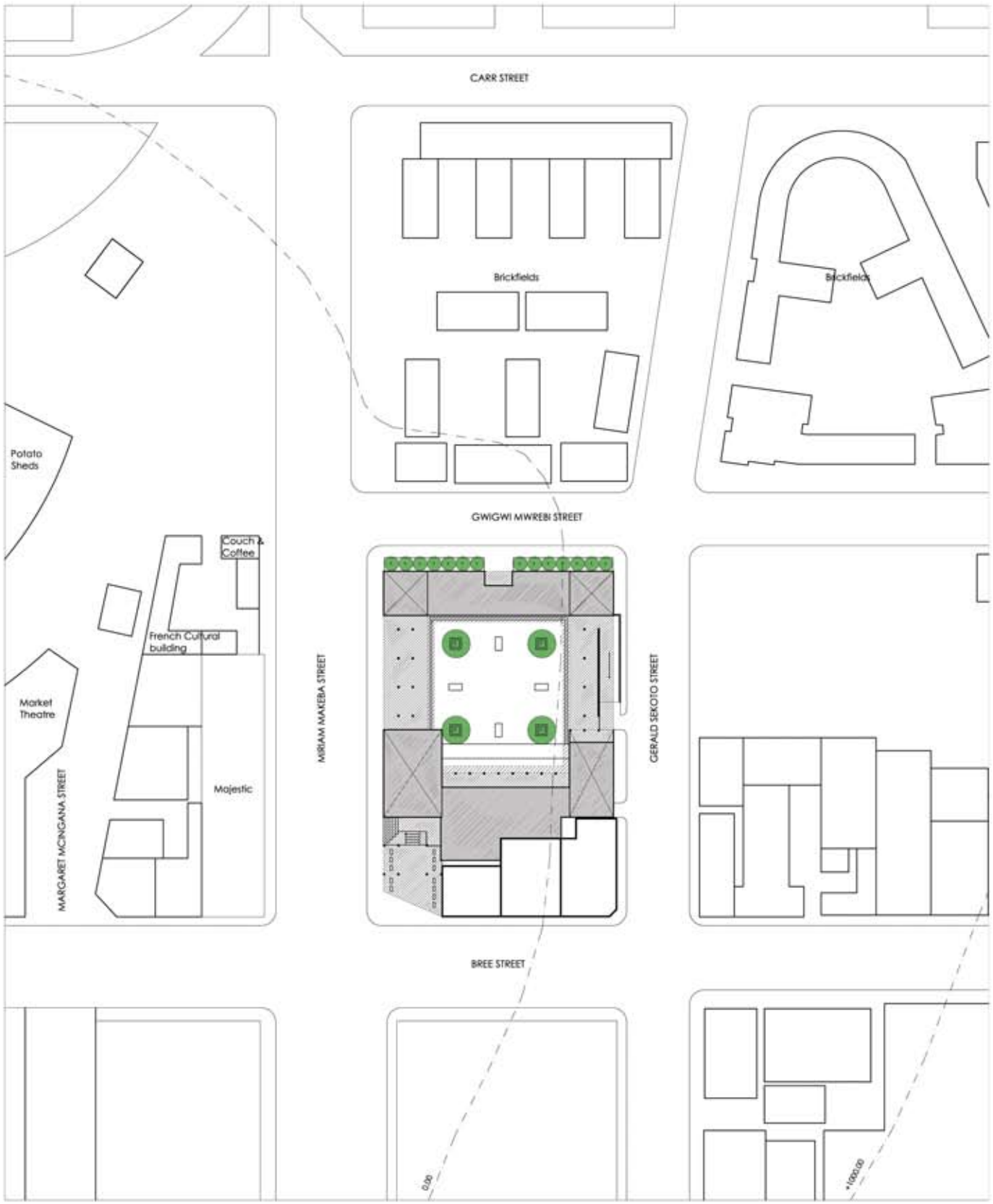
On the south facade (Bree Street), the section between the foyer and the service core and behind the existing buildings consists of sandblasted glass panels, shaded by a preoxidised grid with Virginia creepers growing up it. The sandblasted glass was selected to block out the view of the existing buildings' roofs, whilst still admitting light. The pre-oxidised grid reflects the industrial tectonic of Newtown. The Virginia is intended to counter the hardness of Bree Street and hint at the park inside, which is not directly visible from this facade. The Virginia has been selected because it grows on the south side of buildings, and undergoes dramatic colour changes throughout the year. The end of the children's library, which cantilevers over the corner of Bree and Miriam Makeba Streets, is a series of huge glass panes framed in a concrete box. This is angled towards Mary Fitzgerald Square, relating it to the square as a public facility, while opening up the corner and drawing people in from Miriam Makeba Street.

On the north facade of the building (Gwigwi Mrwebi Street), a row of poplar trees planted in a courtyard at basement level screens the facade from northern light, and counters the hard edge which Brickfields presents to the street.

The solid elements of the facades are smooth, steel shuttered concrete. Concrete has been selected instead of the obvious choice of facebrick because it distinguishes the library from existing surrounding facebrick buildings as an important public institution. Red facebrick has been selected for the paving and internal floor finish (sealed) in the spaces on the ground level. This will relate the library to the cultural precinct, where facebrick is used in all the paving. Flush jointed facebrick will be used for the internal skins of walls in the library, generating a more intimate scale.

The interior of the library accommodates different functions within each wing, which have been arranged according to the activity of the urban surroundings and associated noise levels. For example, the study and reference section has been placed on the quietest side of the site, with the more social areas, such as the children's library and the adults' leisure library in the most active areas of the site, and adjacent to the entrance foyer. Each function consists of two to three levels, with the first floor housing the collection in the single volume area in each case, as it is stepped in and therefore protected from direct sunlight, and the second floor acting primarily as a spatial resource in each case. Lanterns pierce through to the roof on the north, east and west wings of the building, bringing light into the second levels, and effectively doubling their volume. On the roof, these lanterns form shelters as a light steel structure with white glass projects from their edges and creates sheltered reading or studying spaces along the perimeter of the lanterns. Pre-oxidised steel grid screens with creepers along the length of the lanterns compartmentalise these spaces. The surrounding areas on the roof are planted with grass. From the roof, users have a view of the cultural precinct and the city. Within each of the functional wings, there is therefore a series of interrelated realms associated with different resources.

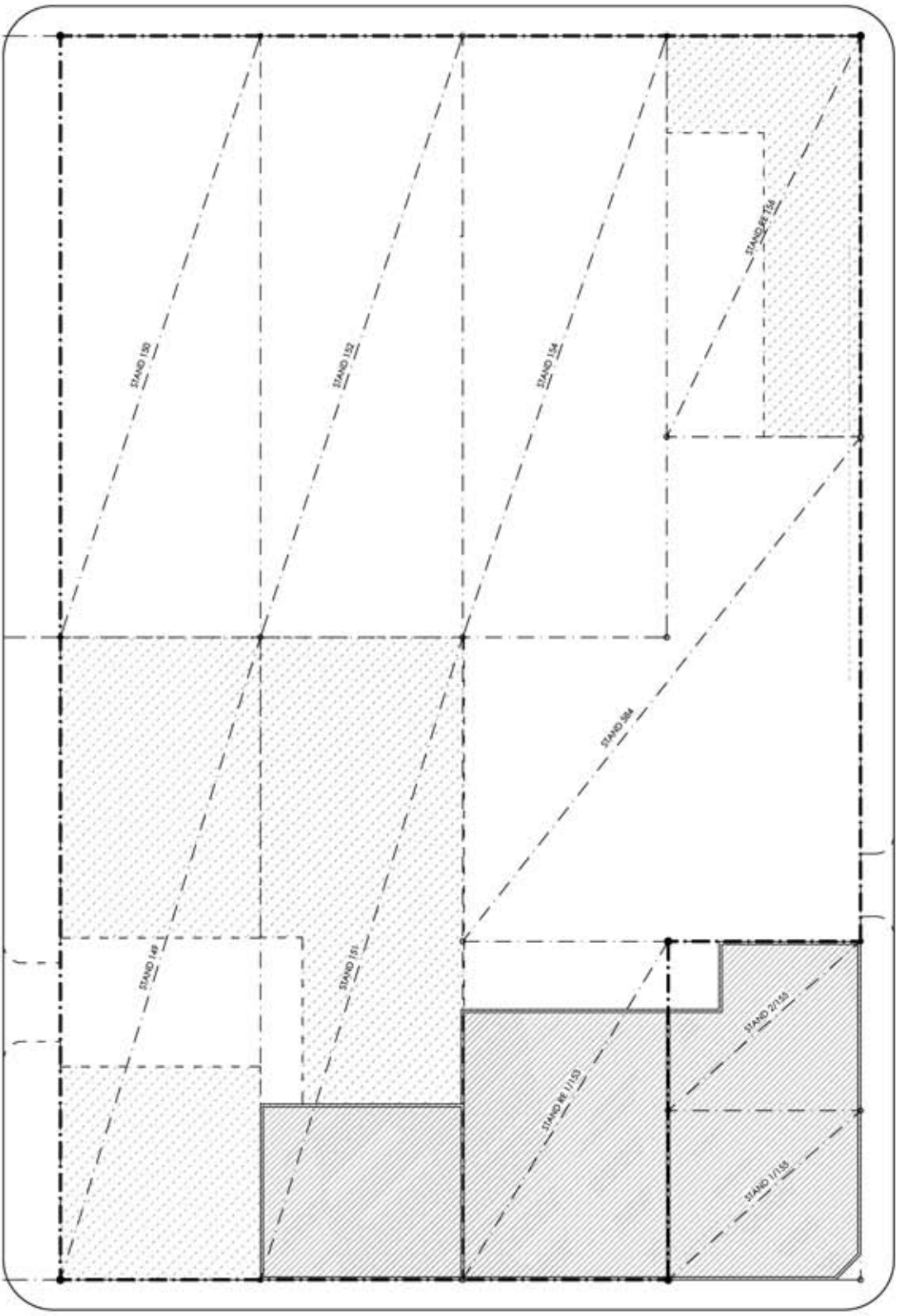
The theme of different resources across the section of the building continues in the basement (-1) level, which contains a large public book store. Where the collections in each of the sections above ground level are limited, with the emphasis being on space, the basement contains a far more extensive, specialised collection for each section of the library. Four skylights admit light into the centre of the basement, and appear as glass towers in the park, signifying the presence of yet another, more hidden realm underground. These towers are lit at night. Apart from the book store, the basement accommodates classrooms dedicated to the Adult Basic Educational Training Programme; a multimedia library; a service counter for copies, etc.; a staff 'workshop' for binding books, etc., and store rooms.



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CONTEXT PLAN: 1/1500

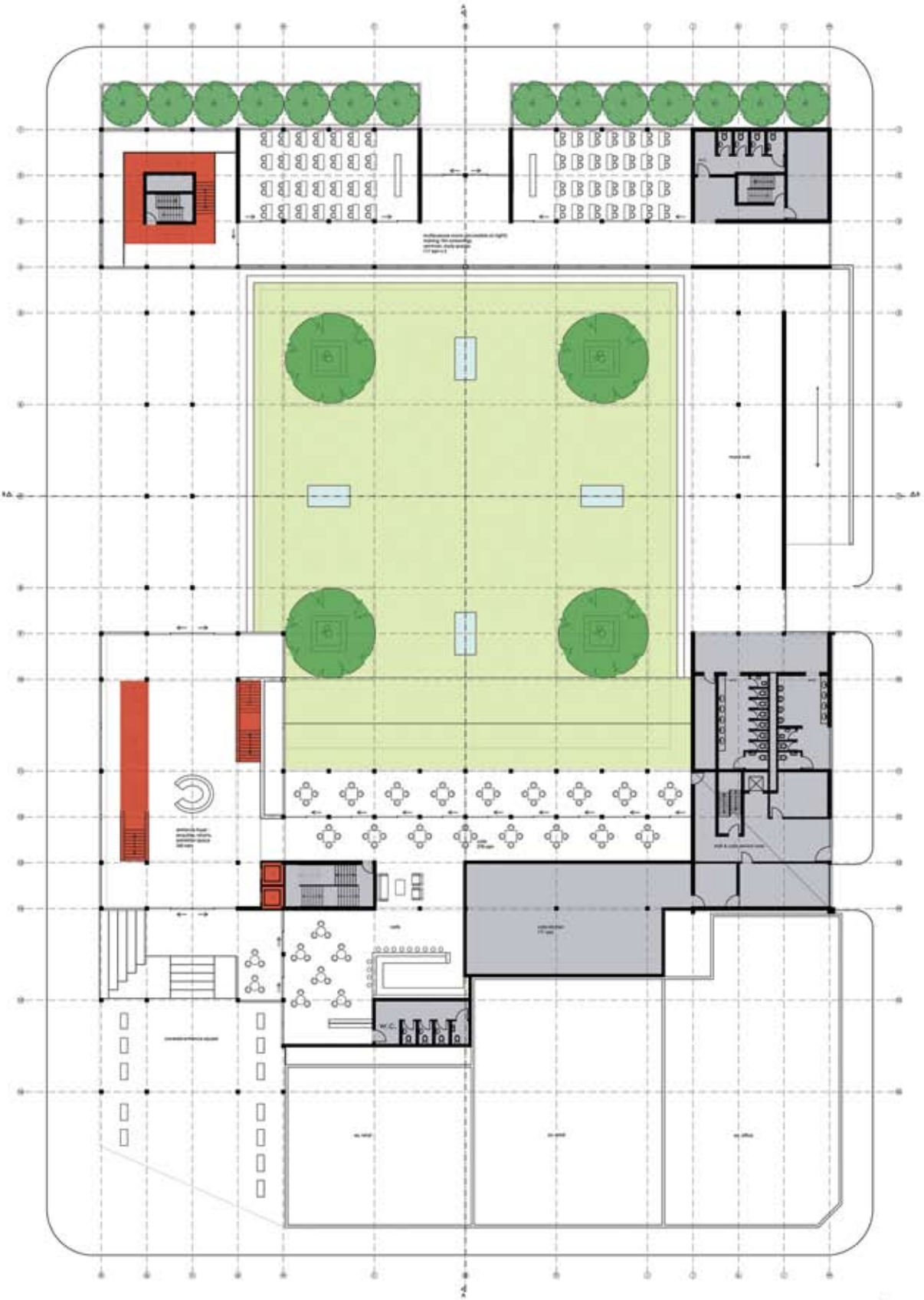
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SITE PLAN SHOWING EXISTING STANDS & NEW CONSOLIDATED STAND: 1/500

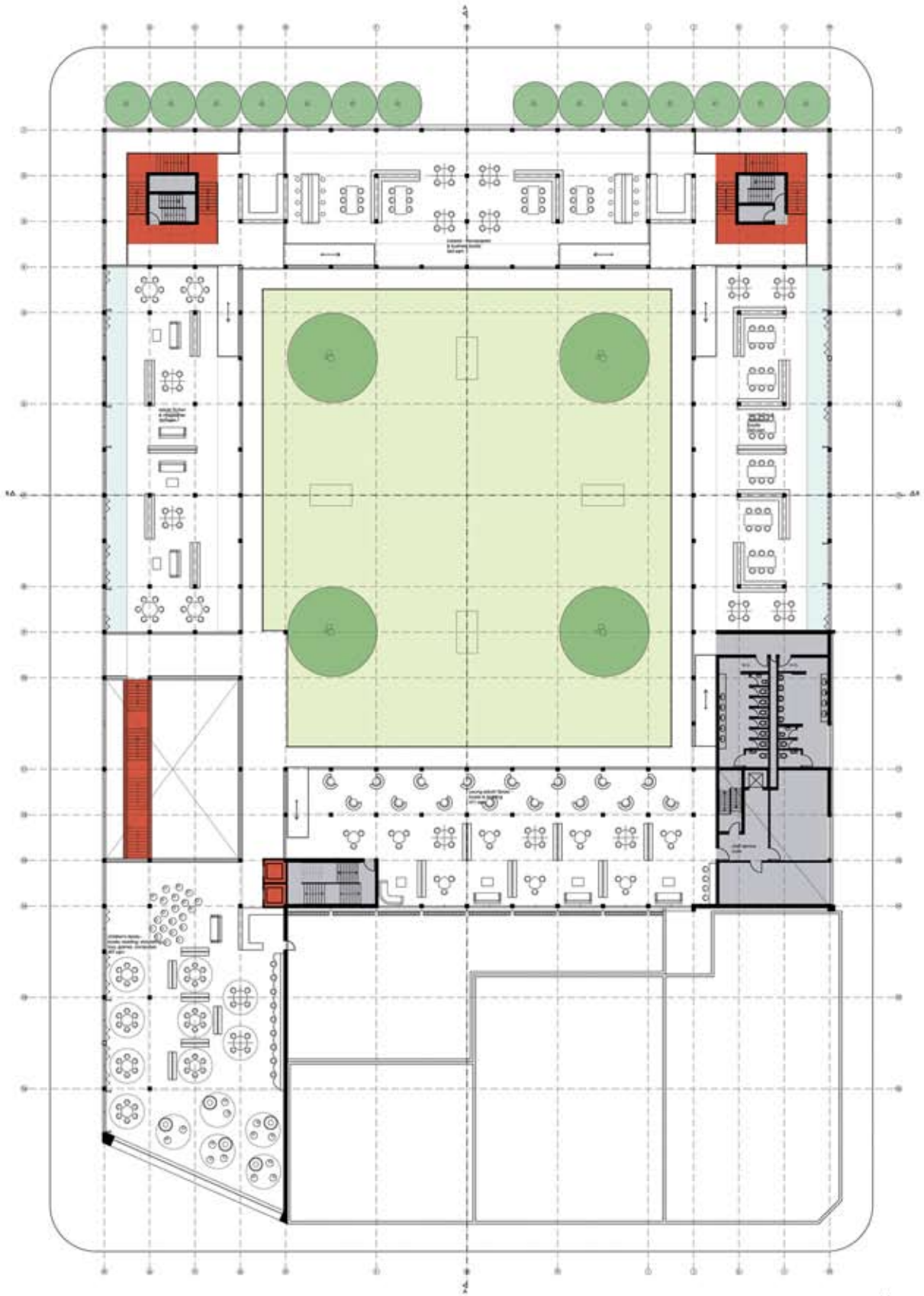
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GROUND FLOOR: 1/500

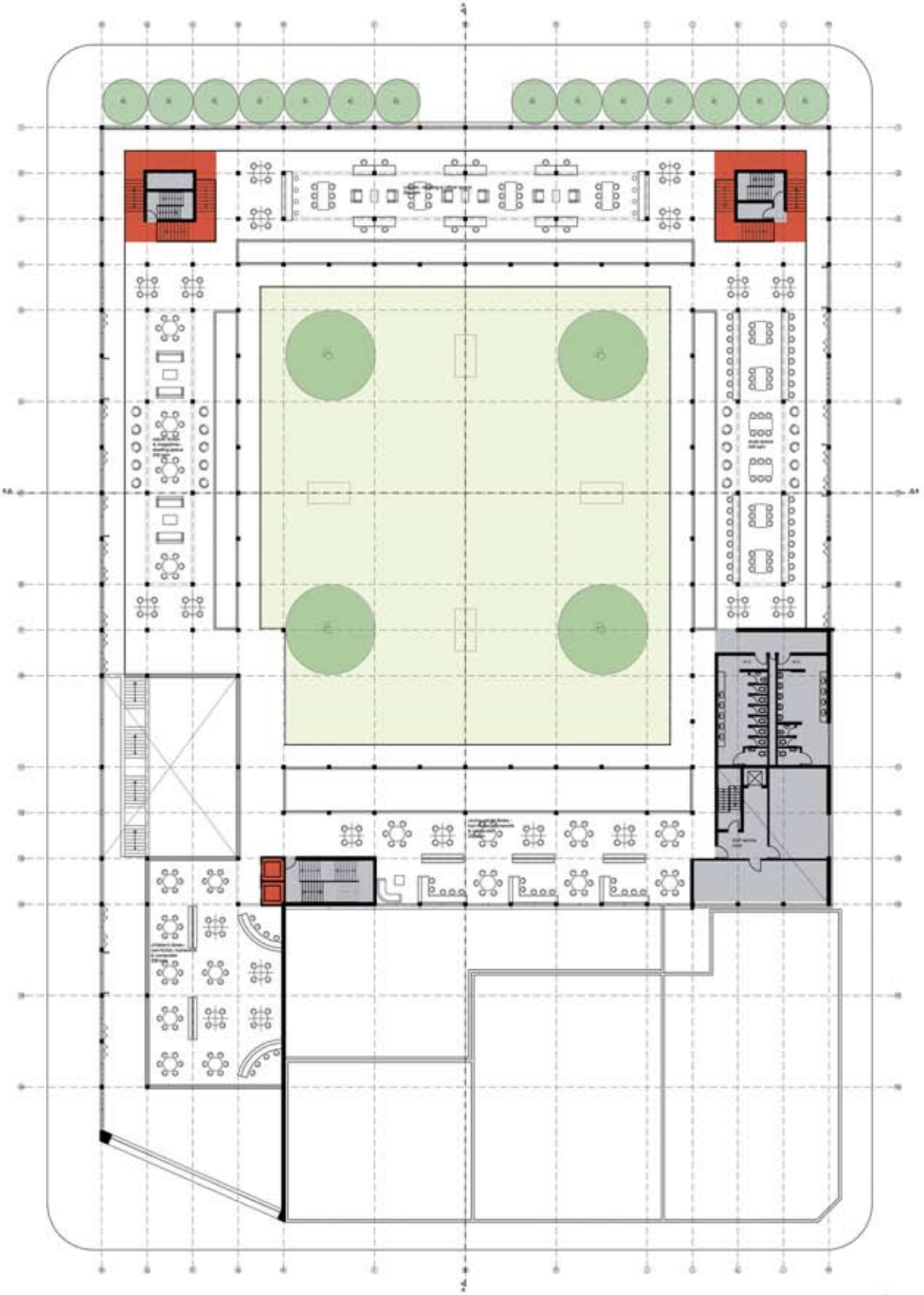
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FIRST FLOOR: 1/500

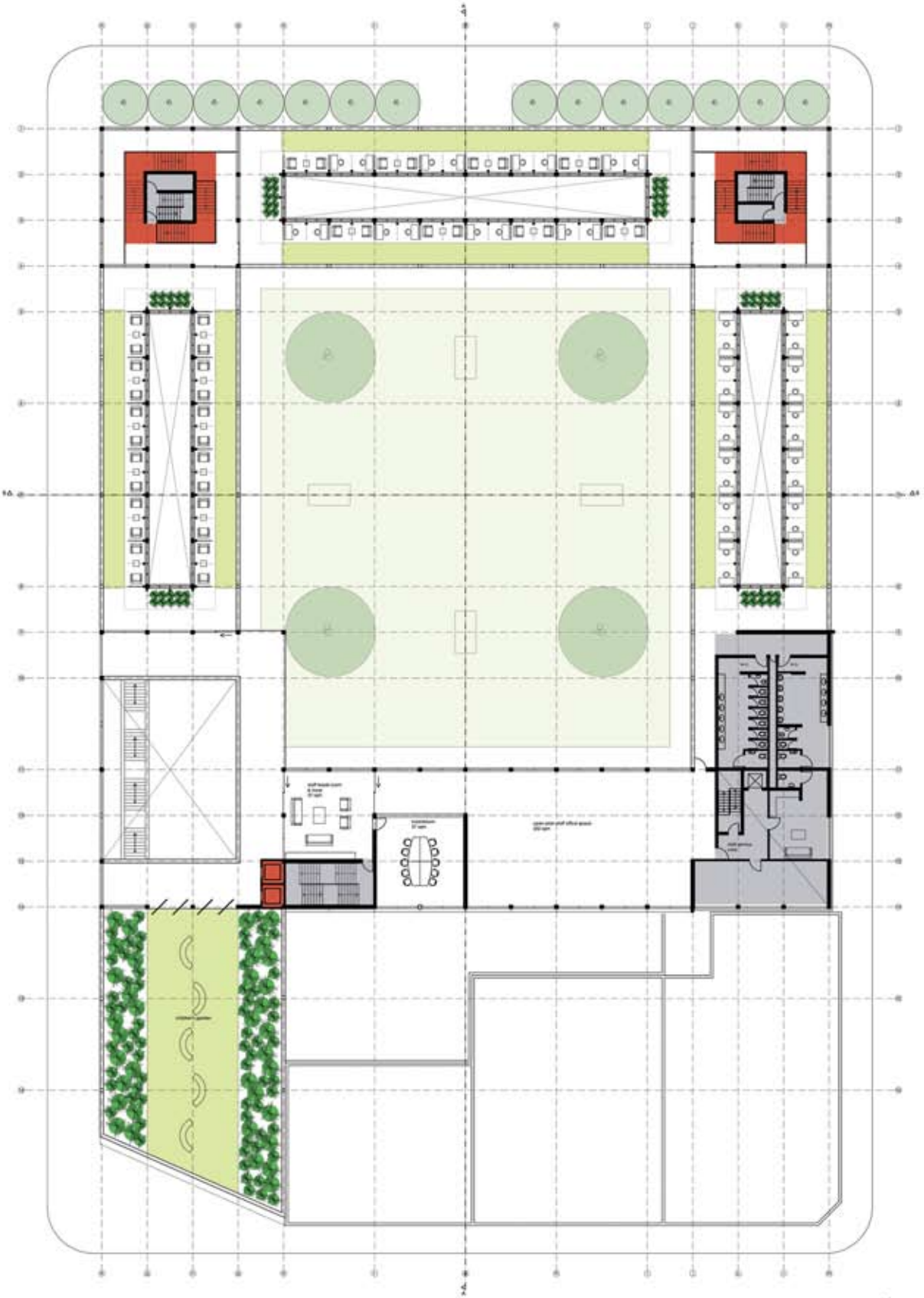
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0 1 2 4 8 16

SECOND FLOOR: 1/500

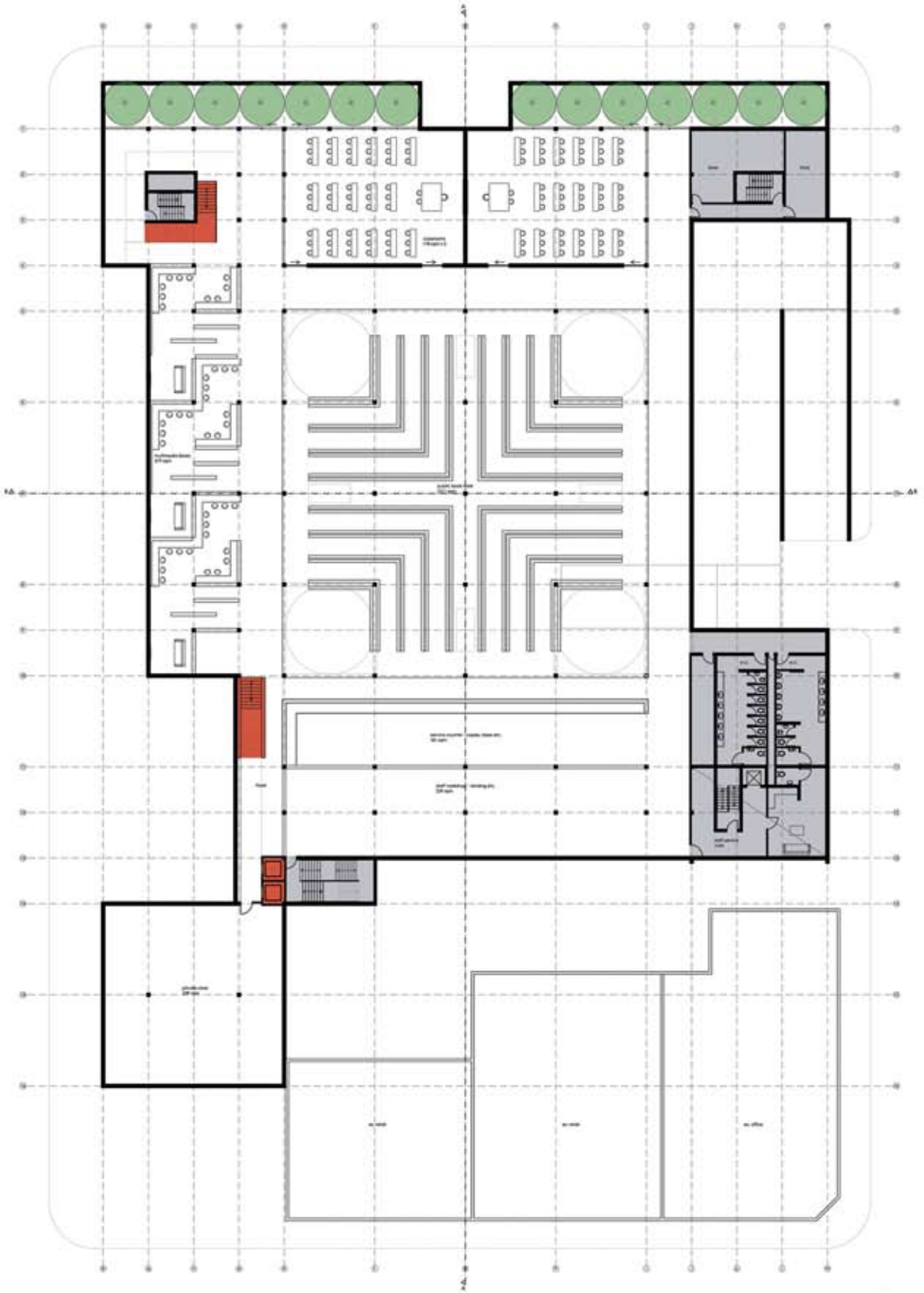
N



0 1 2 4 8 16

THIRD FLOOR / ROOF: 1/500

N

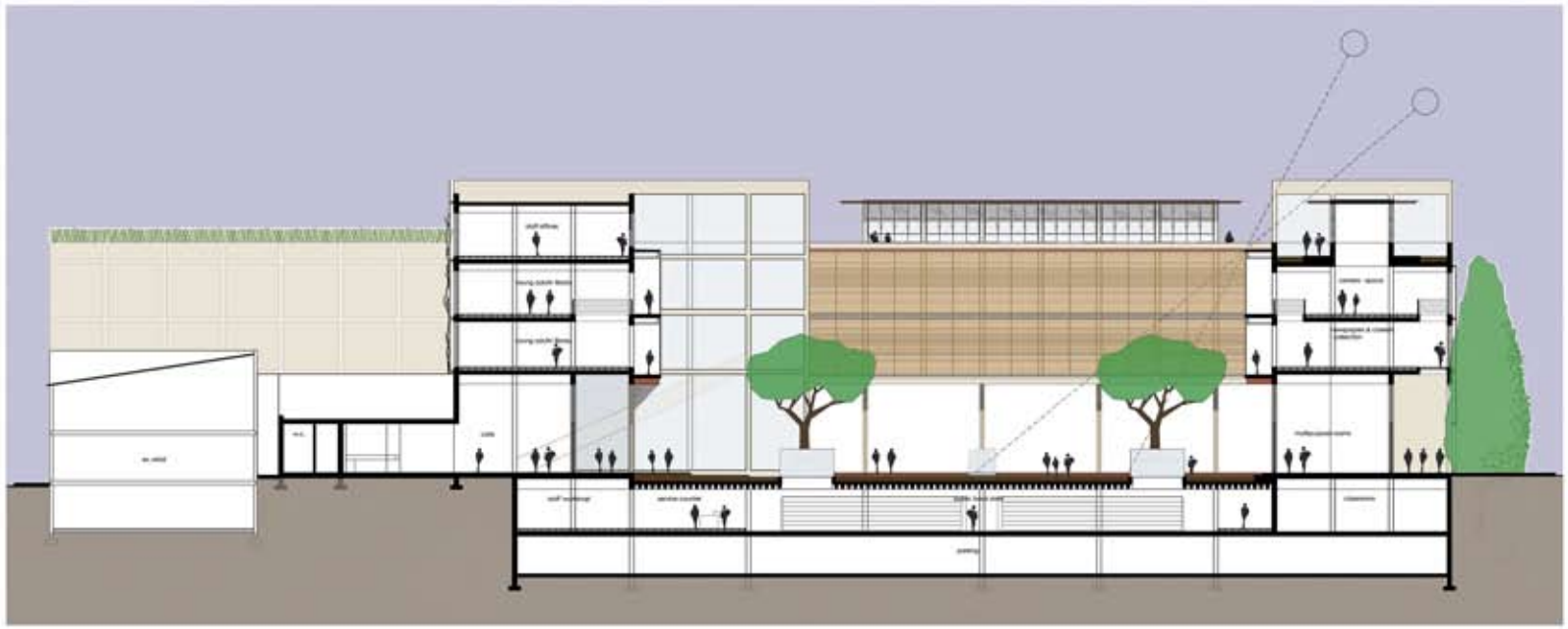


0 1 2 4 8 16

BASEMENT (-1): 1/500

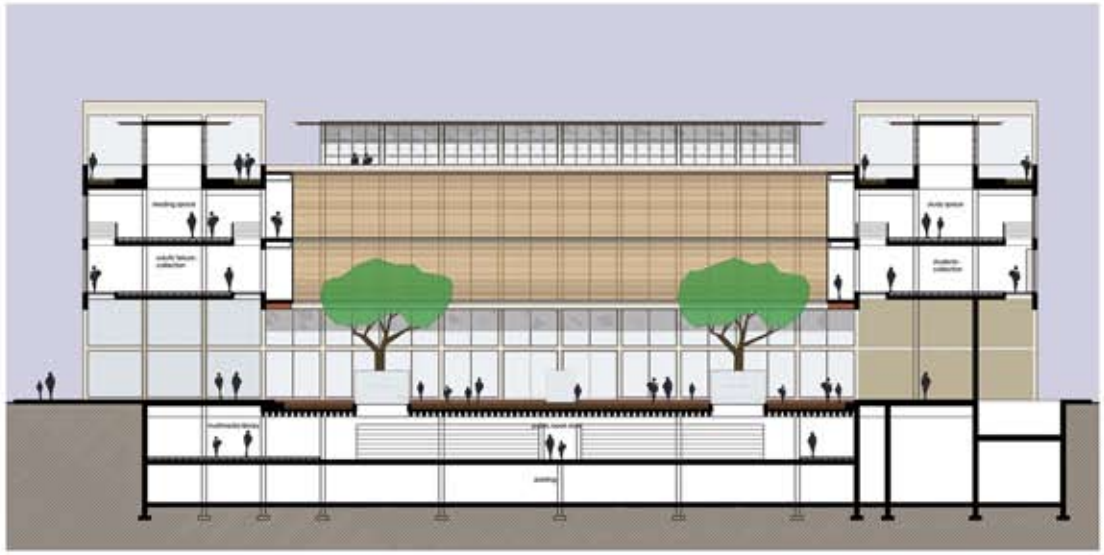
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N
BASEMENT (-2): 1/500



0 1 2 4 8 16

SECTION A-A: 1/500



0 1 2 4 8 16

SECTION B-B: 1/500



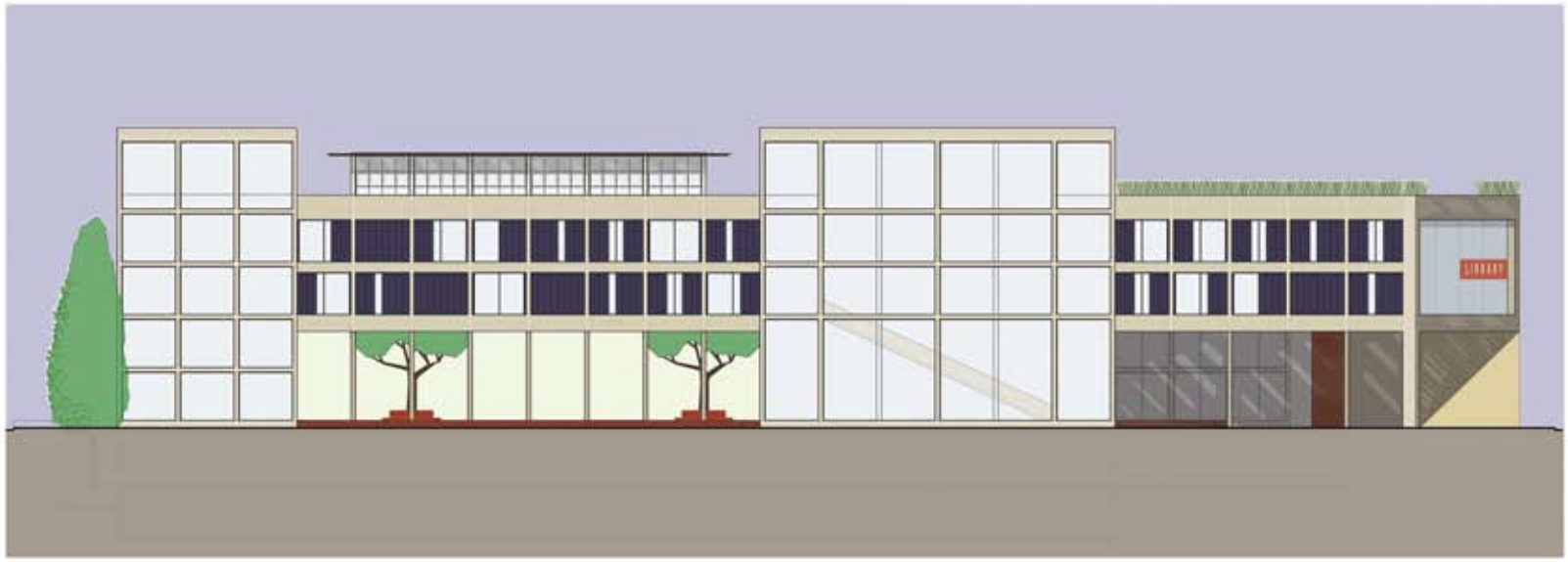
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SOUTH ELEVATION: 1/500



0 1 2 4 8 16

NORTH ELEVATION: 1/500



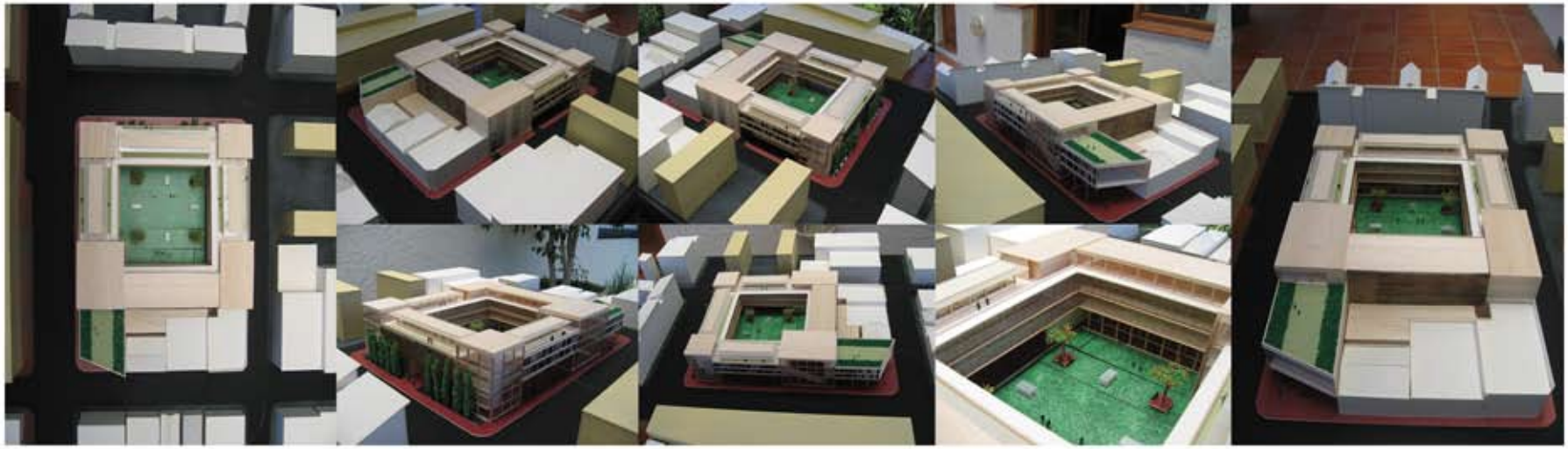
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WEST ELEVATION: 1/500



0 1 2 4 8 16

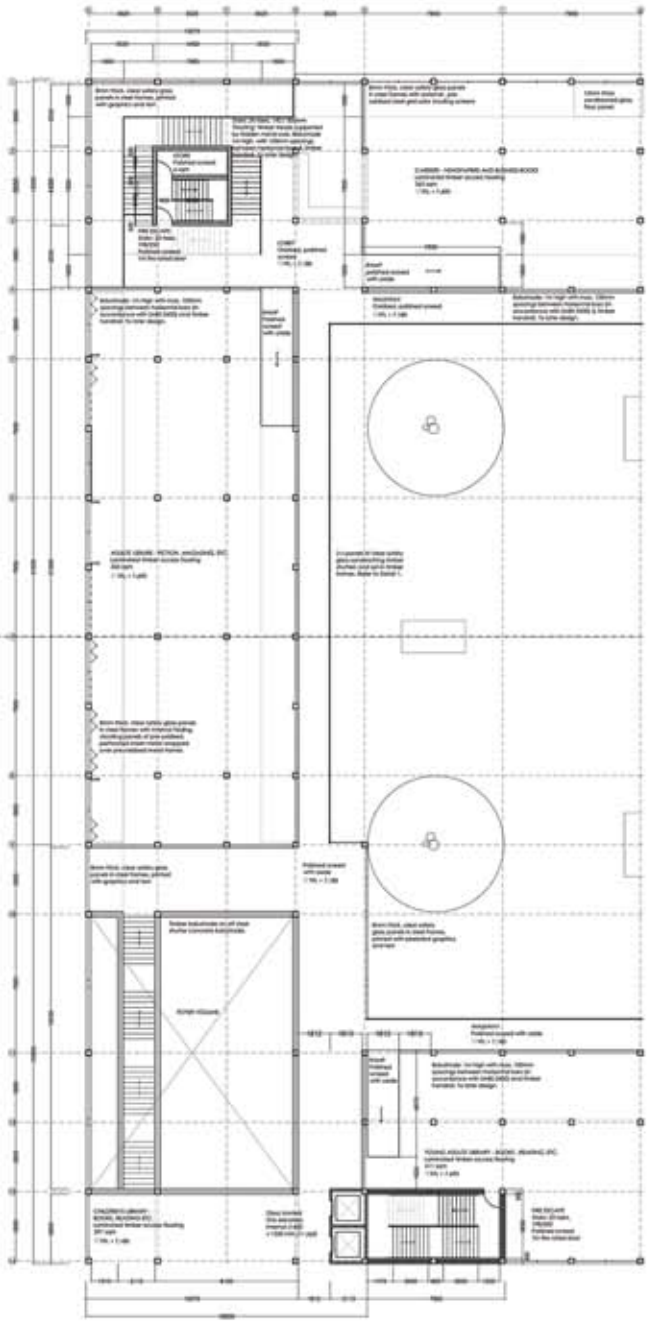
EAST ELEVATION: 1/500



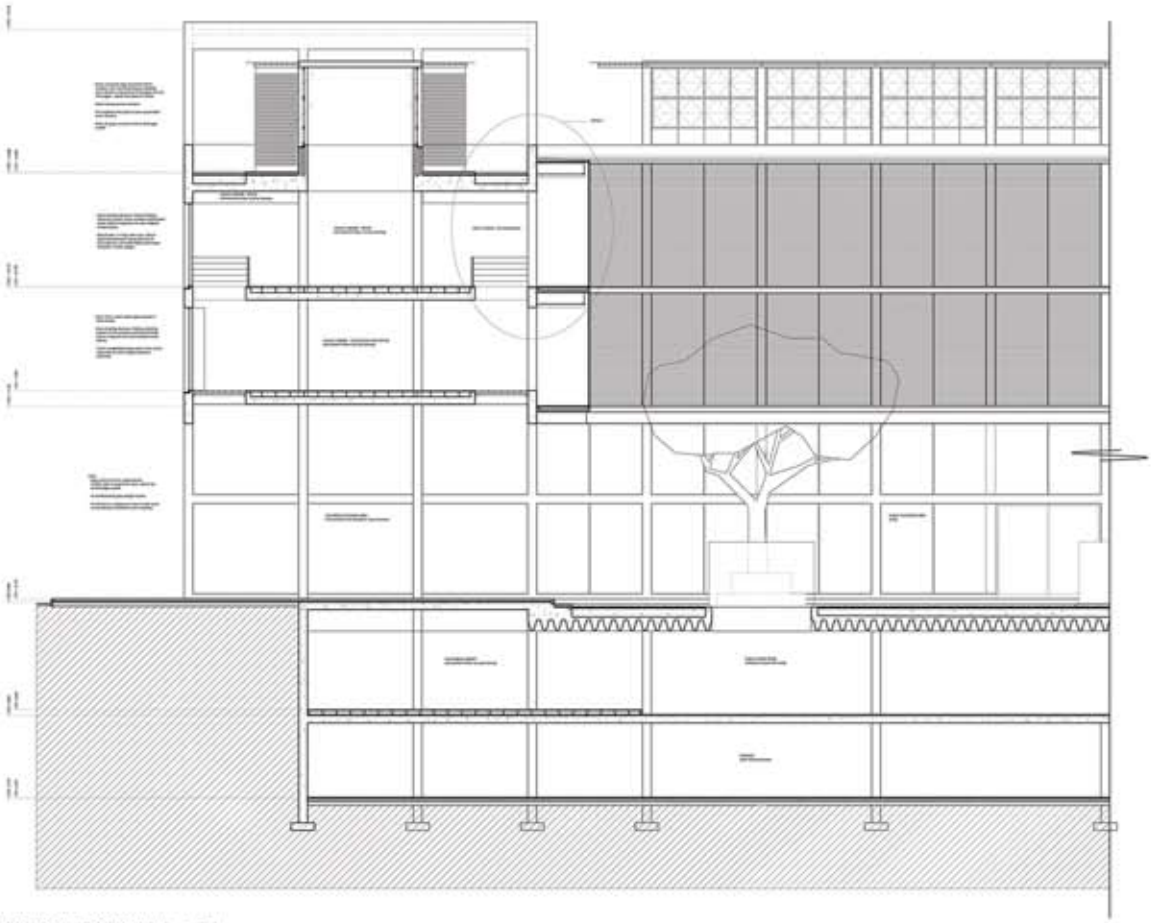
FINAL MODEL

TECHNICAL DOCUMENTATION

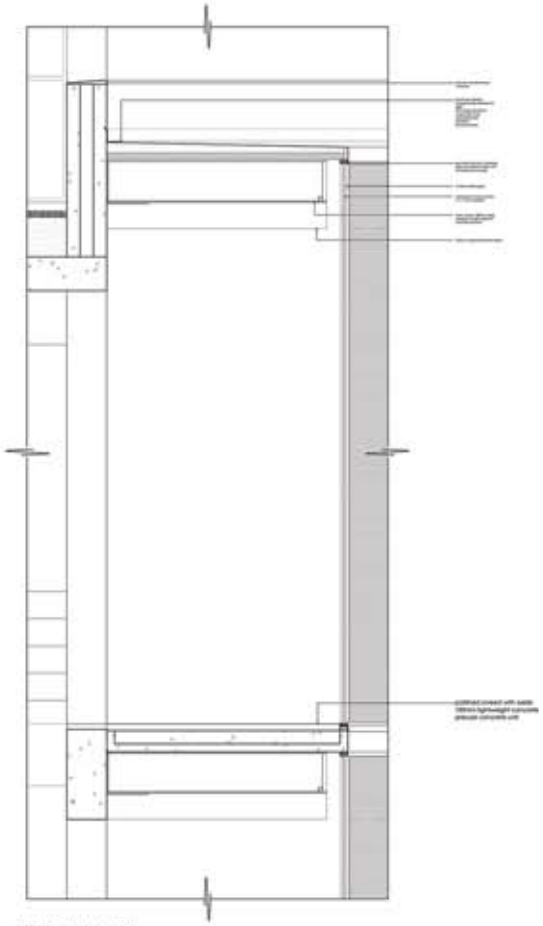
The technical documentation explores the idea of layering in terms of various facade treatments and materials in plan, section and elevation.



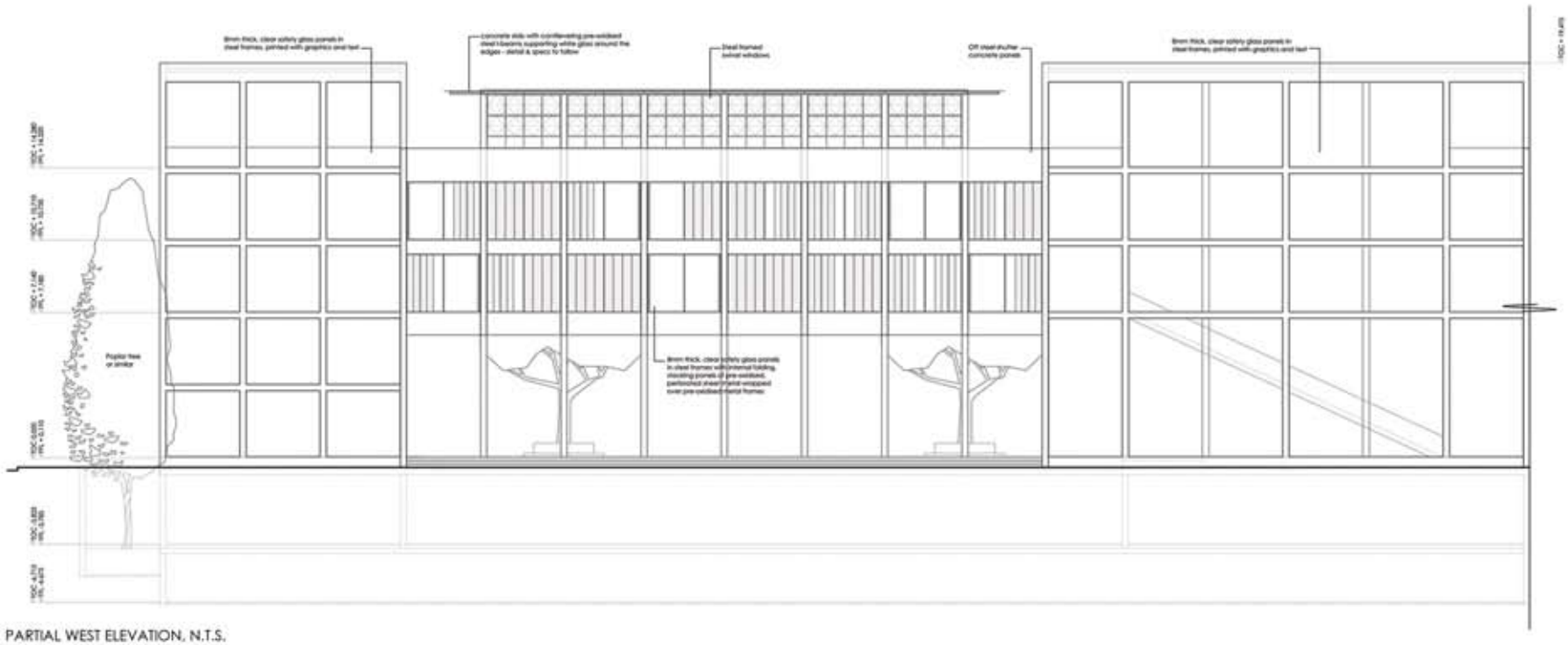
PARTIAL FIRST FLOOR PLAN, N.T.S.



PARTIAL SECTION B-B, N.T.S.



DETAIL 1, N.T.S.



PARTIAL WEST ELEVATION, N.T.S.

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