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The Contribution of Built Forms and Landscapes in Creating Vibrant Street Life.

Cases from CBD of Addis Ababa.

A Thesis Submitted To the School Of Graduate Studies of Addis
Ababa University in Partial Fulfilment for the Master of Science in
Urban Design and Development

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June 1, 2015

Addis Ababa

Declaration

I, the undersigned, declare that this thesis is my own and original work and has not been presented for a degree in any other university, and that all sources of material used for the thesis have duly acknowledged, following the scientific guidelines of the institute.

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Confirmation

The thesis can be submitted for examination with my approval as an institute's advisor.

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This thesis is submitted to the Ethiopian Institute of Architecture, Building Construction and city development (EiABC) and to the school of Graduate Studies of Addis Ababa University in fulfilment of all requirements for the degree of Masters in Urban Design and Development.

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ACRONYMS

A.A – Addis Ababa

CBD – Central Business District

EiABC – Ethiopian Institute of Architecture, Building Construction and City Development

FUPI - Federal Urban Planning Institute

LDP – Local Development Plan

Abstract

Urban planning and design have proven to be an important disciplines in shaping urban life styles, solving problems and giving new ways of living in the urban arena. There are a number of elements that manage the shape and the quality of urban environments. Quality of life in cities is affected by the negative and positive aspects of street activities and functions. The built form is one of the many variables thought to affect physical activity levels. It influences people's lifestyles.

Hence, believing the idea of creating good relationships between streets and their adjacent built forms is the main reason in creating better street life. The main objective of the research is to find out the impact of built forms and landscapes in creating vibrant street life. Therefore; the research analyses the Contribution of Built Forms and landscapes in creating vibrant Street Life by assessing different segment of streets found in the core of the city of Addis Ababa which believed to have a uniquely useful character aiming to learn from existing attributes, identify the gaps, and come up with a contextual urban design recommendations that help to create and maintain a vibrant pedestrian street life in order to make people feel friendly with streets and have some sense about the street they use more than having a concept of considering them as a corridor.

As streets are the main public space of the city, the research focus groups are all people who live in the city with special focus on pedestrians. The research uses the case study method by selecting four case study areas by using criteria that are: areas located in the core part (CBD) of Addis Ababa, street with width of twenty meter and above, selecting streets with low rise and high rise buildings, and also picking on streets that entertain different functions and activities, and finally picking on areas which are most frequently used. The case areas are found in Merkato, Beherawy and Piazza areas.

The research employs primary and secondary data. Data is collected by using randomly distributed survey questioners within the site. In addition to this, data has been collected from different experts and taken as input for the research. The approach or methodology for this research is the case study method based on qualitative and descriptive methods.

In this research, the value of vibrant street life is discussed And the current situation of the existing streets with their landscapes and built forms are analysed by using different criteria. It has made sure that built forms and activities within them have their own contribution in creating vibrant street life. In terms of scale, enclosure and proportion the research has identified that almost all of the case areas have a good sense of enclosure because of the scale and proportion of the adjacent buildings. Considering street frontage in terms of activity and comfort some areas are

found out to be not convenient for their users because of their over crowdedness but some areas are safe and comfortable to their users because they are diverse in activities and existence of arcade buildings and on the other hand in all areas the number of peoples use the street differ in different times of a day. But also the research found out there are dormant buildings which resulted inactive streets on some areas. In analysing the areas in terms of having clear demarcations for pedestrians all of them have demarcation but in a two different ways; one in a level difference the other by building arcades. In addition by seeing their visual attractiveness and cleanness the research has found a balanced result some have good qualities but some are not good in quality people go there just for necessary activity. In Landscape and street furniture we can say that there is Absence of adequate street furniture's and facilities in all areas basically they do not consider people with disabilities. In terms of being memorable it is been identified that diverse optional activities and unique features has a potential of making places memorable and easy to identify.

Therefore, the research has recommended maintaining the existing good qualities of the streets and to create sense of belongingness, liveable and more attractive; the street and adjacent buildings must hold diverse optional activities instead of necessity activities, should have attractive facades and mixed details, Visual connectivity, staggered built edges, proper Setbacks and proportional scale. Similarly streets must have Street furniture with a clear demarcation between pedestrian and vehicles and Provide easy access for people with disabilities. In general in order to see these design considerations it is recommended to create awareness and structural integration with in stakeholders about the benefit of creating vibrant street life.

CHAPTER ONE

INTRODUCTION

Addis Ababa is the capital city of Ethiopia. It is the diplomatic centre of Africa and the seat for many international organizations. Being the centre of the country, it is expected to play a wider role in economic, social, political and administrative perspectives.

Urban planning and design have proven to be important disciplines in shaping life styles, solving problems and giving new ways of living in the urban arena. The quality of urban life is one of the big goals that urban planning and designing tries to achieve. Urban public places are known to enhance the quality of urban life and enhance the social interaction of the residents. Social interaction is constructed from different aspects of culture; people learn how to behave through socialization.¹ Of course, there are different countries having their own different culture and perspective about public places. But most of the world's population have argued that public places are one of the major places to socialize in and enhance the quality of urban life.

Public space “(narrowly defined) relates to all those parts of the built and natural environment where the public has free access. It includes: all the streets, squares and other rights of way ... the open spaces and parks; and the ‘public or private’ spaces where public access is unrestricted.”² In this research the study focuses on streets, built forms and landscapes and their contribution to the quality of street life. Street is a multi-functional space, providing enclosures and activity, as well as movement. In Addis Ababa Context Street is also a living space for beggars, a place to work, sleep, shop and also a place for self-employment. So for this type of society streets treated as an area of public realm that provide interactions and activities. Le Corbusier³ said a house is a machine for living. But in our city context not only the house, but the street also is a machine for living. So, for this kind of society, public places are one of the major places to interact and enhance quality and life style.

The quality of life in cities is affected by the negative impacts of street activities and function. Street and its activities are mainly influenced by environmental factors including the physical, social and economic movement of the area. The built environment is one of these environmental

¹ Bennet, Milton, J -1998, Basic Concept of Intercultural Communication.

² Carmona et al, 2007, public places and urban spaces, the dimensions of urban design.

³ Le Corbusier (1887-1965); painter, architect, city planner, philosopher, author of revolutionary cultural manifestos.

factors that influence lifestyles. The built environment is defined as any element in the physical environment that has been built by humans, for example road, buildings, infrastructure, and parks. The built form is one of many variables thought to affect physical activity levels; it influences people's lifestyles. This study tries to analyse the contribution of built forms and landscapes in creating vibrant street life, in the case of Addis Ababa.

1.1 STATEMENT OF THE PROBLEM

Streets are the major public spaces of a city. Streets, their sidewalks and the adjacent building treatments are the major factors that affect the mood or the situation of a specific area. As Jane Jacob⁴ said (1961) “Streets and their sidewalks, the main public places of a city, are its most vital organs. Think of a city and what comes to mind? It is streets. If a city street look interesting, the city looks interesting; if they look dull, the city looks dull.”

But when we come to our streets which are found in Addis Ababa most of them are not encouraging the pedestrian movement and they are not responsive⁵. It seems like most of our streets are meant to be or designed for vehicular traffic and only as specific buildings entrances. In most places the streets, their sidewalks and the adjacent built forms are not welcoming to stay, and do not encourage to take some time for refreshment. Instead of being solid figure to attract people, they force the public to stay in or push them away. Because of this the public does not have a place outside buildings to sit and chat even not being given the chance to admire the environment. Even in most cases people use the streets simply because they have to use them rather than using them by preference.

But streets and their sidewalks offer many benefits for the dwellers: these spaces create opportunities for all to meet, to play or simply to hang out (for the poor or for the rich, for the child or for youngsters or elders). As streets are three dimensional public spaces, they cannot be separated and be seen without the buildings or buildings without the streets; they are inseparable because they define each other. Basically these places make people visualise and have a good understanding about their environment. This contributes to the public in giving sense of place and in making a choice as to where to go or where not to.

So, believing the idea of creating good relationships between streets and their adjacent built forms is the main reason in creating street life. The study analyses the contribution of built forms and streetscape by assessing different segment of streets found in early and recent development areas in the core of the city which is believed to have a uniquely useful character.

⁴ Jane Jacobs was an American –Canadian journalist, author, and activist best known for her influence on urban studies.

⁵ Responsive environment is the idea that the built environment should provide its users with an essentially democratic setting, enriching their opportunities by maximizing the degree of choice available to them. For more information see the book *Responsive environment*; Ian Bentley et al, 1985

Key words: **Street; built forms; landscapes; vibrant street life.**

1.2 OBJECTIVES OF THE STUDY

General Objective

- **To create a vibrant street life.**

The general objective of the research is to evaluate the existing situation of streets with their immediate built form and landscape with respect to quality pedestrian life in selected core areas of the city, based on this, to come up with recommendations that help create and maintain a vibrant pedestrian street life.

Specific Objective

- To assess what kind of street life and character exist in the core area of the city of Addis Ababa.
- To assess the contribution of built forms, landscapes in the street life, then find out the difficulties and opportunities that exist in the core areas of the city of Addis Ababa.
- To investigate the social, economic and environmental value of introducing a vibrant street life in the city.

1.3 RESEARCH QUESTION

- What kind of street character and street life does exist in the CBD of Addis in relation to the built form and landscape?
- What merits and difficulty exist in the streets of the CBD of Addis in relation to pedestrians? What solutions do pedestrians suggest?
- What does the perception and contribution of urban designers, implementers and urban managers about the issue look like? What needs to be improved with respect to design, regulations and implementation?

1.4 APPROACH or METHODOLOGY

In this paper, the concept of creating vibrant street life will be reviewed and attempts will be made to draw lessons. Then case areas will be selected to compare and contrast. So, basically the research will follow the case study approach and primary and secondary data collection methods like observation, interview, mapping and document review. The approach or methodology is based on qualitative and descriptive methods.

1.4.1 Project phase

The Thesis is divided into six chapters.

Chapter 1 – Introducing the research

This chapter gives a brief introduction to the issue of the study which is “the contribution of built forms and landscapes in creating vibrant street life in the city of Addis Ababa”. It describes the problem that the research addresses, its objective, the research questions, scope and limitation of the study, methodology and the description of the selected case areas.

Chapter 2 – Theoretical background

This chapter covers important literatures with regard to the creation of a vibrant street life. The definition of streets, public spaces and how the built form and the landscape can influence the street activity and other related issues according to different scholars is reviewed here.

Chapter 3 – Case study

The case study part consists of a brief introduction about the selected areas and the selection criteria of the study with their historical background. Synthesis and contrasting the different case areas is conducted here. It synthesizes the general physical character of the area with regard to the built form and landscape in the street. Data collection (primary and secondary data) and the interpretation of the data will be done in this part.

Chapter 4 – Analysis

This chapter presents the analysis of the data collected.

Chapter 5 – Findings

In this chapter by analysing the whole study the research finally discusses the findings and conclusion of the study.

Chapter 6 – Recommendations

This chapter contains contextual recommendations based on the findings of the study.

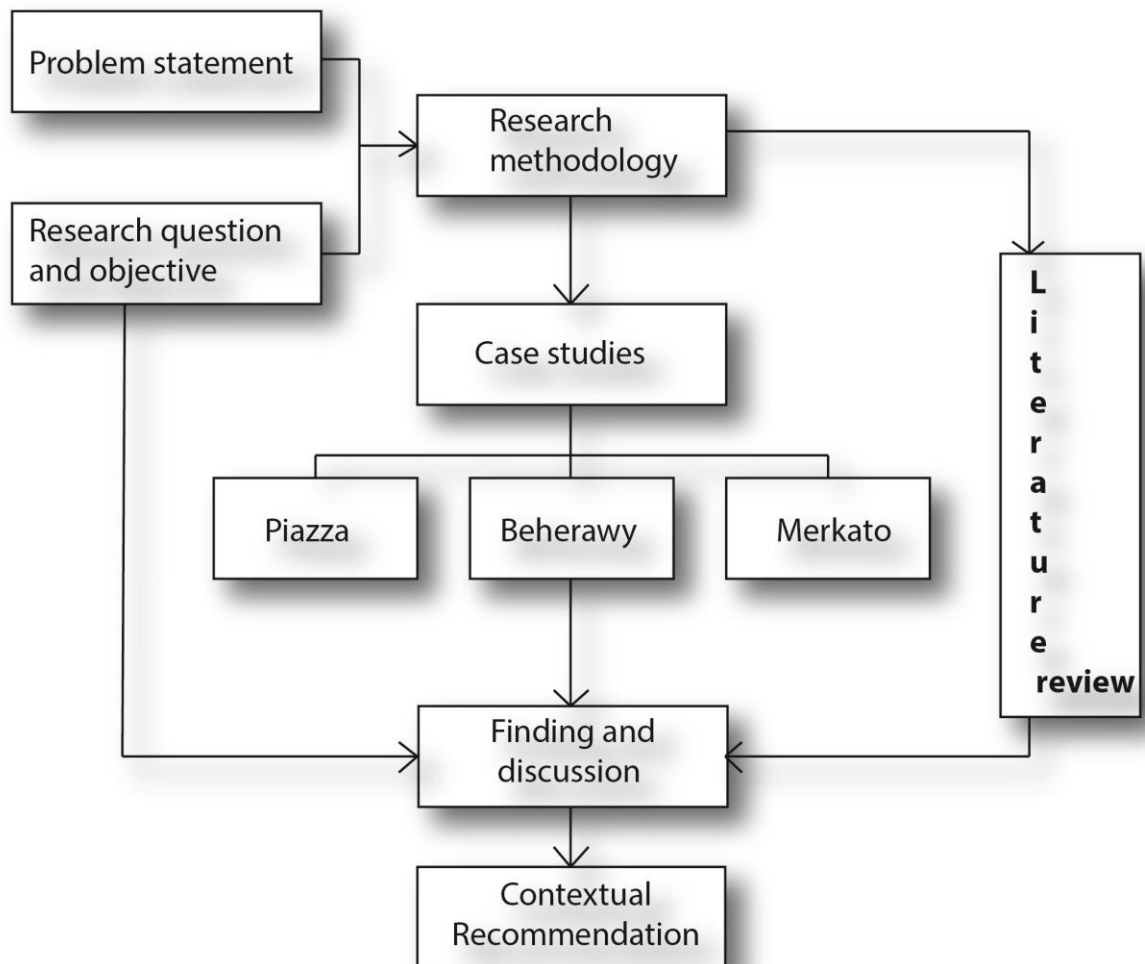


Fig1: - shows the study flow chart

1.4.2 Data collection method and source

To analyse the contribution of built forms in the street life the research used primary and secondary data.

Primary data

- Site observation
- Questionnaires for the user in the selected case study areas
- Questionnaires for urban designers and officials (master plan office, in sub-city LDP experts, from FUPI and from Addis Ababa Road and transportation office)

Secondary data

- Satellite images
- Different documents from offices and previous researches

1.4.3 Sampling technique

The method that was chosen for this research was the random sampling method. The first reason for selecting this method is the challenge of identifying and categorizing a highly diversified group of people passing by with varying numbers and purposes at different hours. The second reason is the limitation of time given for the research. This technique is also selected because it's difficult to collect data by using other methods. Because other sampling methods are required more time to make stratified according to age, gender, education and religion.

1.5 Scope and limitation

This paper deals with problems that are related to streets and the adjacent built forms in creating a vibrant street life in the city of Addis Ababa. As we all know Addis Ababa is a big city and the research is also expected to be completed in one academic year; the researcher can not analyse and see the entire areas of the city street activities. So the paper focuses on selected case areas in the CBD of Addis Ababa which are mixed streets and found in the central and significant part of the city.

In doing so the paper only concentrates on seeking information about street activities, landscapes and forms which are formed by selected streets and their adjacent built forms.

1.6 Significance of the study

Addis Ababa is one of the urbanizing and growing cities in the world with a multicultural population. It also has an outdoor culture of spending time and celebrating different religious and cultural ceremonies together. Therefore, creating and showing the positive aspects of street life in relation to pedestrian convenience in the city is mandatory.

The significance of this study is to provide valuable information for the issue under study and maybe use it as an input for future researches, to show the potentials and limitations of street life in creating a vibrant street life in the city and forward possible solutions and recommendations to encourage developers, designers, as well as decision makers.

1.7 Site selection Criteria

The sites that were selected for case study were selected based on the following selection criteria;

- Areas with location in the core area or CBD of Addis Ababa.
- Areas with streets that having low rise and high rise buildings and at the same time having more than 20 meters width.
- Areas having streets with better physical setting and streetscape.
- Areas having streets with better vistas and views, street furniture, green area.
- Areas having streets with different functions and street activities (mixed streets).
- Areas which are most frequently used.

1.8 Description of the Case Study Areas

Based on the above criteria the case areas are selected from the central and core part of the city of Addis Ababa. when the general assessment is done, the study can't be done in only one or two case areas exclusively because there are diverse characters in different parts of the central business district area which cannot be found in one street only. Every street may have its own unique character which may not be found in other areas. So the researcher had to choose different pocket of streets to be able to gain a wide range of experience.

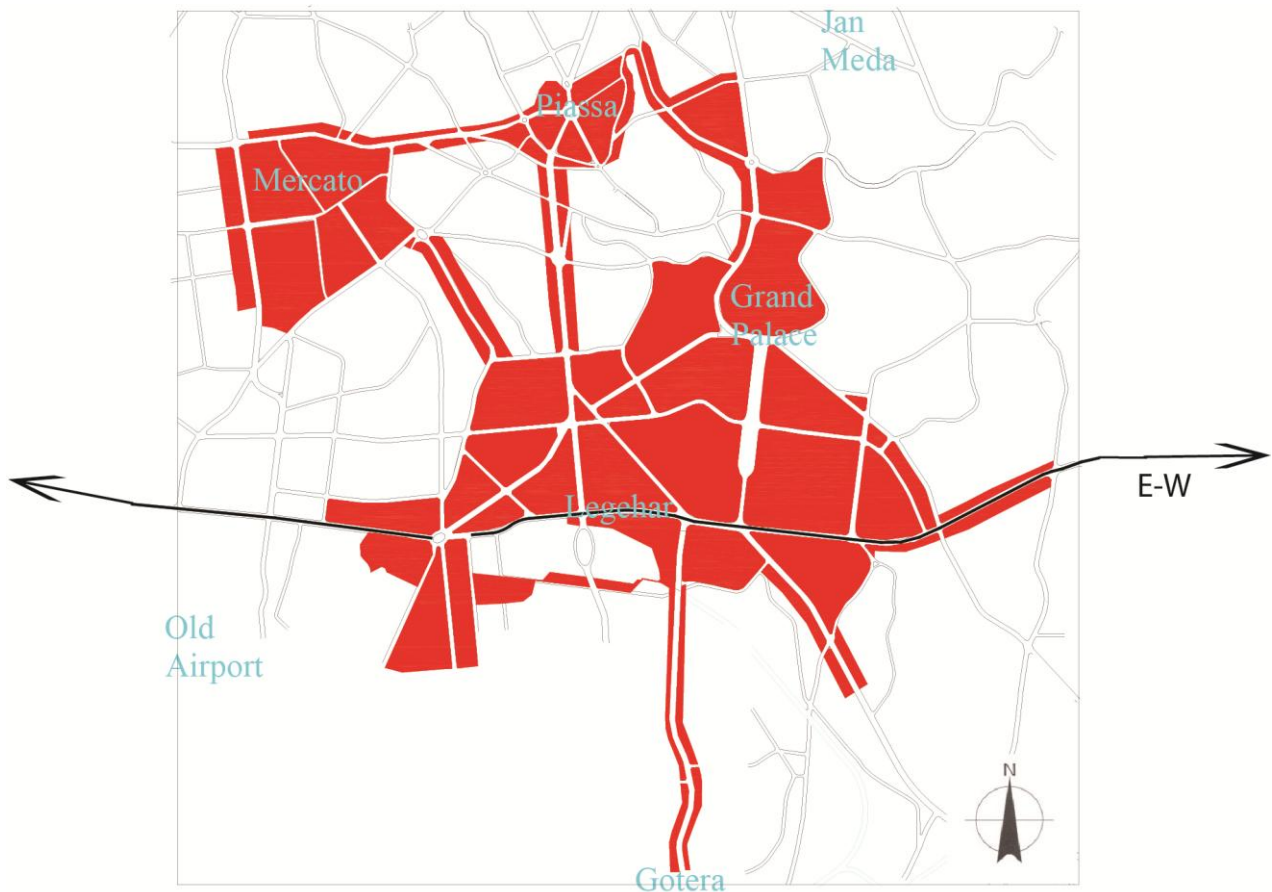


Fig 2: shows the core part of the city of Addis Ababa.



■■■■■ **Firest case area in Beherawy**

The Street lies on the Churchill road which is the major street connecting from legare to piazza.

1. Andinet (unity square)
2. Beherawy Theatre
3. Ethiopia Hotel
4. Ras Hotel
5. Commercial Bank
6. Legahare



■■■■■ **second case area in Piazza**

The Street is located around piazza area specifically on cinema Empire to Meconenoch Bridge.

1. Ras Mekonen bridge
2. Recent developed area (Basha Welde chilot)
3. Arada building
4. Cinema Empire



- 1. Anwar Mosque
- 2. Raguel Church
- 3. Military tera
- 4. America geby

- 5. Adarash
- 6. Addis Ketema High school
- 7. Bus station
- 8. Yerga haile Mall

These two case areas are found in Merkato. The third case area is located in front of Anwar mosque. And the fourth case area is also located near to Anwar mosque in front of Raguel church locally known as military tera area.



Fig 3: shows the selected case areas.

CHAPTER TWO

2.1 THEORETICAL BACKGROUND

Introduction

This part of the research presents a literature about the key words of the study. There definition, character, quality, benefit will be discussed.

According to R T Lonsdale ⁶Urban design describes the physical features that define the character or image of a street, neighbourhood, community, or the City as a whole. Urban design is the visual and sensory relationship between people, built environment and natural environment. The built environment includes buildings and streets, and the natural environment includes features such as water bodies, mountains, open spaces and parks as they shape and are incorporated into the urban framework. From these elements of urban forms the research tried to review literature on significance of a street and vibrant street life in creating a better life style in the society.

2.1.1 Street

According to Clif- Moughtin, (2003) analysis the street is taken as an enclosed, three-dimensional space enclosed on opposite sides by buildings. They may or may not contain roads. Road is a two-dimensional ribbon, running on the surface of the landscape, carried over it by bridge or beneath by tunnel to reach some end of journey. The emphasis is on movement between places. The street is not only a means of access but also an arena for social expression. ⁷

“Street and their sidewalks are the main public places of the city. Streets in cities serve many purposes besides carrying vehicle and city side walk, where they may serve many purpose besides caring pedestrians. (Jane Jacobs, 1962)⁸. She also illustrates streets by saying ‘think of a city and what come to mind are its streets. If a city’s streets look interesting, the city looks interesting; if they look dull, the city looks dull.’

⁶ R t Lonsdale, 2008, Urban design element.

⁷ Cliff moughtin, 2003, Urban design, street and square.

⁸ Jane Jacobs, 1962, the death and life of great American cities.

A Street is more than a path that people use to go from one point to another. Instead it has multiple roles and is also a place of commercial and social encounter and exchange; it is a setting for activities that link citizen together. (Jane Jacobs, 1962)

Streets are the public realms which are not just for movement. The quality of this public realm can improve our quality of life and increase our desire to spend time in these places. How successful the public realm will depend on how it meets a wide variety of users' needs and how it fits with the surrounding area.⁹

In most historical and ancient cases, recreation for the general population has been conducted in multi-purpose neighbourhood places, such as streets, plazas, and empty lots. Informal settlements in modern developing countries, representing much of the world's newly created urban space, have trended in the opposite direction—the lack of planned open space forces transportation to share streets with a wide variety of social, recreational, and economic activities (Habitat, 1982).

As we see the above definitions and concepts a street is a public realm and also a heart of the city, it's something more than a simple pathway, it is a series of connected places, being somewhere for staying in and not just for moving through. For the strangers and also for the dwellers, Streets are the main areas where they can absorb the city while they are moving through them.

⁹ Llewellyn Davies, 2000, Urban design compendium.

2.1.2 ROAD AND STREET TYPES AND CLASSIFICATION

A. The Functional Classification of Roads

FREEWAYS: - These roads provide largely uninterrupted travel, often using partial or full access control, and are designed for high speeds.

PARK WAYS: - Parkways have the primary function of moving through traffic .they have typically 4 to 6 lanes with shoulders, these streets have wide landscaped medians, separate bike and pedestrian systems, and controlled access.

EXPRESS WAYS: - these are routes providing connections across the city. They have the highest traffic volume corridors and longest trip desired. They provide high mobility but limited access.

ARTERIAL STREETS: - Arterials are major through roads that are expected to carry large volumes of traffic. Arterials are often divided into major and minor arterials, and rural and urban arterials. Ideally they do not penetrate identifiable neighborhood.

COLLECTOR STREETS: - such roads connect local roads to arterials .They have moderate mobility and moderate access. They also Provide both land access service and traffic circulation with residential, commercial and industrial areas.

LOCAL ACCESS STREETS: - These roads have the lowest speed limit, and carry low volumes of traffic. In some areas, these roads may be unpaved. They provide direct access to neighborhoods, and offers the lowest level of mobility .They provide it has high access but limited mobility.

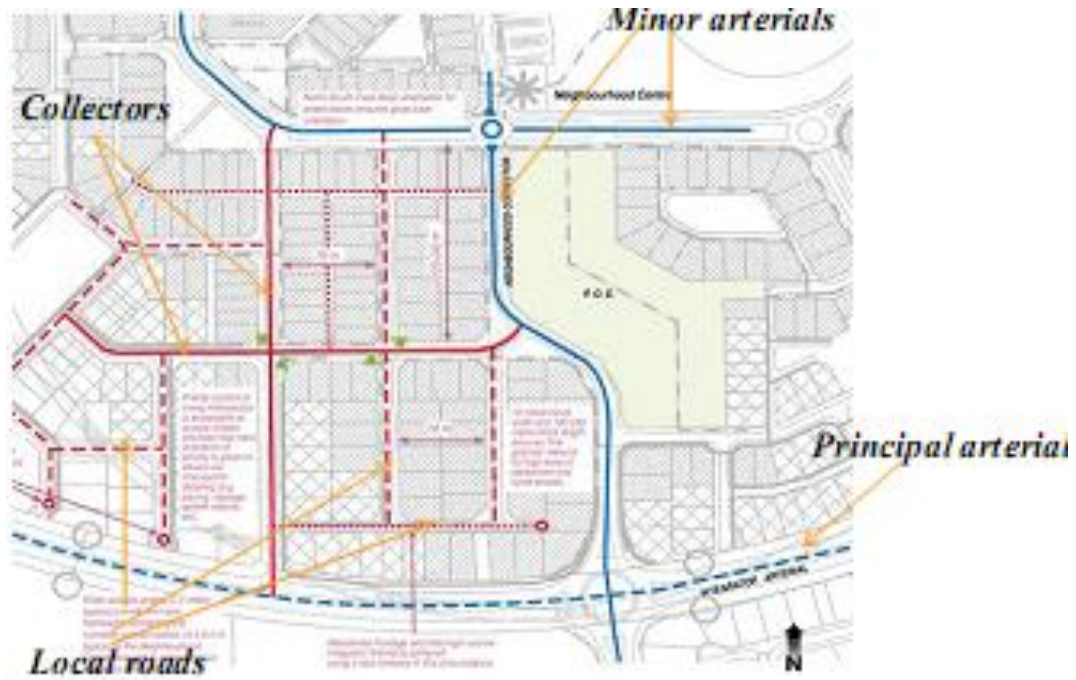


Fig 4 :- illustrates the functional classification of roads

B. TYPOLOGIES OF STREET

Commercial Streets -are designed to balance traffic mobility with land access. The surrounding uses of this type of streets are dominated by commerce.

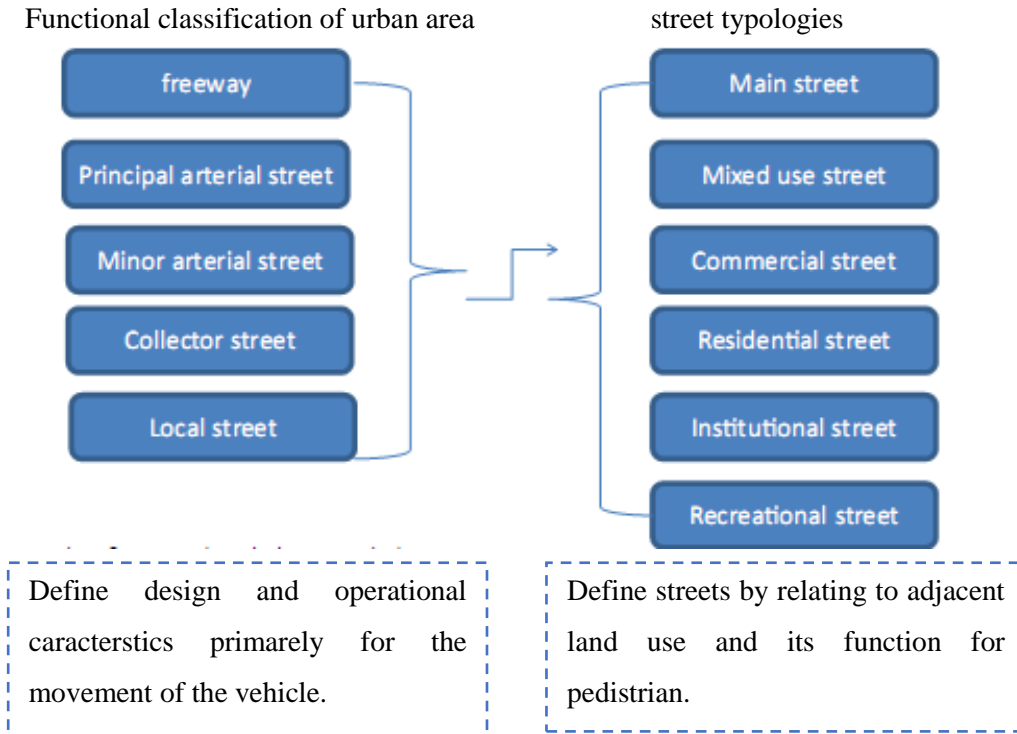
Industrial Streets -are streets designed to accommodate significant volumes of large vehicles such as trucks, trailers, and other delivery vehicles.

Landmark Streets- have a particular significance in city's history because of their influence on the unique physical character of the city.

Main Streets- serve medium intensity retail and mixed land uses including neighborhood centers. The streets are designed to promote walking, bicycling, and transit within an attractive landscaped corridor. On-street parking is usually provided with curb extensions, street trees, and wide sidewalks to accommodate street furniture and outdoor cafes.

Mixed-Use Streets- are located in high-intensity mixed-use commercial, retail, and residential areas with substantial pedestrian activity. They frequently provide on-street parking and wide sidewalks. One-way couplets exist as pairs of one-way streets that function as a single higher capacity street. The streets emphasize mobility over land access.

Residential Streets- can be local or collector streets provide a balance of multi-modal mobility with land use. Such streets place a higher priority on pedestrian and bicycle-friendliness than on auto mobility.



“Public” according to oxford Dictionary meaning- open to the people as a whole. “Space” again according to the same source is defined as an amount of room available or selected for a particular purpose. Putting the two together — “public spaces” means — a place not shut, outside of certain buildings open and available to all people for a particular purpose.

Space lies at the heart of the non-programmatic approach to settlement-making. It is not just one element of a settlement program, such as “public space” (as designated in town planning schemes), but should be approached as part of thinking about the whole Settlements. Public spaces are the meeting places of people in settlement. There also exists a continuum of spaces, which represents a transition from private more too public living. Public space, such as a street, square or a park, can be used as a device to interrupt built form, thereby creating visual diversity in the built environment.

“Public space (narrowly defined) relates to all those parts of the built and natural environment where the public has free access. It encompasses: all the streets, squares and other rights of way ... the open spaces and parks; and the ‘public or private’ spaces where public access is unrestricted.”¹⁰

In general Public space is all around us, a vital part of everyday urban life: the streets we pass through on the way to school or work, the places where children play, the local parks in which we enjoy, or simply somewhere quiet to get away for a moment from the movement of a busy daily life. It should be accessible and open for all of the community.

2.1.4 LANDSCAPES or STREETSCAPES

Landscape is basically formed of green spaces within an environment. However, it is not totally independent from the surrounding buildings and structures. Altogether, they form the character and identity of a city, and sense of place. It contributes to the cityscape by means of aesthetics and function.¹¹ Urban landscape also contributes to the cityscape in terms of visual quality and also supports urban ecology.

Streetscape is the term given to the collective appearance of all buildings, footpaths, gardens, and landscaping along street. Urban streetscape helps to balance human-scale in city centers where vertical effect of buildings and structures dominates. It softens the “hardness” of buildings and structures. Well designed and managed urban landscape can improve citizens’ quality of life in many other ways as well.

The streetscape may include a variety of elements and has three major zones; the sidewalk or pedestrian zone which is the front space of the buildings where pedestrian can freely access and interact; the parking zone where a space for cars to stop; and the vehicular zone as its name indicates it allows for the movement of motor vehicles. But the research is focused on the sidewalk zone which belongs to the pedestrians’ .and the area where the public can meet and interact with each other freely.

¹⁰ Carmona et al, 2008, public place urban space.

¹¹ Murat Z.Memluk, Urban landscape design.

A. Components of streetscapes

Streetscapes are basically found in between the built forms or buildings along the sidewalk and adjacent to the street. They provide a landscape in the sidewalks which is a pedestrian zone.

Landscape strips and Trees- Landscape strips are effective treatments between sidewalks and streets to create a buffer between vehicle movement areas and pedestrian movement areas. They also provide space for street furniture in the walkway, creating comfortable feelings for the public to walk along the street. Trees have many benefits besides this. They also have a benefit for urban ecology.

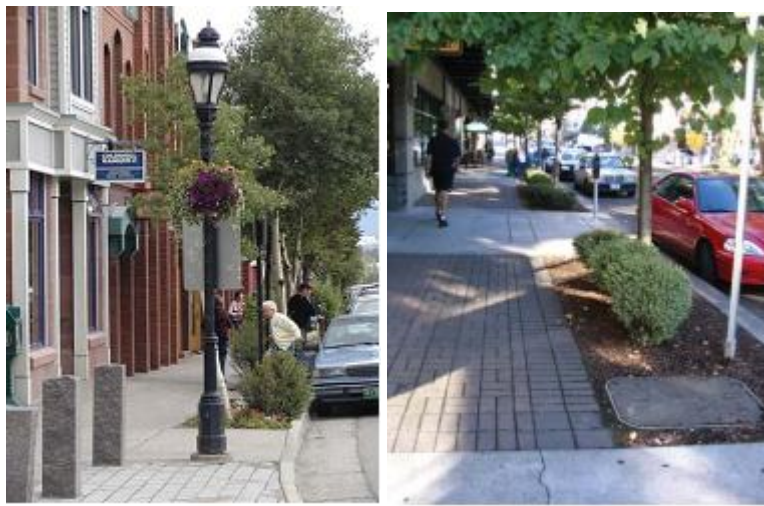


Fig 5:-figure showing an example of landscape strips along the street.

B. Street Furniture

Street furniture is a collective term for objects and pieces of equipment installed on streets for various purposes. It includes benches, bollards, phone boxes, street light, traffic signs, bus stops, taxi stands, public arts, and dust bins.

SEATING

Waiting and resting areas along walkways provide welcome relief to pedestrians, and a place to sit together, interact, and observe the surrounding environment.



Fig 6 :- shows an example of seating areas along the street.

DUST BINS

Intentionally located dust bins can help to keep areas clean and attractive for the users. And it is advisable to locate them near to active nodes like taxi waiting areas, around building entrances, and around sitting areas.



Fig 7:- shows an example of dust bin in the sidewalk.

PUBLIC ART

Public art can help establish a unique identity, enhance civic pride, illustrate a cultural or historic event, and add interest to public spaces .public art can includes unique signs, pavement design, banners and sculptures. Public art can encourage pedestrian to stop, engage and admire their environment.



Fig 8: - shows an example of public arts.

BOLLARDS: - Bollards are short poles or pillars mostly located adjacent to the street and their purpose is to prevent the movement of vehicles onto sidewalks.



Fig 9: - shows an example of bollards along the street.

Lighting -Lighting of the street system is one of the most useful utilities in creating safety and comfort in street life.



Fig 10:- shows an example of lighting on the street.

2.1.5 BUILT FORM

To start with a simple definition as world web Wikipedia dictionary meaning “built” means a Stable forms especially buildings and, “form” is the special arrangement of something as distinct from its substance it can be shape, arrangement or pattern.

‘Buildings’ are the immobile masses of a city. Arrangements of buildings form patterns of mass and urban spaces which exist as patterns of channels and reservoirs.¹² So in general built form is the shape or the arrangement of buildings.

“The arrangement of building forms has a lot of different typologies in order to provide possibilities for different necessities of urban form. The formation process of the building form may be related with the use, building density, construction cost, maintenance cost, architectural style, expectations of political or development actors, natural or topographic features, existing implementation plan conditions that restrict the building plot and building density. Moreover, the ideology or vision of the architecture determines the design of the building form.”¹³

¹² Donald Watson et.al, 2003, Time saver standard for urban designers.

¹³ Ugur bozkurt, 2004, the morphological character of the block structure in central Areas.

A. How Buildings Define Streets

As discussed in the literature we cannot analyse streets without buildings, according to Clif- Moughtin's (2003) definition a street is an enclosed, three dimensional public space between two lines of adjacent buildings.

“Successful urban space is defined and enclosed by buildings, structures and landscape. The relationship between buildings on a street, and between buildings and the street, are the key to this”.¹⁴Open spaces should be an integral part of the design and not left overs.

For buildings; to give positive definition to the shape and function of outdoor spaces or in our case the streets they must be designed to encourage a range of activities to take place. Buildings can contribute to the public domain in many ways - encouraging people to meet, talk and stay and admire the place.

B. Building Lines

A strong building line in an urban area promotes continuity of frontage and provides definition and enclosure to outdoor space. Buildings facing onto, and addressing public open spaces create a sense of ownership.

Discontinuous and disrupted building lines produce less active and safe environment within an urban setting where by the connection between the buildings and pedestrians lacks direct close watch.

C. Density

Density is one aspect of built form. Building height, block size and building typology will all affect the character of an area and the perceptions of density.¹⁵

As described in the book urban design compendium the concept of density in the recent moves is created by assuming to create more sustainable cities and towns that offer a high quality of life by minimizing the resource consumption.

Density does not mean congestion, overcrowding, or poor urban quality. “Density is only a measure. How comfortable a place feels is a matter of the design and its social characteristics. It is a product of design, not a determinant of it.” High density areas ensure the liability of the area with a diverse activities and services, and they also deliver a mixed use development.

¹⁴ The Edinburgh standards for urban design, August 2003.

¹⁵ Llewellyn D, 2000, Urban design compendium.

According to Llewellyn (2000), the challenge of designers with regard to density is to:

- ensure buildings, streets and places are of human scale;
- moderate the mass of a building or group of buildings so that it steps up or down to its neighbours;
- use high quality landscaping to soften perceptions of a place

Microclimate

As people need comfort to stay in a specific area, they need places that are sheltered from wind and that offer view of the sun with some shade for the hottest days. So buildings with a considerable shade like arcades or cantilevers are much preferable by users.

D. Enclosure by buildings

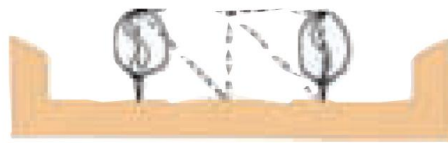
Davies (2000) ¹⁶defines enclosure as the three dimensional mass of each building which defines the public realm. Davies believes that building elevations and the cross-sections of public spaces should therefore be scaled to foster a sense of place so that streets, squares and parks are defined by appropriately scaled buildings and trees fronting onto them.



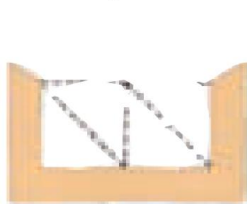
Mews 1:1 ratio Generally effective 1:3 ratio



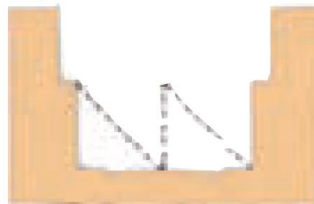
Maximum squares (+very wide streets) 1:6 ratio



Spatial definition by tree canopy



Spatial definition by building height



Spatial definition by recess line

	Maximum	Minimum
Mews	1:1.5	1:1
Street	1:3	1:1.5
Square	1:5	1:4

Fig 11: - Shows the height to width ratio and how landscape and building height to width ratio matters in defining space.
(Source-Urban design compendium, p-88)

¹⁶ Llewellyn – Davies, 2000, Urban Design Compendium.

E. What kind of interaction among the building and the street can create a better street life

Ground floors and open facades In order for a place (or a city) to be lively, it is not about the number of people that contribute (the quantity), instead it is about a feeling of that the place being used and being popular as well as the amount of time that people spend in the public space (quality). Density in itself does not automatically create lively places or cities. It needs to be combined with quality. Another aspect for lively cities and places are the ‘soft edges’, such as the lower floors of buildings.¹⁷

This is where the outdoor life and indoor life can interact, and these are also places where people can sit or stand and reflect on the street life. The ground floors are furthermore what people experience when they walk along a street and that is why the ground floors need to be active and open to people.¹⁸



Fig 12: good example of ground floor active facades

Preferably, the ground floors should contain many narrow units with many doors and windows to provide more exchange points, vertical relief in the facades and mixed details so that the by-passers experience a more varied walk. In this sense, the walks become more meaningful and interesting and the time passes by more quickly. The distance also seems shorter.¹⁹

¹⁷ Jan Gehi, 2010, public space and public life.

¹⁸ Ibid

¹⁹ ibid Gehi 2010

Gehi also has divided them into five categories (the scale ranges from the most active and open down to the most closed and inactive ground floors): 1, Active: many doors, small units, good details and materials, lots of character, great variation in function. 2, Friendly: rather small units, some variation in function, many details. 3, Mixture: small and large units, few details, modest facades and variation in functions. 4, Boring: large units with few doors, few or no details, hardly any variation in function, uninteresting units. 5, Inactive: large units and few (or no) doors, passive or blind units, uniform facades, no details, no variation in function.

So, according to Gehi's²⁰ description buildings with more details and with many doors and windows in ground floor is advisable to create activities. According to his description and classification active, friendly and mixed buildings are more inviting to pedestrians and they can create interesting and safe places in the city.



A Attractive

Small units, many doors (15-20 units per 100 m)
 Diversity of functions
 No closed or passive units
 Interesting relief in facades
 Quality materials and refined details



B Pleasant

Relatively small units (10-14 units per 100 m)
 Some diversity of functions
 Only a few closed or passive units
 Some relief in the facades
 Relatively good detailing



C Somewhere in-between

Mixture of small and larger units
 (6-10 units per 100 m)
 Some diversity of functions
 Only a few closed or passive units
 Uninteresting facade design
 Somewhat poor detailing

²⁰ ibid

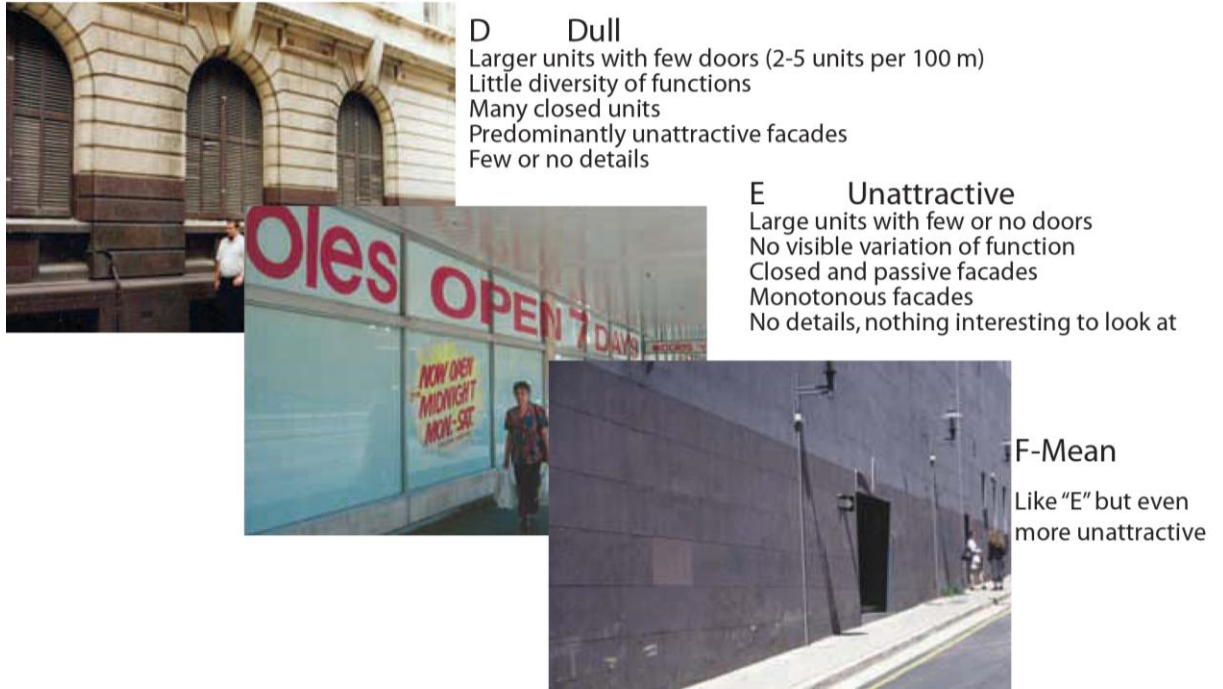


Fig 13- shows the evaluation of street frontages and ground level activity (source- Public Spaces and Public Life - Page 37)

2.1.6 WHAT DO WE MEAN BY VIBRANT?

To start with its simple definition vibrant means full of energy or activity, bright, lively. Liveability is about better quality of life for citizens in their city or community.²¹

VIBRANT STREET LIFE

According to William J (1977) “street life” these two words evoke a variety of images, places and experiences that act as a subterfuge for grouping people’s attitude, perceptions and expectations of the city.²²

“Livable streets lay the base for a healthy community – they bring people outside and keep them there. They provide amenities like seating, play areas, good sidewalks and trees that make children, adults and seniors feel safe and comfortable. The extent to which any street is livable

²¹ Benjamin Yee and Mathew Manos, what makes a vibrant neighbourhood.

²² William J, 1977, Street life and the pedestrian notes on the design of urban open space.

can be measured by its street life, social contacts between neighbors and public health indicators.”

²³ The most important measure of success in street life is the number of pedestrians on the street.

According to William J²⁴ description the crisis of a city is the loss of street life. He also cited that street is the city and the most important users are the pedestrians. To provide an enjoyable street life we must provide a desirable city. The design of the street itself demands serious attention. To bring sustainability into the city, the focus should not only be on collections of buildings, but more importantly, on the relationship of movement system to the building types.

As Jan Gehi explains planners have developed several methods to measure livability based on street life: who is walking, who is talking, who is shopping, and who is playing. As Gehi noted, to measure street life there are three outlines that characterize a livable street - pedestrian volume, stationary activities and pedestrian diversity.

The first one is Pedestrian volume – Street that are more attractive to pedestrians are full of people any time of the day or weekends. The second one is stationary activities. This focuses on the variety of activities. The last one is pedestrian diversity. This focuses on the diversity of the user population. Gehi’s study also noted that women, children and the elderly may be more sensitive than others to street qualities such as comfort, safety and accessibility.

Jane Jacobs says what makes a neighborhood a community and what makes a city livable is safety. If there are eyes on the street, not only is the street but the city as well become livable for the society. She also illustrates that to create personal sense of belongingness and social cohesion in the neighborhood, the streets must be crowded and multi-used.

A. Three Categories of Human Activities

As Jan Gehi ²⁵explains in his book, life between buildings and human activities that take place in urban space can be divided into three categories; necessary, optional and social activities. The necessary activities are a non-optional part of people’s lives, like Going to school and work. The optional ones are known by (urban recreation) are made under good conditions and are often fun

²³ Gehi Architects, 2004.

²⁴ William John Lenyk,1977, Street Life And The Pedistrian Notes On The Desin Of Urban Open Space.

²⁵ Jan Gehi et al, 2002, life between buildings.

and recreational. These activities are especially sensitive to quality. They occur when quality is high. The last category is the social activities and embraces all types of contacts and communications among people. These activities can take place everywhere in the city space and could be either passive ones (such as hearing or seeing other) or more active contacts (greetings, meetings, talking, ‘hanging out’).

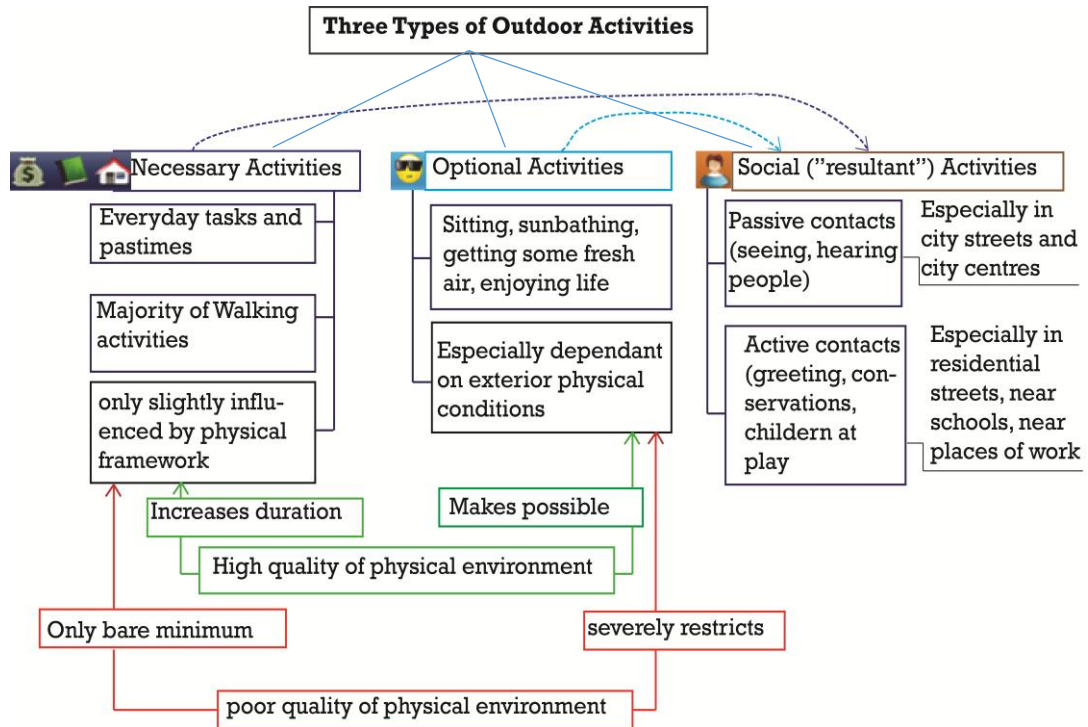


Fig 14: - illustrate the three types of outdoor activities

As the above description and images illustrated the optional and social activities are the major inputs to create a better and vibrant life in the city. If the optional activity is sufficient and enough the quality of the physical environment tends to be better for the users.

B. CHARACTER AND QUALITY OF VIBRANT or LIVABLE STREET LIFE

In the book of “Greet Street by Allen Jacob²⁶, the author sets basic criteria to be a great or in this case to be a livable street. First of all as streets are part of the public realm they must serve the community, and not just a specific group or age. They need **divers’ users**. “A great street should be a most desirable place to be, to spend time, to live, to play, and to work, at the same time that it markedly contributes to what a city should be. Streets are settings for activities that bring people together.”²⁷

The second criteria are that the street must be **physically safe and comfortable**. The users of the streets “should not worry about being hit by a car or about some other physical thing built adjacent to the street being unsafe”.²⁸ In this statement the research can understand that for a street to be safe, the pedestrians needs their own space without the interference of vehicular traffic. This means that a separate side walk or a building setback is one of the criteria in ensuring safety. The other thing is the physical things that are built adjacent to the street meaning the street amenities, especially the buildings. To be safe, according to (Jane Jacob, 1962) the buildings must face the street and there must be a clear interaction with the street. “There must be eyes on the street.” the building treatments, especially the windows, must be clearly visible for pedestrians.

The third one is that it must **encourage participation**. The best street is the one that fairly participate the users, that offers sitting areas, activities to watch, to talk and to interact. In this case it is directly connected to the street amenities and its diverse uses of activities. “Participation in the life of a street involves the ability of people who occupy buildings to add something to the street and to be part of it. Responsibility, including maintenance, come with participation.”²⁹ In that case participation also creates belongingness in a specific area.

The other criterion is that, the best streets are those that **can be remembered**. Special façade characters were also important for street uniqueness. “There have been times when streets were a primary focus of city buildings, streets rather than individual buildings.....Overtime they

²⁶ Allen Jacob, 1995, Greet Street.

²⁷ Ibid

²⁸ Ibid

²⁹ ibid

have become a symbol of the city, much beloved and understood to add immensely to its livability. On such streets the facades of most structures are hardly seen. So it is the street, not the individual buildings that succeeds.”³⁰ Concentration of diverse use or activity along a street may give it prominence in the mind of the observer. Memorable streets are the best streets in the city, they can pull users and hold on them because of their activity, function or by their unique identity.

But in general to be great and vibrant, a street can behold the above criteria in an area. And it must be representative.

A well-used street is suitable to be a safe street. To be sustainable streets must have three main qualities. The first one is there must be a clear demarcation between what is public and what is private space. The second one is that there must be eyes on the street. The buildings on the street must be furnished to handle strangers-as cities are full of strangers - and to insure the safety of both residents and stranger’s buildings must be oriented towards the street. The last one is the street must have users on it fairly continuously. It must carry different activities.

C. BENEFIT OF VIBRANT or LIVABLE STREET LIFE

As literatures describe, there are many benefits which the city and the dwellers can get from a better street and from its street life. These benefits are like social benefits, health benefits, economic benefits, and environmental benefit.

A sense of community- When people spend time on streets, they have the opportunity to interact. When people spend much time on the street they get the chance to meet new friends and socialize. Sidewalks serve as public venues shared by people of diverse group and age. Community interactions are important contributors to individual well-being. The eye contact that people make when biking or



Fig 15- shows a favourite gathering place in Dublin (source the benefit of great street, p-20)

³⁰ Ibid Great street

on foot increases individuals' sense of trust. That trust translates into higher levels of happiness and civic-mindedness.³¹

Health benefit- Increased walking brings significant health benefits. Several studies have shown that people are less likely to be overweight if they live in more walkable areas. Walking on foot also influences public health by reducing traffic injury, cutting noise levels and reducing air pollution.

Economic benefits - Beyond improving quality of life, streets also support strong local economies. For instance, traffic calming improvements that increase safety reduce road noise and make being outside more pleasant and safe can increase home values. So if the street is safe and interesting the property value of the area appreciates.

Improved safety and security, making neighborhoods safer for pedestrians and bicyclists saves human lives. More "eyes on the street" reduces actual crime and increases residents' sense of security.



Fig 16 :- Streets that are oriented towards pedestrians, like this one in Dublin, can offer a whole new set of benefits to the city

³¹ Lindsey et al, 2008, street to live by.

2.2 CONTEXTUAL BACKGROUND

Most of Ethiopian cities are organic cities. They were developed through long process of people's settlement in one place. Most of the time the paths are created by animal's foot prints. Since the Ethiopian landscape is not flat, but rather sloppy, the cities' streets respect its topography. That's why cities have curved roads. Addis Ababa is also one of the organic cities with the same characteristics. The city of Addis Ababa is a little older than a century.

Addis Ababa means "new flower" according to the native language Amharic. This name was given to it when it was first founded by Empress Taitu, wife of Minilik II, in 1886. Before this, the name of the area was called "Finfinne" and it was known for its fertile farm land and dense forests with streams and a sloppy terrain. The landscape which attracted the Empress had a focus point at an area called "Filwuha", a natural spring of hot water which was used for bathing and medical purposes.³²

The settlement of Addis Ababa is based on "Sefers".³³The organization of "sefers" had officials that settled in the centre of the "Sefer". Around the residential area soldiers were made to settle, after which the "Gebars" settled. However, there were left-over vacant lands between the "Sefers". The paths which link the different "Sefers" were of a meandering pattern to adapt to the terrain. These patterns are still visible in the central parts of the city. "In the 1st decades of the 20th century, the widely separated sections of the sprawling capital were connected by rocky trails and paths that gradually turned into roads."³⁴ In considering pedestrian movement, for pre-modern area did not face a challenge in dealing with pedestrians, due to the "Sefer" arrangement which could be covered on foot. The present street network of Addis Ababa represents the pattern of streets which developed organically through a natural path selection method and those which were developed through a conscious planning effort. As Fasil Giorgis (2007) illustrates, in the

³² The city development plan, ORAAMP, 2009.

³³ Sefer is an area similar to a military settlement or neighbourhood, which is allocated to a chief or a state dignitary and is distinguished from others similar arias by a buffer zone.(the city and its architectural heritage, p- 42)

³⁴ Fasil Georgis and Denis Gerard, 2007, the city and its architectural heritage AA 1886-1941by.

beginning of the 20th century the structure of the city was a multi-centred settlement, with the “Gebbi”.³⁵

Addis Ababa has had several master plans starting from the 1930s. The master plans made by the British and French planners had major foot print on the overall development and structure of the city. For instance if we see the street network of the city of Addis Ababa with the character of radial and ring roads, and the satellite settlements in all directions around the city core it was all the idea of the master plan in 1956, prepared by the British planner sir Patrick Abercrombie. In addition if we see the structure of the city of Addis Ababa it shows the concept of giving attention to the regional area connection to the city centre it was the idea of French missions, plan of professor C.K. Polony proposed to connect Addis Ababa with Nazareth and “gave considerable attention to the regional, metropolitan, and urban hierarchy”³⁶

The city experienced different planning changes, since its establishment by emperor Menelik in 1886. The cities early development centred around three nodal points: the menelik palace (political and administrative centre), the Arada St. George church (social and religious centre), and Arada area (business and market centre).³⁷

The Ethiopian road system has a close connection with Italians. Before the brief five year Italian occupation from 1936 to 1941. The city had no modern roads, Vehicles were not that much known. Mules and horses were the major means of transportation available to the masses.³⁸ When it started to be important to consider pedestrian movement, the city were not face a challenge in dealing with pedestrians, due to vehicles were not in the picture in big size of city was not experienced.

In 1936 a commission of architects came to the Addis to study the problems of city’s town planning. The prime importance to the occupying force was easy of movement. As Mussolini’s decide to make Addis Ababa as a capital of Italian East Africa necessitated, they immediately set

³⁵ *ibid*

³⁶ City development plan 2001-2010

³⁷ Addis Ababa revised master plan proposal; December 2000.

³⁸ Solomon Bekeke, 2012. New road, old problems.

about improving and constructing roads and buildings in selected areas of Addis to create visible urban development.³⁹

Rollers were bought to begin modern road construction. In the five year occupation period under the rule of the Italians, significant roads were paved in Addis Ababa. The car population dramatically increased.⁴⁰ As a result there was much emphasis is given to construct vehicular movement areas.

In 1974, there was a change in the political system of the country from Monarchy to the Military dictatorship by the Derge regime. By the reason of political unrest and insecurity of urban life due to political conflicts the growth of the city was halted at this time. There was no new change in the street layout of the city.

The 1986 master plan which was intended to serve for a period of twenty years was prepared by the Addis Ababa Master Plan project office established through Italo-Ethiopian cooperation. The basic concept of this plan was to develop a balanced urban system and to integrate the city with its surrounding regions and to provide modern metropolitan features.

In the period of post 1991 the city characterized by inner city renewal and the revision of the master plan and also by decentralization of services. Local development plans (LDPs) were prepared in order to guide the inner city renewal in the oldest parts of the city. The street layout has never been changed as the LDPs are focused on parcel amalgamation and proposed up to land use level. In this time more emphasis is given to construct vehicular movement areas with their adjacent pedestrian was.

Currently, the city has developed based on the 2003 revised master plan by the Office for the Revision of Master Plan in Addis Ababa. This master plan focuses on reorganization of the 1986 master plan with detailed studies. In this plan, there was one city centre and three sub centres. The main centre is located around the National Theatre and Legehar (Railway Station) area and connects it with three nodal areas: Merkato, Piassa and Aratkilo.

³⁹ *ibid*

⁴⁰ Solomon Bekele, 2012. New road, old problems.

According to (Addis Ababa master plan final report, June 1987 G.C) the city future green system is planned and structured by categorizing them in three levels, which are;- **local green** network, **district green** network and **city wide green** spaces. At the local or small neighbourhood level, there are many open and green areas which are used for festivals, children playgrounds and other social activities. The district level green areas include street sides, parks, plazas and most of the open spaces found in the centre of the city. The **district level** open spaces are officially designated as plazas, squares, streets and parks. At the wide city level, there are forest areas which are usually on mountains and are being preserved and forestation activities are being taken seriously. These areas are well managed in the sense of preservation of trees and forestation.

So as the thesis focused on streets mainly in its sidewalks it can be categorized in the district level. Because it focused on green areas in street sides, parks, plazas and most of the open spaces found in the centre of the city. Street side green area developments or any parks or plaza developments were currently managed by the city greening and beautification bureau.

And there are also different contextual standards set by the Addis Ababa master plan office, in the norms and standards of the Addis Ababa structure plan components there are different standards regarding to street and their sidewalks and also the streetscapes, (please refer annex 1) but not in detail and not also related to adjacent built forms. Nowadays any construction of sidewalks and streetscapes in the city are developed by referring to this manual. But recently the Ethiopian federal ministry of urban development has prepared an urban planning preparation and implementation strategy for the city of Addis Ababa. The strategy clearly gives emphasis for urban planning issues starting from city level to neighbourhood and block level. At the city level, only street classifications from principal arterials to collector streets are considered but at the neighbourhood level, local roads are designed by taking the major framework of the structural plan into account. Until now, this is the practice which the city government is following. But the strategy pushes to go further into street design to the level of giving block and street address. More importantly it mentions to work on design of street lights, street landscaping and building form with the overall framework of the city to be able to increase the social and economic value of any given area.⁴¹

⁴¹ Ethiopian federal ministry of urban development, housing and construction, 2006, Urban planning preparation and implementation strategy.

CHAPTER THREE: THE CASE STUDY AREAS

3.1 General Introduction to Case Areas

The case areas for the research were selected from the boundary designated under CBD based on the Addis Ababa master plan study of May 2002. Therefore all the case study areas are found in the central part of the city. Four areas were selected based on pre criteria of this study to get different characters and qualities and to know the street character within the CBD which are believed to be good examples. These streets are located in Merkato, Piazza and Beheraw areas.

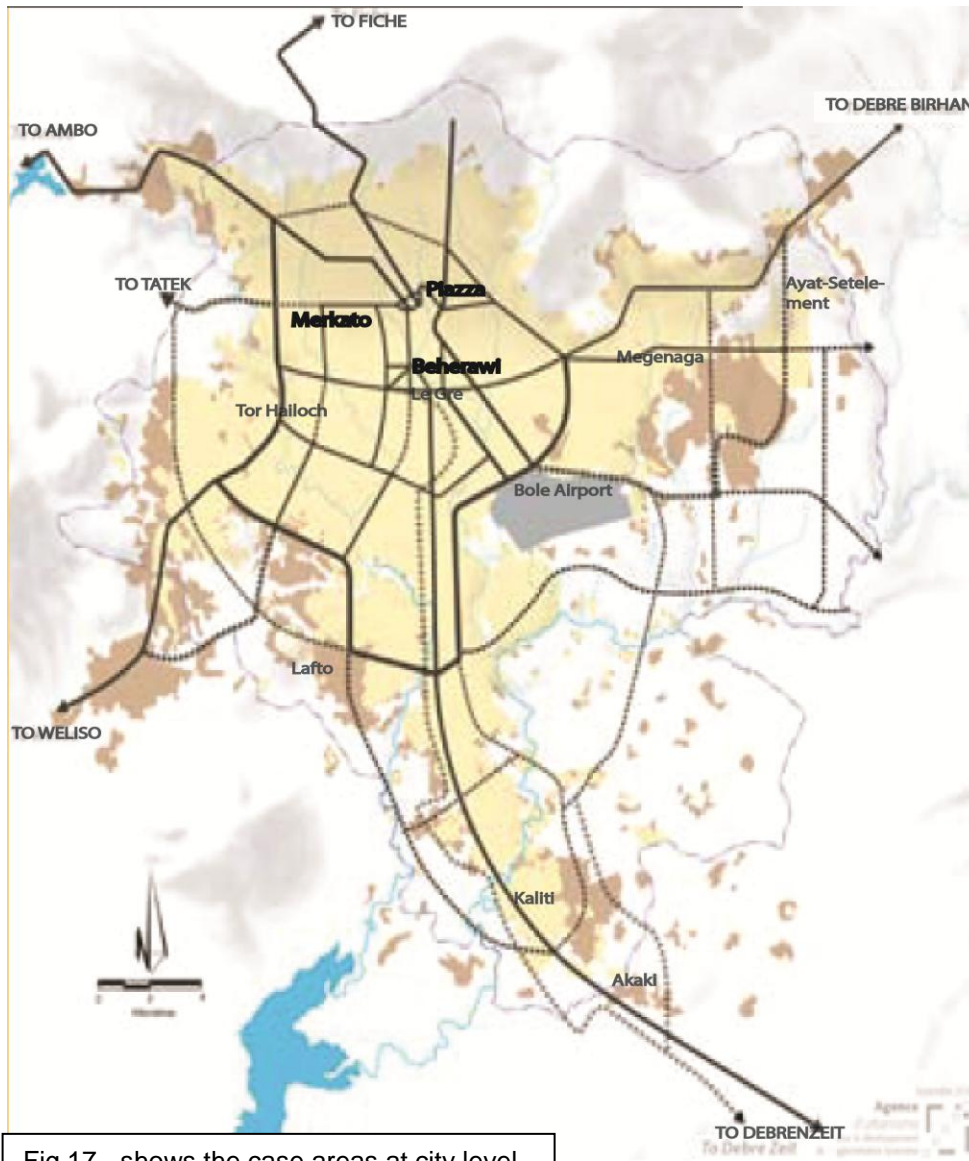


Fig 17 - shows the case areas at city level.

CASE AREA 1- Arada or Piazza Area

According to Fasil 'Giorghis' (2007) description⁴² in the earlier period of the development of Addis Ababa. Arada or the current Piazza, was the main marketplace and the centre of all economic activities of the city. The nature of the market was mainly of an open air market, where various kinds of commodities were sold. As it was a large market place, the area was divided into some fifteen specialized sections ("Teras"), based on for different items sold, in line with the current specialized division of Merkato⁴³. During that time different goods were imported and sold in this area and also different kinds of taxes were collected in Arada.

"Arada maintained its importance as a commercial area of Addis Ababa even after the open market was moved to the new Italian Merkato during the occupation period."⁴⁴ The Arada shops remained in their locations. Most of the mead houses, small restaurants and "Azmaries"⁴⁵ from different part of the city were concentrated in Arada. Because of the market, the sellers and buyers were gathered and recreated in the area, especially in the evening and after a market event.

There were three main roads in the capital itself during the first decades of the twentieth century. Menelik II Road rans from the Imperial Palace to the Etege Taitu Hotel to Arada. Boulevard Mekonen led from avenue Entoto to the north across the bridge and the market and the other one radiated from the market in different directions. So, as literatures shows the development of streets in Addis started from Arada area especially from the market place of the city. Here we can say that market is one of the reasons for the development of such pattern of streets. In 1926 the municipality of Addis Ababa gave attention to the building of sidewalks adjacent to the main roads to avoid traffic accident.⁴⁶

In seeing the above description, Arada was the major foot print of the current development of the city by its economic, social and recreational vitality.

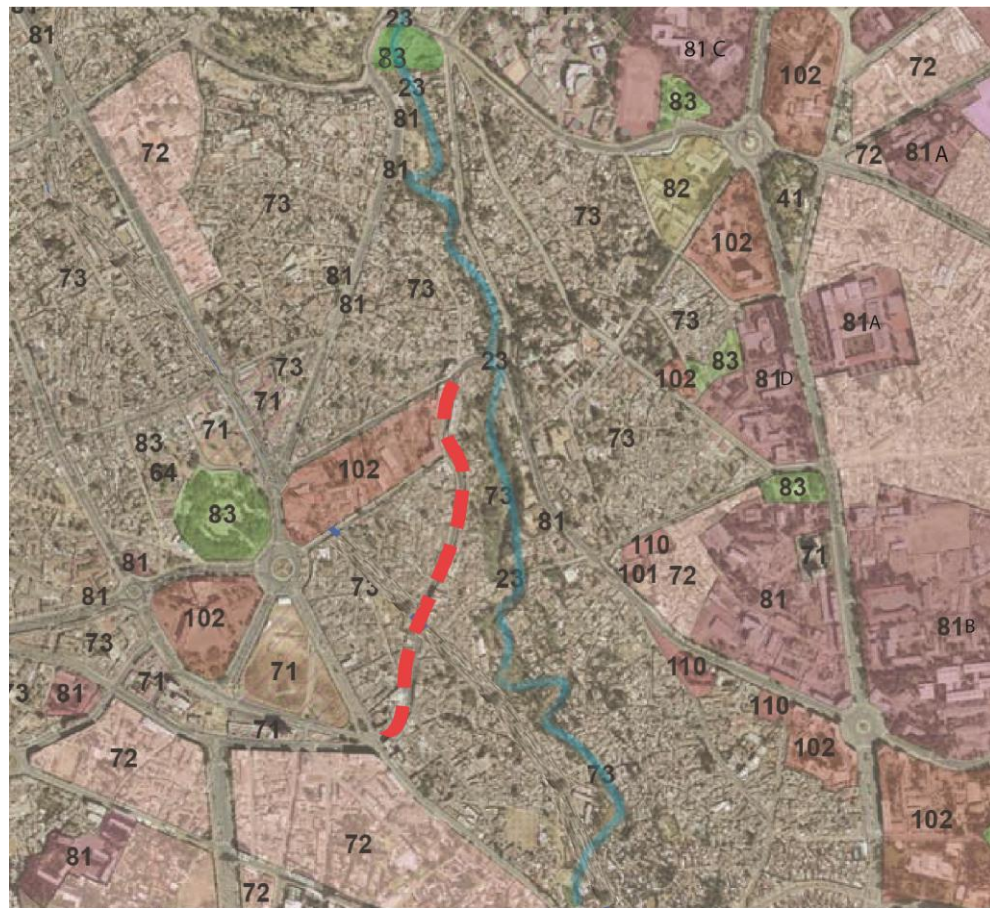
⁴² Fasil Georgis, 2007, the city architectural heritage AA 1886-1941. p-66

⁴³ The largest market place of the city of Addis.

⁴⁴ Ibid P-68

⁴⁵ bar singers

⁴⁶ ibid p-90



LEGEND

- | | | |
|--------------------------------------|------------------------|----------------------|
| 81- Universities | 41- Lion zoo | 82- hospital |
| A. 5kilo | | |
| B. 4kilo | 102- Different Offices | 83- Religious places |
| C. 6kilo | | |
| D. Pharmacy | | |
| 71, 72, 73 – mixed residential areas | Study area - - - - - | |

Fig 18: - shows the major land uses beside the case area and its surroundings.

The first case area is found in Arada sub city specifically in Piazza which is considered as one of the core and active areas of the city having its own unique quality and character. It is 265 meter in length and 20 meter in width. Piazza was established as a new section of the city by Italians, and currently it is a major trade Centre.⁴⁷ The area holds different land uses and activities which pull the users. Elementary schools, high schools, universities, libraries, religious places, different governmental and nongovernmental organizations, various recreational places like cafes,

⁴⁷ Ruth Thothy and Karen Dabow ska, 1988, Addis Ababa after 100 years commemorate book, city council of A.A.

restaurants, bars and parks are some of the major activities. The area is also full of diverse commercial activities like the jewelry shops, the bars and the cinemas that attract diverse population to come around. So by this and other unlisted activities people like to come and spend their time in these areas.

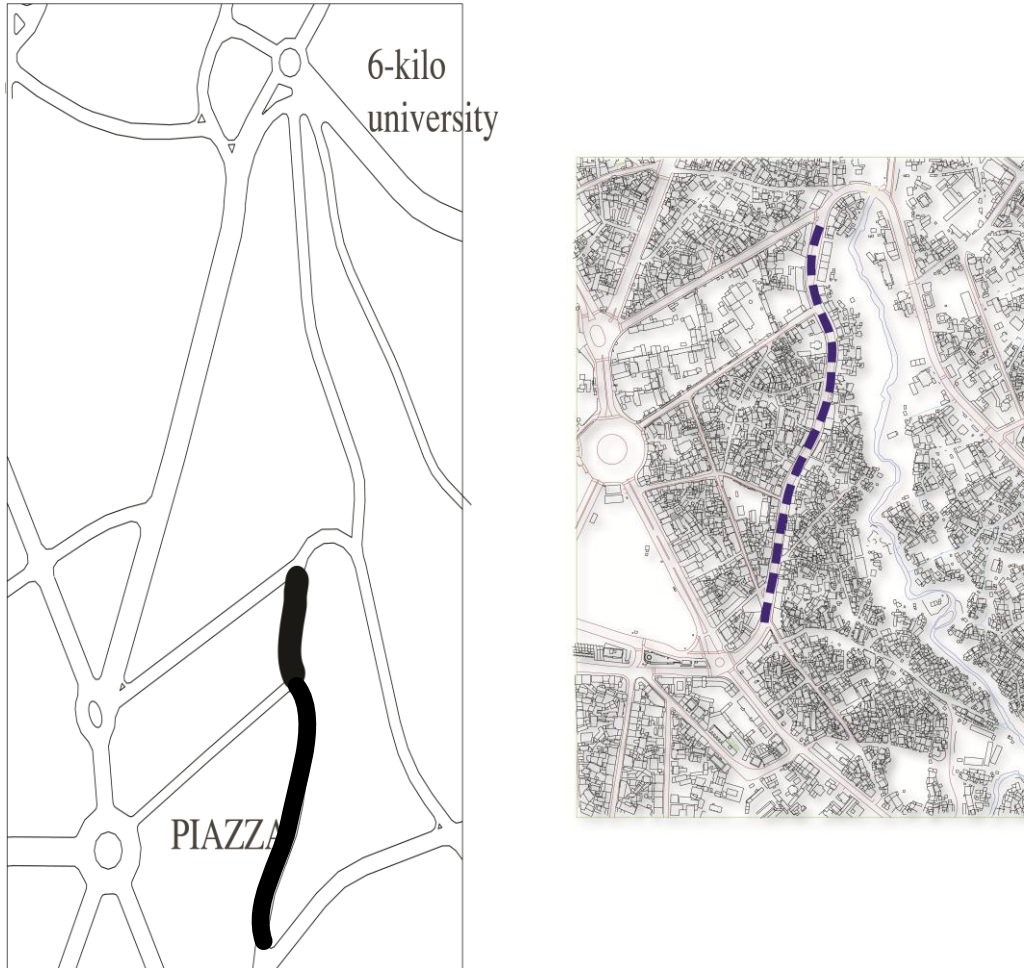


Fig 19: - shows the Location map of the case area

CASE AREA 2- National Theatre Area

National Theatre area is specialized or dominated by office buildings. Including hospitals, schools, parks, hotels and other land uses.



LEGEND

- | | | |
|------------------------------|------------------------|-------------------------|
| 41 –parks | | |
| A. Beherawy plaza | 41- Lion zoo | 82- Black Lion hospital |
| B. Ambassador park | | |
| C. Ethio-cuba park | 102- Different Offices | 83- Religious places |
| D. Africa Park | 42-festival sites | |
| 73 – mixed residential areas | A. Meskel Square | 10- Grand palace |
| | B. A.A stadium | |

River



Study area



Fig 20: - shows the major land uses beside the case area and its surroundings.

Specific case area in this place is the **Gambia Street** which is located in the core of Addis Ababa in Kirkos Sub-city on Churchill Road. According to the master plan description, it is the most important axis of the city. “It has a very high historical significance with a potential of changing to a livelier pedestrian friendly street. National Theatre area is recognized for its distinct urban fabric weaved with a number of prominent and peculiar buildings of historic and architectural significance.”⁴⁸ It is 388 meter in length and 45 meter in width, with wide pedestrian walkway and building arcades.



Fig 21: - shows the location map of the case or Gambia Street.

⁴⁸ . Addis Ababa and its surrounding Oromiya special zone integrated development plan; March, 2014

CASE AREA 3- Merkato

Merkato is the name of the area found in the western part of Addis Ababa in Addis Ketema sub-city. As most of the areas in Addis are developed during the Italians occupation they still maintain their old names for example Merkato is an Italian word meaning market.

Before 1937, Merkato was known as the “Fitawrari Habte Giorgis Sefer”. Fascist Italy invaded Ethiopia in 1936. With their racist policy, they planned to settle Ethiopians in the western part of the city. As a result, the market was relocated from its old location.⁴⁹ As per the segregation policy of Italians, the native market was moved from Arada to today’s Merkato and was renamed as ‘Merkato Indigino.’⁵⁰ “The National market was separated from the indigenous one, although it had a frequent commercial activity” (bosio 1937). These views indicated the creation of the new Merkato. By late 1937 a large part of the native population was transferred to this area, which acquired the name of Addis Ketema. Now Merkato is a place for both business and a residence Ethiopians regardless of their places of origin.⁵¹

Merkato grew longer the decades, that it has become today’s largest market in Africa. Several historical buildings are also found like St. Ragueel Church, Grand Anwar Mosque and the residence of Fitawrari Habte Giorgis which later served as the American Embassy and currently known as Yemen Community School.

The general layout was prepared by the Italians. The streets were planned in grid layout and the buildings are constructed aligned to the streets. The construction of the area was dominated by one story arcaded buildings used for shops and stores. And to support the city Muslims, a large Mosque was also built as a landmark in Merkato, known as “Grand Anwar Mosque” today.

According to Anchin Ayehu (2007)⁵² description, Merkato has several serious problems related to housing, sanitation and overcrowding. The streets are too narrow to provide enough space for the

⁴⁹ Addis Ababa Millennium Secretariat, 2007, Addis Ababa in the Past and Its Prospects in the New Millennium.

⁵⁰ Ibid p-156 means market for black peoples.

⁵¹ Ibid p-78.

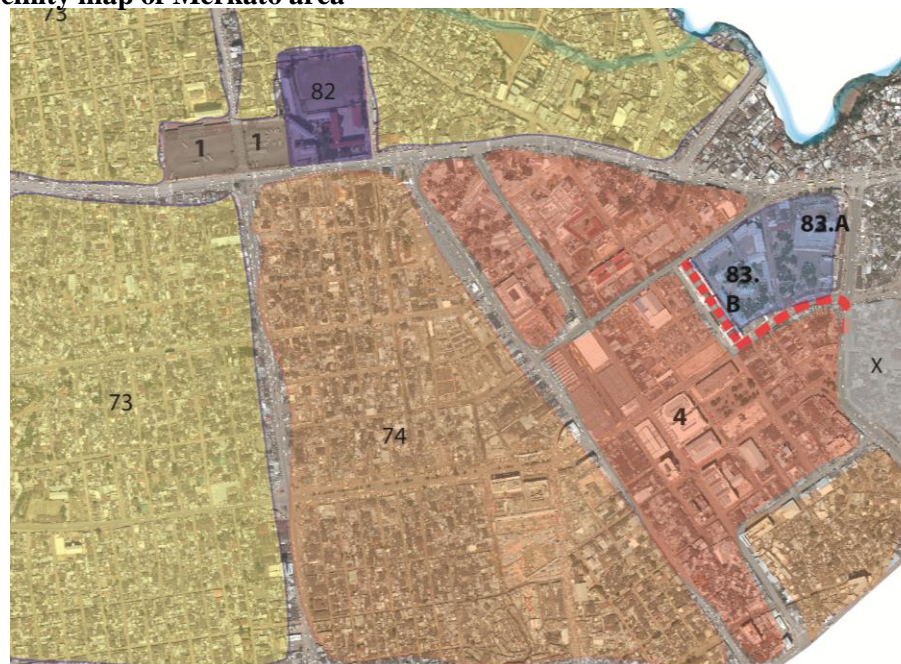
⁵² Addis Ababa Millennium Secretariat, 2007, Addis Ababa in the Past and Its Prospects in the New Millennium.p 70

numerous vehicles flocking to the area. There are no proper street lighting and sewage services. Shortage of public recreation centres are also one of the major problems of the area.⁵³

As previous description expresses⁵⁴ the total market of Arada was moved to Merkato and as it was divided in to many specialized divisions. Up to now Merkato is divided in to several “Teras” like “Military Tera”, “Tasa Tera”, “Sumale Tera”, “Satin Tera”, “Mismar Tera”... and so on. In Merkato we can find diverse goods. People said In Merkato we can find all things starting from small things to big ones. Merkato offers goods for all kinds of users, for the poor or for the rich.

When we see the last case areas found in Merkato at a bigger scale, the third and fourth case areas differ from the above two case areas. As it is a major commercial place of the entire city, almost all of the area is dominated by commercial activity. But we can also find different land uses like; residential and social services which are religious places, schools and other services.

Vicinity map of Merkato area



LEGEND

- | | |
|------------------------------|------------------------------|
| 1-Bus station (awtobis tera) | 73 – mixed residential areas |
| 4 –Commercial area | 74- mixed commercial area |
| 83-religious places | X- Recently Demolished area |
| A. Grand Anwar mosque | 82- Addis Ketema High school |
| B. Church | |
| River | Study area |

Fig 22: - shows the major land uses beside the case area and its surroundings.

⁵³ Ibid p-71 (Addis Ababa in the past and its presents in the new millennium)

⁵⁴ ibid P-79

Here in the area of Merkato two case areas are selected with different form of buildings and era of development. The third case area is specifically known as “Military Tera” in front of St.Raguel church. Most of the area is dominated by commercial activities with a religious institution.

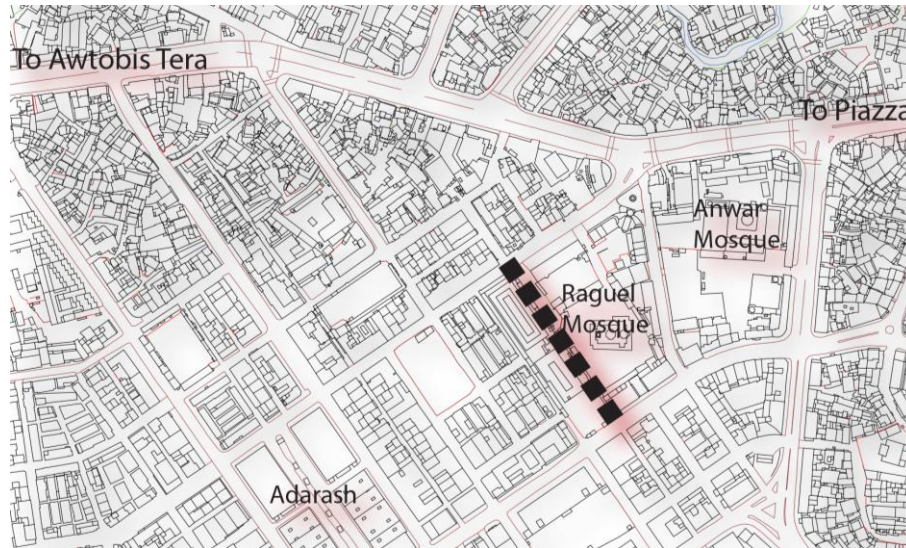


Fig 23- shows the Location map of the third and the third case areas.

The fourth case area is also located in Merkato area, near to the Grand Anwar Mosque. Like Piazza and Beherawy Theatre areas, this area is also one of the oldest and historical parts of the city. It is mainly known by its commercial activities.



Fig 24- shows the Location map of the third and the fourth case areas.

3.2 Identification of Key Elements of built forms and landscapes and their contribution to street life.

In doing so, the research main impression in the site survey was to assess what kind of street life and character does occur in the site and what difficulties does exist. In assessing it, the research focuses on the relationship between the street and the adjacent built forms with the surrounding landscape adjacent to the sidewalks.

In observing the relationship between the building and the street there are some major physical characters related to it. **The first one is** the scale, enclosure, definition and proportion. **The second one** is the street frontages and its activities, safety and comfort issues **and the other thing** to see is if it has a clear demarcation between the public, semi public and private spaces (if it offers a clear demarcation to the public , for the pedestrian users).

3.2.1 Scale, Enclosure, Definition and Proportion

This four related words can be realized by seeing the relation or the composition of the street and the adjacent buildings. The three dimensional relationship between the buildings to opens space or street is so critical to create a sense of defined space so that buildings and open spaces will be defined by appropriately scaled buildings adjacent to them.

There are recommended proportion and scale of buildings to create a sense of enclosure of a specific area or to create a sense of proportion in the area. If the space has a clear definition and a good proportion it creates visual attractiveness for the area. Llewellyn (2000)⁵⁵ , states that for buildings to give positive definition to the shape and function of outdoor space in our case the streets, there should be appropriate heights to width ratios to create a good sense of enclosure. Streets should be an integral part of the design and not a left over. According to the classic principles of open space design a street has only two walls to define a space. If the walls are low in relation to the street width, outward views are not sufficiently contained to provide a sense of enclosed space. In a street with a 1:4 ratio there is three times as much sky as wall within the range of vision, giving a weak sense of enclosure. If the ratio is 1:2 the outer sights of sky equal the amount of visual field devoted to the street wall. The view of the sky is in the less vision. Therefore increasing the three dimensional sense of enclosure to a ratio ranging between 1:2 and 1:2.5 provides a good sense of enclosure in a street. A street wall height that equals the street

⁵⁵ Llewellyn; davies, Aug 2000, urban design compendium.

width severely limits any sky view and gives a strong sense of enclosure. A ratio of 1:1 is often considered the minimum for comfortable urban streets.

National Theatre Area or Gambia Street

In observing the first case area located at Beherawy according to its physical character, the first things to observe are the scale, enclosure, definition and proportion of the area. Most of the buildings found in the site are historical buildings and their height is G+1 up to G+12 buildings, and the street has 45 meters width. So, according to Davies⁵⁶ to create human scale and proportion in a specific area the street to building ratio must be maximum 1:3 and minimum 1:1.

So, by seeing these standards in some parts of Gambia Street, it lost its human scale but because of its landscape or street trees which are found in the median, the street has kept a sense of proportion and enclosures. Here we can see that trees can act as tools helping create a sense of enclosure.

When we see the overall street enclosure, proportion and scale, the buildings with the streetscapes have created a spatial definition considering building height to street width. The tree canopy has minimized the long undefined space between buildings.



Fig 25: - shows how landscapes can create sense of enclosure in the specific area.

⁵⁶ Llewellyn; Davies, August 2000, urban design compendium.

Piazza is the second focus area. In this part it's been tried to see the height to width ratio relationship between buildings and street space by focusing on the major street which is found in Piazza area that goes from Cinema Empire to Ras Mekonen Bridge.

Most of the buildings of the case area have similar height. The building have G+0 and G+1 height. But there are also G+2 up to G+ 7 buildings. The width of the street is 20 meter. The street can be classified under 1: 2.5 ratios which can be considered as a comfortable urban street.

compared to Beherawy Area Street it has a different character of enclosure and exposure because of its proportional building to street relationship. The street in this area has a good sense of enclosure, definition and proportion.



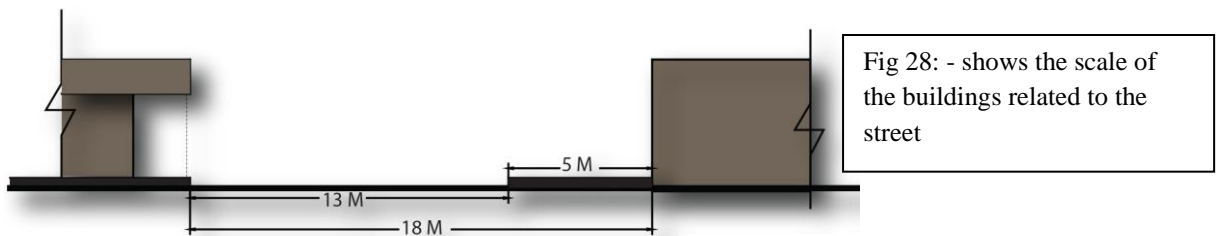
Fig 26: - shows the scale and proportion of the street and the buildings.



Fig 27: - shows the scale and proportion of the street and the buildings.

Merkato area; when we see the last case areas both are found in this big market area, adjacent to Grand Anwar Mosque, in front of “American Gibi”. And the other one is near to it which is locally known as Military Tera.

In the first case area which is adjacent to Anwar Mosque, it is dominated by single storey buildings. In coming from Anwar Mosque, the right side of the street has similar building structure like that of Beherawy area. When we see the scale and proportion of the area most of the buildings are single storey buildings with arcades and the street width is 20 meter. So by considering the standards, the area meets an appropriate scale and proportion. The street to building ratio is 1:3.



Military Tera area is newly develop commercially dominated core area of Merkato; it has G+2 up to G+4 buildings and six meter Width Street. The street to building ratio is 1:1 up to 1:1.5 ratio it has a good sense of enclosure and exposure, which can be considered as a comfortable urban street.



Generally the above mentioned study areas (streets) have a good proportion and scale. But by seeing its enclosure, exposure, hierarchy of building and proportion Piazza gets the first rank.

Criteria	Gambia street	Piazza	Merkato		Remark
			Adjacent to Anwar Mosque	Military Tera	
Scale, Enclosure Definition and Proportion	When we see only the street and the building lacks a sense of enclosure, but because of its landscape (trees in the street medians) it has an appropriate proportion.	It has its own unique character; it creates a memorable image in the users mind especially on the pedestrians. The street classified under 1:2.5 ratio which is considered as a comfortable urban street	It has a good proportion; The street to building ratio is 1:3.	The street classified under and 1:1.5 ratio which can be considered as a comfortable urban street	Almost all of the case areas have a good sense of enclosure because of the scale and proportion of adjacent buildings.

Table2: - summary of the site according to Scale and Proportion.

3.2.2. Street Frontages and Its Activities; Safety and Comfort Issues

The second criteria is the street frontage and its activities, safety and comfort. When we see the frontage and activities of the first case area in Gambia Street, the buildings found in this area have unique character due to their construction style and especially because of their wide arcaded buildings. The buildings give comfort for the users because they provide shade most of the buildings have arcades functioning as a public pedestrian zone. As figure 31 illustrates, some of the ground floor is active due to the open facades which gives commercial services. Currently most of the areas are less active because of the buildings adjacent to the sidewalk; have stopped giving service on their ground floors.

By the enclosed arcades created by the buildings, the streets are safe to the pedestrians because arcades give a clear demarcation between the pedestrian and vehicle movement area. Besides, it creates freedom of movement to the pedestrians.



Fig 30: - shows how the dwellers use the arcaded sidewalks.



Fig 31: - shows one of the active ground floors in the arcades.

When we see the activities in the street, the site survey has found out different activities on it like social and economic activities. The social activities that take place within the area are the recreational gathering areas, especially in the Beherawy plaza. It is used as a gathering and chatting place and the Beherawy Theatre is also the major recreation centre which pulls the users.

As activities and movements of people attract people, most of the users of the cafés especially the plaza users like to see the activities that take place on the street. Because of this most of the plaza users sit by facing the street. (Fig 33)



Fig 32: - shows the social or recreational activities.



Fig 33: - shows how the plaza users like to face the street, to see the activities.

There are also economic activities, where most of them are small cafes and restaurants. But there are also different activities like street vending where books and other small staffs are sold as shoe shining (fig 34). The area changes its activity at different times of the day and night. Almost all of the shops close after 8 local time and the area loses its activities completely. And the other factor which changes the activity is the Theatre; as it makes the area a node.



Fig 34: - shows the diverse economic activities hold on the site.

Piazza area; when we come to the second case area regarding street frontages and its activities, safety and comfort issues. The area has counted many years of ages .it is also dominated by historical buildings, therefore having its own unique character. The site has social and economic activities. The area has different land uses but it is dominated by commercial buildings which are jewellery shops. But there are also boutiques, cafes, bars and cinemas which attract diverse population to come around. These are activities that make the area alive and create a sense of safety and comfort for the users. Because of the diverse activities and uses, the street is full of people. The area changes its activity because of the cinema, especially in 8 and 10 o'clock (local)

the area is very active because of the cinema users coming from different parts of the city. (Fig 35)

The research also found that diverse people came to the site for different purposes. Including shopping, cinema, café and rest. As fig 36 shows the pedestrian zone have demarcation by level difference. The pedestrian and the traffic movement areas are paved with asphalt, which are in a good condition. When we compare it with the above case areas the Piazza Street doesn't have much demarcation but People move freely in the pedestrian area.



Fig 35: - shows peoples waiting in the street to watch cinema.



Fig 36: - shows the clear demarcation of the pedestrian zone from vehicle movement area.



Fig 37: - shows the diverse shops with their wide opening windows and doors.



Fig 38: - shows the diverse commercial and social activities held in the site

And because of the proportion and scale of the buildings, they form shade in the pedestrian area. This creates comfort for the users by connecting pedestrians and activities on the buildings.



Fig 39: - shows how the buildings in the case area create shade and comfortable space.

Merkato area; when we see the last two case areas which are found in Merkato, with regard to activity they are very much similar. Both of them have diverse commercial activities with compact and high user density. Because of their diverse commercial activities found on the site, the space tends high occupancy rate. This leading to over crowdedness at some instance, creating opportunity for petty theft and other criminal activities. Due to this the users at the street do not feel safe and comfort.

Density alone doesn't create a vibrant street life but it must hold different criteria beside this. The streets are used only by buyers and sellers .The Street not inviting to stop and experience the environment; it says move on it is not entertaining area even if it is intensive working place.



Fig 40: - shows how the area is overcrowded. (The third and fourth case areas)



Fig 41&42: - shows the diverse commercial activities of the third case areas.



Fig 43 & 44: - shows the diverse commercial activities of the fourth case areas.

From the perspective of having a clear demarcation for the pedestrian users, the third case area, which is adjacent to Anwar Mosque, has a clear demarcation because of the arcaded buildings. These buildings provide an arcaded side walkway that gives shade for the pedestrians. The users like the street because of its shade. By its arcaded pedestrian walk way the area can get a clear demarcation between the pedestrian and the vehicular movement. When we compare it with the other sample case areas the number of pedestrians in these areas is very high. It is very crowded and the spaces are multifunctional. On the other hand because of the uncontrolled high movement of the pedestrians, the area doesn't seem to have a clear demarcation for the pedestrians. Most of the pedestrians use the area meant for the vehicles.



Fig 45: - shows the arcaded buildings with their diverse activities.



Fig 46: - shows how the pedestrians use the vehicle movement area.

The case area which is located in Military Tera, in terms of having a clear demarcation or not, on one side of the street it provides a minor walkway. It has a demarcation with only a little level difference. But the pedestrian movement area is so small that the users are forced to use the vehicular access area.



Fig 47: - it shows the disproportional width of the pedestrian zone.

Criteria	Gambia Street	Piazza	Merkato		Remark
			Adjacent to Anwar Mosque	Military Tera	
<p>Street frontages</p> <p>Activities, safety and comfort</p>	<p>Some parts of the case area are active and other parts are silent. Especially in the upper part of the site it is more active because of the Theatre and the public plaza.</p> <p>And because of its shaded arcades it creates a sense of comfort to pedestrians.</p>	<p>Because of Its diverse activities and users the area seems safer than other case areas.</p>	<p>It has diverse commercial activities.</p> <p>The over crowdedness at some instance of the area, creating opportunity for petty theft and other criminal activities. Due to this the users at the street do not feel safe and comfort.</p> <p>It doesn't encourage pedestrian users because of its uncleanness and compactness.</p>	<p>It has diverse commercial activities.</p> <p>Because of the over crowdedness of the area it isn't comfortable for the users.</p>	<p>In terms of activity, Merkato stands first but, as compared to the other case areas, it is not safe and comfortable because of it's over crowdedness.</p> <p>So, due to its diverse activities, comfort and safety, users tend to prefer Piazza area.</p>
<p>Clear demarcation for the pedestrians, especially created by the buildings.</p>	<p>It has a clear demarcation created by the buildings and its arcades.</p>	<p>The pedestrian area distinguished from the vehicular area only by level deference.</p>	<p>It has a clear demarcation created by the buildings and because of its arcades.</p>	<p>The pedestrian area is distinguished from the vehicular area only by level deference.</p>	<p>When we compare the above case areas the Piazza street doesn't have much demarcation but People move freely in the pedestrian area.</p>

Table2: - shows summary of the observation about the case areas activities and street frontages.

3.2.3 Satisfactory Activities of the Area

Satisfaction of the users includes three major criteria. The first one is the variety of activities and uses offered in the area and also the pattern of activities presiding in it. The second one is the visual appropriateness of the area. In this part we can see the visual attractiveness of the area, if there are a special features and activities to catch our eyes and also we can see the cleanness of the area.

As mentioned earlier, there are varieties of activities in the case area especially in Piazza area. So to put them in a rank, Piazza comes first then Beherawy, and Merkato comes last. Compared to the other four case areas, Merkato is a highly active area with its high user density because of its intense commercial activity.

The second measurement of satisfactory activity is the appropriateness of the area. We must check if the area is a welcoming place or not, by seeing its visual attractiveness and its cleanness. By seeing their visual attractiveness and cleanness, the first two case areas which are found in the Piazza and Beherawy have good qualities. But Merkato doesn't have visual attractiveness, especially the old part of the area.

3.2.4 Landscapes and Street Furniture

The other major things to focus on, in creating a vibrant street life are to create a better streetscapes and furniture in a specific area. The major thing in seeing streetscapes are sitting places, dust bins, Public art, Bollards, Lighting and green areas and trees.

So when we absorb the case areas each one has its own unique character. When we look at the first case area, which is the National Theatre area has different street furniture. There are different public arts that catch our eyes. There is a public Plaza, Unity (Andinet Square) located in front of the National Theatre are the special visual magnets. The Plaza has a good shade because of the big tree and by its artificial shade with sitting facilities and it contains fountain which unfortunately does not functioning. There is also a historic monument located beside the fountain which is the statue of the lion⁵⁷ and the different art pictures which is posted in the arcaded walk ways.

⁵⁷ A modern, stone lion of Judah sculpted by Frenchman Morris Calka.

And, as the research has described earlier, the street has an attractive landscape in the median which makes the area more attractive. There are lightings and dust bins but most of the lights do not work appropriately and the dust bins are also poorly maintained. So in the night time the area seems unattractive and dangerous to use. And as it's been observed there is no sitting area or chair. In spite of this the user's use the stairs to sit and rest or just lie on the ground.



Fig 48: - shows the different public arts found in the street and the plaza.



Fig 49: - shows the different street furniture's found in Gambia Street



Fig 50: - shows the need of sitting areas, and how the users use the pedestrian zone.

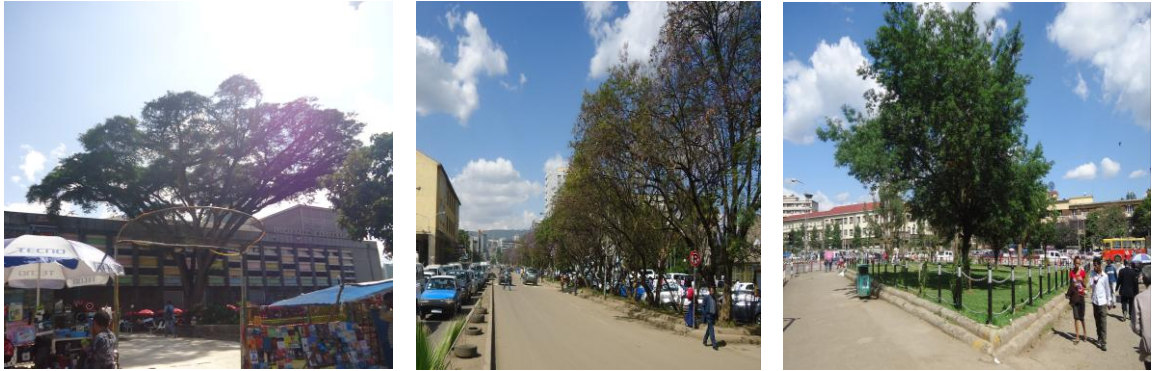


Fig 51: - shows the landscape of the area

When we see the second case area which is found in Piazza area the street have some street furniture like dust bins, lightings, public telephone. In Beherawy area, the lightings do not work properly and the dust bins are also poorly maintained. There are no landscaping element in the site. And it doesn't have sitting areas in the sidewalks. Peoples sit outside by moving their chairs out from their shop or they just sit on the stairs or on the ground.



Fig 52: - shows the different street furniture found in piazza area



Fig 53: - shows the need of sitting areas, and how the users use it.

When we see the last case areas which are found in Merkato, either the Military Tera or the area adjacent to Anwar Mosque, there is no street furniture except for street lighting. And most of the street lights do not work. So during the night time the area is so dangerous to use. The area dramatically changes to a dormant place.



Fig 54– shows the need of street furniture’s specially sitting areas.

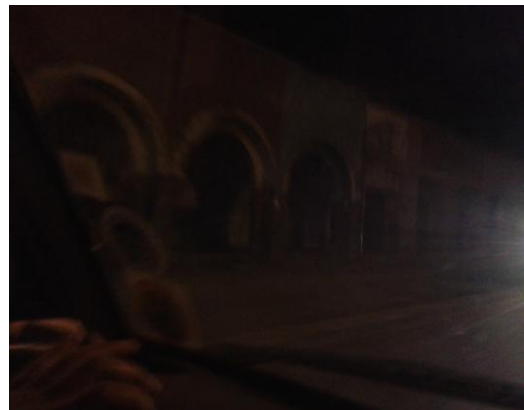


Fig 55– shows the case area at night time.

Criteria	Gambia Street	Piazza	Merkato		Remark
			Adjacent to Anwar Mosque	Military Tera	
Streetscapes and furniture. <ul style="list-style-type: none"> • sitting places • dust bins • Public art • Bollard • Lighting • Green areas and trees. 	<p>It has a diverse street furniture like street lighting, public arts, dust bins, and public telephones. But the lighting and the dust bins need some adjustment.</p> <p>The area also has good streetscape which is the green strip in the street medians.</p> <p>But there is no sitting place for pedestrians except in the cafes and the plaza.</p>	<p>It has some street furniture's like lighting, dustbin and public telephone. But it needs modifications</p> <p>There are no green areas or street trees.</p>	Doesn't have any street furniture except for street lights, even if they do not work properly.	Doesn't have any street furniture except street light.	When we compare the case areas Gambia street has a diverse streetscape and furniture except for sitting places.

Table3: - shows summary of the observation about the existence of Streetscapes and furniture.

Chapter 4 Analysis

4.1 Results of the survey

This part of the research will cover the result of the random survey questionnaires in the sample case areas. The questions were prepared by referring to the literature review. So it focuses on the street, its streetscape and built forms which are the adjacent buildings and their relation or effect to the pedestrians. The number of respondents in all of the case areas is 70. Their responses have been analyzed in the next pages. In the first two case areas specifically in Piazza and Gambia Street 25 people were taken for the sample survey from each case area. And in the Merkato site including both case areas 20 people were interviewed. Additionally informal interviews were undertaken with shoe shiners and street vendors. But in doing the survey there were some difficulties especially in the third and fourth case areas found in Merkato. The dwellers and also the users of the street do not have a positive feeling and are not willing to answer questions or to share their ideas and perspectives.

4.1.1 Street Frontages and Its Activities

To explore the response related with diversity of activities, respondents were asked ‘Are there variety of activities in the street or in the adjacent buildings in the area?’; ‘Are there any unique activities?’ They were also asked if the street changes its activity at different times or not and also if they enjoy the street activities. The following table shows the result of the responses in each case study area

Case areas		Diverse of activities	Unique activities
Piazza area		100 %	85 %
Gambia street		85 %	80 %
Merkato	Military Tera	10 %	50 %
	Adjacent to Anwar Mosque	20 %	80 %

Table4- Percentages of the respondents in each case areas, for the variety of activities.

Almost all of the respondents in Piazza area said there are unique and variety of activities in the area. In Gambia Street, among the 25 respondents 17of the respondents said there are a variety of activities and 19 of the respondents said it has a unique activity. In Military Tera most of the

respondents (8 to 10) said there is no unique and variety of activities. It is only a congested commercial space.

To explore the unique and diverse activities in each case area, respondents were asked to list or indicate what activities pull them to use the street.

Activities	Piazza area		Activities	Beherawy area	
	Number of respondents	%		Number respondents	%
Variety of cafes and restaurants	10	40 %	Cafes	6	24 %
Cinema	8	32 %	Cinema	5	20 %
Plenty of jewellery and boutiques.	7	28 %	The public square	8	32 %
No special activities	-		Monument	2	8 %
			No special activities	4	16 %
Total	25	100 %		25	100 %

Table5 – different activities which pulls the users

unique activities	Military Tera area		unique activities	Merkato Adjacent to Anwar Mosque area	
	Number of respondents	%		Number respondents	%
Diverse commercial activities	6	60 %	Diverse commercial activities	7	70 %
No special activities	4	40 %	Religious	2	20 %
			Social activities	1	10%
	-		No special activities	-	-
Total	10	100 %		10	100 %

Table6 – different activities which pulls the users

As the table illustrates in Piazza area people use the street because of the diverse commercial and recreational activities found in areas adjacent to the street. There are plenty of jewellery shops, cafes and restaurants, boutiques and cinemas. The Cinema Empire is one of the major magnets which pull the users. When we come to the second case area which is in Beherawy area (Gambia Street) it also has diverse users, where most of the users come for its recreational activities like the theatre , cafes and to use the public square (Andinet square) mostly. But others use it because of they do not have any other alternative. When we come to the last case area found in Merkato area, people came in search of goods, merely because of its commercial activities. As compared to the other case areas Piazza area is full of diverse activities which can attract diverse users fairly.

4.1.2 Safety and comfort issues

According to different literature, safety and comfort are part of the major considerations to create a vibrant street life. Safety and comfort of a specific area is related to the movement and activity of the area. Openness of the buildings is also related to safety and comfort because people need observers by nature. So to know if the streets are safe and comfortable for the users the researcher asked the respondents, ‘if they feel safe and comfortable to walk in the streets, and if the buildings promote pedestrian activities or not?’ In asking these questions the respondents replied with different answers. Some of the respondents consider safety being directly related to knowing the area, while others considered safety to be related to density or crowdedness of the area. Still others consider safety to be related to the diverse activities and uses of the areas. Furthermore, others mentioned safety to be related to what the environment offers for the users.

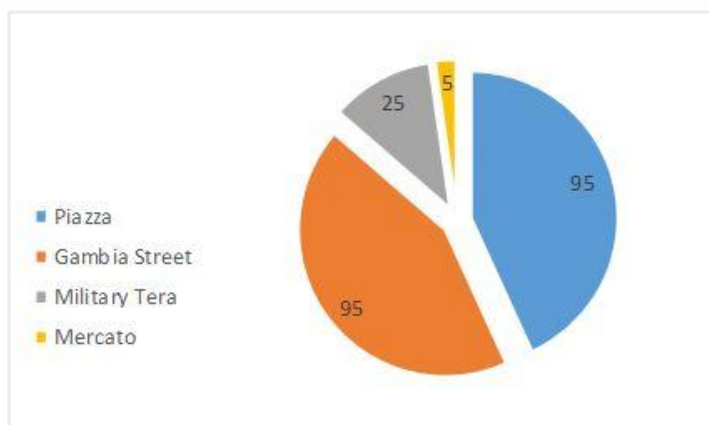


Fig 56- shows the percentage of the activity and building related to respondents. In asking them are the buildings promoting pedestrian activities?

As the table shows Piazza Area and Gambia Street are more walkable and safe environments. According to literature, density creates safety, but when we see Merkato the density itself creates uncomfortable environment for the users, it stimulates theft and other criminal issues. Almost all of the respondents in Merkato area do not feel safe to walk through the buildings or the streets. Most of the respondents do not consider the arcaded walkways as a pedestrian zone. They recognized them as a property of the commercial buildings because most of the retailers use the pedestrian way to put and show their materials. As the survey result shows 75-95 % of the respondents in Merkato say that the buildings of the area are not safe and also do not promote pedestrian activity.

4.1.3 Built Forms

One of the major intention of the research is to know if the adjacent built forms have an effect or not on the street life or on the pedestrian movement, and if the buildings have a direct effect in creation of lively street life. The researcher also investigated what (the pedestrians’) imagination or response is with regard to the case areas, built forms or buildings adjacent to the street. So in the survey, they were asked questions related to it. Like; ‘is it comfortable to walk through the buildings in the case area? Do the buildings promote pedestrian activity or not? Do pedestrians like the buildings or not? And also what their perception about the case area buildings is.

Case areas	Like the buildings	Comfortable to walk through the buildings	The buildings Promote pedestrian activity
Piazza cinema empire area	80 %	90 %	95 %
Gambia street	95 %	80 %	95 %
Military Tera	40 %	15 %	25 %
Merkato Adjacent Anwar Mosque	30 %	10 %	5 %

Table8 – perspectives of the respondents related to the built form.

Case areas	Piazza cinema empire area	Gambia street	Military Tera	around Anwar Mosque
Like the buildings	80 %	95 %	40 %	30 %
I don’t like it	-	-	10 %	20 %

I don't give attention to it	20 %	5%	50 %	50 %
total	100 %	100 %	100 %	100 %

Table9 - perspectives of the respondents related to liking the buildings.

Responses of the users	Piazza area		unique activities	Beherawy area	
	Number of respondents	%		Number respondents	%
Historical buildings	2	8%	Because of the arcades	12	48 %
Openness of the windows	6	24%	Historical buildings	7	28 %
Proportion and scale	5	20 %	Openness of the windows	2	8 %
Continuity	7	28 %	Continuity	3	12 %
I don't give attention	5	20 %	I don't give attention	1	4 %
Total	25	100 %	Total	25	100 %

Table10 – reasons of the respondents to like the buildings.

Responses of the users	Military area		unique activities	Around Anwar Mosques area	
	Number of respondents	%		Number respondents	%
Unique Building material	-	%	Because of the arcades	2	%
Historical buildings	-	%	Unique Building material	1	%
Openness of the windows (clear)	4	%	Historical buildings	-	%
Don't like	1	10 %	Don't like	2	20 %
I don't give attention	5	50 %	I don't give attention	5	50 %
Total	10	100 %	Total	10	100 %

Table11 – reasons of the respondents to like the buildings.

Piazza Area

In this case area most of the respondents give attention to the street and the adjacent built forms. There are diverse people fairly and continuously on it, especially in the afternoon, because of the theatre and the diverse cafes and restaurants. Mostly, the users are high school or college and campus students, employees near to the area, some people just meet their friends or buy something, and also others just to walk in the area.

As the survey result shows 90 % of the users are comfortable to walk in the area mainly because of the scale and proportionality of the buildings. The street has a good sense of enclosure and also encourages walking through mainly because of the shade created by the buildings and the diverse activity of the area. (Fig 57)

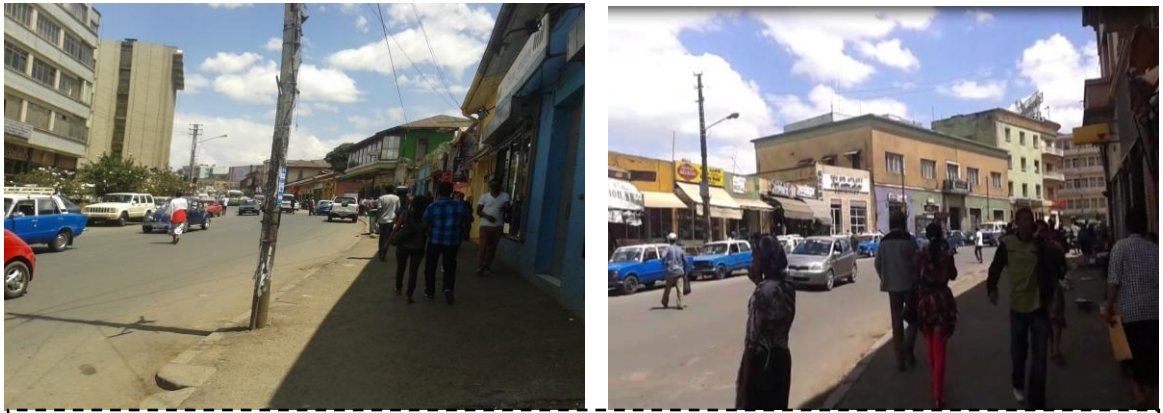


Fig 57: - shows the shade created by the buildings.

And almost all of the buildings on their ground floor are open and visible for the users and also for the pedestrians. And the pedestrians feel safe because of continuous movement of people in the area and also because of the diverse commercial and recreational activities. By this and other reasons the street promotes pedestrian activity. But most of the users complain about the street (pedestrian way) width especially around its junctions.



Fig 58: shows how the pedestrian way is crowded.



Fig 59: shows the open ground floor of the buildings.



Gambia Street

In this case area the researcher focused on the right side of the street, in going from Andinet square to Legehar. In this case area 85 % of the respondents were comfortable to walk through the buildings. The other 15 % of the respondents were uncomfortable because of its cracked walkways in some part of the area and because of its closed buildings which feel strange to use the street.



Fig 61: - shows the closed buildings (not give service in their ground floors)



Fig 62: - shows the cracked walkways

But almost all of the users like the case area buildings because of their arcades and because of the diverse architectural style of the buildings in the case area. And as the survey result show 95 % of the respondents said the buildings; arcaded buildings promote walking in the area.



Fig 63: - shows the arcade of the building.



Fig 64: - shows the diverse architectural style of the buildings in the case area.

Merkato

In Merkato case which is adjacent to Anwar mosque, some of the respondents, especially the street vendors are very eager. They like the arcades and they use it as a common place or room to chat, rest and sale their goods and also they like the buildings because they create comfort for them due to the shade created by the buildings. But most of the users chose to use the vehicular way, because the arcaded pedestrian way is very crowded by the street vendors and by the shop owners (most of the shop owners use the pedestrian way as their property to display their stuffs). Because of this most of the users especially women do not feel comfortable to use the pedestrian walkway.

As the survey result shows almost all of the users are buyers. They simply want to use it for a short period of time. Therefore, most of the respondents give no attention to the case area buildings or the street. They simply use the area in a while to gets some goods and then they leave the area.

4.1.4 Pedestrian friendliness

The major thing to observe in view of creating lively streets is the friendliness of the street to the pedestrian users. The main things that need to be measured with regard to the liveliness of the street is density of users and the diverse use of population. To know the pedestrian friendliness of the street, it was found out that pedestrian friendliness has a direct relationship with the street activities and uses since unique and variety of activities pull diverse users.

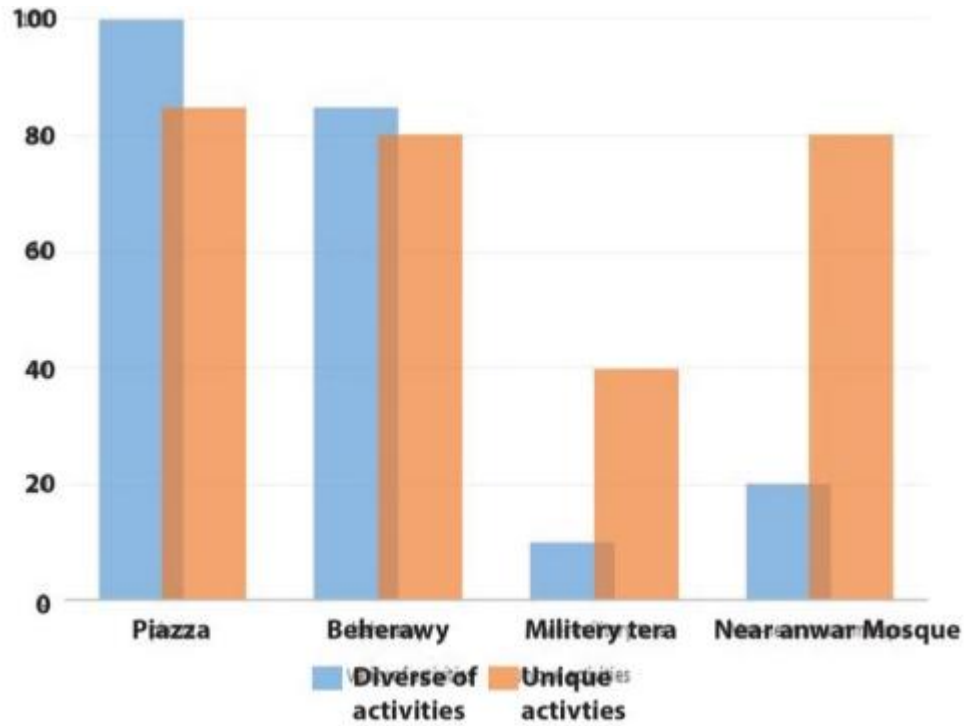


Fig 65: - shows the percentage of the respondents regards to diverse and unique activities of the case areas.

In comparing the case areas Piazza area has a more pedestrian friendly street than the others.

4.1.5 Satisfactory Activities of the Area

As literatures indicate, in checking satisfactory activities for users there are two major things to see. The first one is the variety of activities offered in the area; the second one is the visual appropriateness of the area. In this category we might check if the area is a welcoming place or not by seeing its visual attractiveness and its cleanness and also if there are special features and activities that catch an onlookers' eyes.

The first criteria are covered in the earlier part. So to avoid the redundancy of thoughts I skip it and go to the second one. When we came to the second measure, the researcher asked respondents if there are special features which catch their eyes. Surprisingly enough, almost all of the respondents in all the case areas except for Gambia Street said that there are no special features in the areas. But in seeing Gambia Street almost all of the respondents remember the area because of the statue which is found in Andinet Square. So, the respondents say it is a unique feature that catches their eye and that they can't forget it.

In seeing the visual attractiveness of the area, the respondents were asked if the area is clean and attractive or not.

Case areas		Is the area clean?	
		yes	No
Piazza area		95 %	5 %
Gambia street		95 %	5 %
Merkato	Military Tera	85 %	15 %
	Adjacent to Anwar Mosque	3 %	97 %

Table12- shows the respondents perspective about the case area cleanness.

So, in seeing the results and in comparing to the four case areas, Piazza and Beherawy streets have a good visual attractiveness with regard to cleanness of the areas as well.

4.1.6 Streetscapes and street furniture's

To know what facilities are exist the respondents were asked; what facilities or street furniture's are provide for the pedestrians. And also if they like or not the different street furniture's? And also asked what should be added? The result of the survey result was illustrated in the next tables.

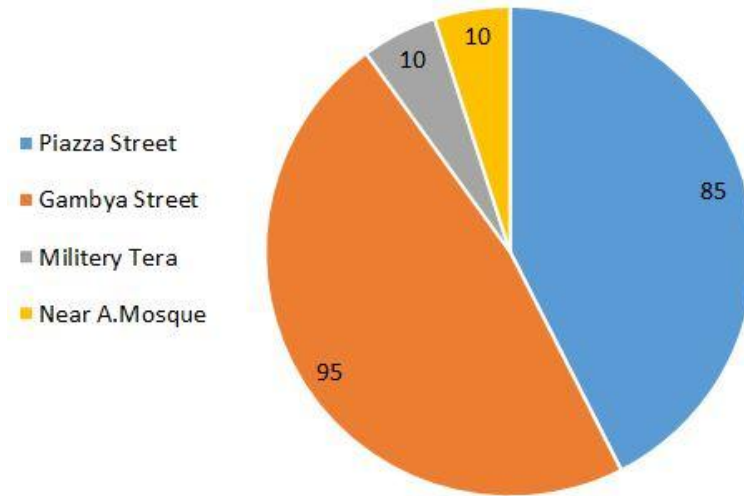


Fig 66: - respondents of the users in existence of street furniture's.

Case areas		Do they like the street furniture or not?		
		Yes, very much	Yes , but not that much	Don't consider
Piazza area		5 %	30 %	65 %
Gambia street		52 %	38 %	10 %
Merkato	Military Tera	0 %	10 %	90 %
	Adjacent to Anwar Mosq	0 %	10 %	90 %

Table13: - shows likability of the street furniture

In analysing the survey result regarding likability of street furniture in Piazza area, 35 % of the respondents said that they like the street furniture. In Gambia Street most of the respondents (90 %) like the street utilities and in the last case areas found in Merkato, almost all of the respondents do not like the street utilities because there are no much utilities that exist at this moment and the existing ones have also been damaged.

Respondantes were also asked whether they consider that green areas are present or not and whether they like them or not. The results were illustrated in the table bellow.

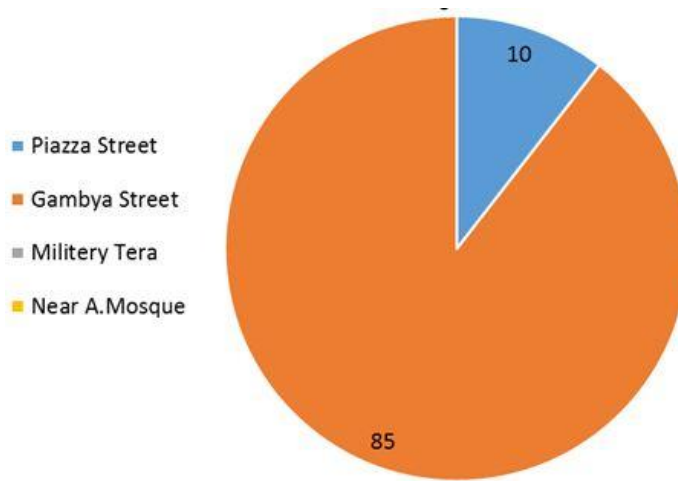


Fig 67: -shows the response how they consider green areas

Case areas		Like the green areas		
		Yes, very much	Yes , but not that much	No
Piazza area		0 %	5 %	95 %
Gambia street		55 %	36 %	9 %
Merkato	Military Tera	0 %	0 %	100 %
	Adjacent to Anwar Mosque	0 %	0 %	100 %

Table14: - shows the response of the respondents about the green areas

As the table shows in Piazza and Merkato site streets there are almost no green areas . But in Gambela street which is found in Beherahwy area, most (91 %) of the users like the green areas. But as the researcher has found out that in this site almost all of the green areas are found in the street medians . So the trees do not give shade for the users. They are simply aesthetical and render a cooling effect to the environment .

Respondents were also asked about the presence of sitting facilities for the pedestrians and if there are some, they were further asked if they liked them or not. The result is illustrated in the table below.

Case areas		Is there any sitting facilities?	
		Yes	No
Piazza area		75 %	25%
Gambia street		63 %	37 %
Merkato	Military Tera	0 %	100 %
	Adjacent to Anwar Mosque	0 %	100 %

Table15: - shows the Agreement to presence of sitting facilities in the case study area

Case areas		Like the sitting area		
		Yes, very much	Yes , but not that much	No
Piazza area		65 %	15 %	20 %
Gambia street		25 %	55 %	20 %
Merkato	Military Tera	0 %	0 %	100 %
	Adjacent to Anwar Mosque	0 %	0 %	100 %

Table16: - showing the response of the respondents about the likability of the green areas

As the survey result shows in the first case area namely Piazza, 80% of the respondents said that they like the sitting facilities which exist. In Gambia Street 65 % of the respondents like the sitting facilities which are found in the site. But in the last case areas which are found in Merkato, there are no sitting places. In seeing the respondents answer almost in all of the case areas we cannot find sitting areas in the street. In most of the adjacent built forms cafes and restaurants are offered as resting places for the users. But in the last case area there are no cafés or other places for the pedestrian to rest.

Lastly, the respondents were also asked if the case areas have lighting or not and if they like them or not. The result of the survey result is illustrated in the table below.

Case areas		Is there any lighting facility in the street?	
		Yes	No
Piazza area		75 %	25 %
Gambia street		65 %	35 %
Merkato	Military Tera	40 %	60 %
	Adjacent to Anwar Mosque	32 %	68 %

Table17: - shows the Agreement to presence of lighting facilities in the case study area

As the table shows, in Beherawy and Piazza areas there are lighting facilities. But as the observation and survey results show most of the street lights do not work properly in the night time. So the streets do not encourage walking in the night time.

In general, in almost all of the case areas, challenge to walk in the streets is directly related to availability of street furniture especially because of the limitation of street light and street trees. In the night time almost in all of the case areas there is lack of enough street light because this area does not give comfort and safety to the users.

4.1.7 Memorable or Preferable Places

As per the research investigation, most of the users like or prefer to spend time in the Piazza area as compared to the other selected case areas. Most of the respondents chose this area because of its diverse commercial and recreational activities and also because of the sense of enclosure and shade created by the buildings. Accordingly they preferred and easily memorized the area. Among the 70 sample survey 39 of the respondents chose Piazza Area, 23 of the respondents chose Beherawy area and the others chose Merkato area.

Sample Case areas		Percentage
Piazza area		32 %
Gambia street		56 %
Merkato	Military Tera	12 %
	Adjacent to Anwar Mosque	

Table18 -Memorable or preferable area by the users

Chapter 5

Finding

In observing the street character and street life that exist in the case areas within the CBD of Addis in relation to the built form and streetscape, we have seen that every street has its own character and life. Piazza Street is more historical and has a landmark character. When we see it with regard to the classification of roads, it falls under Collector Streets. The area has unique buildings. Most of them remind people of the past development of the area. The area has buildings with good proportions in relation to the street falling under 1to2.5 ratio which can be considered as a comfortable urban street. Even if the area has different land uses, namely, commercial, recreational and services, it is dominated by commercial buildings having shops that sell jewelry and other clothing items. Because of its mixed development and also the openness of the buildings on the ground floor, the area is full of diverse activities with diverse users. When we observe the landscape and street furniture of the area, it has no soft landscapes or street furniture except for street lights and dustbins.

When we come to Beherawy area, Gambia Street is also a historically significant axis of the city with a landmark quality. In this place most of the buildings especially in the upper part of the case area have a unique character because of their construction style and their wide arcades used as a public pedestrian zone. But, recently it became a dormant place, because it lost most of its activities on the ground floor of the arcaded buildings with shops being closed for unknown reasons. In this area there are also different public works of art that catch the eyes. The statue of the lion and the Andinet (unity) square located in front of the national theatre are poetic places in the area. The different art pictures which are posted in the arcaded walk ways also create a picture in the users' mind. And the street has an attractive landscape in the median which gives the area more beauty.

When we see the last case areas which are found in Merkato, regarding their activity and land use they are very similar to each other, with both being purely commercial. The areas are full of diverse commercial activities starting from street vending to big shops. They also have a dense pedestrian population where most of the users are buyers and sellers as it is a major commercial area of the city. But it has a wide variety of construction styles and building treatments. When we observe the Military Tera, the area was recently developed area. It is currently dominated by G+3 and G+4 commercial buildings with no arcade. And the street to building ration is under 1:1 to

1:5 .When we see the last case area, almost all of the buildings are G+0 buildings with arcades. Both of them are full of diverse commercial activities with no streetscapes and street furniture except for some street lights.

When we come to see the case area streets with regard to their response to pedestrians, they have some qualities and difficulties. The following table attempts to summarize the findings.

Case areas	Merit (Quality's)	Difficulties
Piazza	<p>Has a unique character with regard to the sense of enclosure and exposure. The street is classified under 1 to 2.5 ratio which can be considered as a comfortable urban street.</p> <p>Because this the area offers shade for pedestrian users,</p> <p>90 % of the users are comfortable to walk in the area mainly because of the convenient scale and proportion of the buildings.</p> <p>Some buildings have a potential in creating a notable atmosphere in the pedestrians' minds.</p> <p>Rich in having many clear doors and windows, thereby making the area active and friendly.</p> <p>The area holds diverse optional and social activities, and .because of this so many pedestrians is present in the area.</p> <p>The area is full of activities which can attract diverse number of users fairly and continuously.</p> <p>Because of the openness of the buildings, the street have active street frontage</p>	<p>Absence of adequate street furniture's and facilities:- dust bin, lighting, public arts, and shaded trees</p> <p>Congested in peak hours</p> <p>No facilities for disable peoples</p>
Gambia street	<p>The existing wide street has created a potential for uses such as sidewalk cafes that contribute to an active and engaging street life. The increased sidewalk width could also be used to provide additional public amenities.</p> <p>Wide arcaded buildings or shaded sidewalks</p> <p>Compose different land uses</p> <p>Unique and diverse architectural style of buildings and statue which have a potential to create a memorable environment in The pedestrians' mind.</p> <p>Active ground floors because of the open facades, which</p>	<p>Dormant activities-Most of the buildings do not give service in their ground floor creating inactive corners.</p> <p>Most of the Street lights do not give service so they do not encourage walking in the night.</p> <p>No facilities for people with disability</p>

	<p>give services such as a café and restaurant in some part of the case area.</p> <p>clear demarcation between pedestrian and vehicles movement area</p> <p>Attractive landscape</p> <p>It has a good proportion and sense of enclosure because of its streetscape</p> <p>The street somehow holds optional and social activities but not that much.</p> <p>Composed of diverse street furniture and streetscapes (street light, dust bins, public arts, statues, bollards, street trees) but need improvement.</p>	
<p>Military</p> <p>Tera</p>	<p>When observed with regard to scale and proportion the street can be classified under 1:1 and 1:1.5 ratio which can be considered as a comfortable urban street</p> <p>Good sense of enclosure and exposure.</p>	<p>The area holds only business activities .Therefore, the street is used only by buyers and sellers engaged in the commercial activity. It needs “mixture” of different activities.</p> <p>Has very narrow sidewalks</p> <p>Highly over-crowded by on street parking</p> <p>No street furniture except lighting.</p> <p>High need of sitting areas.</p> <p>No facilities for disabled people</p> <p>No clear demarcation of pedestrian and vehicular zone.</p>

<p>Near Anwar Mosque</p>	<p>Arcaded buildings or shaded walk ways</p> <p>Good scale and proportion of building with street,</p> <p>The area can classified under 1:3 ration.</p>	<p>The area holds only business activities. Therefore, the street is used only by buyers and sellers engaged in the commercial activity. It needs “mixture” of different activities.</p> <p>The area is over crowdedness, no visual quality or is not clean.</p> <p>The streets doesn’t encourage walking at the night time because it has no street furniture except lighting; also has poor sanitation and absence of adequate facilities like dust bins, lighting, resting place and shade.</p> <p>High number of vehicles but with no common parking area.</p>
<p>Table 19:- illustrates the merits and difficulties of the selected case areas.</p>		<p>No facilities for disabled people.</p>

The idea of a vibrant street life in the minds of many stakeholders is no more than creating a space for vehicular and pedestrian movement. According to respondents (officials), the streets are designed only to full fill standard design requirements in creating convenient streets that are provided with pedestrian walkways. The research found out that designers and planners have awareness about the issue, but most of the time they are obliged to follow rules, regulations, manuals and strategies of the sector since the sectors are governmental organizations. At the same time there are officials who work on the design from experience only, without having enough awareness about the concept of creating a vibrant street. Nowadays, somehow there is a practice of giving more attention to planning considerations. There are also good starts on proposed LDPs like the “Basha Wolde_chilot” project done by EiABC and Churchill Road proposal done by the Master Plan Office. These projects have a good start on giving emphasis and assumption for pedestrians and giving orientation with some details. The urban managers are also taking planning and design as a tool for development. Here we can mention the urban planning preparation and implementation strategy prepared in 2006 by Ethiopian federal ministry of urban development, housing and construction. This strategy clearly gives emphases for urban planning issues. One of this is street which according to the strategy at a city level manages to cover thirty percent from other land use components. Here in the strategy four planning approaches are taken as a basic tool in order to create a planned city. One of the major approaches is the structural plan; it is an urban plan that frames the major development issues of an urban center. One of the components of the structural plan is street. Here the structural plan just put the frame work of the

street but at a different level of plan, the strategy tries to involve the idea of streetscape starting from city going to regional linkage and going even further to neighborhood and block levels. At the city level, only street classifications from principal arterials to collector streets are considered but at the neighborhood level, local roads are designed by taking the major framework of the structural plan into account. Until now, this is the practice which the city government is following. But the strategy pushes to go further into street design to the level of giving block and street address. More importantly it mentions to work on design of street lights, street landscaping and building form with the overall framework of the city to be able to increase the social and economic value of any given area. According to the management sector, they are working on training professionals and sectorial structure to implement this.

In general, since a street needs to be a vibrant ‘public’ space, it needs to have presence of people using the street for various reasons and for long periods of time. The street can mostly be used by people if they are provided with good reasons to use it. Most of the users in Merkato area are buyers who simply use the area for a short to get some goods and leave the area. Hence most of them give no attention to the case area buildings or the streets. So streets need simultaneously support diverse use of activities commercial, service and recreational. But optional activities are more preferable in increasing the lively quality of an area. And also, if a specific area is attractive and has a lively street with better pedestrian life; it can support the local business and job as shoppers are walkers.

Ground floor experience is also one of the major things in creating lively streets. The quality of building frontages facing to the pedestrian way is a very important factor for the quality of street life. Closed buildings and walls create a strange and unsafe feeling in pedestrians’ minds. Safety and comfort of a specific area are related to continuous movement of people, activity and the openness of the buildings because people need observers by nature. Rich narrow units of shops, many doors and windows and good detailed ground floor facades are exciting to walk by, to stand and to look at. Activities inside the buildings and those occurring on the street are magnetic in drawing pedestrian attention and interest.

Scale and proportionality of the buildings have a major value in creating a relaxed environment and also comfort in the users’ minds. Street furniture has high value in creating lively streets. Streets must hold diverse street furniture such as street lights, planters, benches, unique furnishing of floors and public art to enhance visual vibrancy.

Chapter 6

6.1 General Recommendations

Streets are more than just channels for movement. They are places where people need to stop and wait for someone, rest, chat with others and admire their environment. So to maximize the use of streets some recommendations are pointed out -

- “Mixity” of uses should be involved within buildings that have the power of inviting people towards them. As was seen in Piazza area the buildings should incorporate different activities for leisure at the same time for business. By making flexible regulations in the LDPs; where the new developed buildings must regarding percentage of space use related to commercial, residential, services and other functions.
- To create quality and livable street, the area must hold diverse optional (urban recreation) and social activities instead of necessity activities
- Public areas (plazas and squares) should be prepared for people to sit, chat and walk around like the plaza found in Gambia Street.
- To create more attractive and un-boring walkable environment, unit of shop areas on the ground floor must have units, vertical relief in the facades and mixed details should be incorporated, so that the by-passers experience a more varied walk.
- Visual connectivity should be created between activities within buildings and the street by forming wide openings (windows and doors) on the ground floors of the buildings.
- Streets that create a sense of belongingness should be created by the streets, and streets should not be dominating in scale to pedestrians. For instance we can mention Gambia Street. Here the street is very wide and not related to human scale but because of the existence of the trees the street is well defined and makes people feel like they are within a space with a sense of enclosure.

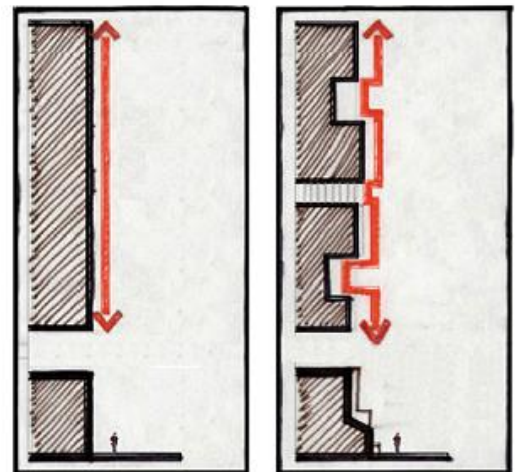


Fig 68:- example of staggered built edges.

- Building forms should have staggered built edges in order to have spaces that can invite people to come around. Hence monotonous buildings have to be avoided and instead unity and uniqueness has to be created to make the area visually attractive. So as a whole it is preferable to create active corners and appropriate proportion of buildings in relation to streets. Consistency in height, choices of color and architectural styles should be maintained.
- Street furniture has a high value in creating lively street life. Especially trees for shade and street lights take a very high share. Visually attractive places should be created by making streets furnished with street furniture such as street lights, planters, and benches, unique furnishing of floors and public art to add enhance visual vibrancy.
- Storm water treatment elements should be used in the streetscape to maximize the visual and recreational amenity of developments and also to increase urban biodiversity, property values and to help local climate.
- As it has been observed in all the case areas, it is not convenient to walk during the night making people feel unsafe. So to make the areas safe and active they have to be supported by enough street lighting in the street and the square to make them attractive in the day time, and also safe and visible in the night time.

- Setbacks should be created to accommodate outdoor social and leisure activities
- Existing arcaded buildings should be kept and in the new developed areas arcades should be provided within buildings to create a clear demarcation between pedestrians and vehicles. This can make the public feel safe to walk around in any kind of speed. At the same time arcades can give the opportunity to introduce street furniture and also to provide shade as it has been observed in Merkato and Gambia Street, though they have their own limitations.

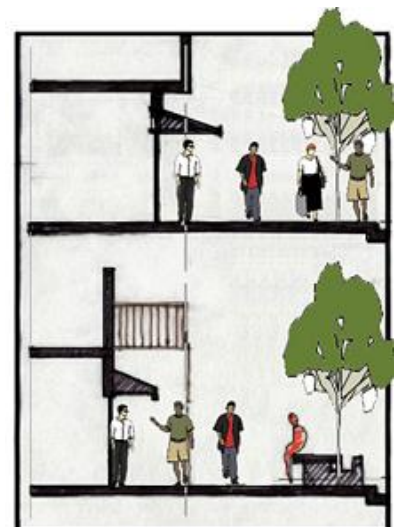


Fig 69:- example of arcades and setbacks.

- The pedestrian zone needs to be wide enough to accommodate pedestrian circulation and street furniture. As Beherawy has a wide street design, it is a potential street in demonstrating a more recreational oriented and a more improved street with pedestrian oriented lanes.

- Since creating clear demarcation between people and vehicles is one of the criteria to create vibrant street life, the streets should be provided with formal and common parking. As an example Merkato can be mentioned. Here people don't have a proper space to walk and vehicles are parked here and there. This makes the place highly congested. Therefore for such areas, parking buildings must be provided for vehicles and creating pedestrian free areas is necessary to make people walk around to shop.
- In general since a street is a public space, it must serve all kinds of people and provide easy access for people with disabilities.
- More importantly creating integration with stakeholders should be taken as a major tool to have a common understanding about the benefit of street life and on how to create it. So creating a street life starts from the design and then goes to implementation. In each stage starting from design to implementation and evaluation each responsible sector need to work in integration.
- Awareness needs to be created in the designers' mind and also freedom should be given to planners and designers so that they can demonstrate their creativity.
- In the context of Addis Ababa, emphasis is given to vehicles rather than pedestrians. But this should be improved because pedestrians are the ones that need consideration. Focus should be given to pedestrians since streets are the major public spaces of the city for pedestrians and in the context of our city of Addis Ababa; the pedestrian population is way greater than the population using vehicles.

6.2 Site Specific Recommendations for Case Study Areas

Design is for the people and it should be functional by incorporating social, economic and environmental benefits. As one of the elements of urban form, street is one entity that can contribute for an environment to work well for the users. Streets are the primary means of accessing urban facilities and centers of activity. For this reason it is vital for streetscapes to be designed for the safety of all users, including those who are too young, elderly and with disabilities. Therefore in order to make the environment function well, we need to have a proper street design and working guidelines. These design guidelines are contextual as frame-works for the structural plan and the existing situational analysis used as a tool. The guidelines present strategies for designing vibrant street life.

As it is been described in the analysis part, we have four case areas specifically named as Piazza, Gambia and Merkato area (the street on Military Tera and in front of grand Anwar Mosque). In preparing this guideline, the four case areas are classified in to two parts based on their similarity in character. Piazza and Gambia are categorized together on one part and Merkato (the street on Military Tera and in front of grand Anwar Mosque) is categorized as the other part.

- **Case area one and two: Piazza and Gambia Street**

General:

- Piazza and Gambia Street have similarities in land use. Both are characterized by mixed activity having more recreational characteristics. So as a place with this character, the quality and functionality of the street network needs to be ensured so that it can be used by multi variety of users', pedestrians, persons with disabilities and vehicles.
- Maintain the existing qualities of the streets

Piazza street	Gambia street
<p>Keeping the proportion and scale of the area by maintaining the existing buildings which have a potential to create a notable atmosphere.</p> <p>Most of the buildings are rich having many clear doors and windows, making the area</p>	<p>Active ground floors because of the open facades open ground floors.</p> <p>Public plaza with good shade and sitting area, and statue having a potential to create memorable environment in the pedestrian's mind.</p>

<p>active and friendly.</p> <p>The area holds diverse optional and social activities .because of this so many pedestrians is present in the area.</p>	<p>Composed of different, diverse land uses, having diverse commercial and economic activities. The street somehow holds optional and social activities even though it is not that much.</p> <p>Wide street with attractive landscape and a good vista.</p> <p>It has a good proportion and enclosure because of its streetscape in the medians.</p> <p>Wide arcaded buildings or shaded sidewalks</p> <p>Composed of diverse street furniture and streetscapes (street light, dust bins, public arts, statues, bollards, street trees) but needing improvement.</p>
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Table 20: - existing qualities of the streets

- Street furniture trees, lights, dust bins, public phones and signage should be provided and should be placed along one continuous line to ensure the quality and functionality of the street.
- To maximize the visual quality and also to perform the storm water drainage quality of the area, the porosity of the area must be maximized by introducing storm water treatment techniques in the street ,like porous pavement in the pedestrian way , using bio-retention swales in the street median and also by reducing more street trees .

- Design considerations should be made for people with disabilities by preparing ramps. Obstructions like signage, bollards, public phones and dust bins should be placed outside the path of travel wherever possible and textural changes should be made in the footpath surface.

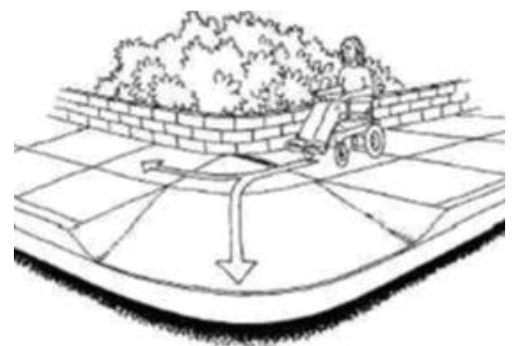


Fig 70:- shows how ramps provide access for the disable peoples.

- Buildings should be designed in a way of increasing surveillance of streets by making them face the street and providing with wide openings on the ground floors and on the above floors. Therefore dealing with architectural forms having these attributes can contribute to a better sense of safety.

- **Beherawy area ; Gambia Street**

- Streets by nature have a potential of attracting people. The design of streets must give more consideration to the pedestrians by creating wide pedestrian ways on both sides of the streets and narrow two way vehicular accesses.

- Streets should be wide enough to accommodate diverse street furniture and activities. In order to maximize the lively quality of the area, the buildings must hold diversified mixed activities of social, cultural, commercial and recreational nature.

- Specific areas should be designed to introduce and provide street vending activity.

- The existing arcaded buildings need to be maintained as they are part of the pedestrian walkway and new buildings must follow the trends of the existing building style which is arcaded building by also following a similar architectural detail pattern.

- In considering street furniture, in this area, seats should be provided on areas demarcated for pedestrians, by creating level differences. These level differences should be introduced between the resting areas which are provided with seats and the movement area, to be able to minimize distraction of the people who are resting and enjoying their view.



Fig 71- shows how sitting areas can be provide in the pedestrian access areas.

- Street trees should be planted parallel to the existing trees found in the medians and also new shade should be provided with trees that are planted in the pedestrian access roads by following a similar spacing pattern.

- **Piazza Street**

- To avoid the crowdedness of the area and to make it more comfortable for pedestrians, the street should be one way street.

- **Case area three and four: Merkato (the street on Military Tera and in front of grand Anwar Mosque)**

General:

Merkato area (the street on Military Tera and in front of grand Anwar Mosque) is largely characterized and known by its commercial activity. People only go there to buy and sell goods because there are no activities that can attract people. So as a place of commerce and more of pedestrian oriented place, it requires a street which gives more emphasis to pedestrians more than the other two case areas.

- Existing good qualities of the street with its buildings should be maintained; like its sense of enclosure should be duplicated in other areas and the existing arcaded buildings should be renewed.
- Design considerations should be made for people with disabilities by preparing ramps. Obstructions like signage, bollards, public phones and dust bins should be placed outside the path of travel wherever possible and making textural changes in the footpath surface is recommended.
- By considering the city’s structural plan, standards should be taken as the major frame works which give the street found in front of Anwar Mosque a 20 meter width.
- By taking the 20 meter standard, more emphasis should be given for pedestrians by giving 5 meter width on both sides and by creating a two way vehicular access.

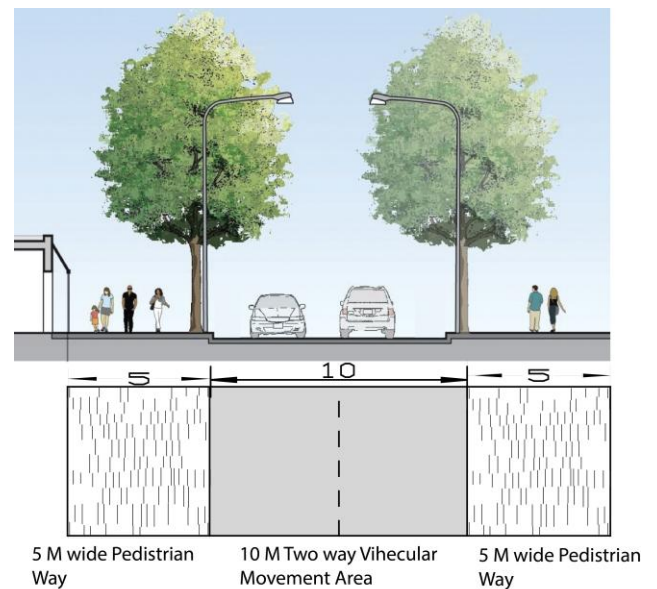


Fig72: - Illustration for Anwar Street - two way vehicle area with wide five meter pedestrian way.

- Useful street furniture like street light, dust bins, public toilets with in buildings, and canopy trees with proper standard should be provided and placed along one continuous line to ensure the quality and functionality of the street for all people.
- Since the street of Military Tera and Anwar Mosque are perpendicular to each other and our base line is creating a pedestrian street, we should connect the street of Military Tera with the pedestrian street of Anwar Mosque by turning it into a pedestrian street.



- Variety of commerce related refreshment functions should be incorporated with-in buildings that can allow the place to continue with its activities at night. In this way it can allow people to get rest after marketing events without ignoring the idea of the Structural Land Use of Addis Ababa, since it delineates the area as a primary market.
- Parking buildings should be provided somewhere around to give people a feeling of freedom to move around.

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Annex 1

Standards regards to street and their sidewalks and also the streetscapes

Road width standards

Streets	Right-off-way width (m)		
	Core areas	Intermediate Zone	Expansion Areas
Principal arterial – PAS	25,30	25, 30	30, 40, 50, 60, 100, 120 m
Sub-arterial-SAS	20,25	20,25,30	20 and 25 m
Collector streets – CS	>11 and <20	>11 and <20	>11 and <20
Local Streets- LS	4-10	8-10	10-12

Pedestrian ways standards

- Pedestrian ways should be provided on both sides of Arterial Street.
- For collector and local streets provision, location and size of pedestrian ways should be decided by Local Development Plans, Detail Plans, and other studies as applicable.
- Pedestrian ways should be raised 15-20 cm above the carriage way
- Minimum drainage slope of such streets should be 2.5%
- The capacity of footways should be 30 to 50 persons per minute per meter width after deducing approximately 0.9 m dead width in shopping areas and 0.45m else where
- The gradient of continuous ramps should not be steeper than 10%
- Minimum height of 2.3 m should be provided for pedestrian ways.
- Pedestrian ways of the following widths should be provided for the following areas

Pedestrian ways width standards

Street types	Average width of pedestrian ways (m)
Urban motorway	No pedestrian ways
Sub-arterials	2.5-4 both sides 5-8
Principal arterial	Should not be less than 3.5m and maximum 5. both sides total 7.00 - 10.00m
Collector streets	Should not be less than 2.00m
Local	Should be decided based on local conditions.

Average width of pedestrian ways along sides of arterial streets in

- Industrial areas - 1.8 m
- Shopping frontages - 3.7 - 4.5 m
- Business and commercial areas- 3-5 m and
- Areas along all-purpose road - 2.7 m

Green frame standard

And when we see the green standard for the Street walkways, the manual stayed should be provided with plantation (tree) at every 10 m.

OBSERVATION LIST

Observed Lists / using my experience	Yes	No
Is the buildings promote pedestrian activity?		
It has Special activities and features?		
Is it Visual attractive?		
Is it clean and well maintained?		
It has a place to sit?		
It has enough shade?		
It has enough light?		
It has access for disable peoples?		
Is it open to all class of people and age?		
Are there any activities having a potential of making a place m memorable and clear?		

1. Relationship between the street and the built forms

1.1 Enclosure , exposure and definition

1.2 Active frontage – if it has open facades in the ground floors

1.3 Is there a Clear demarcation between what is public, semi public and private space.

1.4 Are there any forms and artefacts having a potential of making a place more memorable and clear?

A. Yes

B. No

If yes identify and locate

2. Activities within a space/ what kinds of facilities are provided in these spaces? Identify and locate

Social activities list _____

Economic _____

2.1 How Livelily is the street in terms of activity

A. Hot B. Medium D. No Activity (Dead)

What are the elements/activities that make the area alive?

List

2.2 Which people mostly use these streets? Is it open for all class of people and ages?

General observation

If it is other, what are the reasons?

6. Why do you use the street? Because of

A. Positive filling for the space

C. other _____

B. No other alternative

7. Are you comfortable to walk in the area? Is the streets safe?

A. yes

B.no

C. yes, but not that much

8. Has the street have variety of activities and uses?

A. yes

B.no

C. yes, but not that much

9. Is there any unique activities?

A. yes

B. No

C. yes, but not that much

If yes what kind?

10. Do you enjoy the street activities of this place?

A. No

B. yes, but not that much

C. yes, very much

11. Is the street changes its activities in different times?

A. yes

B. no

If yes,

A. Day and night time

B. In weekends

C. Other _____

12. Are you comfortable with the buildings to walk through? Is the buildings promote pedestrian activity?

A. yes B. no C. yes, but not that much

Why, what is your emotions?

13. What kinds of amenities are provided in these spaces for the pedestrians? What utilities should be added?

14. Is there any green area in the street?

A. yes B. no

If yes, do you like the green areas?

A. No B. yes, but not so much C. yes, very much

15. Are there sitting facilities in this place?

A. yes B. no

Do you like them?

a. No b. yes, but not so much c. yes, very much

16. Are there lightings in the street?

A. yes B. no

17. What are the challenges of the street to walk through?

18. What is your suggestion to maximize the opportunities of the street to create vibrant/liveable street life?

Memorable and Preferable place

19. Which of the following places do you like most?

A. piazza cinema empire area B. Merkato area

C. Churchill road, around Beherawy

Why do you prefer? _____

FOR OFFICIALS/ DESIGNERS

Does the city have any stetted criteria's or regulations for street? Especially with related to the adjacent buildings and streetscapes?

Yes b. no

If yes, what are they?

Are you considering the buildings/ the adjacent built forms when you design the street?

What is your suggestion for the improvement for the existing streets and for the future development in creating vibrant street?
