



**Ethiopian Institute of Architecture, Building Construction, and City  
Development /EIABC/**

Assessing the historic urban character of the streetscape of Gandhi Street (old  
Churchill Avenue) within the context of development

Addis Ababa; Ethiopia

By  
Junedin Ahmed

A Thesis submitted to the school of graduate studies of Addis Ababa  
University for the partial fulfillment of the degree of Masters of Science in  
Conservation of Urban and Architectural Heritage

Addis Ababa University  
Addis Ababa  
January 2022

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Architectural Heritage.

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## **DECLARATION**

I declare that, this research report entitled as, “Assessing the historic urban character of the streetscape of Gandhi Street (old Churchill Avenue) within the context of development, Addis Ababa: Ethiopia” is original work of my own, has not been presented for a degree at any other university and that all sources of material used for the thesis have been properly acknowledged. Moreover, I understand that non-adherence to the principles of academic honesty and integrity, misrepresentation or fabrication of any idea ,data and fact will constitute sufficient ground for disciplinary action by the University.

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## **ABSTRACT**

### **Assessing the historic urban character of the streetscape of Gandhi Street (old Churchill Avenue) within the context of development, Addis Ababa: Ethiopia**

*This study is the Assessment of urban character of Gandhi Street (from Tewodros square to Mahmud Music Store), which is found in Addis Ababa, Ethiopia. The street exhibits the detailed artistic advancement and workmanship of 19th and 20th century Addis Ababa architecture. Which is known for its atheistic and landmark value in the city. The features of these streets are changing owing to urbanization and due to the new development of commercial activities. The Physical changes are mainly due to road side new developments. The Main features and characters of the streets have undergone rapid changes due to current redevelopment works.*

*In this study, the researcher assessed the heritage urban characters and features of Gandhi Street on both sides longitudinally. The key changes takes place and the threats facing are emphasized in the final results. Which the street is gradually losing its original features because of undocumented and unguided renovations works, new construction that doesn't fit the setting, as well as lack of maintenance and care by the owners heritage building. Because of this the city's architecture heritage along the streets are losing its main elements gradually.*

*The study mainly used on-site assessments, archival accounts, observation, and interviews to collect reliable data. Also a combination of streetscape photographic mapping and drawings are used to assess the heritage character and features of the street. As a result, based on the combined findings the researcher got two major recommendations. These are Streetscape Revitalization or conservation (The renewal of the physical fabric along the street and Find activities to attract tourists and other peoples), and preparing a legal guideline (to control incompatible changes on heritages). Finally the recommendation end up by showing sample streetscape revitalization and guideline.*

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## **LIST OF ABBREVIATION**

UNDESA: United Nation Department of Economic and Social Affairs

LDP: land use development plan

ICOMOS: International Council on Monuments and Sites

UNESCO: United Nations Educational, Scientific and Cultural Organization

MBBL: Model building bye-laws India

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

ARCCH: Authority for Research and Conservation of Cultural Heritage

## **GLOSSARY OF LOCAL WORDS**

Arada: it is the name of sub-city that the research is dealing.

Kebele: Lowest administrative unit in the urban and rural area

Zone: Administrative division of the country next to regional states.

Wereda: Administrative division of the country next to zone.

Gulit: a temporary market for selling local commodities in a small spaces.

Gebbi: is a palace.

## **NOTE**

- Unless otherwise specified all sources of photos and illustrations are duly done by the author.
- Unless otherwise specified all dates are in the Gregorian calendar.

## CHAPTER ONE: INTRODUCTION

### 1.1 Background

*“Great streets are usually iconic streets”* Allan Jacobs

Historic buildings and sites are the main cultural and historical identity markers for many society. Nowadays these historical elements are being destroyed due to uncontrolled urban growth which has a big role in affecting the local culture and historic values of the area (Kiruthiga et al, 2019). These developments may include urban renewal, city center developments, and increasing levels of the urban infrastructures for example new designs of the sewer system, proposed electric lines, the LRT system of the city, etc. currently, urban built cultural heritage is facing a significant threat from development pressure particularly in developing countries as a result of population growth, urban development, and economic growth (Kartidjo et al. 2019). Because of the above changes in urban areas, the iconic streetscape heritage of the city faces a tremendous problem. Since it is one of the most essential features of any city, they require appropriate regulations to address streetscape heritage issues so that they can pass down through generations (Mehanna et al., 2019).

Addis Ababa has a remarkable history. It all began in the 1880s when King Menelik, ruler of Shewa in central Ethiopia, established his camp at Entoto Mountains overlooking the present capital. His Consort, Queen Taitu, shortly afterwards moved down to the nearby plain of Finfinne, also known as Filwoha, to bath in its thermal water (Fasil G. et al. 2007, p 12). Mahatma Gandhi Street (after all referred as Gandhi Street) is a 19<sup>th</sup> and 20<sup>th</sup> century wooden and stone crafting and historic legacy of Addis Ababa. The Street is 650 meters long, and its width varies, it is 8 meters in the upper zone of the road from Mahmud to Enrico and 12 meters in the lower zone of the road from Enrico down to Tewodros round about. For more than a century, the streetscape historic buildings have stayed in place with little change but now it is under threat due to new urban growth. The street consists of arrays of articulated historic buildings of the nineteenth and twentieth century when residences of prominent government officials and some foreign advisers’ merchants built houses along the street. It is one of the oldest streets in the city that existed as a main path in the past to connect the main city center Piassa and Laghar Street by passing through Tewodros roundabout. The

Street is a fascinating snapshot into the artistic, political, economic, and social preoccupation of the time.

In the future, the Characteristics and techniques of construction used in this streetscape can help us understand historical events through the preservation of our tangible heritage. Since it is an old street it is narrower than the current Churchill Avenue but it consists many historic buildings with multiple significance. The commercial street with small-scale residences and shops are the current feature of the street. It is easily accessed from four access points and one street that crosses it. There is no public bus or taxi transit along the street, with the nearest bus stop located in current Churchill Avenue. However, the street is too short to be easily walked on foot in less than ten minutes by enjoying interesting old buildings with suspended decorated wooden balconies and an interesting mixture of stone and wood façade decorated buildings of the past.

However, the integrity of this historic street is threatened by emerging trends to alter and modernize the historic buildings, which would make them susceptible to irreversible change. Replacement of old heritages with new construction gradually turn off the social and cultural spirit of the city and removed the people's sense of place and identity for the city (Kiruthiga K. 2019). So careful monitoring, enforcement of regulations, raising awareness, and the promotion of preservation attitudes are amongst the actions needed to maintain the integrity of the streetscape. Keeping Historic significance, Historic context, and Historic integrity of heritage are the main aim of any conservation (Bhawan 2013, p 48).

The Research method, which is employed in this paper rests upon an in-depth site survey, which has conveyed an understanding of the historic urban character of Gandhi Street and the Impact of current trends of urban development then finally set recommendations. The method has three phases. The first phase is site inventory, which is investigating the historical background of the streetscape and historical patterns of the case area. Second, to analyze heritage value and impact of current urban development along the streetscape then thirdly examine and analyze the application of appropriate recommendation. This study is carried out in Addis Ababa, the capital city of Ethiopia. The study area is located in the northern part of the city, inside the major city center which is called Arada sub-city as shown in figure 1 below.

### 1.1.1 Location of the study area (Gandhi Street/old Churchill road)

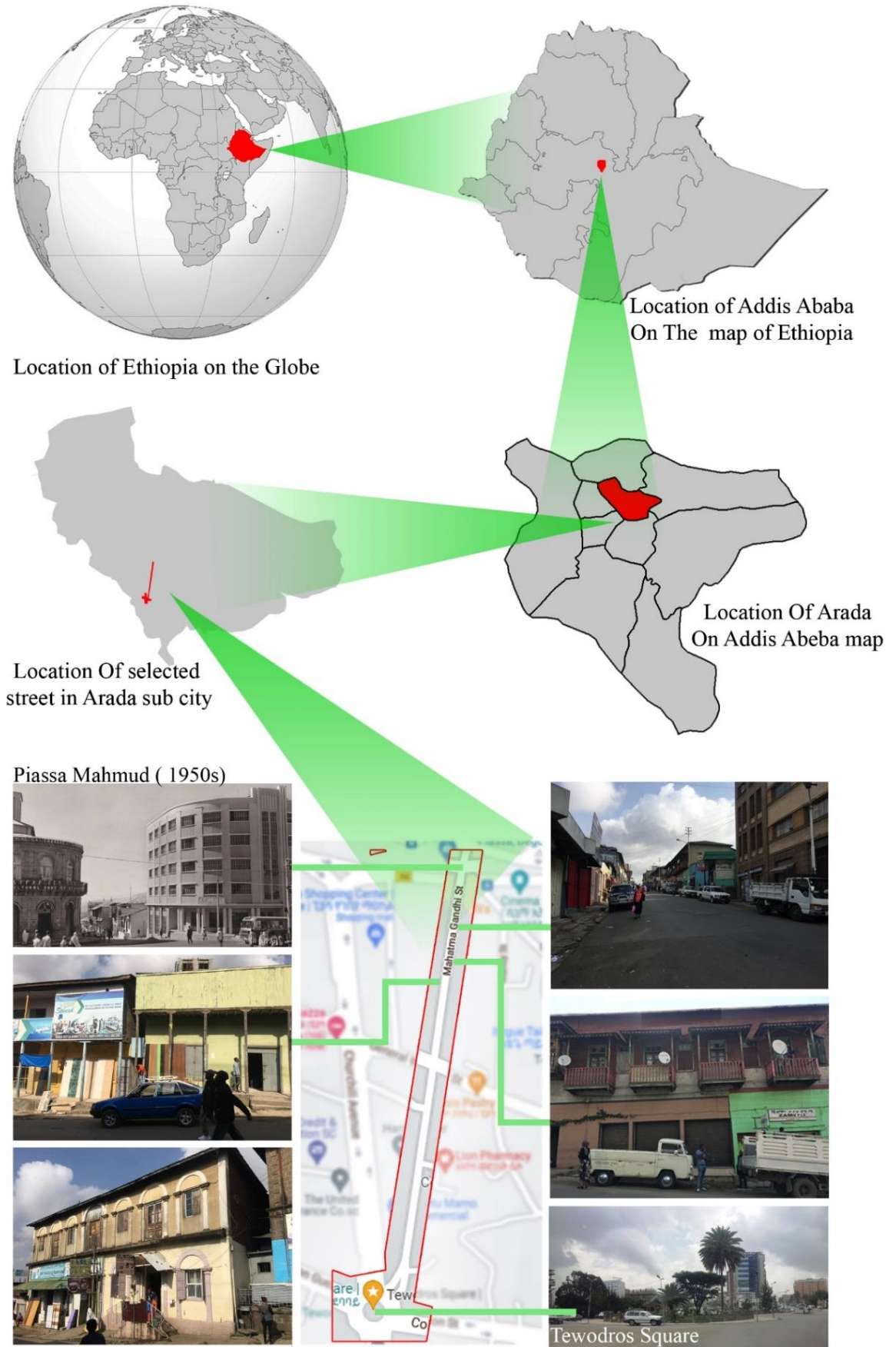


Figure 1: Location of Gandhi Street

## **1.2 Problem statement**

Many cities are experiencing rapid urban expansion as a result of population growth, industrialization, transportation, and other factors. Most of a city's development and changes are seen along its streets. Changes on physical settings of the street will have an influence on the people's impression about streetscape identity. That impression can be whether negative or positive (Hartanti 2014). So streets can be described as a field, product, witness, and also at the same time a victim of urban growth. When heritage streetscapes are well-controlled and regulated, the negative effects of urban growth may be mitigated, and the original identity of the heritage streetscape can be preserved. Otherwise, the city may suffer from cultural and historic losses.

The present trend of development activities along Gandhi Street does not have a well-integrated and wholesome approach to their effects on the existing urban heritages. This, however, should not continue for the sustainability of the city's development. Any development should be in line without compromising our responsibility to pass our natural and cultural heritage to the next generation. Therefore, the crucial question is how to achieve urban context value that would both enhance the local heritage character of the streetscape and at the same time urban growth that reinforces a sense of community. So this dissertation is introduced to address the missing gap to preserving city's heritage.

## **1.3 Research questions**

- What is the current condition of heritages along the streetscape of Gandhi?
- What challenges and opportunities are observed for the conservation of urban heritage along the historic street of Gandhi?
- What is recommended for the critical situation of heritages along this streetscape?

## **1.4 Research Objective**

### **1.4.1 General Objective**

The main objective of the research is to study the heritage urban character of the streetscape of Gandhi in the past and present then find the solution for the current new urban development impact on the existing heritages along the streetscape.

### **1.4.2 Specific objective**

- To study the impact of new development activities and changes along the street,
- To find ways of keeping basic historic character and show the possible ways of reconciliation between new development and the historic one.
- To identify/propose a cohesive and attractive urban development along the streetscape of the Gandhi, and for the people who live, shop, work, recreate and visit or pass through it.

## **1.5 Significance of the study**

This research paper primarily tries to show the positive and negative aspects of the present urban development affecting cultural heritages of the city to inspire the decision-makers of the city, to understand the shortcomings of the present mechanism of urban development and the expected negative impact on the local heritages along the streetscape of Gandhi. Most nations in the world have had many historic structures which could give strong testimony about their civilization and the level of their achievement through history, but in the case of Addis Ababa, this is under threat because of current trends of urban development. It will be a reference for the researchers.

## **1.6 Scope**

### **1.6.1 Spatial scope**

The study is limited in scope to the heritage street in Addis Ababa Arada Sub City, woreda 01, in the specific area between Tewodros roundabout and old Mahmud music store. The study will look at changes taking place on both sides of the street.

### **1.6.2 Thematic scope**

The scope of this research is limited to the physical heritage and socioeconomic characteristics and activities of Gandhi Street. As a result, while the preservation and conservation approach for each historic property will not be explored in-depth, rather the recommendation for those heritage buildings to be preserved as a heritage along the street will be addressed.

## **1.7 Limitation of the Study**

Because the majority of historic structures in the study area are not recognized as national heritage, written archival narratives or photos linked to any form of data or

historic background is scarce. So the study needs to employ more or less at current context of the study area.

## **1.8 Research Methodology**

This thesis used a qualitative technique with visual inspection to analyze the status of the street and the impact of new development on it. Field observations, interviews, library, and archive research were used to collect data. Fieldwork was conducted with the use of field instruments such as a digital camera and a measuring tape to document both the Streetscape and the activity seen on the street. To describe the challenges for street heritages, data analysis was done using descriptive drawings and in explanatory written ways. Refer to Chapter Three for more information about the method used by the researcher.

## **1.9 Organization of the Thesis**

There are Five Chapters in this research paper. The first chapter provides an overview of the study area, including a broad description and location. The Second Chapter deals with literature reviews. The Third Chapter describes the methodological approach used throughout the study period, as well as the data collection instruments, processes, and analyses used in the research. The data analysis, findings, and discussion are covered in Fourth Chapter. Conclusions and recommendations are presented in the final chapter.

## CHAPTER TWO: LITERATURE REVIEW

### 2.1 Definitions and concepts of key terminologies

#### 2.1.1 Definitions and Basic Concept of heritage

The term “Heritage” derives from the Latin word *patrimonium*, which is the combination of two words, “*pater*” which means (father), and “*munus*” which means (duty). So it gives a literal meaning “the duty of the father” and, more or less it can be translated as “things belonging to father,” that is, the properties that belong to the father with marvelous value and sense (Selicato 2016).

The definition and scope of heritage were not the same worldwide, starting from the Venice Charter in 1964 up to now. For instance, the term ‘historic monument’<sup>1</sup>, ‘monument’ and ‘site’<sup>2</sup> and ‘cultural property’<sup>3</sup>, was used at different time. These different terms were later on reconciled by ICOMOS and UNESCO in 1972. Especially at national and regional levels, the scope of heritage was widened to include the following: landscape, gardens, environment, and later reinterpreted and defined quite differently in Canada, China, Europe, Australia, and New Zealand. Even though, the scope of heritage, in general, is now agreed internationally to include 'intangible' and 'tangible' as well as 'environments', the better terminology of “heritage” has not been standardized, and thus no consistency exists between countries (Ahmad 2006).

#### 2.1.2 Basic Concept of Heritage Conservation

Heritage conservation deals with processes or actions to safeguard the character-defining elements of a cultural resource to extend its physical life and retain its heritage value (Rappoport 2020). Furthermore, Rappoport,(2020) further explains heritage conservation as the process of maintaining and managing change to a heritage asset in a way that sustains and enhances its significance. On the other hand, some also state “Conservation” is the process of looking after a place to retain its historical and/or architectural and/or aesthetic and/or cultural significance and it includes maintenance, restoration, preservation, adoption, and reconstruction or a combination of more than one of these (Mbbi 2004).

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<sup>1</sup> This term 'historic monument' was used in the Venice Charter 1964 to represent the term heritage

<sup>2</sup> This term 'Monument' and 'site' was used by ICOMOS in 1965 to represent the term heritage.

<sup>3</sup> This term 'cultural property' is used by UNESCO in 1968 to include both movable and immovable heritage.

### 2.1.3 Definitions and Basic Concept of Streetscape

Streetscape is the visual representation of three-dimensional (3D) urban space that covers from the building façade of one side to the other side of the street. It consists of three basic layers: the private frontage, the public frontage, and the vehicular lanes

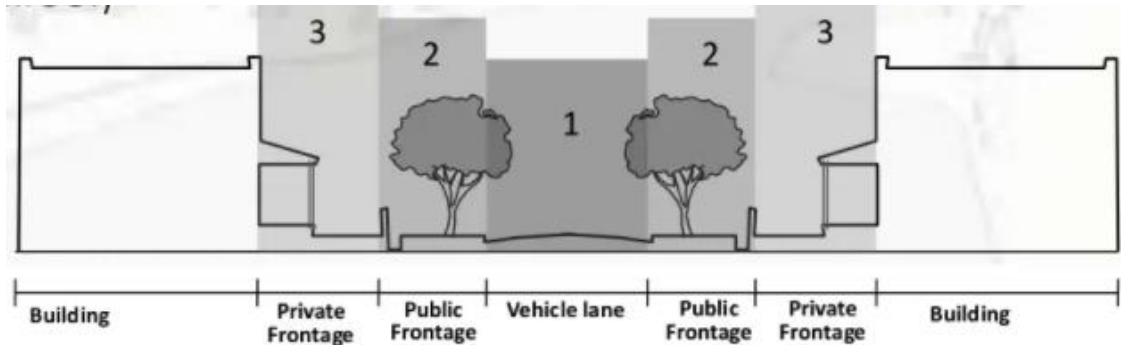


Figure: 2 the three layers of streetscape

Source: *Streetscape connectivity Artepolis presentation revision*

(<https://www.slideshare.net/iimsaja16/streetscape-connectivity-artepolis-presentation-revisi>)

Most cities have been arranged around their streets. Streets are the city's major public area and its pattern is a major element of the urban plan. Streets in any part of the city have a great cultural or commercial significance (Ismail 2019). Ismail continue explaining Streetscape as an important vista of the city that people understand and create the general image and identity of their city. Streetscape is the main public place of a city that consists of the most vital organs of the city. Streets come first to our mind when we think of any city, it is believed that an urban place or a city needs identity so it can be seen as unique or separate from any other city. Identity is an important attribute of any city.

Peoples of the city experience their city while they move through the streets. They perceive and sense the information presented along the street as they pass through it, and that creates a sensitivity about the city's value (Embaby, 2015). The street is a cities view where any visitors are putting the first sight impression and which decides to like or dislike a city or even fall in love with it. Kevin Lynch's five elements of the image of the city, i.e. landmark, path, nodes, district, and edge; he explains path as the most important one because people can identify the other four elements using it. Some streets restore the city values, events, memories, history, and generally its restore cultural identity.

Finally, Embaby, (2015) continues explaining, today Actually, almost all the developments and changes in a city occur along the streets, therefore, it can be said that

streets are the arena, product, witness, and also the victim of urban growth. So when the streetscapes are controlled and regulated in a good manner, the negative impacts of urban growth can be managed, and the original identity of the streetscape can be conserved otherwise it may cause cultural and historic loss for the city.

#### **2.1.4 Streetscape design elements**

Some of the basic Streetscape design elements include; sidewalks, seating, building facades and walls, street corners and curb extension, planters, trees and landscape strips, trash/ash receptacles, fences screening, alley and in-fill spaces, public arts, fixtures/utility zone, special activity and event spaces, signage, painting, and lighting (Embaby, 2015).

#### **2.1.5 Streetscape Heritage character**

Streetscape character deals with the appearance and relationship of the exterior features of a town/city that determines its character (Nurhikamh et al. 2013). People see streets as linear three-dimensional spaces in urban areas, and they experience spaces generated by building facades, sidewalks, rows of trees, and other components of the city as they move through the streetscape. As a result, the character of the streetscape and street has a significant impact on users, determining people's perceptions of the city's character as well as the city's cultural identity (Embaby, 2015).

On the other hand streetscape character also defined as "A view or scene of streets," according to the American Heritage Dictionary 2011, "is the visual features of a street, including the road, nearby buildings, sidewalks, street furniture, trees, and open spaces, etc. that combine to establish the street's character."

Generally, the appearance and interaction between a city's exterior characteristics and the design aspects of its streets that establish its distinctive character are referred to as streetscape characters. To be communicated effectively with a short-term plan, improvements to a city's character and activities that aim to boost local identity must portray or appropriately remodel local streets. Indeed, many cities have adopted the strategy of employing streetscape as a primary urban component to revitalize neighborhoods and introduce a sense of harmony, values, and identity.

#### **2.1.6 Elements of the historic streetscape**

According to (Embaby, 2015) The basic elements of historic streetscape are divided into two major parts:

### 2.1.6.1 Static element

It is the physical attributes of the street that comprises the building envelope, the open spaces, the road lane, the street furniture, and the green infrastructure.

### 2.1.6.2 Dynamic element

It consists of the activities in the street space, including the movement of people on the vehicle or as pedestrians and their activities around the building which are connected or oriented to the street.

## 2.1.7 Urban identities

Urban identity is the attribute that provides places individuality or distinctiveness from other places and serves as the basis for its recognition as a separable entity (Lynch, 1960). These attributes of urban identity are the interaction of three components: the physical setting or appearance, function or observable activities, and finally the meaning and symbols. Identity of a place is the experience of the eye, mind, and intention of the observer to the physical appearance of the place. Human beings are more likely to recognize the distinctiveness or uniqueness of the environment as the attributes of imageability and identity. Generally, urban identity is seen from two perspectives: the first one is from the insider (residents - it is the collective identity) and from the outsider (visitors - it is a distinctive identity).

## 2.1.8 Current trends of urbanization

Global trends in urbanization in 1960 the worldwide urban population was 34%. However, by 2014, the urban population had increased to 54% of the total and is still growing. The number of people living in cities is predicted to reach 66% by 2050 (UNDESA, 2014).

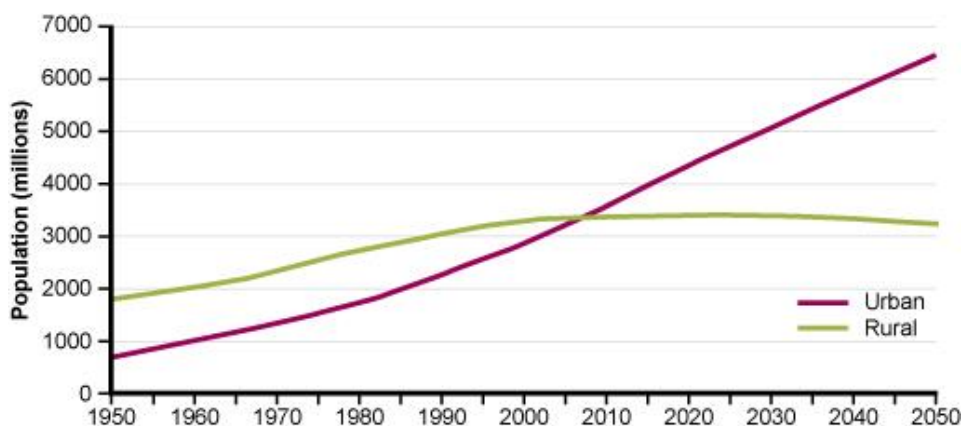


Figure 3 Urban and rural population of the world, 1950–2050. (Source: UNDESA, 2014)

The graph above depicts the global change in rural and urban populations from 1950 to estimated statistics for the year 2050 by the United Nations Department of Economic and Social Affairs.

## **2.2 Significance of the Site**

Gandhi Street is exceptional and considered as special among the old historic streets found in Addis Ababa. The character of the street exhibits the detailed artistic advancement and workmanship of late 19th and 20th century Addis Ababa architecture. This Street is known for its historic buildings and the quality of its interesting handcrafted building, particularly the wooden and metal facade elements along the street. The most spectacular part of the cultural heritage of the city is certainly the traditionally handcrafted building facade, whose architectural form is very typical, specific, and original. Their architectural and ornamental façade qualities are now part of the city's cultural heritage. Their style is unique and quite exceptional compared to the recent building design ideas and materials. But now some modern buildings have damaged the traditional architectural typologies of the street.

The Street expresses the influence before the 1930s with original Addis Ababa style buildings. The existence of these buildings along the streetscape gives evidence of the history of the city. The structure of the street, with its original housing typology, is the most significant cultural heritage of the city. The significant number of historic buildings defining the street gives evidence of the major historical streetscape in the city.

### **2.2.1 Historical background of the study area**

#### **2.2.1.1 Historical background of Piassa/Arada**

Addis Ababa initially grew around two nodes – the Gebbi which is the political center and St. George Church as a religious center which Arada also gained cultural and commercial importance. The initial form of trade in Arada was the barter system<sup>4</sup>, which served as money. Later, some form of currency was needed to effectively carry out the trading activity in the area.

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<sup>4</sup> It is the oldest way of trading system using amole/salt bars. Later it is replaced by motherthra and different coin system.

After the establishment of Arada as a new section of the city many Italians, Greeks and Armenians were most of the settlers of the site. The Armenians lived in the area as goldsmiths and liquor trade while the Greeks were involved as shoemaking and architects. Armenians had a long tradition of living in Addis Ababa, as a family and community. Their Orthodox Christian beliefs helped them in becoming an influential and tightly knit community in Addis Ababa. After 1895, the Armenian population in Addis Ababa grew. This happened due to the worst massacre by Turkish Sultan Abdul Amed II ordered that took place in 1895. this phenomena brought many Armenian by various routes to Ethiopia (Garretson, 2000, p 66). On the other hand, Emperor Yohannes IV, invited Dikran Ebeyan, the first Armenian in Ethiopia, to make a golden crown. After completing his service, he left Ethiopia, but Menelik demanded that he and his family return to Addis. Three Armenian goldsmiths worked permanently at the Ghebbi at the time, and they would have taught Ethiopians the skill of filigree. (Paolo et al 2004). Arabs had also a long tradition of participation in the economic arena.

Following the killings of 1905, a second wave of Armenians migrated to Ethiopia. In addition to working as craftsmen, Armenians took up new jobs as engineers, traders, and, particularly, liquor merchants, thanks to the existing railway between Djibuti and Dire Dawa. In Addis Ababa in 1910, there were 146 of them (Dejene 1986). They prospered mostly as craftsmen serving the higher classes, according to Bahru Zewde.

#### **2.2.1.2 Historical background of Gandhi Street (old Churchill Avenue)**

Before the preparation of the second city's plan in 1959, Mahatma Gandhi was used as the main Churchill Avenue. At that time the old Churchill covers from laghar train station through Tewodros square and passes through Mahatma Gandhi Street. So before the extension of the new monumental axis of today's Churchill Avenue, Gandhi street was used as Churchill Avenue for a long period (Dejene H, 1986). Dejene continue explaining the development of the plan was undertaken by the French mission's d'urbanisme et d'Habitat (SMUH) in collaboration with the city municipality. The very basic thing this team proposed was the extension of the monumental axis (Churchill Avenue which is from Municipality to the railway station) southward and reconstruction and renovation of the piazza. Then finally Churchill Avenue changed its direction and become from laghar train station to Addis Ababa municipality.



*Figure 4, Mahatma Gandhi Street 1935*

*Source: Old Tracks in the New Flower. A Historic Guide to Addis Ababa by Paolo, 2004*

After a new development plan was prepared by French missions and city municipality, the extension of the monumental axis which is new Churchill southward ( which is toward the current municipality building) was planned and the direction of the avenue changed as shown in the figure below (figure 5 and 6). Since the Gandhi Street is found in Arada always it has been a meeting place for different people. Various types of commodities were sold. People traveled from the surrounding villages of Addis Ababa to sell their products and buy imported items or other commodities in the market.



Figure 5: the three major places of Addis Ababa and old Churchill Avenue that connect old train station and Arada through Gandhi Street. Source: A city shaped by diplomacy van Gameren and A. Tola, 2017



Figure 6: new and old Churchill Avenue historic development (extension of the monumental axis)



Figure 7: old and current Churchill Avenue in the 1970s

Source: [https://scontent.fadd11.fna.fbcdn.net/v/t1.64359/106312027\\_3617005214996321\\_568129521764661526\\_n.jpg?\\_nc\\_cat=103&ccb=15&\\_nc\\_sid=8bfef9&\\_nc\\_ohc=MByCaDUvVtcAX\\_pnO1f&\\_nc\\_ht=scontent.fadd11.fna&oh=e4a6fc87b177ef1e736b2f8ffc6347ea&oe=61B81612](https://scontent.fadd11.fna.fbcdn.net/v/t1.64359/106312027_3617005214996321_568129521764661526_n.jpg?_nc_cat=103&ccb=15&_nc_sid=8bfef9&_nc_ohc=MByCaDUvVtcAX_pnO1f&_nc_ht=scontent.fadd11.fna&oh=e4a6fc87b177ef1e736b2f8ffc6347ea&oe=61B81612)

## 2.3 History of Master plans of the city

### 2.3.1 Pre-Italian occupation

Before the coming of Italians the city have sketch by Edward Gleichen In 1898, he came to Addis Ababa to stabilize Anglo-Ethiopian relations. According to his sketch, the settlement is centered on Gebi (figure 8).

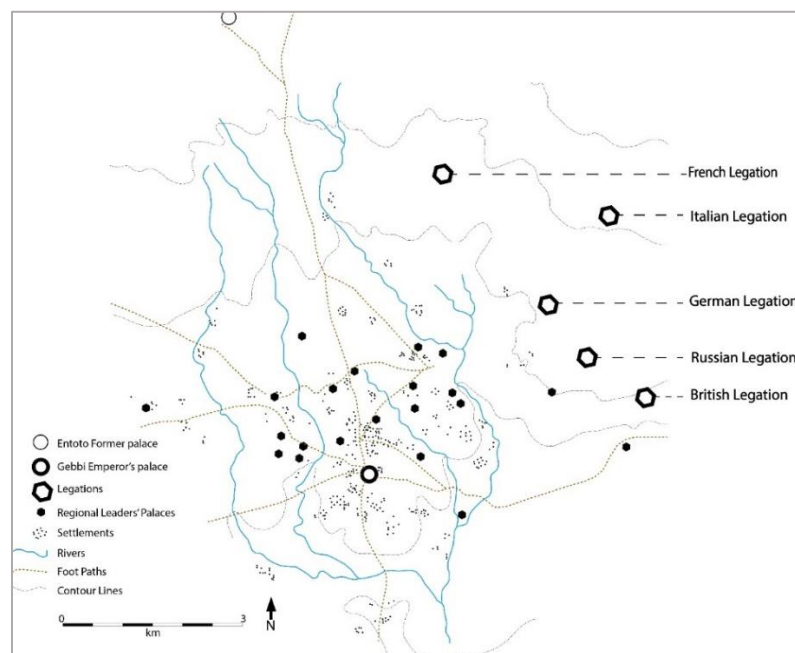


Figure 8: Edward Gleichen plan of Addis Ababa

Source: *A city shaped by diplomacy* van Gameren and Tola, 2017

### 2.3.2 Post-Italian occupation period

Five years after the occupation of the Italian army the development of the city of Addis Ababa was reactivated again with the loan from the international development bank. Then in 1945-54, the city started studying the Second Master Plan by English planner Sir Patrick Abercombie. His plan was centered on the creation of Arterial Street, preservation of Open Street, control land use, development of neighborhood units, and also the foundation of some satellite towns. But his study failed due to the major defect of considering the population growth rate of the city as low as 1.5 % per annum for the coming thirty-year (Dejene H, 1986).

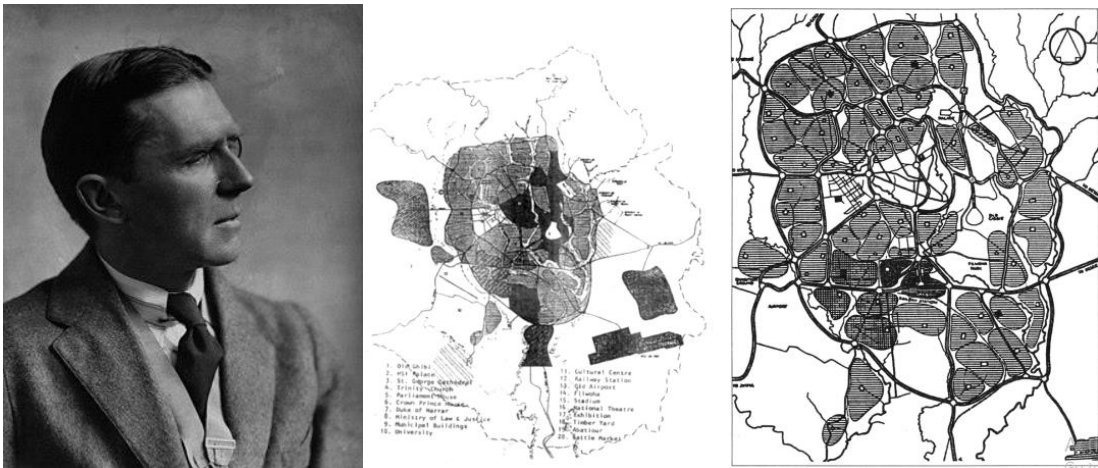


Figure 9: Sir Patrick Abercombie

Source: <https://www.archinform.net/arch/6705.htm> last update: 9/22/2021

After four years, in 1959, the early Master Plan by Sir Abercombie was amended and completed by Bolon and Hennessey and Partners, a British urban planning consultancy. By concentrating on the development and refining of the first idea, but with a population range of 800,000 to 1,000,000.

The second development plan was created in collaboration with the city municipality by the French mission d'urbanisme et d'Habitat (SMUH). The main proposal made by this group of planners was to extend the monumental axis (Churchill Avenue, which runs from the Municipality to the railway station) southward, as well as to extend industries along the railway line and to restore and renovate the piazza area. The minister of urban development and housing's department of town planning and land administration prepared Addis Ababa's future development plan (MUDH). The study looks at urban issues on a national basis and proposed new regional groupings (Dejene H, 1986).

An Ethio-Italian team conducts the Third Masterplan study in 1984-86. Between 1955 and 1968, Addis Ababa had unprecedented building activity. A large number of public buildings, apartments, factories, residential residences, educational and medical facilities, and other structures were built. As a result, the country's first construction code is prepared. The Ethio-Swiss Institute of Building Technology (ESIBT) was recognized as one of the many institutions that played a significant role. Furthermore, it was instrumental in the development of the country's first building code. Following this, the Ethiopian Association of Engineers and Architects (EAEA) was founded, and its first president was chosen on July 12, 1963, at the association's fourth meeting. Michael Tedros, one of the city's American-trained architects, was the association's first president. The establishment of a department of architecture and urban planning in the college of technology of Haile Selassie I University in Addis Ababa with ten students in 1963 had a significant impact on Ethiopian architecture (Dejene H, 1986). All of these historical events have had a significant effect on the city's architectural and construction activity of the city and the change in street direction in to new monumental axis creates a significance impact on the surrounding.

#### **2.4 Proposed building height regulation of the site**

The building height along Gandhi Street is mainly falling into subcategories. The first one is in the upper part of the street (zone 1 refer to figure11) which is identified as a historic area the maximum building height allowed is 21 meters. The second zone is in the lower part of the street with a maximum height allowed from 35- 70 meters. For more information refer to (Appendix 2).



**Legend**

- Zone 2 with maximum building height from 35 - 70 meter
- Zone historic area maximum building height 21 meter
- Roads

Figure 10: building height restriction of the site

Source: ADDIS ABABA PLANNING PROJECT OFFICE

The description of building height, FAR, and street type in the study area is described in the following table below:

color	zone	(floor area ratio) FAR		Street type	Building height (meter)	
		minimum	maximum		minimum	maximum
	1	10	unlimited	-	70	Unlimited
	2	5	unlimited	≥ CS	-	70
		4.5	5.5	LS	-	35
	3	2	unlimited	≥ CS	-	35
		2	5		-	35
		0.5	unlimited	≥ CS	-	35

	4	0.5	3.5	LS	-	35
	Historic areas	0.5				21
	Green areas		0.05			
LAGEND: CS=Collector Street LS=Local Street						

Table 2: Building height, FAR, and street type description

Source: ADDIS ABABA PLANNING PROJECT OFFICE

## 2.5 Proposed Land use

The land use in the street is a mix of commercial activities and mixed residential (see Figure 9). A high percentage of commercial also contributed to the lower part of the street. Mixed Residential land use is limited and the commercial one is more or less arranged along the street. So the primary land uses in the area are mixed residential and commercial. Piassa serves as an incredible multi-use public space that provides both formal and informal activities. The increase in pressure of commercial retail use has caused rapid building use conversions from residential to commercial and storage facilities. The presence of informal vending transforms the street at night. The informal vending stalls, mostly food stalls, jewelry, close selling are set up in the open space around 11:30 when the formal daytime uses have closed up for the day.






Figure 11: land use of the study area

Source: ADDIS ABABA PLANNING PROJECT OFFICE

A detailed description of the land use map of the site is found in the following table below (Table 2).

<b>color</b>	<b>Code</b>	<b>Major Land use</b>	<b>Sub Category</b>	<b>Prohibited Use</b>	<b>Basic/ Mandatory Regulation</b>
	R-3	Mixed Residence (R)	High Density Mixed Residence	<ul style="list-style-type: none"> <li>• All Manufacturing and Storage</li> <li>• Treatment plant &amp; Landfill</li> <li>• Cemetery</li> <li>• Slaughterhouse</li> <li>• Quarry</li> <li>• Stadium and Prison, Military establishment</li> </ul>	<ul style="list-style-type: none"> <li>• At least 40% of the permitted building function should be a residence (40% of the FAR excluding parking space)</li> <li>• Social service, worshipping place, administration, car parking building, public park, the hotel is not obliged to mix residence</li> <li>• One tree (2mx 2m) every 100 m2 plot area</li> </ul>
	S-1 S-2	Social Service	Education and Health	<ul style="list-style-type: none"> <li>• All except functions defined within the same sub-category</li> </ul>	<ul style="list-style-type: none"> <li>• Secondary school includes secondary and preparatory levels</li> <li>• Playground/multi-purpose sports field for all education facilities</li> <li>• One tree (2mx 2m) every 100 m2 plot area</li> <li>• Public toilets for all sport facilities</li> </ul>

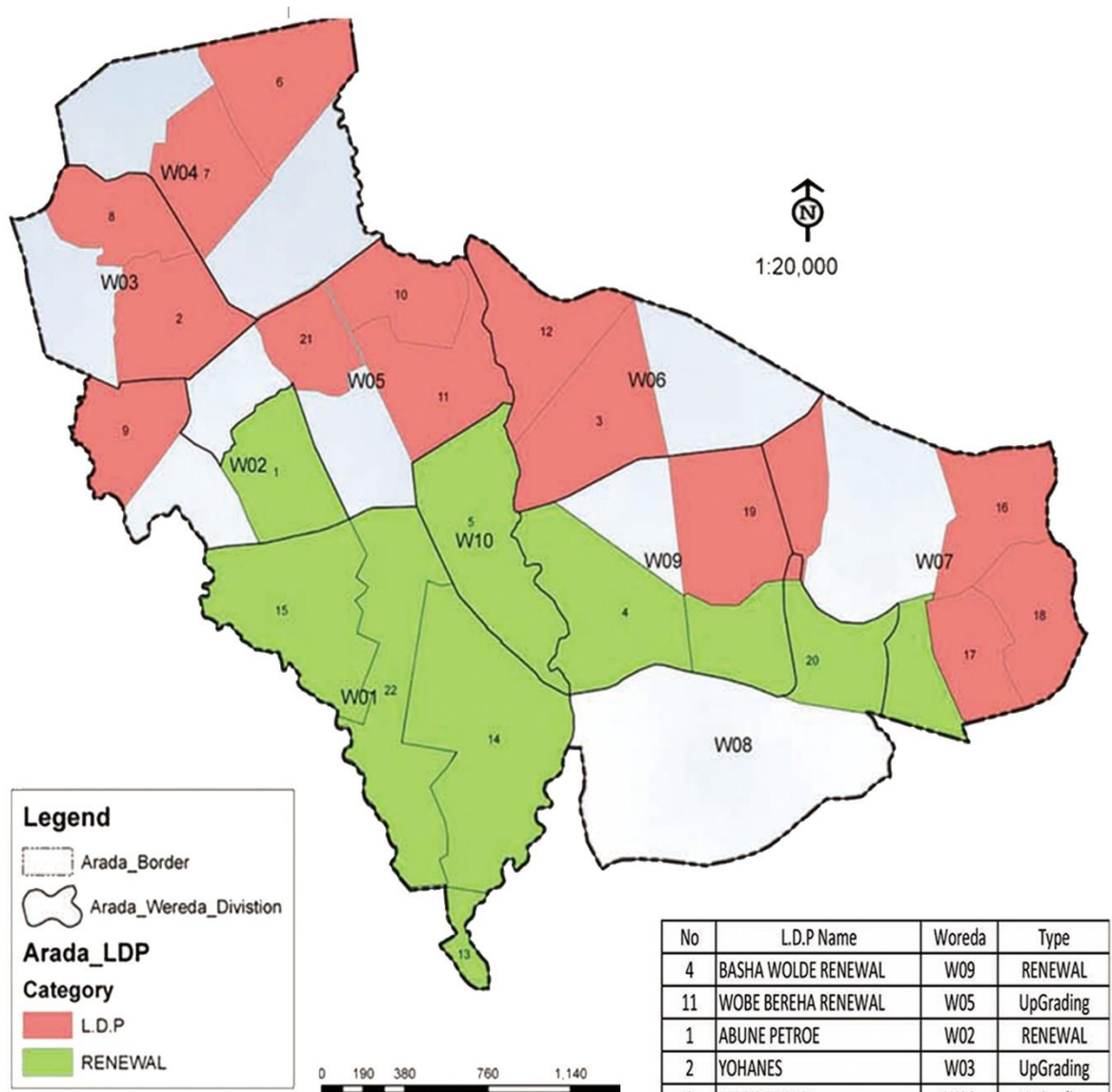
	R-4	Mixed Residence (R)	Relocation site	<ul style="list-style-type: none"> <li>All except housing for relocates from environmental land use</li> </ul>	
	CB-1	Commerce (C)	Mixed Commerce	<ul style="list-style-type: none"> <li>All Manufacturing and Storage</li> <li>Treatment plant &amp; Landfill site</li> <li>Cemetery</li> <li>Slaughterhouse</li> <li>Stadium, Prison, Military establishment</li> <li>Quarry</li> </ul>	<ul style="list-style-type: none"> <li>At least 30% of the permitted building function should be residence- 30 % of the FAR</li> <li>Social service, worshiping place, administration, car parking building, Public Park, hotel is not obliged to incorporate residence.</li> <li>Corporate Headquarters (for own use only) are not obliged to mix residence</li> <li>One tree (2mx 2m) every 100 m2 plot area</li> </ul>
	S-51 S-52 S-53 S-54 S-55	Municipal Services	<ul style="list-style-type: none"> <li>Fire &amp; Emergency</li> <li>Slaughter</li> <li>Festival Site and Plaza</li> <li>Cemetery</li> </ul>	<ul style="list-style-type: none"> <li>All except functions defined within the same sub-category</li> <li>Building construction for cemeteries and festival sites</li> </ul>	<ul style="list-style-type: none"> <li>One tree (2mx 2m) every 100 m2 plot area</li> <li>Public toilets</li> <li>Car parking space</li> </ul>

			<ul style="list-style-type: none"> <li>• Culture &amp; Civic Center</li> </ul>		
	EA 1	Environment Protection	<ul style="list-style-type: none"> <li>• Green Infrastructure</li> <li>• River Buffer</li> </ul>	All land uses except access streets, inspection posts, soil conservation structures, walkways, bikeways, conservation forestry, and eco-tourism functions.	<ul style="list-style-type: none"> <li>• Agro forestry on 15-30% slope, conservation forestry on &gt; 30% slope</li> <li>• Conservation forestry on &gt; 30% slope, agroforestry on 15-30% slope and park development on flat slope.</li> <li>• The maximum allowable physical structure footprint is 5% of the total area.</li> <li>• Only eco-friendly building materials to be used</li> </ul>

Table 3: Description of the land use map

Source: ADDIS ABABA PLANNING PROJECT OFFICE: STRUCTURE PLAN OF ADDIS ABABA LAND USE

## 2.6 Local development plan (LDP) of Arada



There are 22 Local development plan (LDP) in Arada sub-city from these 8 of them are renewal and the rest 14 are upgrading. This 22 Local development plans totally covered more than 635 hectares. This is 67% of the total land area of this sub city.

From the above LDP plan Gandhi Street is found in woreda 1 and it shaded with green color so it is proposed to be a major renewal place in the sub city. Because of this area is to be a major renewal place heritages in this area faces a great issue.

Source: Arada Sub City Urban Plan Institute Office

## **CHAPTER THREE: METHODOLOGY**

### **3.1 Introduction**

This chapter will present the methodological approach used to address the research topic assessing the historic urban character of streetscape Gandhi within the development. The research employed research design, the procedure of data collection and analysis, and data collection instruments that are important to achieve the planned objective. The assessment of the street began starting from the history of the overall sub-city area and then the specific history of study area which is Gandhi Street to get an inclusive historical timeline which is important to understand the context of historical occasions about the development of the study area to better understand the streetscape heritage character. The researcher used qualitative data with visual inspection to better understand the major threats of historic buildings along the street.

### **3.2 Method of Data Collection**

#### **3.2.1 Primary sources of data**

##### **3.2.1.1 Observation, On-site study, and Measurements (Hand survey)**

This study used observation and site visits to collect important data as input to address the objective. So, site visit was used as a major data collection method to determine the current status of the streetscape and to understand its values. In addition measurement of some important parts along the street was done by the researcher to reach to address the objective.

##### **3.2.1.2 Photography and Video**

Both methods were used to get qualitative information from the site. This helped to analyze and emphasize both static elements of the site like people's activities and the dynamic elements like façade analysis to comparatively analyze the current scene of the study area. Observation was used as one means of producing primary data in this study.

##### **3.2.1.3 Interviews**

To get important information informal interviews took place in and outside the site in the local language to investigate different information from the respondents in detail. Also, an in-depth informal interview was done with the City Culture and Tourism

Commission and with Arada sub-city heritage and tourism office experts, regarding the current Master Plan and development plans of the city.

### **3.2.2 Secondary sources**

Secondary data were collected from both published and unpublished sources. But the major sources include journals, books, reports, official documents, magazines, and flyers from the Culture and Tourism Bureau of Addis Ababa.

#### **3.2.2.1 Library and Archival sources/accounts:**

Different data are used in Libraries at EiABC, wemezeker<sup>5</sup>, ARCCH, and the city culture and tourism office of Addis Ababa.

#### **3.2.2.2 Google earth**

Google Earth is used as a tool to see the site from the top. And also some measurement and top view (bird eye view) images are taken to better understand the study area.

#### **3.2.2.3 Internet and Multimedia sources/accounts:**

Some of the sources of data were online library catalogs like Addis Ababa University Libraries catalog were also consulted to seek out sources associated with the study. Also, YouTube videos were accessed to collect information about the history of the location.

## **3.3 Data collection techniques**

### **3.3.1 Personal observation supported with photography**

A major means of producing primary data in this study was Observation of the researcher. Mainly it was conducted using photography and in some extent used Graphic descriptions which emphasizes the qualitative information of the study area.

### **3.3.2 Archival research**

Archived documents helped to get a comprehensive historical timeline which is important to understand the context of historical events and also to understand the major changes throughout the lifetime of the streetscape heritage. Especially street photography of 1930s, 1960s, and 1970s are the major on to see the past history of the street.

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<sup>5</sup> National library and book store.

### **3.3.3 Interview**

Interview was conducted with the Arada sub-city heritage and tourism office experts. Some questions for interviews were prepared and managed by local language for some residents and the researcher to investigate any kind of data or information from respondents in detail.

## **3.4 Methods of Data Collection and Analysis**

### **3.4.1 Photographic Streetscape elevation**

This photographic examination helps to capture the condition of the heritage elements, characters, activities and current condition the street. The researcher used a digital camera to capture pictures to assess the current condition of the street.

### **3.4.2 Condition survey**

Condition survey is the first step in the preservation of any heritages. This is the most crucial step of heritage preservation that can help to predetermine the potential risks on the heritage fabric or to withhold the any kind of damage on heritages. The condition assessment was carried out by visual inspection. Rather mostly using a measuring tape to measure the distance and many threats due to new development are identified by using it photographic visual inspection.

## **3.5 Selection and justification of case area**

Arada is one of the sub-city in Addis Ababa. It is located in the northern area of the city, nearby the center. Historic buildings have been threatened by new construction since Arada sub city was a vibrant district in Addis Ababa starting from the early 1900s. Historical landmarks such as the "Seytan Bet" is found on Gandhi Street on this sub city Woreda 01. There are historical monuments, public buildings, and a land mark in the region. In the past, the region was largely renowned for the foreign residences of Indian and Armenian settlers.

The historical character of the Arada with a major tourist destination, vibrant market, business center, and meeting place since its establishment. Also Age and design merit of a particular architectural style which combines both Ethiopian and European. But now new development influence are a major threat for the street. Its Rarity is an example of a particular type or form of building style and Existence of authentic heritage quarter.

### 3.6 Research design

The research design trays to link research question, literature review, method of analysis, Finding and recommendation to show the processes that the researcher goes to do this thesis. All the major phenomena's and its linkage are shown on the following Figure 12.

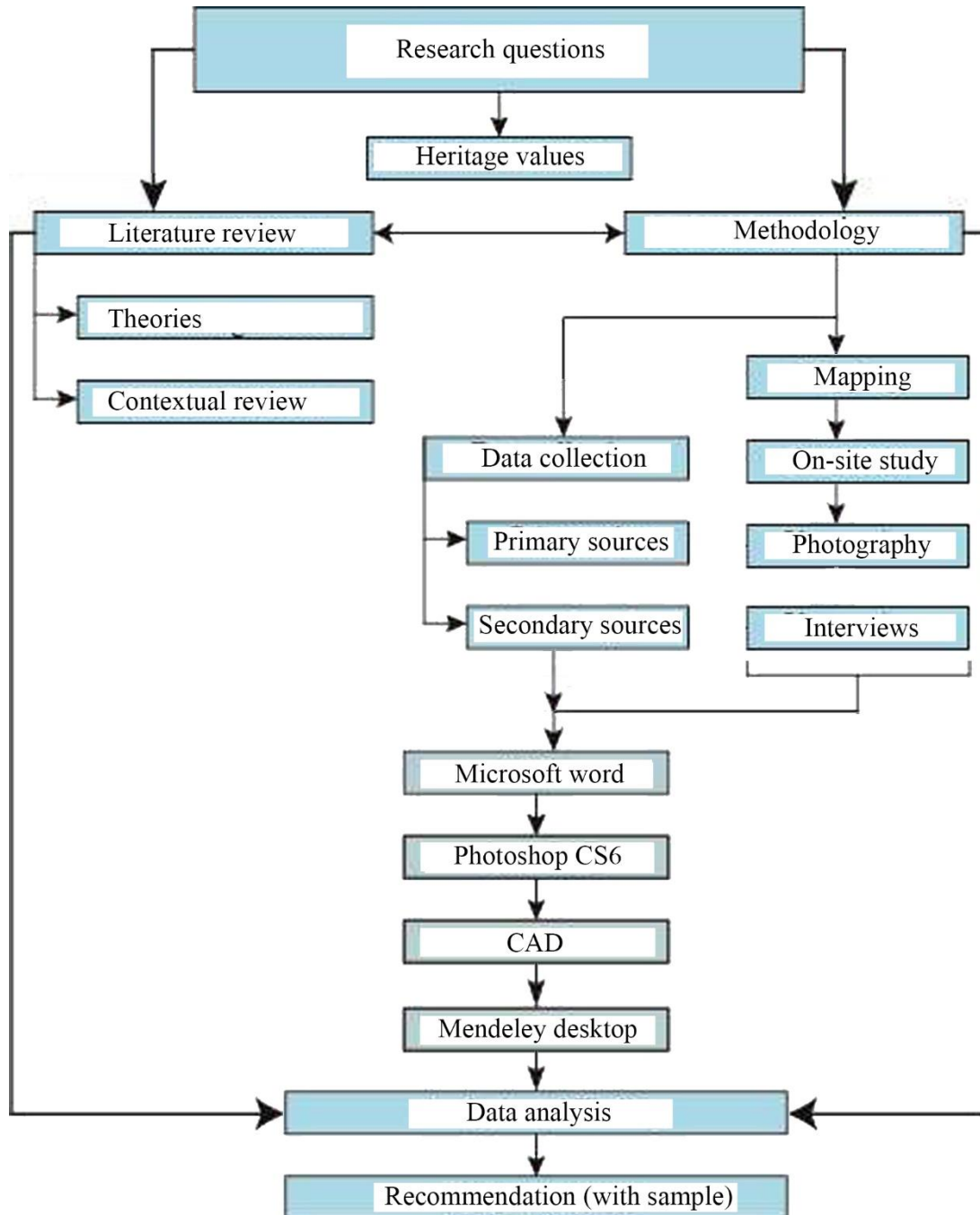


Figure 12: Research design

## **CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND DISCUSSIONS**

### **4.1 Site Context**

Gandhi Street is located in Arada, the southwestern part of the sub-city (see Figure 4). This street encompasses from Tewodros square upward to Castelli Restaurant /old Mahmud Music store. When we come from Churchill It goes rightward from the Tewodros square through Wafa Cinema (seitan bat) going to get the Street. The streetscape is rich and diverse with historic buildings that have a feature of local construction method with wood, stone, and mud.

#### **4.1.1 Physical assessment on Arada sub-city**

The land area is covered by Arada sub city is 950 hectares. Putting it in eighth place among the eleven sub-cities in terms of land area covered. Out of 950 hectares the study area woreda 01 covers 150.4 hectares of land from this 93.06 hectare which is 62 percent of the sub-city's total land area is covered by parcels or built-up areas. Wereda 01, with 150 hectares, covers the largest area of the ten weredas, accounting for 16 percent of the sub-city land area. Furthermore, wreda 10 has the smallest land size of 39 hectares, accounting for 4% of the sub-total city's land area.

#### **4.1.2 Social condition**

The commercial and social interaction of the area is developed from the unique characteristics of the site which is strong since they are living in congested housing. Furthermore, one of the city's biggest fruits and vegetable markets is "Atikilt tera", is located in small distance from the planning area. In general, the study area has a substantial commercial connections with other.

#### **4.1.3 Existing Block, parcel, and plot study**

There are Preserved two-storied historical buildings Along the Gandhi street. Currently, the site is serving as commercial ground floor and residential on most of the upper floors.

##### **4.1.3.1 Block detail of the site (see figure 13)**

Building edges are defining the local street, perimeter buildings with small access to the inside are common especially in the upper zone of the site.

The selected block covers 12 hectare land. The building area is 5.7 hectare, number of parcel is 66, the number of buildings is 206 with bar and far 47.5% and 5.7% respectively.

Basic characters of the study area are it is influenced by the main city center development and its basic character is large block size with small plots, Impermeable blocks defined by main roads, Morphological change are taking place along the street and many of historic buildings are with direct access to major roads

#### 4.1.3.2 Existing land use of the study area (see appendix 7)

Existing streetscape function is dominated by small scale shop, manufacturing and Retail the site also consists:

- Building material selling shop
- Curtain makers and importers
- Carpenters

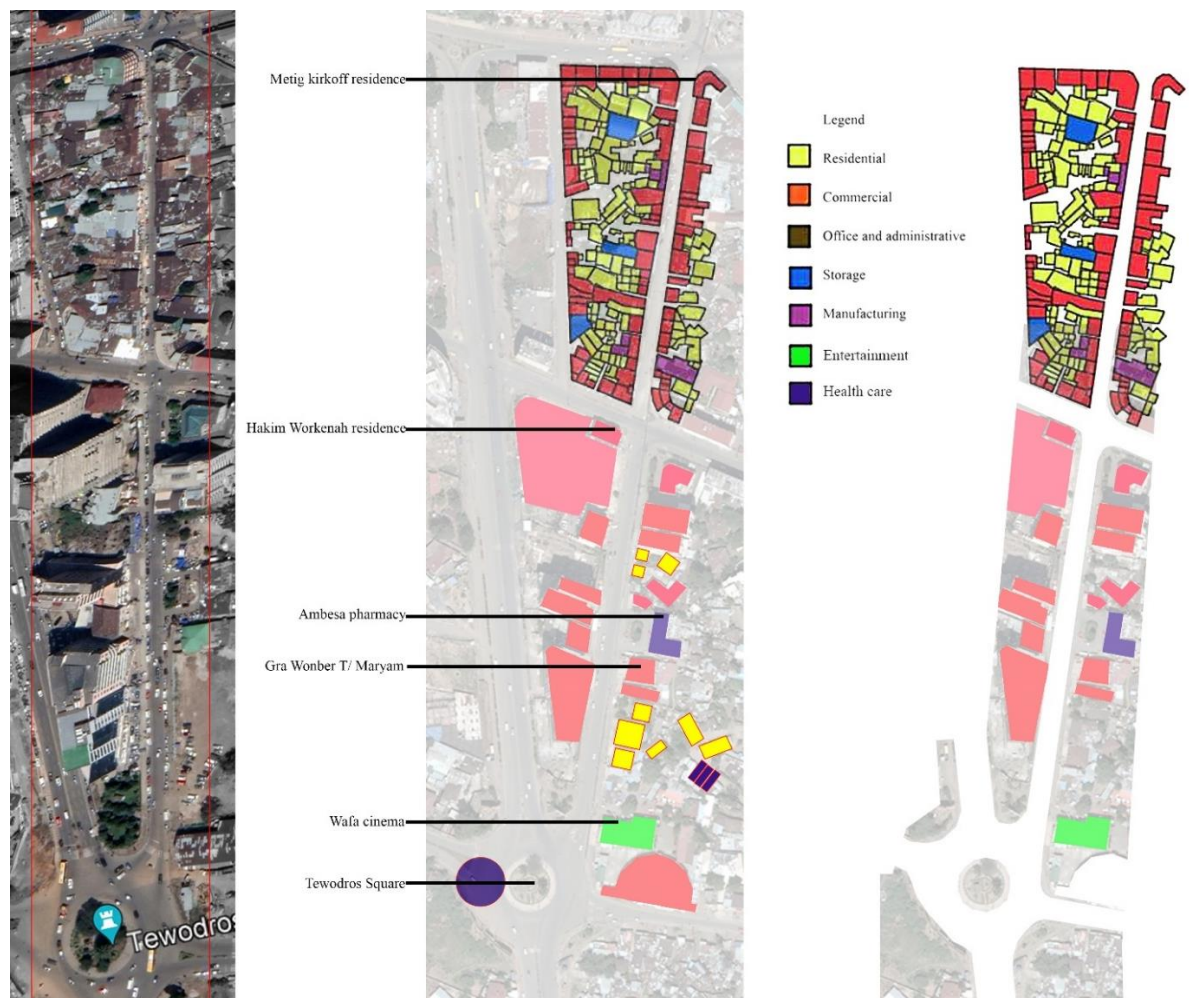


Figure 13: Existing land use

#### **4.1.4 Major Nodes and Gateway in the study area (for more see appendix 8)**

##### **4.1.4.1 Node**

Strategic focus places, such as points of intersection or areas of increasing activity, are known as nodes. At each crossroads on Gandhi Street, there are commercial nodes. All the identified nodes allow more public realm investment in both design and materials, resulting in a distinct feeling of place over the length of Main Street.

Piazza is a major transport node, a converging and diverging point

- ✓ Even if my site is straight line the overall site have Radial and Organic road Character.
- ✓ Series of Streets along the contour lines are interconnected with a radial streets perpendicular to the slope in all directions starting from the central area in the study site
- ✓ Major intersections are enhanced with roundabouts and statues contributing to local image and spatial identity.
- ✓ Some Local roads are convenient for walking but inaccessible for vehicles and dead end in most cases especially near the river
- ✓ Insufficient car parking space
- ✓ Steep slopped streets due to the natural landscape
- ✓ Challenging for historic buildings specially if there is new construction in the site.

##### **4.1.4.2 Gateway**

Gateways are the circumstances in which one location grants access to another. They are landmarks that assist us in determining our location in a city. They represent the start of something new and the point at which a place transforms from one state to another. Mahmud area in the north and Tewodros roundabout in the south have been suggested as gateway locations to the site and centrally in the middle of the site from the cathedral area.

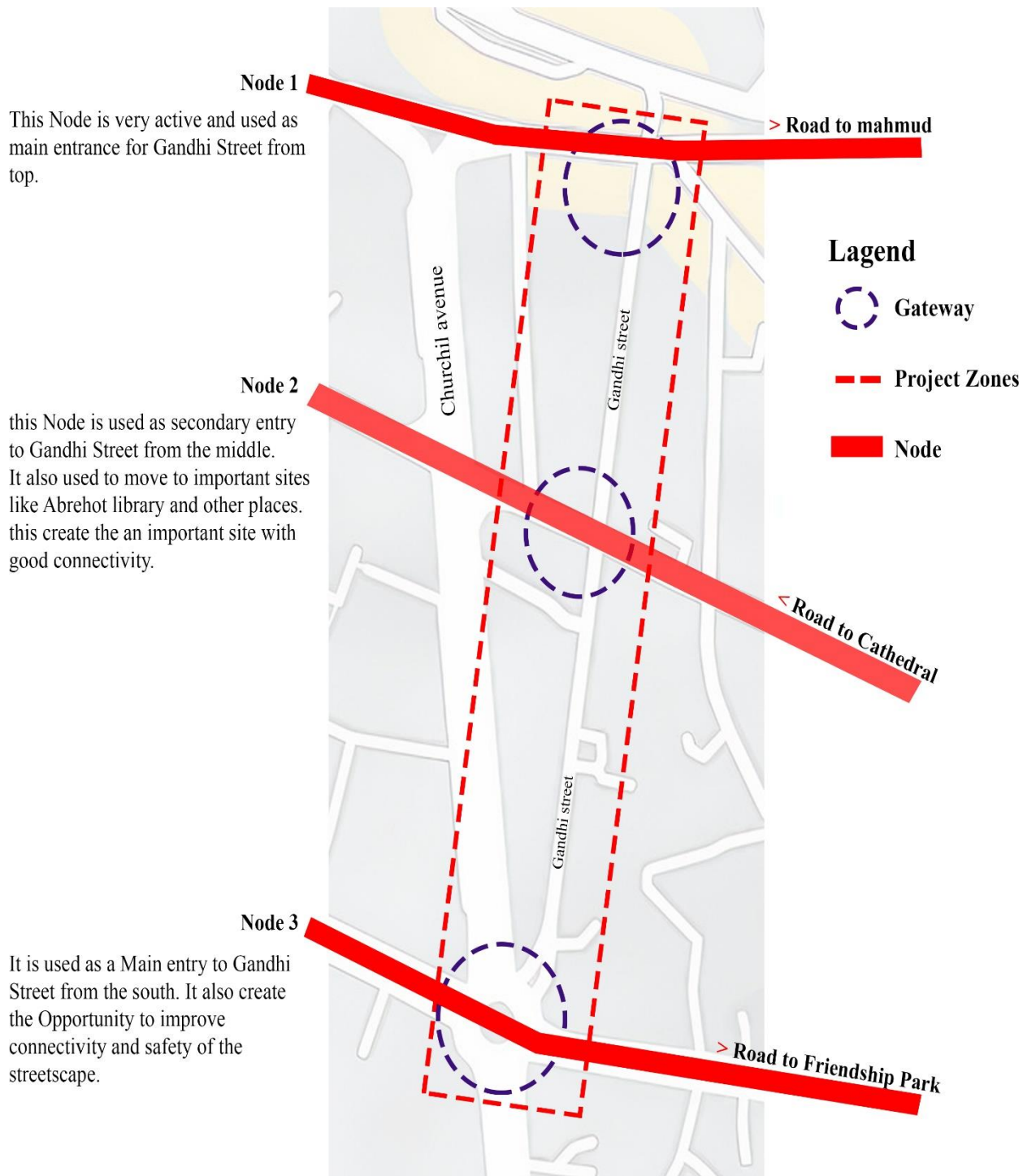


Figure 14: Nodes and Gateway in the study area

#### 4.1.5 History of change and impact of new development along the street from 2002-2022 (20 year history of the study area)



Gandhi street in 2002 GC

durine the time 2002 GC there was no any new construction.



Gandhi street in 2008 GC

durine 2008 GC 3 new additional construction are done. as we see in the above picture the new addition are identified with its white roofed buildings



Gandhi street in 2016 GC

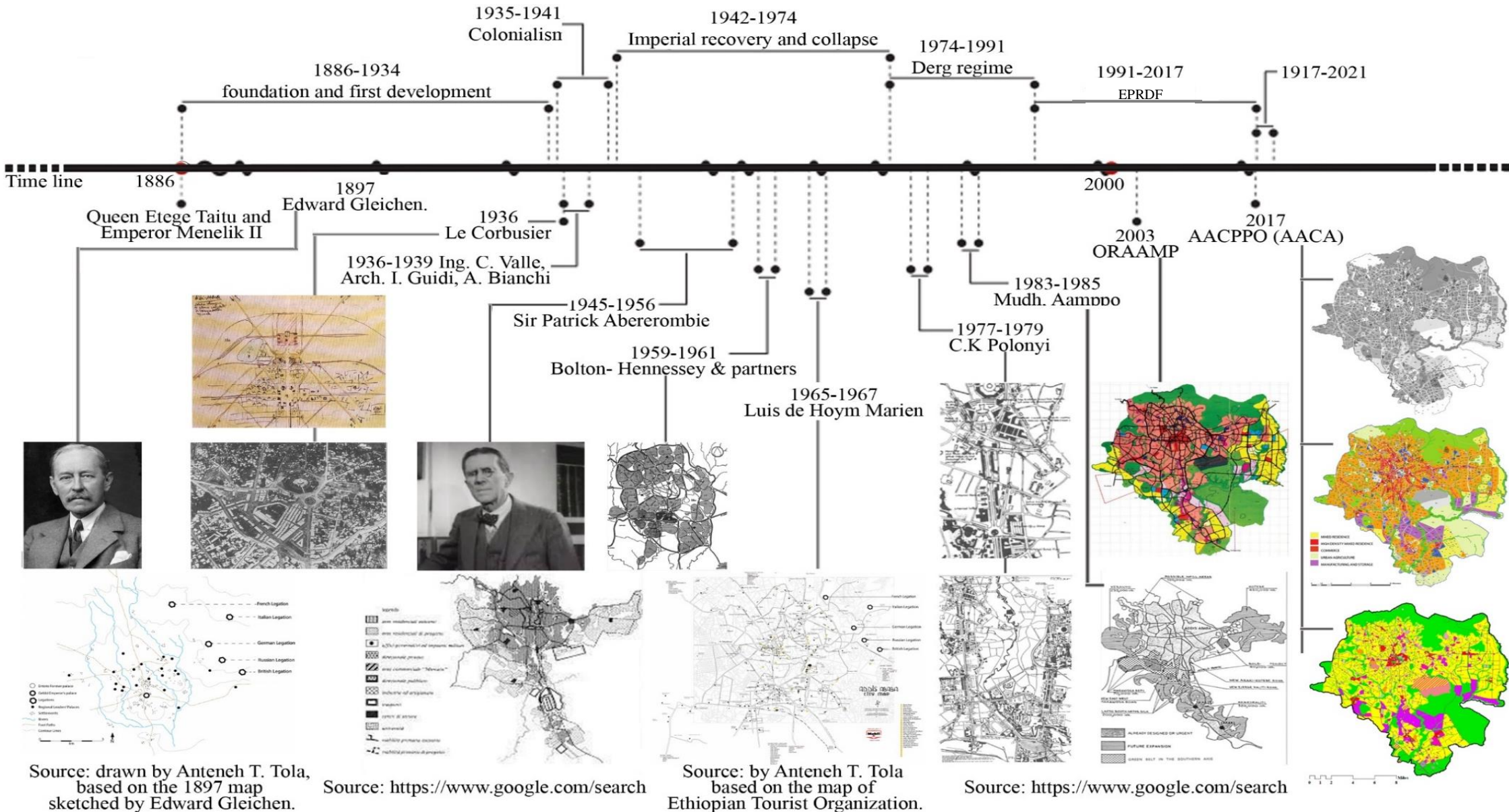
durine 2016 GC 6 new additional buildings are constructed. as we see in the above picture the new addition are identified with its white roofed buildings



Gandhi street in 2022 GC

Now in 2022 GC 13 new additional buildings are constructed. as we see in the above picture the new addition are identified with its white roofed buildings

### 4.1.6 History of change on the masterplan of Addis Ababa and major phenomena's on cities change



#### 4.1.7 Influence of new constructions on heritages along Gandhi Street

When we see new development and its impact along the street, it has two basic features. The first one is starting from the old Mahmud music store down to Enrico pastry which in this study designated as zone 1 (see figure 15). It has 253 meters length and consists predominantly of G+0 up to G+2 historic buildings. This zone has also a number of heritage buildings concentration as compared with the lower zone. The second one is starting from Enrico pastry down to Tewodros square which in this study designated as zone 2. Which is 397 meters long and most heritage buildings are in bad condition and also the concentration of heritage buildings along the street is less as compared to zone 1.



Figure 15: new constructions along the street

### 4.1.8 Open/leftover space on the site (for better view see appendix 10)



#### 4.1.9 Pedestrian crossing in and around the street

There is less number of pedestrian crossings along the street. As a result pedestrians becoming impatient and so exhibit risk-taking behavior when drivers are not allowing them crossing the street. Usually 30 second is common in many city's pedestrian crossing. Pedestrian street crossing delay could be determined through factors such as crossing distance, average pedestrian walking speed, and traffic volumes.



Figure 16: Pedestrian crossing line (zebra)

#### 4.1.10 Relation of Gandhi Street with other important sites (site connectivity)

Since Gandhi Street is located in the center of Arada sub-city, it has an important connections with a number of sites of public and social significance. For instance, Friendship Park, the National Museum, and Unity Park are some of significant sites found within less than a kilometer radius (figure 16)

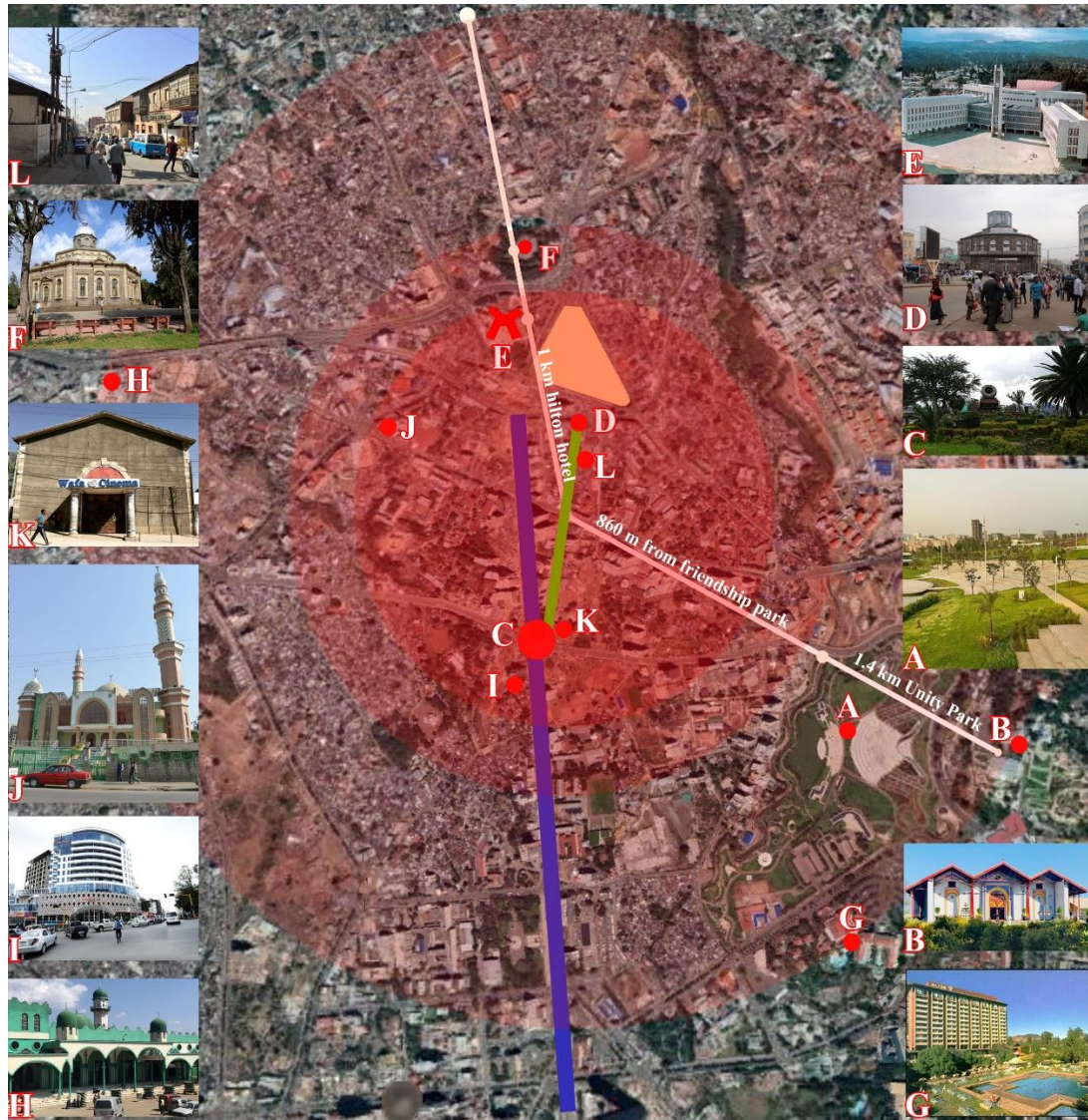


Figure: 17 relationship of Gandhi Street with nearby important sites (for better view see appendix 9)

#### 4.1.11 Population projection (estimated) – for Addis Ababa

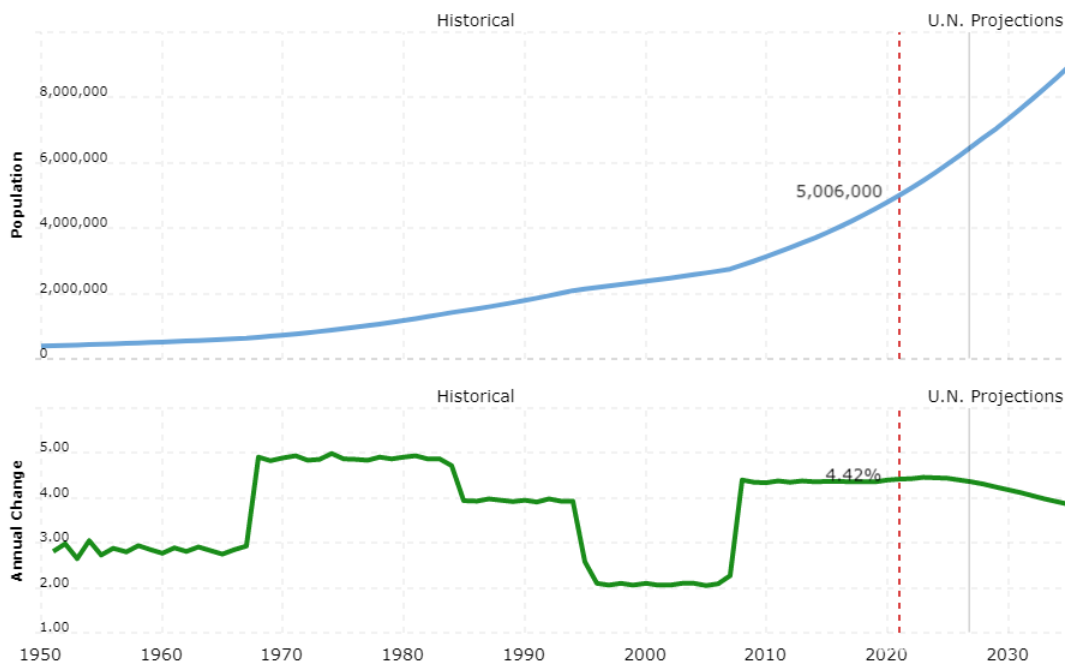


Figure 18 Addis Ababa Population 2021  
Source: United Nations - World Population Prospects.

#### 4.1.12 Changing demography of Piassa

Addis has grown consistently throughout its period a century and a growth with the increase in population. The city is growing due to its higher magnetism of politics, commerce and diplomacy when compared with other regional cities. As a result there is a parallel growth of infrastructure. As it could be understood in many Cities, central areas have higher densities. On average at sub city level, Addis Ketema has the highest density with 31,029.9 people/sq.km, followed by Arada, Lideta and Quirkos with 22,316.7, 21,952.47 and 15,087.18 people/sq.km respectively (Arada 2003).

#### 4.1.13 Economy

Historically, Piassa has been a city-level commercial center, serving as the economic and trade hub for the city. Even today most of the activities taking place are commercial activities.

The majority of the settlers who live in the historical residences are low-income or middle-income people who are rented from the government. Merchants and wood and metal workers on the site are the other societies in the area with their own workshops. However, there are a many low-income residents living in slum dwellings, particularly within the block, where the majority of them are tied to kebele-owned homes.

#### **4.1.14 Market center**

In the study area, there is a lack of a main station where petty dealers and clients can interact on a regular or frequent basis.

However, there are "Gulit"<sup>6</sup> and stores that provide low-cost commodities to the community. Furthermore, because the study region is close to local market, the villages have access to high-demand commodities.

##### **4.1.14.1 Micro and Small scale Enterprises (MSEs)**

There is a one unit small scale manufacturing building for wood and metal work workshop employing the local community.

#### **4.1.15 Cultural condition**

As previously said, the majority of visitors to the historical site are foreigners, mostly Armenians, and Indians, which has resulted in a culturally diversified and engaging history at the site. The majority of the residents connect with one another during the "damera"<sup>7</sup> celebration once a year.

## **4.2 Assessment on basic Streetscape Elements of Gandhi Street**

### **4.2.1 Static element**

The building envelope, the road lane, the open spaces, the street furniture, and the green infrastructure along the street are all physical aspects which is the static element of the street. So some of the static elements are described below:

#### **4.2.1.1 Building envelope study**

##### **4.2.1.1.1 Building materials of façade**

The facade structure of the building along the street in zone one (see figure 11) is mainly constructed from carved stone and articulated wood. Stone is used for foundation as a masonry, column support, floor finish, wall, and handrail. Wood is used as a floor finish and roof support for façade structure, door and window opening, balcony, and also corrugated iron sheet used for roof cover and fencing and so on.

Wood: mostly this material is used as a floor finish and a roof support material but we can also see wood on the edges of windows and doors as a nonstructural element.in

---

<sup>6</sup> It is a temporary small market for selling mostly local commodities.

<sup>7</sup> The Demera-procession occurs in the early evening the day before Meskel or on the day of Meskel. Prior to the event, the firewood is decked with daisies.

addition to that circulations, verandas, and some exterior staircases of the house (the vertical circulation and the horizontal circulation of the house) is wood, due to the brittle character of this material and the excess live load on the material which makes the wood scramble, the upper floor many of houses is made of wood.

Stone: most of the external walls, as well as the internal partitions, use stone as the main material because of this many houses are in good condition. Façade stones are carved in large dimensions on the ground floor and become smaller on the upper floor to minimize the amount of load. It is also used as a decoration element on the edges of the doors and windows in many historic buildings along the street.

Brick: it is used as a wall on the upper floor of the buildings with mud plastering as mortar to connect each layer of brick.

Corrugated iron sheet: the roof is covered by this material which becomes red due to the age luck of treatment.



*Figure 19 upward view of historic buildings*

Stone is a wall and foundation material used on all the exterior parts of the building. Its massiveness due to the use of stone and its distinctive decorative character gives the building a unique appearance. In addition to that, the authenticity of materials such as the massive stones and the raw wood of handrails are some of the features that can give character to this building.

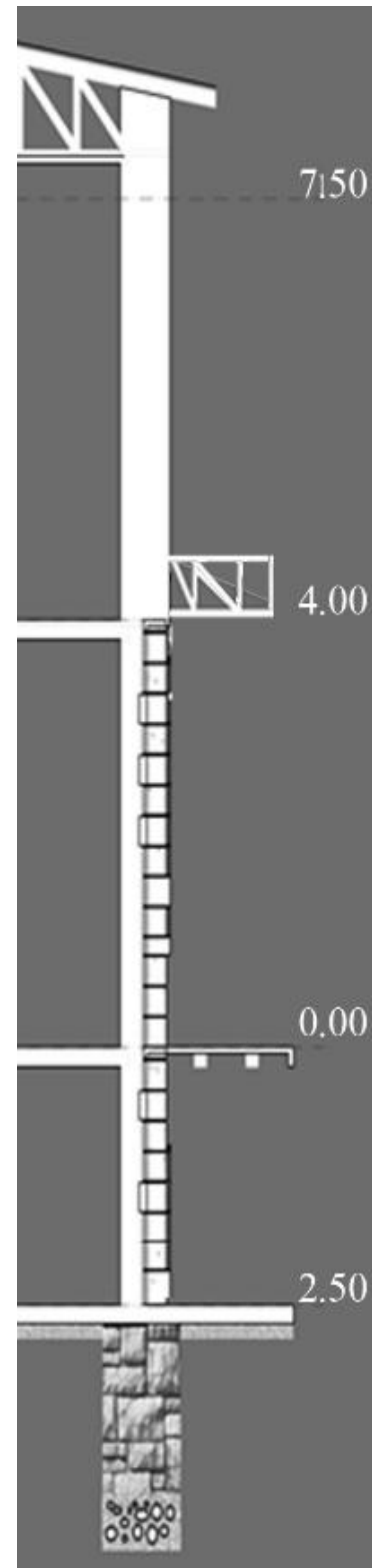
Roofing material is made of corrugated iron sheet. Truss is made of wooden vertical and horizontal member.

Brown colored Brick is used as wall material used on the upper floor plastered with gypsum and cement from the interior and exterior respectively.

The Wall consists two layers, the first layer is the outside layer which is finished by dressed stone as you see in the section drawing whereas the second layer, which is the interior layer is masonry wall which is composed of gravel stone, cement mortar and plastered by gypsum.



Foundation walls of the house are visually distinguished from walls by a change of size which is bigger than the above walls. The material used for an exposed foundation is stone which is massive in size compared to the above walls.



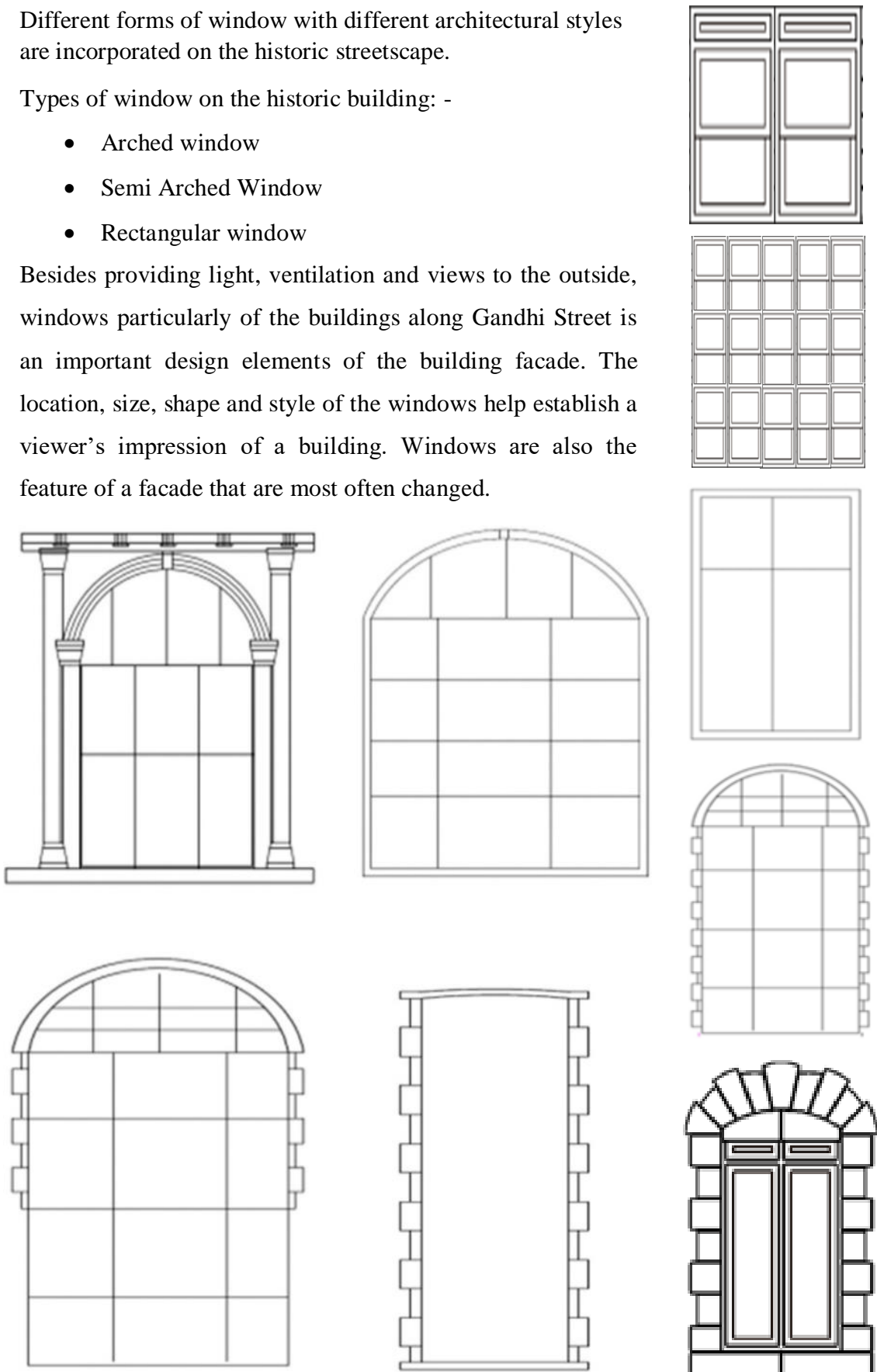
#### 4.2.1.1.2 Samples Window types along the street

Different forms of window with different architectural styles are incorporated on the historic streetscape.

Types of window on the historic building: -

- Arched window
- Semi Arched Window
- Rectangular window

Besides providing light, ventilation and views to the outside, windows particularly of the buildings along Gandhi Street is an important design elements of the building facade. The location, size, shape and style of the windows help establish a viewer's impression of a building. Windows are also the feature of a facade that are most often changed.



#### 4.2.1.1.3 Samples of Decorated Door types along the street

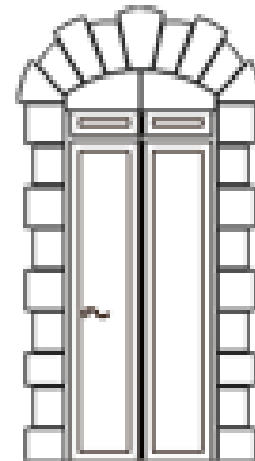
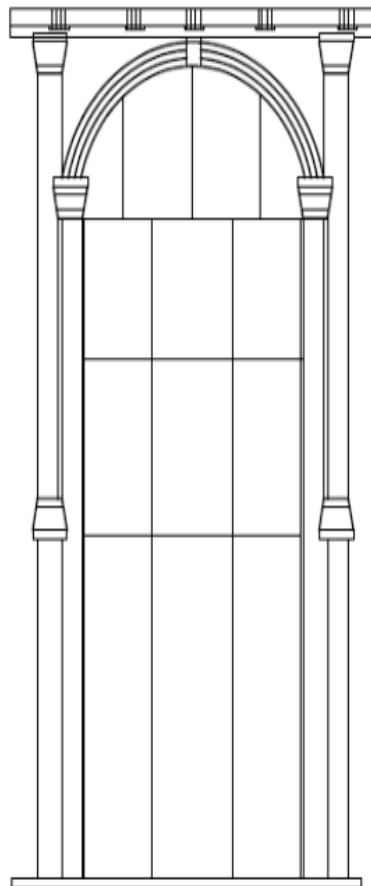
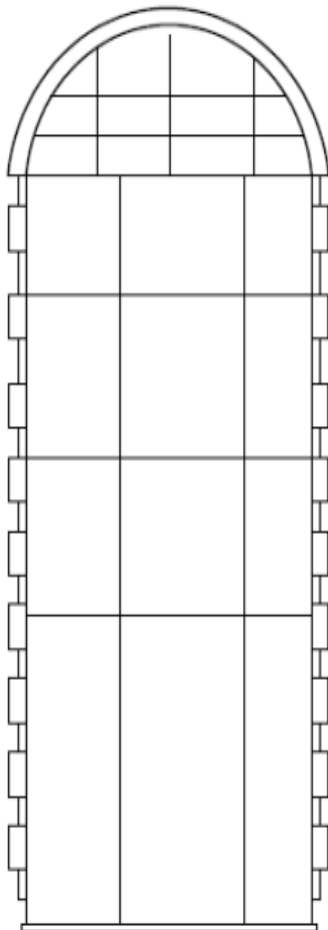
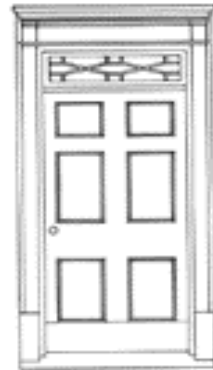
Door openings on the facade of mostly historic buildings are evenly spaced. The door is central, often with sidelights and transom panels.

Most common Types of doors on this historic street are:

- Rectangular wooden doors
- Grid French door with glass

Doors were traditionally made of wood and assembled much like a window. Panels and sometimes window glass were set into a framework of rails and stiles. The resulting door was light but strong and durable.

The most common design featured five panels – two small and two large – arranged symmetrically. One layout that featured the small panels below was nicknamed the “cross and bible” design.

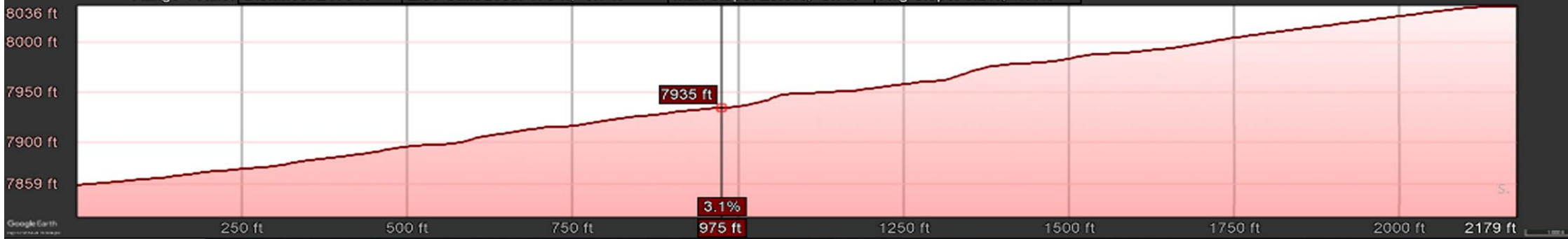


Assessing the historic urban character of the streetscape of Gandhi Street within the context of development.

#### 4.2.1.2 Google earth section of Gandhi Street (natural terrain of the study area)



Graph: Min, Avg, Max Elevation: 7859, 7947, 8036 ft  
Range Totals: Distance: 2179 ft | Elev Gain/Loss: 178 ft, -0.7 ft | Max Slope: 29.8%, -3.7% | Avg Slope: 8.2%, -1.4%



Section X-X

Assessing the historic urban character of the streetscape of Gandhi Street within the context of development.

#### 4.2.1.3 Streetscape section (for full and better view see Appendix 4)



**STREET SECTION A-A**



Assessing the historic urban character of the streetscape of Gandhi Street within the context of development.



**STREET SECTION B-B**



Assessing the historic urban character of the streetscape of Gandhi Street within the context of development.



STREET SECTION C-C



Assessing the historic urban character of the streetscape of Gandhi Street within the context of development.



**STREET SECTION D-D**



Assessing the historic urban character of the streetscape of Gandhi Street within the context of development.



Streetscape section C-C



Google Earth Map of The Site



Google Earth Section of the Streetscape (Terian Section )

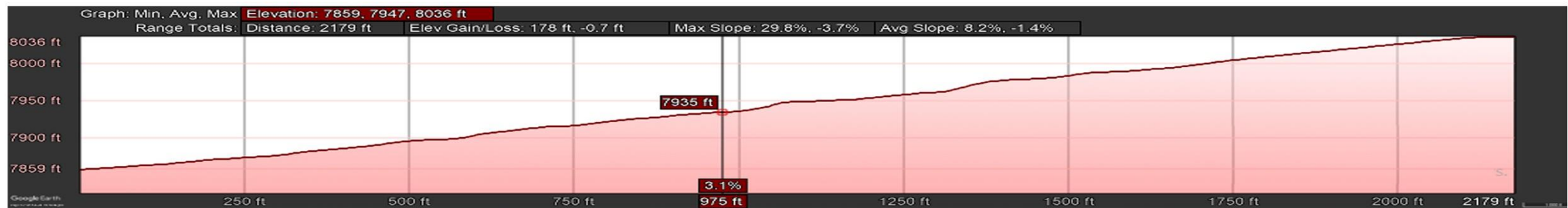
Assessing the historic urban character of the streetscape of Gandhi Street within the context of development.



Streetscape section D-D



Google Earth Map of The Site




Google Earth Section of the Streetscape (Terian Section )



#### 4.2.1.4 Architectural character and some Issues on façade

Table 4: The following are some of the Core architectural character, details of the streetscape, and major Issues on façade envelope






Marker	Core architectural character	Issues that need to be addressed	Some of the details	Remark
A	Wider Road with open access from different directions.	<ul style="list-style-type: none"> <li>Less amount of pedestrian crossing (see figure 10)</li> </ul>	Road with 10-meter width and mainly used as Public transit.	B+G+4

B	<ul style="list-style-type: none"><li>• The prominent four-story corner building with glazed rectangular window and door.</li><li>• It also has a character of strong vertical lined façade.</li><li>• simple building form and also the color of the Exterior façade is red and dark yellowish quartz</li><li>• Typical window door proportion.</li><li>• Function as commercial and Retail services.</li></ul>	<ul style="list-style-type: none"><li>• Use of non-traditional material like exposed PVC downpipes.</li><li>• Exposed electrical lines and cables,</li><li>• Plastic advertising Posts.</li></ul>		
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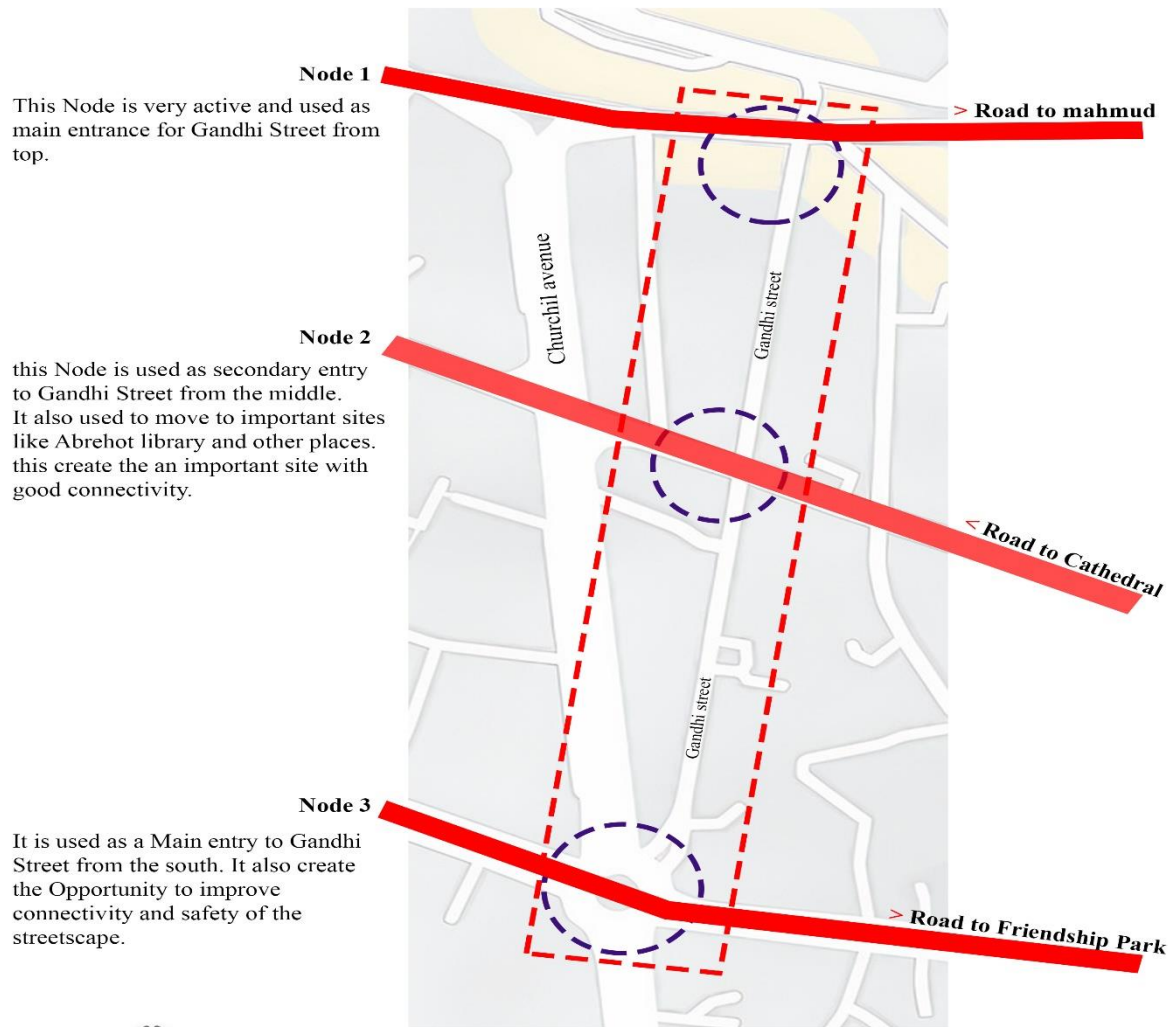
<p>C</p>	<ul style="list-style-type: none"> <li>• It is a ground floor (G+1) commercial building main part of the building is made with plastered HCB as the main material but its additional extensions are made of metal containers.</li> </ul>	<ul style="list-style-type: none"> <li>• It has a problem of plastering the old plastering is fallen in some part of the building.</li> </ul>		<p>Not historic building</p>
<p>D</p>	<ul style="list-style-type: none"> <li>• One story (G+1) building made of stone wall and wood &amp; glass-covered balconies on the upper floor.</li> <li>• Square grid covered balconies symmetrically arranged which is common in many Indian style buildings</li> </ul>	<ul style="list-style-type: none"> <li>• The exposed wooden façade is in a deteriorating condition due to aging and lack of wood treatments.</li> <li>• On the lower floor they are doing renovation works by replacing some important elements like they paint the stone inappropriate color and removed some historic elements</li> </ul>		



Marker	Core architectural character	Issues that need to be addressed	Some of the details	Remark
E	<ul style="list-style-type: none"> <li>Arched door and window in the lower and upper part of the building frontage.</li> <li>Articulated wooden windows.</li> </ul>	<ul style="list-style-type: none"> <li>On this building they are doing renovation works, they demolish some part of the wall also remove historic windows and replaced it with metal shatter door.</li> </ul>		

F	<ul style="list-style-type: none"> <li>• Old wall made of brick as main construction material.</li> </ul>	<ul style="list-style-type: none"> <li>• The new addition of wide sheet metal shatter door as the main entrance.</li> </ul>		<p>Not historic building</p>
I	<ul style="list-style-type: none"> <li>• Seriously arranged wooden decorated columns.</li> </ul>	<ul style="list-style-type: none"> <li>• The main façade of the building is covered with a new corrugated iron sheet.</li> <li>• After some months they do renovation by covering the basic façade of the building with aluminum claddings.</li> </ul>		
J	<ul style="list-style-type: none"> <li>• Interesting exposed wooden stair case and open wide verandah in the both floors.</li> </ul>	<ul style="list-style-type: none"> <li>• An interesting wooden handrail is covered with un-organized plastic advertising material especially on the upper floor.</li> </ul>		

### 4.2.1.5 Nodes and Gateways of the study area



#### Legend



#### Gateway

Gateways are the circumstances in which one location grants access to another. They are landmarks that assist us in determining our location in a city. They represent the start of something new and the point at which a place transforms from one state to another. Mahmud area in the north and Tewodros roundabout in the south have been suggested as gateway locations to the site and centrally in the middle of the site from the cathedral area.

#### Project Zones

It is the selected street for studying.

#### Node

Strategic focus places, such as points of intersection or areas of increasing activity, are known as nodes. At each crossroads on Gandhi Street, there are commercial nodes. All the identified nodes allow more public realm investment in both design and materials, resulting in a distinct feeling of place over the length of Main Street.

Piazza is a major transport node, a converging and diverging point

- Even if my site is straight line the overall site have Radial and Organic road Character.
- Series of Streets along the contour lines are interconnected with a radial streets perpendicular to the slope in all directions starting from the central area in the study site
- Major intersections are enhanced with roundabouts and statues contributing to local image and spatial identity.
- Some Local roads are convenient for walking but inaccessible for vehicles and dead end in most cases especially near the river
- Insufficient car parking space
- Steep sloped streets due to the natural landscape
- Challenging for historic buildings specially if there is new construction in the site.

## 4.2.2 Dynamic element

It consists of the activities in the street space, including the movement of people on a vehicle or as pedestrians and their activities around the building which are connected or oriented to the street.

### 4.2.2.1 Street vending

Commercial activity in Gandhi Street is not only formal but also characterized by informal activities like vending. Vending activity in this street can be divided into three categories. The following is a quick summary of the many vending typologies seen in Gandhi's streetscape.

#### 4.2.2.1.1 Vending in Temporary shading

This type of vending is used by projecting a temporary shading made of plastic to protect from the sun during the harsh time. They sell tea, bread, coffee, and shoe polish.



Figure 20: Vending in Temporary shading

#### 4.2.2.1.2 Movable vending type

This type of vendor is most of the time equipped with a cart. They frequently sell various products most of the time they sell food products.



Figure 21: Movable vending type

#### 4.2.2.1.3 Immovable vending type

This vending is less available on the site. But most of them are tied to fixed container-like structures.



Figure 22: Immovable vending type

#### 4.2.2.1.4 Floor vending type

This type of vendor displays their product on the ground to sell with a small piece of space in the pedestrian walkway. The area occupied by this typology is the least when compared to other typologies.



Figure 23: Floor vending type

### 4.2.2.2 Parking

#### 4.2.2.2.1 Unorganized Parking in Gandhi Street

Due to the lack of parking along Gandhi Street, car parking is primarily on-street, sometimes with pedestrian walkways being used. Especially During the daytime which is business hours, most of the street space is occupied by parked vehicles (figure --). The remaining area along the street is occupied by moving cars, and overflow activities from different shops and some pedestrians. From all these, pedestrian walking space gets the least space and importance. Most parking areas during working hours are occupied by the private automobiles of the shop owners and buyers. As a result, the

first one requires a lot more space and is used for a long time, whilst the latter is mostly used for short-term parking to buy and take some products. According to the author's observations, there are very few loading and unloading vehicles parked in the street at different times of the day. Therefore most of the parking activities are taken by shop owners just only to come from a home in the morning and go back during night time so it does not support the businesses and street activities directly.



Figure 24: Unorganized parking

#### 4.2.2.2.2 Vehicular Domination the streets Spaces

The intensity of people's activity in the street increases during regular work hours. As previously said, vehicular movement through the street and parking operations limit the amount of available space for pedestrians to a bare minimum, significantly affecting the public lives of those who live, work, or use the street space.



Figure 25: Vehicular Domination of the site

## On street parking



### Legend

- Cars
- Road

### Some of the Inferences from the map are:

- On the satellite map taken on date Sunday, November 14, 2021, 7:26:13 AM the number of Cars parked along the street are 141 and out of these 94 cars are parked by shop owners and the other are some are buyers from the shop and some are passengers for other purpose. this shows most of the parking space are taken by shop owners and it stays for long period of time by controlling the street space in working hours.

- Gandhi Street is currently dominated by vehicles parking - requires better parking management method, reduced or change parking place and shifting the priority to become a people friendly streetscape;

- Gandhi Street is a shopping street and generates high volumes of foot traffic and mixed activities creating a need for pedestrian friendly streets. As an important heritage center, it also attracts a number of tourists. The tourist nodes and routes must therefore be enhanced in order to facilitate heritage walks, and signage etc.



#### 4.2.2.2.3 Parking space and time stayed

During peak hours on a working day (from 3:00 to 6:00 and from 8:00 to 10:00) the total space occupied by Cars is 490 sq. meters i.e. loading and unloading activity is generally not regularized.

#### 4.2.2.2.4 Some of the Inference from parking activity in the street

- Parking activity in Gandhi Street occupies the important walking spaces in the historic streetscape.
- Long term automobiles of shop owners occupy more space along the street,
- The researcher understands that while parking supports economic activities, it is also preventing people from visiting the area.
- As Gandhi Street is losing its importance, the net economic impact of vehicular parking is highly negative.

### 4.3 Significance of Gandhi Street

#### 4.3.1 The sense of human-scaled streetscape character:

Gandhi Street, which is rich in human-scaled buildings, had been a business and residential space for more than a century. The scale resembles that of a human. Most shops, for example, are from 3-5 meters wide, which corresponds to a human's pace. The road cores of this street have a unit width that is similar to that of early city streets of the city. This scale helps in the slowing of the speed while emphasizing commercial activity. This walking speed is also ideal for greeting and meeting new people on the street.

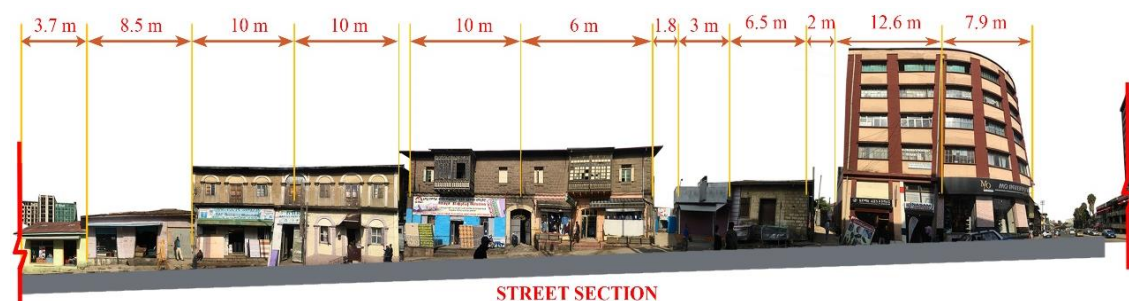


Figure 26: human-scaled streetscape

This scale also promotes driver safety and reduces collisions. Car parking, on the other hand, takes up the majority of the road space on Gandhi Street, limiting pedestrian mobility and other activities. This has an impact not only on pedestrian circulation but also on residents' wellness and commercial activities. Because of the space taken up by

parking, it also made it more difficult to manage any activity at the same time lowering the streetscape character.

### 4.3.2 Skyline of the streetscape from the different station point

When we see from Tewodros Square upward, the site has an interesting skyline, especially around sunset (see figure 12 below). So new Buildings along the street or on the site must maintain the skyline of the surrounding area and adhere to the architectural style (i.e., no high-rise or multi-story building) that is currently in use in the region, so as not to distract the value and beauty of the street skyline. New development in the site or in the area of this heritage streetscape must be done in a way that respects the legacy of the area.

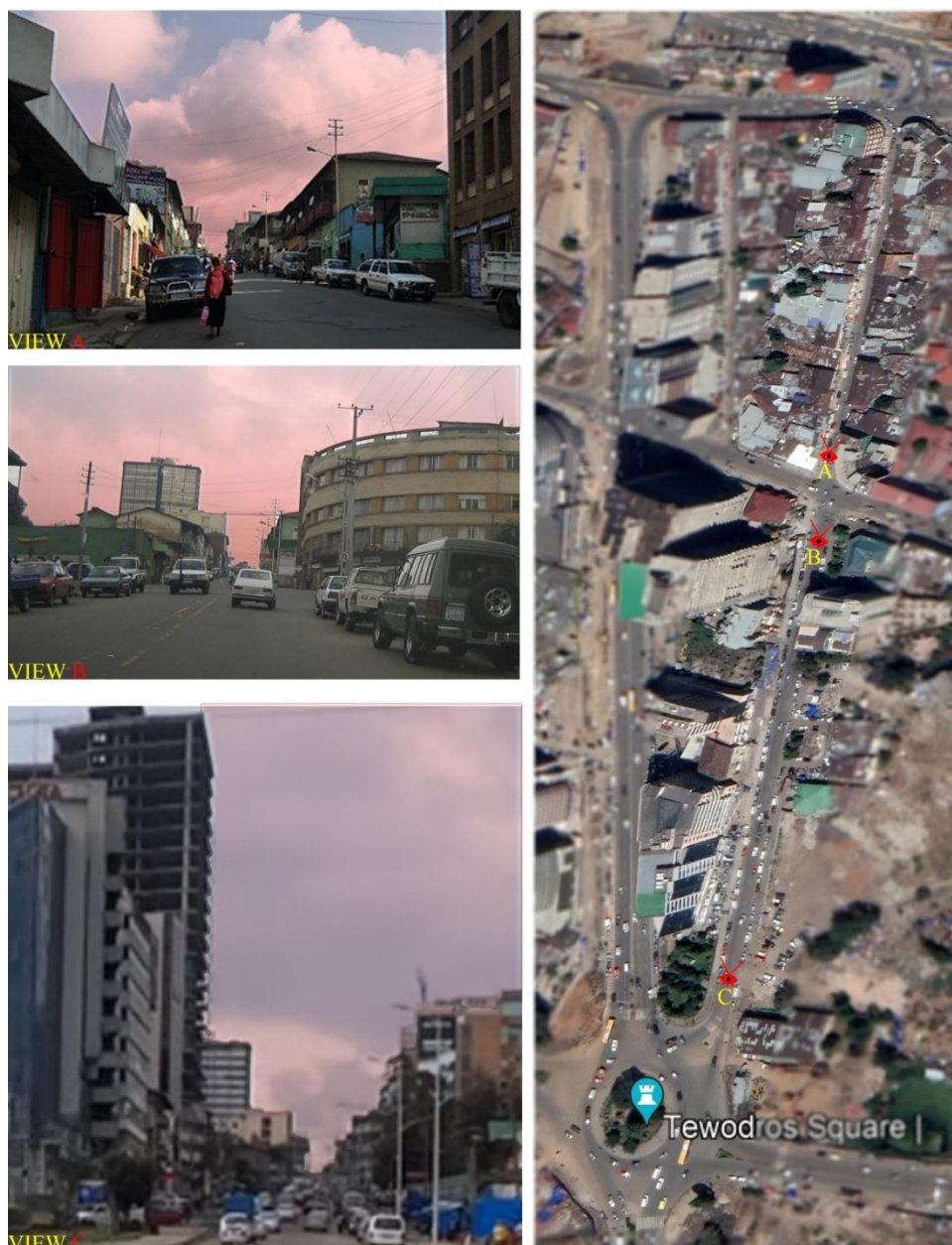


Figure 27: Skyline of Gandhi Street

### **4.3.3 Authenticity**

The selected streetscape more or less keeps the physical fabric of its material authenticity. Especially the upper zone of the site zone 1 (see figure) keeps the continuity of its tangible attributes, such as materials and form of the buildings are authentic to some extent. But in some parts of the site due to the high amount of intervention it loses its authenticity of material along the street.

### **4.3.4 Influence Indians and Armenians on the site**

#### **4.3.4.1 Armenian Influenced heritage buildings**

A brief description of the existence of foreign communities in Addis Ababa throughout Menelik's reign will aid in understanding and identifying the various cultural influences that shaped the city's architecture. In the past, old Churchill Avenue is in woreda 01 and was known as today Gandhi Street and served as a residential neighborhood for Armenians and Indians. Besides, Italians many Ethiopians have also participated significantly in the development process of the site.

Some of the most notable Armenians Krikors who work several bridges, according to Mr. Vartkes Nalbandian, the current President of the Armenian community in Addis. Minas Kherbekian succeeded Krikor after he died in Addis Ababa. Flaroutin Avakian, apet Oughourlian, and Sarkis Terzian were also well-known Armenian carpenters and constructors in Addis Ababa. Armenians worked as goldsmiths and businessmen in the town at the time. Meanwhile, the situation in their homeland deteriorated, particularly after the nationalist party Unity and Progress assumed power in Turkey(Dejene 1986).

#### **4.3.4.2 Indian Influenced heritage buildings**

India and Ethiopia have a long history together, dating back to their 19th-century commercial expansion into the Horn of Africa via Aden. The Indian community in Addis Ababa is well structured, similar to the Armenian community. Most Indian Muslims make up the bulk of the population in the past. The historic structures in the Piazza area show the influence of Indian architecture. Indians commonly practiced architecture of "Gujarat," a predominantly Hindu coastal region of western India with distinct Islamic culture, Gujarati architecture is characterized by the external walls are rectangular in plan and double the size of Ethiopian houses. Buildings with a maximum height of 3.5 meters and a two-tier roof with windows spanning the tiers(Paolo et al 2004). Another features of Indian architecture is tower like structure. This kind of

construction in Gujarat is known as Bangeli (Paolo, 2004, p22). Indian influenced houses dominate the architectures in Arada. However, we only see this as an example in the house of Shashibhaiseth, because it denotes a very tight architectural affinity. Shashibhaiseth House is located on Churchill Avenue and was built in the early twentieth century.

The antique buildings in the Piazza area reveal that Indians left one of the most apparent marks on Addis Ababa architecture. Traditional Indian architectural features in Addis, according to elderly members of the local Indian community whom the researcher met, include external walls twice the thickness of Ethiopian dwellings, buildings with a height of approximately 3.5 meters, and two-tier roofs with windows openings between the tiers. They added that these characteristics were prevalent in Gujarati houses and were designed to reduce external heat by providing appropriate ventilation.

Verandas - open and supported by wooden supports in older buildings, closed in newer ones - and main entrances covered by double doors, the outer frequently multi-glazed, are other overlapping characteristics. Other notable Indian influences on Addis architecture are roof finials and eave ornamentation. Such roof top decoration of Indian noblemen's dwellings contained a sign or the owner's name in India. Other Indian influences in Addis include tower-like buildings that may still be seen in the modest building next to Mr. Shashibaiseth's home. Mr. Shashibaiseth added that similar watchtower buildings, known as Bangali, were widespread in Gujarat, the Indian state where the majority of the Indian carpenters and builders who worked in the United States came from.

It is worth mentioning the style of typical Indian architecture among the various houses located along the road inside the area that was previously owned by Armenians. Ethiopians now own the residence, which is rented to two families. The home is rectangular in shape and entirely composed of stone and wood, however, the current owners have made some changes to the façade. The tower-like impression of the huge room placed above the roof characterizes the exquisite one-story building. A lovely wooden veranda adds to the façade, and the wooden frames of the glazed door and window are the house's main feature.

#### 4.3.5 Massing and Enclosure

The streetscape creates an enclosed feeling with relatively medium heightened (predominantly two-story) buildings lining on both sides of the street. This is in contrast to some of the narrower and more enclosed side streets, adjacent to the main street.



Figure 28: Mahatma Gandhi Street (old Churchill Avenue)

#### 4.3.6 Heritage values

##### 4.3.6.1 Aesthetic Value:

Gandhi Street has an important aesthetic character formed by individual building components that together form a notable street with early Addis Ababa-style buildings that show design or artistic, technical, and creative achievement in the past. It also contributes to the setting's aesthetic values by acting as a landmark or having an impact on important vistas, as well as by adding to the site's recognized aesthetic qualities. Also, the variety of façade characters indicates the diversity of cultural features illustrating different curving in wood during that time.

##### 4.3.6.2 Identity Value:

The roof, the handrails, the masonry wall with traditional mud mortar joint, and the lime plastering all have a strong Ethiopian Identity. But to some extent, it goes also with Indian, Greek, and other styles and setting. Therefore many of the buildings are unique that combine two extreme cultures in one setting.

#### **4.3.6.3 Cultural value:**

Many historic buildings were used by Much Ethiopian Nobility and great officials. So it has great cultural significance.

#### **4.3.6.4 Use Value:**

Though many historic buildings in the study have been used as residences, offices, and other services in the past, currently people around the site are also used as a shop, residence, manufacturing, and other uses. So its use-value is great both in past and present.

#### **4.3.6.5 Economic Value:**

The site is located in a high land value area of Addis Ababa with high economic potential. Currently, almost all historic buildings are generating income to private and governmental owners.

#### 4.3.6.6 Historic value

It shows the technical, creative, design, or artistic wooden architectural facade, innovation or achievement in the early 1890s and 1900s buildings. Not only that but also the street Importance for close association with an individual or individuals whose life, works or activities have been significant within the history of the city and also for the country. For example the residence of many important peoples in the past for example:

<b>N o</b>	<b>Name of Heritage</b>	<b>location</b>	<b>Owner of the heritage</b>	<b>House No</b>	<b>Previous function</b>	<b>Current function</b>	<b>wor eda</b>	<b>Date of construction</b>
1.	Neon Addis	Near Anbesa pharmacy	Government housing agency	129	“Gra wonber” walatamaryam residence	Neon Addis advertising organization	01	At the beginning of the 20 <sup>th</sup> century
2.	Anbesa pharmacy	Mahatma Gandhi street	Government housing agency	158	During Italian occupation used as a pharmacy, drug store, and laboratory	Anbesa pharmacy	01	1928-1931 during the Italian occupation
3.	Mr. Tadesse Yefru Ms. Tenagnworke Marme	Near seitán bat (wafa cinema)	Government housing agency	122	wood workshop	wood workshop	01	1928-1933

4.	Nasibnashi house	Mahatma Gandhi street above Tewodros square	Government housing agency	125	Jijacatari residence/Indian/	Jtashi navaljan residence	01	During Miniliks regime
5.	Kagnazmach h/Michel belto house No. 2	Mahatma Gandhi street Downward from Old Mahmud Music store	Government housing Agency	478	Residential house	Trading shop and wood workshop	01	During Miniliks regime
6.	Hakim Worknah Residence	Mahatma Gandhi street in front of Banco de Roma	Government housing agency	002	Residential house and pharmacy	Furniture selling and Residential house	01	During Miniliks regime
7.	Mr. Farid house	Mahatma Gandhi street Downward from Old Mahmud Music store	Kebele 01 (woreda 01)	237	File store for the owners	Kebele housing	01	In 1907

8.	Wafa Cinema	Around Tewodros square	Housing agency	213	Film showing, kasono club, Ethio furniture, and mega amphitheater	Wafa cinema	01	During Minilik time (1901-1903)
9.	Tewodros square	Churchill avenue	tourism bureau and	-	For memorial and tourism purposes	For memorial and tourism purposes	01	April 1995 E.c
10	Nitin residence	Mahatma Gandhi street Downward from Old Mahmud Music store	Government housing agency	241/244	Residential house and trading center	Glorious Importer	01	During Miniliks regim
11	“Kagnazmach” Haylemikal belto residence	Mahatma Gandhi street Downward from Old Mahmud Music store	Government housing agency	179		Residential house household and office furniture	01	During Minilike regime

12	Leul Makonen Residence	Mahatma Gandhi street Downward from Old Mahmud Music store	Government housing agency		Residence and “mahebarat” spice preparing for (Indians)	Residence and two shops	01	
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*Table 5: list of heritage buildings of important peoples in the past*

*Source: site survey by author and from Arada sub-city heritage-listed buildings.*

## **4.4 SWOT analysis**

### **4.4.1 Strength**

- The urban heritage center of the city,
- The location of the action area is city center zone.
- Infrastructures of the neighborhood. Like Storm water ditch, electricity, road etc.
- The economic and social focal areas that have huge interaction with other portions of the city.
- Proximity of the site to important places, which have huge economic importance.
- Social mixity of the site.
- Accessibility of the area from different parts,.

### **4.4.2 Weakness**

- New development danger for the heritage quarter
- Lack of maintenance specially kebele and governmental owned heritage houses,
- Lack or sanitation, drainage and shortage of dumpsters in some part of the site,
- Absence/ lack of the required documented information about the heritage buildings.
- Lack of conservation on historical building

### **4.4.3 Opportunity**

- Facilitated commercial market in the nearby area,
- Most heritage buildings owned by government.
- Some heritage buildings current condition is good.
- Some dwellers set budget for repair work
- Presence of some open spaces for proposal.
- Infrastructures of the neighborhood like road, drainage system.
- Presence of local associations like “Iddirs” and “iqub”, and the like.

### **4.4.4 Threat**

- New construction of the neighborhood is danger for the heritage quarter.
- The rise of land value on the historic district, threatened to demolish historic residences and iconic buildings. Those unregistered heritages.
- Unregistered heritages being demolished specially in the past time.
- Many renovation are done without considering the heritage value.

#### **4.5 Major changes occurred after the researcher started the research (changes in the past one year)**

Gandhi Street and its surrounding is a Compilation of historical evidences for early settlement from different eras (1800 s -1900 s)

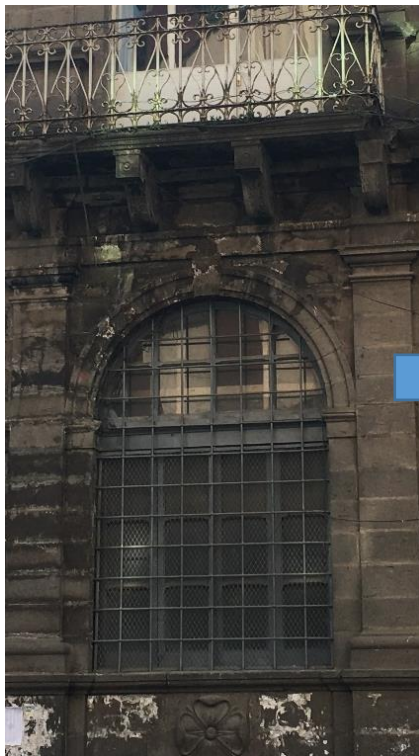
More than 80 buildings, structures and monuments registered as historical structures by sub city in this area. Some are located in close vicinity while others are sparrd through the site. Streets with different functions other than transportation like permanent parking space so this makes a problem in car conjunction and Roads of different width along the street specially the upper part of Gandhi street is narrow since it hos old street that narrow street is very common in many historic streets.

Historical buildings being used for different functions currently. Some being deteriorated due to lack of maintenance, renovation and awareness. New construction and development that negates the scale and proportion of the historical character on the street.



*Figure 29 impact of new construction on heritages along the street*

No strong record and archives to base on (so this make new developer and owner of the historic building to make inappropriate construction and modification). Historical sites being absorbed in new development making them inaccessible and invisible. Changing original construction materials and details with strange new material



Before 3 months



now



Before 1 year



now

They renovate the heritage building by removing the some part of the wall and its window. Then replaced the wooden decorated window with modern metal shatter door.



Before 1 year



now



Before 1 year



now

On these two buildings also renovation was done. In the upper one they covered wooden elements of the building by modern aluminum and on the lower they replaced the wooden decorated window with modern metal shutter door. Then paint the wall with synthetic and adding handrails at the front side of the heritage.

Main historic buildings and its basic elements are being covered with advertisement especially along the street side. Parking and unorganized informal street vendors along the street are a major problem for the site.

Poor housing condition

Residential areas around the street don't have adequate sanitary, utility and infrastructure provision. Endangered for fire hazards and other social and health problems

Insufficient parking

Inconvenient connection due to slope, Street Network and Dead end local roads and Lose connection to LRT

**Pedestrian**

- No vegetation or shading elements in sunny and rainy conditions
- Large volume of pedestrian resulting in crowdedness
- ruining quality of the space
- parking and unorganized informal street vendors

**Street furniture and utilities**

- No proper street signage, landscaping and green elements, functioning drainage
- The system, traffic light, sitting bench, pedestrian crossings,

**Crowdedness Problems**

- Since it is an old historic street its size is narrow compared to the current road sizes but the basic problem for its crowdedness is Because of the vehicle parking on both sides of the road.

**4.6 Some issues identified along the streetscape and.**

<b>Issues identification</b>			
<b>Heritage Character</b>	<b>Traffic Movement</b>	<b>Other street element</b>	<b>Parking</b>
<p>New construction on the site is affecting the heritages.</p> <p>Renovation of heritages buildings along the street is done without considering the the heritage value of the site.</p> <p>The presence of heritage elements cannot be felt.</p> <p>The condition of heritage structures is deteriorating.</p>	<p>Walk across increases conflict areas between vehicles and pedestrians thereby slowing down the traffic.</p>	<p>No continuous pedestrian walkways.</p> <p>Obstructions and lack of signage, most streets remain unknown to visitors.</p>	<p>Haphazard parking serves as obstruction for pedestrians.</p>

<b>Proposed strategies for identification Issues</b>			
<b>Heritage Character</b>	<b>Traffic Movement</b>	<b>Other Spaces</b>	<b>Parking</b>
<p>Urban design guidelines for improvement of heritage façade and signage and other elements of the street.</p> <p>Small scale streetscape revitalization is required to keep heritage value of the site.</p> <p>Clearing space around heritage buildings &amp; monuments with paved walkways.</p> <p>Special lighting of monuments.</p>	<p>Development of paved pedestrian areas as clear public space &amp; segregated walkways.</p> <p>Pedestrianizing side of the street and re-routing the traffic to retain the vehicular connectivity.</p>	<p>Provision of general lighting for streetscape.</p> <p>Organize existing service lines, sewage and solid waste management for street.</p>	<p>Introduce priced parking and provide designated on-street parking areas for shop owners.</p> <p>Derelict sites identified as off- street parking options.</p>

## CHAPTER FIVE: CONCLUSION AND RECOMMENDATION

### 8.1 Conclusion

Along the street there are four major changes. The first one is removal of major historic elements on the building, the second one is installing additional element which is not compatible with its heritage value. The third one is demolition of heritage buildings and the fourth one is even if some heritage buildings are authentically existed, they are depressed and threatened by surrounding new development.

Development along Gandhi Street should be compatible with the existing historic streetscape. We should not divide the old from the new when developing new architecture with purpose and meaning, as both have a place in the city. Because while there are various methods to properly combine new and old structures, what works best with good old architecture is a simply good new architecture. It is the designer's job to do everything we can to build good new structures. Due to a variety of elements that influence tastes, perceptions, and understanding, the debate over new and historic architecture and the best way to commemorate both continues. Opinions are as different as the buildings themselves, however, the researcher feels that the architectural community's incorporation of purpose and greater accountability in their designs is critical for this continuous debate.

Our cities are like history books that reminds us of where we came from while also enabling us to demonstrate our future possibilities. The city tells the tale of our culture, values, traditions, and important things. The modern and the ancient belong together in the city, as one without the other does not reflect the entire tale that the city must tell. The city was already shaped by a creative combination between old and new, between change and continuity, throughout history: it is this synergy that has given rise to the sites we now call heritage.

The researcher feel that by enabling the old and new to mix and coexist, this heritage is being perpetually refined and updated. The richest and most honest fabric of what the city truly is: an ever-evolving work of human habitat is created by the coming together of new and old.

## 8.2 Recommendations

The author recommend the following to solve the major problem of the street:

### 1 Streetscape Revitalization/conservation

- The preservation and maintenance of architecture with historic and artistic value
- Improvement and maintenance of the pedestrian environment

To find a tactical ways of improving streetscape without big budget expenditure. For example, the streetscape improvements in Gandhi Street, with intensification of pedestrian activities and restrictions in vehicle circulation and parking to create more attractive and active place and improved the activity of the existing local businesses.

But The Revitalization should focuses on two basic dimensions

- I. The renewal of the physical fabric along the street  
Cleaning and renewing heritage buildings and streetscape elements with little intervention (see appendix 12).
- II. Find an active economic use of those buildings and spaces to attract tourists in the site. By revitalizing the social and urban character of the street we can make it livable.

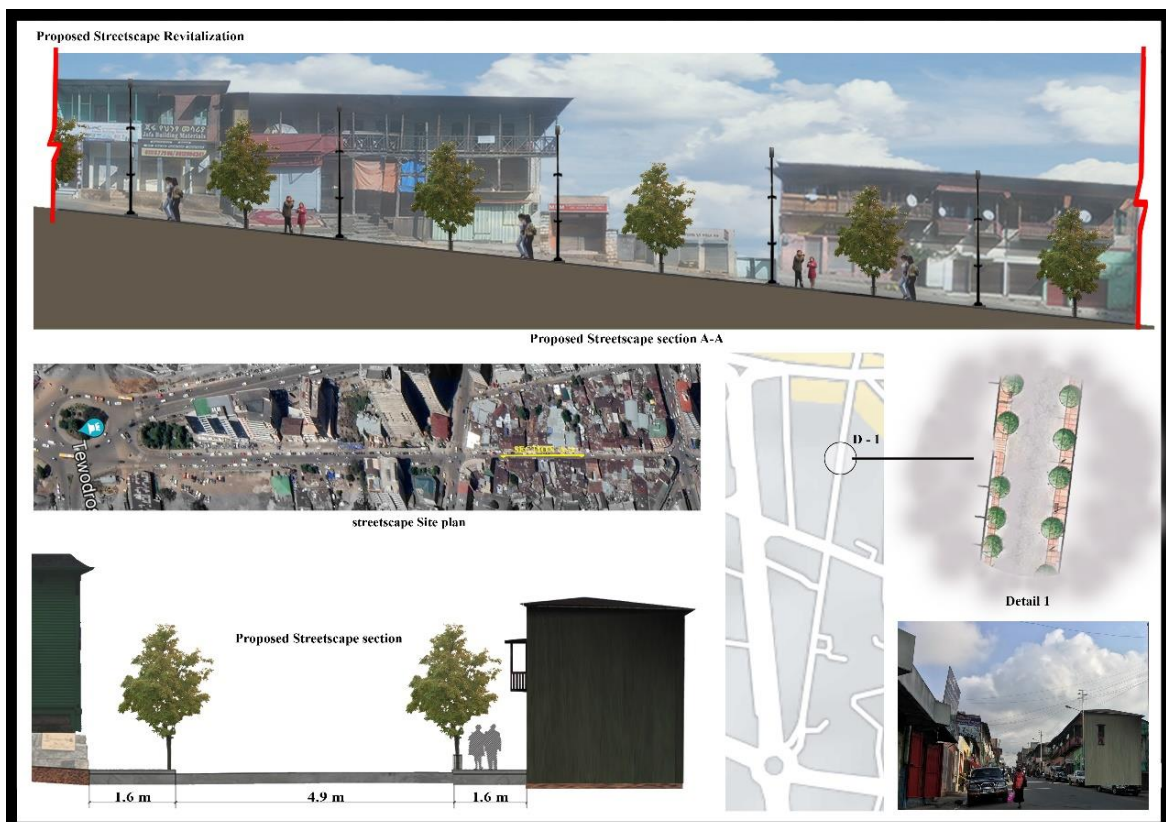
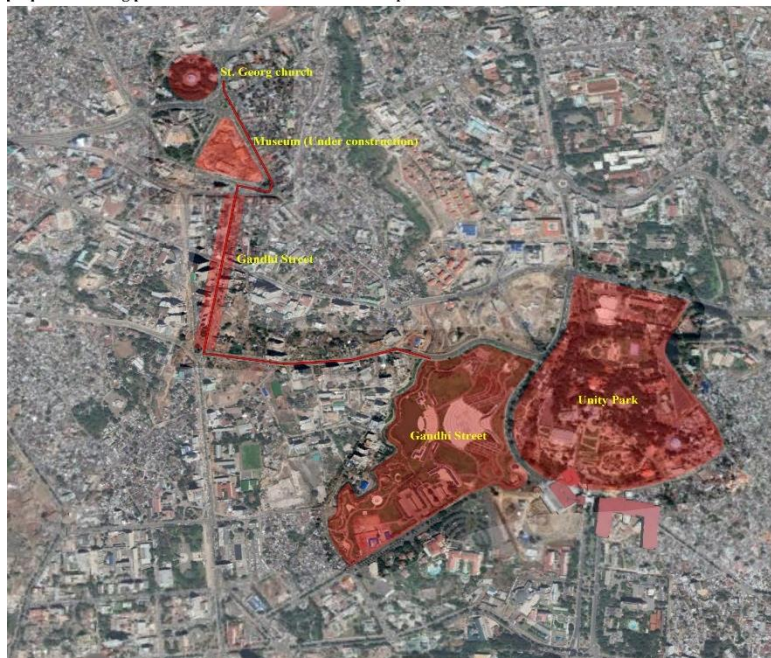


Figure 30: Proposed streetscape revitalization to make it livable (see appendix 12)

The revitalization includes:-

- Uncover the original features,
  - Repair and replacement of missed doors and windows with consistent architectural style,
  - Do not add incompatible features,
  - Careful cleaning of historic elements with nonabrasive way,
  - Remove some non-historic elements added and replace with consistent element,
  - Replacing the missing elements if any, and
  - Repair rather than replacing the historic element.
- 2 A legal guideline to control major changes that affect the historic buildings along the street.
- Encouragement of new development that is compatible with and appropriate for its surroundings Paint and color, signage, awnings and canopies, doors and windows, siding/ outside building finishes, fencing/walls, exterior lighting, and other aspects of the old structure must all be considered in the guideline.
- 3 Provide some affirmative actions for the owners of heritage building
- Renovation efforts should be encouraged for historic buildings identified on Gandhi Street,
  - Provide Design Assistance to heritage Property Owners during any kind renovation.
  - Provide Grants and Loans to property owners whose intended renovations and improvements
- 4 Connecting the street with other important sites to make it active:

proposed walking path For tourist to make the streetscape active



friendship park 860 m From Gandhi Street



Unity Park 1.4 km from Gandhi Street



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## 8.4 Appendix

### 8.4.1 Appendix 1: list of registered buildings on Arada Sub-city

የቅርስ ቤት ስም	ቅርሱ የሚገኝበት ቦታ	ቅርሱ ባለቤት	የቤት ቁጥር	የቀድሞ አገልግሎት	የአሁን አገልግሎት	ወረዳ	ቅርሱ የተሰራበት ዓ.ም
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ሰይጣንቤት	ቴዎድሮስአደባባይ	የመንግስትቤቶችኤ ጀንሲ	213	ፊልምማሳያ፣ ካሲኖክለብ (ባር) ኢትዮፈርኒቸር፣ ሜጋኦምፊቲያር	ዋፋሲኒማ (ፊልምማሳያ)	01	በመኒሊክዘ/መንግስት (1901-1903)
ቴዎድሮስአደባባይ (የአጭቴዎድሮስመድፍ)	ቸርቸልገንዳናከፍብሎ	ባ/ቱ/ቢሮእናየውበትናመፈገሃለቂልማት	-	የመታሰቢያሃውልት (ለቱሪስትመስህብ)	የመታሰቢያሃውልትመስህብ	01	ሚያዝያ 1995 ዓ.ም
ኒቲንመኖሪያቤት	ማህተመጋንዲ መንገድመሀውድሙዚቃቤት	የመንግስትቤቶች ኤጀንሲ	241/244	የመኖሪያቤትናየንግድቤት	የግሎሪየስአስመጫ	01	በመኒሊክዘመነ መንግስት
ቀኝአዝማችኃይለሚካኤልብልጦ መኖሪያቤት	ማህተመጋንዲ መንገድማሀመድሙዚቃወረድብሎ	የመንግስትቤቶች ኤጀንሲ	179		የቤትናየቢሮፈርኒቸር	01	በመኒሊክዘመነ መንግስት
የመጀመሪያው የግሪክ አርቶዶክስ ቤተክርስቲያን (KG ኮርነር ባርና ሬስቶራንት)	ጣይቱ ሆቴል አጠገብ	የመንግስት ቤቶች ኤጀንሲ	371	የመጀመሪያው የግሪክ አርቶዶክስ ቤተክርስቲያን ፣ የታክሲ ደርሚ መሸጫ	(KG ኮርነር ባርና ሬስቶራንት)	01	

የቅርስ ቤት ስም	ቅርሱ የሚገኝበት ቦታ	ቅርሱ ባለቤት	የቤት ቁጥር	የቀድሞ አገልግሎት	የአሁን አገልግሎት	ወረዳ	ቅርሱ የተሰራበት ዓ.ም
የግሪክ ኦርቶዶክስ ቤተክርስቲያን	ጣይቱ ሆቴል አጠገብ	ቤቶች ኤጀንሲ	371	የመጀመሪያው የግሪክ ኦርቶዶክስ ቤተክርስቲያን፤ የታክሲደርሚ መሸጫ		01	1901 እ.ኤ.አ (1901 ዓ.ም.)
ሱካትራሐሚምምኩራብ (የአይሁዶችቤተመቅደስ)	በኒ መስጊድ ጀርባ		767	ቤተ እምነት (የአይሁዶች)	ቤተ እምነት (የአይሁዶች)	01	1916
ቶሞካቡና	ፒያሳካቴድራል	የመንግስትቤቶች አስተዳደር	858/3	የጣሊያኖችመኖሪያ	የቡና (ካፌ) አገልግሎት	01	
ዘካሪያሁሴንመኖሪያቤት (የሚኒሊክካባሰፊ)	መሀመድ ሙዚቃ ቤት ወረድ ብሎ	ዘካሪያስሁሴን	233-235	መኖሪያቤት	መኖሪያቤት	01	1907
አቶ ኪዳኑ ድልናይ	መሃተብ ጋንዲ መንገድ / መሃመድ ሙዚቃ ቤት ወረድብሎ	ወ/ሮስህንኪዳኑና ወ/ሮተዋበችኪዳኑ	188	መኖሪያ ቤት	መኖሪያ ቤት እንጨት ሥራ	01	በሚኒሊክዘመነ መንግስት
ተስፋጎህ አዲስ አበባ ቅርንጫፍ	መሀመድ ሙተላቤት በስተጀርባ	ተስፋጎህ	111	ፖሊስ ጣቢያ፣ ወረዳፅ/ቤት	ተስፋጎህ	01	

የቅርስ ቤት ስም	ቅርሱ የሚገኝበት ቦታ	ቅርሱ ባለቤት	የቤት ቁጥር	የቀድሞ አገልግሎት	የአሁን አገልግሎት	ወረዳ	ቅርሱ የተሰራበት ዓ.ም
የድሮው ቀይ መስቀል ማህበር ዋና መስሪያ ቤት	መሀሙድ ሙዚቃ ቤት ወረድ ብሎ	የኢትዮጵያ ቀይ መስቀል ማህበር	161/165	የኢትዮጵያ ቀይ መስቀል ማህበር ዋና መስሪያ ቤት	የእንግዳማረፊያ ፣ ሱቆች	01	ቀ/ኃ/ስላሴ
መሀሙድ አህመድ ታሪካዊ ቤት	መሀሙድ ሙዚቃ ቤት ወረድ ብሎ	የቀበሌ	168	በኃ/ስላሴ ዘመን የህንድ ነጋዴ ይኖርበትነበር	የቀበሌ መኖሪያ ቤት	01	በሚኒሊክዘመን
ማሞጥበቡገዳ መኖሪያ ቤት	ሙሃሙድ ሙዚቃ ቤት ዝቅብሎ	ማሞጥበቡገዳ	221	መኖሪያ	መኖሪያ	01	1914
አቶ አራኬል ጳውሎስ ስኬት ማህበር	ግሪክ አርመን ሰፈር	የአቶ አራኬል ጳውሎስ ስኬት ማህበር	445	የፊርማ ደንበኞች ማህበር ማህበር	የአቶ አራኬል ጳውሎስ ስኬት ማህበር	01	1924 ዓ.ም ታህሳስ 4
ሚ/ር በሻሊን ኑሩን መኖሪያ ቤት (ኮጋዴደሳለኝ)	እሪ በኮንቱደጅ አዝማች ጆሩት	የመንግስት ቤቶች ኤጀንሲ	480	ሚ/ር በሻሊን ኑሩን መኖሪያ ቤት	ኮጋዴደሳለኝ መኖሪያ ቤት	01	በምኒሊክዘመን
ፊት አውራረሪ ገብርኤል አለምን ዳ መኖሪያ ቤት (ጎጆ ብድር ስክሊኒክ)	ግሪክ አርመን ሰፈር	ወ/ሮ እቴጌ ማሞ	የቀድሞ 12 ቀበሌ	የፊት አውራረሪ ገብርኤል አለምን ዳ መኖሪያ ቤት (ግሪካዊ) መኖሪያ ቤት	የጎጆ ብድር ስክሊኒክ	01	በ1924 ዓ.ም

የቅርስ ቤት ስም	ቅርሱ የሚገኝበት ቦታ	ቅርሱ ባለቤት	የቤት ቁጥር	የቀድሞ አገልግሎት	የአሁን አገልግሎት	ወረዳ	ቅርሱ የተሰራበት ዓ.ም
ፊሊስቲንስታይት (የአቶማም ኃይሌ መኖሪያ ቤት)	ግሪክ አርመንስጥር	አቶማም ኃይሌ	443	ሆቴል በግሪኮች፣ መኖሪያ ቤት	መኖሪያ ቤት	01	1924 ዓ.ም
አቢሲኒያ ባንክ	ጣይቱ ሆቴል ጀርባ			አቢሲኒያ ባንክ	ማዕከላዊ ስታትስቲክ	01	
ኢትዮጵያ ሲኒማ	ሙብራት ሀይል ዋናው ሙ/ቤት አጠገብ	ሲኒማ ቤቶች አስተዳደር		ኢትዮጵያ ሲኒማ	ሲኒማ	01	
የሜስቦግ መኖሪያ ቤት	ግሪክ አርመንስጥር (እቴጌ ጣይቱ ሆቴል በስተ ጀርባ)	አከራይ (አብዲ ዘካር)፣ ተከራይ (ጎጆ ብክሊኒክ)	507	ለ መኖሪያ (አርመኖች)	ለ ንግድ ስራ	01	በሚኒሊክ ዘመን ጨረሻ ዎቹ ዘመን
ፊት አውራሪ አሰፋናደው መኖሪያ ቤት	ሊሴገ/ማርያምት/ቤት ጀርባ (ራስናደው ሰፈር)	የመንግስት ቤቶች ኤጀንሲ	238	መኖሪያ	መኖሪያ	01	በሚኒሊክ ዘመን መንግስት
ነጋድ ረስግዛው ጣይቱ ብጡል	ኤልቤት ሆቴል	ቤተክህነት	469	መኖሪያ ቤት፣ በመንግስት ቤቶች ኤጀንሲ ስርዓት	ኤልቤት ሆቴል	01	በሚኒሊክ ዘመን መንግስት







የቅርስ ቤት ስም	ቅርሱ የሚገኝበት ቦታ	ቅርሱ ባለቤት	የቤት ቁጥር	የቀድሞ አገልግሎት	የአሁን አገልግሎት	ወረዳ	ቅርሱ የተሰራበት ዓ.ም
				የቤተክህነት ኪራይቤት (ቢሮ) መሰብሰቢያ			
ራስናደውአባወሎ (የፊትአውራሪአሰፋልጅ)	ራስናደውሰፈር (ሊሴገ/ማርያምት/ቤትጀርባ)		236	መኖሪያቤት	መኖሪያቤት	01	በሚኒሊክዘመን
የቀኝአዝማችሀ/ሚካኤልብልጦ መኖሪያቤት	ከቀድሞ መሀመድ-ድሙዚቃቤት ትቦታች	መንግስት ቤቶችኤ ጀንሲ	182	ለንግድ	ለንግድ	01	በሚኒሊክዘመን
ኒኦንኢዲስ	አንበሳፋርማሲአጠገብ	መንግስት ቤቶችኤ ጀንሲ	129	የግራወንበርተ/ማርያም መኖሪያቤት	ኒኦንኢዲስ ማስተወቂያ ድርጅት	01	በ 20ኛው ክ/ዘመን መጀመሪያ
አንበሳመድሀኒትቤት	ጋንዲመንገድ	የመንግስት ኪራይ ቤቶችኤ ጀንሲ	158	የጣሊያን ጊዜላብራቶ ሪናመድ ሃኒት መደብር ፣ የጥቁር አንበሳ ማሰሪያ ገንዘብ ማሰባሰቢያ የነበረ	አንበሳመድሀኒትቤት	01	1928-1931 በጣሊያን ወረራ ወቅት



የቅርስ ቤት ስም	ቅርሱ የሚገኝበት ቦታ	ቅርሱ ባለቤት	የቤት ቁጥር	የቀድሞ አገልግሎት	የአሁን አገልግሎት	ወረዳ	ቅርሱ የተሰራበት ዓ.ም
የሙሴአርቲንአባኪያንመኖሪያ ቤት	እሪበከንቱ	እስክንድርፍስሀ		የአርመኖችመኖሪያ ቤት	የሻለቃፍስሃመኖሪያ ቤት	01	በሚኒሊክዘመን
ዲሎሬንሶቪንቼንሶመኖሪያና የእንጨትስራቤት	የኢትዮጵያስታስቲከስጀርባ			ዲሎሬንሶቪንቼንሶመኖሪያና የእንጨትስራቤት	ዲሎሬንሶቪንቼንሶመኖሪያና የእንጨትስራቤት	01	በሚኒሊክዘመን መንግስት
የግሪኮችመኖሪያ (ተስፋጎህኢትዮጵያ/ቤት)	ተረትሰፈር	ቤቶችኤጀንሲ	053	ግሪኮች፣ግለሰብ፣ ተስፋጎህ	የግሪኮችመኖሪያ (ተስፋጎህኢትዮጵያ/ቤት)	01	በዘውዲቱዘመን
ፊትውራሪአሰፋናደውቤት	ራስናደውሰፈር	ገላው አበጋዝ	241	መኖሪያ ቤት	መኖሪያ ቤት	01	በሚኒሊክዘመን
ታደሰ ይፍሩ/ ወ/ሮ ተናኘወርቅ መርጫ	ሰይጣንቤትአጠገብ	ቤቶች ኤጀንሲ	122	እንጨት ቤት	እንጨት ቤት	01	1928-1933
ኢንጅነርሀንኪቤት (ጣይቱሆቴል)	ተረትሰፈር	ቤቶችኤጀንሲ	219	የጣይቱሆቴልጥበቃ ቤት	መኖሪያ ቤት	01	1899 ዓ.ም

የቅርስ ቤት ስም	ቅርሱ የሚገኝበት ቦታ	ቅርሱ ባለቤት	የቤት ቁጥር	የቀድሞ አገልግሎት	የአሁን አገልግሎት	ወረዳ	ቅርሱ የተሰራበት ዓ.ም
አድነውጫርቆስመኖሪያቤት	ጣይቱሆቴልጀርባ	እንግዳስደምእናቀ ፀላእሸቱ	431	አድነውጫርቆስ መኖሪያቤት	አድነውጫርቆስመኖሪያቤት	01	በሚኒሊክ ዘመን
አድነውጫርቆስመኖሪያቤት	ጣይቱሆቴልጀርባ	እንግዳስደምእናቀ ፀላእሸቱ	431	አድነውጫርቆስመኖሪያቤት	አድነውጫርቆስመኖሪያቤት	01	በሚኒሊክ ዘመን
ልኡልመኮንንመኖሪያቤት	ማህተምጋንዲ መንገድማሀ ሙድሙዚቃወረድብሎ	የመንግስትቤቶች ኤጀንሲ		ለመኖሪያቤትናየተለያዩ ሰዶሞችቀምመው መሸጫ (ህንዶች)	ለመኖሪያቤትናለነግድ ሎሊትሎቶች	01	
ፀሀይ ደቻች እንቁስላሴ	ሙሃሙድሙዚቃቤትወረድብሎ	የቀበሌ	167/03	የህንዶችመኖሪያ	የቀበሌነዋሪዎችመኖሪያ	01	በሚኒሊክ ዘመን መንግስት
ሙሴ ሐፔት ጉርሌያን መኖሪያ ቤት	ግሪክአርመንሰፈር	ወ/ሮማሪያሐፔት	505	ሙሴሐፔትጉርሌያን መኖሪያቤት	ሙሴ ሐፔት ጉርሌያን መኖሪያ ቤት	01	በ1908ዓ.ም

### 8.4.2 Appendix 2: building height of the site

የአዲስ አበባ ከተማ የህንጻ ከፍታ ማስፈጸሚያ ደንብ

	ሆን	ጥቅል ወለል ምጣኔ (ጥወም)		የመንገድ አይነት	ህንጻ ከፍታ (በሜትር)	
		ገጽተኛ	ከፍተኛ		ገጽተኛ	ከፍተኛ
	፩	<b>10</b>	ያልተገደበ	—	<b>70</b>	ያልተገደበ
	፪	<b>5</b>	ያልተገደበ	≥CS	—	<b>70</b>
		<b>4.5</b>	<b>5.5</b>	LS	—	<b>35</b>
	፫	<b>2</b>	ያልተገደበ	≥CS	—	<b>35</b>
		<b>2</b>	<b>5</b>	LS	—	<b>35</b>
	፬	<b>0.5</b>	ያልተገደበ	≥CS	—	<b>35</b>
		<b>0.5</b>	<b>3.5</b>	LS	—	<b>35</b>
	ታሪካዊ ቦታዎች	<b>0.5</b>				<b>21</b>
	አረንጓዴ ቦታዎች		<b>0.05</b>			

 Roads       Aviation boundary line  
 CS=Collector Street;LS=Local Street

8.4.3 Appendix 3: Addis Ababa city government culture and tourism bureau rule for the protection of heritage building to protect from current heritage distraction.



Tel. 0111264425/0111264405      Email: info@addisculture tourism gov.et  
 Fax: 0111264614                      Website: www.addisculture tourism gov.et  
 P.O. BOX: 8885 A.A, Ethiopia      Facebook page: addis culture and tourism  
 ማለል ለይቶ ገንጠን ተ/የ/ር ይጠቀሙ      Please Quote our Ref. No. in Reply

አሁንም ሆነ ባለፈው ሆነ በገንዘብነት በቅርስ ላይ ጉዳት አንዳደርሰው የሚያደርጉት በሁለተኛው ማህበረ ሰብአዊ መብት በየገንዘብነት የሚገኝ ጋራዎችና ሠራተኞች ከሆነው ጥቅም ይልቅ የራሳቸውን ጥቅም የሚያስተድሙ ገለልኞች ይመሰናብዋል እንደ ህግ ስራው ሊታወቅ ስለሚችል ይታያል።

ስለዚህ የሕዝባዊነት ሆነ የሰራዊት አካላት የሚከተሉትን ግብ ሙሉ ሆኖ የሚገኝ ቅርስ እንዲረዱ የሰራዊትን የማይረዱ ፈታኔና ቅርስ ረደቦ አዲስ ግምታዊ እንዲገነባ የሰራዊትን ፈታኔ እንዲሰርዙ እየተቀረፀ ያሉ ጥንቃቄ ዓይኖች ሙሉ ሆኖ አገልግሎት ለሰራዊት እየሰጡትን ይረዳሉ። ከቅርስ ጥናትና ጥያቄ ባለስልጣንና ጉዳይ ከሚመለከታቸው አካላት ጋር በመሆን ይህንን ተግባር በረዕይና እየረገጡ ባሉ አካላት የሚከተሉትን አመራሮች ጥምር በሆነ ለማስፈቅ መሆኑን እንገልጻለን።

**ገልጻል**



- ሰብአዊ መብት
- ሰቅርስ ጥናትና ጥያቄ ባለስልጣን
- ለሕዝብ ጥያቄ ባለስልጣን
- ለአዲስ አበባ ሀገር ስብከት ዋናው አስተባባሪ
- ለቅርስ ስራ ካህናት ሰብአዊ ጥያቄ
- ለሀገር ወጪ ለሰራዊት ጋራ ይረዳል
- ለሆነ አገልግሎት
- ለቅርስ ለማስፈቅ ተግባር ስራን አዲስ አበባ

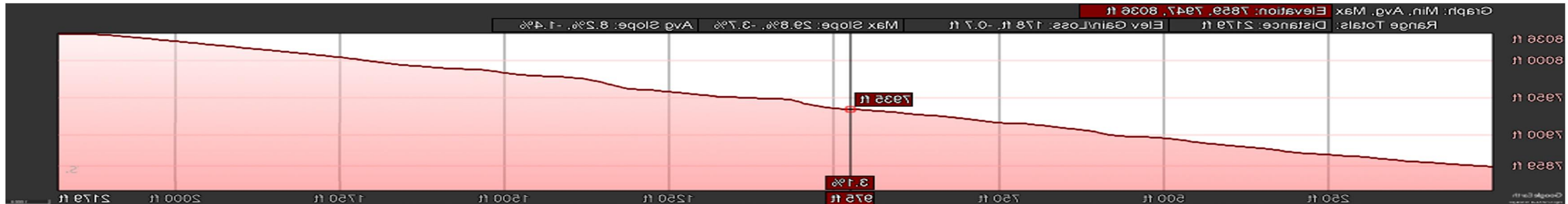
**Appendix 4: Streetscape section of the site**



**Streetscape section A-A**



**Google Earth Map of The Site**



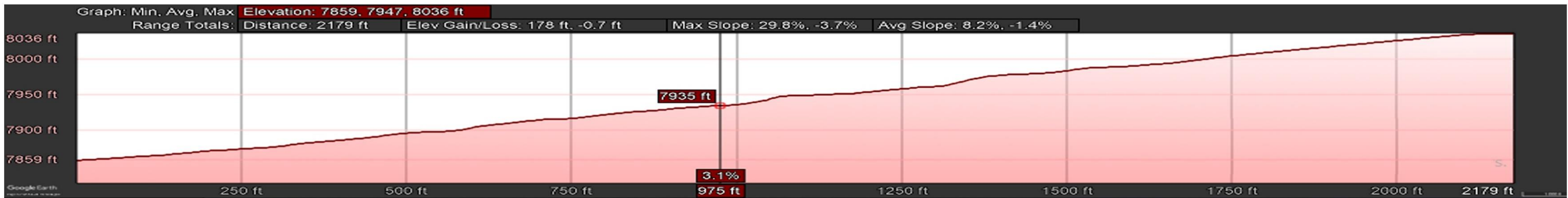
**Google Earth Section of the Streetscape (Terian Section )**



Streetscape section B-B



Google Earth Map of The Site



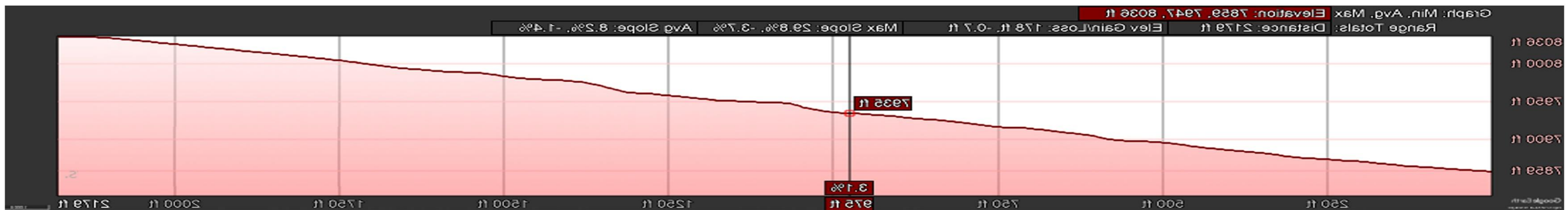
Google Earth Section of the Streetscape (Terian Section )



Streetscape section C-C



Google Earth Map of The Site



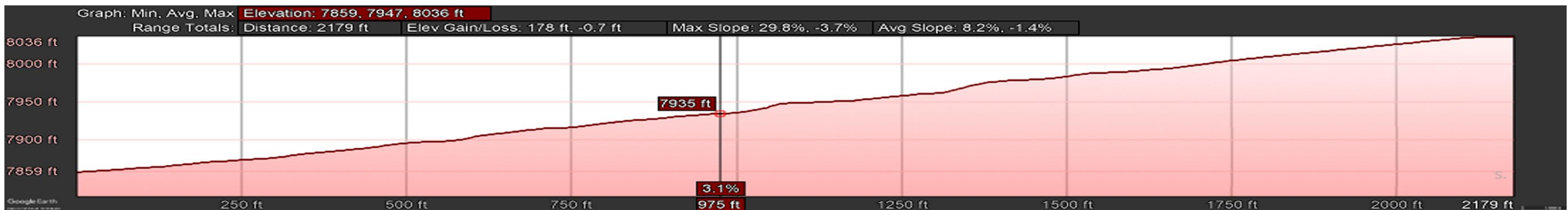
Google Earth Section of the Streetscape (Terian Section)



Streetscape section D-D

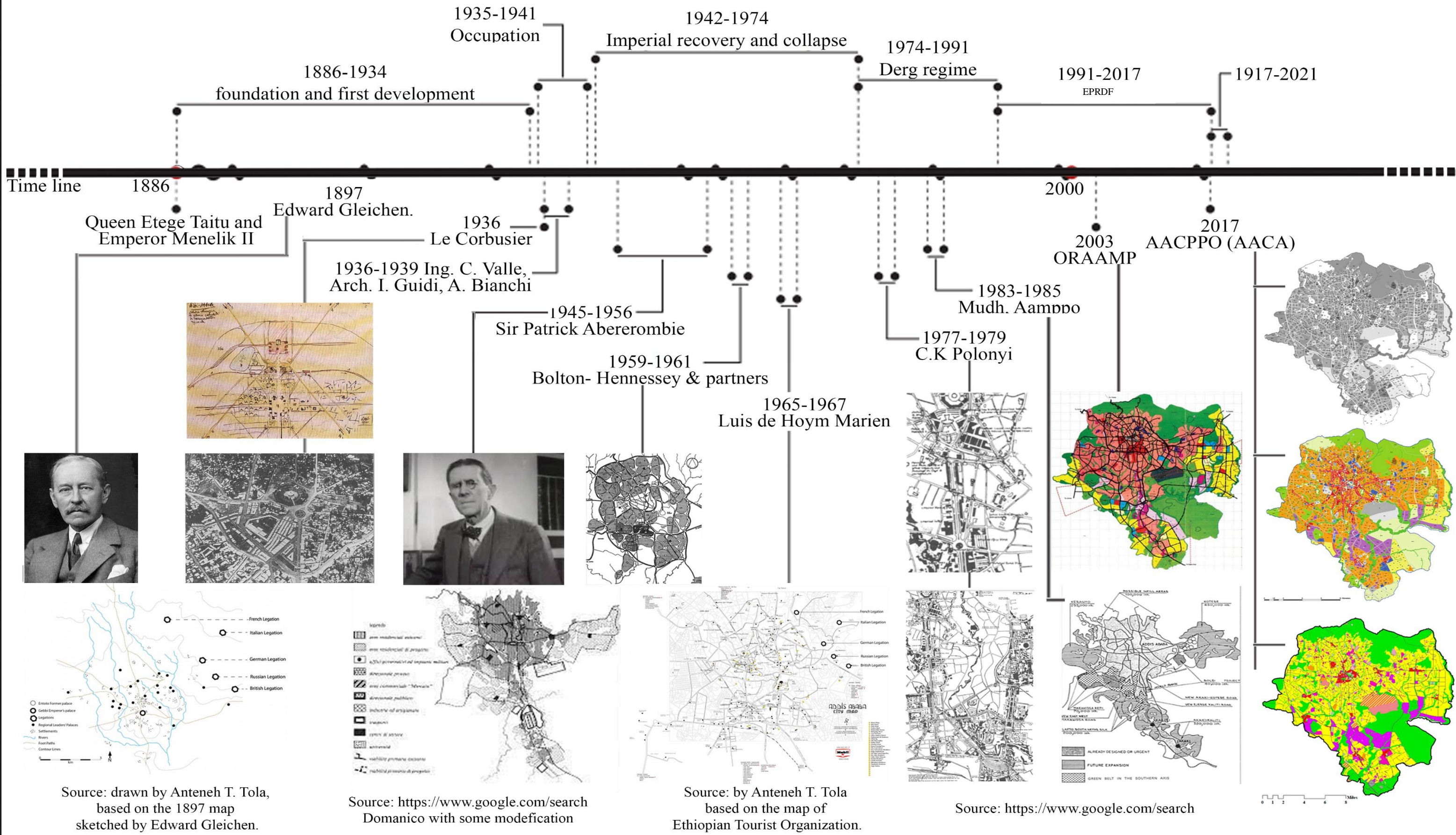


Google Earth Map of The Site



Google Earth Section of the Streetscape (Terian Section)

# History of Master plan Appendix 5



**Appendix 6: History of change and impact of new development along the street from 2002-2022**



Gandhi street in 2002 GC

durine the time 2002 GC there was no any new construction.



Gandhi street in 2008 GC

durine 2008 GC 3 new additional construction are done. as we see in the above picture the new addition are identified with its white roofed buildings



Gandhi street in 2016 GC

durine 2016 GC 6 new additional buildings are constructed. as we see in the above picture the new addition are identified with its white roofed buildings



Gandhi street in 2022 GC

Now in 2022 GC 13 new additional buildings are constructed. as we see in the above picture the new addition are identified with its white roofed buildings

Appendix 7: Existing land use of the site



Metig kirkoff residence

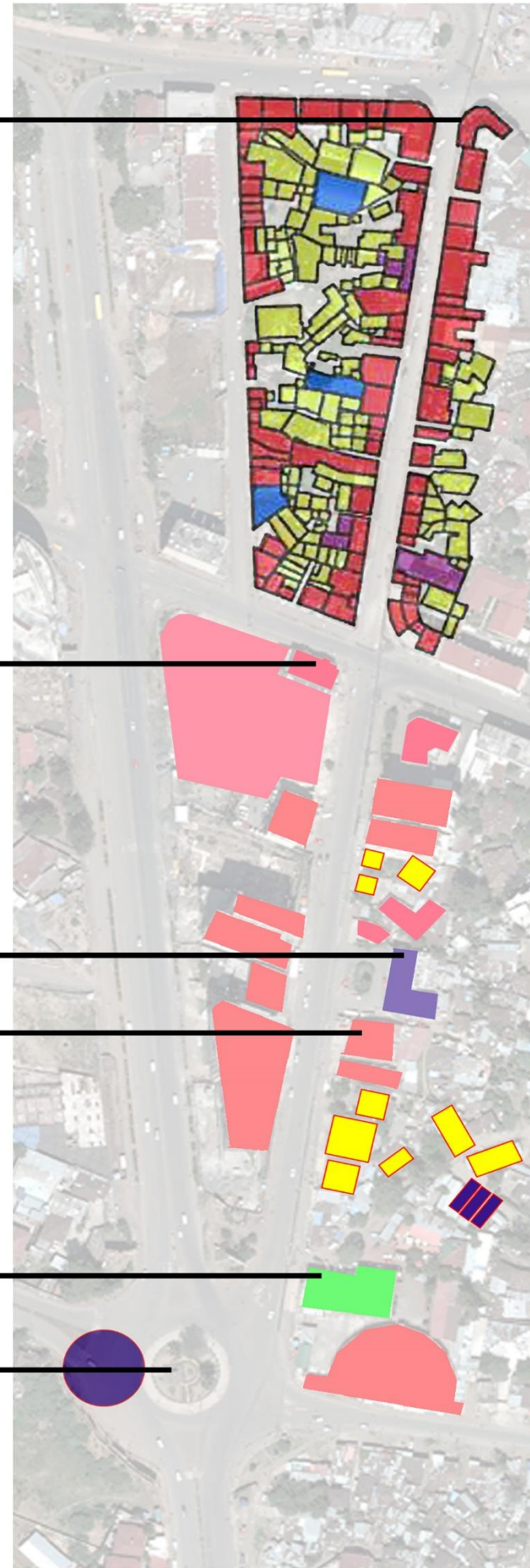
Hakim Workenah residence

Ambesa pharmacy

Gra Wonber T/ Maryam

Wafa cinema

Tewodros Square



Legend

- Residential
- Commercial
- Office and administrative
- Storage
- Manufacturing
- Entertainment
- Health care

Legend

- Residential
- Commercial
- Office and administrative
- Storage
- Manufacturing
- Entertainment
- Health care

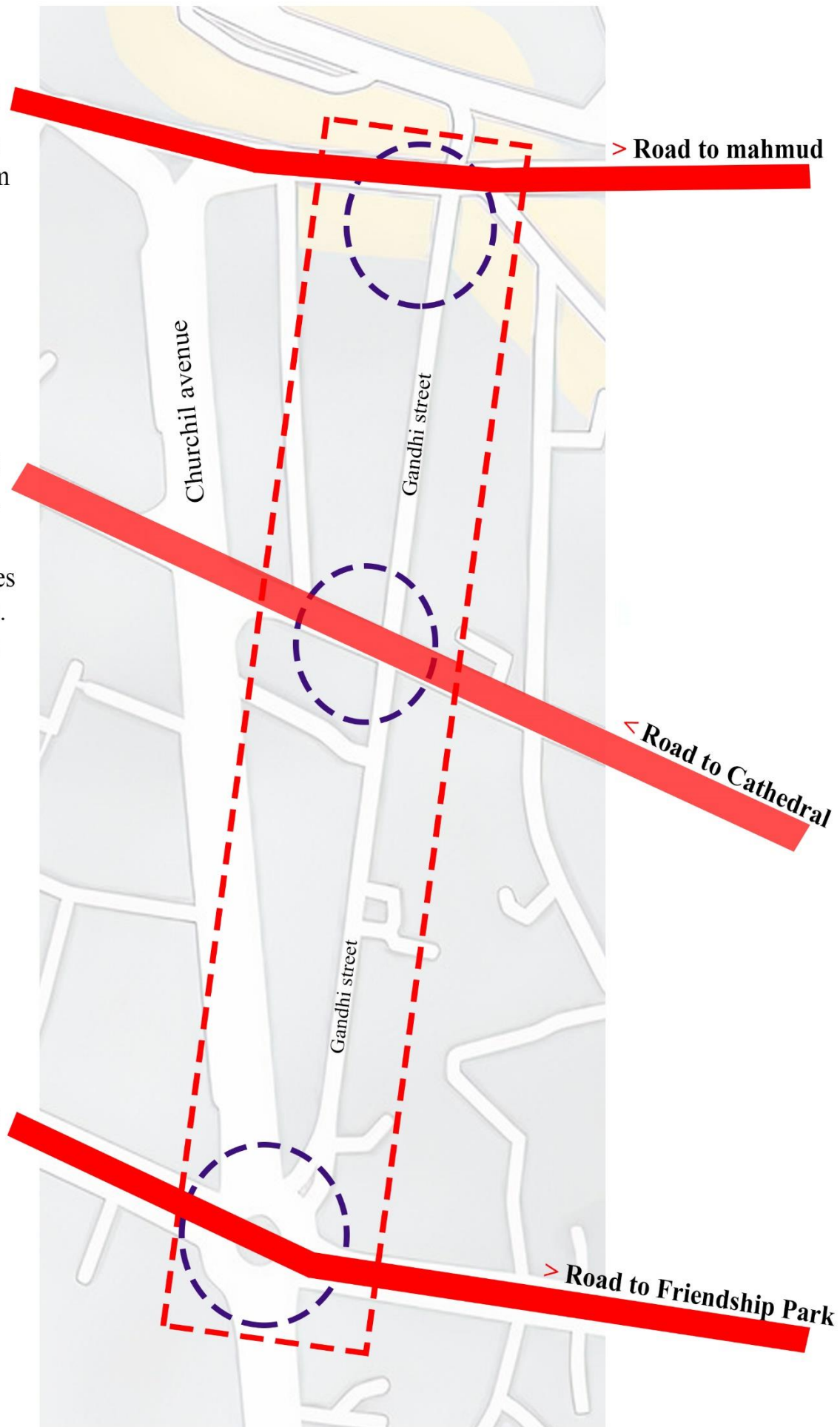


**Appendix 8: Node of the site**




**Node 1**  
This Node is very active and used as main entrance for Gandhi Street from top.

**Node 2**  
this Node is used as secondary entry to Gandhi Street from the middle. It also used to move to important sites like Abrehot library and other places. this create the an important site with good connectivity.

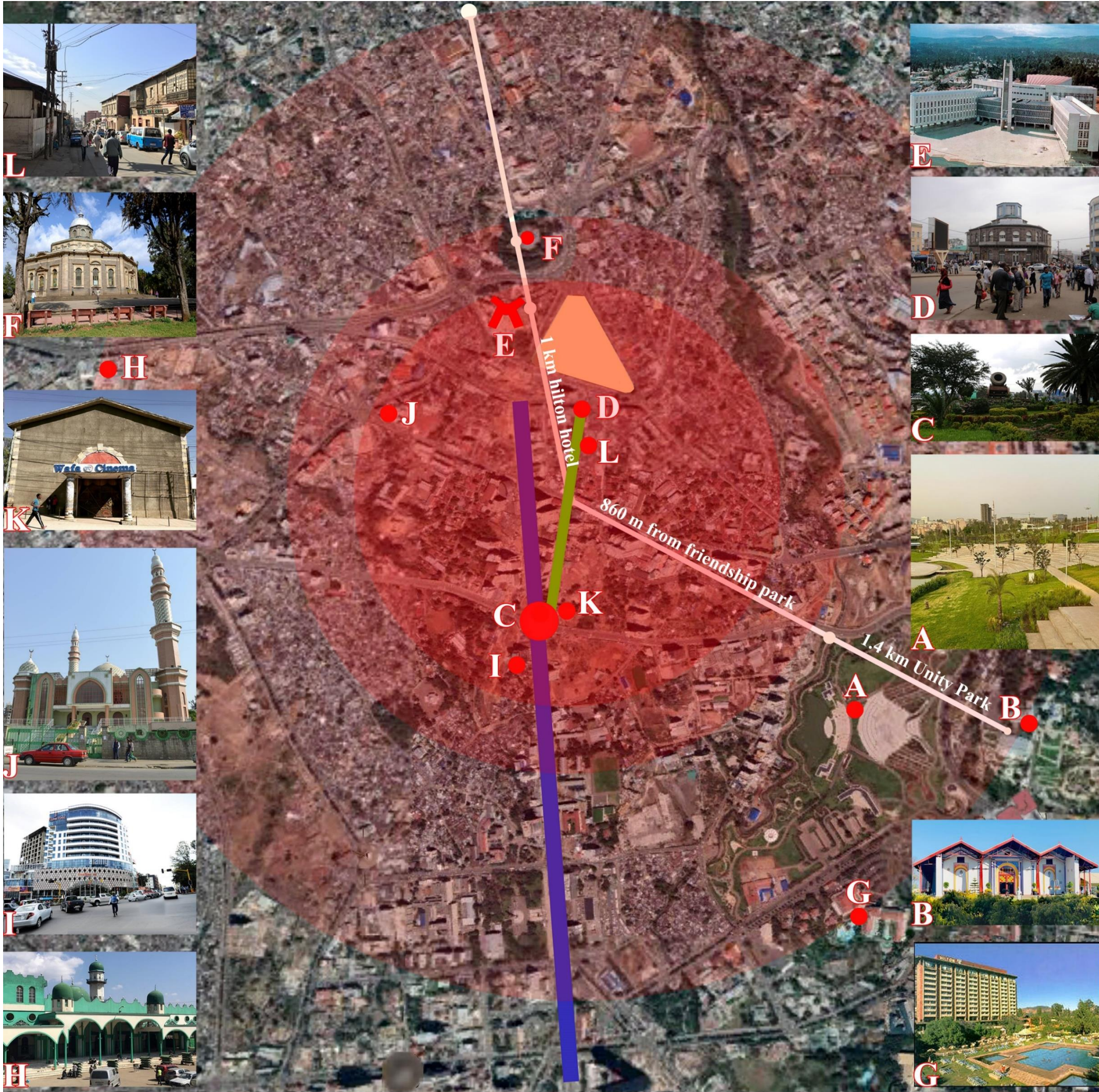
**Node 3**  
It is used as a Main entry to Gandhi Street from the south. It also create the Opportunity to improve connectivity and safety of the streetscape.



**Legend**

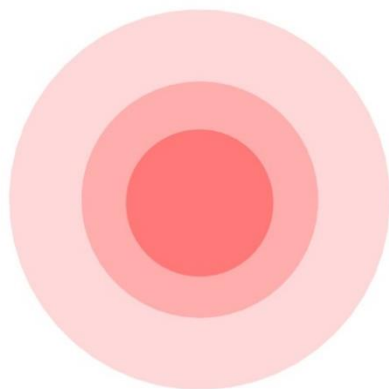
-  **Gateway**  
Gateways are the circumstances in which one location grants access to another. They are landmarks that assist us in determining our location in a city. They represent the start of something new and the point at which a place transforms from one state to another. Mahmud area in the north and Tewodros roundabout in the south have been suggested as gateway locations to the site and centrally in the middle of the site from the cathedral area.
  -  **Project Zones**  
It is the selected street for studying.
  -  **Node**  
Strategic focus places, such as points of intersection or areas of increasing activity, are known as nodes. At each crossroads on Gandhi Street, there are commercial nodes. All the identified nodes allow more public realm investment in both design and materials, resulting in a distinct feeling of place over the length of Main Street.
- Piazza is a major transport node, a converging and diverging point
- Even if my site is straight line the overall site have Radial and Organic road Character.
  - Series of Streets along the contour lines are interconnected with a radial streets perpendicular to the slope in all directions starting from the central area in the study site
  - Major intersections are enhanced with roundabouts and statues contributing to local image and spatial identity.
  - Some Local roads are convenient for walking but inaccessible for vehicles and dead end in most cases especially near the river
  - Insufficient car parking space
  - Steep sloped streets due to the natural landscape
  - Challenging for historic buildings specially if there is new construction in the site.

Appendix 9: Site Connectivity



Friendship park = 860 m far from tewodros square  
 National Museum of Ethiopia = 1 km far ghandi street  
 Ghandi street = 1.4 km Unity Park

figur: old and new  
 churchill avenue  
 in 1970s



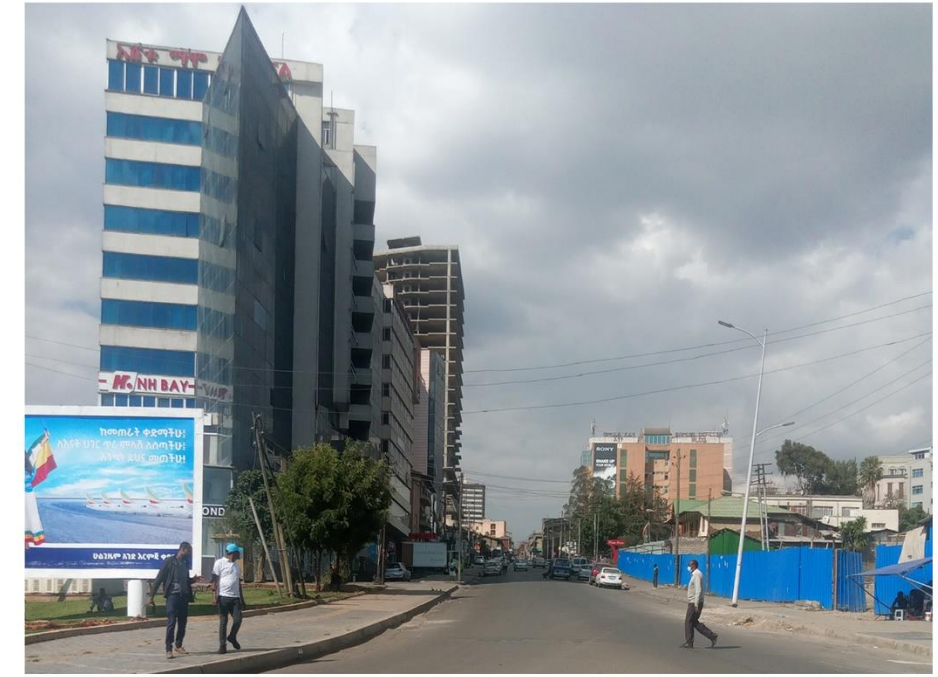
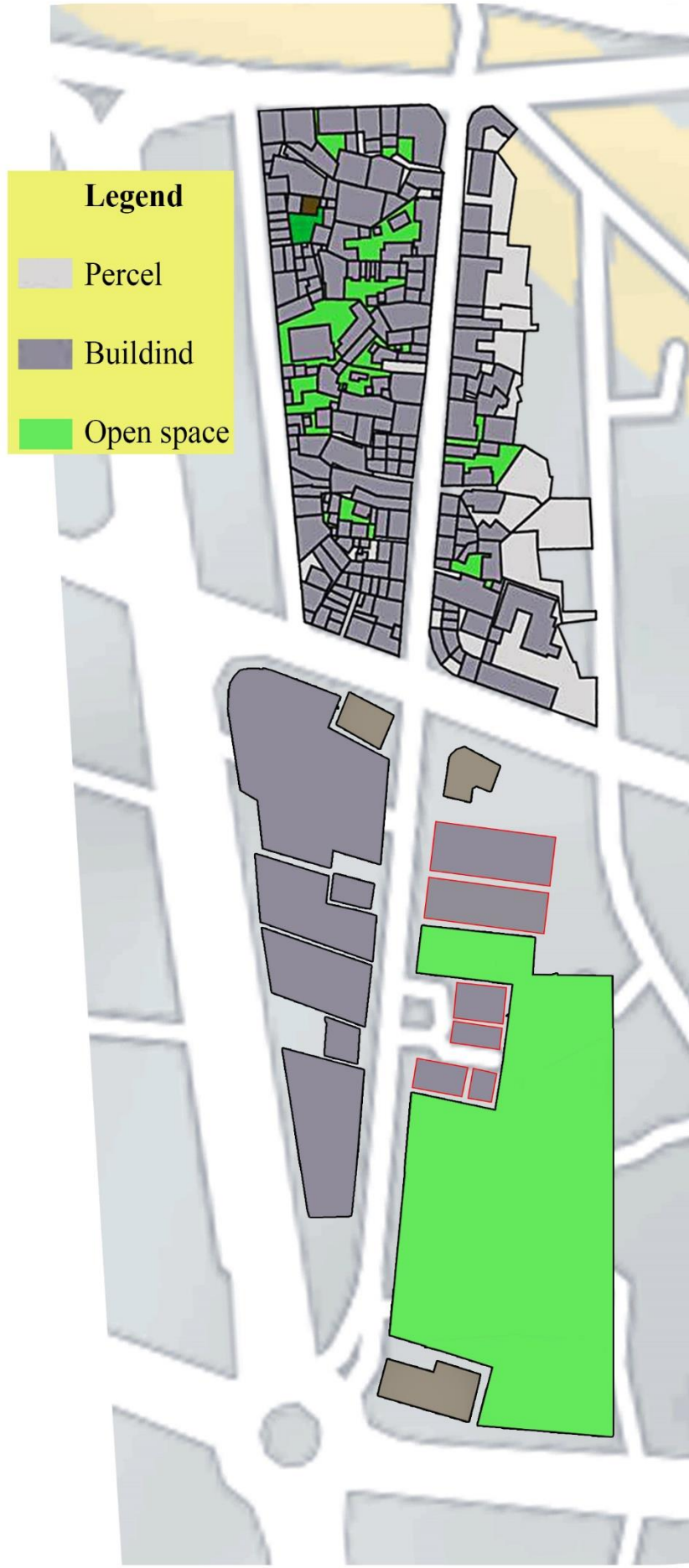
third core (relative connection with the site)  
 secondary core area (connected to the site)  
 Core area radius of 600 meter

- Selected street (old churchill avenue)
- Current churchill avenue
- Current churchill avenue
- Proposed city museum



# Open space

## Appendix 10: open space



## On street parking Appendix 11



### Legend

- █ Cars
- Road

### Some of the Inferences from the map are:

- On the satellite map taken on date Sunday, November 14, 2021, 7:26:13 AM the number of Cars parked along the street are 141 and out of these 94 cars are parked by shop owners and the other are some are buyers from the shop and some are passengers for other purpose. this shows most of the parking space are taken by shop owners and it stays for long period of time by controlling the street space in working hours.

- Gandhi Street is currently dominated by vehicles parking - requires better parking management method, reduced or change parking place and shifting the priority to become a people friendly streetscape;

- Gandhi Street is a shopping street and generates high volumes of foot traffic and mixed activities creating a need for pedestrian friendly streets. As an important heritage center, it also attracts a number of tourists. The tourist nodes and routes must therefore be enhanced in order to facilitate heritage walks, and signage etc.



#### **8.4.12 Appendix 12: Sample Guidelines for heritages on the study area**

So the following guidelines are prepared by author for historic streetscape of Gandhi areas. These situations involve significant aesthetic, functional, and other considerations.

##### **Guidelines for new development in the site**

New construction can be successfully integrated into historic areas if the new forms are sensitively developed to be compatible with the old. New development may not copy historic motifs or forms of construction to achieve compatibility. New construction must carefully consider the following abstract characteristics:

- Compatible materials,
- Appropriate scale and height (maximum height of the buildings in the area based on the existing maximum historic building which is G+2 but in accordance with its near bay building)
- Harmonious color and modulation of form (Harmonizing the buildings which are going to be built in the area (in color, material, etc....))
- Quality of detail and design.
- Keeping the existing building and block arrangement
- Keeping the existing road pattern.

##### **Guidelines for installation on historic buildings**

Unless modern standards are achieved, it is difficult for historic buildings to compete with new construction. However, it needs a skilled task to upgrade services without damaging historic architecture or creating visual discontinuities. The styles, materials, and situations in these buildings are so varied that appropriate solutions must be formed for each situation. General guidelines include the following:

- Visual impact of all additions and changes as subtle as possible
- Fixtures, ducts, and materials all should be compatible with historic designs and materials;
- Minimal destruction of historic structures, materials; and the historic context; and
- Access for service maintenance and renewal that avoids future disruption of historic materials or structures.

### **Guidelines for restoration and renewal of heritage buildings**

Authentic restoration of existing buildings is the key to their historic significance and educational value. Guidelines for the authentic restoration of any historic property along Gandhi Street should respect the following broad principles:

- Authentic restoration based on written, photographic and other archived documentation;
- Use of original construction techniques and materials, to the greatest extent possible; and
- Reversible processes, materials, and conservation methods used in improving or renewing construction in order to allow for further restoration of the street or building when future technology or research findings become available.

### **Regulation regarding open spaces in the site**

- Permanent structures which violets the original intended purpose is strictly forbidden,
- In open spaces does not need permanent structures but can be used by like Sunday markets, bazaars and exhibitions with temporary shelters.

### **Regulation for private developer**

When historic buildings are contracted to private developer the following key points has to be fulfilled:


- The holder must abide to preserve specific features of the property,
- The holder must sign to use for specific function that respect site history and character,
- Permission must be obtained from culture and information bureau for maintenance,

### **Regulation for legal stockholders**

- Development of awareness to kebele and woreda officials about preservation of historic buildings in their administrative area,
- The culture and information bureau should continuously follow up the condition of the heritages through inspection and annual report.

### Detailed Guidelines sample

NB: The following Guidelines are used for specific heritage buildings only not for all

<b>Building height</b>	Number of stories above ground	2 including ground floor so it should not be more than G+2	
	Height form N.G.L.	10 m ( measured from the lowest natural ground level)	
	Roof gutter level	11.5 m from the street level	
	Roof height	1.5 m minimum	
	Ground floor height	3.5 m (floor to floor measured from the front street level)	
	Upper floors height ( clear floor to ceiling)	3 m (clear floor to ceiling measured)	
<b>Windows</b>	Window sill	3 cm cantilevered , 2.5 cm thick White marble (imitation, granite)	
	Window types for ground floor.	Type one: Square window arched at the top of it,	
	Window types for ground floor	Type two: Arc top historic windows	
	Depth of window in upper floor	min 15cm from the external surface	
<b>columns</b>	The column and Handrail material should be natural wood.	Its design must much the Handrail of neighboring old building.	

<b>Front setback</b>	Ground floor	Max 5- Min 1m	
	Site plan	Property line	
<b>Rear setback</b>	Ground floor	Max 3- Min 0	
	Site plan	Property line	
<b>Roof</b>	Pitched roof	Height is 1.5 m	
		Angle 15 % slope	
		Material CIS	
		Color Should be much with the old roof colors.	

Table 6: Detailed Guidelines sample

#### 8.4.13 Appendix 13: Design Proposal

- Public Space Design

Preparing public space along the Street. By changing car parking space on the open space seen in the appendix 10 which is at the back side of “Anbesa” pharmacy, the footpaths also must be upgraded and defined on either side to make the streetscape covenant for pedestrian. It accommodates pedestrian walk ways, temporary vending clusters, services (street lights and signage etc.), street furniture and trees. It also hosts a range of activities that adds to the livability quotient in an attempt to retain the vibrancy and dynamism of the area as it is today.

- Street Furniture and Signage Improvement

Street furniture should be compatible to the heritage character of the street. Signage would be designed to create awareness and to help with wayfinding of alleys that sell particular goods.

- Parking off-street parking

On-street parking is completely discouraged because it is the major problem for the Street. Open Plots around the street have been identified to accommodate off-street parking (see appendix 10).

Proposed Streetscape Revitalization

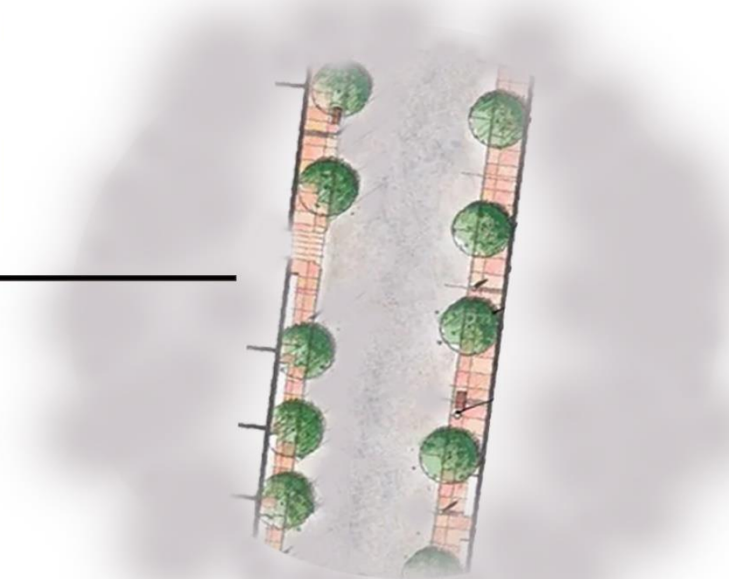
Appendix 13



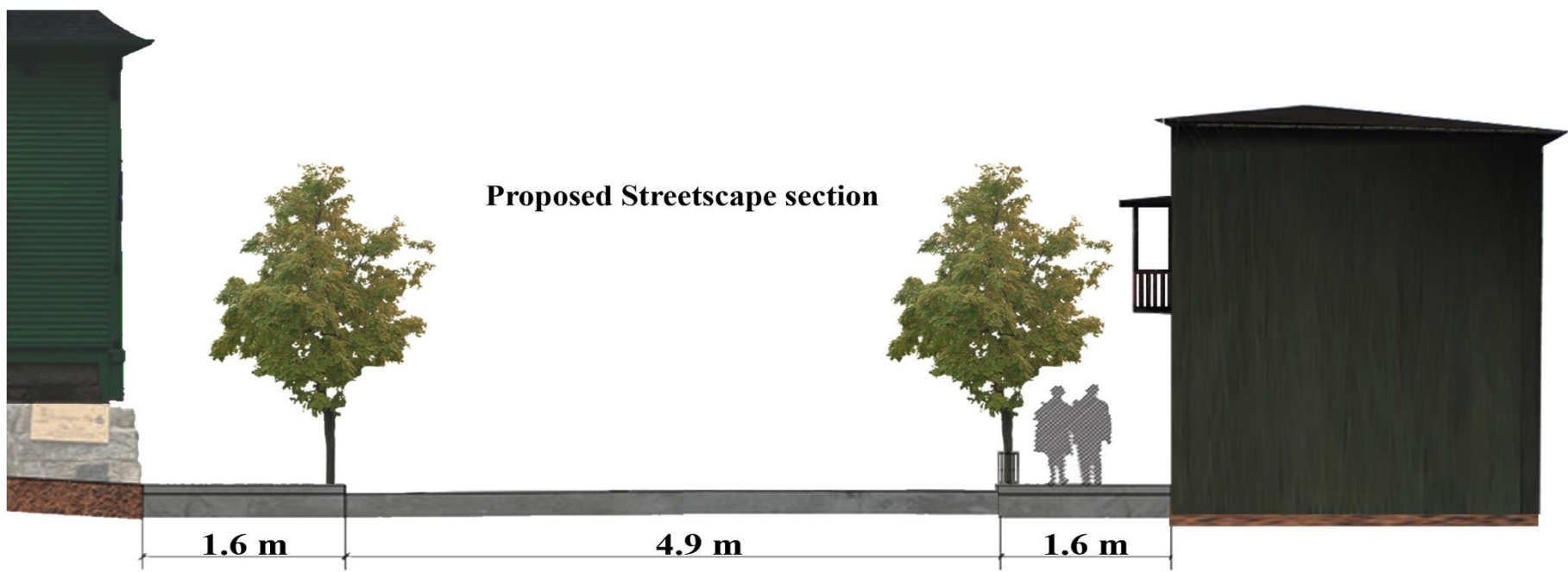
Proposed Streetscape section A-A



streetscape Site plan



Detail 1



Proposed Streetscape section



Arada is known as the center of the old and the new generation. After revitalization of the Gandhi Street the researcher proposed to connect the street with the major historic places since the site is known as the center of the old and the new generation artistic, social and urban life style. Its main sights include St. George's Cathedral, the great Menelik II Square, newly constructed museum, Abrhot library, the Hager Fikir Theatre, the Taitu Hotel, Charles de Gaulle Square and many other historical areas and structures.

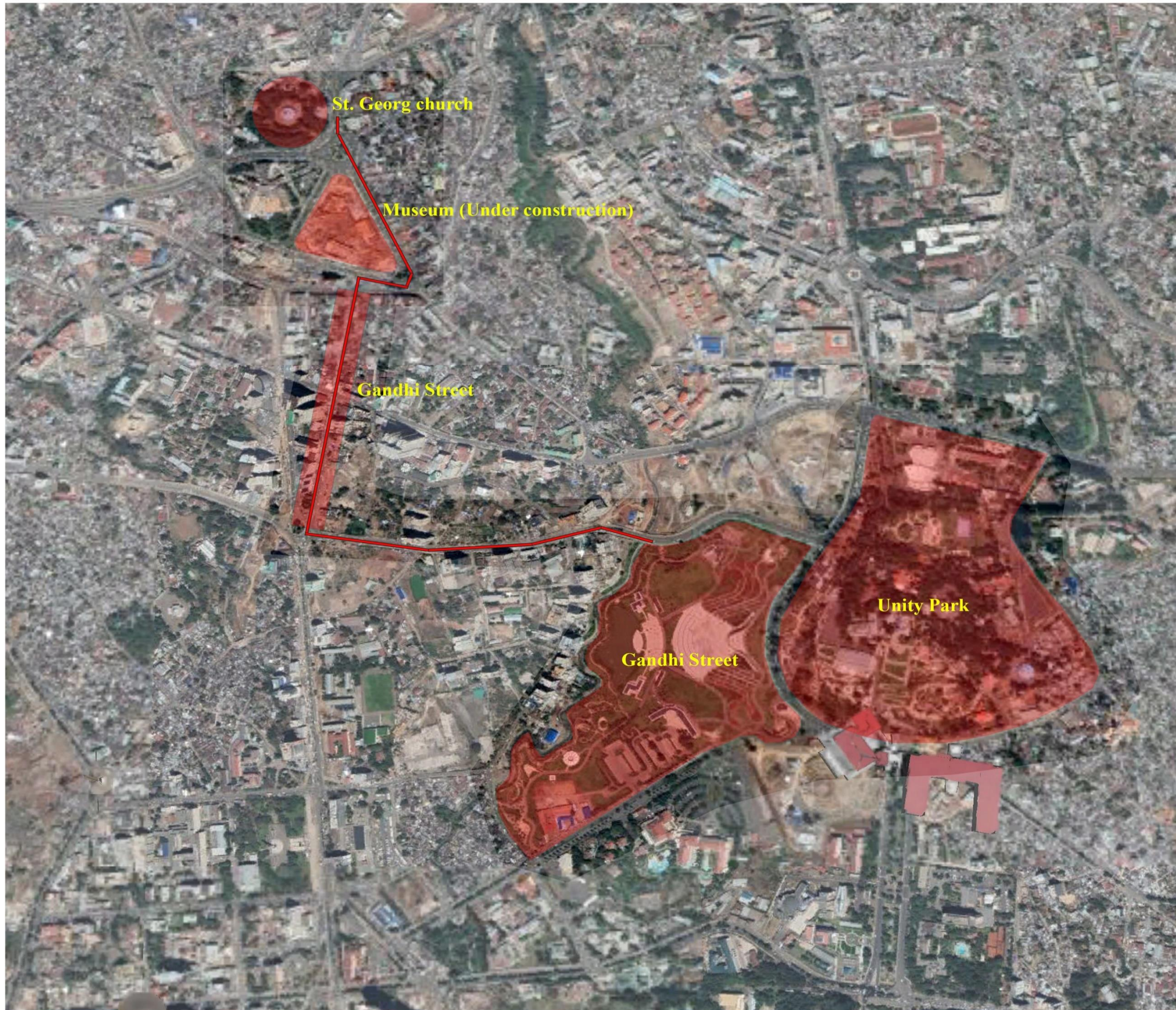
“Satan biet” or Wafa cinema

This historical cinema is located westwards to Colson Street until you reach Tewodros Square, at the intersection with Churchill Avenue. It is from here that Gandhi Street begins climbing, that is the original northern tract of the Arada-railway station road, modified by the Italians in favor of the current straight north-south axis at the corner between Colson and Gandhi Streets is located a very interesting historic building, once known as the devil's house, satan biet in Amharic:

This big two-story, rectangular in plan stone building got its popular nickname because it was one of the first cinemas in Addis, at a time in which media were surrounded by mystery and already feared for their power. In this area there was the Hotel de France complex, which, in turn, was one of the first modern hotels in town between the first decade of the 20th Century and the early 1930s. The hotel was run by the French Terras, whose name is still in use to identify the safar. At the end of the 1910s, he leased a large tract of land from Queen Taitu and established a restaurant and the hotel. Later, he added the Club de l'Union, particularly attended by the French community. The travelers who visited it at the end of the 1920s describe it as a huge hall. Which functioned, often at the same time, as a renowned bar, dancing hall, cinema, casino, and club.

**proposed walking path For tourist to make the streetscape active**

Appendix 14



**friendship park 860 m From Gandhi Street**



**Unity Park 1.4 km from Gandhi Street**



#### 8.4.14 Appendix 14: Publishable manuscript

### **Assessing the historic urban character of the streetscape of Gandhi Street (old Churchill Avenue) within the context of development Addis Ababa: Ethiopia**

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Development /EIABC/

February, 2022

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#### **Abstract**

*This study is the Assessment of heritage urban character of Gandhi Street (from Tewodros round about to Mahmud music store), which is found in Ethiopia capital Addis Ababa, the street exhibits the detailed artistic advancement and workmanship of 19th and 20th century Addis Ababa architecture. But the features of these streets are changing owing to urbanization and due to the new development of commercial and retail activities. The Physical changes are mainly due to road side new developments. In this study, the researcher assessed the heritage urban characters and features of Gandhi Street within 10 meter radius on both sides of the street longitudinally. The key changes takes place and the threats facing are emphasized in the final results. Which the street is gradually losing its original features because of undocumented and unguided renovations works, new construction that doesn't fit the setting, as well as lack of maintenance and care by the owners heritage building. The study mainly used on-site assessments, archival accounts, observation, and interviews to collect a reliable data. Also a combination of streetscape photographic mapping and drawings are used to assess the heritage character and features of the street. As a result, based on the combined findings the researcher got two major recommendations. These are Streetscape Revitalization or conservation (The renewal of the some physical fabric along the street and Find an activities to attract tourists and other peoples), and preparing a legal guideline (to control incompatible changes on heritages). Finally the recommendation end up by showing a sample of streetscape revitalization and guideline.*

**Key words:** Gandhi, streetscape, urban heritage character, revitalization

## Introduction

Historic buildings and sites are the main cultural and historical identity markers to a different society. Nowadays these historical elements are being destroyed due to uncontrolled urban growth which has a big role in affecting the local culture and historic values of the area (Kiruthiga et al, 2019). Addis Ababa has a remarkable history. It all began in the 1880s when King Menelik, ruler of Shewa established his camp at Entoto Mountains (Fasil G. et al., 2007). This study is carried out in Addis Ababa, the capital city of Ethiopia. The study area is located in the northern part of the city, inside the major city center which is called Arada sub-city (see figure 1). Addis Ababa initially grew around two nodes – the “Gebbi” which is the political center and St. George church as a religious center. After the establishment of Arada as a new section of the city many Italians, Greeks and Armenians were settlers of the site. the worst massacre by Turkish Sultan brought many Armenian by various routes to Ethiopia (Garretson, 2000, p 66). Then they participate in goldsmiths work and also they taught Ethiopians the skill of filigree (Paolo et al, 2004).

Among its remarkable history Gandhi Street is a 19<sup>th</sup> and 20<sup>th</sup> century wooden and stone crafting and historic legacy of the city. It is one of the oldest streets in the city that existed for more than a century. So it is a compelling snapshot into the artistic, political, economic, and social

preoccupation of the time. It arrays of articulated historic buildings are the main identity of the street which was constructed by prominent government officials and some foreign advisers’ merchants in the past.

before the extension of the new monumental axis of today’s Churchill Avenue, Gandhi street was used as Churchill Avenue for a long period (Zekaria, 1986, p 205).



Figure 31 Churchill Avenue in 1970

In the future, the Characteristics and techniques of construction used in this streetscape can help us understand historical events through the preservation of our tangible heritage. However, the integrity of this historic street is threatened by emerging trends of new development to alter and modernize the historic buildings, which would make them susceptible to irreversible change and lose.

## Location of the study area

the following graphic representation is the location of the study area starting from the globe up to the study area.

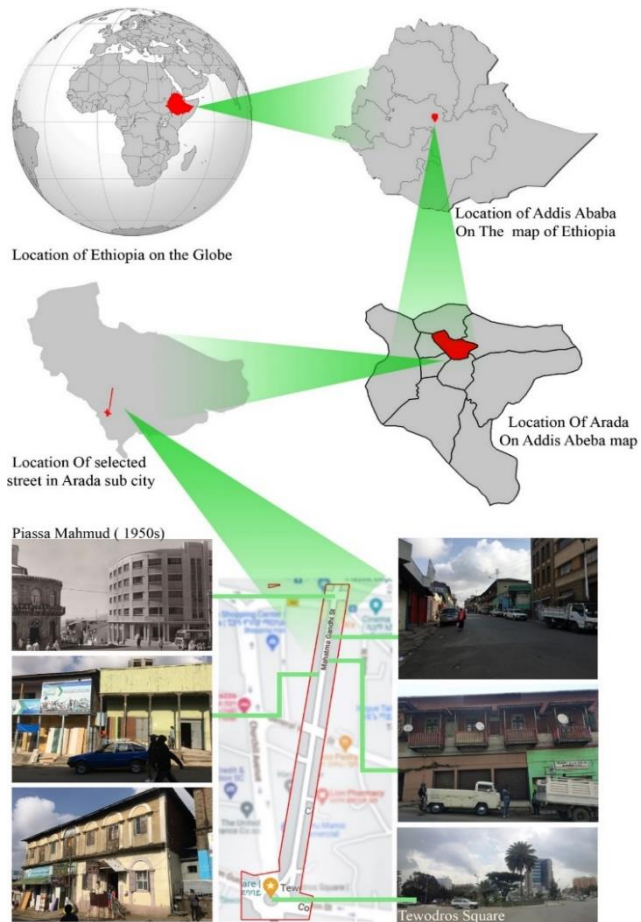


Figure 32: Location of study area (Gandhi Street)

## Methodology

The researcher uses qualitative data from a visual inspection of some damages and threats of historic buildings along the street.

## Data collection techniques

### Primary sources of data

A. Observation, On-site study, and Measurements (Hand survey)

Site visit is used as a major data collection method to determine the current status of the streetscape and to understand its values. In

addition some measurement of important parts are done by the researcher to get realistic result.

### B. Photography and Video

Photography is used capture Static elements and dynamic elements of the site. Like façade elements, people's activities and current status of the study area.

### C. Interviews

Interviews are used to investigate different information from local residents and with the City Culture and Tourism Commission office experts.

## Secondary sources

Secondary data were collected from both published and unpublished sources. But the major sources include journals, books, reports, official documents, magazines, and flyers from the Culture and Tourism Bureau of Addis Ababa all these are used as secondary data sources.

## Site Context

### Physical assessment on Arada sub-city

The sub-city covers land area covered by Arada sub city is 950 hectares of land out this woreda 01 covers 150.4 hectares of land.

### Block detail of the site

Building edges are defining the local street, perimeter buildings with small access to the inside are common especially in the upper zone of the site.

No	description	amount
1	No of Parcel	66
2	No of Buildings	206
3	Building Area	5.7 hectare
4	Block Area	12 hectare
5	BAR	47.5%
6	FAR	5.7

Table 7: Block detail of the site

### Construction Materials used

Stone is a wall and foundation material used on all the exterior parts of the building. Its massiveness due to the use of stone and its distinctive decorative character gives the building a unique appearance. In addition to that, the authenticity of materials such as the massive stones and the raw wood of handrails are some of the features that can give character to this building.

Roofing material is made of corrugated iron sheet. Truss is made of wooden vertical and horizontal member.

Brown colored Brick is used as wall material used on the upper floor plastered with gypsum and cement from the interior and exterior respectively.



Figure 33: example of heritage along the street

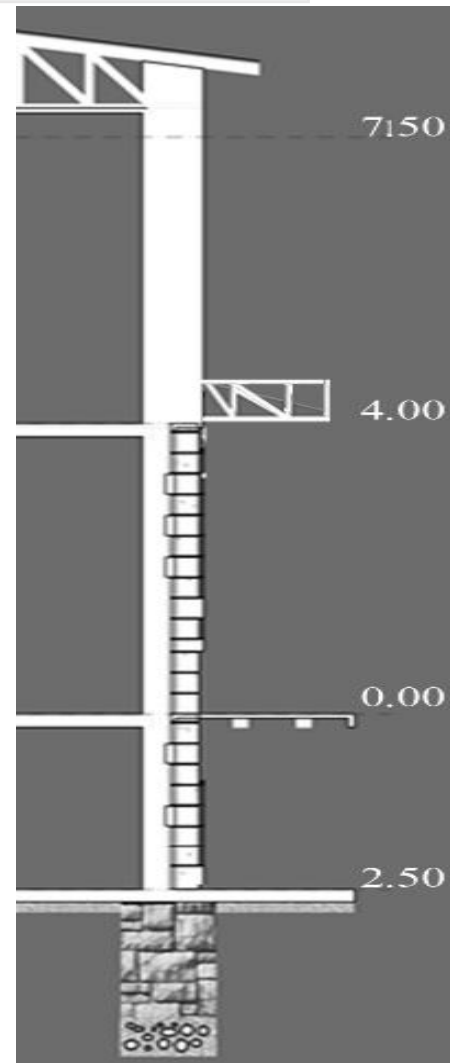


Figure 34: section detail

The Wall consists two layers, the first layer is the outside layer which is finished by dressed stone as you see in the section drawing whereas the second layer, which is the interior layer is masonry wall which is composed of gravel stone, cement mortar and plastered by gypsum.

Foundation walls of the house are visually distinguished from walls by a change of size which is bigger than the above walls. The material used for an exposed foundation is stone which is massive in size compared to the above walls.

## History of change and impact of New development along the street from 2002-2022 (20 year history of the study area)

As you see in the following figure starting from 2002 up to now the street a dramatic change specially in the lower zone many buildings are demolished and replaced by new or remain open for new construction.



Gandhi street in 2002 GC

durine the time 2002 GC there was no any new construction.



Gandhi street in 2008 GC

durine 2008 GC 3 new additional construction are done. as we see in the above picture the new addition are identified with its white roofed buildings



Gandhi street in 2016 GC

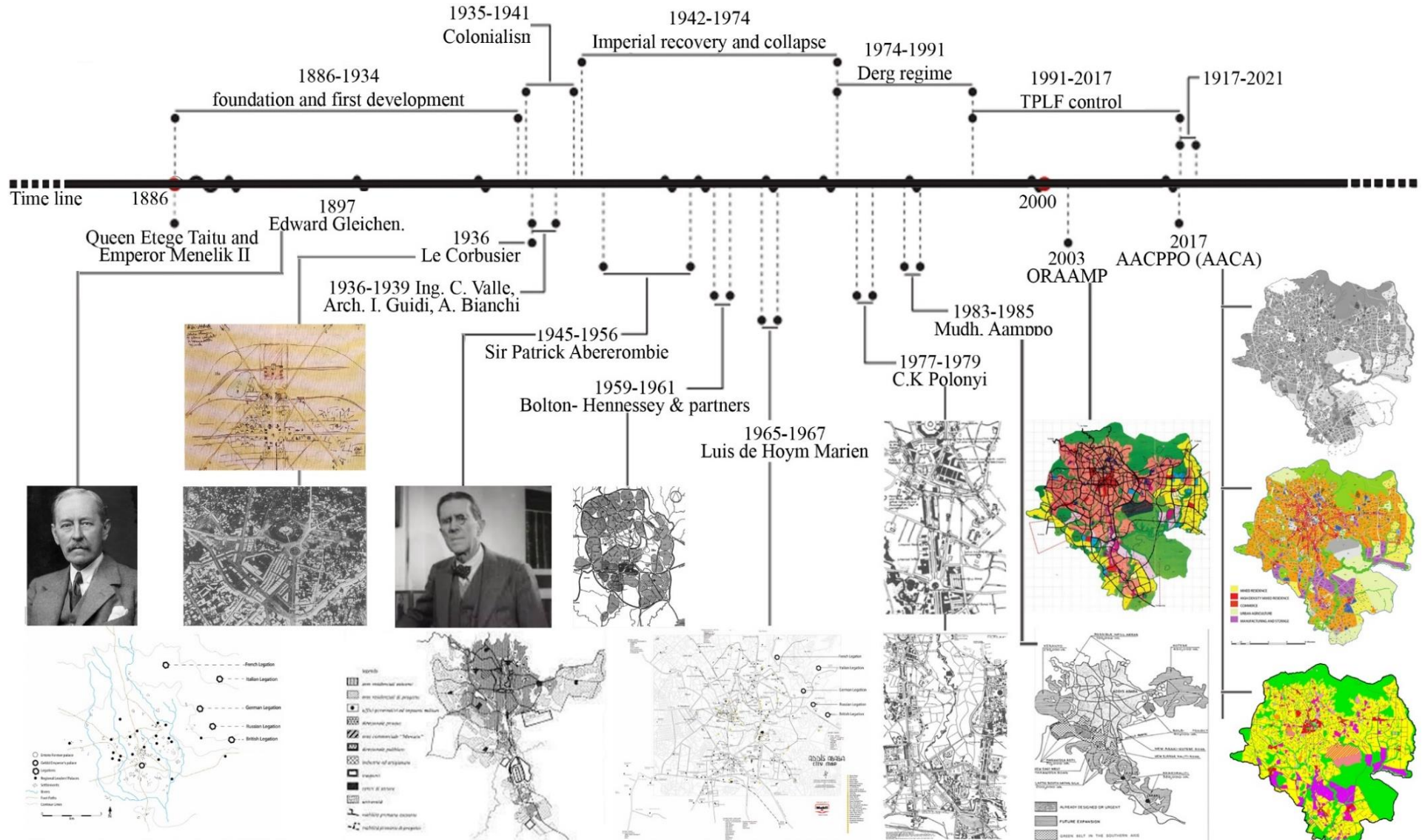
durine 2016 GC 6 new additional buildings are constructed. as we see in the above picture the new addition are identified with its white roofed buildings



Gandhi street in 2022 GC

Now in 2022 GC 13 new additional buildings are constructed. as we see in the above picture the new addition are identified with its white roofed buildings

## History of masterplan of Addis Ababa



Source: drawn by Anteneh T. Tola, based on the 1897 map sketched by Edward Gleichen.

Source: <https://www.google.com/search>

Source: by Anteneh T. Tola based on the map of Ethiopian Tourist Organization.

Source: <https://www.google.com/search>

Assessing the historic urban character of the streetscape of Gandhi Street within the context of development.

## Streetscape section of the site



Streetscape section A-A



Google Earth Map of The Site



Google Earth Section of the Streetscape (Terian Section)



Streetscape section B-B



Google Earth Map of The Site



Google Earth Section of the Streetscape (Terian Section)

## Some issues identified and their remedies on the street

<b>Issues identification</b>			
<b>Heritage Character</b>	<b>Traffic Movement</b>	<b>street element</b>	<b>Parking</b>
<ul style="list-style-type: none"> <li>• New construction on the site is affecting the heritages.</li> <li>• Renovation of heritages buildings along the street is done without considering the heritage value of the site.</li> <li>• The presence of heritage elements cannot be felt.</li> <li>• The condition of heritage structures is deteriorating.</li> </ul>	<p>Walk across increases conflict areas between vehicles and pedestrians thereby slowing down the traffic.</p>	<p>No continuous pedestrian walkways.</p> <p>Obstructions and lack of signage, most streets remain unknown to visitors.</p>	<p>Haphazard parking serves as obstruction for pedestrians.</p>
<b>Proposed strategies</b>			
<b>Heritage Character</b>	<b>Traffic Movement</b>	<b>Other Spaces</b>	<b>Parking</b>
<ul style="list-style-type: none"> <li>• Urban design guidelines for improvement of heritage façade and signage and other elements of the street.</li> <li>• Small scale streetscape revitalization is required to keep heritage value of the site.</li> <li>• Clearing space around heritage buildings &amp; monuments with paved walkways.</li> <li>• Special lighting of monuments.</li> </ul>	<p>Development of paved pedestrian areas as clear public space &amp; segregated walkways.</p> <p>Pedestrianizing side of the street and re-routing the traffic to retain the vehicular connectivity.</p>	<p>Provision of general lighting for streetscape.</p> <p>Organize existing service lines, sewage and solid waste management for street.</p>	<p>Introduce priced parking and provide designated on-street parking areas for shop owners.</p> <p>Derelict sites identified as off- street parking options.</p>

## Conclusion

Along the street there are four major changes. The first one is removal of major historic elements on the building, the second one is installing additional element which is not compatible with its heritage value. The third one is demolition of heritage buildings and the fourth one is even if some heritage buildings are authentically existed, they are depressed and threatened by surrounding new development.

The city was already shaped by a creative combination between old and new, between change and continuity, throughout history: it is this synergy that has given rise to the sites we now call heritage.

Due to a variety of elements that influence tastes, perceptions, and understanding, the debate over new and historic architecture and the best way to commemorate both continues. Opinions are as different as the buildings themselves, however, the researcher feels that the architectural community's incorporation of purpose and greater accountability in their designs is critical for this continuous debate.

The researcher feel that by enabling the old and new to mix and coexist, this heritage is being perpetually refined and updated. The richest and most honest fabric of what the city truly is: an ever-evolving work of human habitat is created by the coming together of new and old.

## Recommendation

1. To find a tactical ways of improving streetscape without big budget expenditure. For example, the streetscape improvements, with strengthening of pedestrian activities and restrictions in vehicle parking to create more attractive and active place and improved the activity of the existing local businesses.

But The Revitalization should focuses on two basic dimensions

- III. The renewal of the physical fabric along the street:- Cleaning and renewing heritage buildings and streetscape elements with little intervention.
- IV. Find an active economic use of those buildings and spaces to attract tourists in the site: - By revitalizing the social and urban character of the street we can make it livable.



Figure 35 Proposed streetscape revitalization

2. Connecting the street with other important sites to make it active:



Figure 36 proposed path to connect the street with other important public spaces.

3. A legal guideline to control major changes that affect the historic buildings along the street.

A guideline that Encourage new development which is compatible with the setting. And appropriate for its surroundings Paint and color, signage, awnings and canopies, doors and windows, siding/ outside building finishes, fencing/walls, exterior lighting, and other aspects of the old structure must all be considered in the guideline.

4. Provide some affirmative actions for the owners of heritage building: Provide Design Assistance to heritage Property Owners during any kind renovation

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