

REDEVELOPMENT OF KAPADIA MARKET AT MATHERAN

By

SHAISTA SAYYED

A REPORT

Submitted in partial fulfillment of the requirements for the degree of
Bachelor of Architecture.



University of Mumbai

2017

Copyright © SHAISTA SAYYED 2017

AIKTC 
SCHOOL OF ARCHITECTURE

CERTIFICATE

This is to certify that the Design Dissertation titled

REDEVELOPMENT OF KAPADIA MARKET AT MATHERAN is the bonafide work of the student

SHAISTA NAZIR SAYYED from Final Year B. Arch of AIKTC School of Architecture and was carried

out in college under my guidance.

Sign of the guide:

Name of the guide: **PROF. PRAJAKTA WADWALKAR**

Sign of the Dean:

Date:



DECLARATION

I hereby declare that this written submission entitled

“REDEVELOPMENT OF KAPADIA MARKET AT MATHERAN”

Represents my ideas in my own words and has not been taken from the work of others (as from books, articles, essays, dissertations, other media and online); and where others' ideas or words have been included, I have adequately cited and referenced the original sources. Direct quotations from books, journal articles, internet sources, other texts, or any other source whatsoever are acknowledged and the source cited are identified in the dissertation references.

No material other than that cited and listed has been used.

I have read and know the meaning of plagiarism and I understand that plagiarism, collusion, and copying are grave and serious offenses in the university and accept the consequences should I engage in plagiarism, collusion or copying.

I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact source in my submission.

This work, or any part of it, has not been previously submitted by me or any other person for assessment on this or any other course of study.

Signature of the Student:

Name of the Student: **SHAISTA SAYYED**

Roll No: **13ARC30**

Date:

Place: **PANVEL**

INDEX

ACKNOWLEDGEMENT

1. ABSTRACT	1
2. TABLE OF CONTENT
2.1 Introduction.....	2-5
2.1.1 Background Study	
2.1.2 Problem Statement	
2.1.3 Objectives	
2.1.4 Methodology For Case Studies	
2.1.5 Scope	
2.1.6 Limitations	
2.2 Literature Review.....	6-32
2.2.1 Definitions and Descriptions	
2.2.3 Case Studies	
2.2.4 Case Study Inferences	
2.3 Research Design.....	33-59
2.3.1 Standards and Data Collection.	
2.3.2 Questionnaires Survey.	
2.3.3 Inferences.	
2.4 Site justification	60-67
3. EXISTING SPACE PROGRAMME	68-72
4. PROPOSED SPACE PROGRAMME	73-76
5. BIBLIOGRAPHY	77



ACKNOWLEDGEMENT

This thesis is an effort to do some things I aspired for long time to do, something which is my social obligation, moral obligation of giving the town of Matheran which is the nearest hill station to my city. I tried to be true to my self while working on this proposal. Even if this project evokes some more people to do good to their towns, even makes conditions little better, even if it at least it makes Matheran locals aware of what potential this site has, Ifind this is the success of this project.

For my this contribution to Matheran, I would like to give my sincere thanks to Prof. Prajakta Wadwalkar, my guide, who gave me confidence right at the beginning of this project and been with me throughout this project.

This project was impossible without extremely valuable guidance of Prof. Minal Modak and Prof. Tanuja Mishra. I would like to give them my sincere thanks for their timely confidence shown on me which gave me lot of encouragement.

Last but not least am extremely thankful to my parents, my family for their timely support.

Thank You All Once Again!

Shaista Nazir Sayyed.



1. ABSTRACT

During Colonization a number of hill stations were developed at different locations all over the British India. One among these hill station is located just 87 km's from Mumbai which is Matheran. It is now the only pedestrian tourist hill station in Asia. One of the important activity in all of these hill stations was a local market of Matheran built after 1917. The market place was located on the lower street (King's Street) now Mahatma Gandhi Road to serve for the upper street now named Kasturba Gandhi Lane (Queen's Street) and other parts of the town. After Independence when Britisher's moved out it marked the beginning of transition of Matheran from a very exclusive use of the market to becoming a tourist attraction. The use of the market place and the street along the market place also started catering to tourists. So with time the built architecture has remained the same but the use has changed and therefore there is a need of 'Rethinking Market of Matheran'.



This study aims at rethinking of market area In Matheran, which is very much known as a tourist spot. The study will try to understand the existing context and the specific needs of market place with respect to contemporary time. This study will also try to define the market place as the main element to strengthen the hill station.

Rethinking “Market”, (a dynamic architectural space) to explore its concepts in contemporary time and it will strengthen the socio-economic fabric of the place.



c) OBJECTIVES

To incorporate present use and function of the market.

To explore the idea of market place in contemporary time.

To understand the existing context and the specific needs.

To define the market place as the main element to strengthen the hill station.

To propose dynamic architectural space which is built, flexible and temporary.

d) METHODOLOGY

Approach

The Design is based on existing evolved market requirements. Which will be studied and then the future and contemporary idea of market and its use is proposed. And also keeping in view the present working networks and use of Kapadia Market and Bazaar the methodology is structured.

Following Steps form the basis of the method.

Questionnaire and sampling for the need of intervention and design which is site specific.

Collection of data and documentation

Analysing the data

Proposing the design brief on the basis of analysis

Strategies for development.



e) SCOPE

To Design a market which strengthens the image and identity of matheran as a tourist place destination with the contemporary needs and futuristic flexibility of adapting changes while respecting the past .An indigenous open street mall experience design and opposing the idea of Closed Mall Concept strengthen with the modern systems of exchange.

f) LIMITATIONS

The Study is based on primary data collection and based on certain secondary data which is time based on certain projections by authorities. The design has its limitations because of factors stated above.The on site architectural data , questionnaire , surveying and sampling of different typology of bazaar is done. This study structure of thesis makes it also limited based on resources put in for study. The technology and medium used are both by hand and digitally produced from personal interpretation of data.



3.1 INTRODUCTION

Food, shelter, and clothing are three basic needs of life. People have always preferred and loved to live in group and this gave birth to the concepts of cities and villages. Humans have given an important place to markets in their villages. The concept of market was there since Harappa civilization took place approximately 2600 BCE. There is one thing in Indian culture has always showed initiative i.e. developed market. It is undeniable truth that every city needs developed market system for its growth and which is why, it is utmost necessary to rebuild our market system to the new levels.



3.2 LITERATURE REVIEW

WHAT IS MARKET

A permanent or temporary place located in a city, village or town where an individual or groups of people come together to buy or sell goods and services is termed as a market place. A network that allows trade is called a market.

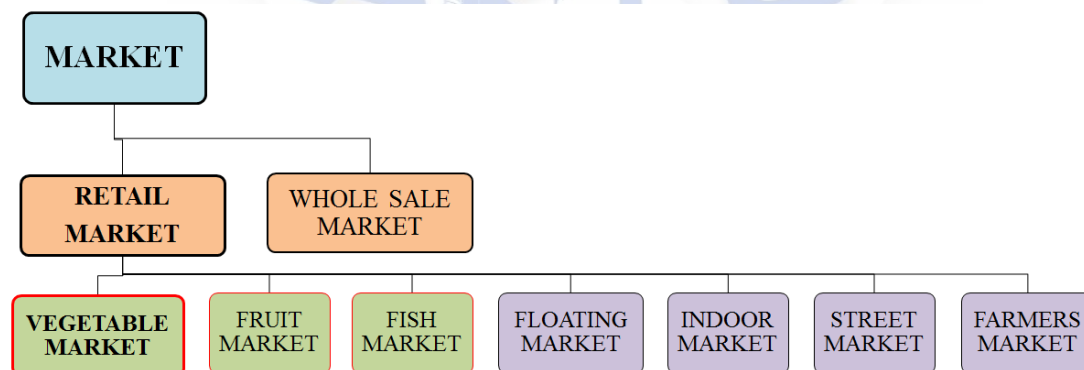
HOW WERE MARKETS FORMED

Settlement of groups of people led to making a mix of colonies in both villages and cities, which formulated a greatest human component called the society.

Human being has found exchanging a good way to supply his needs, it was initiated by exchanging goods and eventually evolved into economic activities proceeding to the invention of money. This continues movement of foreign and exotic materials that fulfilled men's need paved way for barter and trade system among the cities themselves. Gradually communities felt the need to a place where the business can be carried out and this resulted in emergence of bazaar.

TYPES OF MARKET

Many times, there is a wide disparity (gap) between demand from buyers and supply from sellers. Based on “low demand and high supply” and “high demand and low supply” situations, markets can be chiefly divided into two types Wholesale and Retail.



A. WHOLESALE MARKET

These offer large quantities of produce/product to meet high demand. Their nature depends on various types of goods. It is an important link between the producer and the retailer. It can be seen as the central distribution point of the entire trade system. A country's policies of wholesale markets make deep effects on its entire economic system.

The dealers in this market deal only with retailers, hence they are never in direct contact with final consumers, the retailer directly connected the local/small market has intricate demand knowledge and thus guides the demand structure in the wholesale market. The retailer, therefore, is quite a valuable link in the market place.



Fig.4 Wholesale market

Source:(<https://orgspectroscopyint.blogspot.in>)

B. RETAIL MARKET

Guided by local needs, goods are bought in bulk from wholesale market and sold in small quantities on local level is “real market”. Needs of ultimate consumers are central to the sales in retail market. Retailers sell goods in small chunks as per consumer needs. Types of retail market depend on local needs, demand and locational situations. It has different types.





Fig.4 Informal retail market

Source:(www.indiaretailing.com)

Fig.4 Formal retail market

Source:([httpcultbranding.com](http://cultbranding.com))

TYPES OF RETAIL MARKET

1. VEGETABLE MARKET

Vegetables are a main component of Indian diet system. Many vegetables are grown as per season and location. This market occupies an important place in human colonies, because vegetables are highly perishable. The vegetable vendor, therefore, always tries for fastest sales of vegetable. So it gives us an interesting view of attractive arrangement of vegetables, graded as per their perish ability. This type of market is usually crowded during all times of the day.



Fig.4 Vegetable market

Source:(www.gettyimages.in)

Fig.4 Vegetable market

Source:([httpprahaar.in](http://prahaar.in))

2. FRUIT MARKET

All fruit varieties have an important place in all Indian food, festival and religious culture. Seasonal and regular foods are always in high demand. Thus fruit market holds an important area in retail section.



Fig.4 Fruit market
Source:(<http://pinterest.com>)

3. FISH MARKET

Various fish varieties are loved in the Indian non-vegetarian diet. India is surrounded by seas in three directions. It also has a thick network of rivers. A large variety of saltwater and freshwater fish is thus always available to satisfy huge demand. This being a perishable food item, dry, salted and processed fish are also available in the various types of fish market.



Fig.4 Fish market

Source:(<http://indianexpress.com>)



4. FLOATING MARKET

Many Indian places are covered with water (rivers, lakes, canals) leaving less space on land for markets. Hence in floating markets buyers and sellers transact using boats. Getting a glimpse of such market is always a pleasant experience this also offers various tourism opportunities.



Fig.4 Floating market

Source:(<https://in.pinterest.com>)

5. INDOOR MARKET

At many places, buyers and sellers need cover from sun and rains. The demand for indoor markets with planning, design and permanent construction is constantly on rise. Indoor markets are usually clean, safe, tidy and disciplined due to pre-planning.



Fig.12 Indoor market

Source:(<https://in.pinterest.com/jpg>)



6. STREET MARKET

This is the grass level market, generally really small in size. It may change places as per customer demand. Petty articles like caps, rugs, mugs etc. are sold.



Fig.12 Street market

Source:(<https://breathedreamgo.com>)

7. FARMERS MARKET

We have seen a progressive generation of educated farmers assisted by modern technology. They ditch lousy middlemen and think of earning good profits themselves. They undertake to supply agricultural produce fresh from farms, directly to the consumers giving rise to farmer's markets. Farmers and consumers meet almost daily. This eliminates deception and promotes mutual faith. Common man get goods quite fresh and at cheaper rates and farmers can reap good profits directly from customers.



Fig.12 Farmers market

Source:(<http://indianexpress.com>)

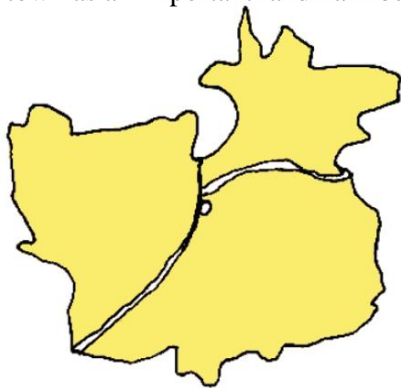


3.2. c) **CASE STUDIES**

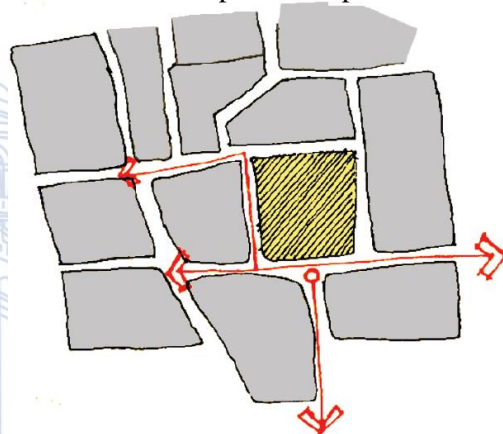
I. LIVE CASE STUDIES

MAHATMA PHULE MANDAL, PUNE

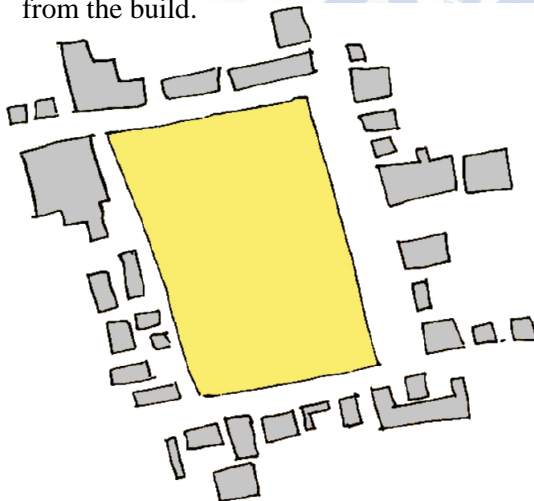
Market building lies in the city centre of peshwa town as an important landmark building.



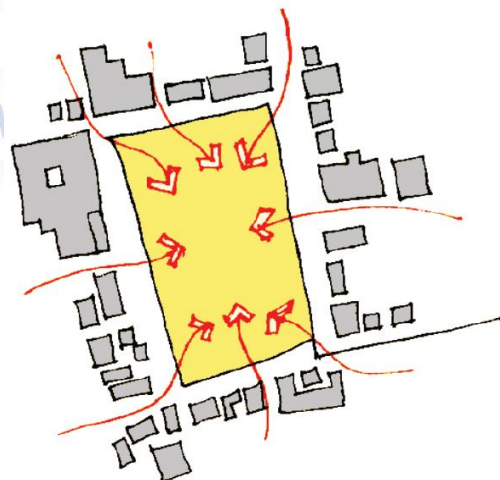
Built on the previous open site.



The four side entry through the road and four side entry from public blocks give it eight Hall from the build.

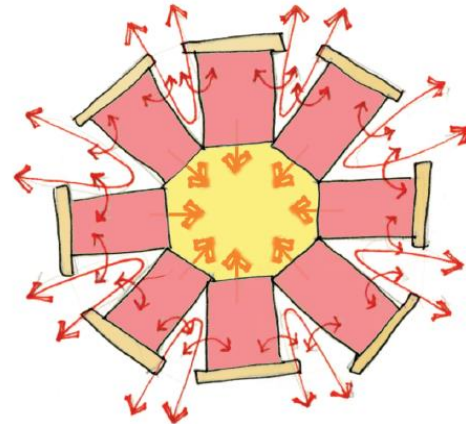
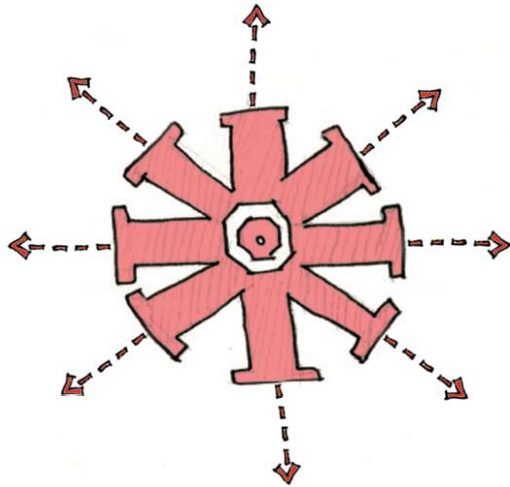


The road of public market building is surrounded by pause old city core district.



The eight side entry to Market Hall.

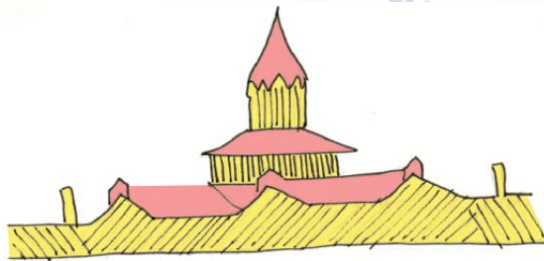
Opportunity for the activities between building



The above store is a Mere office & admin space.

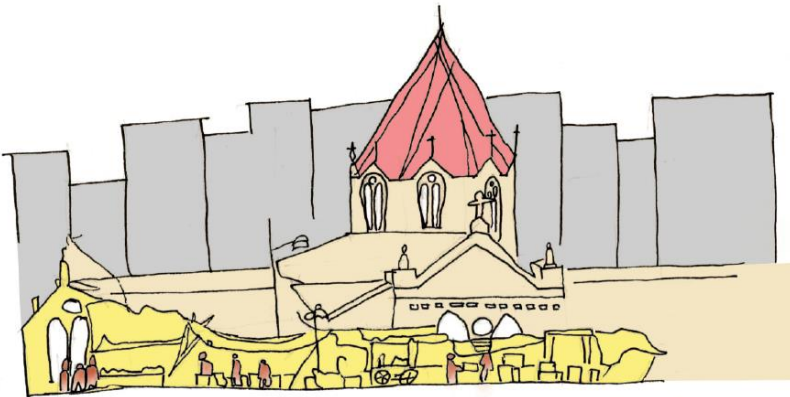
The ground floor is predominantly a commercial typology as use or the space.

The structure is a blend of air, light and ventilated with unified yet porous form.



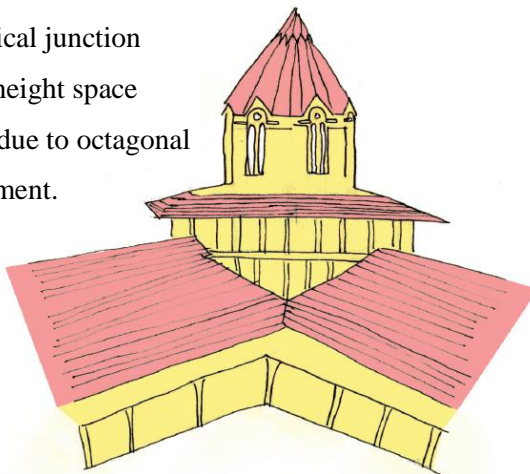


The elevation is an example of gothic style of architecture in stone, timber & manglore tile.



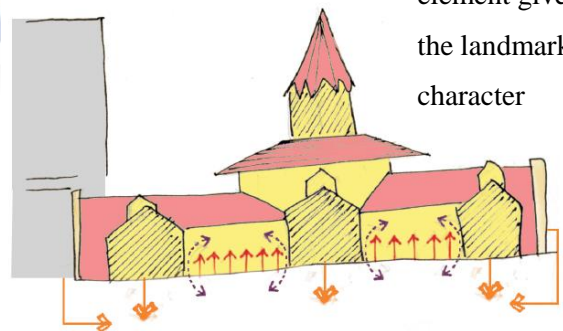
Apartment building give background to the public structure with informal activities like Vending in front of building adds life in the building.

The typical junction double height space formed due to octagonal arrangement.



Three on the front and two at the side give plurality to the structure.

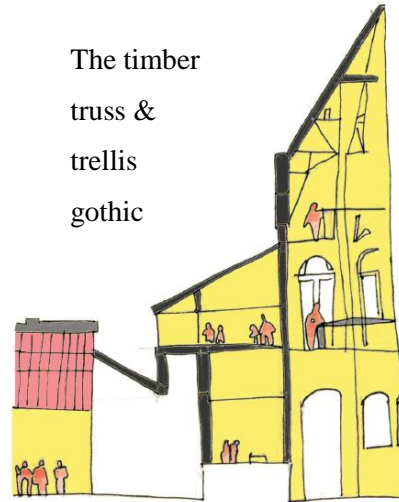
The octagonal element gives the landmark character



The commercial and admin spaces in the center are covered with 8 rectangular cuboid halls anchored radially.

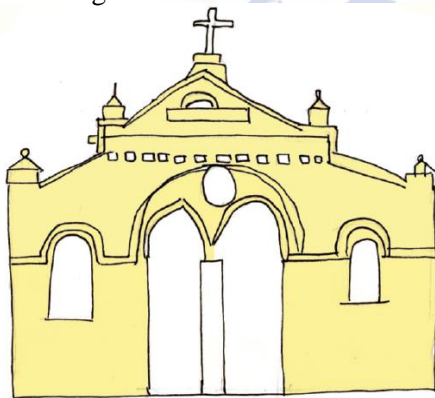


The timber truss & trellis gothic

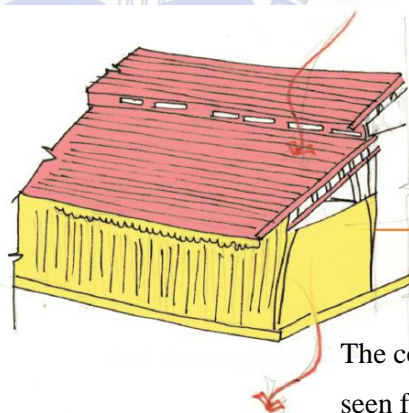


Overlooking gallery space.

The typanium in each of rectangular cuboid is marked with gothic stone frieze running round around the Arches.



To suit local climate the roof is covered with truss and mangalore tile with timber trusses.



The inside volume is dictated by the use of the space.

The commercial shop front seen from road frontage.

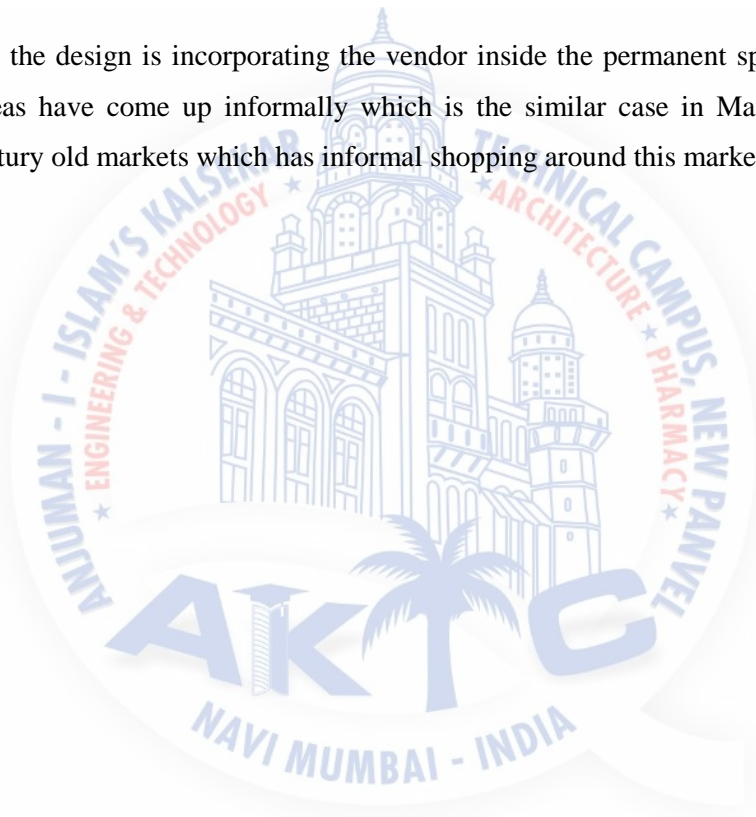


INFERENCES

The design very beautifully is having different zones for variety of vegetables. The form becomes landmark in the city centre. The Vending Halls are arranged around the central space with Double height Open Space in the centre Marked With a Manglore tiles conical Roof

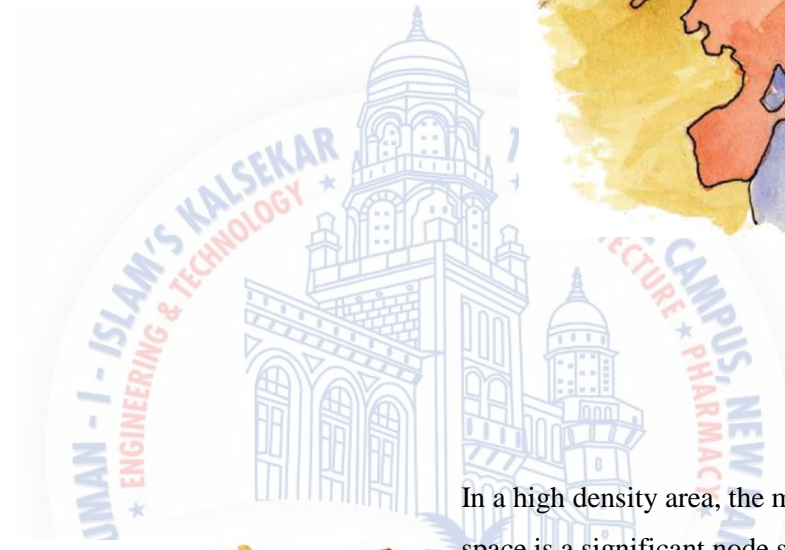
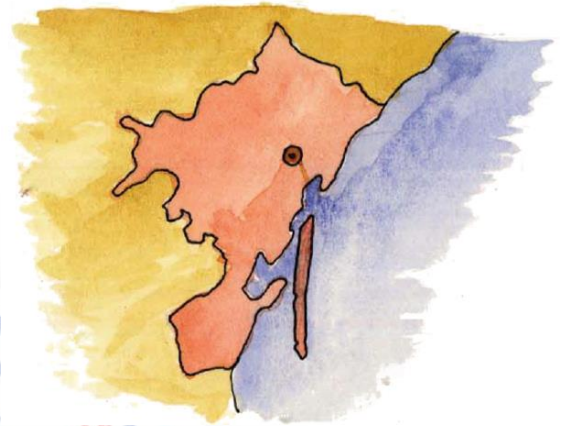
LEARNING

Though the design is incorporating the vendor inside the permanent spaces the temporary stalls and hawker areas have come up informally which is the similar case in Matheran Bazaar . Both the markets are century old markets which has informal shopping around this markets.

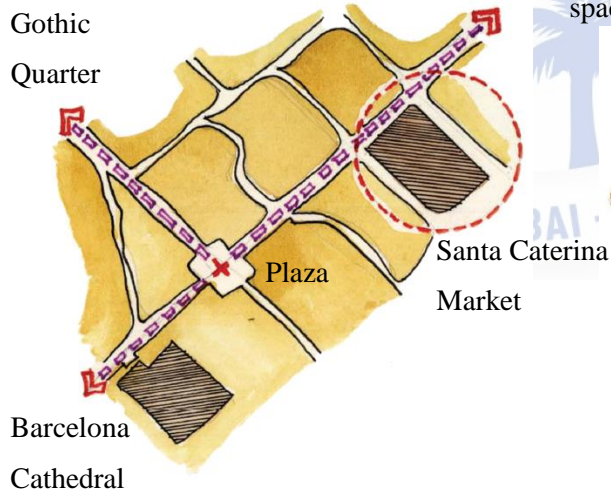


II. BOOK CASE STUDIES

SANTA CATERINA, SPAIN



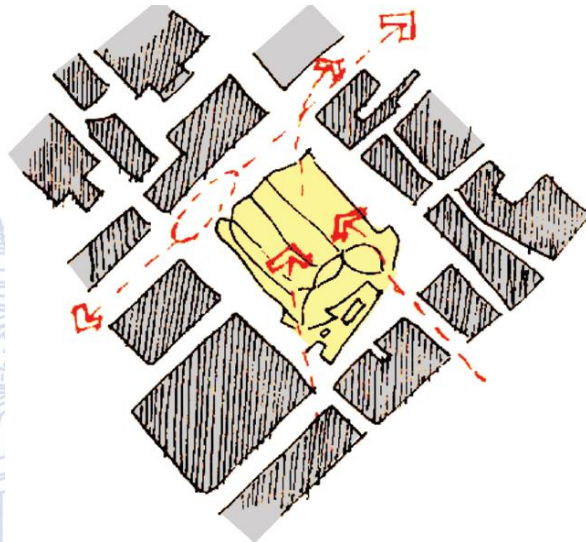
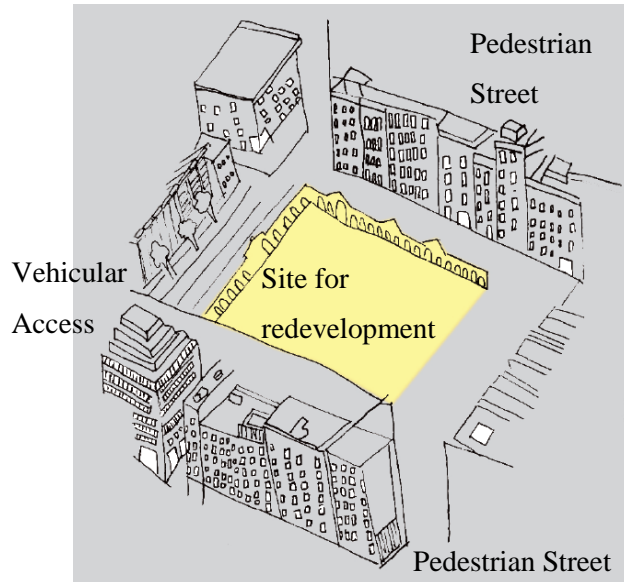
In a high density area, the market site as a rare open space is a significant node suitable for pedestrian activity.



The market site is supported by five to nine level old residential blocks, and dim streets in a dense urban area with few open public spaces it was known for high rates of poverty and crime.

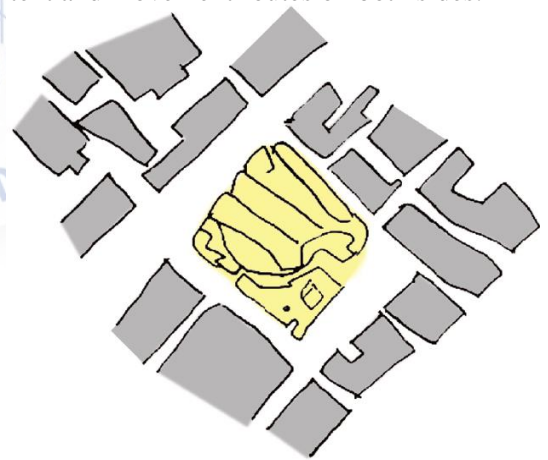
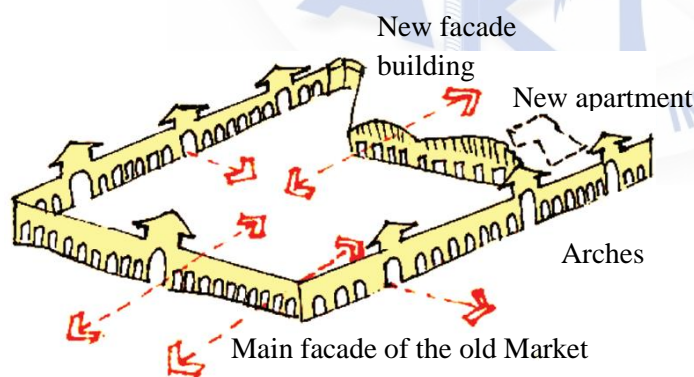
Connectivity

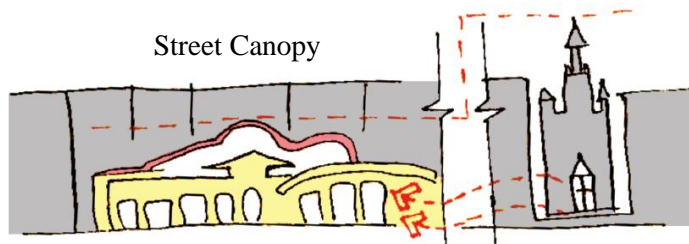
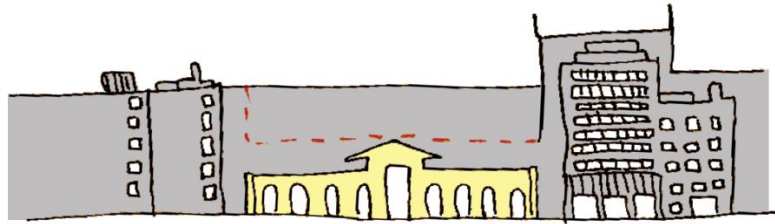
Visual connectivity the canopy extending to the street can be seen from the cathedral. Strengthening the connection between the market and the cathedral.



With its combination of new work and parts of the old market, the design increases the vibrancy of the precinct.

The connectivity of the district context the design of the road layout respond to the existing building context and movement routes on both sides.





Cathedral



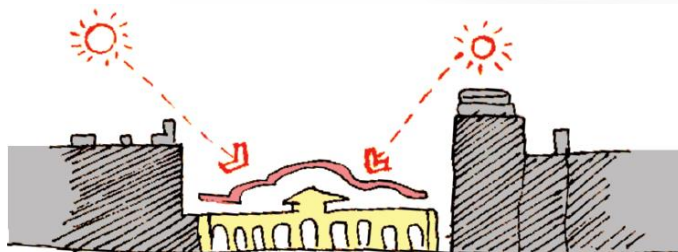
The orthogonal front has a classic style and is lined with Arches in response to the building on the opposite side of street.



The back facade slightly curves but maintain the same rhythm as the old market elevation.

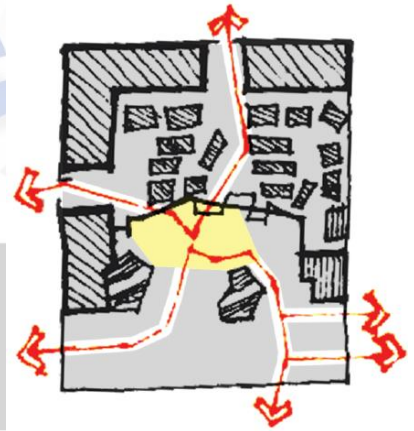
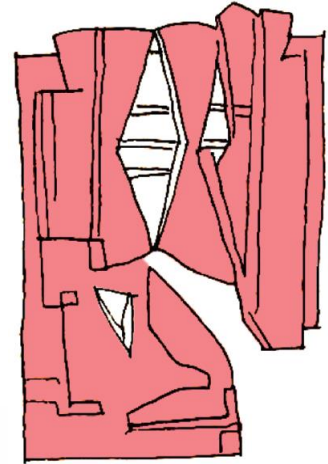
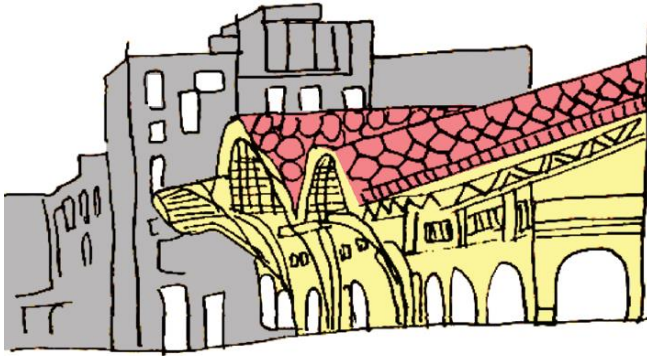


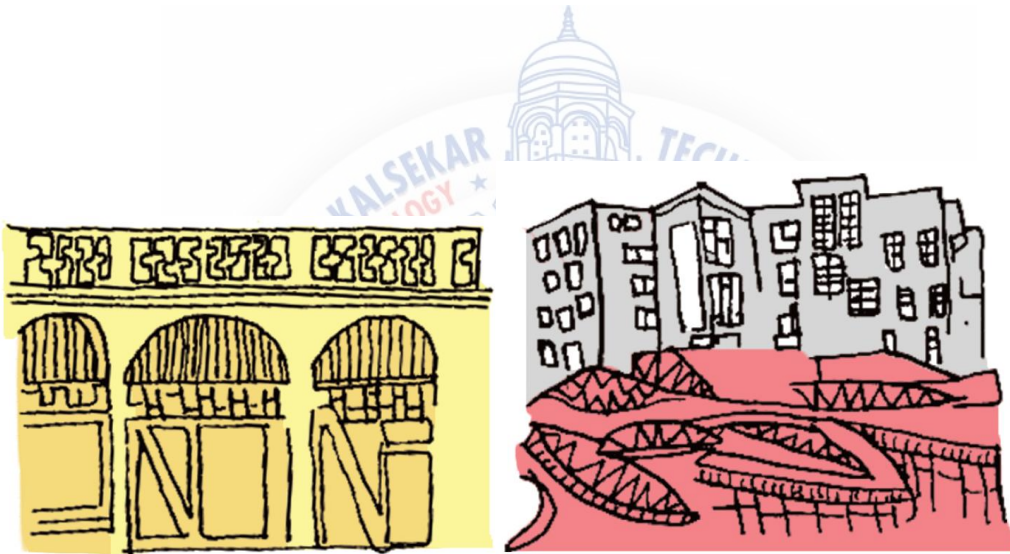
The new design responds to the old building through the roof structure. The projecting roof does not dominate the old facade but appears to be gentle above the walls.

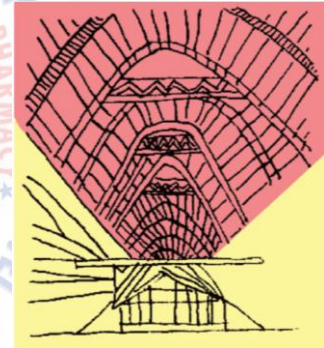
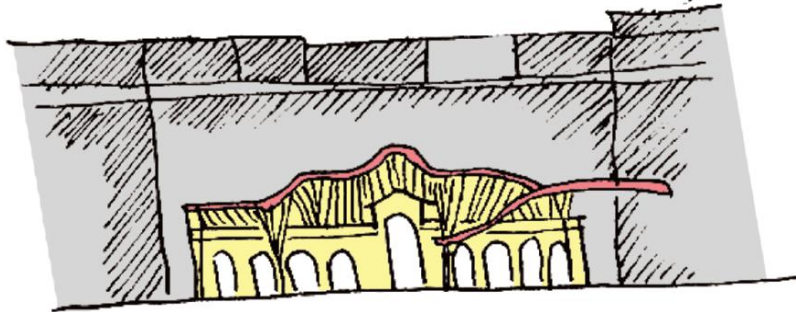
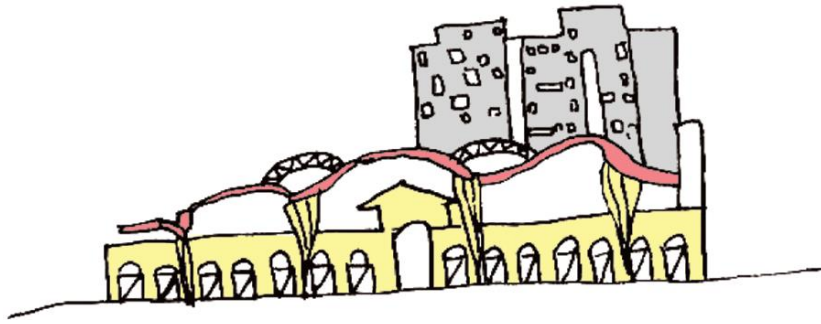


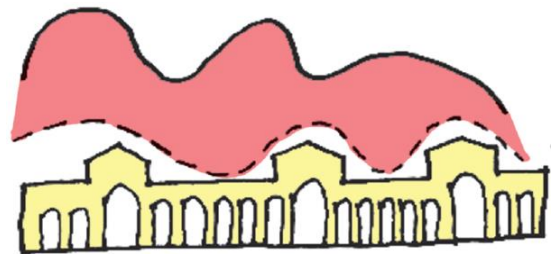
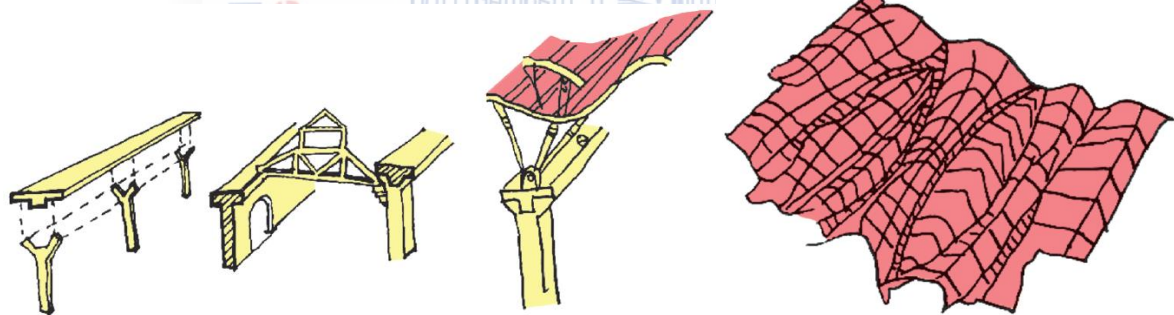
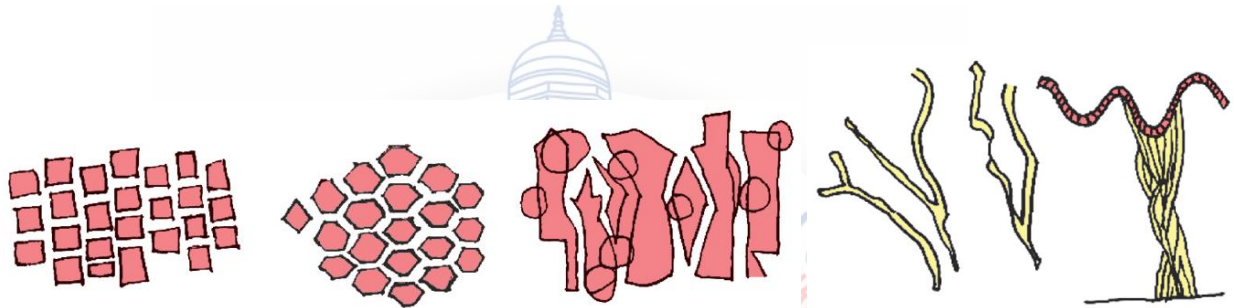
The low market form allows sunlight and air into this extremely dense part of the city.









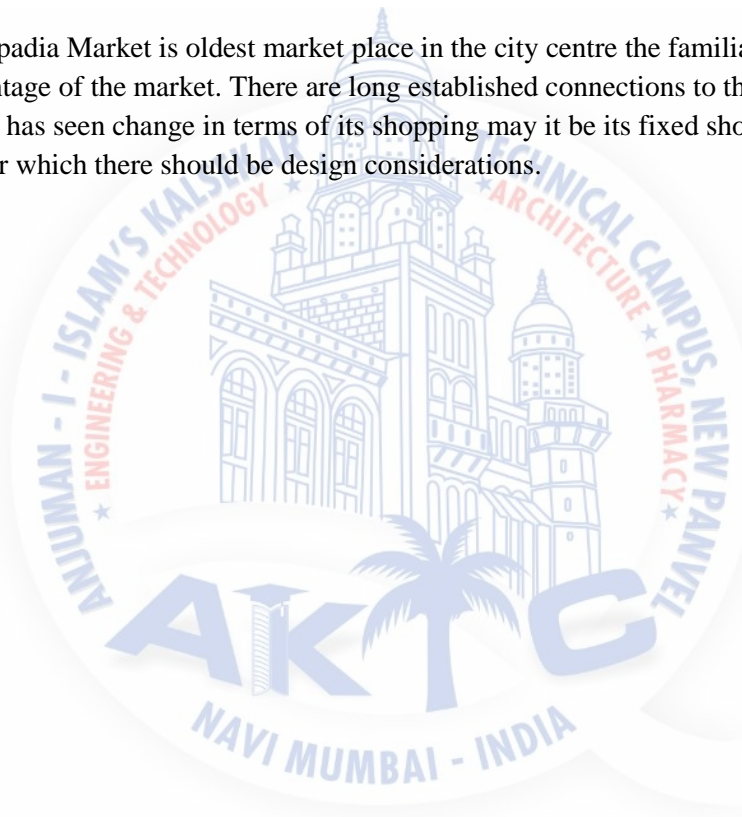


LEARNING

Santa Catrina Market is one of the oldest market in city centre of barcelona which was redeveloped but the facade of the market was retained and the internal space program was changed with the contemporary use strengthening the market. The lanes and road access systems were also developed accordingly.

INFERENCES

The Kapadia Market is oldest market place in the city centre the familiarity and identity of the street is the frontage of the market. There are long established connections to the market. The market over a period of time has seen change in terms of its shopping may it be its fixed shops . temporal shops or hawker areas for which there should be design considerations.



III. INTERNET CASE STUDIES

MARKET HALL, ROTTERDAM, NETHERLANDS

Project architect: MVRDV

DESIGN IDEA:

Year of construction: 2009-2014

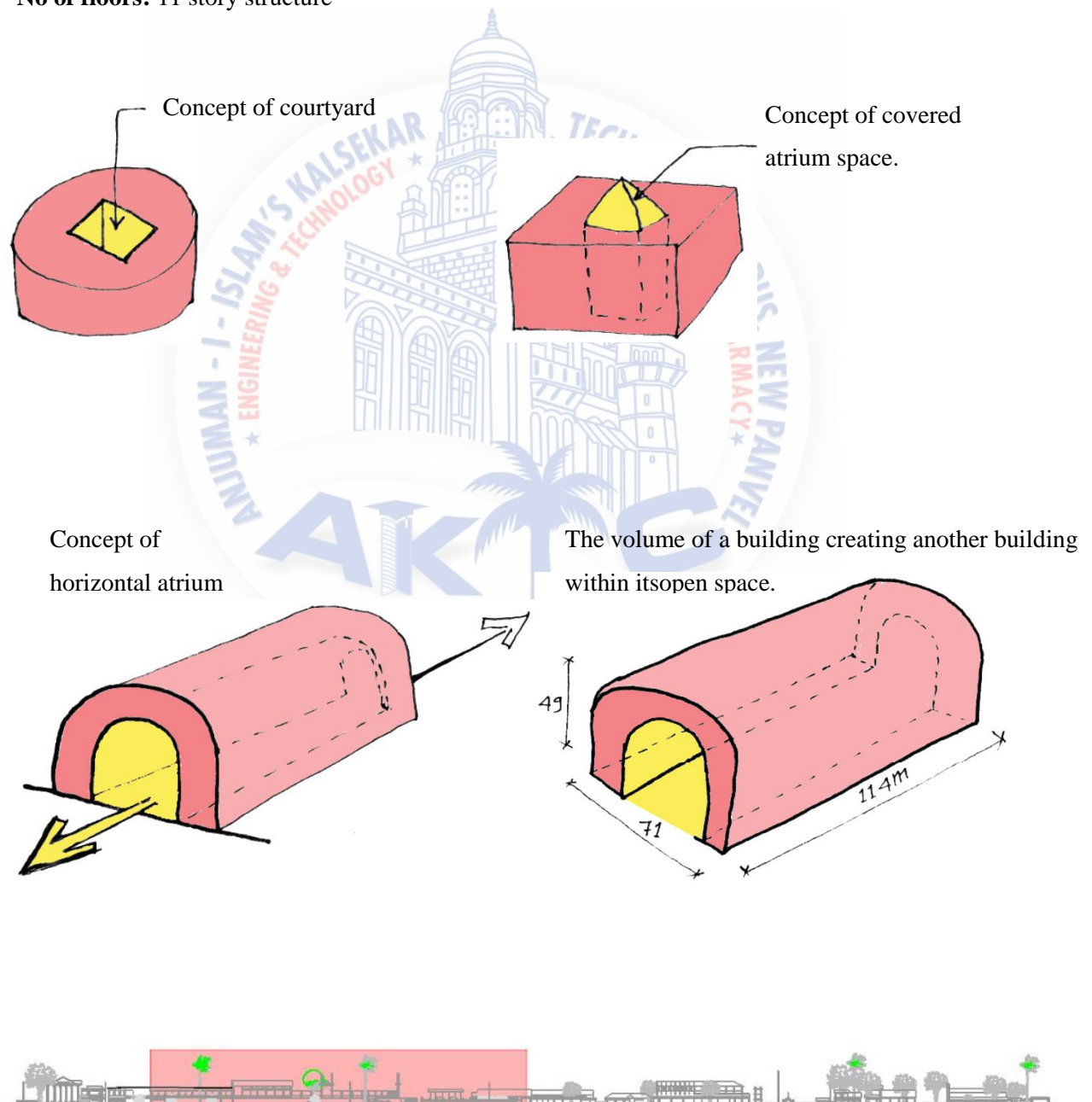
The idea is to run the public collectively.

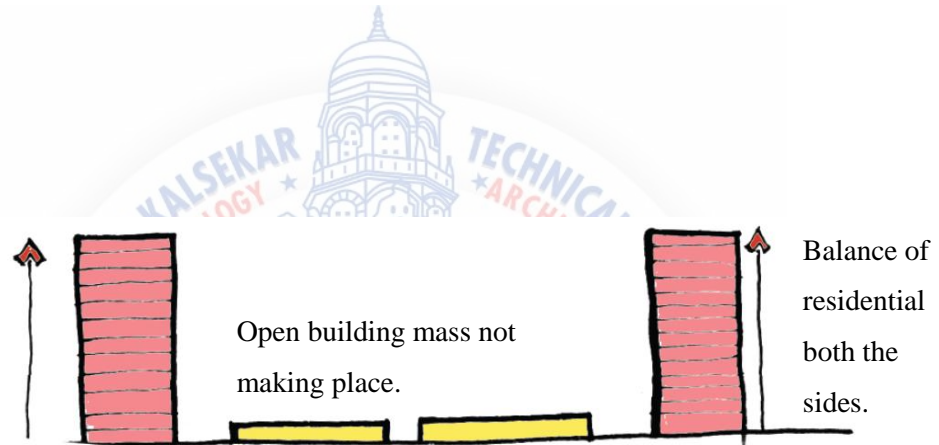
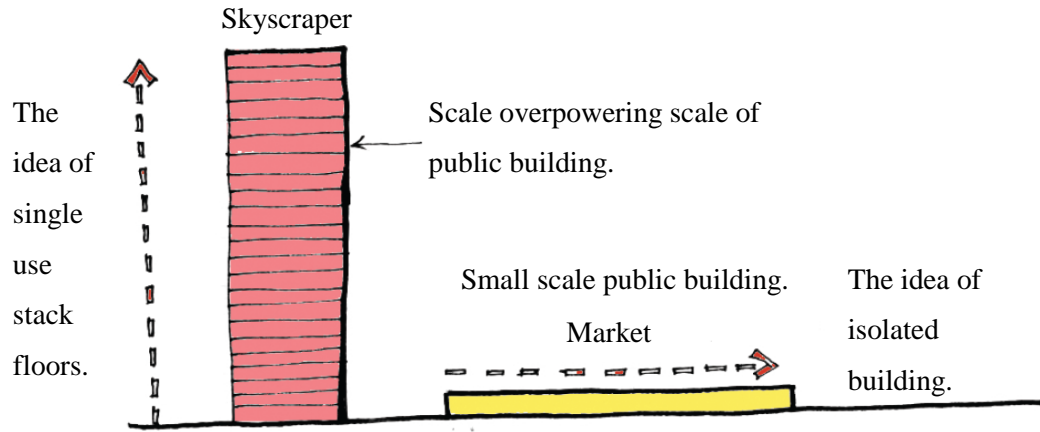
Building type: Mixed use

Project is located in the city center.

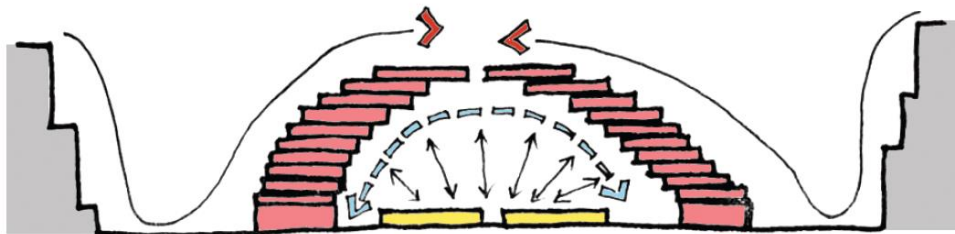
Area: 100000 sq.m

No of floors: 11 story structure

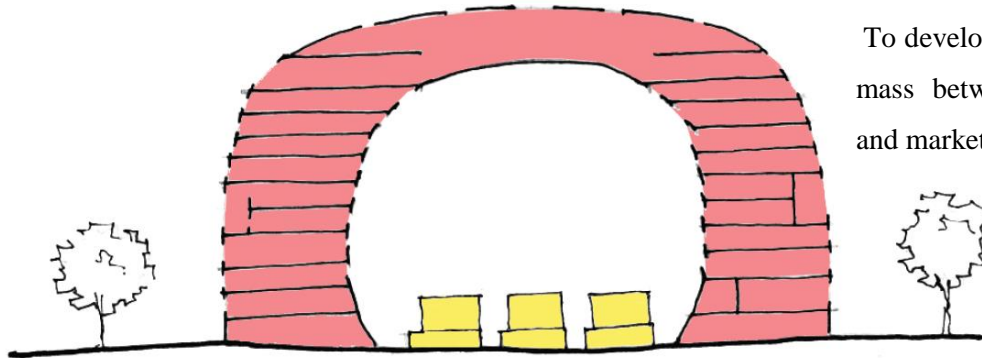




Residential tower blocks create enclosure around market giving it a plaza look.

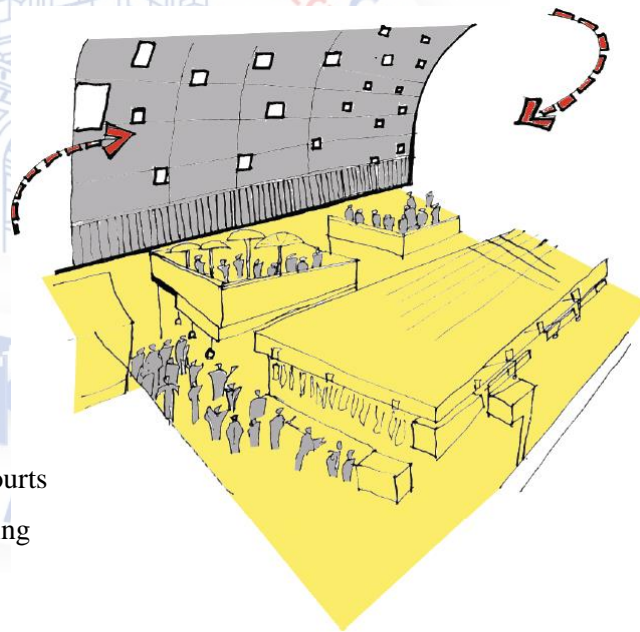


A horizontal atrium closed from top and opens on sides.



To develop a connected mass between building and market.

Residential cover around market gives vibrancy to the market hall.



Vending stalls below and food courts above are composed as overlooking spaces.



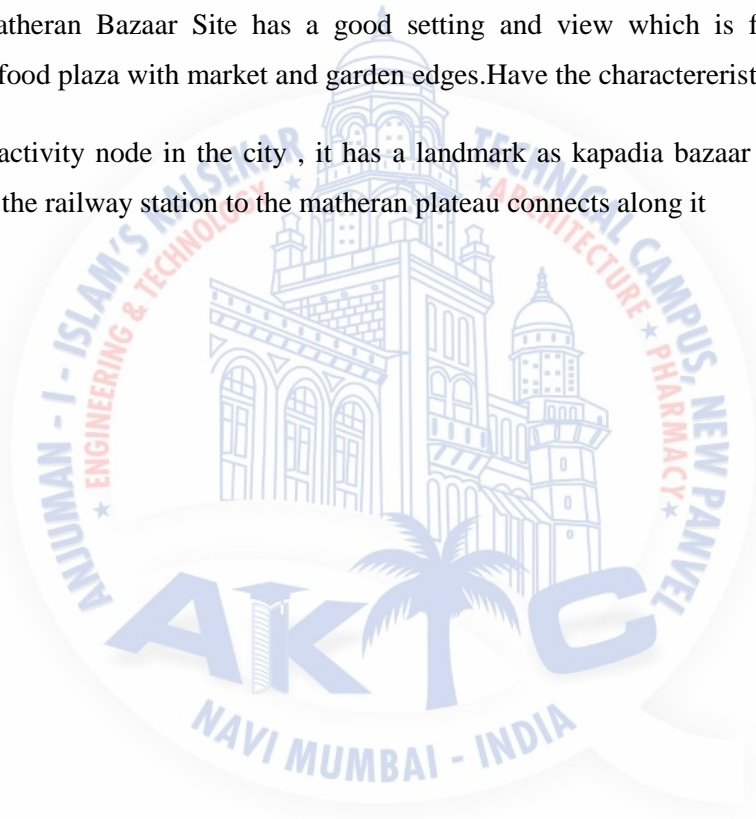
INFERENCES

The MRVDV Market Hall is the case study design example where the market stalls are designed on the ground floor with rooftop food plaza and eateries with restaurant sides of the market on ground floor abuts with saloon and retail shops the residential spaces are arranged around the market which creates an attraction of bustling market as a city centre.

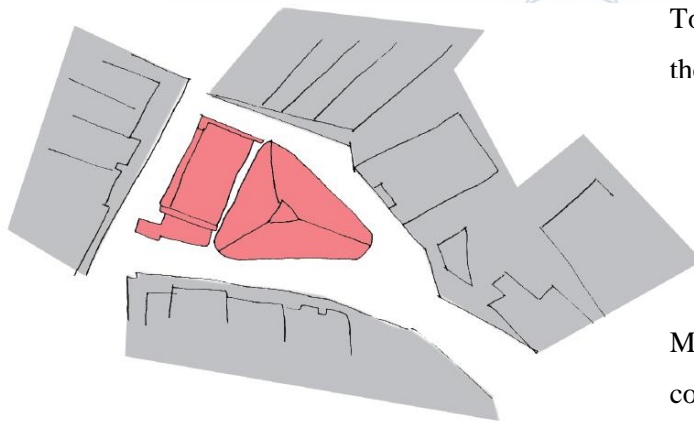
LEARNING

The Matheran Bazaar Site has a good setting and view which is favorable for the rooftop restaurants and food plaza with market and garden edges. Have the characteristics

It is the major activity node in the city, it has a landmark as kapadia bazaar and valley edge the path which connects the railway station to the matheran plateau connects along it



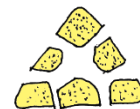
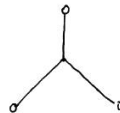
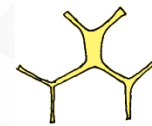
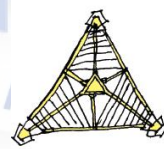
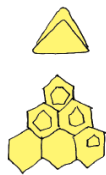
BASIKTAS FISH MARKET, TURKEY



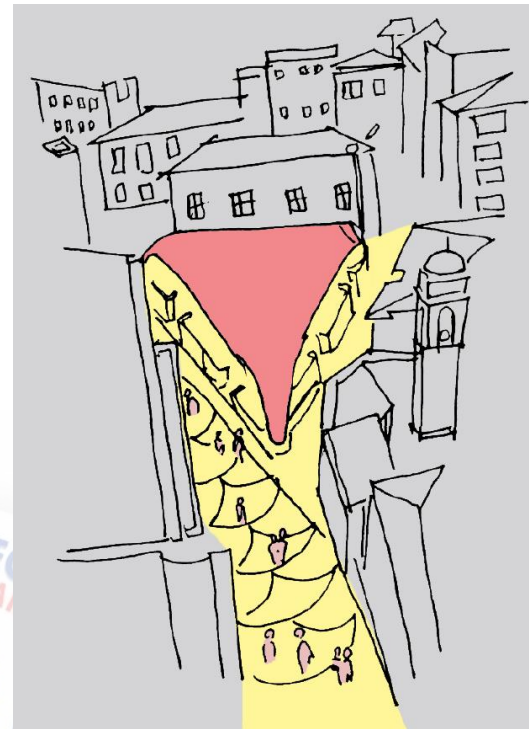
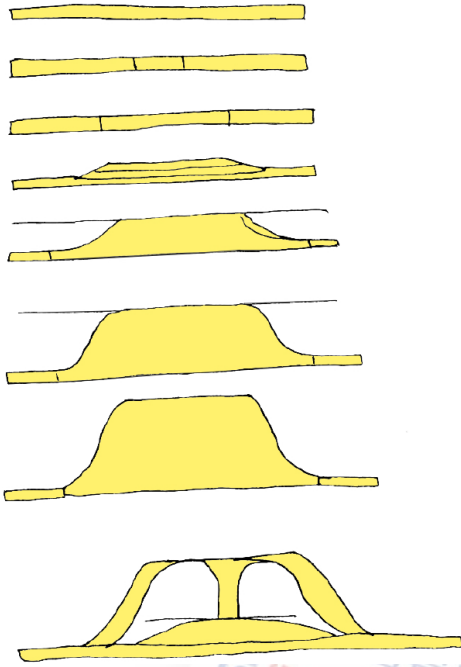
To achieve public welcoming appearance, the surface was pierced along its periphery.

Market is designed in a simple yet iconic concrete and steel seashell-like form covering the site with large openings at street level.

A hollow, porous form is created allowing program and circulation to easily mix and flow.

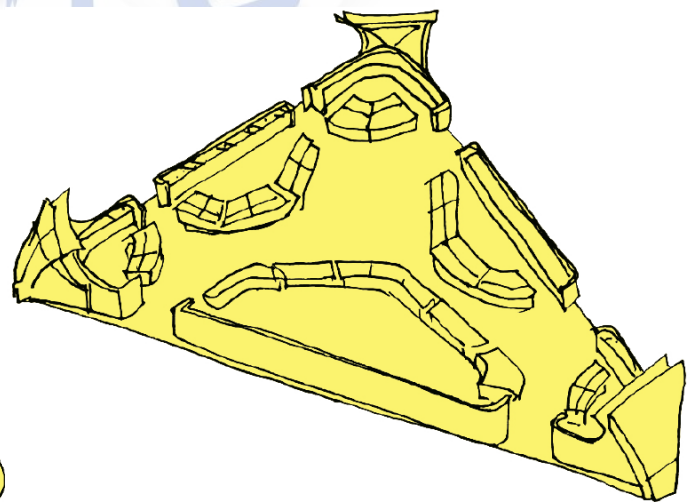
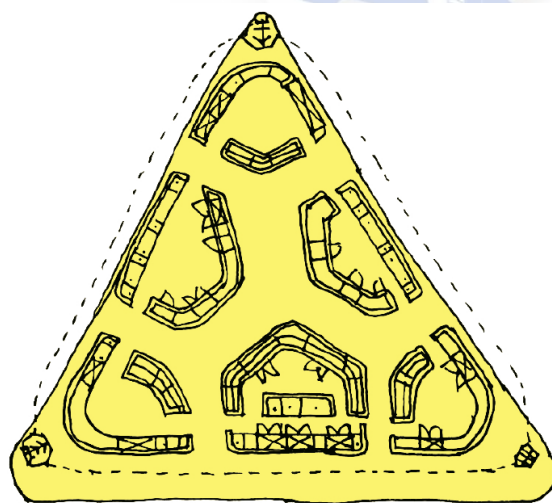
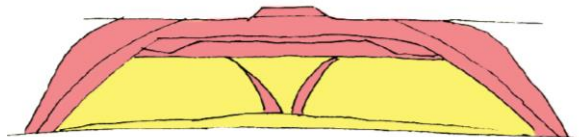


The sturdy porous shell provides a column-free interior space, optimizing the project's programmatic needs, a dramatic market place.

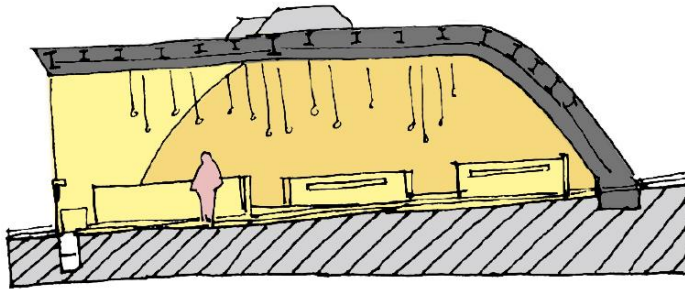


The interior volume is divided into 6 display sections of various sizes.

The display cases were hand-crafted by local experts and continuous stainless steel forms.

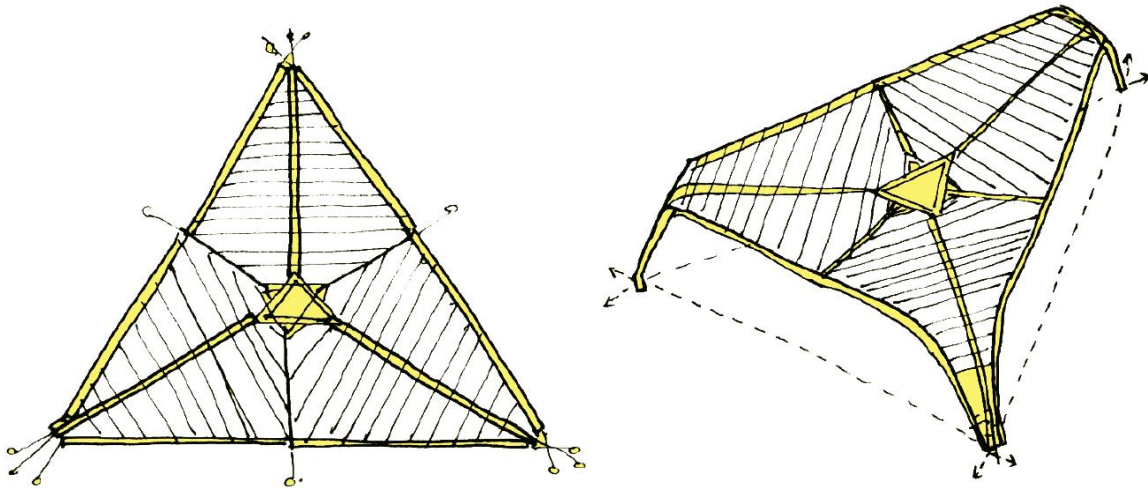


The 6 sections are joined by circulation that easily connect all the sections and extend to the larger urban fabric.



For the lighting system, the design maintains the traditional use of hanging light bulbs which is common for fish market in Istanbul.





LEARNING

The Besiktas Fish Market is the case study example where it is a small group of stalls on the junction of the three streets which is allowing public to gather around for shopping and has a roof as an installation which not only shield but also has a character of market as semi-open space with open walls and covered roof shell.

INFERENCES

The temporal stalls and activities should be designed and incorporated in the architectural design and space program. The Temporal activities give life to spaces so there should be space designed for it.



3.2. a) **DEFINITIONS AND DESCRIPTIONS**

DEVELOPMENT

“Development” with grammatical variations means the carrying out of building, engineering, mining or other operation, in or over, or under land or water, or the making of any material change in the building or land, or in the use of any building or land or any material or structural change in any heritage building or its precinct and includes demolition of any existing building, structure or erection or part of such building, structure of erection and reclamation, redevelopment and layout and subdivision of any land, and “to develop” shall be construed accordingly.

MATHERAN PLOTS

The plots outside bazar area which are identified as Matheran Plots with specific plot numbers by Revenue Department.

BAZAR PLOTS

The plots in Bazar area which are identified as bazar plots with specific plot numbers by the Revenue Department.

HERITAGE BUILDING

“Heritage Building” means a building possessing architectural, aesthetic, historic or cultural values which is listed as heritage building by the Authority.

COURTYARD OR CHOWK

A space permanently open to the sky, enclosed fully or partially by building and at ground level or any other level within or adjacent to a building.



CONVENIENCE SHOPPING

“Convenience Shopping” means shops each with a carpet area not exceeding 9.50sq.mt.except where otherwise indicated, and comprising those dealing with day to day requirements as as distinguished from wholesale trade or shopping. It includes:-

- i) Food grain or ration shops, each with carpet area not exceeding 20 sq. m.
- ii) Pan shops.
- iii) Tobacconists.
- iv) Shops for collecting and distribution of clothes and other materials for cleaning and dyeing establishments.
- v) Tailor or darner shops.
- vi) Groceries, confectioneries, wine and general provision shops
- vii) Hair dressing saloons and beauty parlors each with carpet area not exceeding 20 sq. m.
- viii) Bicycle hire and repair shops with carpet area not exceeding 20 sq.m.
- ix) Vegetable and fruit shops.
- x) Milk and milk products shops.
- xi) Medical and dental practitioners dispensaries or clinics, pathological or diagnostic clinics and pharmacies, each with a carpet area not exceeding 25 sq. m.
- xii) Florists.
- xiii) Shops dealing in ladies ornaments such as bangles, etc.
- xiv) Shops selling bakery products.
- xv) Newspaper, magazine stall and circulating libraries.
- xvi) Wood, coal and fuel shops, each with a carpet area not exceeding 20 sq. m.
- xvii) Books and stationery shops or stores.
- xviii) Cloth and garment shops with a carpet area not exceeding 20 sq. m.
- xix) Plumbers, electricians, radio, television and video equipment repair shops and video libraries.
- xx) Restaurants and eating houses each with a carpet area not exceeding 20 sq. m.
- xxi) Shoes and sports shops each not exceeding 20 sq. m. with carpet area.

Provided that with the approval of the Director of Town Planning, Maharashtra State, Pune the Chief Officer may, from time to time add to, or alter or amend the above list.



3.3. RESEARCH DESIGN

3.3. a) STANDARDS

INFRASTRUCTURE

TRANSPORT AND COMMUNICATION

Presently there are two primary modes of transport to Matheran, by Road up to Dasturi Naka and by train up to Bazaar area. No vehicles entry is permitted on the plateau. The only mode of transport are horses, ponies and hand rickshaws for tourists and goods carts and ponies for goods.

At Dasturi naka, for parking of cars/taxies, buses and for loading/unloading of goods, one site is proposed for "Bus stand, logistic hub and parking " on land admeasuring 2.92 Ha.

No vehicles are allowed in the town except ambulance. There is one major arterial road namely Mahatma Gandhi Road running from Dasturi naka up to southern area of the town. Also there is parallel road to MG road in Bazar area namely Kasturba road. Therefore widening of total 9.0 mt. is proposed for Mahatma Gandhi road and widening of total 6.0mt. is proposed for Kasturba road.

The ambitious project of Ropeway is proposed from Bazar area to Garbut Point and further downhill at Bhivpuri. The length of ropeway in the valley between Bazar to Garbut point is about 1.4 k.m. Therefore Ropeway station is proposed in the Lord Udyan on the valley side.

MINI TRAIN SERVICE

The Neral Matheran Mini train was made operational in 1907 and is still one of the engineering marvels in today's time. It is a narrow gauge, single track train service, which takes tourists & goods from Neral station up to Bazar area. This train makes three trips to and fro in a single day. The journey, though very appealing, takes. about 2 hours. The rail service is shut for 4 months during monsoon period.

ROAD AND CAR PARKING

There is regular taxi service which takes tourists from Neral up to Dasturi Naka, recently mini bus is also startled. From Dasturi Naka, tourists reach their destination, either walking or on horse or by hand rickshaws.



Pay & Park facility for private vehicles is available at Dasturi Naka on the plateau and near Neral Station also. There is no organized parking space near Dasturi naka. The vehicles are parked along

the road leadings to Panorama point and Simpson tank. The area around Dasturi Naka is used for loading and unloading of goods. These goods are then transported to their destination by freight horses or by goods carts.

Mahatma Gandhi road is the main road of the town having all the commercial activities concentrated on its frontage. The width of road is about 4.5 to 9 Mt. Important Public Buildings like railway station, Kapadia Market, post office, Municipal office, Superintendent's office are situated on this road. Recently the Municipal council has developed some part of this road with pavers block on both side and central muddy belt for movement of horses.

There are many other sub-ordinate roads like Kasturba Road, Pande Road, Charlotte road, Madhavji road, Panorama road which serve to Resi./commercial development and to the points All the roads are muddy with laetrile storm water drainage at certain parts and having the width between 3 to 9 mt.

WATER SUPPLY

Town has filtered water supply. The original water supply scheme was drawn from Charlotte Lake. The lake has storage capacity of 127.2 million liters and can be augmented up to 148.5 million liters. The Charlotte scheme was commenced in the year 1930 for the capacity of 0.80 million liters. The additional water supply scheme was commenced in 1987 from Ulhas River. Its capacity is 0.60 million liters. Water from both these sources is treated in the filtration plant, built by British in 1926, near Rugby hotel. The filtration plant has the capacity of 1.37 million liters/day and has three reservoirs of total capacity of 16 lakh liters. After purification, the water is distributed all over the plateau at the rate of 100 liters/head/day.

There are total 1003 pipe connections, out of which 672 are residential, 40 for Municipal council, 334 for institutions and 257 for commercial

Under the programme of 'Sujal Nirmal Abhiyan', Maharashtra Jeeven Pradhikaran has proposed new water supply scheme of the total cost of Rs.29.26 Crore. The scheme is designed for the estimated population for the year 2040 of the total capacity of 3.1 million liters. The scheme included replacement of uplift pipes, old pumps and expansion of filtration Plot. Thus the total capacity of the scheme will be 4.5 million liters, which well be sufficient for the estimated population of 2031.



DRAINAGE AND SEWAGE

There is no underground drainage system in the town. Bungalows and hotels have their individual septic tanks. Very few hotels have their sewage treatment plants. The densely populated local settlement near the Bazaar area has no proper facilities for sewage treatment and disposal. Recently, Municipal council had done the contour survey for underground drainage system.

There are 32 public toilets provided by Municipal council. The road side gutters constructed by the council carry sullage and storm water.

WASTE MANAGEMENT

One site admeasuring 1.40 Ha is proposed for Solid Waste Management in the town. This site is isolated from residential development. Also a site for sewage treatment plant is proposed.

Municipal council has taken measures for collecting solid waste, like segregating of wet and dry garbage etc. Solid waste from the plateau is collected, segregated and disposed off at the old Gymkhana plot. Organic waste material is processed near council office and Bio-gas is produced. This in turn supplied to various hotels.

RESIDENTIAL ZONE

The existing population of 5139 souls occupies nearly 128.65 hectares of residential area, giving the gross density of about 40 persons per hectare. Total existing area under hotels, lodges, and sanatoriums is about 40 Ha. As reported by the council, total no of hotels in the town is 66 and 30 lodges. By considering average 10 rooms per hotel/lodge, total no of available suits/rooms are about 1000. This will accommodate about 5000 tourists. Also as per sanctioned Development Control Regulations, FSI of 0.1 is permissible for residential/hotel use on Matheran plots and 1.33 FSI on Bazar plots.

COMMERCIAL ZONE

Existing commercial development along Mahatma Gandhi Road, Kotwal Road is proposed for commercial zone up to Matheran/Bazar plots.



COMMERCIAL FACILITIES

As per planning norms, vegetable market of 0.2 ha for every 10,000 population is required to be proposed. At present some part of Kapadia Market is used for veg Market and Mutton Market is separately developed behind it. Also commercial development is permissible on Matheran plots and commercial user is proposed along Mahatma Gandhi Road and Kotwal road and therefore no new site is proposed.

Being a hill station, major economic activities is to run hotel, lodgings and eating hubs. There are 66 hotels and 30 restaurants. Also there are total 30 Lodges.

The shops for tourists generally provide chikki, foot wares and honey. They also sale homemade presentation articles. The shops of video games are also became popular. Kapadia Market is only Municipal Market situated at the centre of Bazaar on M.G.Road in this market there are 46 shops for vegetable Market and 20 gales for Mutton Market. The shop line is also developed along the road. Total No of Shops are 240.

Horse keepers and hand driven cart keepers are engaged in providing transportation facilities of goods required in commercial activities of hill station.

Statement Showing List of Reservations in Matheran D.P.(Second Revision)

S N o.	Site No.	Purpose	Plot Details		Area (Sq.Mtr.)	Owne r	Implemen ting Authority	Modification s proposed under section 28(4)
			Plot No.	CTS No				
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>
35	31	Municipal Market	BP 169	288	5120.80	MC	M.C.	M-21, Site is Redesignated
36	32	Mutton Market Fish & Mutton Market	BP 170	287	374.60	MC	M.C.	



3.3. b) QUESTIONNAIRES, SURVEY**SURVEY****SHOPKEEPERS DETAILS**

Name
Age Shop No
Yrs. as tenant
Residence
Mode of travel

SERVICES

Water supply
Electrical supply
Sewage drainage
Surface drainage

CUSTOMERS

Customer reach

GOODS SALE

Goods sold
Change in Goods sold
Increase in Goods sold
Change in space

SHOP SET UP

Ideal space requirement
Employee
Carriers
Stationary

GOODS SUPPLY PATTERN

Goods distribution
Goods unloading
Goods delivery

Goods reach
Goods packaging

SCHEMATIC DRAWINGS

Plan/ Section/ Shop Frontage

WHY THIS SURVEY?

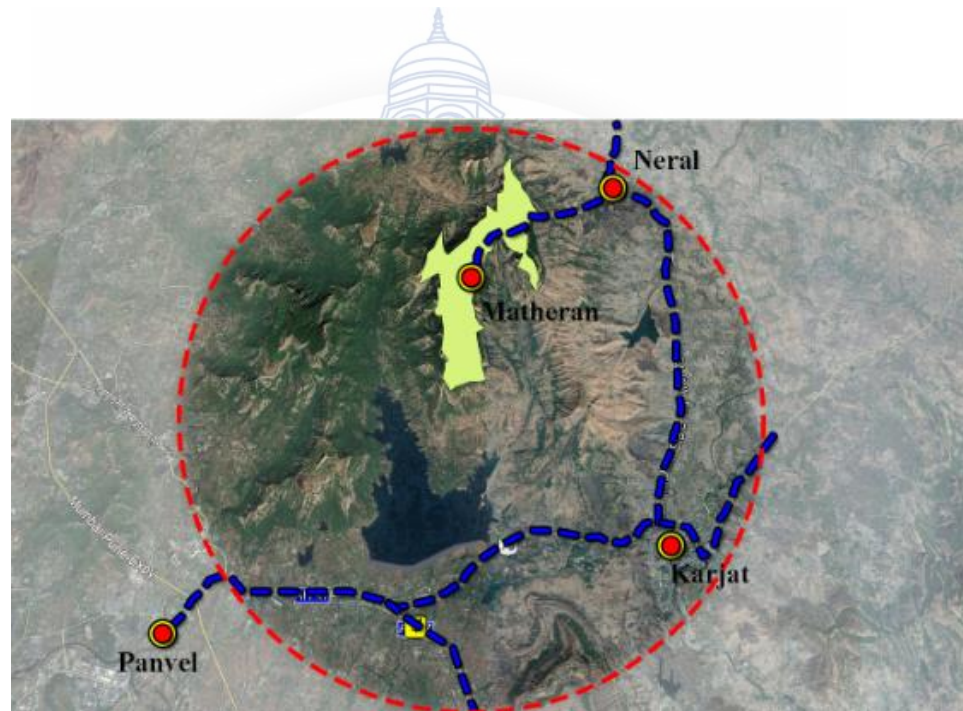
To trace existing market activities and networks to analyse them.



3.3 SITE STUDY

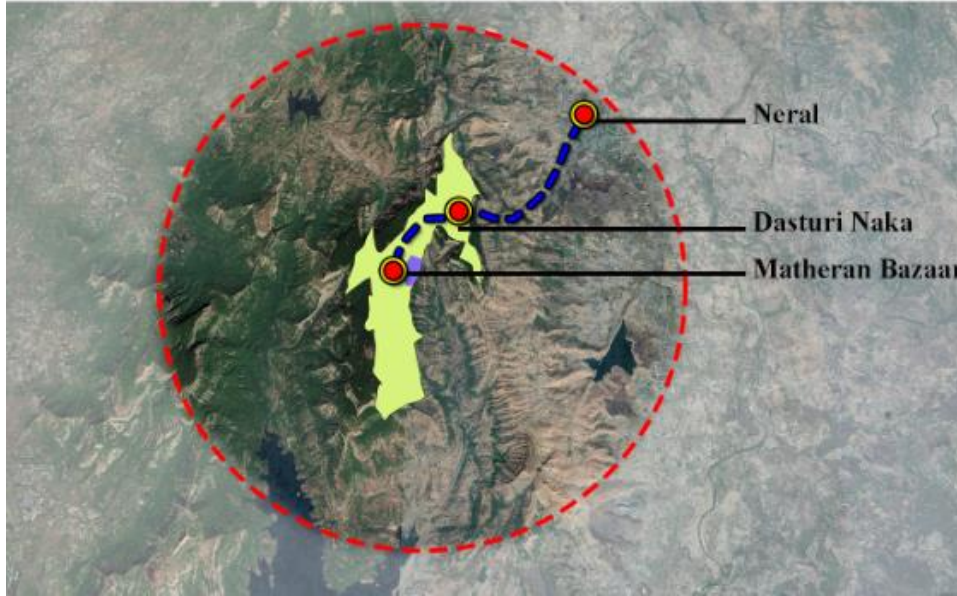
LOCATIONAL AND REGIONAL SETTING

Matheran is a Hill Station Municipal Council in Raigad District in the Indian state of Maharashtra. It is located on the Western Ghats range at an elevation of around (2,625 feet) 800m above mean sea level. Matheran is located at 18°59'N 73°16'E 18.98°N 73.27°E, around 90 km from Mumbai, 120 from Pune and about 320 km from Surat. Matheran's proximity to the three metros makes it a popular weekend gateway for urban residents.



Location of **Matheran** with Neral, Karjat and Panvel cities nearby



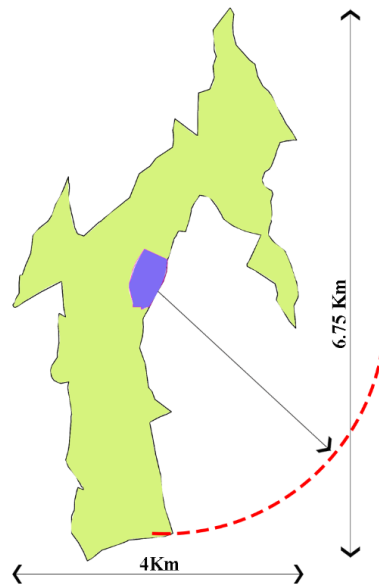


Location of **Matheran Bazaar**

To reach Matheran Bazaar

1. From Neral railway station mini train to Matheran 20 kms.
2. From Neral by vehicle till Dasturi Naka and then 2.5kms Pedestrian Road.

Catchment area of bazaar.



HISTORY OF MATHERAN

The name Matheran means either “forest on top” or “mother forest”. Matheran was discovered by Hugh Poyntz Malet, then district collector of Thane district in May 1850.

Mr. Malet, while camped at chawk in May 1850, strolled one evening half way up the hill by the narrow steep bed of the Versova stream between Great Chawk and One Tree Hill. Thinking the hill worth exploring he came back next day, filled a basket with earth, struck off some pieces of stone, and went back to chawk through the Ram Baug between Alexander Point and Little Chawk. He came back about in November, lived about a month in a small hut and cleared footpaths to several of the points. He came once more in February 1851, built a stone house now called the Byke and in 1852 obtained a grant of RS. 500 and so improved the path from Chawk through the Ram Baug forest. Shortly after this Government ordered the Quarter Master General of the Army to have the hill surveyed with a view to make it a military sanatorium. The survey was carried out by Captain Ponsonby in 1852, who drew a map of the hill, laid out a map from the north to the Neral and marked sites for a church, a hospital, a barrack for two hundred men, a jail and other public buildings. But the idea of making Matheran a military sanatorium was given up as the medical authorities preferred Khandala. Next year (1853) Captain Peacock traced and cleared some fresh paths and marked sites for private houses. When the survey was completed, a map of the hill was printed and Government, after reserving certain plots, authorized Mr. Malet to allot sites to the public. By the end of May 1853 seventy sites had been applied for.

Between 1855 and 1858, Lord Elphinstone then Governor of Bombay, did much for Matheran. At a cost of Rs. 10,000 the road from Neral, instead of climbing steep valley, was brought up the gentle slope of the Neral spur. Most of the rides and paths, leading to the different points were laid out with admirable taste, under Lord Elphinstone's direction. He chose the site of Elphinstone Lodge, built a hut on it and laid a foundation of the present house. His staff followed his example and Matheran became fashionable. Houses rapidly sprang up and building sites were in great demand. The foundation of church was laid in 1858 and three years building was completed.

A Superintendent's office including a post and telegraph office and a small library, a new market, a sanatorium and rest house for local residents had also been added and Gymkhana with lawn tennis and badminton courts and a large badminton shed, added greatly to pleasure of life on the hill.

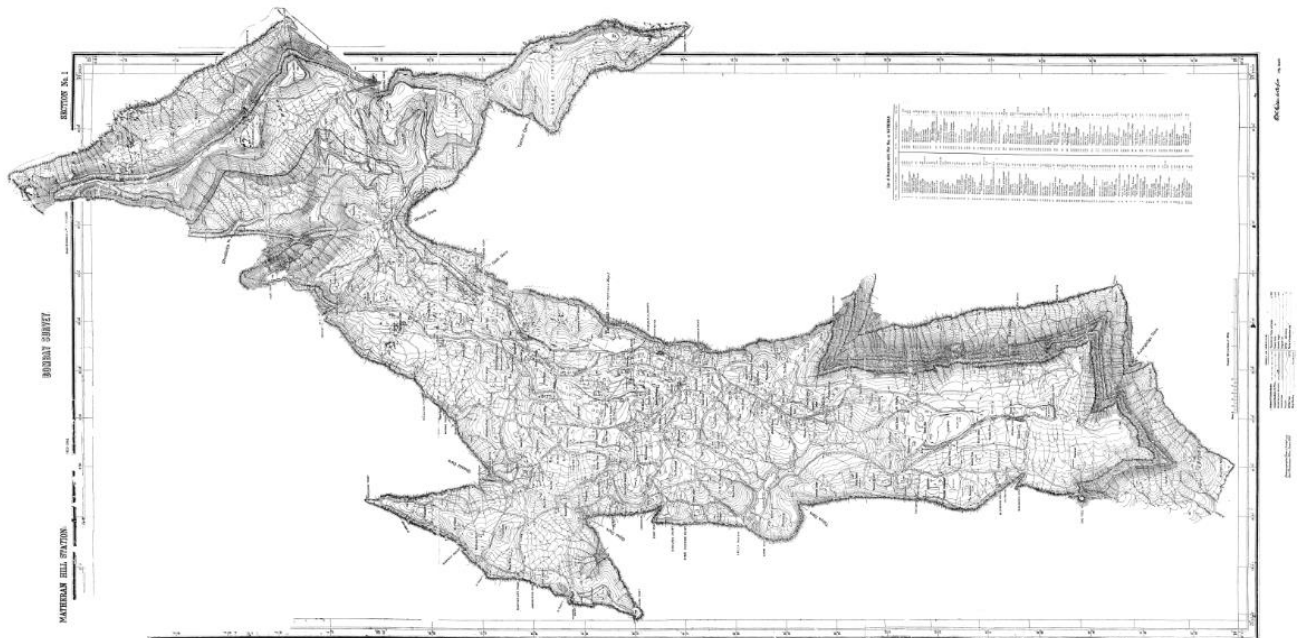


PHYSIOGRAPHY

TOPOGRAPHY

The Matheran hill with an altitude of over 800 mt is isolated from surrounding hills by its sheer height. The north-south stretch of plateau is approximately 7 km with an average width of a kilometer. The Panorama point forms the northernmost tip of the plateau, to the south-east lies the Garbet point and to the south most lays the Chowk point. The area shows large variation in topography. There are few laterite plateaus like Olympia, Rugby, and Rajasthan that are remnant of original geological structures.

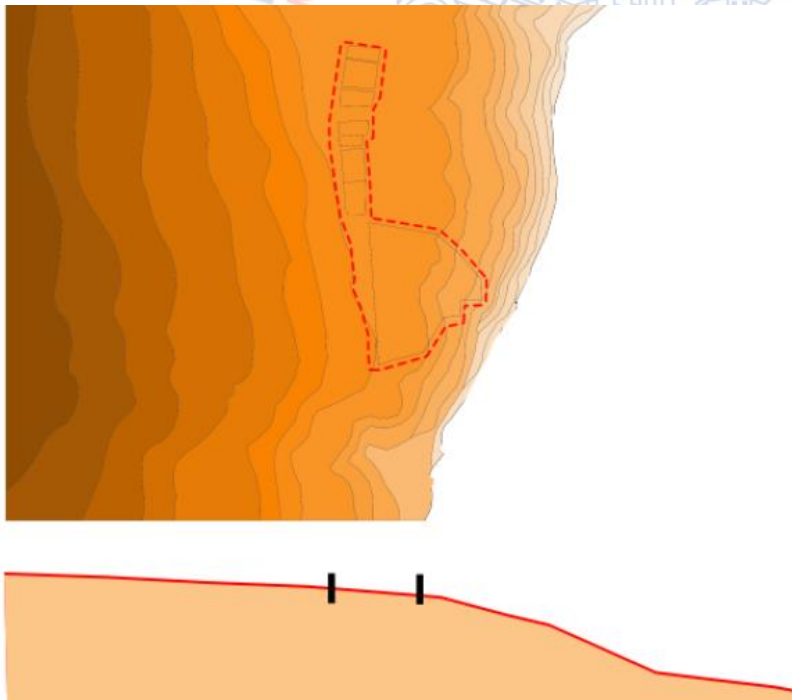
The undulating topography has slopes ranging from below 5 to above 50. The northern side of the plateau has steep sloping areas with slopes greater than 50 whereas central & southern sides have gentle sloping areas, with slopes ranging from 0 to 20.



HYDROLOGY

The land surface is generally irregular. This has given rise to various water features such as surface streams, basins, dharas, waterfalls and springs. The general topography of the plateau is so undulating that it is divided into approximately 15 watersheds. These watersheds consist of a dense and intricate network of streams and rivulets. Watersheds of Charlotte Lake and Simpson tank are more important as they feed these water resources of the plateau. Charlotte lake watershed is gentler in slope and spread over larger area compare to Simpson tank watershed.

During monsoon ground water gets recharged. Rate of percolation of water into the ground is also high due to porous upper strata and large areas on the plateau being covered with forest or vegetation. High level of soil moisture has resulted in the evergreen nature of the crest top forest. The underlying trap drains the water absorbed by the porous laterite to the edges of the plateau where springs issue out from the junction of the laterite crest and the trap. These springs are an important water resource for the plateau and the surrounding region.



CLIMATE

Matheran with its moderate altitude has a climate, which suits to all.

The climate after the rainy season is very pleasant. It's crisp and cool. Even in May, the evenings are delightfully cool and the night pleasant and restful. The average annual minimum and maximum temperature ranges from 18⁰C to 28.5⁰C. As regards the climate the month of October and November are the best. The refreshing cool and healthy climate of Matheran is very effective for health.

RAINFALL

The average annual rainfall is 4595.56mm. The maximum rainfall recorded during the last five year is 6484 mm. in the year 2006.

The highest quantity of downpour is during July and August. The weather is cloudy and dark throughout these months. The continuous rainfall paralyses all the activities. But there is a different type, of charm of this place during monsoon. The whole of the "Hill-Crest" topped by the rain clouds look majestic.

Year	Temperature		Rainfall in mm.
	Minimum	Maximum	
2000	18	24	4175.7
2001	18	24	3799.4
2002	18	28	3495.5
2003	18	28	3638.7
2004	18	30	4295.1
2005	18	30	6436
2006	18	32	6484
2007	18	32	4440.1
Average	18	28.5	4596.56



ENVIRONMENT STUDY

Matheran is nestled amidst dense forest, which covers an area of about 300sq.km. It is a home for many species of flora and fauna. The plateau receives high rainfall and thus has origins of many streams. Hill vegetation plays a critical role in the hydrological cycle.

WATER BODIES

The western slopes of the hill comprise a catchment of numerous rivers, which discharge water into Panvel creek and ultimately into the Arabian Sea. The eastern slopes form the catchment of the river Ulhas and the southern slopes the catchment of the river Dhavri that eventually meets the river Patalganga.

The plateau water shed is equally interesting because of the unique landform. The plateau shows a great terrain variation in a short span of 12.5 km. giving it a unique undulating character, as well as, rendering every edge in a character of its own, making it interesting for tourists. Also these numbers of watersheds on the plateau serve the water bodies, streams and springs. Stream networks over the plateau also contribute to the formation of small basins, viz. Simpson Tank and Charlotte Lake basin.

CHARLOTTE LAKE

Charlotte Lake is one of the main water resources of the Matheran Plateau. It is situated near to the Pisarnath temple and also a major tourist spot. The watershed of Charlotte Lake covers an area of about 1.25 sq.mt.

Lake is fed by several streams and springs. Heavy erosion in streams has led to siltation in the reservoir. The lack of culverts at certain crucial points and storm water drain's along roads that are silted, result in large quantities of water flowing on the surface of roads during monsoon causing sheet erosion.

SIMPSONS TANK

Simpsons tank is the second largest tank on the Matheran plateau, situated on the steep gradient in Patal Stream basin. Initially water was being used for domestic purpose. Now the water is not potable and the storage capacity of the tank has reduced due to siltation and seepage.

The watershed of tank covers an area of about 0.48 sq.km. The catchment area has car park area, horse stand, loading and unloading activities. Around the tank there is a complete loss of ground cover that has



resulted in severe erosion and siltation. During monsoon the loose soil gets washed into reservoir. This has silted up the reservoir and reduced its capacity; Water in reservoir is also contaminated by horses.

NATURAL SPRINGS

There are about 23 odd springs on the plateau. The principal ones amongst them are Malet's spring, Monkey, Ponsonby and Harrison's spring.”

Several springs that feed the Charlotte Lake, which is the main water storage reservoir, are also found on Matheran plateau. Coolie spring, and several other springs are located on the eastern edge of the plateau in the Bazaar settlement area.

VEGETATION

Matheran vegetation is fairly rich and diverse in its seasonal and ephemeral component.

The type of vegetation changes with the altitude, precipitation and soil strata. Deciduous to moist deciduous vegetation is found on the lower slopes. Moist deciduous to semi-evergreen vegetation is observed on the terraces. The crest forest on the plateau top is a unique climax ecosystem ranging from semi-evergreen to evergreen with a prevalence of evergreen species. The evergreen nature is a result of high rainfall and the retention of ground water in the soil strata.

FOREST

The forest ecosystem of Matheran plateau is unique, The canopy density is variable between 40-90%. At several localities the ecosystem can be designated as a closed forest.

Vegetation of Matheran exhibits such a remarkable blending of evergreen and moist deciduous tree species over large area.

Thus The forest ecosystem at Matheran is unique and remarkable in many respects- its dense and lofty arboreal growth, peculiar blending of evergreen and moist deciduous species and last but not the least- high percentage of endemism and almost undisturbed natural climatic climax formations.



HERITAGE SITES

The Matheran Hill Station has many buildings and precincts of architectural, aesthetic and historical significance. Indian National Trust for Art & Cultural Heritage Organization (INTACH) on behalf of Mumbai Metropolitan Region Development Authority had prepared the list of heritage sites in Matheran Hill Station and submitted to the Govt. The Govt. in Urban Development Department directed Matheran Municipal Council to follow the procedure u/s 37 of M.R. & T.P. Act to incorporate the said heritage list and resolution in their Sanctioned Development Control Resolutions.

Accordingly Municipal Council published the heritage list and heritage resolutions in Maharashtra Govt.

TOURISM

Tourism is the main economy of Matheran. The Matheran plateau and region present a vast scope for alternate forms of tourism like historic, architectural and nature based. The SEZ notification stipulated that the State Govt. shall prepare the Tourism Master Plan based on carrying capacity study of the area. The State Govt. has entrusted this work to MMRDA.

As per the information collected from Municipal Council, annual average tourists visited Matheran during last 5 years is 3,40,780. Most of the visitors especially the week enders prefers to stay at hotels. During the hot season most of these hotels are full and there is hardly any vacancy. There are total 66 hotels, Holiday Homes of companies/ Bank, 2 Govt. Rest houses, 3 sanatoriums and 30 restaurants.



The main attraction of Matheran is that it offers long and quite walks and the chief aim of all the visitors is the site seeing.

POINTS

There are 38 points which command panoramic views of the surrounding landscape and Geology. Every point has its own specialty. Followings are some important points.

PANORAMA POINT

MOUNT BARRY POINT

GARBUT POINT

ALEXANDER POINT

LITTLE CHAUK POINT

GREAT CHAUK

ONE TREE HILL

LOUISA POINT

PORCUPINE POINT

HART POINT

OCCUPATION STRUCTURE

The occupational structure of population in 2001 is such that workers engaged in tertiary sector are more to the tune of 97% out of the total workers which are 44.3 % of the population. The workers engaged in primary sector are negligible as agriculture activities are totally absent. These workers are mainly engaged in live stock and forestry. Workers in secondary sector are mainly engaged in construction and industry but they are only 2.72% of the total workers. The workers from tertiary sector are mainly engaged in trade and commerce, transport & communication & other service. Industrial activity is absent in this hill station, except making of hand made presentation articles. The workers recorded as engaged in industry work in industries located outside.



DEMOGRAPHY

PERMANENT POPULATION

The hill station is less populated and its local population as per census data is as below

Year	Population	% growth
1931	2734	--
1941	2775	1.49
1951	2808	1.18
1961	2857	1.74
1971	3397	18.90
1981	3920	15.39
1991	4708	20.10
2001	5139	9.15

This shows that it's permanent population was more or less stagnant up to 1961 giving annual growth rate only between 1.18 to 1.74 percent. However, since 1971 and onward, the growth rate is on the increase which is annually between 9.15 to 20.10%. This is due to the fact that tourist population is being largely attracted since 1971 which has provided some means of livelihood to local & surrounding population.

STRUCTURE OF POPULATION

The Population of 5139 souls in the year 2001 census contains 2979 males and 2160 females giving the sex ratio of 1000 females to 1379 male.

Out of total population 3614 persons are literates i.e literacy percentage of town is 70%. Population in the age group of 0-6 is 588 i.e. 11.5% of total population.



DISTRIBUTION OF POPULATION

The Municipal area of 723.67 Ha. is divided into 17 electoral wards. It is observed that out of permanent population majority of populations is accommodated in ward no. 1,2,8,9 & 12

FLOATING POPULATION

The floating population, mainly of tourists and holiday makers is generally increasing every year. This is a nearest hill station from Mumbai and Pune and people from these cities visit Matheran frequently on week-ends in order to get rid of weary city life. For the purpose of working out maximum floating population, necessary statistics regarding annual floating population & the number of passengers coming to Matheran every month during the year 2007-08 was collected from the municipal authority.

Year	Total floating population	Annual% growth
2000-01	2,35,152	--
2001-02	2,59,400	+ 10.31
2002-03	2,83,386	+ 9.24
2003-04	3,08,000	+ 8.68
2004-05	3,76,000	+ 22.07
2005-06	2,16,900	-- 42.31
2006-07	NA	NA
2007-08	4,42,644	-



DEMOGRAPHIC PROJECTION

Population of planning area is always considered as base for distribution of social and physical infrastructural facilities. Followings table indicates the decadal growth of population from 1931.

Sr No	Year	Population	% Variation	Increase per decade	Incremental increase per decade
1	1931	2734	-	-	-
2	1941	2775	1.49	41	-
3	1951	2808	1.18	33	-8
4	1961	2857	1.74	49	+16
5	1971	3397	18.90	540	+491
6	1981	3920	15.39	523	-17
7	1991	4708	20.10	788	+265
8	2001	5139	9.15	431	-357
	Average	3542		343	+390

Accordingly, projected population by various methods are worked out as below:

Sr No	Method	P 2021	P 2031
1	Arithmetical increase	5825	6168
2	Incremental Increase	6995	7728
3	Geometrical increase	7000	7625
4	Percent Variation	6136	6731
5	Public Health	6125	6685
6	Graphical	6100	6600
	Average	6363	6922



As per the information received from Matheran Mun.Council, monthly floating population observed during the year 2007-08 is as follows;

Month	Total floating population	Maximum floating population in a day
March 2007	-	-
April 2007	-	-
May 2007	-	-
June 2007	-	950
July 2007	22,216	2,582
August 2007	22,234	2,290
September 2007	15,932	1,350
October 2007	18,242	1,734
November 2007	54,072	4,326
December 2007	60,092	4,571
January 2007	39,588	6,356
February 2007	20,401	1,982
March 2007	33,990	1,652
Total	4,42,644	

Accordingly maximum floating population in a day during the year 2007-08 was considered as 5000. By considering the tourism importance, nearness to major cities and expected development in near future, 25% growth per annum is expected and accordingly floating population in 2021 is expected to be about 6500 and 8500 in 2031.

Accordingly total population of 13,000 is estimated in the year 2021 for providing social amenities and 15,800 is estimated in the year 2031 for the purpose of zoning.

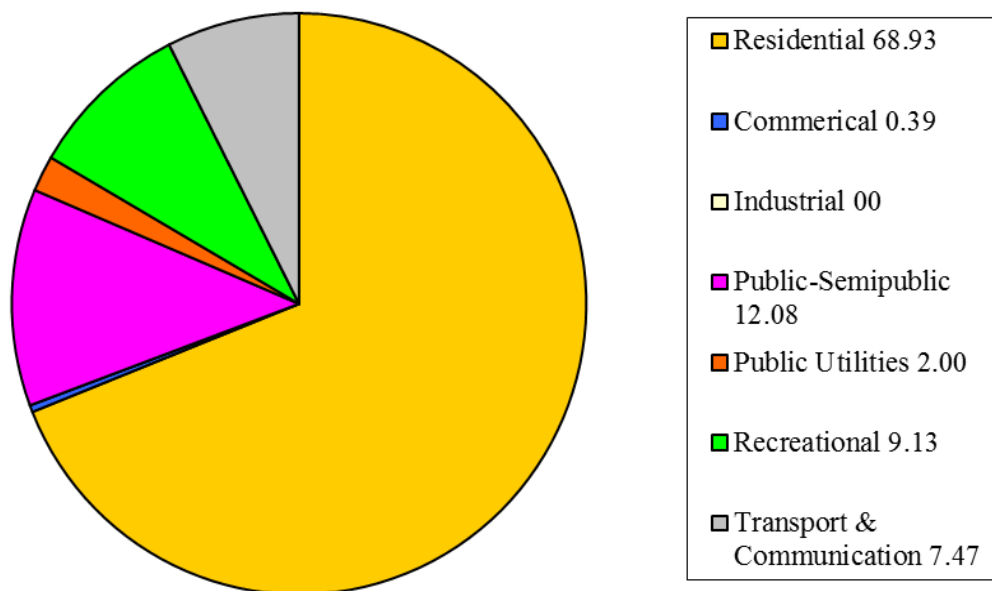


LAND USE**PROPOSED LAND USE**

For the purpose of framing proposals for the purpose of zoning, the entire municipal area has been considered as one unit.

As mentioned before, in past 254 Matheran plots and 256 Bazar plots admeasuring about 254.34 hectares were allotted/leased for development and remaining area is almost the forest land. Therefore development has to be restrained in these plots only. In the Existing land Use plan, hotel/lodging user is included in commercial use and accordingly area under residential use is 128.65 Ha and area under commercial use is 46.61 Ha. However hotel/lodging is of residential type of development and also this use is permissible in residential zone and therefore in Proposed Land Use plan, existing plots under hotel/lodge are included in residential zone.

Thus total Municipal area of 723.67 hectares is now divided in following zones:



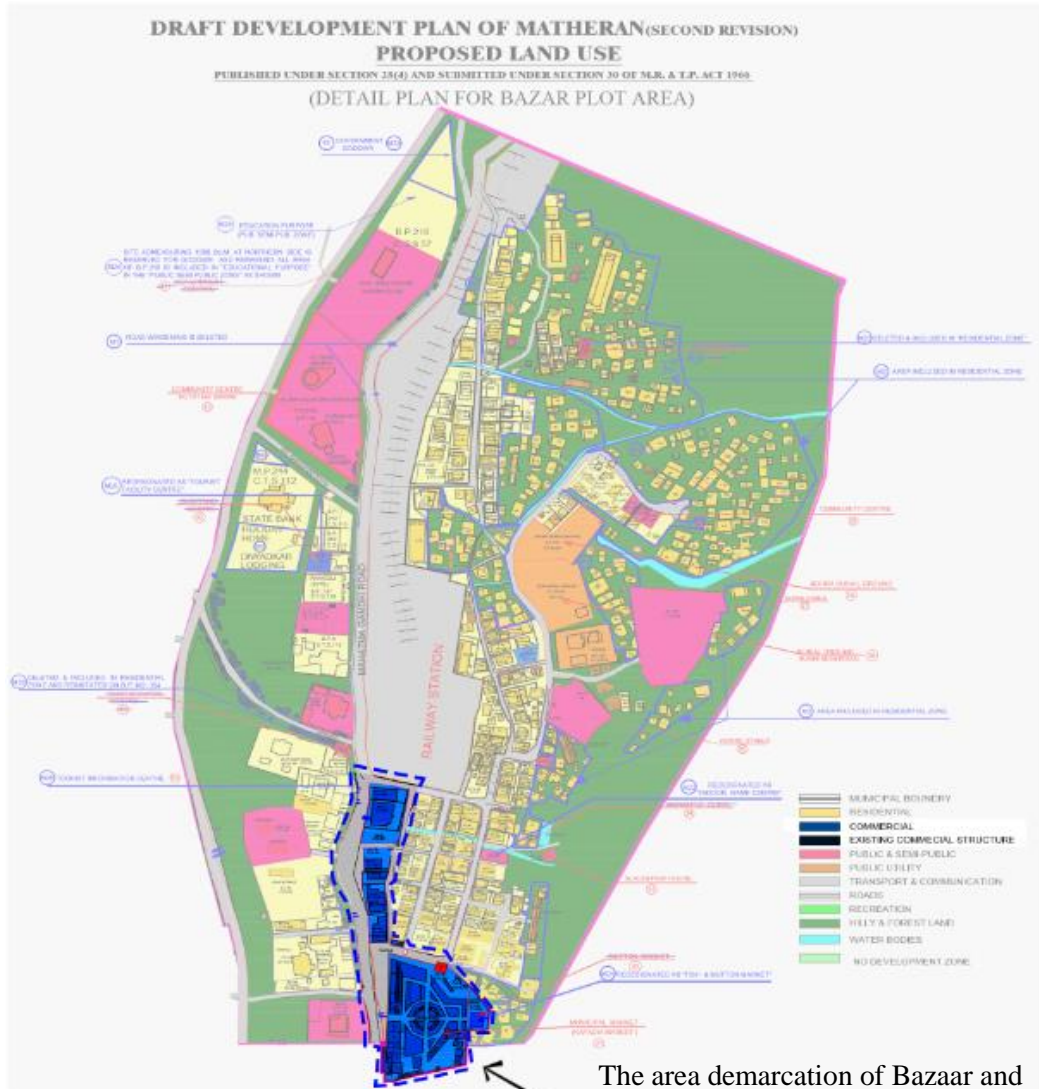
PROPOSED LAND USE PIE DIAGRAM (For developed area)



COMMERCIAL

Shops, commercial establishment hotels, lodgings, boardings and all such users which are mostly found to occupy the frontage of busy streets as well as some Matheran/Bazar plots situated in the interior are included in residential category. It is seen that 46.61 Ha. area is occupied by the commercial use i.e. about 6.44% of total area of town. Most of hotels, lodging, and sanatorium are scattered over the Matheran plots in the middle part of Matheran plateau and on small portion on Bazar Roads. Shops and other commercial units are located only in Bazar area which is major commercial spine near the railway station.

Proposed land use plan



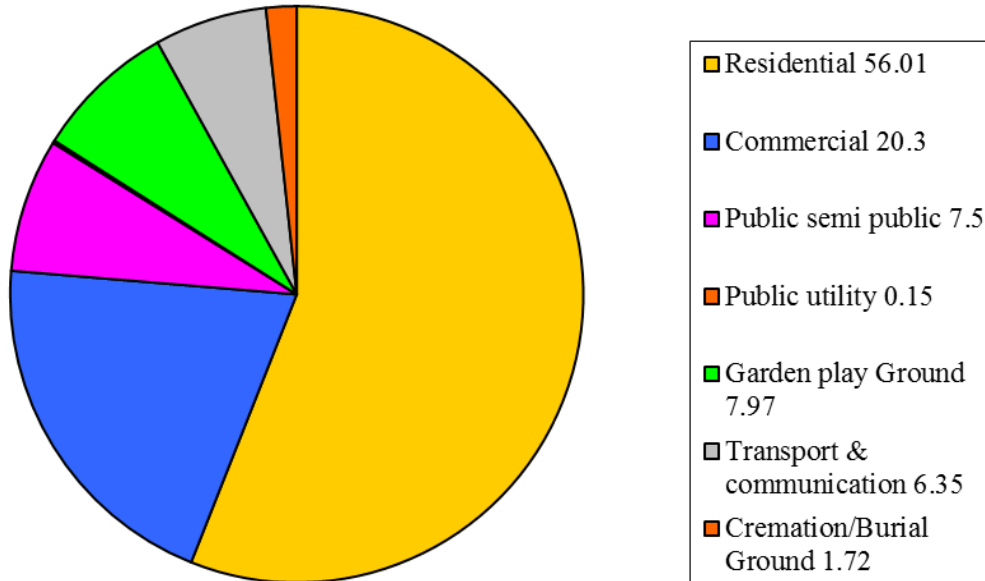
The area demarcation of Bazaar and Kapadia Market as commercial landuse.



The total area within Matheran Hill Station Municipal limit is 723.67 Ha.. In past some plots were carved out to used for public purposes and remaining were allotted on lease to the public. As per the information received from superintendent, Matheran and Municipal Council, lands details are as below

Details	Matheran Plots		Bazar Plots		Total Plots	
	NO.	Area in Ha.	No.	Area in Ha.	Total	Area in Ha.
1. Total Plots	254	243.50	256	10.84	510	254.34
2. Govt. Plots	23	12.546	31	1.04	54	13.588
3. Tranferred to M.C.	19	17.044	39	3.32	58	20.324
3. Plots alloted to public charitable trust.	9	6.39	5	1.08	14	7.47
4. Plots under lease	203	207.56	181	5.40	384	212.96

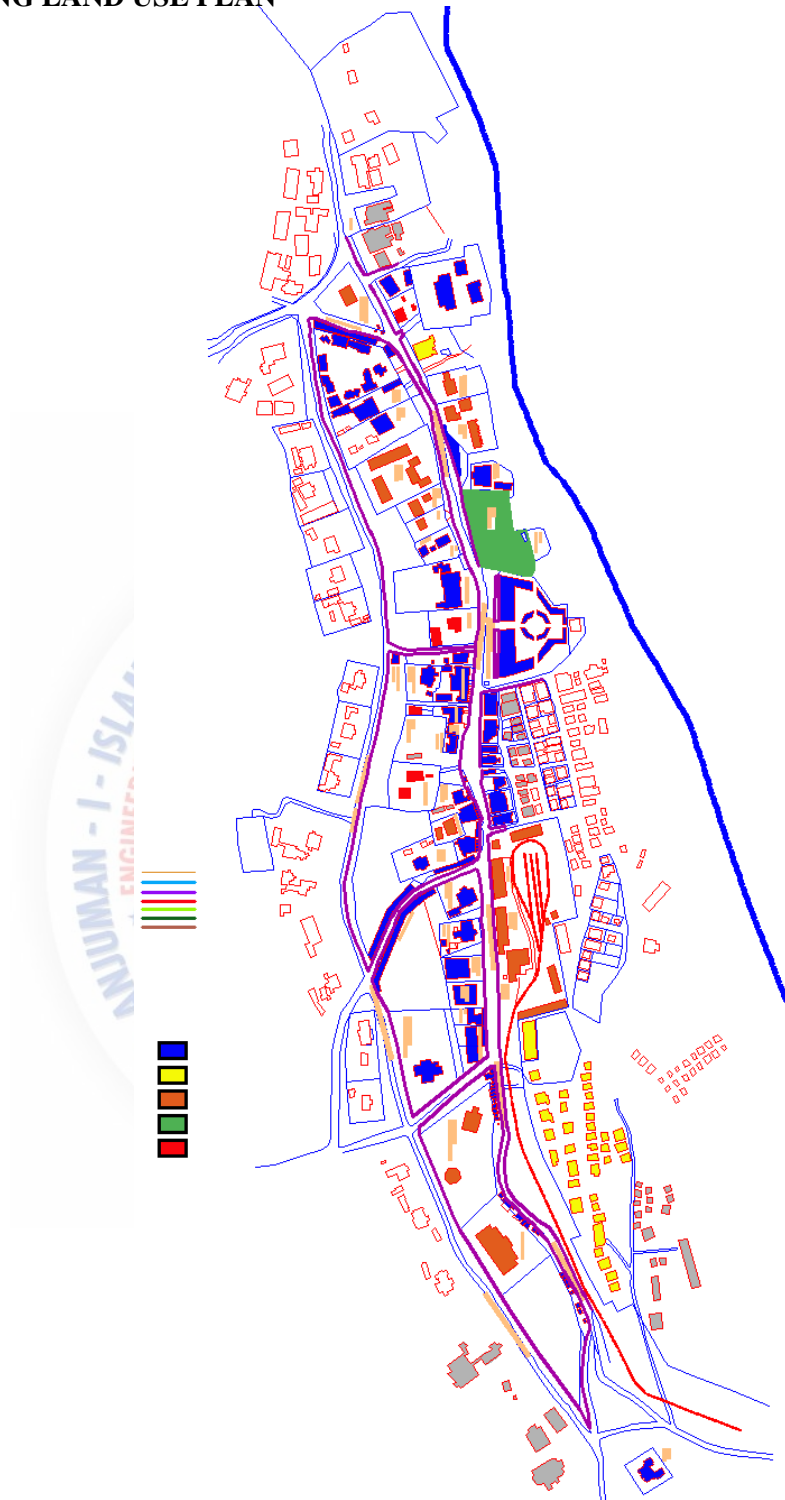


EXISTING LAND USE**EXISTING LAND USE PIE DIAGRAM (For developed area)**

The existing pattern of land use is the result of past growth and the present activities of the town. The survey of the existing land use helps one to know how much land is put to various uses and what are the factors in fixing the extent of land use for a particular activity and how much more is needed for providing for future growth. Such survey of all the area within municipal limit was carried out with a view to ascertain the present use of the land and to prepare an existing land use map as required under section 25 of Maharashtra Regional and Town Planning Act, 1966.



EXISTING LAND USE PLAN



EXISTING LAND USE ANALYSIS

Sr.N o.	Existing Use	Area in Ha.	%to development area	% to total area
1.	Residential	128.65	56.01	17.77
2	Commercial	46.61	20.30	6.44
3	Industrial	--	--	--
4.	Public-Semipublic	17.24	7.50	2.38
5.	Public Utilities	0.33	0.15	0.05
6.	Recreational(Gardens & Playground)	18.30	7.97	2.53
7.	Transport & Commu- Nication	14.57	6.35	2.01
8.	Cremation/Burial ground.	3.97	1.72	0.55
	Total developmentarea	229.67	100%	31.73%
9.	Forest	419.15	84.84	57.92
10.	Open areas	68.72	13.91	9.50
11.	Water bodies	6.13	1.25	0.85
	Total undeveloped area	494.00	100%	68.27%
	Total	723.67	--	100%

It is seen that 68.27% of area is undeveloped and is covered by Forest land, vacant land and water bodies. About 17.77% is under residential 6.44% under commercial & 2.01% under roads. 2.38% area is used for public uses viz school, hospitals other public buildings and 2.53% is used for Garden, Play Ground and Park. The industrial activities are nil.



SITE JUSTIFICATION

Markets are heart of city , they are the place of interaction where entire city meets.

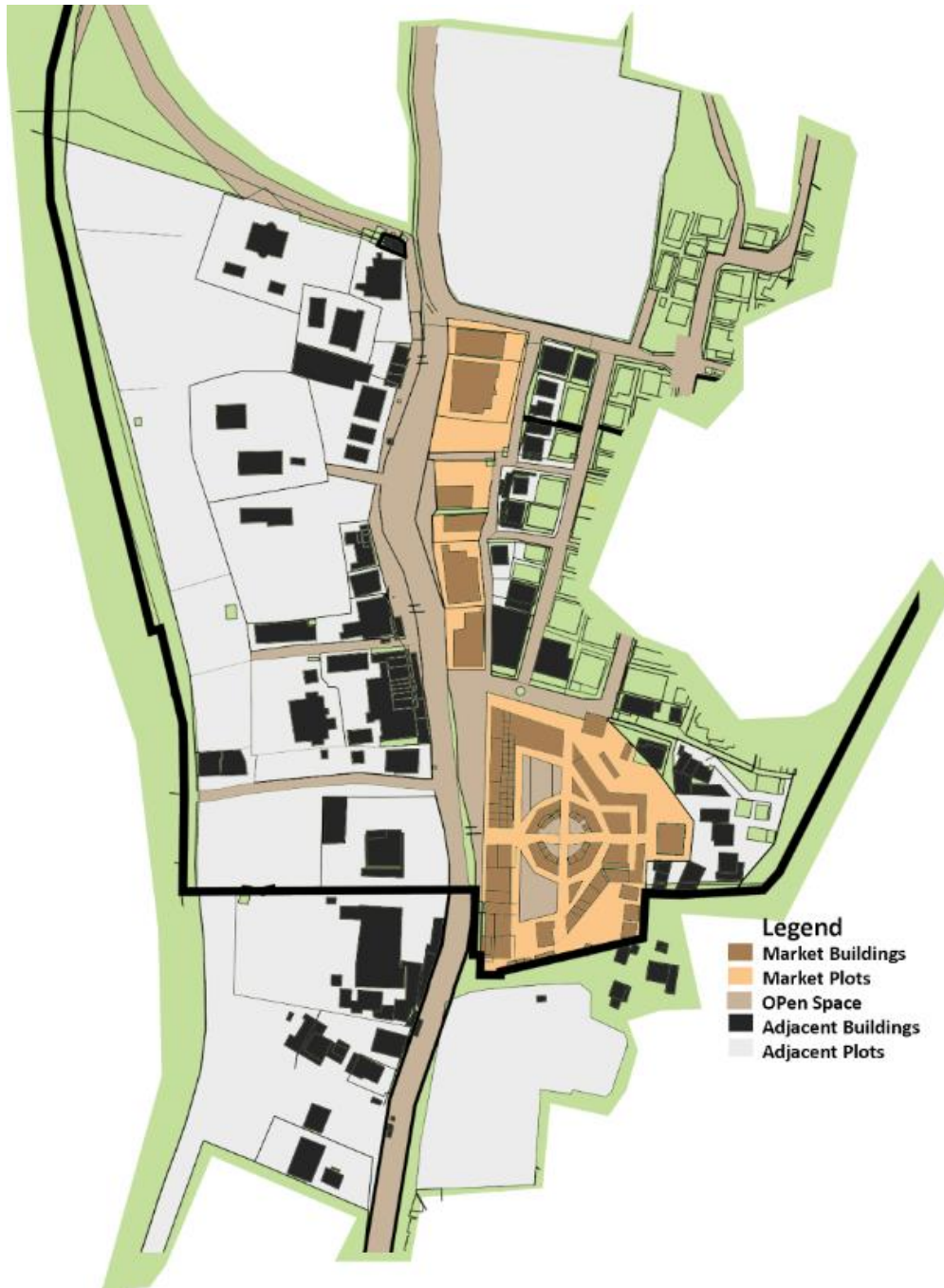
With population of 6000 the hill station hosts more than a lakh tourists annually as the famous urban tourists place due to its location in MMR. The Experience of Matheran Is incomplete without its Bazaar which serves for the residing population as the market place and for tourists as the shopping place It serves from day to day spices shopping to the exclusive products of tourists attraction.

The Bazaar of matheran has evolved over a period of time. The permanent shops range from restaurants to retail store , the temporal to fixed.

The Kapadia Market and the Matheran Bazaar Is the Identity Of the Only Pedestrian Hill Station In Asia which is in total neglect , disrepair , dilapidated and encroached condition . It has seen 100 years of transformation from 1916 to 2017 and needs redevelopment With Kapadia Bazaar As a project of redevelopment it will not only design & accommodate contemporary use but also Strengthen the Market Place as a successful architectural space.



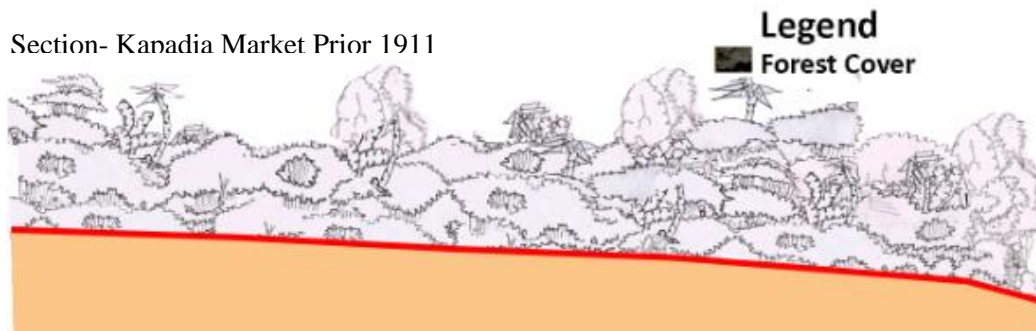
Existing Market and its context



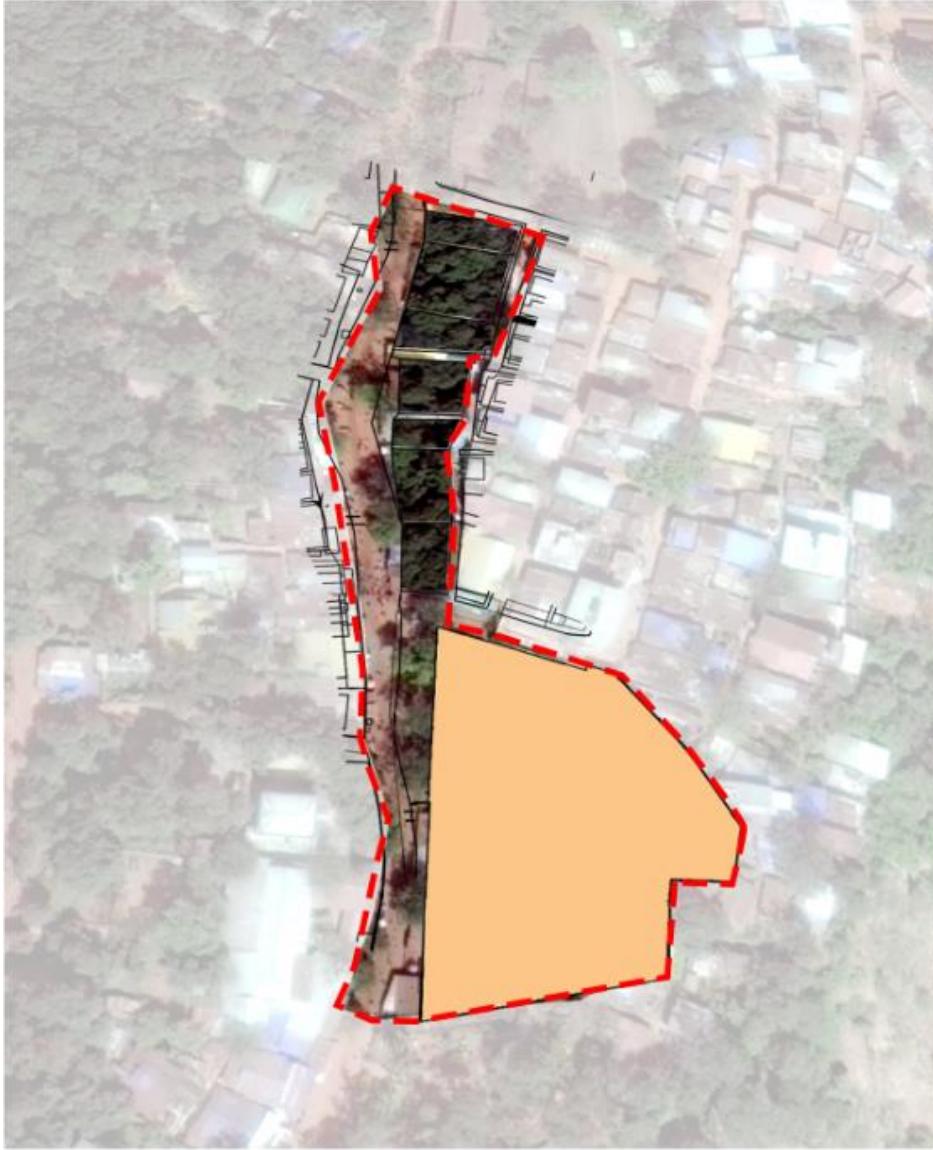
Prior to 1911 the site was covered with Heavy Tree Cover.



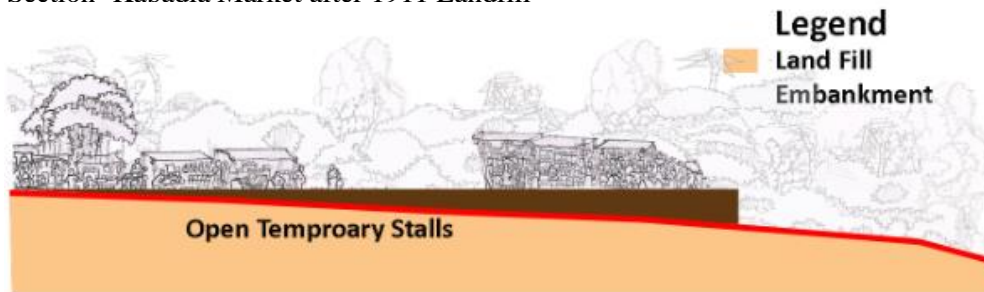
Section- Kanadia Market Prior 1911



In 1911 there was landfill embankment made for the flat land for openground bazaar.



Section- Kapadia Market after 1911 Landfill



Kapadia Market in 1917 when it was handed over to Municipality Pestonji Kapadia In Name of Ratan Bai Kapadia



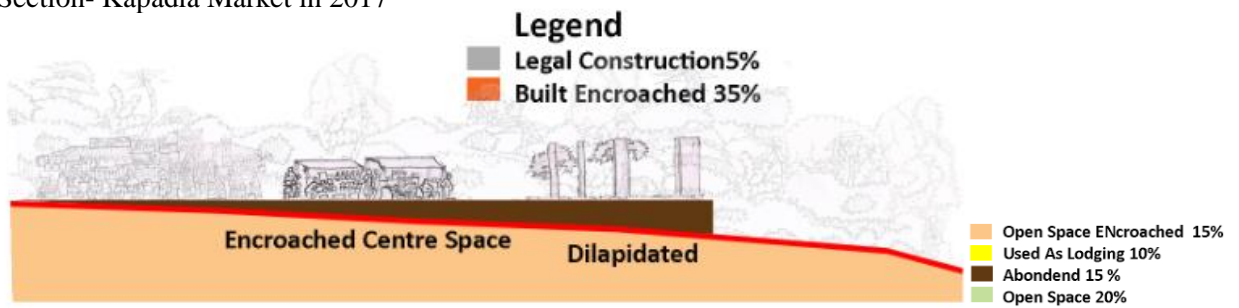
Section- Kapadia Market in 1917



Kapadia Market in contemporary time



Section- Kapadia Market in 2017

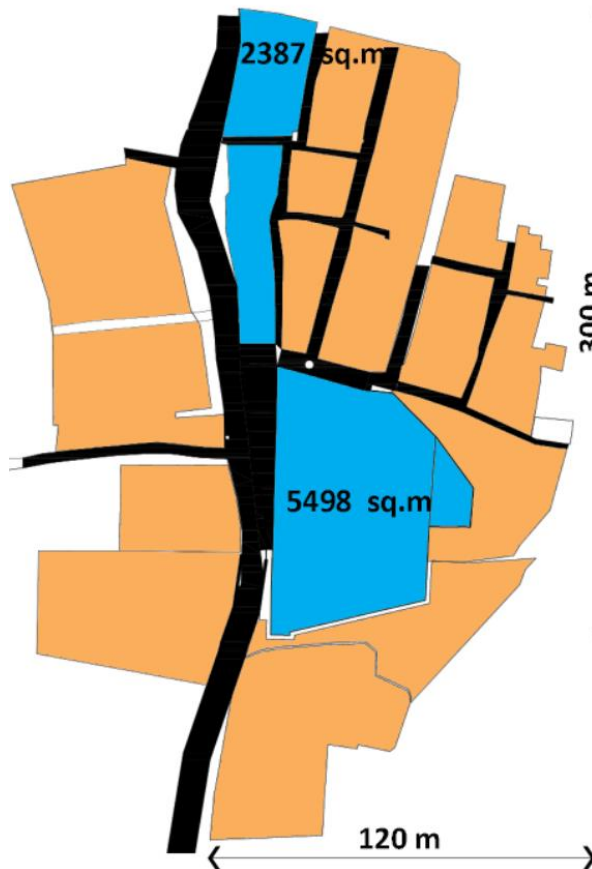


The Kapadia Market and the Matheran Bazaar Is the Identity Of the Only Pedestrian Hill Station In Asia which is in total neglect , disrepair , dilapidated and encroached condition .

It has seen 100 years of transformation from 1916 to 2017 and needs redevelopment

With Kapadia Bazaar As a project of redevelopment it will not only design & accomodate contemporary use but also Strengthen the Market Place as a succesfull architectural space.

Diagram showing area of kapadia Market and area of commercial plots.



Total site area is **8620 sq.m**

1.33 FSI on Bazar plots.

Vegetable market of 0.2 ha for every 10,000 population

66 hotels and 30 restaurants.

Also there are total 30 Lodges.

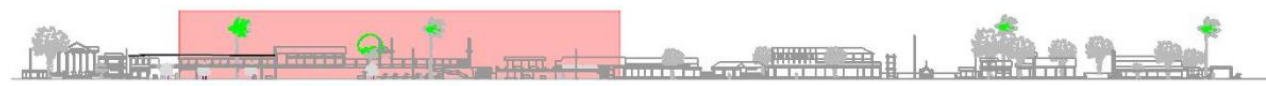
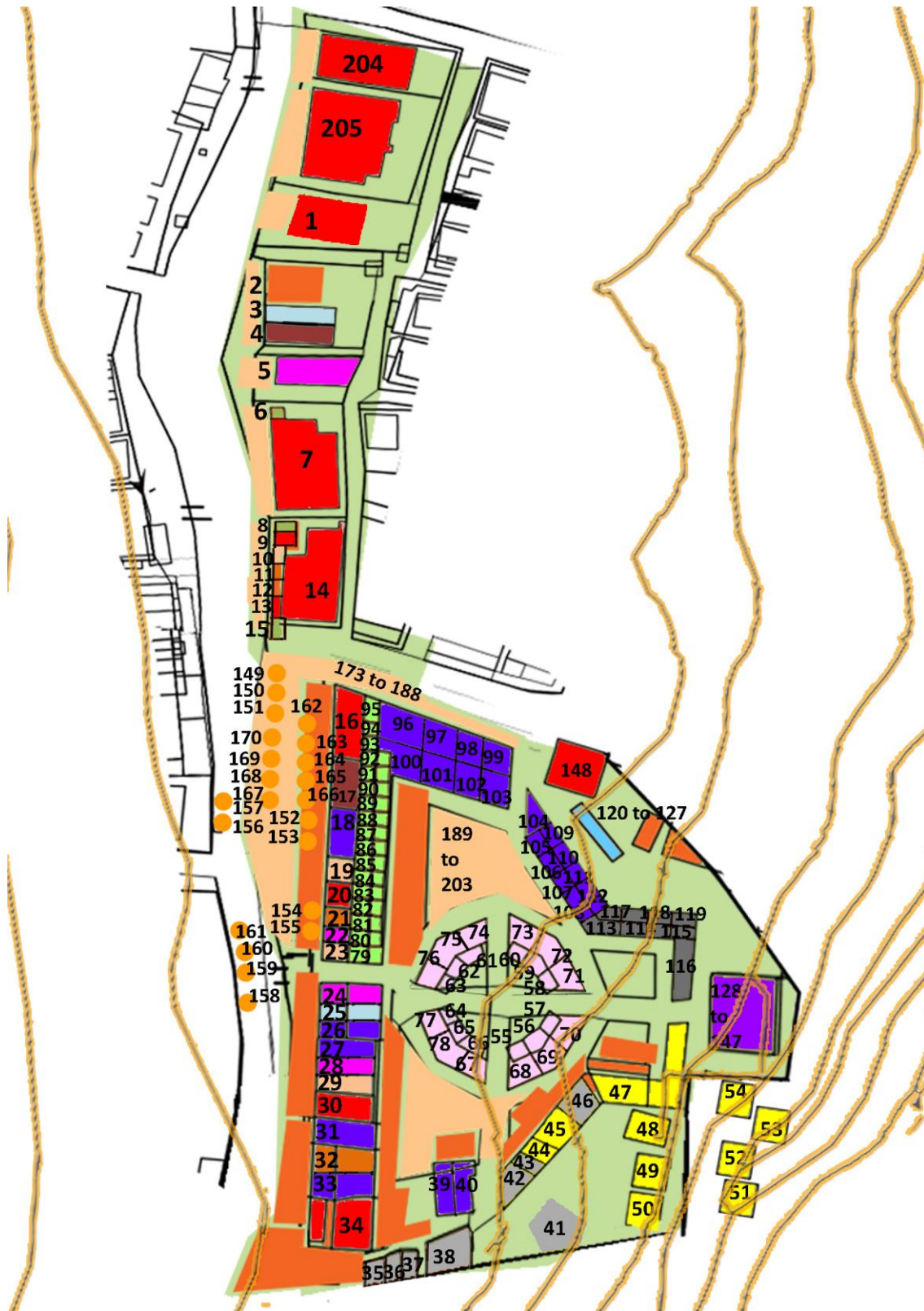
46 shops for vegetable Market and 20 gales for Mutton Market.

The shop line is also developed along the road.

Total No of Shops are 240.



EXISTING TYPOLOGIES AND USE OF SHOPS



Demography				
				No. Of People
Existing Population				5000
Current Floating Population				6500 per day
Current Number Of families (5 in a family)				1000
Current Number Of visit on an average : twice to the market by one family member				2000 per day
Current Total Number Of Daily Footfall				8500 per day
Existing Site Plot Area				
Kapadia Bazaar				5498
Mutton Market				374.6
Commercial Plot				2387
Total Plot Area				8259.6
Existing Built Area				
Existing Use Of Shop	Existing Typology	Sr. No	Kapadia Market , Matheran Space	Existing Area (Sq.Mt)
Commercial Shop			Space	Area
Eateries	Shop	1	Shelar Uphaargruh (Canteen)	60
Footwear	Shop	2	Prabhat Footwear	30
Ice Cream	Shop	3	Kwality Ice Creams	60
Garments	Shop	4	Sunshine Boutique	30
Entertainment	Shop	5	Matheran Wax Museum	80
Pan Shop	Shop	6	Pan Shop	5
Eateries	Shop	7	Sakwill Refreshments	195
Pan Shop	Shop	8	A to Z Pan Center	15
Eateries	Temporal Shop	9	Ketkar Restaurant	45
Footwear	Temporal Shop	10	Raj Footwear	10
Chikki Shop	Temporal Shop	11	Modern Chikki	10
Footwear	Temporal Shop	12	Ramesh Footwear & Belt house	10
Footwear	Temporal Shop	13	Murtaza Stores	10
Eateries	Shop	14	Pramod Bar	128
Pan Shop	Temporal Shop	15	Chotubhai Panwala	6
Commercial Shop			Total Area	694
Kapadia Market			Space	Area
Eateries	Shop	16	Hakimi Restaurant (Kapadia Market)	45
Garments	Shop	17	Deluxe Cloth & Garments (Kapadia Market)	15
Retail	Shop	18	Ashok Kumar & Co. (Kapadia Market)	30
Chikki Shop	Shop	19	Jolly Chikki & Sweet Mart (Kapadia Market)	15
Eateries	Shop	20	Hi Street Restaurant (Kapadia Market)	30
Footwear	Shop	21	Bhagyashree Bag & Foot Wear (Kapadia Market)	12
Entertainment	Shop	22	Fun N Dice (Kapadia Market)	8
Chikki Shop	Shop	23	Prince Chikki (Kapadia Market)	10
Entertainment	Shop	24	Mayur Video Games (Kapadia Market)	30
Ice Cream	Shop	25	Crisp N Cream (Kapadia Market)	25
Retail	Shop	26	Dhan Laxmi Traders (Kapadia Market)	25
Retail	Shop	27	Dhan Laxmi General Stores (Kapadia Market)	25
Entertainment	Shop	28	Prime Sports And Video Games (Kapadia Market)	25
Chikki Shop	Shop	29	R.B.Chikki & Fudge Mart (Kapadia Market)	25
Eateries	Shop	30	Royal Restaurant (Kapadia Market)	30
Retail	Shop	31	Closed (Kapadia Market)	30



Kapadia Market		Space		Area
Footwear	Shop	32	Manish Leather & Fancy Bag (Kapadia Market)	30
Retail	Shop	33	Closed (Kapadia Market)	30
Eateries	Shop	34	Garden View Restaurant (Kapadia Market)	100
	Shop	35	12 Shop Closed (Kapadia Market)	12
		36	10 Shop Closed (Kapadia Market)	10
		37	11 Shop Closed (Kapadia Market)	12
		38	13 Shop Closed (Kapadia Market)	18
Retail	Shop	39	14 A General Store (Kapadia Market)	25
Retail		40	14 B General Store (Kapadia Market)	25
	Shop	41	15 Shop Closed (Kapadia Market)	9
		42	16 Shop Closed (Kapadia Market)	20
		43	17 Shop Closed (Kapadia Market)	10
Lodging	Shop	44	18 Aaryanidhi Residency (Kapadia Market)	13
Lodging		45	19 Aaryanidhi Residency (Kapadia Market)	25
	Shop	46	20 Shop Closed (Kapadia Market)	25
Lodging	Shop	47	21 Illegal Lodging (Kapadia Market)	85
Lodging		48	22 Illegal Lodging (Kapadia Market)	30
Lodging		49	22 A Illegal Lodging (Kapadia Market)	25
Lodging		50	23 Illegal Lodging (Kapadia Market)	25
Lodging		51	28 Illegal Lodging	15
Lodging		52	29 Illegal Lodging	20
Lodging		53	29 A Illegal Lodging	15
Lodging		54	29 B Illegal Lodging (Kapadia Market)	20
Retail	Temporal Shop	55	30 Shop (Kapadia Market)	10
Retail	Temporal Shop	56	31 Shop (Kapadia Market)	10
Retail	Temporal Shop	57	32 Shop (Kapadia Market)	10
Retail	Temporal Shop	58	33 Shop (Kapadia Market)	10
Retail	Temporal Shop	59	34 Shop (Kapadia Market)	10
Retail	Temporal Shop	60	35 Shop (Kapadia Market)	10
Retail	Temporal Shop	61	36 Shop (Kapadia Market)	10
Retail	Temporal Shop	62	37 Shop (Kapadia Market)	10
Retail	Temporal Shop	63	38 Shop (Kapadia Market)	10
Retail	Temporal Shop	64	39 Shop (Kapadia Market)	10
Retail	Temporal Shop	65	40 Shop (Kapadia Market)	10
Retail	Temporal Shop	66	41 Shop (Kapadia Market)	10
Retail	Shop	67	30 A Shop (Kapadia Market)	10
Retail	Shop	68	31 A Shop (Kapadia Market)	10
Retail	Shop	69	32 A Shop (Kapadia Market)	10
Retail	Shop	70	33 A Shop (Kapadia Market)	10
Retail	Shop	71	34 A Shop (Kapadia Market)	10
Retail	Shop	72	35 A Shop (Kapadia Market)	10
Retail	Shop	73	36 A Shop (Kapadia Market)	10
Retail	Shop	74	37 A Shop (Kapadia Market)	10



Kapadia Market			Space	Area
Retail	Shop	75	38 A Shop (Kapadia Market)	10
Retail	Shop	76	39 A Shop (Kapadia Market)	10
Retail	Shop	77	40 A Shop (Kapadia Market)	10
Retail	Shop	78	41 A Shop (Kapadia Market)	10
Retail	Vending Shops	79	42 Vegetable Vendor (Kapadia Market)	10
Retail	Vending Shops	80	43 Vegetable Vendor (Kapadia Market)	10
Retail	Vending Shops	81	44 Vegetable Vendor (Kapadia Market)	10
Retail	Vending Shops	82	45 Vegetable Vendor (Kapadia Market)	10
Retail	Vending Shops	83	46 Vegetable Vendor (Kapadia Market)	10
Retail	Vending Shops	84	47 Vegetable Vendor (Kapadia Market)	10
Retail	Vending Shops	85	48 Vegetable Vendor (Kapadia Market)	10
Retail	Vending Shops	86	49 Vegetable Vendor (Kapadia Market)	10
Retail	Vending Shops	87	50 Vegetable Vendor (Kapadia Market)	10
Retail	Vending Shops	88	51 Vegetable Vendor (Kapadia Market)	10
Retail	Vending Shops	89	52 Vegetable Vendor (Kapadia Market)	10
Retail	Vending Shops	90	53 Vegetable Vendor (Kapadia Market)	10
Retail	Vending Shops	91	54 Vegetable Vendor (Kapadia Market)	10
Retail	Vending Shops	92	55 Vegetable Vendor (Kapadia Market)	10
Retail	Vending Shops	93	56 Vegetable Vendor (Kapadia Market)	10
Retail	Vending Shops	94	57 Vegetable Vendor (Kapadia Market)	10
Retail	Vending Shops	95	58 Vegetable Vendor (Kapadia Market)	10
Retail	Vending Shops	96	10 A Shop (Kapadia Market)	10
Retail	Vending Shops	97	11 A Shop (Kapadia Market)	10
Retail	Vending Shops	98	12 A Shop (Kapadia Market)	10
Retail	Vending Shops	99	13 A Shop (Kapadia Market)	10
Retail	Vending Shops	100	14 A Shop (Kapadia Market)	10
Retail	Vending Shops	101	15 A Shop (Kapadia Market)	10
Retail	Vending Shops	102	16 A Shop (Kapadia Market)	10
Retail	Vending Shops	103	17 A Shop (Kapadia Market)	10
Retail	Vending Shops	104	18 A Shop (Kapadia Market)	10
Retail	Vending Shops	105	19 A Shop (Kapadia Market)	10
Retail	Vending Shops	106	20 A Shop (Kapadia Market)	10
Retail	Vending Shops	107	21 A Shop (Kapadia Market)	10
Retail	Vending Shops	108	16 B Shop (Kapadia Market)	10
Retail	Vending Shops	109	17 B Shop (Kapadia Market)	10
Retail	Vending Shops	110	18 B Shop (Kapadia Market)	10
Retail	Vending Shops	111	19 B Shop (Kapadia Market)	10
Retail	Vending Shops	112	20 B Shop (Kapadia Market)	10
	Shops	113	21 B Dilapidated Shop (Kapadia Market)	10
	Shops	114	22 B Dilapidated Shop (Kapadia Market)	10
	Shops	115	23 B Dilapidated Shop (Kapadia Market)	10
	Shops	116	24 B Dilapidated Shop (Kapadia Market)	10
	Shops	117	25 B Dilapidated Shop (Kapadia Market)	10
	Shops	118	26 B Dilapidated Shop (Kapadia Market)	10
	Shops	119	27 B Dilapidated Shop (Kapadia Market)	11
Fish Vending	TemporalStalls	120	1 Fish Shop (Kapadia Market)	3
Fish Vending	TemporalStalls	121	2 Fish Shop (Kapadia Market)	3
Fish Vending	TemporalStalls	122	3 Fish Shop (Kapadia Market)	3
Fish Vending	TemporalStalls	123	4 Fish Shop (Kapadia Market)	3
Fish Vending	TemporalStalls	124	5 Fish Shop (Kapadia Market)	3
Fish Vending	TemporalStalls	125	6 Fish Shop (Kapadia Market)	3
Fish Vending	TemporalStalls	126	7 Fish Shop (Kapadia Market)	3
Fish Vending	TemporalStalls	127	8 Fish Shop (Kapadia Market)	3
Kapadia Market			Total Area	1654



Mutton Market			Space	Area
Mutton Vending	Shops	128	1 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	129	2 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	130	3 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	131	4 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	132	5 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	133	6 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	134	7 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	135	8 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	136	9 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	137	10 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	138	11 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	139	12 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	140	13 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	141	14 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	142	15 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	143	16 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	144	17 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	145	18 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	146	19 Mutton Shop (Kapadia Market)	5
Mutton Vending	Shops	147	20 Mutton Shop (Kapadia Market)	5
Mutton Market			Total Area	100
			Grand Total	2448
Informal Shops				Area
Eateries	Temporal Shop	148	Eatery Shop	55
Hand Cart	Hawker	149	Corn Shop	3
Hand Cart	Hawker	150	Vegetable	3
Hand Cart	Hawker	151	Juice Shop	4.5
Hand Cart	Hawker	152	Corn Shop	3
Hand Cart	Hawker	153	Juice Shop	4.5
Hand Cart	Hawker	154	Juice Shop	4.5
Hand Cart	Hawker	155	Juice Shop	4.5
Stand	Hawker	156	Hat Shop	2
Stand	Hawker	157	Footwear	2
Stand	Hawker	158	Hat Shop	2
Stand	Hawker	159	Footwear	2
Stand	Hawker	160	Hat Shop	2
Stand	Hawker	161	Footwear	2
Hand Baskets	Hawker	162	Regional Vegetable and fruits	1.5
Hand Baskets	Hawker	163	Regional Vegetable and fruits	1.5
Hand Baskets	Hawker	164	Regional Vegetable and fruits	1.5
Hand Baskets	Hawker	165	Regional Vegetable and fruits	1.5
Hand Baskets	Hawker	166	Regional Vegetable and fruits	1.5
Hand Baskets	Hawker	167	Regional Vegetable and fruits	1.5
Hand Baskets	Hawker	168	Regional Vegetable and fruits	1.5
Hand Baskets	Hawker	169	Regional Vegetable and fruits	1.5
Hand Baskets	Hawker	170	Regional Vegetable and fruits	1.5
Hand Baskets	Hawker	171	Regional Vegetable and fruits	1.5
Hand Baskets	Hawker	172	Regional Vegetable and fruits	1.5
Hand Baskets	Hawker	173 to 203	Vegetable	3
Total Area				113.5



Open Space				Area
	Node	B	First Node Encroached Area On road	1000
	Node	C	Second Node Encroached Area On road	1250
	Open Space	D	Unused Open Area Inside Kapadia Market	1083
	Hawker Vending	E	Hawkers Open Area	606
Total Area				3939
Total Market Area				6500.5



Retail Shopping Mart	Footwear	Kiosk	Semi-Open	1	Ramesh Footwear & Belt house	10
	Footwear	Kiosk	Semi-Open	2	Prabhat Footwear	30
	Footwear	Kiosk	Semi-Open	3	Murtaza Stores	10
	Footwear	Kiosk	Semi-Open	4	Bhagyashree Bag & Foot Wear .	12
	Footwear	Kiosk	Semi-Open	5	Raj Footwear	10
	Footwear	Shop	Closed	6	Manish Leather & Fancy Bag .	30
	Garments	Shop	Closed	7	Sunshine Boutique	30
	Garments	Shop	Closed	8	Deluxe Cloth & Garments .	15
	Retail	Shop	Closed	9	Ashok Kumar & Co. .	30
	Retail	Shop	Closed	10	Dhan Laxmi Traders .	25
	Retail	Shop	Closed	11	Dhan Laxmi General Stores .	25
	Retail	Shop	Closed	12	Retail Shop	30
	Retail	Shop	Closed	13	Retail Shop	30
	Retail	Shop	Closed	14	Retail Shop	12
	Retail	Shop	Closed	15	Retail Shop	10
	Retail	Shop	Closed	16	Retail Shop	12
	Retail	Shop	Closed	17	Retail Shop	18
	Retail	Shop	Closed	18	Retail Shop	25
	Retail	Shop	Closed	19	Retail Shop	25
	Retail	Shop	Closed	20	Retail Shop	9
	Retail	Shop	Closed	21	Retail Shop	20
	Retail	Shop	Closed	22	Retail Shop	10
	Retail	Vending Shops	Semi-Open	23	Retail Shop	10
	Retail	Vending Shops	Semi-Open	24	Retail Shop	10
	Retail	Vending Shops	Semi-Open	25	Retail Shop	10
	Retail	Vending Shops	Semi-Open	26	Retail Shop	10
	Retail	Vending Shops	Semi-Open	27	Retail Shop	10
	Retail	Vending Shops	Semi-Open	28	Retail Shop	10
	Retail	Vending Shops	Semi-Open	29	Retail Shop	10
	Retail	Vending Shops	Semi-Open	30	Retail Shop	10
	Retail	Vending Shops	Semi-Open	31	Retail Shop	10
	Retail	Vending Shops	Semi-Open	32	Retail Shop	10
	Retail	Vending Shops	Semi-Open	33	Retail Shop	10
	Retail	Vending Shops	Semi-Open	34	Retail Shop	10
	Retail	Vending Shops	Semi-Open	35	Retail Shop	10
	Retail	Vending Shops	Semi-Open	36	Retail Shop	10
	Retail	Vending Shops	Semi-Open	37	Retail Shop	10
	Retail	Vending Shops	Semi-Open	38	Retail Shop	10
	Retail	Vending Shops	Semi-Open	39	Retail Shop	10
	Retail	Stall	Semi-Open	40	Retail Vendor	10
	Retail	Stall	Semi-Open	41	Retail Vendor	10
	Retail	Stall	Semi-Open	42	Retail Vendor	10
	Retail	Stall	Semi-Open	43	Retail Vendor	10
	Retail	Stall	Semi-Open	44	Retail Vendor	10
	Retail	Stall	Semi-Open	45	Retail Vendor	10
	Retail	Stall	Semi-Open	46	Retail Vendor	10
	Retail	Stall	Semi-Open	47	Retail Vendor	10
	Retail	Stall	Semi-Open	48	Retail Vendor	10
	Retail	Stall	Semi-Open	49	Retail Vendor	10
	Retail	Stall	Semi-Open	50	Retail Vendor	10
	Retail	Shop	Closed	51	Retail Shop	10
	Retail	Shop	Closed	52	Retail Shop	10
	Retail	Shop	Closed	53	Retail Shop	10
	Retail	Shop	Closed	54	Retail Shop	10
	Retail	Shop	Closed	55	Retail Shop	10
	Retail	Shop	Closed	56	Retail Shop	10
	Retail	Shop	Closed	57	Retail Shop	10
	Retail	Shop	Closed	58	Retail Shop	10
	Retail	Shop	Closed	59	Retail Shop	10
	Retail	Shop	Closed	60	Retail Shop	10
	Retail	Shop	Closed	61	Retail Shop	10

B



	Retail	Shop	Closed	62	Retail Shop	10
	WashRoom	Men Toilet Block	Closed	63	-	50
	WashRoom	Women Toi.Block	Closed	64	-	50
	Node 2	Open	Open	65	Plaza For Retail Mart	375
(C) Retail Shopping Mart						1303
Vegetable Mart	Retail	Vending Shops	Semi-Open	1	Vegetable Vendor	10
	Retail	Vending Shops	Semi-Open	2	Vegetable Vendor	10
	Retail	Vending Shops	Semi-Open	3	Vegetable Vendor	10
	Retail	Vending Shops	Semi-Open	4	Vegetable Vendor	10
	Retail	Vending Shops	Semi-Open	5	Vegetable Vendor	10
	Retail	Vending Shops	Semi-Open	6	Vegetable Vendor	10
	Retail	Vending Shops	Semi-Open	7	Vegetable Vendor	10
	Retail	Vending Shops	Semi-Open	8	Vegetable Vendor	10
	Retail	Vending Shops	Semi-Open	9	Vegetable Vendor	10
	Retail	Vending Shops	Semi-Open	10	Vegetable Vendor	10
	Retail	Vending Shops	Semi-Open	11	Vegetable Vendor	10
	Retail	Vending Shops	Semi-Open	12	Vegetable Vendor	10
	Retail	Vending Shops	Semi-Open	13	Vegetable Vendor	10
	Retail	Vending Shops	Semi-Open	14	Vegetable Vendor	10
	Retail	Vending Shops	Semi-Open	15	Vegetable Vendor	10
	Retail	Vending Shops	Semi-Open	16	Vegetable Vendor	10
	Retail	Vending Shops	Semi-Open	17	Vegetable Vendor	10
	Stand	Kiosk	Semi-Open	18	Hat Shop	2
	Stand	Kiosk	Semi-Open	19	Footwear	2
	Stand	Kiosk	Semi-Open	20	Hat Shop	2
	Stand	Kiosk	Semi-Open	21	Footwear	2
	Stand	Kiosk	Semi-Open	22	Hat Shop	2
	Stand	Kiosk	Semi-Open	23	Footwear	2
	Hand Baskets	Kiosk	Semi-Open	24	Regional Vegetable and fruits	1.5
	Hand Baskets	Kiosk	Semi-Open	25	Regional Vegetable and fruits	1.5
	Hand Baskets	Kiosk	Semi-Open	26	Regional Vegetable and fruits	1.5
	Hand Baskets	Kiosk	Semi-Open	27	Regional Vegetable and fruits	1.5
	Hand Baskets	Kiosk	Semi-Open	28	Regional Vegetable and fruits	1.5
	Hand Baskets	Kiosk	Semi-Open	29	Regional Vegetable and fruits	1.5
	Hand Baskets	Kiosk	Semi-Open	30	Regional Vegetable and fruits	1.5
	Hand Baskets	Kiosk	Semi-Open	31	Regional Vegetable and fruits	1.5
	Hand Baskets	Kiosk	Semi-Open	32	Regional Vegetable and fruits	1.5
	Hand Baskets	Kiosk	Semi-Open	33	Regional Vegetable and fruits	1.5
	Hand Baskets	Kiosk	Semi-Open	34	Regional Vegetable and fruits	1.5
Hand Baskets	Kiosk	Semi-Open	35 to 64	Vegetable	3	
WashRoom	Men Toilet Block	Closed	65	-	50	
WashRoom	Women Toi.Block	Closed	66	-	50	
Node 3	Open	Open	67	Plaza For Vegetable Mart	375	
(D) Vegetable Mart						676.5
Lodge Facility	Lodging	Room	Closed	1	Residency	13
	Lodging	Room	Closed	2	Residency	25
	Lodging	Room	Closed	3	Residency	25
	Lodging	Room	Closed	4	Residency	85
	Lodging	Room	Closed	5	Residency	30
	Lodging	Room	Closed	6	Residency	25
	Lodging	Room	Closed	7	Residency	25
	Lodging	Room	Closed	8	Residency	15
	Lodging	Room	Closed	9	Residency	20
	Lodging	Room	Closed	10	Residency	15
	Lodging	Room	Closed	11	Residency	20
	Lodging	Room	Closed	12	Residency	10

bi



	Lodging	Room	Closed	13	Residency	10
	Lodging	Room	Closed	14	Residency	10
	Lodging	Room	Closed	15	Residency	10
	Lodging	Room	Closed	16	Residency	10
	Lodging	Room	Closed	17	Residency	10
	Lodging	Room	Closed	18	Residency	11
	WashRoom	Men Toilet Block	Closed	19	-	50
	WashRoom	Women Toi.Block	Closed	20	-	50
Node 4		Open	Open	21	Plaza For Lodge Facility	375
(E) Lodge Facility						844
Fish Mart	Fish Vending	Stalls	Semi-Open	1	1 Fish Shop .	3
	Fish Vending	Stalls	Semi-Open	2	2 Fish Shop .	3
	Fish Vending	Stalls	Semi-Open	3	3 Fish Shop .	3
	Fish Vending	Stalls	Semi-Open	4	4 Fish Shop .	3
	Fish Vending	Stalls	Semi-Open	5	5 Fish Shop .	3
	Fish Vending	Stalls	Semi-Open	6	6 Fish Shop .	3
	Fish Vending	Stalls	Semi-Open	7	7 Fish Shop .	3
	Fish Vending	Stalls	Semi-Open	8	8 Fish Shop .	3
	WashRoom	Men Toilet Block	Closed	9	-	50
	WashRoom	Women Toi.Block	Closed	10	-	50
Node 5		Open	Open	11	Plaza For Fish Mart	375
(F) Fish Mart						499
Mutton Mart	Mutton Vending	Shops	Closed	1	1 Mutton Shop .	5
	Mutton Vending	Shops	Closed	2	2 Mutton Shop .	5
	Mutton Vending	Shops	Closed	3	3 Mutton Shop .	5
	Mutton Vending	Shops	Closed	4	4 Mutton Shop .	5
	Mutton Vending	Shops	Closed	5	5 Mutton Shop .	5
	Mutton Vending	Shops	Closed	6	6 Mutton Shop .	5
	Mutton Vending	Shops	Closed	7	7 Mutton Shop .	5
	Mutton Vending	Shops	Closed	8	8 Mutton Shop .	5
	Mutton Vending	Shops	Closed	9	9 Mutton Shop .	5
	Mutton Vending	Shops	Closed	10	10 Mutton Shop .	5
	Mutton Vending	Shops	Closed	138	11 Mutton Shop .	5
	Mutton Vending	Shops	Closed	139	12 Mutton Shop .	5
	Mutton Vending	Shops	Closed	140	13 Mutton Shop .	5
	Mutton Vending	Shops	Closed	141	14 Mutton Shop .	5
	Mutton Vending	Shops	Closed	142	15 Mutton Shop .	5
	Mutton Vending	Shops	Closed	143	16 Mutton Shop .	5
	Mutton Vending	Shops	Closed	144	17 Mutton Shop .	5
	Mutton Vending	Shops	Closed	145	18 Mutton Shop .	5
	Mutton Vending	Shops	Closed	146	19 Mutton Shop .	5
	Mutton Vending	Shops	Closed	147	20 Mutton Shop .	5
	WashRoom	Men Toilet Block	Closed	148	-	50
WashRoom	Women Toi.Block	Closed	149	-	50	
Node 6		Open	Open		Plaza For Mutton Mart	375
(G) Mutton Mart						575
	Hawker Plaza	Multipurpose	Semi-Open	1	Common Market Place	600
	Plaza	Multipurpose	Open	2	Common Market Place	800
	Admin	Office	Closed	3	Administration Area	100
	Management	Office	Closed	4	Collections And Storage Management	100
	Maintenance	Office	Closed	5	Maintenance And Operation	100
	Emergency	Office	Closed	6	First Aid Facility	50
Total Area						5401.5



Bibliography

