

CHAPTER 3

UNDERSTANDING CONTEXT

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3.1 INTRODUCTION

Having explained the theoretical approach in the previous chapter, this section of the document deals with using the techniques stipulated to gain an understanding of the character of place. To begin with, the twelve points put forward by Wolford are used as a guideline. The order of her points and how they are presented has been re-grouped for ease of understanding. The first section deals with General Locale and Specific Siting coupled with the exploration of style¹ and function, followed by an exploration of size, shape and proportion and finally a study of the material, colour, type and texture. Thereafter the study deviates from Wolford's twelve points and expands upon her notion of identity, with an assessment of historical significance, social relationships with building fabric and concludes with an analysis of the embodied energy in the form of sound, light and human activity.

Rua de Bagamoyo is the central street through the historic centre of Baixa and following the acupuncture approach as stated in chapter, the focus of this dissertation uses this street as its focus.



Figure 3.1 Photograph showing Complexity in the context of Rua de Bagamoyo. Photograph by Author 2011

¹ The word style refers in this context to a summary and grouping of similar features found in building of similar aesthetic quality, stating a specific "style" as a title for these will be invalid. Maputo has a tropical climate and as such architectural responses differ from traditional "styles".

3.2 GENERAL LOCALE AND SPECIFIC SITING

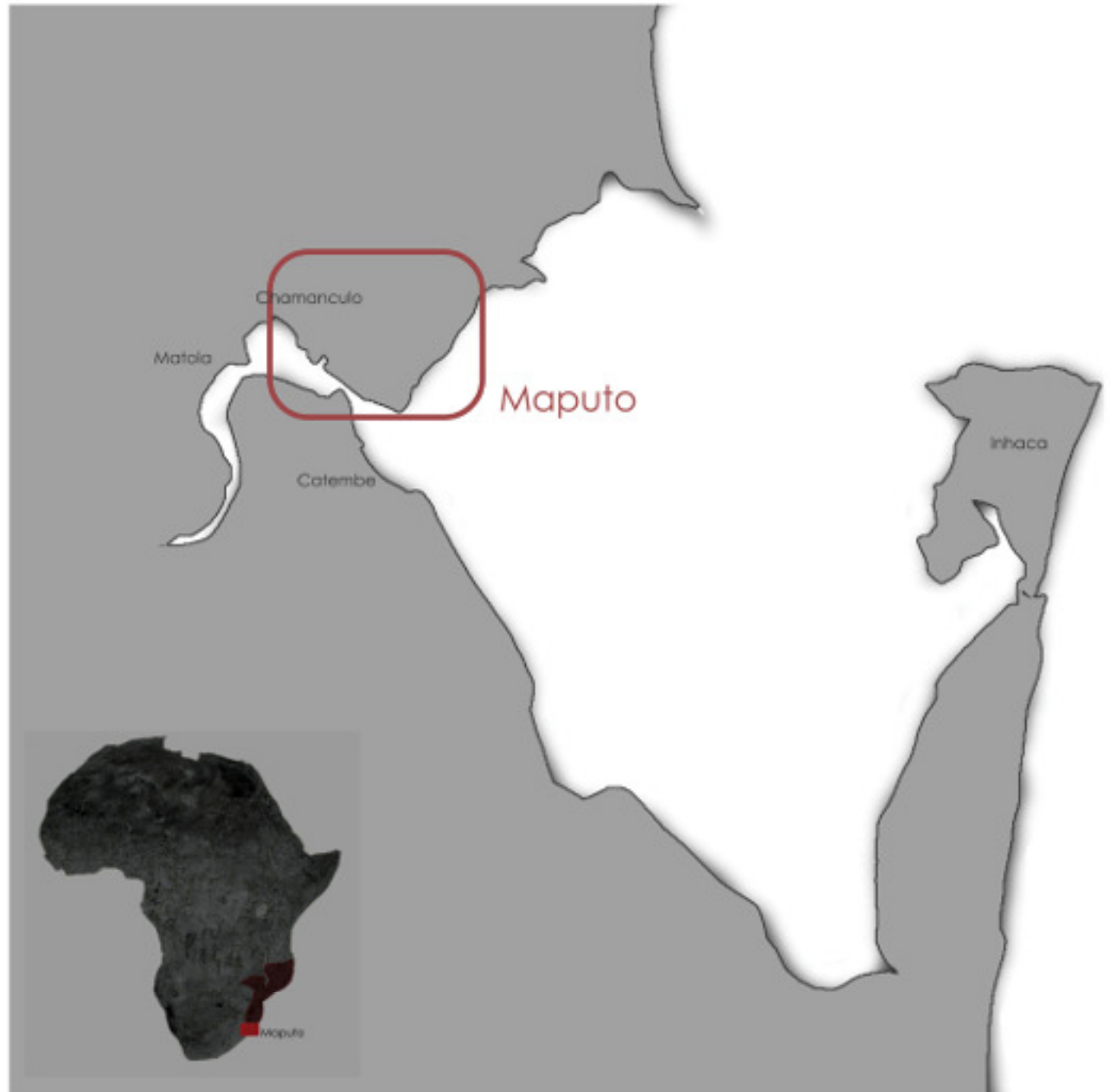
Refer to Section 2.3 for theoretical basis and Section 5.3- 5.6 for urban application.

The focus area for this dissertation is within the historic centre of Maputo, Mozambique.

3.2.1 MOZAMBIQUE

To understand the Macro context of Mozambique, Paul Jenkins is used as a reference as he has worked in the urban management field in Maputo for the past twelve years and is the Director of the Centre for Environment and Human Settlements at the School of Planning and Housing in Edinburgh. He has written numerous papers and articles regarding the nature of the informal and formal within the Mozambican context with specific reference to Maputo.

Mozambique as a as sub-Saharan African country, is said to be "one of the poorest and most aid-dependant countries in world". Paul Jenkins in his *City Profile* continues by stating; "In the last 40 years Mozambique has been governed by fascist, socialist, and open market regimes, and emerged from severe under-development under colonialism to struggle for self-reliance in the immediate post-Independent era. However, due to the international effects of the Cold War, the struggle against apartheid in the immediate region, and internal civil wars sustained by both these forces, compounded by severely adverse climatic conditions and enormous difficulties in state formation and nation-building, the government has become subordinated to donor agencies and obliged to implement a rigid form of structural adjustment re-aligning it with the

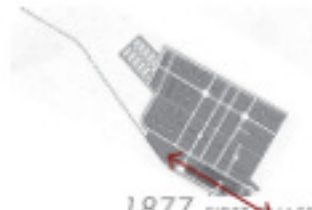


(Inset) Fig 3.2: Aerial Photograph showing Position of Maputo in the African Continent, Google Earth 2011

Fig 3.3: Diagrammatic Representation of Maputo Bay and Surrounds .Google Earth 2011.



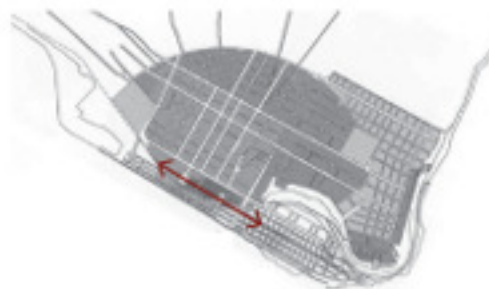
1781 FORT AND TRADING SETTLEMENT ON AN ISLAND SURROUNDED BY SWAMP LAND



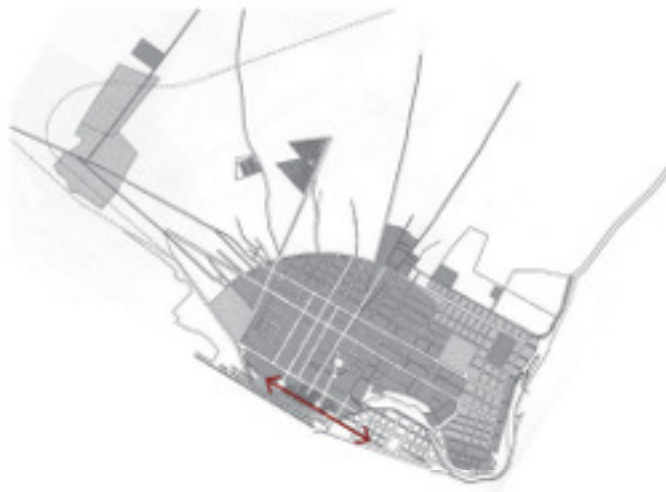
1877 FIRST PHASE OF LAND RECLAMATION LAYOUT OF REGULAR STREET GRID



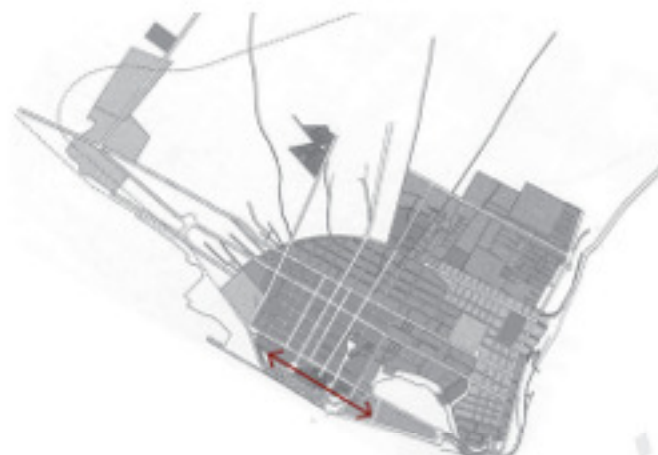
1900 SEMI-CIRCULAR DETERMINATION OF THE "CEMENT CITY"



1915 ORGANIC EXTENSION TO THE EASTERN COASTLINE PAST CITY LIMITS



1940 SECOND PHASE OF RECLAMATION NODAL DEVELOPMENT



1975 FORMAL EXTENSION NORTHWARDS CONTINUING URBAN SPRAWL

Fig 3.4 Diagrammatic representation of the cities development . (Casson et al 2011)

capitalist economic world system. " (JENKINS, 2000: 207)

3.2.2 MAPUTO

Maputo is the capital city of Mozambique and the southernmost city, with close links to its neighbouring countries such as South Africa and Zimbabwe. Maputo holds a major trade port and has a rich and tumultuous history.

According to Jenkins there is documented history of human settlement in the area from the first century AD. Trade and colonisation began in the 17th century with the Portuguese and Dutch competing for dominance. The city was eventually established as Lourenco Marques in 1741 by the Portuguese. The city was affected by the Mfecane or Dificane within the entire Southern African Region as well as the "Great Trek" of the Boers in South Africa. The Colonial Period continued until independence in 1975 which was claimed through war and struggle. This resulted in the obvious ramifications of such battles taking place within the urban settlements, including an exodus of Portuguese settlers. The struggle in neighbouring South Africa in the 1970s and 1980s through the Apartheid Period, coupled with the continuing civil war in Mozambique, meant that migration and communication between the states was hampered.

Since the end of the civil war in 1992, trade relations between the neighbouring states has been



Fig 3.5 Aerial Photograph Showing Baixa as defined by topography and historic character within the context of Maputo. Google Earth 2010



Figure 3.6 Map Showing Rua de Bagamoio in the context of Baixa. Google Earth July 2011.

flourishing with the implementation of the Mpumalanga, Maputo development corridor and the extension of the N4 Highway. (JENKINS, 2000)

3.2.3 BAIXA

The word "Baixa" in Portuguese means "low" and refers to the low lying area of the city of Maputo as indicated on the figure. This area of the city is the oldest and is the central business and trade district for the city. Initially the city was built on an island as a defensible space, during the colonial period the land around this island was reclaimed by the Portuguese. Subsequently the area is plagued by flooding.

Fig 3.5 indicates the historical boundary of the original island which can be clearly defined by its distinctive street grids that are narrower and finer grained than the surrounding city. The district of Baixa remains the central core of the city as the major transport nodes are accessed from within this area.

Being the oldest part of the city, the municipality has created a boundary of protection for the heritage of the existing buildings

3.2.3 RUA DE BAGAMOYO

Rua de Bagamoyo (formerly known as *Rua de Araujo*) prior to the independence of Mozambique in 1975 is the 480m connection of the vehicular *Praca de Trabalhadores* in the north west to the successful public park *Praca de 25 Junho* in the South east as indicated in Fig 9. This street is narrow; A maximum of 10m from building edge to building edge with an actual street width of six metres at its widest. The buildings around it are of a fine grained nature that contribute to a palimpsest of layering with a wealth of buildings dating from 1890 with a variety of examples including the early twenty first century. This collage of typologies presents the area as a palimpsest of architectural and historical significance.

3.3 STYLE

The type of buildings within *Rua de Bagamoyo* are diverse and a complexity and variation creates a large part of the aesthetic character of the place. The aesthetic is not only a formalistic concern; varied and complex, but the functions within the built fabric and on street level are just as varied.

3.3.1 TYPE IN PROGRAM

The functional diversity, although not as complete and balanced as it could be, communicates an ideal of versatile environments that allows for a myriad of activities.

Positions and concentrations of functions indicate where significant programmes can be used to activate the street. Weaknesses in the diversity of activity is also indicated.

FORMAL FUNCTIONS

-  ENTERTAINMENT
-  RETAIL
-  COMMERCIAL OFFICE
-  COMMERCIAL BANK
-  CULTURAL
-  GOVERNMENT
-  HOTEL
-  EDUCATIONAL



Fig 3.7 Mapping of Formal functions contained within buildings. Drawing by Author 2011

Formal Functions

Formal² functions within the street during the day include government offices and banks similar to the rest of the historic Baixa, but it does not contain the same concentration of retail facilities as *Rua Consiglieri Pedroso*. This results in *Rua de Bagamoyo* being less busy and active during the day. The inverse occurs at night where *Rua de Bagamoyo* contains a larger concentration of bars, night clubs and strip-tease establishments.

Government offices and banks create increased pedestrian traffic and attract people to the Baixa, but due to their operating hours this increase in traffic is restricted to mornings and early afternoon.

Rua de Bagamoyo contains the only cultural and educational buildings in the area including a comedy theatre National school of Dance and National school of Visual Arts, as well as the Samora Machel museum. These functions are specific to *Rua de Bagamoyo* emphasising the specific quality of this particular street but the weakness lies in that the vibrant and significant functions are isolated from each other.

The night life establishments are particularly "adult" in nature. The existing bars are frequented by prostitutes and the night clubs provide striptease entertainment. This particular type of night life activity is at its most active in the late hours of the evening. Even though *Rua de Bagamoyo* is synonymous with this type of function, like the cultural activities, these functions are also isolated from each other therefore negating the ability of night life activity to activate the street.

Christopher Alexander States that " *Most of the city's activities close down at night; those that stay open won't do much for the night life of the city unless they are together.*" (ALEXANDER et al., 1977: 180) Even though the night life activities are together, as Alexander would propose the street is still not a successful night life district because there is still a lack of visual, functional and physical inter-connectedness between the activities.

The combination of offices that close early in the afternoon and night life establishments that are not busy until late at night results in a lag in street activity throughout late afternoon and early evening.

in black indicate the duality of night and day

Weakness in the street activity due to the formal functions results from the isolation of similar functions to each other and the lack of 24-hour functionality.

Formal Function influence on character of activity.

Due to the prevalence and persistence of adult centred night life activities as well as the specific occurrence of culturally significant entertainment based functions it becomes apparent that the character of the street is and should remain one of evening entertainment and recreation, that can be strengthened through the implementation of activities that create a continuity of vibrancy in space as well as in time.

² The terms formal and informal are used primarily to describe the nature of activity with relation to the built form, formal activity is not necessarily more legal than informal but occurs within the formal structures of the street, where informality refers to the occurrences of economic activity that occur outside of the buildings.

INFORMAL FUNCTIONS

- informal residential
- Brothel hotels
- Informal vendors
- Concentration of sex workers
- Techotas



Fig 3.8: Mapping of informal functions that occur outside of built form. Drawing by Author 2011

Informal Functions

Rua de Bagamoyo does not only contain unique functions in the formal sector but also in the informal. The formal sector directly influences the type of informal activity and the times at which they occur.

During the day there are vegetable salesmen, *Tschovas*³, and prepaid airtime distributors that occur throughout Maputo. These particular functions occur in areas of high pedestrian traffic and are concentrated in the mornings and early afternoons around the busy government offices and banks.

A prevalence of vendors occurs near the entrance to *Rua de Bagamoyo* from *Praca de 24 Juhno*. There are also thriving car wash businesses.

Later in the afternoon the first signs of prostitution occur, around the existing bars and hotels in the centre of the street, protected from the busy public squares. This particular function influences other tradesmen and entrepreneurs, and therefore the mobile informal tradesmen sell specifically applicable products. There is a prevalence of beauty products, hair care items and grooming aids as well as mobile "nail parlours".

The night time activities in the formal realm include brothels and striptease nightclubs as well as a few small bars but the other existing establishments that are formally un-occupied at night also provide facilities for the sex trade. An article published in the *Savana* newspaper⁴ notes the National school of Dance and Visual Arts as being two of the buildings used. Through observation it was noted that the warehouse offices in the northwest were more obviously used than the national schools.

"When darkness emerges, the official institutes close, the employees disperse: there begins other activity supervised by the guards that sacrifice their nights on duty" (ARAO, 2009: 1)

Other night-time informal trade includes mobile street vendors selling crisps, chewing gum and cigarettes. These vendors are usually children, taking advantage of the existing night time activity.

The informal traders that create a certain character of trade within the streets of Maputo are not only influenced by the formal but also the informal and any change in activity or programme will influence these vendors.

3 *Tschova* is a cart pulled by one or two persons usually containing vegetables or other good for sale.

4 *Savana* Newspaper is renowned for being a controversial political paper, it is distributed throughout Maputo once a week.

DAY- NIGHT FUNCTIONALITY

The existing Nolli Map of Rua de Bagamoyo fluctuates between night and day.

During the day spaces are more publicly accessible where as during the night the street becomes the most accessible space with few bars and entertainment venues that have a semi-private access.



Figure 3.9 Photograph showing the lack of activity in the streets at some places at night. Photograph by Author 2011

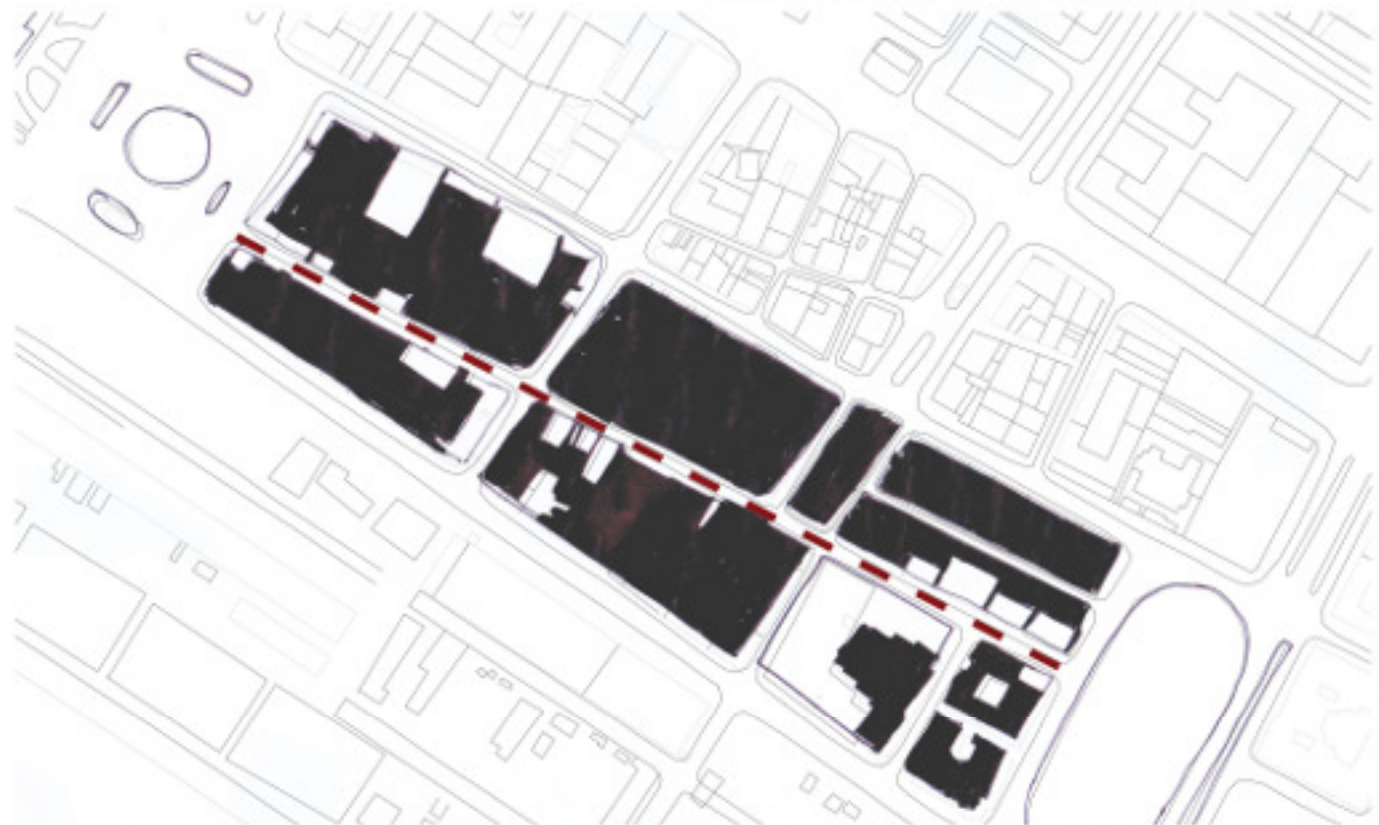


Figure 3.10 Map based on Nolli's map of Rome showing publicly accessible spaces in white and private spaces in black for daylight hours along Rua de Bagamoyo. Drawing by Author 2011

NIGHT TIME NOLLI



Figure 3.11 Photograph showing pedestrian activity during the day. Photograph by Author 2011



Figure 3.12 Map based on Noll's map of Rome showing publicly accessible spaces in white and private spaces in black for the night along Rua de Bagamoyo. Drawing by Author 2011



Fig. 3.13 Mapping of Spaces of opportunity drawing by Author 2011

Spaces of opportunity

Mapping of programme indicates spaces that are vacant, unused or abandoned as areas for opportunity to intervene in the fabric of the street, without challenging or destroying the existing vibrancy. If Christopher Alexander states that; *"The homogenous and undifferentiated character of modern cities kills all variety of lifestyles and arrests the growth of individual character"* (ALEXANDER et al., 1977: 43), *these spaces for opportunity allow place for the implementation of diverse programmes to connect and allow continuity of the existing.*

3.3.2 TYPE IN FORM AND AESTHETIC

There is an obvious diversity, four major types can be determined as the most conducive to that character. All of these types provide a permeable threshold to the street and provided a shaded walkway on pavement level either by extending over the pavement or by providing shade by protruding structures.

3.4 MATERIALITY

The diversity of building types extends to the materiality in texture, colour and type of material, but as with styles dominant factors can be determined.

3.4.1 TEXTURE

Urban Decline and criminal activity in the street affects the nature of building texture in the following ways. The plastered and painted buildings have weathered, creating a texture of decay that gives the facades a softer aesthetic than the slick form -driven intention. Coastal climates and the corrosive nature of coastal conditions increases the weathering not only in the paint finishes but in the rusting of cast iron screens and burglar bars as well in the concrete surfaces.

Crime and the need for security has created the necessity for bars over fronts and doors. These create the atmosphere of individuality on the ground floor and street facing facades. (throw in a Stewart brand)?

3.4.2 TYPE

Coastal conditions dictate a prevalence of robust materials such as concrete increased by the strong influence of modernism during the colonial period, Brick and plaster is apparent in the historical facade buildings. Prefabricated cast iron structures are reminiscent of the earlier colonial era.

3.4.3 COLOUR

Colour in the context of Maputo is very much part of the character of place. It is apparent not only in the building painted brightly but in the variety of goods sold on the streets and in the dress of the people with the prevalence of the brightly coloured capulana or kanga.

The Historical Facade

The oldest remaining buildings retain only the front facade with new alterations occurring behind. The example as indicated in the sketch Fig used to contain a shaded colonnade which has since been closed off by the different tenants as can be seen on the photographic elevation fig .

While this used to provide for the passing pedestrian, it now creates a permeable edge with notable layers of threshold to access the interior space. This particular building contains two bars and a strip club both dealing primarily with the sex trade allowing those layers of threshold to be used as a measure of control of access.

The Cast Iron Balcony

Four buildings exist with this typology consisting of the national school of arts), and NGO office building and Two Hotels , Hotel Central and Hotel Carlton

These buildings extend onto the street with a structure of cast iron columns and balconies permeating the edge with publicly accessible entrance to nightclubs and bars on the ground floor, in the case of the hotels. The Art school and NGO has been recently restored and the entrance has been controlled through a single entrance in the form of an inter-leading arcade.

The Concrete Fins

Concrete works in Maputo has a slenderness and refinement unique to that context, These buildings are clearly informed by the international style. There are three in Rua de Bagamoyo with varying degrees of arcade detailing. They have been adapted to respond the context climatically as they create a shaded facade and double skin structure. All of these buildings contain offices with one containing the Samora Machel Museum on Ground Floor.

National School Of Dance

The scale of this building both in the verticality of its arcade and length of the facade is a clearly dominant structure in the street. The first floor dance studios extend over the pavement level with the walkway presenting itself as a subtractive element as if it had been removed from the building mass. The ground floor contains bars and restaurants as well as the dance school entrance and contain a myriad of textures and colours on its facade.

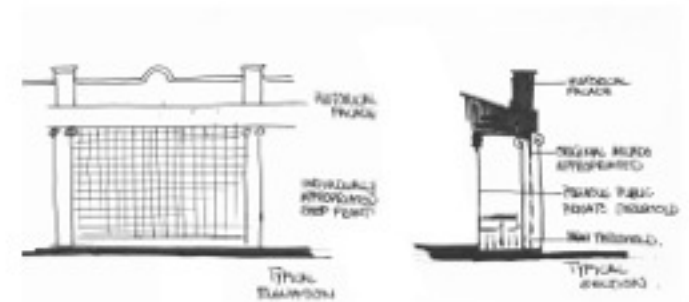


Fig 3.14 Sketch showing typical single story with historical facade

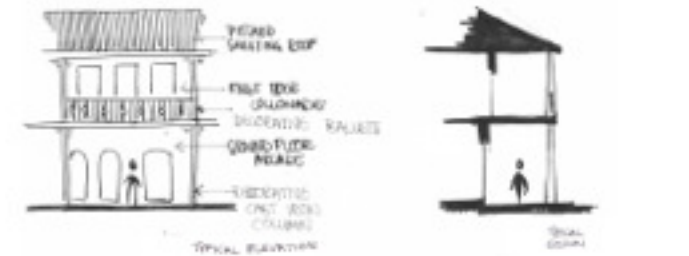


Fig 3.15 Sketch showing typical additive street arcade.

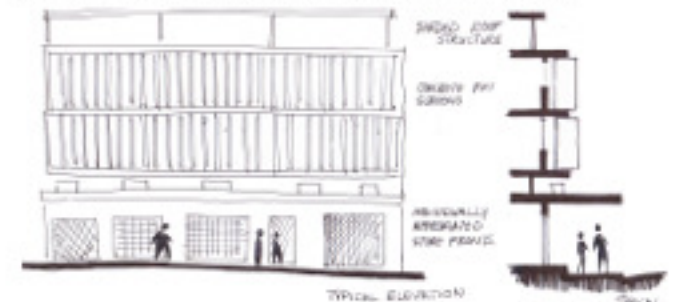


Fig 3.16 Sketch showing typical shaded facades and roof terrace

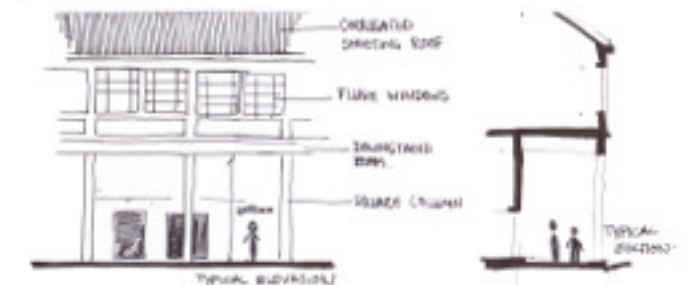
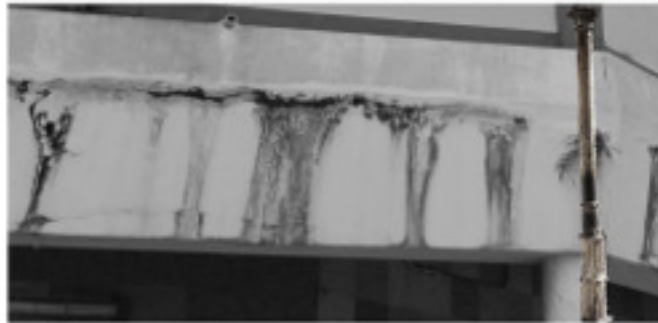


Fig 3.17 Sketch showing typical subtractive arcades

Fig 3.14 (opposite page) Table of Materials Photographs by Author 2011

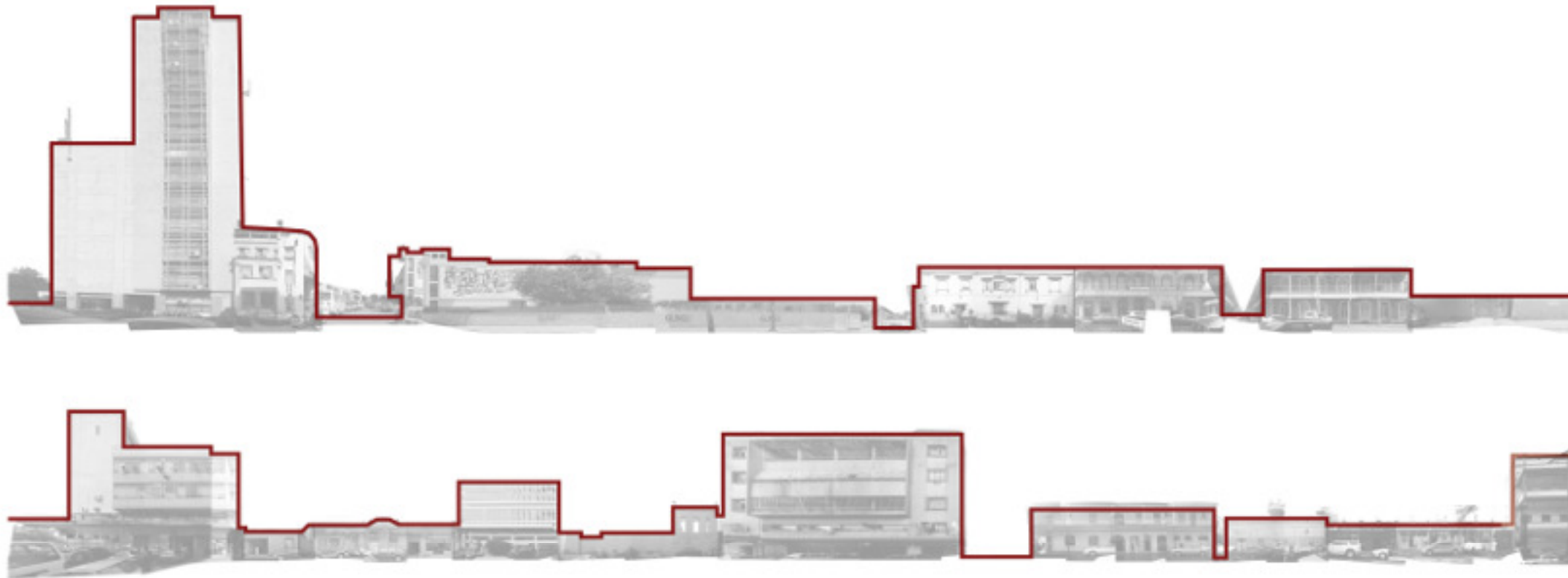


3.5 SIZE, SHAPE AND PROPORTION

These concepts are best illustrated through the photographic elevation which has been drawn to scale to show the complexity of scale with Rua de Bagamoyo.

It is apparent that the buildings towards the public squares are taller and larger particularly towards Praca De Trabalhadores. The complexity of scale is not restricted to the diversity in the number of floors but also in the variance of vertical scale in the floor heights themselves.

Building footprints are small in relation to the tighter street grid, giving the facade a varied articulation.





NORTH ELEVATION



SOUTH ELEVATION

Fig 3.15 Street Elevations showing Proportion, size and scale of buildings in relation to each other. Photographs and diagram by Author 2011

3.6 HISTORICAL SIGNIFICANCE

Refer to Section 2. 5 for theoretical basis

The historical significance of Rua de Bagamoyo is contained in layers of tangible and intangible heritage. Significance is apparent in the widely available historical photographs. The availability of these indicates that the significance of the street has always been noteworthy enough to be documented at least by photographers, which would have been quite an occurrence in 1890.

3.6.1 INTANGIBLE SIGNIFICANCE.

The photographic evidence as presented by the work of photographer Ricardo Rangel incites a poetic nostalgia, as memorialized as its previous manifestation Rua Araujo and its function of "our nightly bread", which is the phrase used to describe the necessity of prostitution. It is proposed that the heritage embodied in Rua de Bagamoyo is therefore significant not only in the remaining historical built fabric. This documentation of nostalgia indicates that significance is embodied in the societal responses to built form in the manifestation of consistent functions.

Ricardo Rangel's collection of photographs documents a nostalgia for a previous existence of the street, not only in photography but also in letters and poetry. This documents the collective memory of place.

"The pull of past transcends nostalgic longing for a fancifully imagined or surrogate yesteryear"(LOWENTHAL, 1985: 43)

Lowenthal questions the reality of nostalgia but notes the will to return to a state of past in his writing; The past is a foreign country. This indicates that a design intervention to return to a state of the past would most likely be unsuccessful as the realities and the collective memory would perhaps not co-incide, indicating that the strengths of memory can be used as a positive generator to create a familiarity of place, without being a re-creation.

To critically evaluate the work of Ricardo Rangel with regards to this question of reality and truth to memory results in a proposed question of significance in the realm of heritage.

Collective memory insinuates the significance of persisting function whether real or imagined. The function remains, regardless of changing legislation, politics, social and economic situations .However, it currently does not have the vibrancy or critical mass popularity to dispel negative reputations.

To understand the relationship of buildings and architecture of a previous time a photographic study of the photographs of Ricardo Rangel as compiled in the book *Pao nosso de cada noite*, translated as "Our nightly bread."

Specific notice is taken of the human interaction with the building and how the relationship between street and building is articulated and utilised.

The photographic studies of the historical photographs are then compared to current photographs by the author to compare not only the changes in street-edge relationship but also in the quality of environment.

3.6.2 TANGIBLE SIGNIFICANCE

Tangible significance is that, which is apparent in the built form and structure of the street. The significance of this particular region is in the atmosphere created by the urban infrastructure.

The heritage embodied within the built fabric includes not only the historical buildings but also the fine grain fabric of the existing buildings and their relationship to each other. Buildings have small footprints and the street grid within the historic Baixa is tighter with narrower streets and wider pavements than found elsewhere in the city.

Street facade photographs as indicated by fig 4.6 shows the diversity of building typologies and styles, indicating the palimpsest of incremental.

PHOTOGRAPHIC TIMELINE
Showing Street development

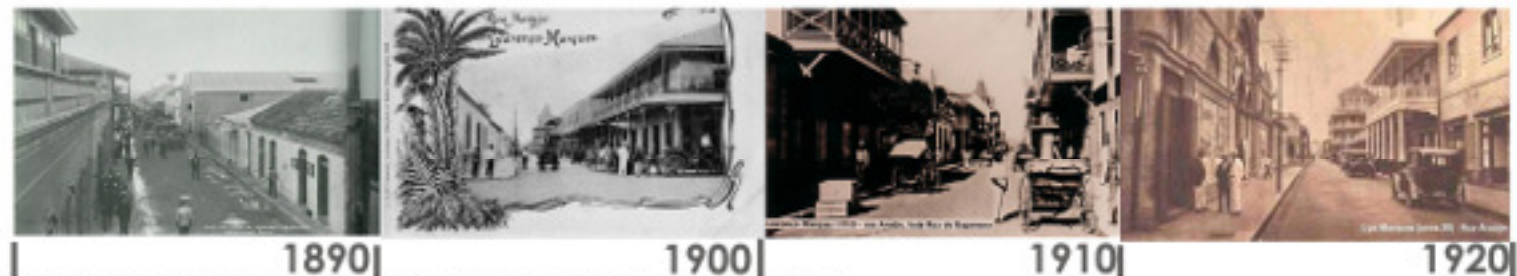


Fig. 3.16 Photographic Timeline compiled from archived photographs (RUFINO, 1929). (RANGEL 1960- 1970) and Author 2011

ricardo rangel



pão nosso de cada noite

our nightly bread



1960|



1965|



1970|



2011|

Fig. 3.17 Cover page of Ricardo Rangel's Photographic Collection. (RANGEL: 2004)



1962

Figure 3.18. Steps emerging in to the illusion-world (1962). Rangel 2004

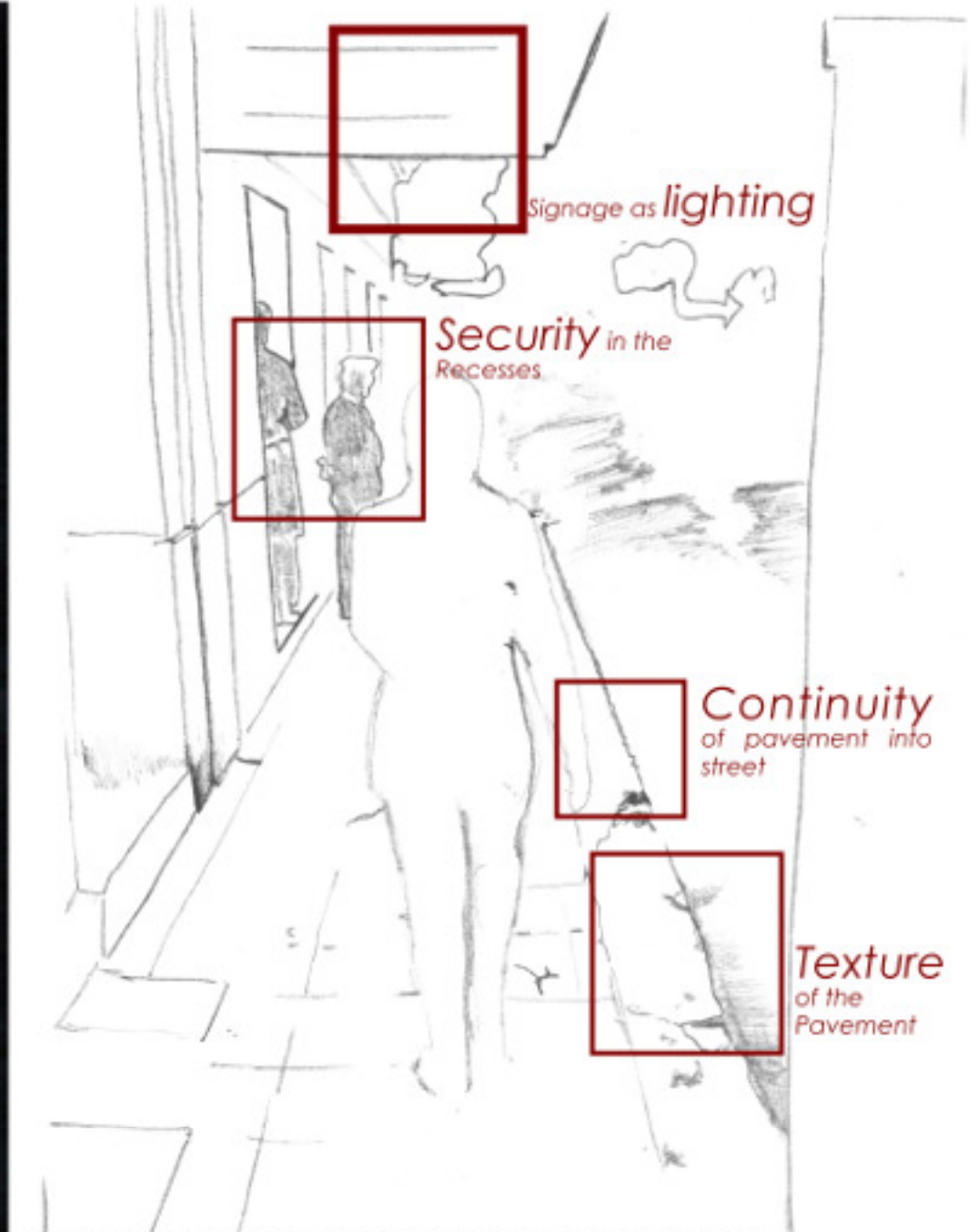


Figure 3.19. Analysis of "Steps emerging in to the illusion-world (1962)". Author 2011



Figure 3.20. Rua de Bagamoyo at night. Author 2011

THE URBAN EDGE

The signage remains part of the lighting in the street with the inclusion of light on the underside of arcades. The major change exists in the vehicular dominance of the street as opposed to the pedestrian. Parking occurs densely along the street edge and defines the edge.



Figure 3.21 Embarking on the pleasure of the night (1969), Rangel 2004



Figure 3.22 Analysis "Embarking on the pleasure of the night". Author 2011

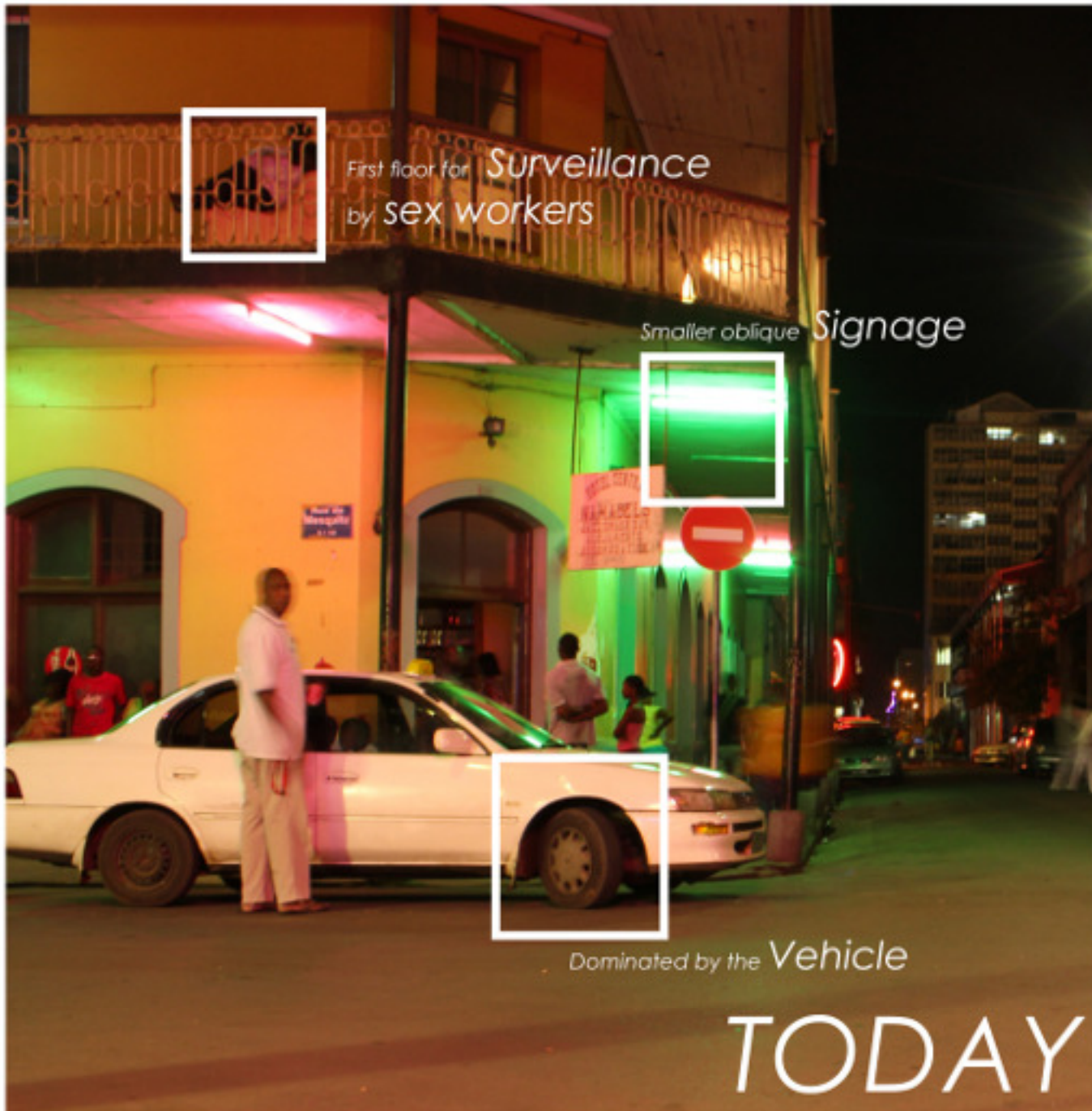


Figure 3.23. Hotel Central Today. Author 2017

HOTEL CENTRAL

Hotel Central remains as it was but, the urban surroundings have changed due to the vehicle occupying the pedestrian space.



Figure 3.24 Rua Araujo: all embraces shine more under neon light (1970). Rangel 2004

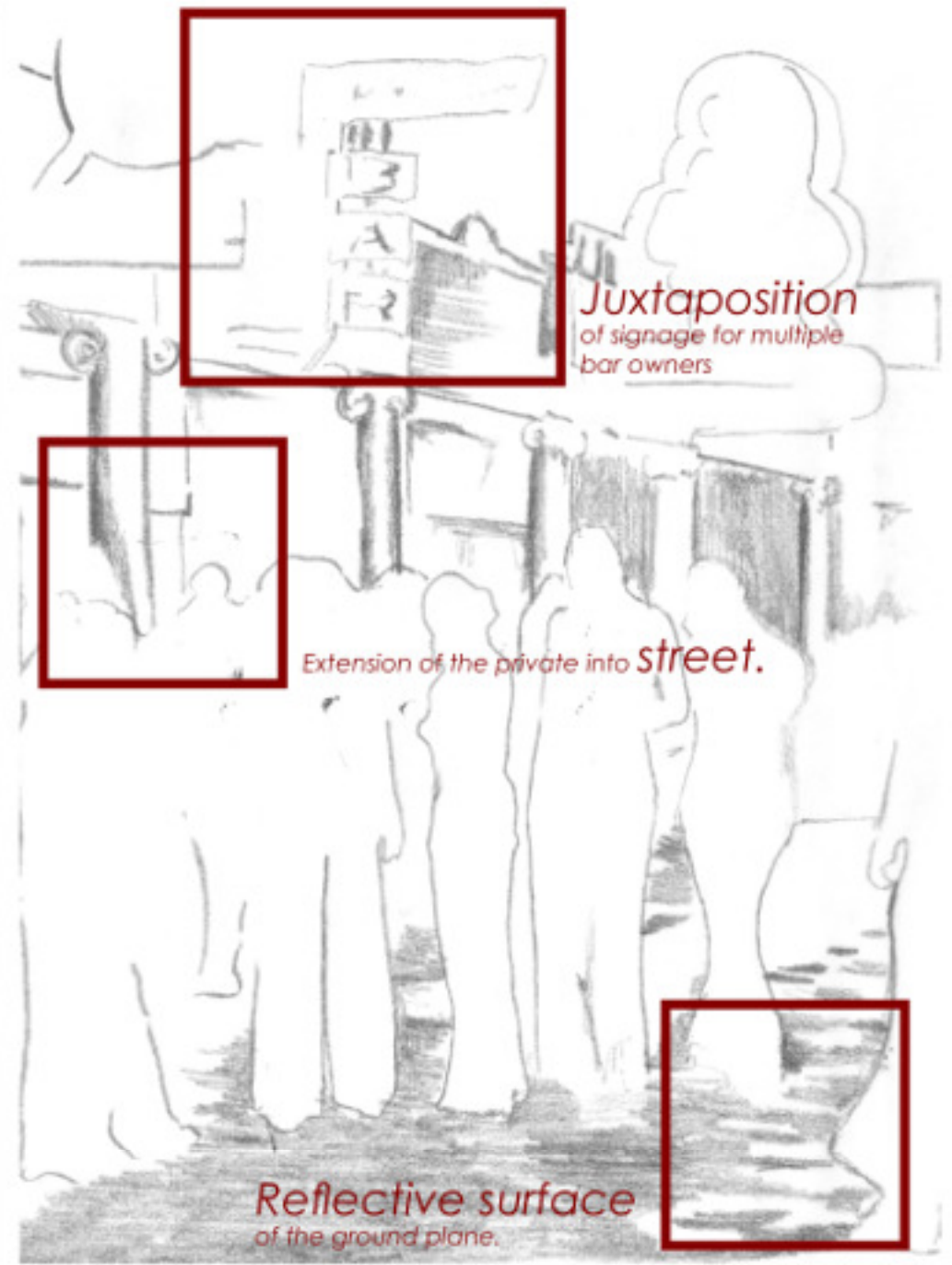


Figure 3.25. Analysis "Rua Araujo: all embraces shine more under neon light (1970)". Author 2011



COLLECTION SPACES

Arcades have been encased with security screens and walls creating a controlled transition in to the private spaces.

Juxtaposition of well lit signage remains.

The dominance of the vehicle separates the street from the building acting as a barrier.

Figure 3.26. Luso Today, Author 2011



1970

Figure 3.27. Rua de Araujo: what crazy wine am I seeking? (1970). Rangel 2004.



Figure 3.28. Analysis "Rua de Araujo: what crazy wine am I seeking? (1970)". Author 2011



Figure 3.29. Topazio Today, Author 2017

FACADE CHANGES

Hotel Central remains as it was but, the urban surroundings have changed due to the vehicle occupying the pedestrian space.



1969
Figure 3.30. Euphoria of Arriving in the Rua Araujo (1969), Rangel 2004

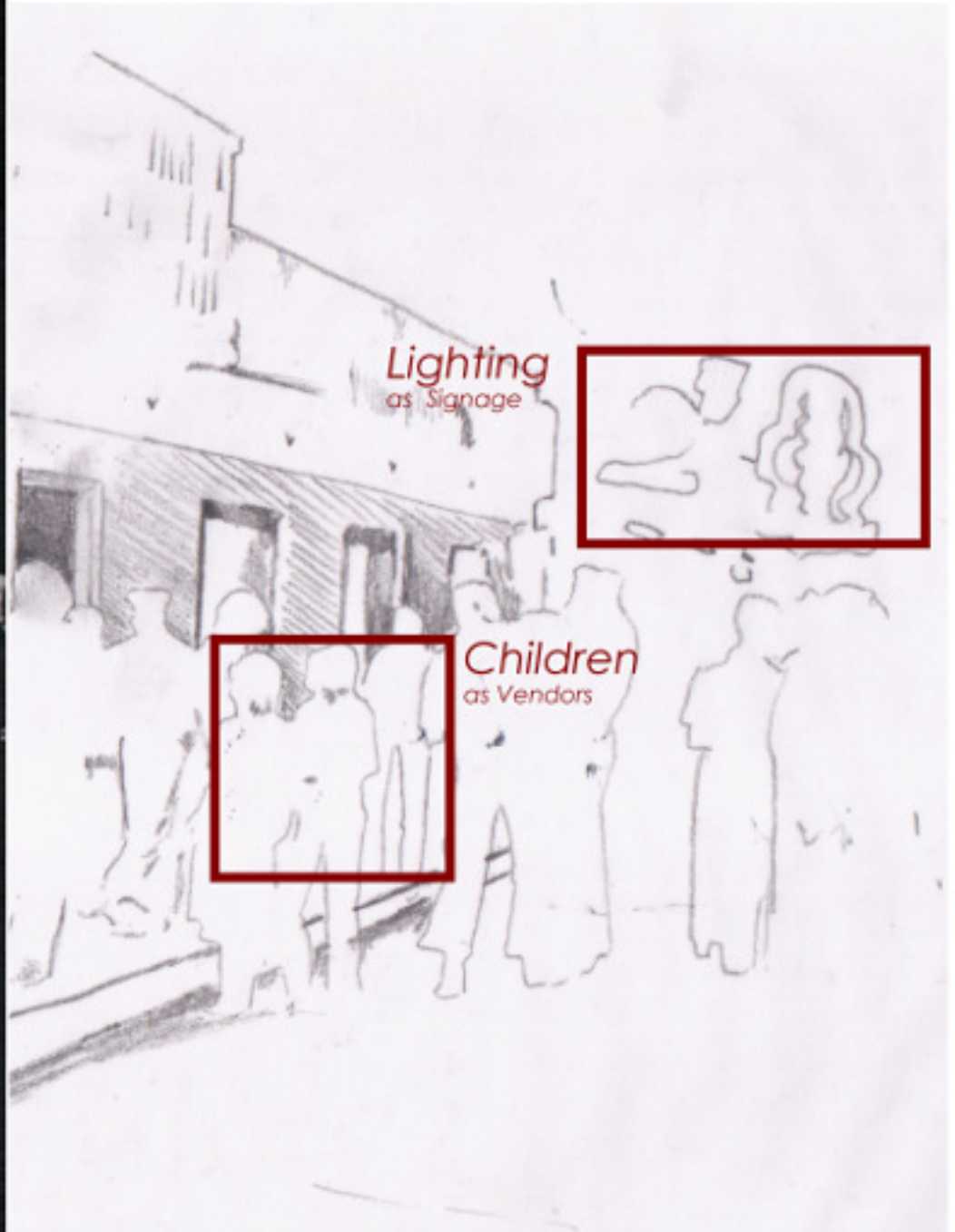
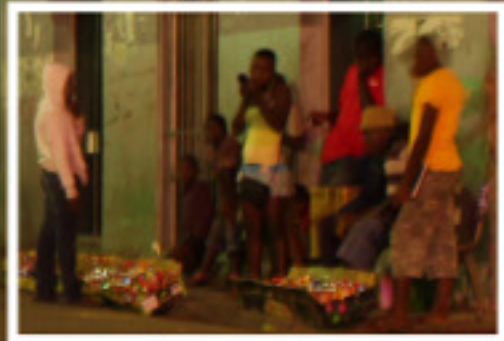


Figure 3.31. Analysis "Euphoria of Arriving in the Rua Araujo (1969)". Author 2011



*Prostitute
solicits a client*



*Organised
child vendors*

TODAY

IN BETWEEN SPACE

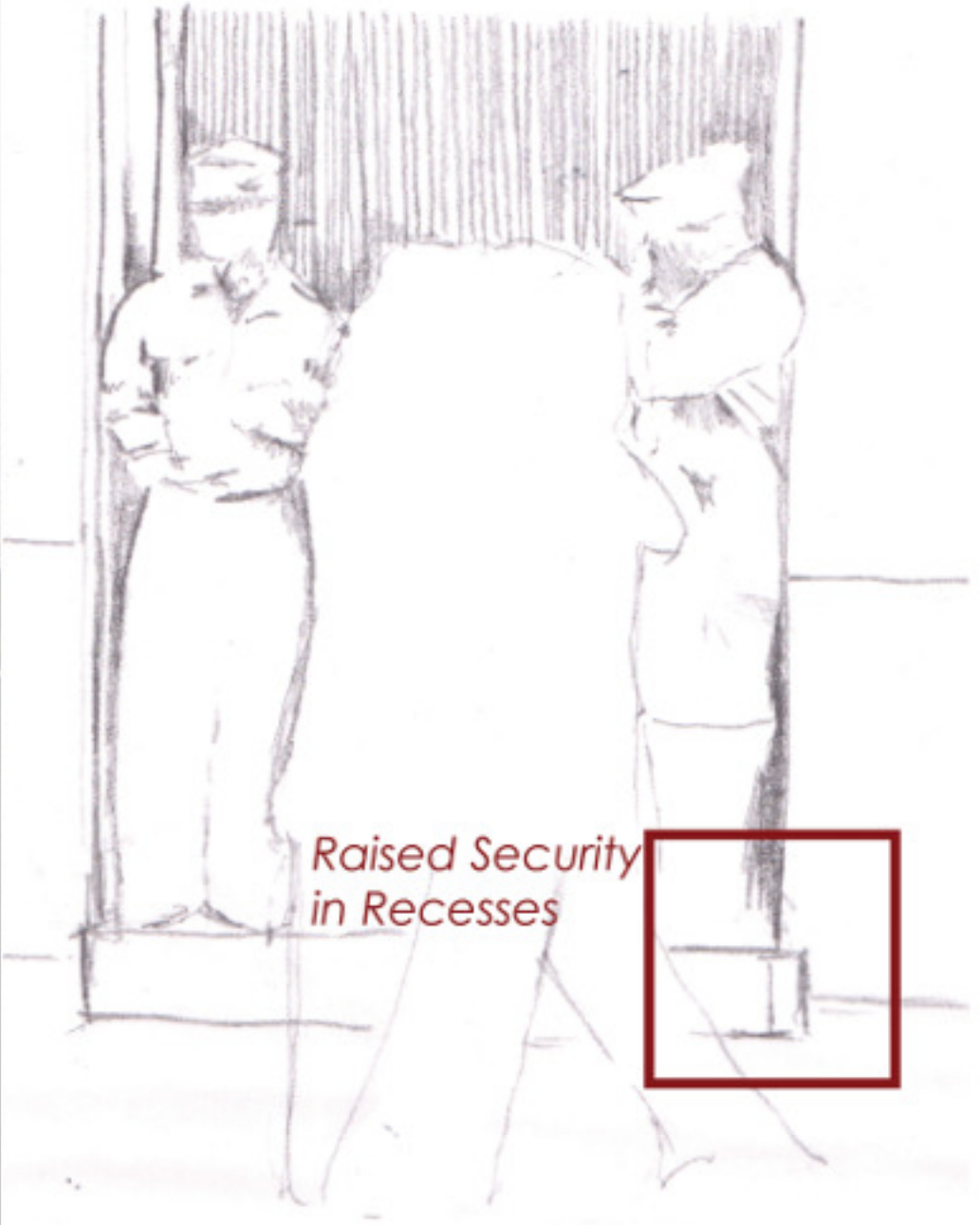
Informal child vendors are more organised in 2011 and collect in groups.

Figure 3.32. Night traders sell their wares. Photograph by Author 2011



1974

Figure 3.33. Rua Araujo: who guards the entrance to my desire (1974). Rangel 2004



Raised Security
in Recesses

Figure 3.34. Analysis "Rua Araujo: who guards the entrance to my desire (1974)". Author 2011



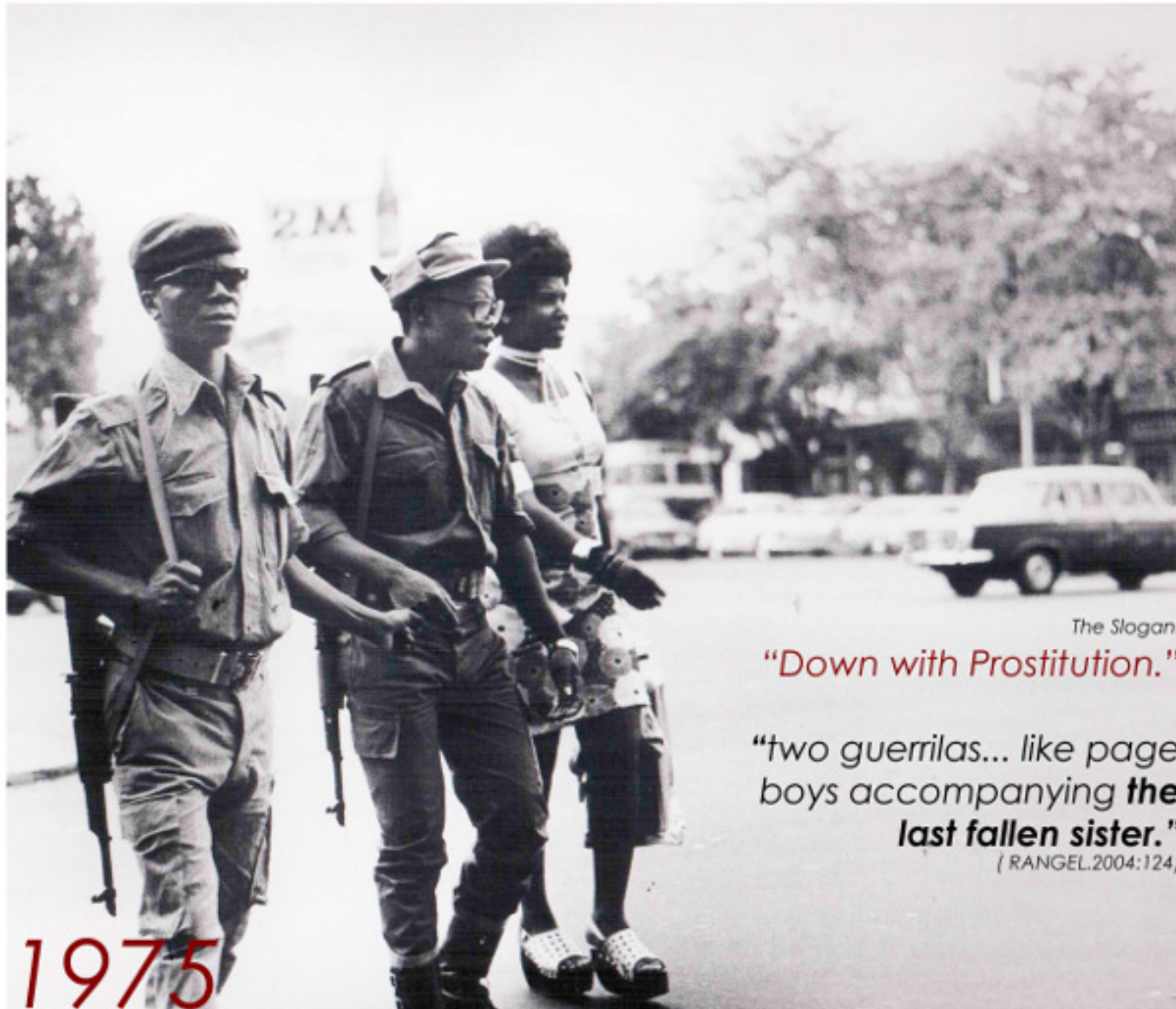
Flattened
facades

TODAY

Figure 3.35. Shallow facade, Author 2017

FACADE DEPTH

Where recess and entrance steps created enclosures for activity and surveillance urban decay has resulted in flattened facades thus the articulation of entrance and recess has been removed.



The Slogan:
"Down with Prostitution."

"two guerrillas... like page
boys accompanying **the**
last fallen sister."

(RANGEL.2004:124)

1975

Figure 3.36. The "final" bread? (1975). Rangel 2004





... and yet the
prostitutes remain
in the same street.

CONTINUITY IN PROGRAMME

Sex-work has been prevalent in Rua de Bagamoyo and solicitation remains as a perpetual street activity.

Figure 3.37. Sex workers on Rua de Bagamoyo. Author 2017

3.7 SOCIAL SIGNIFICANCE

Refer to section theoretical basis refer to section 2.6 and 5.7 for urban application.

To understand the existing street relationships, the ownership of street was determined based on the prevalence of a particular user as well as the permanence of their street use.

This study attempts to understand the relationship between the user and existing built fabric to understand how any specific user utilises, responds to or manipulates space. This also seeks to determine a hierarchy (if apparent) of the prevalence of ownership and controlled space within the context of *Rua de Bagamoyo*.

Particular attention is paid to the physical condition created by existing built fabric and how the nature of the architecture communicates with the user. Different types of spaces are appropriated by different users, for various reasons. The aim of this study is to determine how and why.

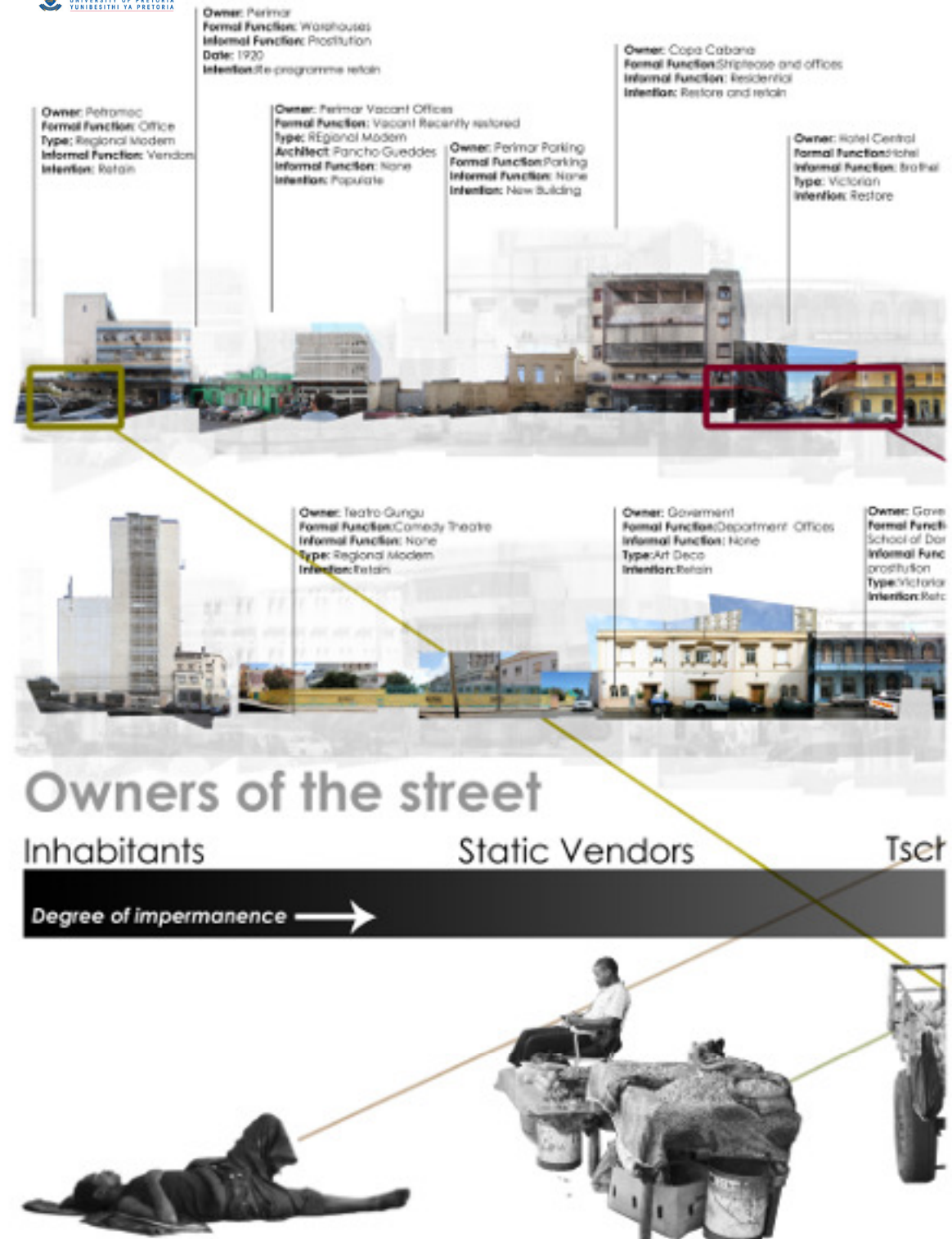
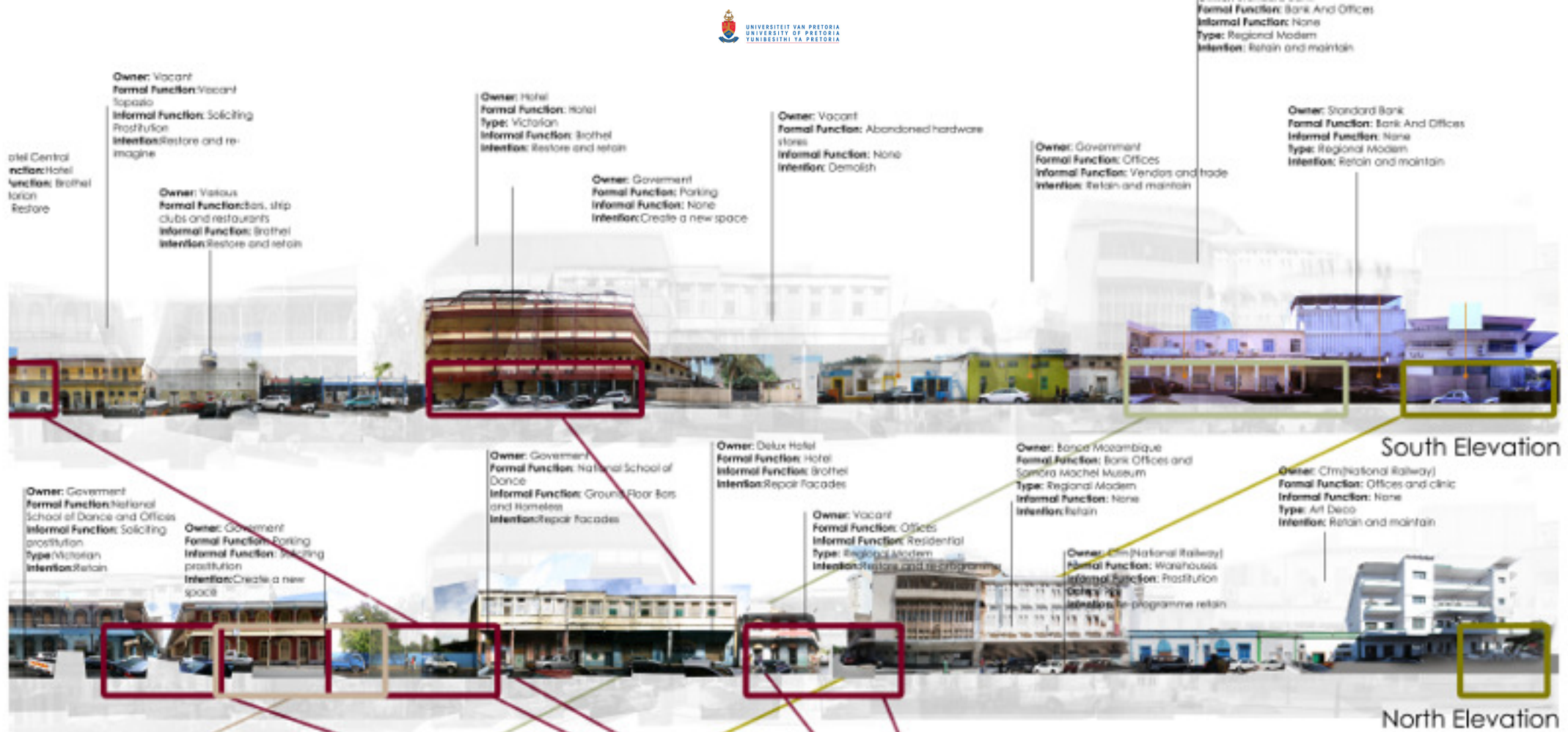


Figure 3.38 Owners of the street mapping. Photographs by Author 2011



Tschovas

Vehicles

Sex Workers

Pedestrians



3.7.1 RESIDENTIAL USERS.

Rua de Bagamoyo provides place for the homeless. These users are given the greatest degree of permanence. This dissertation does not focus on the plight of the homeless, therefore concern for the condition of living is not considered, but rather and understanding of where these users sleep.

Residential space, while not formally provided for, is appropriated by the homeless that dwell in the region. Due to the climate which is hot and humid the need for shelter is from the sun and the rain and not the cold. The homeless were found on the southern side of Rua de Bagamoyo under the arcaded sections of the street. The northern side of the street is more shaded and the inhabitant is then relegated to the other side away from the business. These users usually sleep right up against the surface of a facade to appropriate a greater protected area for their body.

The choice of which side of the road is determined by the other users such as the vendors and tschovas, who appropriate the more shaded areas. Although these users are on the southern side they do remain in the shaded areas.



Figure 3.40. Homeless women rests in a small patch of shade. Photograph by Author 2011



Figure 3.41. Women and child Sleep in a shaded area. Photograph by Author 2011



Figure 3.39. Luis, A man Sleeps on the urban surface. Photograph by Author 2011

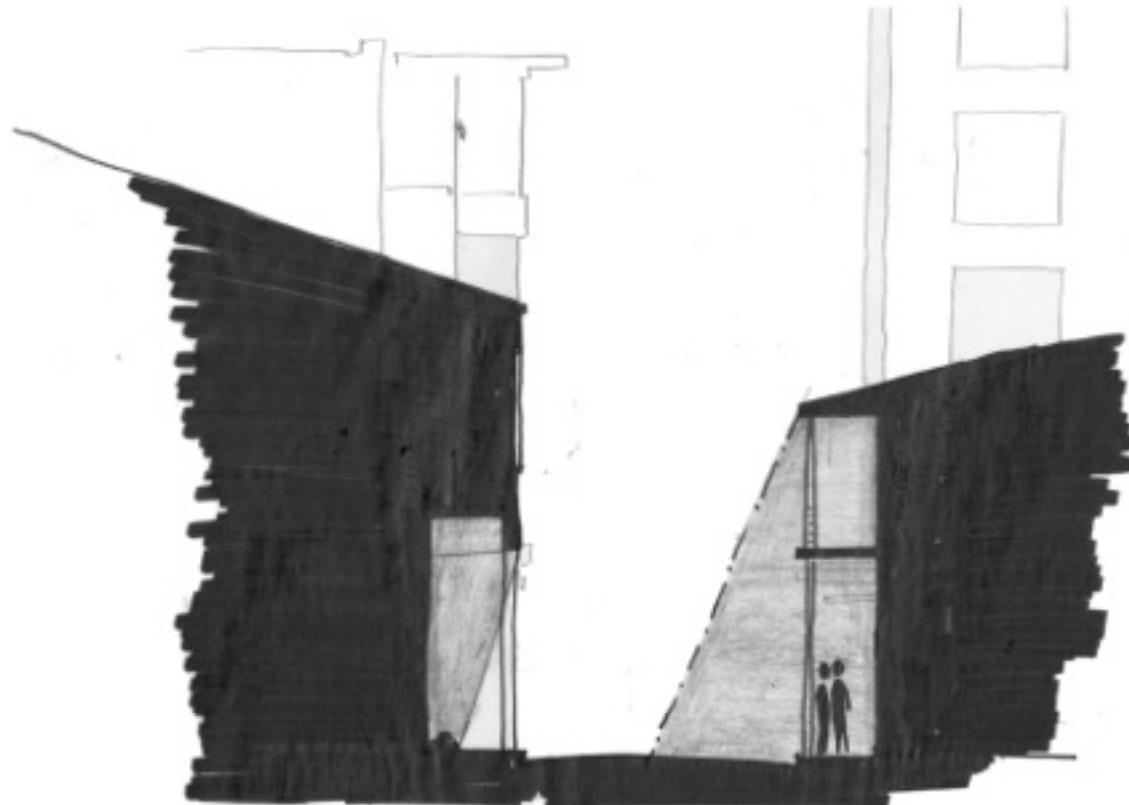


Figure 3.42. Sectional diagram showing the position of homeless in relation to the position of shadows. Diagram by Author 2011



Figure 3.43. Photograph showing Vendors in the presence of parking on the opposite edge. Photograph by Author 2011



Figure 3.44. Vendors attracting business by creating a raised platform. Photograph by Author 2011

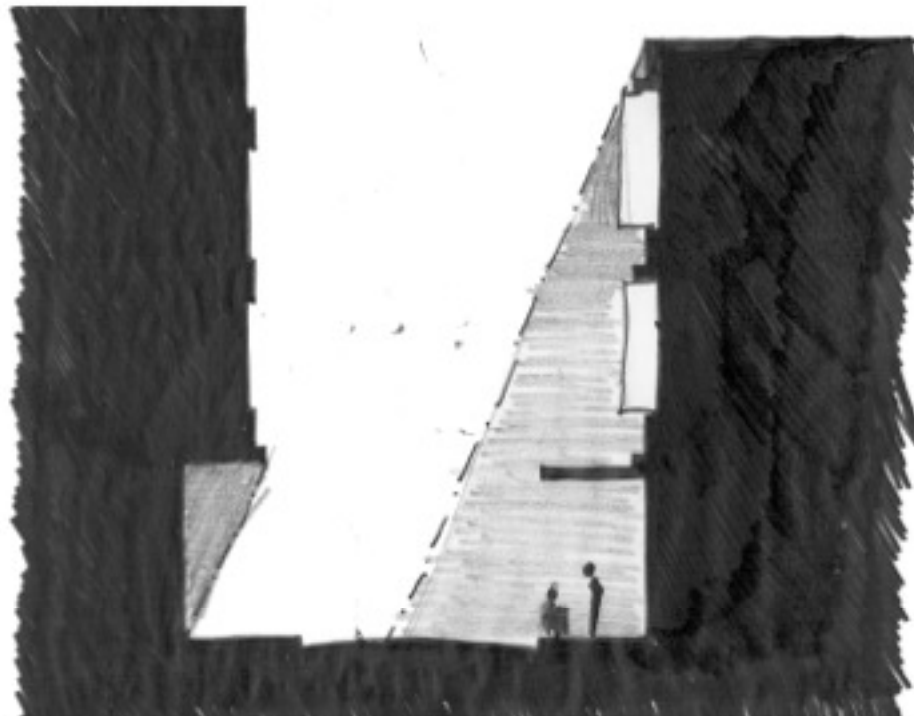


Figure 3.45. Sectional diagram showing the position of vendors when no parked car is present on the street edge. Diagram by Author 2011

3.7.2 STATIC VENDORS

The static and mobile traders are differentiated as they relate differently to the built fabric. The static vendors occupy a single space for the majority of the day. Within Rua de Bagamoyo these traders vary from day to night and vary based on the position of parked vehicles. During the day they sell a variety of goods predominately in the shadows of the buildings on the north side of the street in the areas of greatest shade, and closest to the public squares specifically *Praca de 25 Junho* where there is the most pedestrian traffic due to the square, the government offices and the position of the bank. This is also the point where the pavement is at its widest, (2500mm)

Depending on the position of the vendor ownership of the sidewalk is either claimed or shared. Position of semi static vendors defines the "room" created on in the space of pavement. When a car is parked on the street edge the vendors occupy the side of the pavement on the building edge, in areas without a vehicular presence the vendors appropriate the street edge between the columns to enclose the pavement as a "room".



Figure 3.46. Street trader. Photograph by Author 2011

3.7.3 TSCHOVA TRADERS

The Tschova is a human powered cart pulled by one or two people usually used for the transport and vending of fruit and vegetables but are sometimes used for selling other items, such as beauty products or DVDs.

These tchovas are notorious for causing traffic congestion and occupying pedestrian space. The tschova is a vehicular means of transport for many of the vendors within the area allowing for the distribution of goods throughout the area to smaller distributors as well as allowing for sellers to transport larger amounts of stock. The large wheels and car tyres allow a freedom of movement on difficult terrain.

In general the tschova is used to transport goods but due the nature of its design, its height allows it to be used as a mobile table for the sale of goods.



Figure 3.48. A tchova salesman sells bananas
Photograph by Author 2011

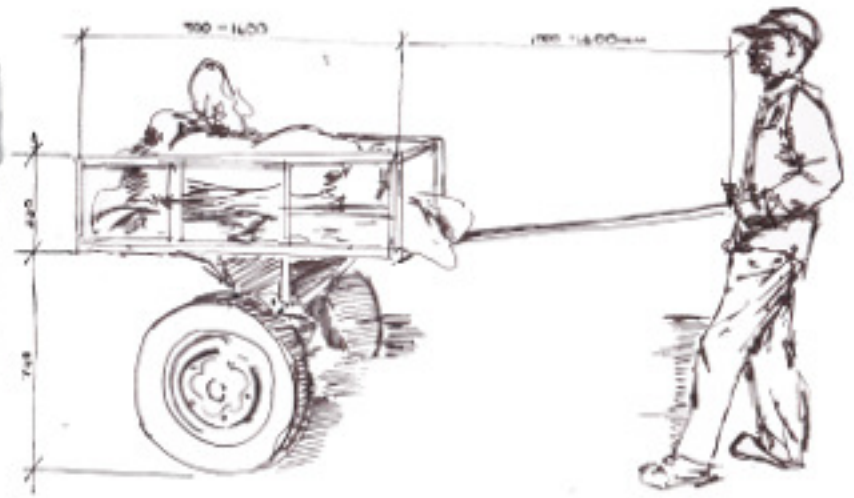


Figure 3.49. Dimensions of a tchova sketch by author 2011.



Figure 3.47. Tschova rental store, Combatente Photograph by Author 2011

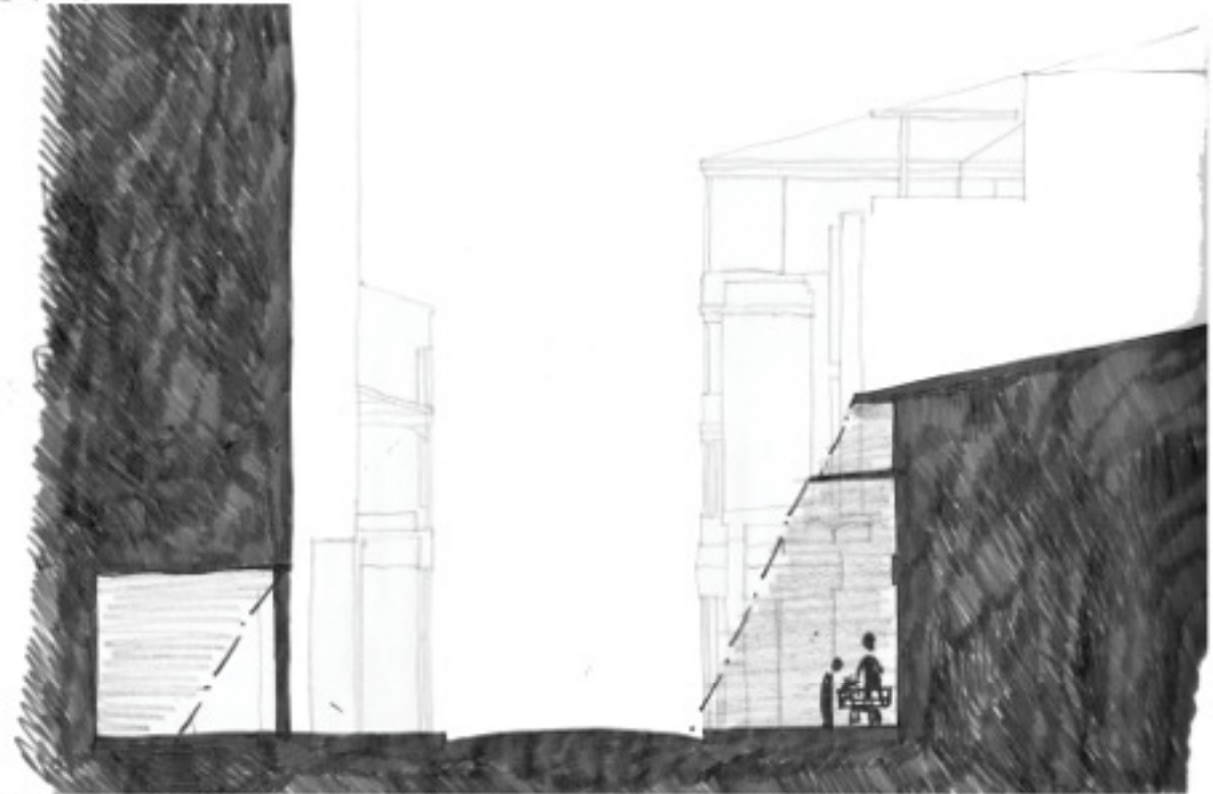


Figure 3.50. Sectional diagram showing the positioning of tchova salesman. Diagram by Author 2011



Figure 3.51. Photograph showing the enclosure and domination of Rua de Bagamoyo by uncontrolled parking.

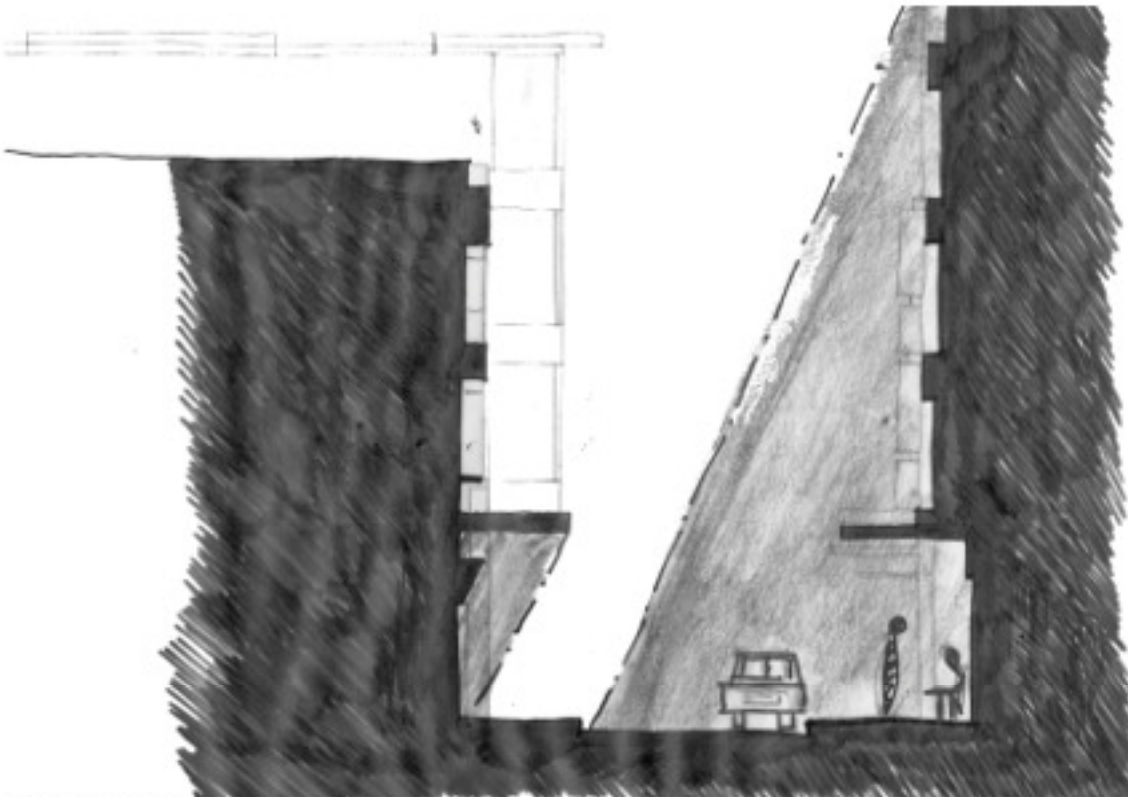


Figure 3.52. Sectional diagram showing the relationship between the vehicles a space defining element and the position of a vendor. Diagram by Author 2011

3.7.4 VEHICLES

There is little provision for parking within the Baixa resulting in the sidewalk and street edges being used for parking. Heavy duty vehicles are loaded at the warehouses in towards the north of the street where they are often left overnight and parking occurs throughout the street during the day. The position of a parked car becomes a solid threshold and barrier in the creation of a "room". As mentioned in the study of the static vendor, the relationship between the vendor and position of the vehicle determined how the nature of the pavement is used.

Uncontrolled parking creates an absence of pedestrian walkway on the pavements at some points. These areas the vehicle becomes a hindrance to street-life and activity by restricting pedestrian movement.



Figure 3.53. Photograph illustrating the spatial defining characters of a parked car. Photograph by Author 2011.

3.7.5 SEX WORKERS

The most prevalent evening informal vendors are the sex workers. These ladies occupy recesses in the fabric of the street. Generally they occupy the areas that are protected, in recesses in facade or in areas with a lower arcade height. Many bring chairs on the street or they sit along shop-front ledges or flood barriers. The street has a reputation for being the place where this user is most prevalent.

The ladies only occupy the recesses when they are not moving and soliciting trade. Generally they will sit and watch the passing pedestrians until they notice someone take interest, only then will they approach a potential client.

In the night clubs large mirrors on the dance floors are used to watch for potential clients. this way a lady can dance and entice a potential client and survey for interest. This ritual of solicitation becomes an indirect conversation through movement and facial expression. The nature of the city as a port city, means language is not consistent between the ladies and the potential clients, a visual and figurative communication is necessary.

To illustrate the nature of the client- sex worker engagement a study was done through observation at the Copa cabana night club on Rua de Bagamoyo at the intersection of Rua de Mesquita. Where questions were asked informally of the club owners, waiter and sex workers, from the perspective of a potential client (one of the male Eduardo Mondlane Students assisted in this endeavour) and from the perspective of a curious tourist (played by the author). This was not done in an official survey fashion due to the sensitive nature of sex-work, and the illegality of it.

The ground floor provides a bar a dance floor a few tables and two platforms for dancers, the dancers are hired by the club, they do a strip show but only to their underwear. They are professional dancers and do not engage in sex-work. The ladies that dance on the dance floor are the sex-workers they also

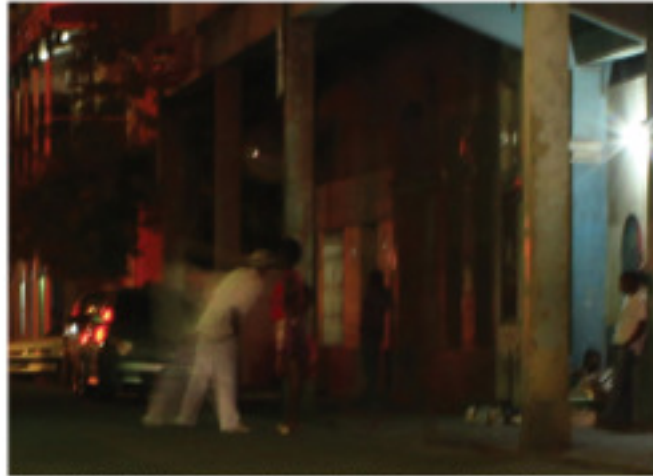


Figure 3.56. Photograph showing the sex- worker client interaction. Photograph by Author 2011



Figure 3.57. Photograph showing street occupation at night. Author 2011

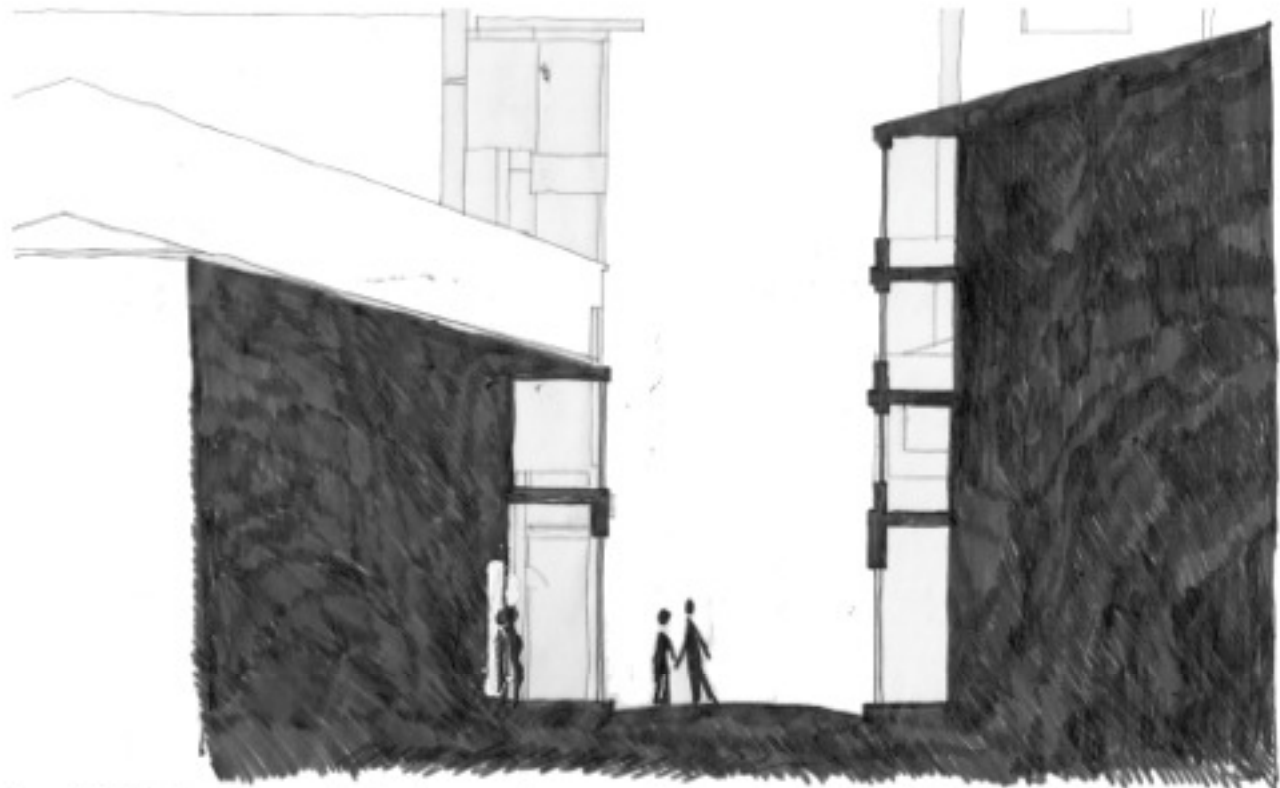


Figure 3.58. Sectional diagram showing the sex workers occupying the recesses in built fabric. Diagram by Author 2011

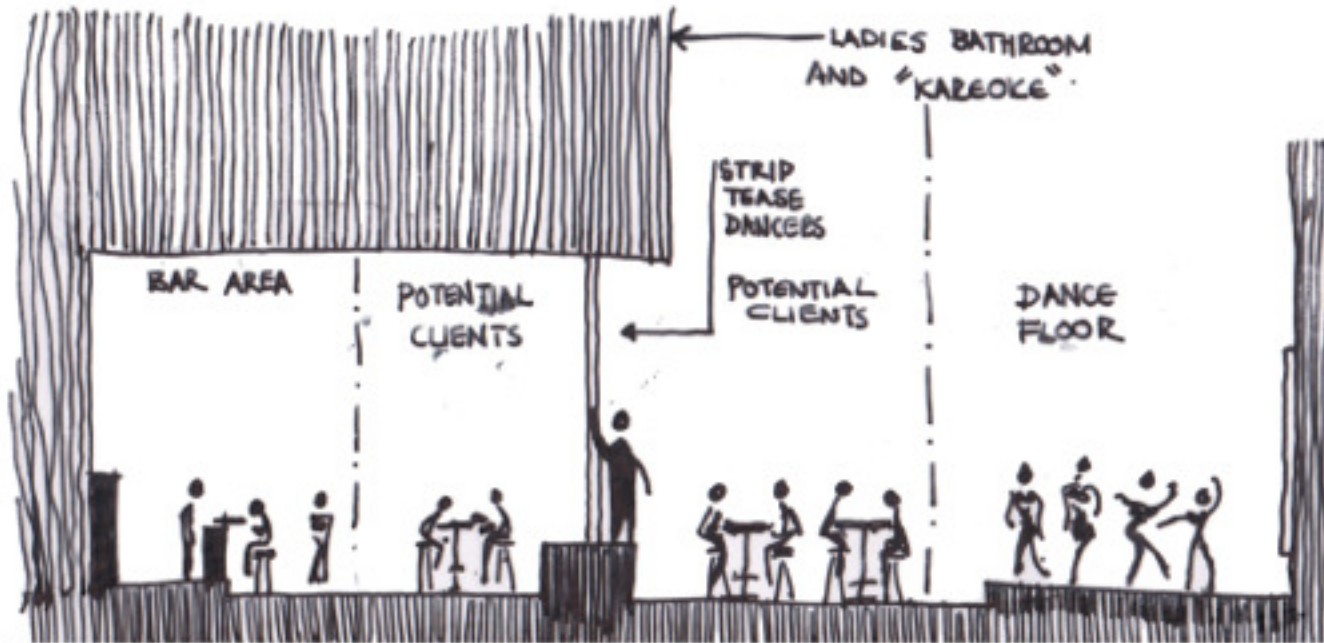


Figure 3.59...Diagram showing the spacial layout of the Copa cabana strip tease bar. Diagram by Author 2011

perform a strip show and they remove everything but in their own capacity for acquiring clientele. The club does not hire or control the movements and business activities of these ladies but does hire out a "karaoke lounge" which is situated on the first floor adjacent to the ladies bathroom. The hotels in the street provide the same service.

Through informal discussion it became apparent that the sex-workers are autonomous in their business engagements and utilise the services provided by the hotel and night- clubs but are not obligated to or managed by the owners of these establishments. It is a mutually beneficial relationship, where the street activity is renowned for the sex-trade bringing business to the night clubs. The night clubs and hotels provide support for the sex-workers.

The upper four floors of the Copa Cabana building consists of offices that have been converted to apartments for use by the dancers, waiters, bar staff and security employed by the club.



Figure 3.60. Photograph showing the position of the Copa Cabana Photograph by Author 2011



Figure 3.61. Sketch showing the sex-workers use of reflective surfaces to indirectly look for clients. Author 2011



Figure 3.62. A sex worker hiding her face from the camera. Photograph by Author 2011.

3.7.5 MOBILE VENDORS AND PEDESTRIANS

Mobile vendors sell anything from airtime to chewing gum, and move throughout the Baixa following concentrations of people. During the day they congregate in the public squares and move along the sidewalks looking for trade opportunities. In Rua de Bagamoyo they sell predominantly beauty products and airtime during the day, and at night the children sell crisps, chewing gum and cigarettes in the street. Mobile nail parlours also exist, which is a man who carries different colour nail varnish and some acetone, and does a sort of manicure and pedicure for a very small fee.

Pedestrians bring energy and vibrancy through the street, pedestrians on a pavement are in transition from one place to the next. The pedestrian takes ownership only in passing and only owns the piece beneath his feet at the moment he takes a step. Vendors and formal retail activities try to attract his attention. Areas with a higher arcade height allow for a slower moving pedestrian where lower volumes feel more crowded and people tend to move quickly through these spaces.



Figure 3.64. Mobile Nail parlours.. Photograph by Author 2011



Figure 3.65. A trader sells cooked food using mobile cooking equipment. Photograph by Author 2011

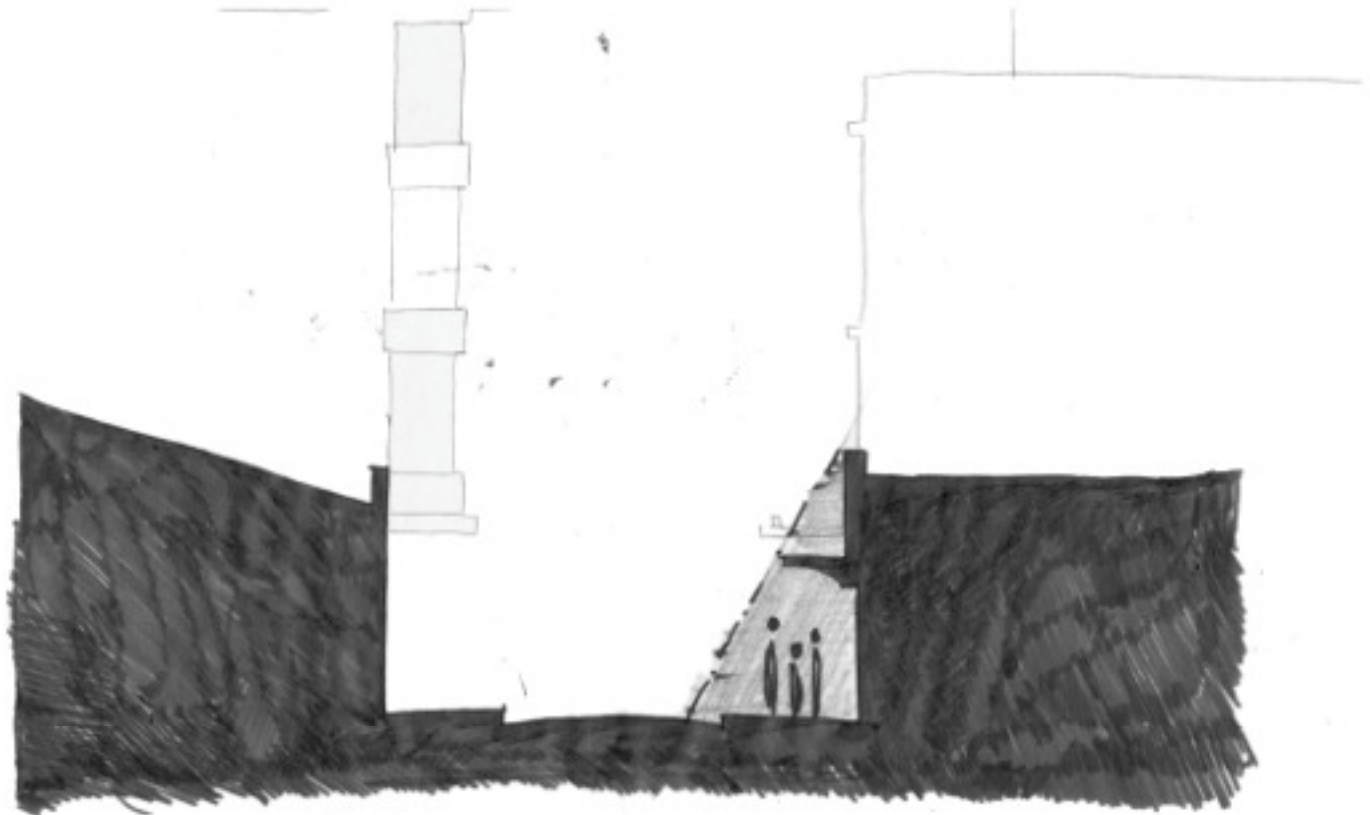
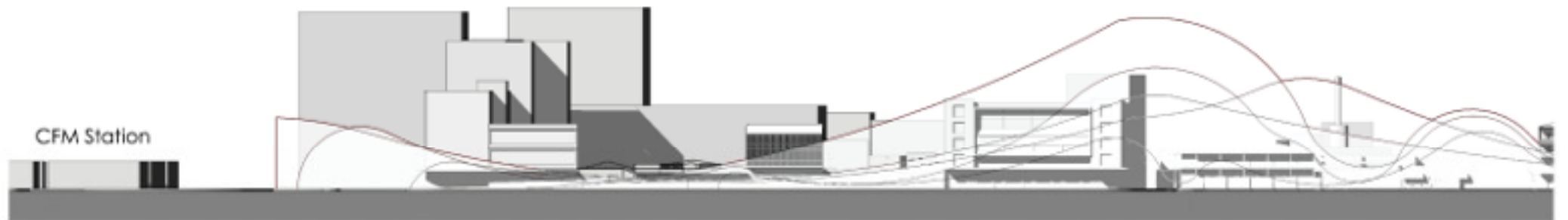


Figure 3.66. Sectional Diagram Showing pedestrians preference to walk on the northern side of the street in great building shadows. Photograph by Author 2011



Figure 3.63. Photographs showing pedestrians. Photograph by Author 2011



3.8 HARMONIC ANALYSIS

For theoretical basis refer to section 2. 7 for urban application refer to section 5. 9

INTRODUCTION

Harmonic analysis was conducted in terms of light, sound and activity, these three elements then are harmonics of the complex energy contained in Rua de Bagamoyo. The harmonics are not regular multiples in space and will need to be manipulated to create equilibrium.

The energies were mapped during the day and at night to show the differences in energy and how this changes over a 24-hour period.

The highest concentrations do tend to coincide, sound being part of the way human energy is expelled and light providing a place for



Figure 3.67...Graphic Modelling of Light, Sound and Activity harmonics. Photograph by Author 2011



Figure 3.68...Street lights suspended and attached to buildings
Photograph by Author 2011



Figure 3.69...Standing street lights on poles. Photograph by
Author 2011



Figure 3.70. Lights in arcades light the pavement .Photograph
by Author 2011





Figure 3.71. Signage as lighting Photograph by Author 2011

congregation.

3.8.1 LIGHT

The differences between day and night light occurs not only in the abundance of natural light from the sun during the day and the lack thereof at night, but also in the manner in which light is directed and affects the urban form. How buildings respond to the sun during the day and how they provide light during the night are then key in how the city reacts to its environment socially and climatically.

DAY TIME:

The sun is a single source of light, this light is then produced external to the built form, but this source is not static as the diurnal cycle the sun moves across the sky resulting in the formation of shadows at different points in the street and which that the movement of activities and collections of people regarding the position of the shade.

Arcaded structures in the public realm benefit the public in the creation of shade.

The internal light quality of buildings then responds directly to the position of openings within the facades. The street is then more concentrated with higher percentages of full sunlight than the internal spaces of the buildings. This directly corresponds with the number of users in the buildings vs those within the street, and corresponds to the public-private relationships as indicated in the Nolli maps fig.

NIGHT TIME:

The street is lit artificially from many sources, most of which are internal to the buildings as light spills out from the openings that during the day were collecting daylight. The light is then static, there is no movement of artificial lights and in the current functioning of the street the street is more occupied and is the main publicly accessible space. The collection of people now no longer corresponds to the position of shadows

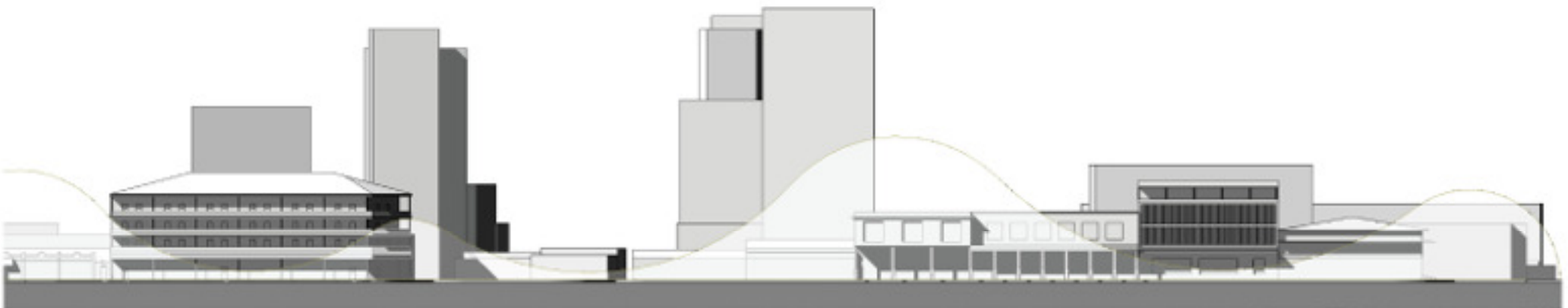


Figure 3.72. Photograph by Author 2011



Figure 3.73. View towards Mercado Central Rua de Mesquita. Showing proximity to the mosque Photograph by Author 2011



Figure 3.74 CFM train station and transport hub . Photograph by Author 2011



Figure 3.75 National School of Dance. Photograph by Author 2011





Figure 3.77 Night life activities where music is played.
Photograph by Author 2011

but rather to the security of a well lit area.

Artificial lights within the arcades create the safety beneath them.

3.8.2 SOUND

The transition of sound throughout a 24-hour period in Rua de Bagamoyo creates an experience of place. The day starts at sunrise with the call to prayer from the mosque which can be heard across the entire Baixa, the morning atmospheric sounds increase as traffic fills the city and pedestrians and traders enter the Baixa from the various transport nodes and travelling through Rua de Bagamoyo. Praca de Trabalhadores is a large transport interchange with rail transport meeting buses and a few chapas.

Once again the change in sound is marked by the midday call to prayer. Throughout the afternoon the dance school has classes with classical music reaching the entire central part of the street, overlapping the classical, car washers ply music with their cell phones towards the east end near Praca de 25 Junho into the early evening. The change is once again marked at sunset by the call to prayer. Late afternoon bars open as the sun sets playing various music. The intensity of sound increases as



Figure 3.76 Car washing business where music played from cellphones and radios. Photograph by Author 2011

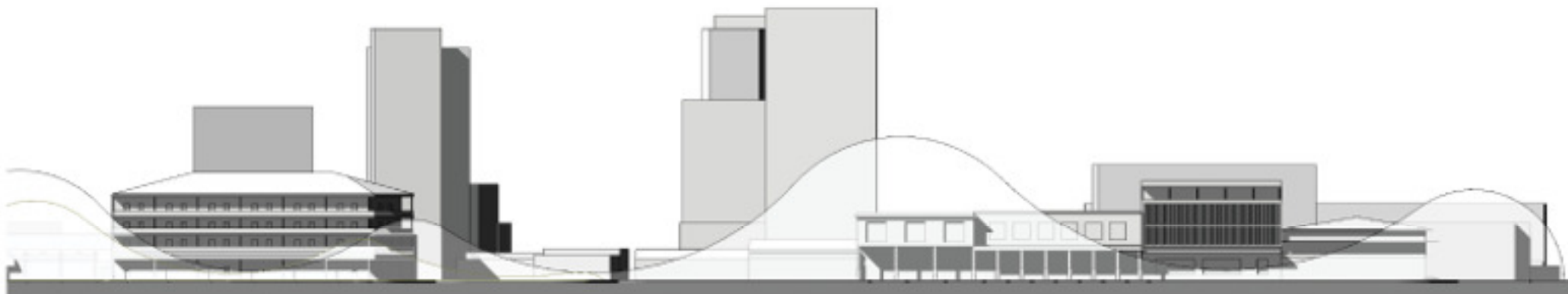


Figure 3.77 Harmonic Mapping of sound on the place.



Figure 3.78 Vendors sell food in the shade. Photograph by Author 2011

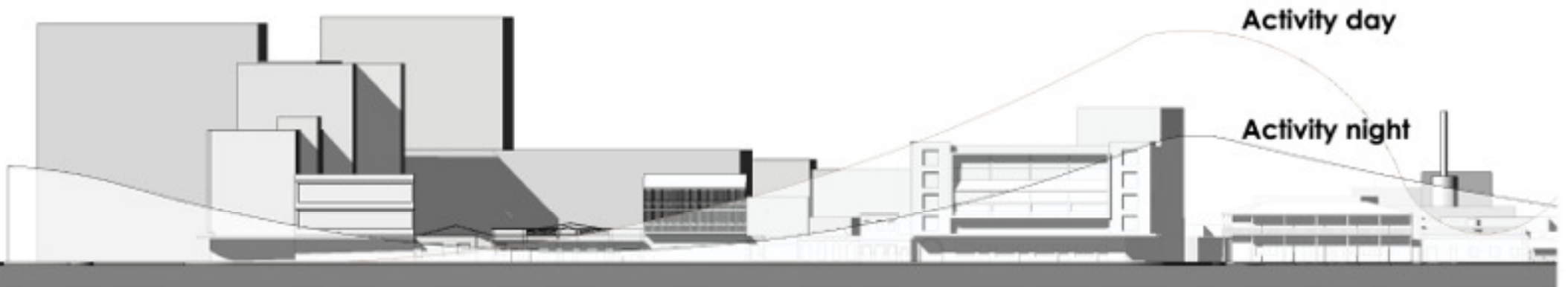




Figure 3.79 Night Vendors concentrated in well lit spaces Photograph by Author 2011

the night clubs open.

Late at night the night clubs control the sound on the street, which dies down towards the morning and as the last bar closes at around sunrise, the call to prayer is heard again, marking the new day.

3.8.3 ACTIVITY

Activity in general is determined by the programme in the buildings as well as the position of shade during the day. At night the activity is centred in well lit areas around the small pockets of active buildings. Sound and light draw the users into the centre of *Rua de Bagamoyo*. Very little activity occurs at the edges as the *Pracas* are vast expanses, the intimacy of street contains the activity.

Through programmatic analysis of the site it is clear that the existing functionalities that inhabit the existing built fabric are more conducive to daytime functions with small pockets of night time

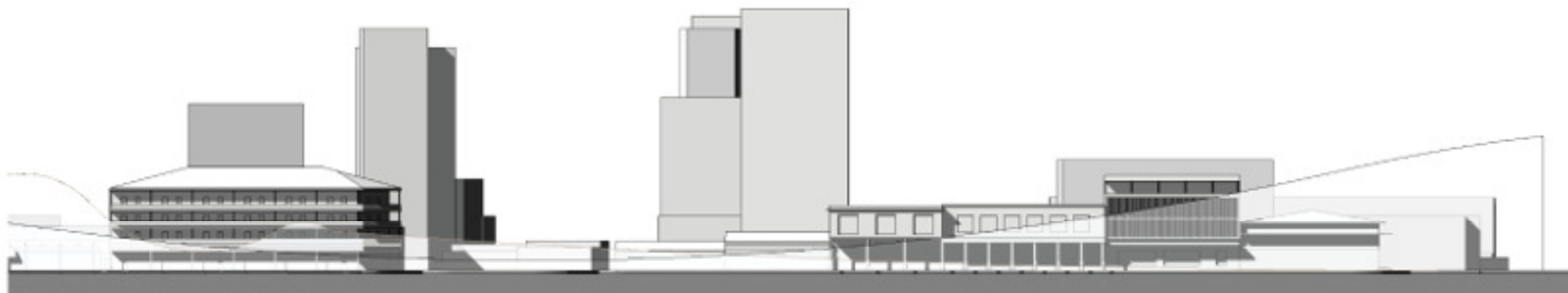


Figure 3.80 Harmonic Mapping of activity on place

activities but the most apparent factor within this environmental context is the change in light.

Generally during the day concentrations of activity happen in the shade and at night the same occurs in the light.

3.9 CONCLUSION

Analysis of the context indicates that the energy of the existing that can be activated consists of the existing entertainment facilities, night life activities, cultural functions and the perpetuation of an adult night time character.

Weaknesses noted would be the time of the day where there are no programmes to allow continuity of activity, as well as the abundance of abandoned buildings and vacant sites that provide no positive contribution to the character of the street.

Each section of the analysis raises its own concerns and responses. The aesthetic and visual contextualism gives clues as to the type of building to be constructed in terms of form, texture and scale. The heritage and photographic analysis promotes concerns for light, building-street interface and programme.

The analysis of the users communicates the same concern for building- pavement -street interface and the harmonics indicates a method of creating equilibrium using the existing energy to revitalise the street.