

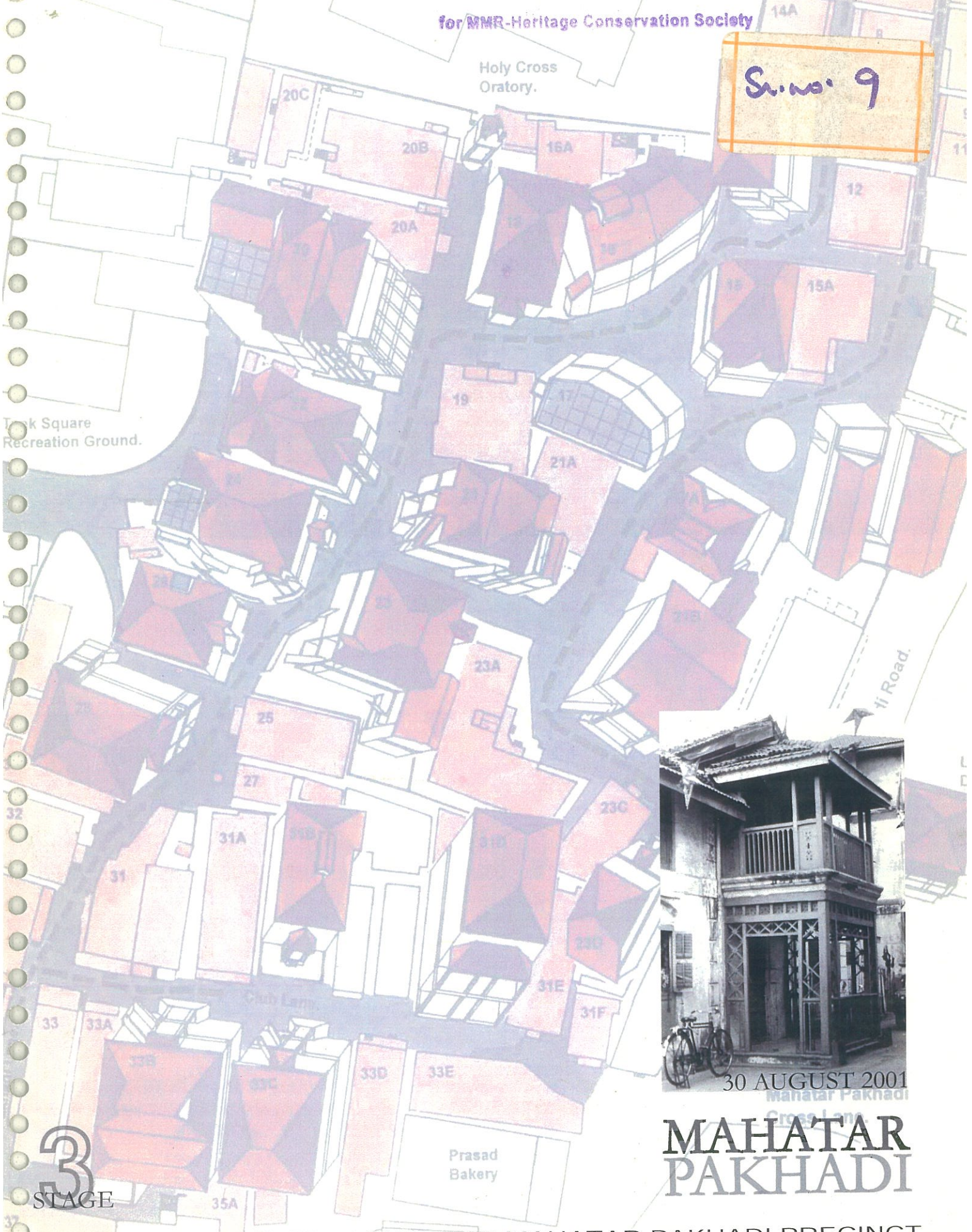
for MMR-Heritage Conservation Society

Sr. no. 9

Trunk Square Recreation Ground.

Holy Cross Oratory.

Yi Road.



30 AUGUST 2001

MAHATAR PAKHADI

3 STAGE

CONSERVATION GUIDELINES FOR MAHATAR PAKHADI PRECINCT

MIS-2656

CONSERVATION GUIDELINES
FOR MAHATAR PAKHADI PRECINCT, MUMBAI

STUDY CONDUCTED BY PANKAJ JOSHI
FOR M M R - HERITAGE CONSERVATION SOCIETY

3rd
STAGE
REPORT

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1

ORIGIN
AND ITS GROWTH

Introduction

The report is laid out as follows:

Information and Introduction in Chapter One

Objectives and Stages of work are stated in Chapter Two

Methodology is established in the Third Chapter

Documentation, Analysis and Derivations are presented in the fourth chapter.

The Final Chapter discusses and presents the architectural and development control guidelines

The First Chapters describe the origin of Mahatar Pakhadi, its growth and development in Mumbai City

The Third highlights the process and the working structure of the research followed by the Fourth Chapter examining the statement and compilation of the architectural documentation and researched data.

Architectural and Development Control guidelines specific to Mahatar Pakhadi Precinct are presented in the Final Chapter.

In order to make the deliberations more lucid, it was essential to augment the Analysis and Guidelines to the surveys undertaken in the earlier stage of the study (sections repeated have been indicated with asterisk in the contents page).

Here I wish particularly to mention and express thanks to Gauri Pandit, Imtiaz Lokhandwala, Sachin Narkar, Anand Achari and Atul Parulekar for their assistance and Members of Mahatar Pakhadi Residents Welfare Association for their support.

Pankaj Joshi
Conservation Architect

Chapter 1.0 Origin and Growth

1.1 Historic Context

1.1.1 Currently Bombay dominates the economic and urban scene in the state of Maharashtra in western India and is the second largest urban agglomeration of India. Bombay eminence in the regional scene is closely linked with its history.

1.1.2 In the mid seventeenth century Bombay island lying on the Konkan coast of Western India was just one of the several coastal ports. But within a half century it became one of the trading stations of the British East India Company on the West Coast of India (1650-1715).

1.1.3 The phase to follow brought about a major growth in its trading activities, transforming this trading station to a major western seaport (1705-1815).

1.1.4 The third phase (1815-1850) changed this chief western sea port to a political power centre in which the British political power expanded far beyond the political boundaries of the tiny island of Bombay to most of the Western India which was thereafter organised into a province called Bombay Presidency.

1.1.5 This new acquired role of administrative head quarters brought about a significant change in its trading activities with its economic base being dependent on the direct access of cotton growing lands of the country and shortest access to the west via the Suez canal in the phase to follow.

1.1.6 The fourth phase is the period from 1851-1900 in which Bombay entered the Industrial Era becoming the cotton mill centre of India and an important node in the new railway network*3.

*3 (Kosambi Meera 1986, Bombay in Transition - Growth and Social-Ecology of a colonial city).

1.1.7 The first phase forms the transitory period of Bombay's transformation from a pre-literate/primitive town to a pre-industrial town. The second and third phase are the pre-industrial phase of architecture of Bombay.

1.1.8 Brief historical account of the growth process with changes in spatial patterns and urban functions of Bombay (City context) and Mazagaon (Area context) is presented in section I of this study.

1.2. History And Growth of Bombay (City Context) and Mazagaon (Area Context)

This section intends to form the historical base for the study. To make the discussions and interrogation more lucid this section has been presented in three sub-sections.

Sub-section 1.3 states in chronological order of origin, growth and important events in the history of Mazagaon (area context) and Mahatar Pakhadi (locality context) referring the land administration records and other available sources.

Sub-section 1.4 interrogates the previous discussions and descriptions, with a view to interpret the transformations in the physical pattern of Mahatar Pakhadi locality.

1.3 References to Mahatar Pakhadi (Study Area) and Mazagaon Division in *21 Administration Records and other Records and other in chronological order

1.3.1 1534 - 1689

1534 - King of Portugal distributed the Bombay Estates on tenures, Island of Mazagaon for 8500 foedeas (Rs. 178/-). Mazagaon was known for its salt pan and fishing village.

1547 - Island of Mazagaon granted by Viceroy of India Dom Joao De Castro to Antonio Pessoa for annual quit rent of 195 paradoas in gold and 3 tangas of silver (75/-).

1548 - 1571 Nossa Senhora De Gloria Church Built by Antonio Pessoa in Mazagaon.

1550 - Bombay composed of seven villages subordinate to two cacabes (Kasba) or chief stations at which customs duty was levied. Villages were Mahim, Parel, Varella (Vadala), Syva (Sion) under the kasba of Mahim and Mazagaon.

1572 - By royal patent of King of Portugal, Mazagaon Island was granted in perpetuity to De Souza E Lima family (Lionel De Souza and his descendants) with the clause that the estate was not to be sold, exchanged or alienated without permission of King of Portugal or the license of his Viceroy of India.

1632 - Mazagaon Estate was descended for Lionel De Souza's widow Donna Anna Pessoa to their eldest son Ruy De Souza.

1637 - Mazagaon Estate handed over to Ruy De Souza's son

Bernadino De Tavora with oart Charney and Varli forming part of Mazagaon Estate.

1660 - Estates passed on to Bernadino De Tavora's son Christovao De Souza De Tavora.

1665 - Bombay Island was taken into possession by Sir Humphrey Cooke. In pursuance of their original policy the Portuguese not only declined to hand over Salsette, but they also declined to deliver up Mazagaon, Parel, Varli, Sion, Dharavi and Vadala, which had clearly been considered a part of Bombay in the original treaty between the monarchies of Portugal and England, alleging that these islands were dependencies of the more important islands of Mahim and not of Bombay.

1671 - Property descended to Alvaro Pirez De Tavora.

1674 - Sambal the Siddi anchored at Mazagaon during monsoon causing a lot of annoyance to the people.

1673 - People of Mazagaon returned after fleeing at the approach of Dutch Fleet.
*Fryers Account of Bombay.

1678 - 1682 Siddis use Mazagaon as their base to fight the Marathas.

1683 - Siddi and Mughal fleet return to Mazagaon.

1689 - Siddi Yakut plunders Mahim and Mazagaon on orders of Aurangzeb.

1.3.2 1726 - 1810

1726 - The village of Varli which formed part of Mazagaon Estate had been sold to Antonio Da Silva.

1727 - Proprietress of Manor of Mazagaon Donna Senhora De Souza De Tavora, as Alvaro Pirez her son refuses to return from Goa.

1731 - Donna Senhora handed over the Estate to her Grandson Martinho De Silveira De Menezes. Antonio De Silva and Antonio De Semos purchased the estate.

1749 - Due to gradual disintegration a part of the property was bequeathed to the East India Company.

1758 - The Estates was acquired by collector of Bombay and later auctioned off to Mr. Richard Nowland and Mr. James Dalrymple for Rs. 2900/- per year on a 9 year lease.

1767 - On expiry of lease the old manor of Mazagaon was divided into small lots on 14 years lease as follows:
1st lot - Nowghar including GhorapDeo to Framji Hirji Mody for Rs. 845/-. 2nd lot - Mattarwadi including Bhoylem (Byculla) except the mango tree generally known by the name of the governor's mango tree and the ground let to Mr. Andrew Ramsay, and one muda of batty ground allowed to the Mahatara *22 for his pay to Dadabhoy Manekji and Dhunji Poonja for Rs. 410/-. 3rd lot - Koliwadi Surji to Raghushet Goldsmith, for Rs.340/-. 4th lot - Bhandarwadi to Manecji Limji and Bhimji Ramshet for Rs.500/-. 5th lot - Mazagaon - Koliwada to Raghushet Goldsmith, for Rs.640/-. 6th lot - Charney to Mungaji Vissaji for Rs. 715/-.

*22 The name Mahatar Pakhadi might be because of possession of land by the Mahatara which was later converted for building activity in 1810.

*22 Mahatara's or vereodores were custom officers appointed by Collector to prevent fraud, alienation or destruction of East India Company's land. They also functioned as valuers (for leasing of land and property), arbitrators (for sorting out property arguments), inspection officers and surveyors of East India Company.

1769 - East India Company decided to build a new dock at Mazagaon for use of ships exceeding 300 tons burden. In the next two decades the increase in shipping activity brought about a major influx of people from Salsette and Goa to Mazagaon*23.

*23 Elsie Baptista 1967, East Indians

1781 - Lease expired and were relet for further term of 14 years. 1st lot of Nowghur Rs 1200/- and 2nd lot of Mattarwadi Rs.900/- to Mr. A.Nesbit *24.

*24 These two lots included the present day Mahatar Pakhadi. Markets were built in Mazagaon and Bombay proper to complement the docks.

1782 - Due to Mr. Nesbit relinquishing the lots to the Government due to questions arising regarding land use. The lots were relet for a term of 14 years.

1788 - Powder works were established at Mazagaon.

1788 - Due to non-payment of rent the lot Mattarwadi was resumed by the Government and after appropriation of a part of it for the powder works it was lent out to Mr. Nesbit on 21 years renewable lease.

1796 - The old leases expired and fresh ones were issued for 14 years terms, to new farmers.

1810 - Lands placed under charges of the Collector. Some of which was portioned out for building sites and a tax of 11 Reas per square yard, was levied on them.

*24 This must have been the start of phase of conversion of farmland and orchards into land for building activity in Mahatar Pakhadi.

1.3.3 1824 - 1915

1824 - First Survey of Mazagaon carried out by Capt. Dickinson.

1864 - Government prescribed the limits of Bombay and subdivided it into Areas.

Area No. 8 - Mazagaon Mount

*25 (Annual report of Municipal Commissioner 1865).

1865-1873 Great reclamation's carried out subsequent to the Cotton Mania and General commercial delirium because of American Civil War. Companies sprang up into existence which together with Government were responsible for Mazagaon, Tank Bandar and Frere Bandar reclamation. This brought about an increase of people and building activity in Mazagaon.

1870 - Excluding the terminus the Railways possessed 9 stations 1) Masjid, 2) Mazagaon, 3) Byculla, 4) Chinchpugli, 5) Curry Road, 6) Parel, 7) Dadar, 8) Matunga and 9) Sion.

1880-1884 Bhandarwada service reservoir commissioned with six filter beds to give high pressure filtered water to the city.

1893 - Serious Hindu Muslim riots in Parel, Kamathipura, Grant Road Chinchpugli, and Mazagaon.

1896 - Outbreak of Plague, huge exodus of people out of Mazagaon.

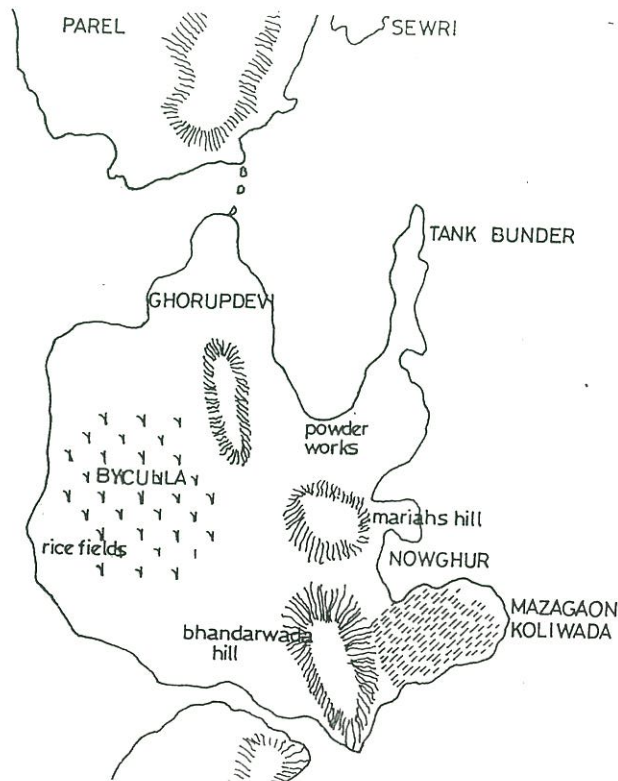
1907 - Mahatar Pakhadi Tank filled up as it had become redundant due to proper functioning of Bhandarwada reservoir.

1909 - Major reclamation scheme covering Mazagaon and Sewri initiated by Port Trust.

1915 - Port Trust Railways introduced to separate passengers and goods traffic and increase its efficacy.

*26 Mahatar Pakhadi lands appropriated for Port Trust Railways

1.4. Transformation in the Physical Pattern of Mahatar Pakhadi and its Environs



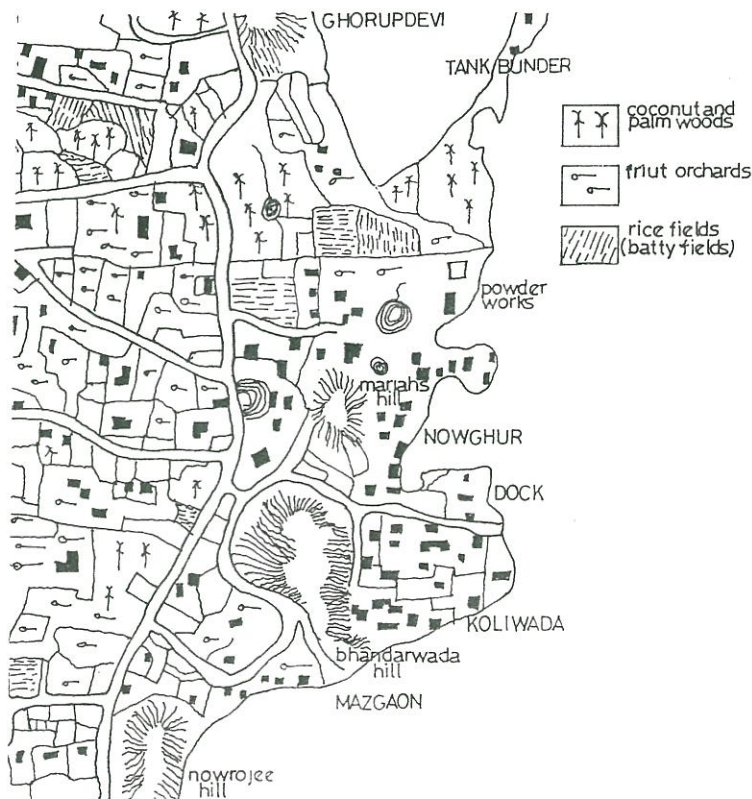
Drg. 1. Mazagaon & Its Environs in 1670 (After Murphy's Map 1844)
Source- Joshi (1995)

1.4.1 Pre 1650 (Ref. Drg. 1)

- Mazagaon Koliwada (original fishing village) present.
- Mahatar Pakhadi area consisting of rice fields and fruit orchards.
- Sparse buildings, mostly huts of Bhandaris, Agris, Kunbis and Kolis.
- Dock present with small trading activity.
- Mazagaon, a separate island, one of the seven original islands.

1.4.2 1812 (Ref. Drg. 2)

- Koliwada expands northwards to Nowghur.
- Fruit orchards in Mahatar Pakhadi developed around Mahatar Pakhadi Tank.
- Few houses indicating commencement of building activity.
- New dock and market in Mazagaon with growth in commercial activity.
- Major reclamation's binding the Mazagaon island to Bombay mainland.
- Mahatar Pakhadi plot appropriated for powder works.
- Emergence of a settlement pattern observed.



Drg. 2. Mazagaon & Its Environs in 1812 (After Capt Dickinson's Survey Map)
Source- Joshi (1995)



Drg. 3 Mazagaon & Its Environs in 1881 (After Col. Laughton's Survey Map)

Source- Joshi (1995)

1.4.3 1872 (Ref. Drg. 3)

- Koliwada and Nowghur showing dense development.
- Mahatar Pakhadi, with moderate number of houses and a recognizable settlement pattern.
- Mahatar Pakhadi road and Cross lane appearing.
- Mazagaon station in central railway network.
- Major reclamation in Mazagaon in north of Mahatar Pakhadi.
- Peninsular and Oriental Company converts old Mazagaon dock to largest and perfect timber slip leading to increase of commercial activity with increase in migration of people and building activity in Mahatar Pakhadi.

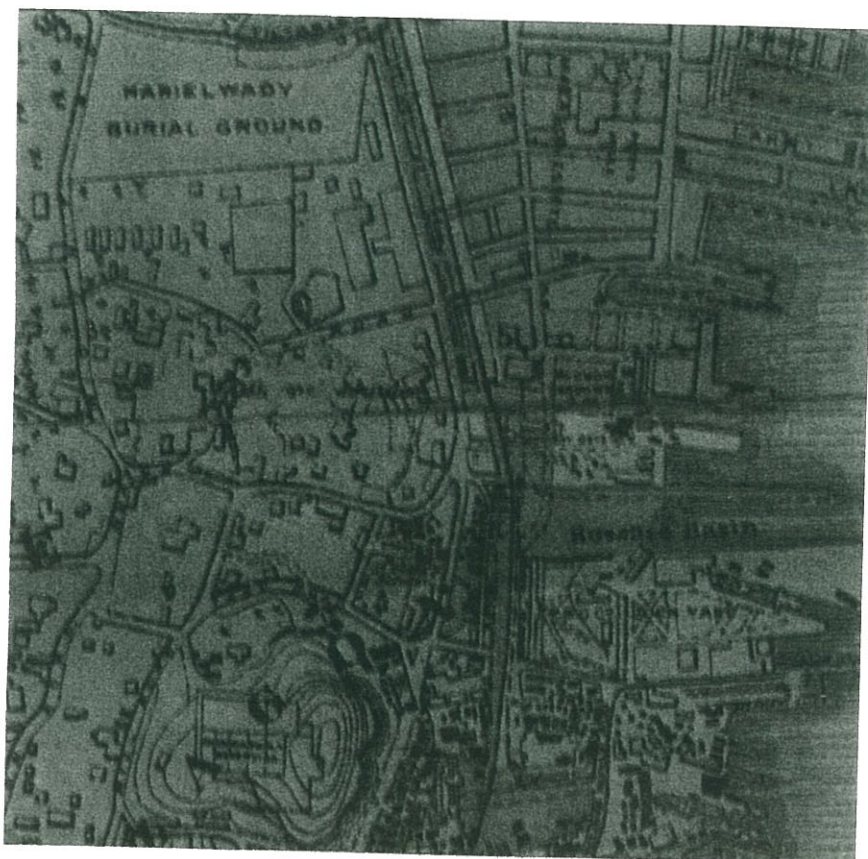
1.4.4 1906 (Ref. Drg. 4)

- Mahatar Pakhadi showing a dense settlement pattern.
- Mahatar Pakhadi road divides the Mahatar Pakhadi area, curtailing the growth of the settlement.
- Fringe development increases due to increase in industrial activity.
- Mahatar Pakhadi Tank filled up as it becomes redundant due to functioning of Bhandarwada reservoir.
- Outbreak of plague, oratory built as thanksgiving of its end.
- Proposed Harbour railway to cut through Mahatar Pakhadi area.



Drg. 4 Mazagaon & Its Environs in 1906 (After Col. Laughton's Survey Map)

Source- Joshi (1995)



Drg. 5 Mazagaon & Its Environs in 1915 (After Col. Laughton's Survey Map)

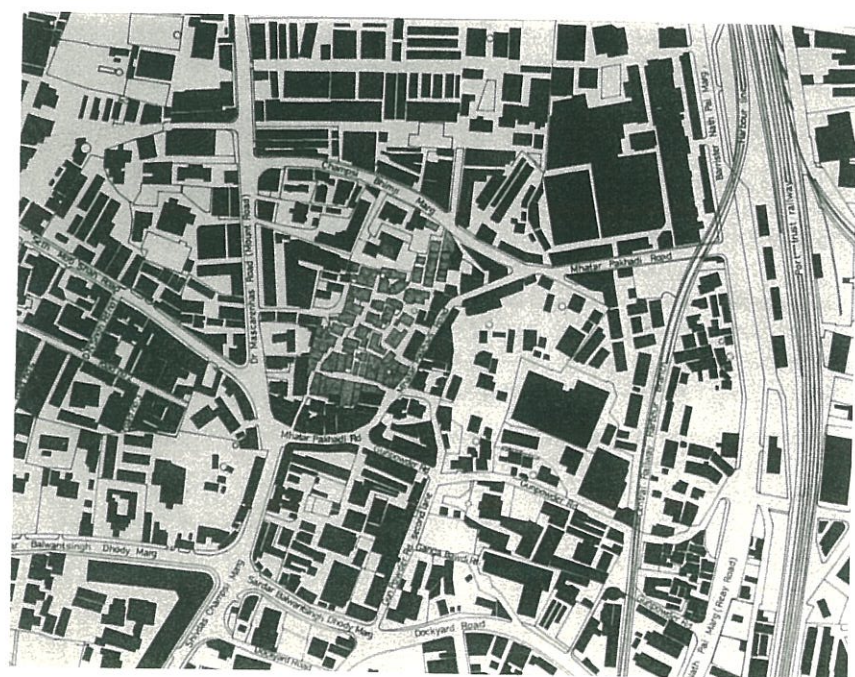
Source- Joshi (1995)

1.4.5 1915 (Ref. Drg. 5)

- Original settlement restricted to the triangular plot.
- Fringe development rapidly increasing due to cotton mania.
- Tank square (Mahatar Pakhadi Tank reclamation) converted into a garden.
- Mahatar Pakhadi area appropriated to accommodate Port Trust Railway.
- Increase in industrial warehouses and godowns.

1.4.6 1981 (Ref. Drg. 6)

- Fringe development encroaching on to original Mahatar Pakhadi settlement.
- Disharmonious development on Tank square garden (municipal dispensary and gymnasium).
- Harbour expanded northwards and highly developed.
- East island freeway for goods and Harbour line for passengers initiated.
- Major industrial growth with huge warehouses and godowns of shipping companies.



Drg. 6 Mazagaon & Its Environs in 1991 (After C.T.S sheets)

Source- Joshi (1995)

2

AIMS AND
OBJECTIVES

2 Objectives and Stages of Work

2.1 The main objectives of the project are as under

2.1.1 Update Survey, Research and Documentation of Mahatar Pakhadi Precinct.

2.1.2 Interpret and analyse the data vis a vis recommendation concerning the safeguarding and contemporary role of historic (pre industrial) areas

2.1.3 Preparation of guidelines to regulate urban transformation in conjunction with the existing architectural and urban fabric

2.2 Stages of Work

2.2.1 Stage One intended to update the research materials, complete the base drawings and undertake extensive conservation and buildings surveys of the fabric. This stage also included a comprehensive photo-documentation of the area of study.

2.2.2 Second stage intends to update architectural documentation of selected representative examples and prepare format to initiate framing of guidelines through people's participation.

2.2.3 Interpretation and analysis of the collected data and formulation of architectural guidelines is accomplished in this stage.

Targets set for this project have been achieved.

3

METHODOLOGY

3 Methodology

3.1 The project work shall be based on the already completed documentation and research in 'Mahatar Pakhadi, a pre industrial vernacular settlement' (1994), an unpublished dissertation.

3.2 As the earlier study was conducted in 1993 to 1995 it would be necessary to update the information. Also there is a need to convert and compile the existing data from an academic dissertation format to conservation research format.

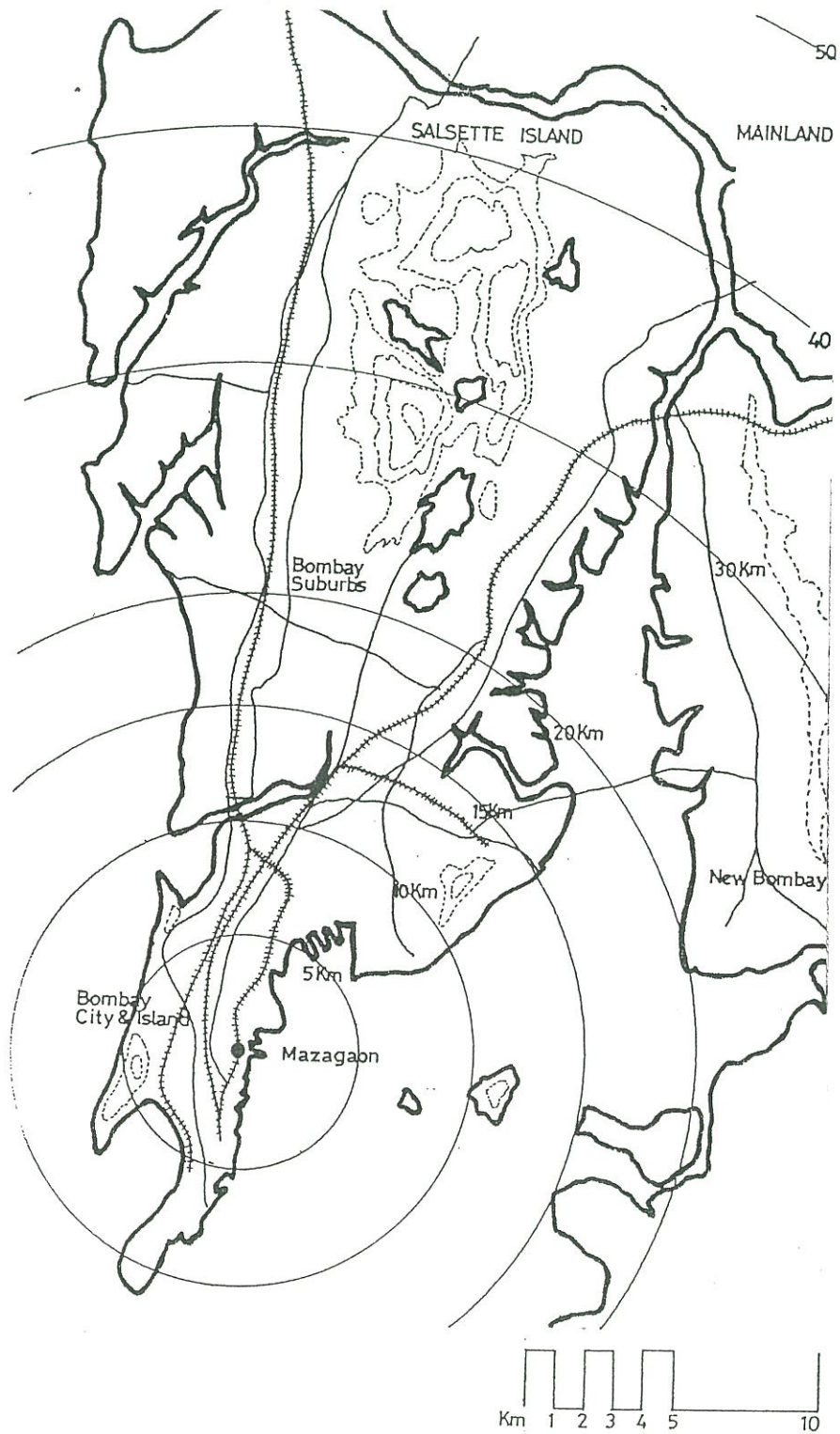
3.3 The updated information shall be analysed to formulate draft base guidelines.

3.4 Draft guidelines would be circulated to the residents and followed up with meetings and discussions with representatives of the Mahatar Pakhadi Residents Association and Mhatarpacady Holy Cross Oratory for conception of appropriate guidelines.

3.5 Presentation of proposed guidelines in data and drawing form to the representatives of resident groups of Mahatar Pakhadi and recording their opinion in the form of survey sheets.

3.6. Formulation and compilation of final guidelines based on recommendations of the residents.

Note that these activities will achieve the proposed aim of collaboration with the residents of Mahatar Pakhadi, ensuring a participatory approach to construction of a consensual policy guide.



Drg. 7 Location of Mazagaon
Source- Joshi (1995)



TITLE
LOCATION OF
MAZAGAON

CONSERVATION GUIDELINES OF
MAHATAR PAKHADI PRECINCT MAZAGAON, MUMBAI
FOR MMR - HERITAGE CONSERVATION SOCIETY

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4

STUDY AND
ANALYSIS OF
PRESENT BUILT
ENVIRONMENT

4 Study and Analysis of Present Built Environment

4.1 Segment Locality Level (Ref. Drg. 8 & 9)

a Mahatar Pakhadi the area under study which lies to the north-west of the Mazgaon Division is bounded by Dr. Mascarenhas Road (Mount Road), and Champsu Bhimji Marg, to the west and north respectively and Mahatar Pakhadi Road to the east and south side.

b The peripheral roads, are busy with extensive commercial activity and vehicular as well as pedestrian traffic activity. Communal facility in the vicinity includes many private and municipal schools, post office, health facilities, retail shops and market and religious institution. Light services industries also exists in the locality. Other facilities in the vicinity are burial grounds, hotels, clubs, banks, communication centres, police station, bus station, hospital and eating places.

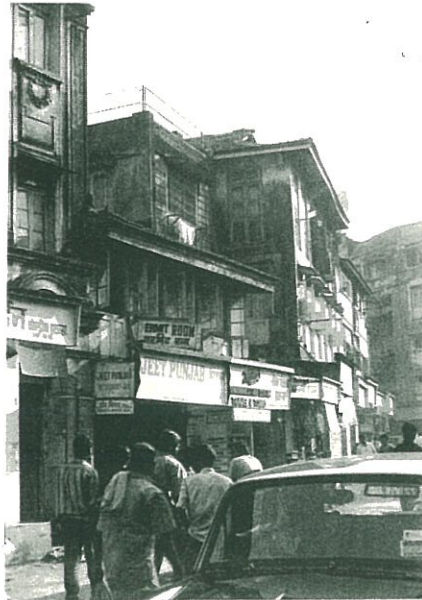
- * Tank Square Nursery School
- * St. Isabel School
- * Tank Square Municipal Dispensary
- * Exide Battery Factory and card board manufacturing unit.



View of Mount Road
Source-PJ (1995)



View of Champsu Bhimji Marg
Source-PJ (1995)



View of Mahatar Pakhadi Road
Source-PJ (1995)



Dr. 8 Mazagaon Division Locality Area Plan
Source- Joshi (1995)



SCALE



TITLE
MAZAGAON LOCALITY
AREA PLAN

CONSERVATION GUIDELINES OF
MAHATAR PAKHADI PRECINCT MAZAGAON, MUMBAI
FOR MMR - HERITAGE CONSERVATION SOCIETY

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Drg. 9 Mahatar Pakhadi – Locality Segment Plan
 Source- Joshi (1995)



TITLE
 LOCALITY
 SEGMENT PLAN

CONSERVATION GUIDELINES OF
 MAHATAR PAKHADI PRECINCT MAZAGAON, MUMBAI
 FOR MMR - HERITAGE CONSERVATION SOCIETY

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 APR 00



North –East view from Mahatar Pakhadi
Source- Joshi (1995)



Mahatar Pakhadi Club
Source- Joshi (1995)



Mahatar Pakhadi Road to the east
Source- Joshi (1995)

4.1.1 Delineation of the Precinct Area (Ref. Drg. 10)

a The enclave encompassed in the detailed study has been delineated to the area, which falls in the jurisdiction of Matar Pacady resident welfare association (22, Matar Pacady Oart, Mazagaon, Bombay-400010.)

b The dwelling units in this area besides being consistent in terms of architectural and urban design qualities are integral to the image of a residential enclave of pre industrial phase.


c The area hereinafter referred to as "Lot area", has been restricted to the core of the triangular part of Mahatar Pakhadi as the fringes and north-east corner, has totally different character belonging to a later phase of architecture or changed completely from its original character. The area designated for the detailed study covers approximately 1.53 hectares.

d Study Area Data



No. of dwelling	58
Floor area (private)	14944 sq.m. (88.68%)
Floor area (semi private)	1908 sq.m. (11.32%)
Floor area (total)	16852 sq.m. (100.00%)
Open area	7659 sq.m. (50.13%)
Lot/plinth coverage	7620 sq.m. (49.87%)
Lot area (total)	15279 sq.m. (100.00%)
Floor area / Lot area = F.S.I.	1.10

No. of people	510
No. of households (incl. clubs)	157
(average no. of people / household)	3.25
Density (no. of people/acre)	133.52
(dwelling /acre)	15.18
(average floor area/person)	33.04 sq.m.
(no. of household/acre)	41.10



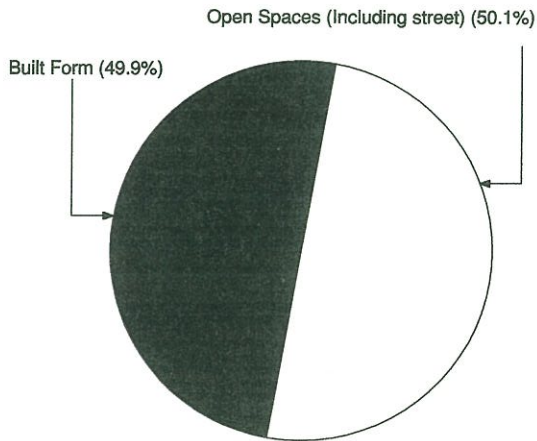
Delineated Study Area 1.53 Hectares 

Dr. 10. Precinct Delineation Plan
Source- Joshi (1995)

	<p>SCALE</p> 	<p>TITLE</p> <p>PRECINCT <i>CRR</i> DELINEATION PLAN</p>	<p>CONSERVATION GUIDELINES OF MAHATAR PAKHADI PRECINCT MAZAGAON, MUMBAI FOR MMR - HERITAGE CONSERVATION SOCIETY</p>	<p>PANKAJ JOSHI CONSERVATION ARCHITECT 2/204, YASHODHAN APT, FOUR BUNGALOWS ANDHERI (WEST), MUMBAI - 400 053 TEL: 8290625, 8299874 (R) FAX 8260557 email: pjkarch@bom5.vsnl.net.in</p>	<p>05 APR 00</p>
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4.1 2 Open Space and Built Form Pattern (Ref. Drg. 11 & 12)

a Fig 11 & 12 represents the contrast between the built up area and the open space around including the roads. The pattern, which emerges, makes evident the organic nature of the settlement with the streets forming the axis along which the built forms are aligned.

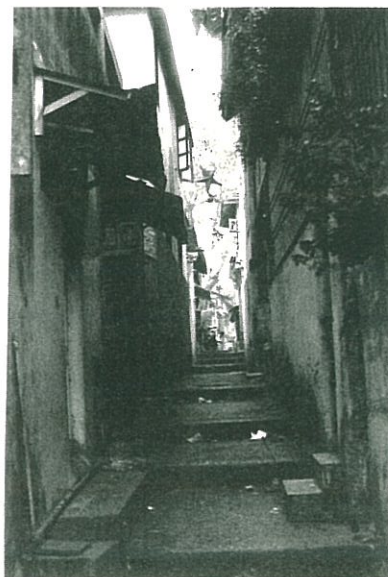


BUILT FORM/OPEN SPACE RATIO

b Open spaces are formed at the intersection of streets due to staggering of built forms and clearing near source of water. They are defined with a strong degree of enclosure enhancing the sense of location and privacy.

c The streets are linear like a corridor symbolising and reinforcing movement's not just physical but visual as well. The entrances to the precinct are well defined by tilting and staggering of buildings.

d Contrast in built form is seen with the old pattern being dense and spontaneous while the new development with their building set in distinct compounds with their planned set backs. The ratio of the built form to the open space (inclusive of the streets) is nearly 1:1 showing greater lot/plinth coverage than planned development in north-west part. But unlike the rigid new development, the spontaneous development of Mahatar Pakhadi with its informality and flexibility has permitted changes and growth in its urban fabric.



Left Open space near well
Center Alley to the north
Right Open space near well
Source- Joshi (1995)



Drg. 11. Open Space and Built Form Pattern 1
Source- Joshi (1995)



Drg. 12. Open Space and Built Form Pattern 2
Source- Joshi (1995)

	<p>SCALE</p>	<p>TITLE FIGURE GROUND PLAN</p>	<p>CONSERVATION GUIDELINES OF MAHATAR PAKHADI PRECINCT MAZAGAON, MUMBAI FOR MMR - HERITAGE CONSERVATION SOCIETY</p>	<p>PANKAJ JOSHI CONSERVATION ARCHITECT 2204, YASHODHAN APT, FOUR BUNGALOWS ANDHERI (WEST), MUMBAI - 400 053 TEL : 8230625, 6359674 (R) FAX 8260557 email plarch@bcm5.vsnl.net.in</p>	<p>05 APR 00</p>
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4.1 3 Traffic Pattern ((Ref. Drg. 13)

a The road network comprises of peripheral road forming a loop around the Mahatar Pakhadi enclave and is the link to the other parts of the city. From these peripheral road begin access roads into the enclave, which are interconnected terminating into small parking spaces. These smaller roads have a number of pedestrian access to the peripheral roads.

b The physical form of the street network in Mahatar Pakhadi, its narrow width, staggering built forms works effectively to control speed of vehicle. As the lanes had spontaneously evolved from pedestrian movement they till function effectively as pedestrian spines.

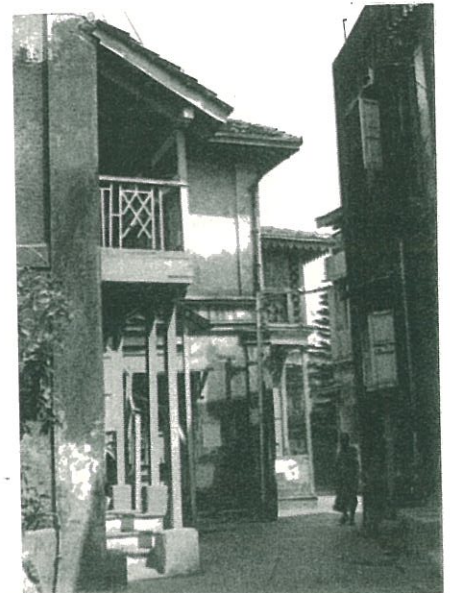
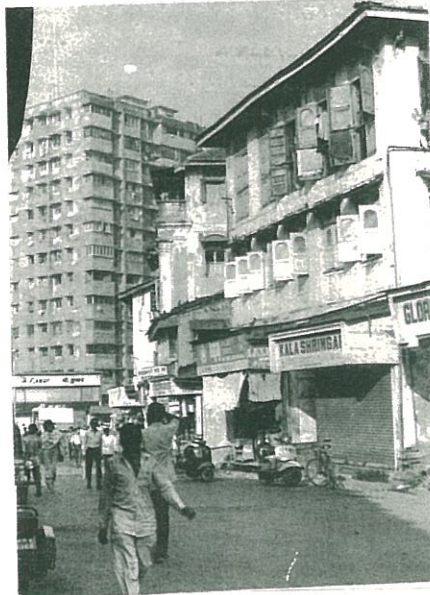
c Clarification of Survey

Moderate traffic: 400 - 100 vehicles/hour

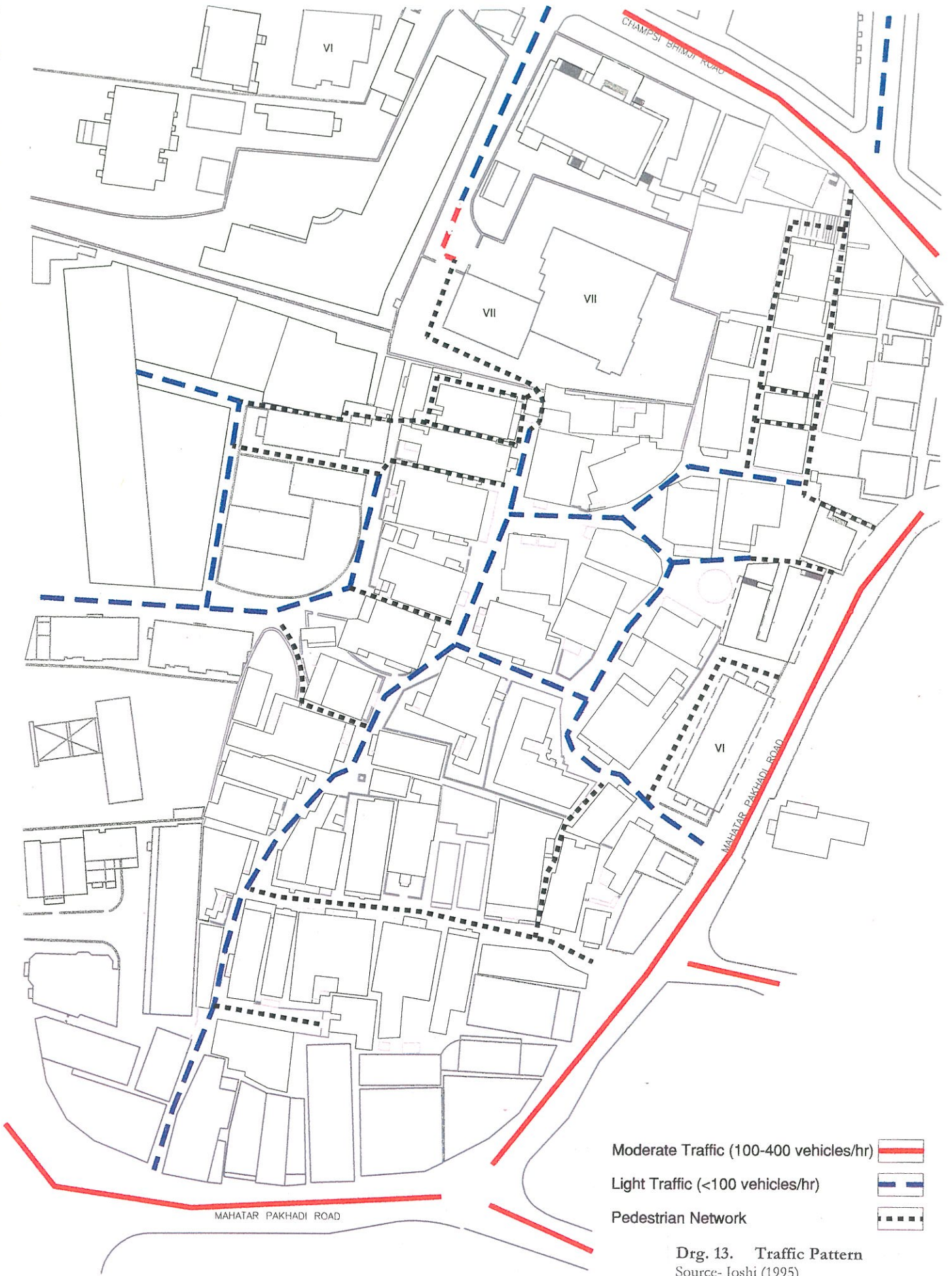
Light traffic: less than 100 vehicles/hour




Mode of travel

walking	- 55.0%
use of public transport bus	- 22.5%
use of public transport railway	- 17.5%
use of private vehicle	- 05.0%

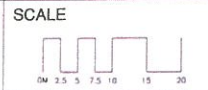


Left Mahatar Pakhadi Road
Center Mahatar Pakhadi Road with moderate traffic
Right Internal road with light traffic
Source- Joshi (1995)



- Moderate Traffic (100-400 vehicles/hr) 
- Light Traffic (<100 vehicles/hr) 
- Pedestrian Network 

Drg. 13. Traffic Pattern
Source- Joshi (1995)

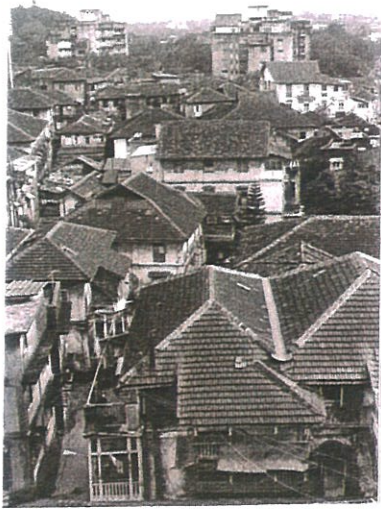


TITLE
TRAFFIC PATTERN

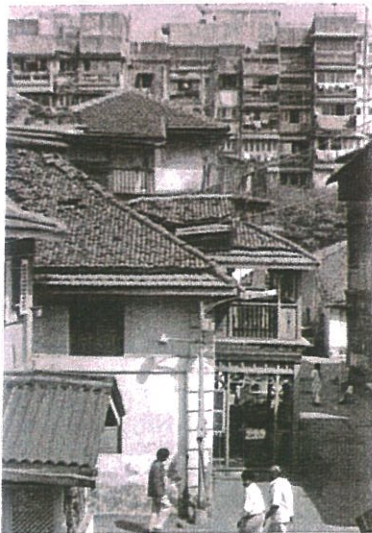
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4.1.4 Topography of Buildings (Ref. Drg. 14)



Aerial view of the main spine
Source- Joshi (1995)



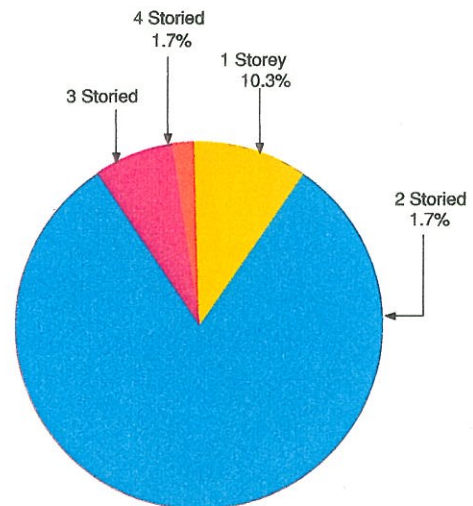
Aerial view of the main spine
Source- Joshi (1995)

a Fig 14 shows height of buildings in Mahatar Pakhadi precinct making apparent the general topography of the area. The study area consists mostly of ground and one upper storied building except for a few three-storied building.

b The fringes enveloping the study area are composed of three and four storied buildings with very few incongruous new developments of five or more storied buildings.

c Mahatar Pakhadi precinct presents a homogeneous pattern of low rise high density building with a sense of scale and proportion which promotes interaction between user and his built environment.

1 storey -	06 nos. i.e.	10.3%
2 storied -	47 nos. i.e.	81.1%
3 storied -	04 nos. i.e.	06.9%
4 storied -	01 no i.e.	01.7%



TOPOGRAPHY OF BUILDINGS



Aerial view to the north
Source- Joshi (1995)



Drg. 14. Topography of Buildings
Source- Joshi (1995)



SCALE



TITLE
TOPOGRAPHY
OF BUILDINGS

CONSERVATION GUIDELINES OF
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4.1.5 Building Use (Ref. Drg. 15)

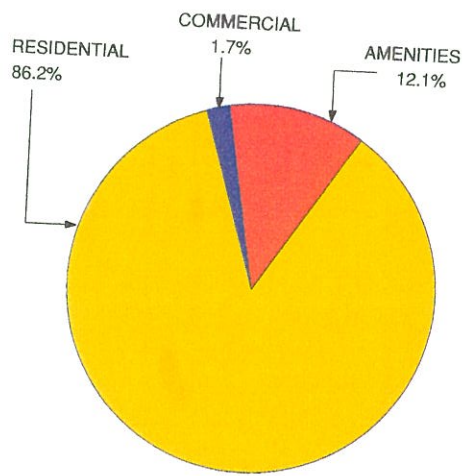
a Fig 15 presents the building use pattern of Mahatar Pakhadi precinct which is predominantly residential.

b The club streets linking Mahatar Pakhadi lane to Mahatar Pakhadi road hold the clubs, which are subsidised boarding lodges for single working migrant.

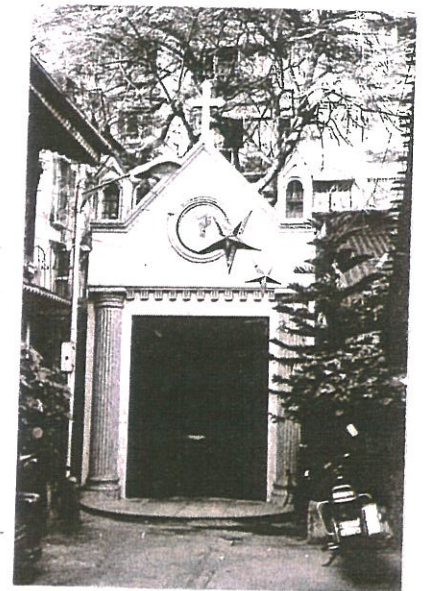
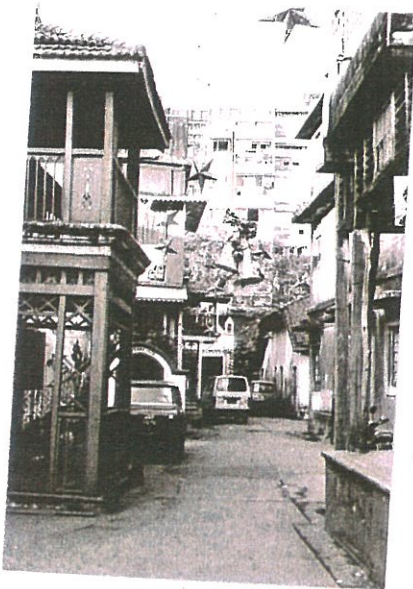
c The fringes of Mahatar Pakhadi are composed of residential with shop line buildings, users and some commercial establishments.

d Building use distribution in area of study

Residential -	86.2%
Amenities (clubs) -	12.1%
Commercial -	01.7%



USE OF BUILDINGS



Left Residential buildings on the main spine

Center Clubs on clubs street

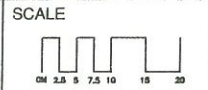
Right Holly cross oratory

Source- Joshi (1995)



- Residential
- Residential with Shopline
- Commercial
- Amenities
- C club
- C-GF club on ground floor
- C-FF club on first floor
- Godown/Warehouse
- Industry/Industrial Estate
- Pumping Station
- Chapel
- Temple
- Cross

Drg. 15. Use of Buildings
Source- Joshi (1995)



TITLE
BUILDING USE

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4.1 6 Age of Building (Ref. Drg. 16)

a This survey is based on dates confirming to the plaques on buildings, discussion with the inhabitants and information in the earlier survey plans.

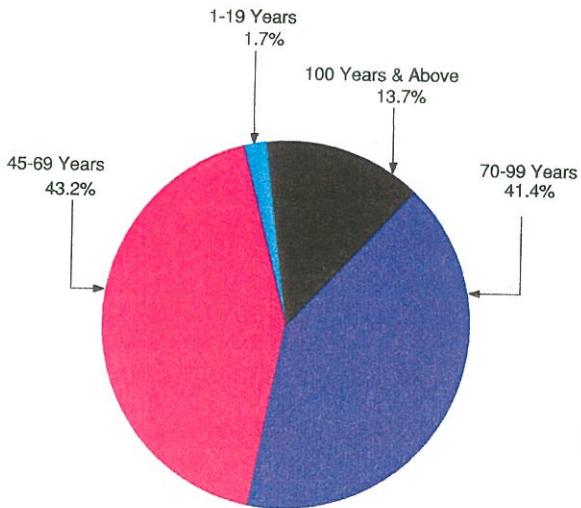
b The fig 16 shows that buildings alongside Mahatar Pakhadi lane form the older core while that towards the fringes are later developments.

c Composition of the age of buildings in Mahatar Pakhadi:

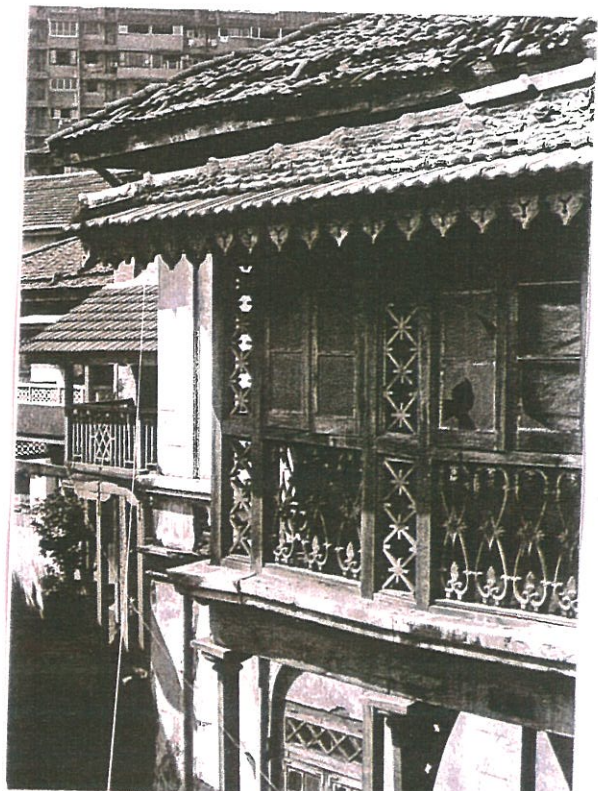
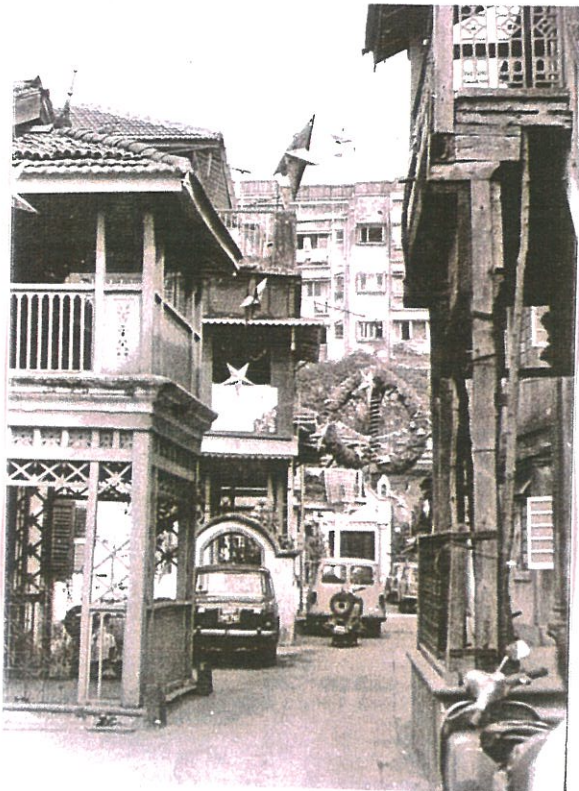
100 years or more	08 nos. i.e.	13.7%
75 years - 100 years	24 nos. i.e.	41.4%
50 years - 75 years	25 nos. i.e.	43.2%
01year - 25 years	01 nos. i.e.	01.7%

d Age of buildings on the fringe range from 25 years to 75 years. Recent development is seen in the northern and western parts of the enclave (Monarch and New Militia apartments respectively).

e With a considerable pressure of transformation on the core but so far Mahatar Pakhadi has sustained its older expression.



AGE OF BUILDINGS



Left Older core on main spine

Right Detail of older core

Source- Joshi (1995)



- 1-25 Years
- 25-50 Years
- 50-75 Years
- 75-100 Years
- 100 Years & Above

Drg. 16. Age of Buildings
Source- Joshi (1995)

4.1.7 Condition of Buildings (Ref. Drg. 17)

a In this survey building have been classified on their structural stability and requirement of remedial measures.

b Of the total of 58 structures in the study zone following classifications have been made.

04 buildings (6.9%) are in poor condition requiring major repairs

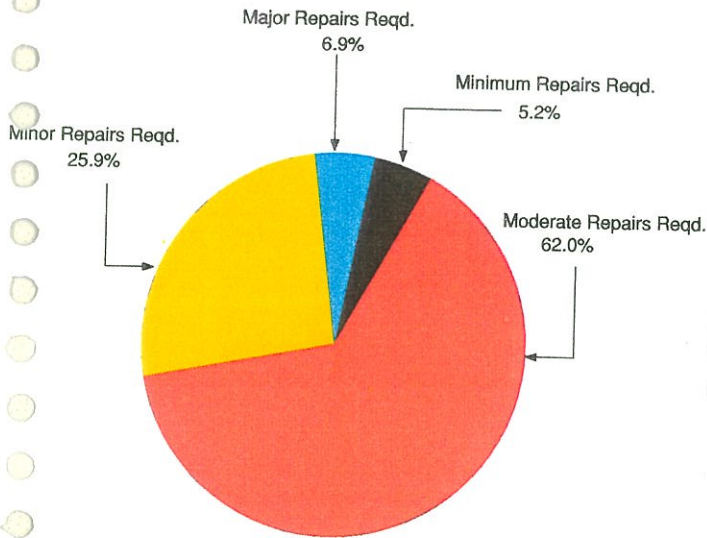
376 buildings (62.0%) are in fair condition requiring moderate repairs

15 buildings (25.9%) are in satisfactory condition requiring minor repairs

03 buildings (5.2%) are in good condition requiring no or minimum repairs.

c The core of Mahatar Pakhadi is the oldest in age but condition is quite satisfactory with need of some maintenance. Rest of the building in the locality requires moderate structural repair except for a few which are in dilapidated state requiring major structural changes.

d The fringes with its post 1920 development are predominantly in fair condition with a few buildings in the north-east part of the enclave requiring major repairs.



CONDITION OF BUILDINGS



Left Lions Den-building in satisfactory condition
Center Gods Gift-building in fair condition.
Right Building in poor condition
Source- Joshi (1995)



SCALE



TITLE
CONDITION
OF BUILDINGS

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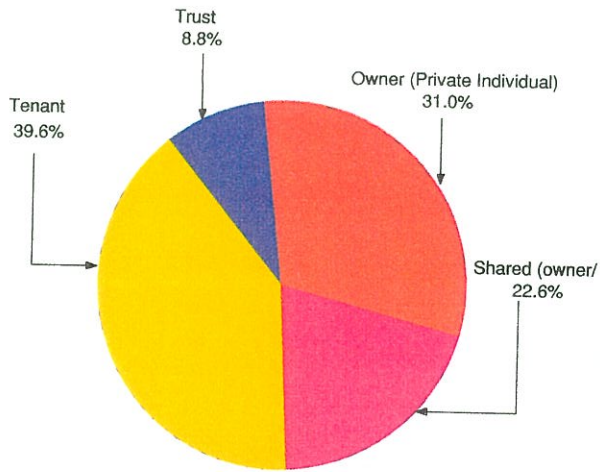
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4.1 8 Ownership of Buildings (Ref. Drg. 18 & 19)

a Mahatar Pakhadi presents a mixed pattern of ownership of buildings, which can be classified as buildings:

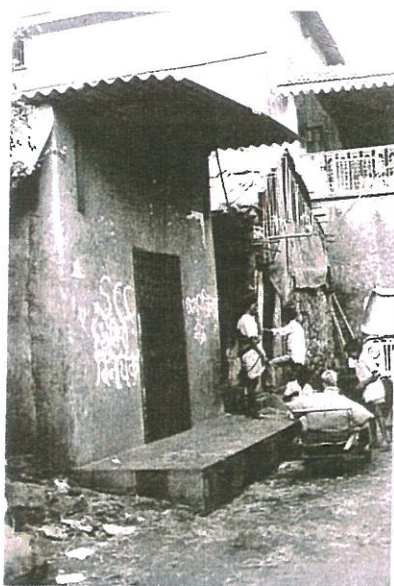
Privately owned -	31.0%
Shared by private owner and tenant -	22.6%
Tenant occupied -	39.6%
Trust owned (clubs) -	08.8%



b The locality encompassing Mahatar Pakhadi has buildings mostly owned by multiple tenants except for a few privately owned individual or private companies.

c * Of the eleven ground - One upper storey building 91% that is 9 in 10 building owners stay on 1st floor, while 9% that is 1 in 10 stays on ground floor.

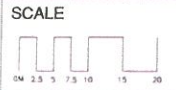
OWNERSHIP OF BUILDINGS



Left Encroached structure
Center Tenanted building
Right Privately owned buildings
Source- Joshi (1995)



Drg. 18 Ownership Survey at Ground Floor Level



TITLE
OWNERSHIP SURVEY
GROUND FLOOR LEVEL

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Drg. 19 Ownership Survey at First Floor Level
Source- Joshi (1995)



SCALE



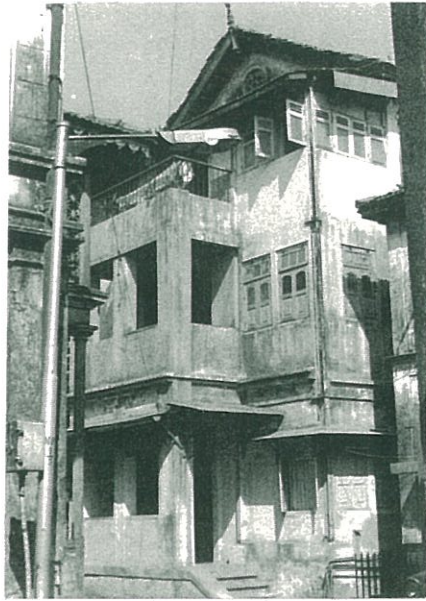
TITLE
OWNERSHIP SURVEY
FIRST FLOOR LEVEL

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4.1.9 Physical Transformations in Buildings (Ref. Drg. 20)

a Physical transformation in buildings is mostly due to insensitive reconstruction's and facade alterations done by repairing agencies, private and government run. Maintenance of wooden verandas, trelliswork, and timber structural work being an expensive proposition, they are inappropriately stripped and replaced by masonry and concrete work, marring its architectural merit.

b Reserving of plot and non implementation of reservation has led to encroachments on the club street, disharmonious building activity by government on the Tank square garden plot has totally destroyed its essential function.

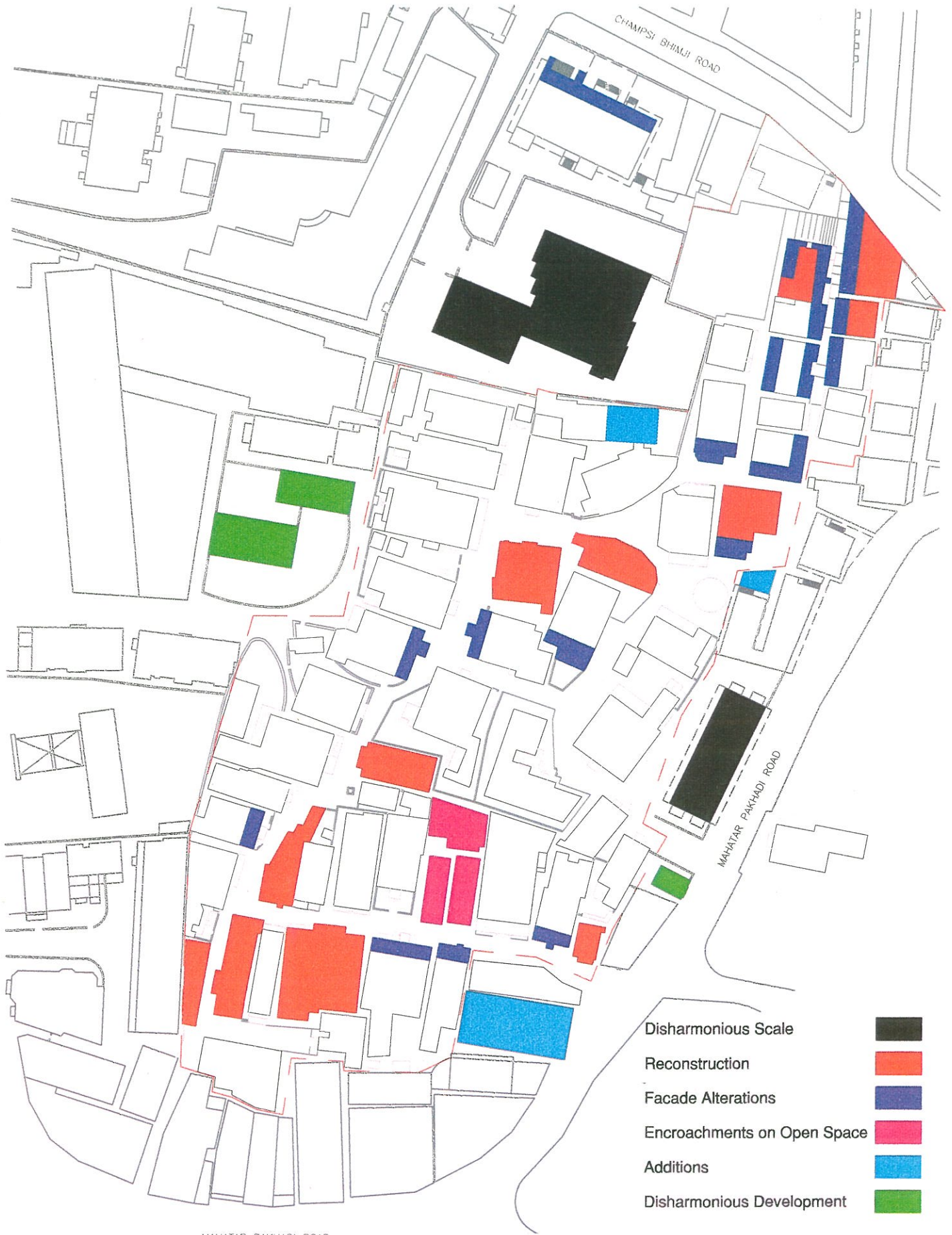
c High and mid-rise developments within the locality, and on the fringes are totally incongruous to the scale and the character of the settlement's original built form.



MHADA repaired building

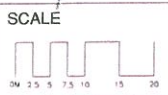
Left, Right, Center-Buildings transformed during repair

Source- Joshi (1995)



- Disharmonious Scale
- Reconstruction
- Facade Alterations
- Encroachments on Open Space
- Additions
- Disharmonious Development

Drg. 20 Physical Transformation of Buildings
 Source- Joshi (1995)



TITLE
 PHYSICAL TRANSFORMATION
 OF BUILDINGS

**CONSERVATION GUIDELINES OF
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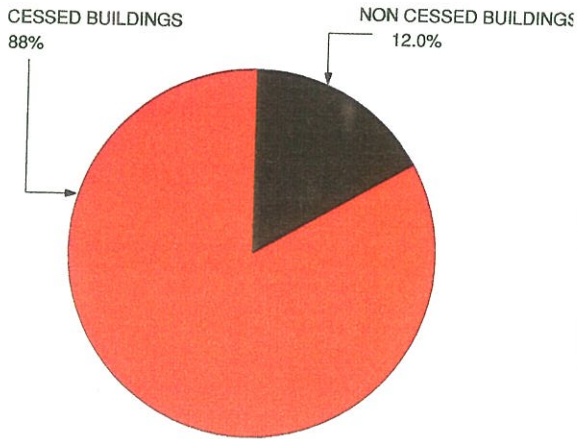
4.1.10 Survey of Cessed Buildings (Ref. Drg. 21)

a The locations of buildings which fall under the cessed categories of A, B, & C is indicated in the following drawing.

b The data is extrapolated from information provided by Repair and Reconstruction board offices at Shindewadi, Dadar.

c Nearly 80% buildings in precinct and nearly most of the core which belong to the oldest and the most significant stock are cessed structures. Hence implications of Development Control Regulation 33(7), 33(8) and 33(9) would be extremely harmful for the conserving the essential character of the precinct.

d With very high existing Floor Space consumption the "incentive FSI" would spell complete destruction of the existing fabric.



CESSED BUILDING PROPORTION



Left, Right, Center-Cessed properties in the settlement.
Source- Joshi (1995)



Drg. 21. Location of Cessed Buildings
Source- Joshi (1995)



Pereira Cross
Source- Joshi (1995)



Open space near well
Source- Joshi (1995)



Roadside Shrine
Source- Joshi (1995)

4.1.10 Present Demographic Account And Socio Economic Data (Ref. Drg. 22)

a General Social Data:

Users ethnic origin -	Roman Catholic (95%)
Place of birth -	Bombay
Education level -	Medium (S.S.C. - Graduate)
No. of household -	147
No. of persons in household -	435
No. of clubs -	10
No. of persons in clubs -	75
No. of males -	301
No. of females -	209
Total no. of persons -	510
No. of males/100 females -	144
No. of working members -	179 males / 67 females
No. of retired persons -	40 male 06 females
No. of homebound/sick persons -	02 males / 09 females
No. of youths (below 21 years) -	24 college going / 39 working
No. of children (below 16 years) -	73
No. of housewives* -	71

* Woman directing household affairs, The Concise Oxford Dictionary, 1977 sixth edition.

b General Economic Data:

Users income group		
higher (>Rs.75,000/- p.a.) -		05.0%
middle (Rs.54,000 - Rs.75,000/- p.a.) -		87.5%
lower (Rs.36,000 - Rs.54,000/- p.a.) -		07.5%
Employment		
No. of working inhabitants -	285	(100.0%)
service -	250	(87.5%)
profession -	35	(12.5%)
Dependency ratio		
No. of working inhabitants /total no of inhabitants -		0.56 (56.0%)
Place of employment		
Mazagaon and vicinity -	178	(62.5%)
other -	107	(37.5%)
Mode of travel		
walk -	157	(55.0%)
bus -	64	(22.5%)
rail -	50	(17.5%)
private vehicle -	14	(05.0%)

*26 Sources -

Field survey

Parish documents (1995)

Christian population in Mazagaon (by M.A. Malvankar, University of Bombay).

4.2 Access Street Level

4.2.1 Organisation of Dwellings and Open Spaces

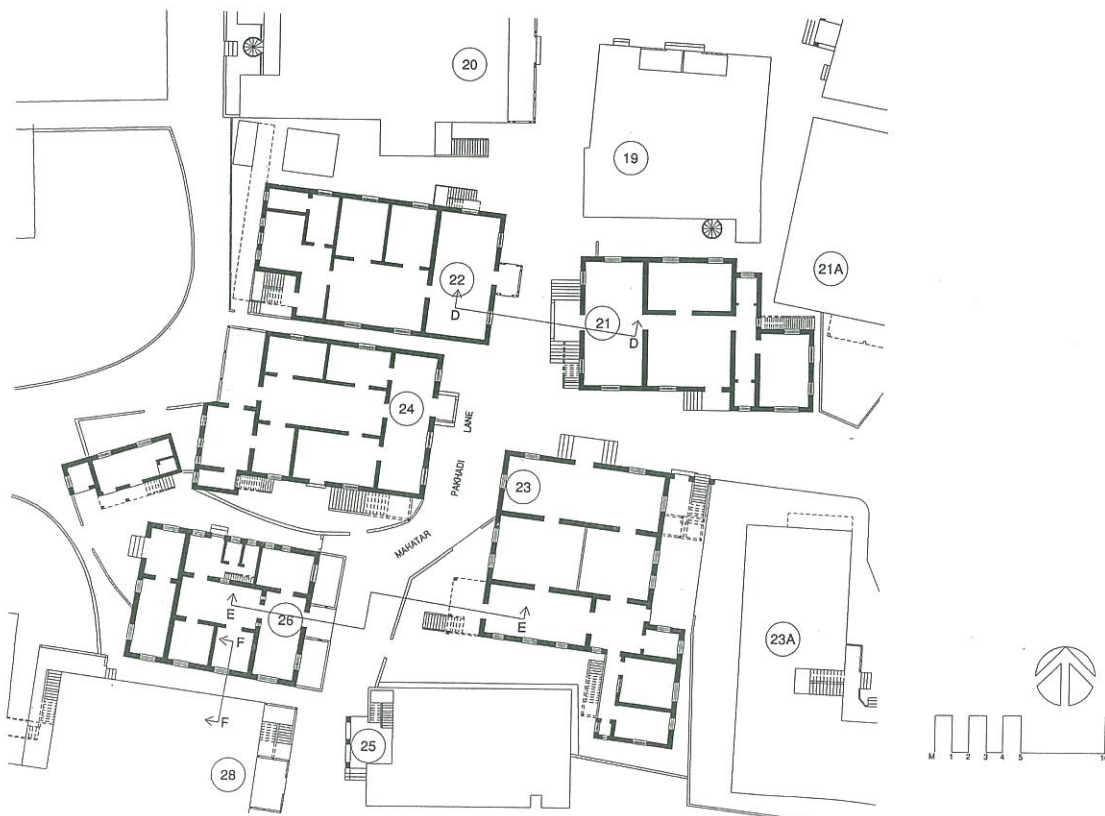
4.2.1.1 The built environment of Mahatar Pakhadi is evolved from a generative process which is dynamic and continuous, it is this spontaneous nature of process which has helped popular culture to express without excessive constraints, its sense of scale, proportion, form, art and colour to which people are constantly exposed.

4.2.1.2 The organic nature of growth has given rise to streets, which are narrow in width staggering along the built form while rendering a strong sense of enclosure. The dwellings are aligned with their longer axis nearly perpendicular to this access street. These low rise units are separated with its neighbouring units by a narrow alley or lane which also function as pedestrian accesses to the main access street. The dwelling units occasionally tilt at street junctions widening it to form an open space. These multi functional spaces though small in scale, are rich and diverse in spatial qualities, lively and full of activities and well integrated in the built environment.

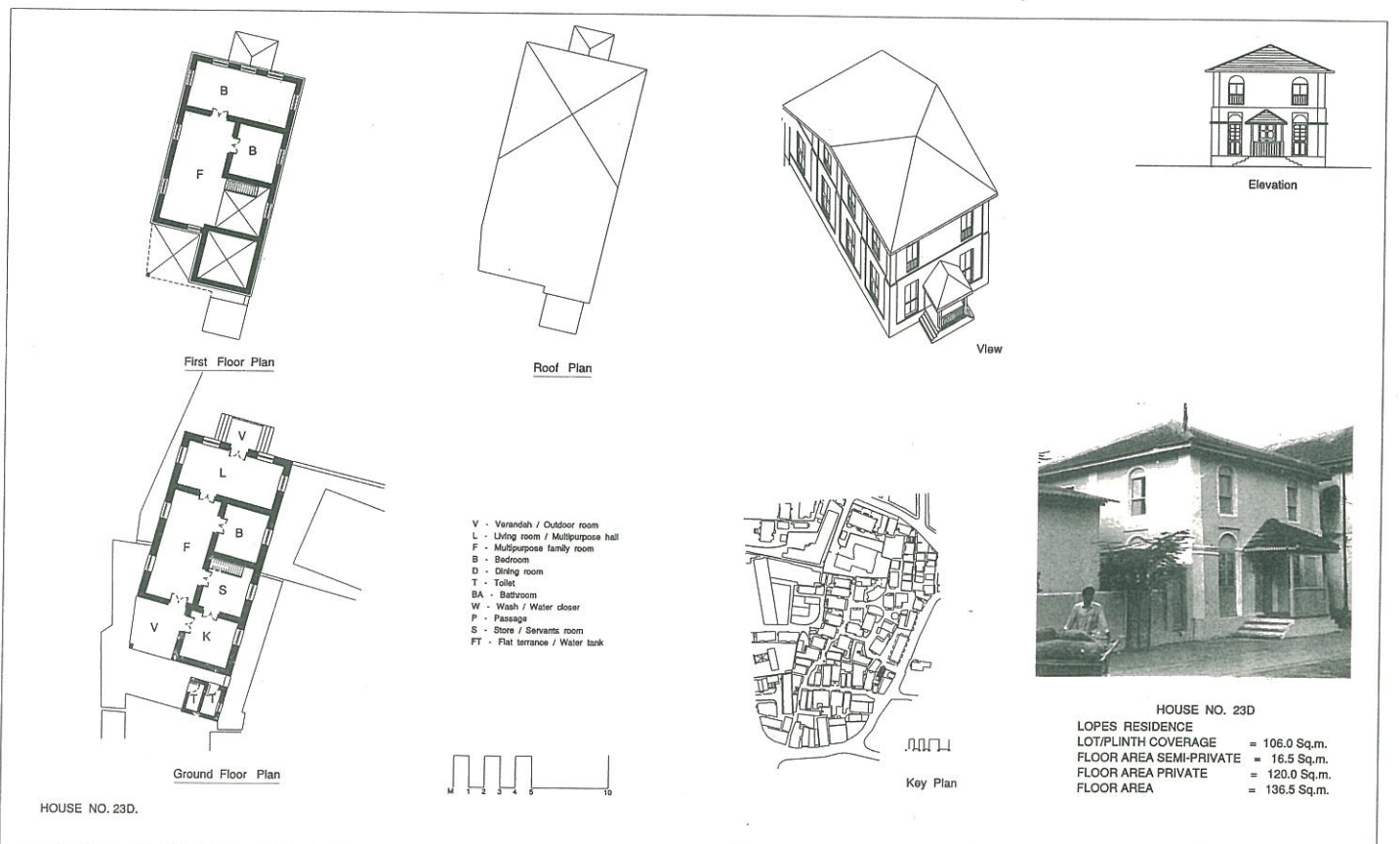
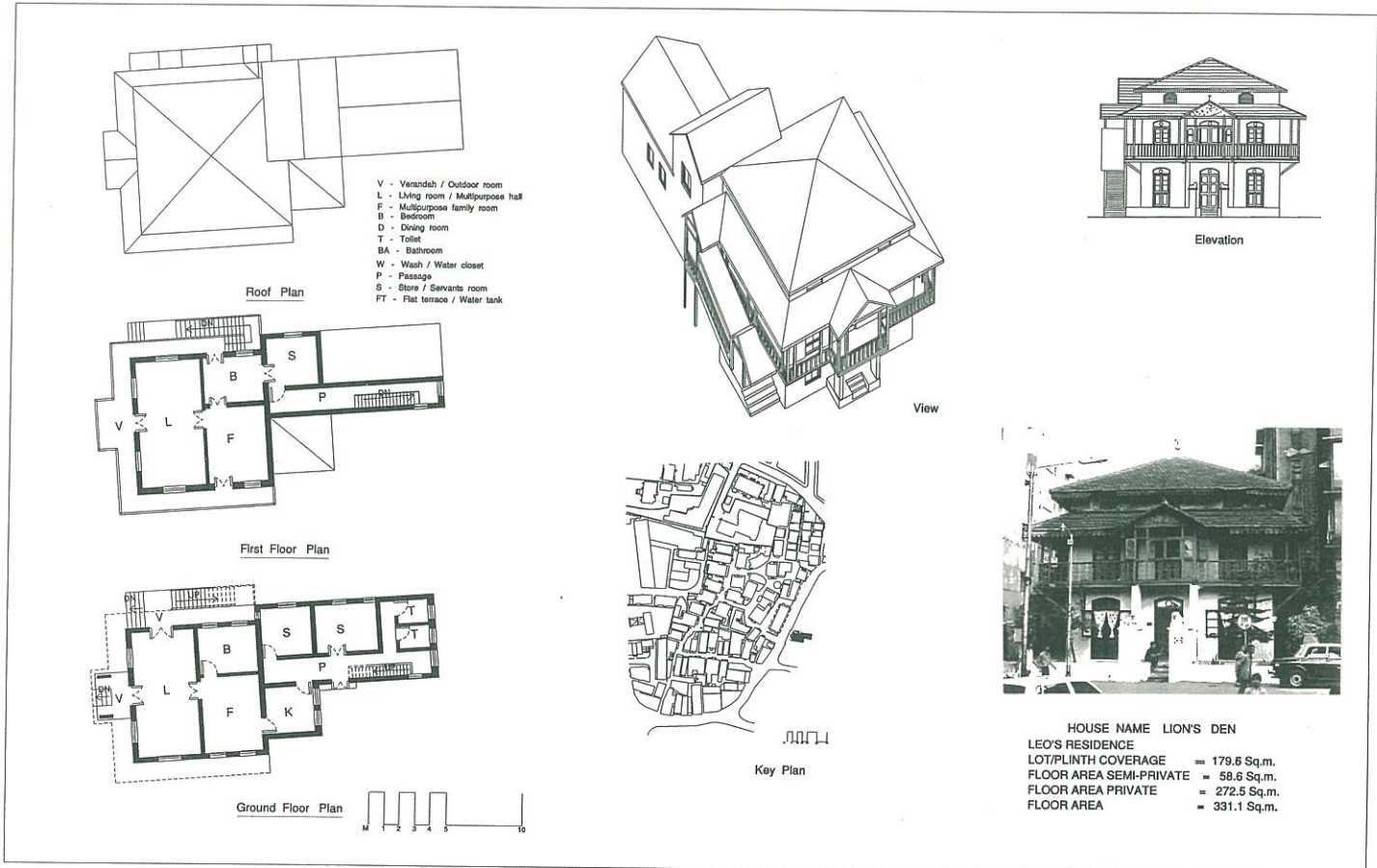
4.2.1.3 They function effectively in religious activities, local congregation and serve as a stage for social interaction. As the open spaces are extension of the streets there exists a visual and spatial continuity. This sense of progression brings about visual variety with a change in character. There is a collective pride of ownership of street, which inculcates a sense of belonging.



Street View
Source – Joshi (1995)

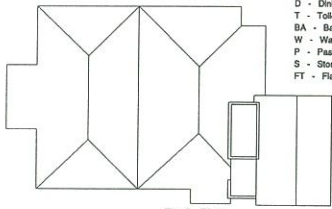


Dr. 23 Cluster Layout Plan
Source – Joshi (1995)

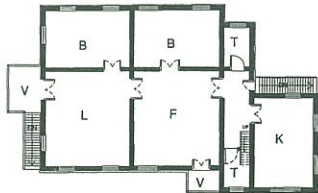


Drg. 30 House a) Leo Residence & 23d Lopes Residence
 Source – Joshi (1995)

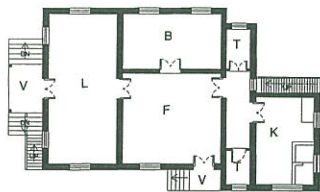
- V - Verandah / Outdoor room
- L - Living room / Multipurpose hall
- F - Multipurpose family room
- B - Bedroom
- D - Dining room
- T - Toilet
- BA - Bathroom
- W - Wash / Water closet
- P - Passage
- S - Store / Servants room
- FT - Flat terrace / Water tank



Roof Plan

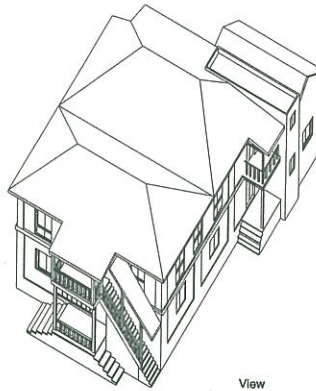


First Floor Plan



Ground Floor Plan

HOUSE NO. 21.



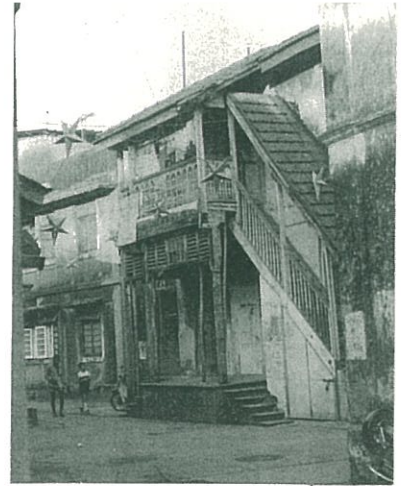
View



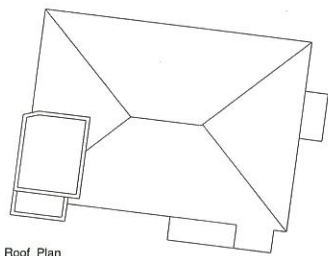
Key Plan



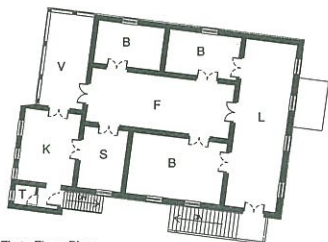
Elevation



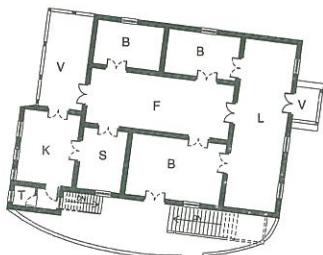
BAPTISTA RESIDENCE
 LOT/PLINTH COVERAGE = 179.6 Sq.m.
 FLOOR AREA SEMI-PRIVATE = 46.0 Sq.m.
 FLOOR AREA PRIVATE = 326.0 Sq.m.
 FLOOR AREA = 372.0 Sq.m.



Roof Plan

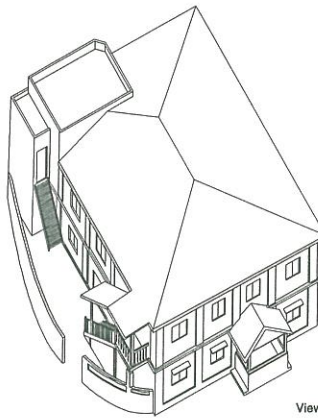


First Floor Plan

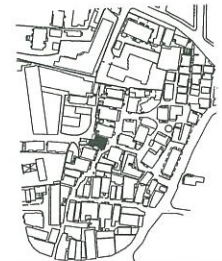


Ground Floor Plan

- V - Verandah / Outdoor room
- L - Living room / Multipurpose hall
- F - Multipurpose family room
- B - Bedroom
- D - Dining room
- T - Toilet
- BA - Bathroom
- W - Wash / Water closet
- P - Passage
- S - Store / Servants room
- FT - Flat terrace / Water tank



View



HOUSE NO. 24
HAROOM / D'SYLA RESIDENCE
 LOT/PLINTH COVERAGE = 205.0 Sq.m.
 FLOOR AREA SEMI-PRIVATE = 59.0 Sq.m.
 FLOOR AREA PRIVATE = 352.9 Sq.m.
 FLOOR AREA = 411.9 Sq.m.

Drg. 31 House a) 21, Baptista Residence & 24 Dsylvla Residence

Source – Joshi (1995)



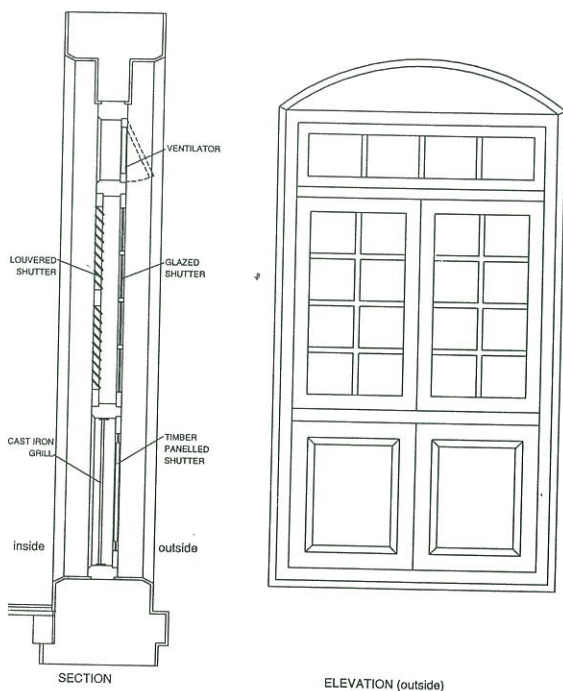
SCALE

TITLE

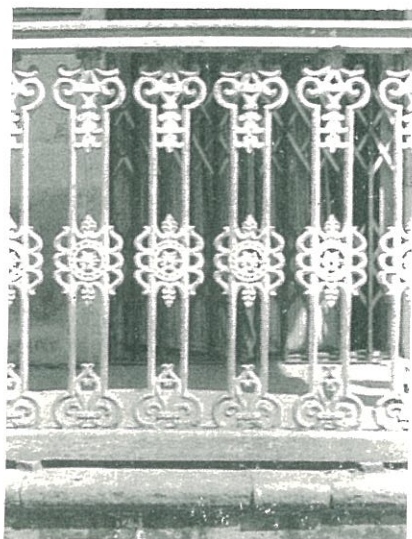
CONSERVATION GUIDELINES OF
 MAHATAR PAKHADI PRECINCT MAZAGAON, MUMBAI
 FOR MMR - HERITAGE CONSERVATION SOCIETY

PANKAJ JOSHI
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Drg. 32 Double Window Detail
Source – Joshi (1995)



Cast Iron Railing Detail
Source – Joshi (1995)

4.3.1.9 Windows are predominantly double shuttered with arched opening. Many of these windows are full height with two sets of shutters. With some of these windows having an additional set of louvers. These louvers with glass paned shutters can be used individually or in combination to get the desired quality of light. Many of these shutters and fanlights have coloured glass panels along with plain plate glass ones.

4.3.1.10 Doors also consist of two pairs of shutters, the inside being low height wicket gate while the outside ones are full height shutters. Throughout the day, the full height door panels are open with wicket gate door acting as the enclosing elements. (Ref. Drg. 32 Double Window Detail)

4.3.1.11 The entrances here present a wide variety of articulations which along with trellis and fret work, the railing and balusters, eaves boards and coloured glass panels, rendering individual character to each of houses.

4.3.1.12 Another important aspect of the outdoor rooms, veranda and cantilevered balconies and external staircases is breaking the visual mass of the structure, imparting it with softness and delicacy. The railings cause a vivid interplay of light and shade accentuating the visual experience and animating life.

4.3.1.13 These elements of exterior expression depicts the level of interaction and communication that existed between the user, the master builder and his guild of craftsmen.

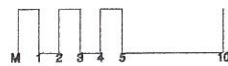
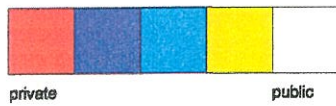
4.3.1.14 A marked progression is seen in the privacy gradient as we move from outside to the inside of the house. The conflicting needs of social interaction and privacy in Mahatar Pakhadi houses are thus tackled through subtle transition of verandas, outdoor rooms and porches, with the thresholds forming a judicious link between the house and the community.

(Ref. Drg. 33 Progression of Privacy in a Cluster as observed in Mahatar Pakhadi)

4.3.2 House Form and Climate

4.3.2.1 In Mahatar Pakhadi the buildings exhibits a positive response to the climate showing the master builders knowledge of the local microclimate. These builders working in an economy of scarcity, theirs resources of materials, energy and technology small still show a high level of performance even when judged in the light of modern technology.





Porch Detail
Source – Joshi (1995)

Dr. 33 Progression of Privacy in a Cluster
Source – Joshi (1995)

	<p>SCALE</p>	<p>TITLE</p>	<p>CONSERVATION GUIDELINES OF MAHATAR PAKHADI PRECINCT MAZAGAON, MUMBAI FOR MMR - HERITAGE CONSERVATION SOCIETY</p>	<p>PANKAJ JOSHI CONSERVATION ARCHITECT 2/204, YAMHODHAN APT, FOUR BUNGALOWS ANDHERI (WEST), MUMBAI - 400 083 TEL : 6290826, 6296274 (R) FAX 6290867 email pjoshi@boom5.vsnl.net.in</p>	<p>25 AUG 01</p>
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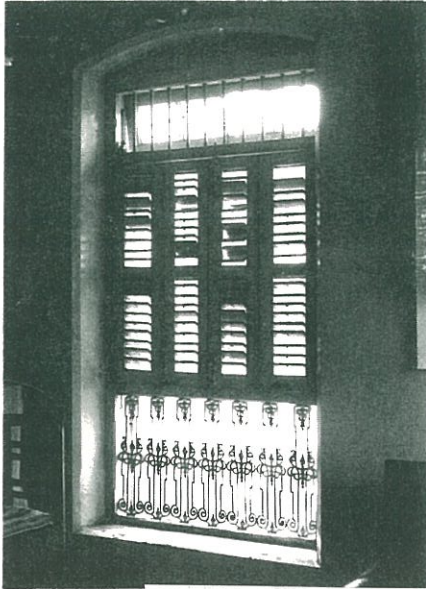
4.3.2.2 An example would be the general increase in the eaves of roofs and the development of verandas. These verandas provide sitting and sleeping space intermediate between the outdoors and the indoors, shades the walls and windows providing the possibility of continuing ventilation's of the house during violent rains.

4.3.2.3 The roofs becomes a dominant element acting as a huge waterproof parasol, sloping steeply to shade torrential rains, opaque to solar radiation and of minimum mass to avoid heat builds up and subsequent re-radiation. It also avoids condensation problems by being able to breathe.

4.3.2.4 The floor being raised offers better exposure to breezes, for flood protection and as defence against insects.

4.3.2.5 The full height windows with its louvered shutters provide shade and privacy while allowing effective cross ventilation. The verandas, low eaves and louvered windows also effectively prevent the glare penetration.

4.3.2.6 Effective handling of climate factors in such a way, that it establishes a balance between the environmental stimuli so that the user is not subjected to losing or gaining too much heat nor is subjected to excessive stresses from other variables, is thus achieved with help of elements of built form.



Double Window
Source – Joshi (1995)



Eaves Overhang
Source – Joshi (1995)

4.3 3 Built Form, Structure and Materials

4.3.3.1 Thick load bearing walls, timber floors and mangalore tile covered roof dominate the structural elements of Mahatar Pakhadi house.

4.3.3.2 The external walls of the houses are thickly constructed using kiln burnt bricks or random rubble stone with mud or lime mortar.

4.3 .3.3 The floors are wooden with joists and binders which are the variables for determining the three division of the house. The flooring is finished with kotah, tandoor, shahbad or coloured mosaic tiles with few houses having Indian patent stone flooring with red oxide finish.

4.3 .3.4 The verandas have a timber trabeated structure with exquisite wooden and cast iron railings. Trellis and fretwork is present between the close spaced timber columns.

4.3 .3.5 The roofing is timber framed covered with mangalore or country tiles over timber boarding.

4.3.4 Morphological Account and Influences

4.3.4.1 As discussed earlier the pre-industrial phase of buildings activity was characterised by the owner of land applying the expertise of the master builder to build his own house. Though the tradesman was involved in building the owner was very much a participant in the building process.

4.3.4.2 The tradesman as well as the individual owner knew the type in question, the form or model and even the materials, what remained to be determined were the specifics - family requirements, size, relation to site and microclimate. Since the tradesman and the individual agreed as what was wanted, there was in effect a model which was adjusted and adapted.

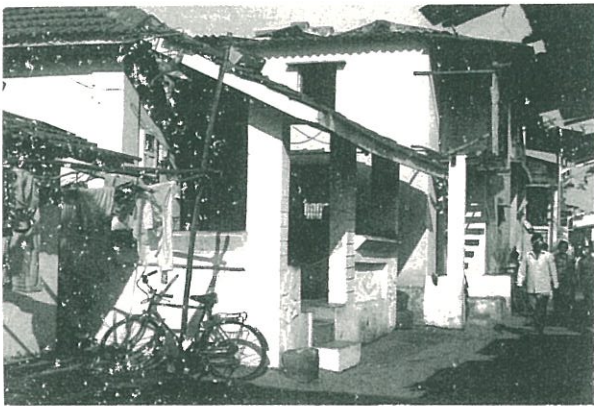
4.3.4.3 The attempt here is to identify that model or the key features of the model to understand the wholeness of the built form. A cursory look at the similar expression in native villages of Bombay provides us with some clues regarding that.

4.3.4.4 The original inhabitants of Bombay that is Kolis (fishermen), Bhandaris (toddy tapers), Kunbis and Agris (farm workers and tillers) lived in ethnic enclaves of the native villages of Bombay and Salsette namely Versova, Marol, Mahim, Amboli, Manori, Uttan, Gorai, Vasai etc. These enclaves had their distinguishing characteristic built forms, which were conducive to their occupation and social life. Elements of these built forms could assist towards tracing the model for built form of Mahatar Pakhadi enclave.

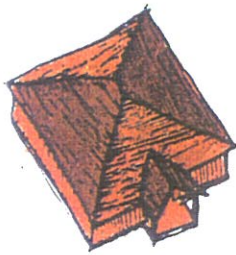
4.3.4.5 A Koli house as seen in one of the Salsette village consists of entrance through a verandah which further opens out into multipurpose rooms used for sitting, sleeping, cooking and storing. Majority of the time of Kolis on land is spend their time on verandah preparing for their fishing ventures. This occupation needs weaving of nets, sorting their catch and drying it prompting the verandah to be a long space and spanning the total width of the house, which usually abuts the access street.

4.3.4.6 This characteristic element of a koli house is observed in house of Mahatar Pakhadi with a possibility of the former settlement influencing the latter.

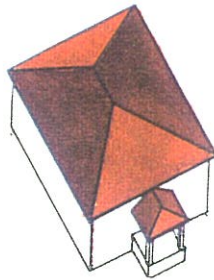
4.3.4.7 A parallel can also be found of a Bhandari house with is three divisions and square single storied verandah similar to some of the houses in Mahatar Pakhadi enclave. These elements and built form influences could be source of model for Mahatar Pakhadi houses.



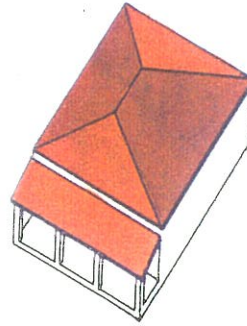
Above Koli Housing in Salsette
Below Agri Housing in Salsette
Source – Joshi (1995)



Kunbi House
(Farm Workers Dwelling)

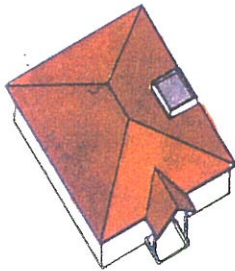


Bhandari House
(Toddy Tappers dwelling)

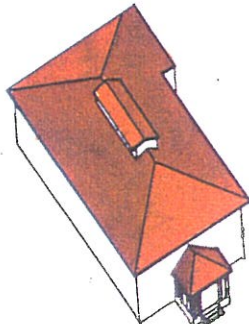


Koli House
(Fisherman's dwelling)

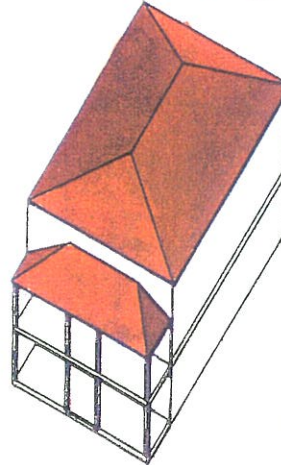
Built forms
of original
houses in
the native
villages of
Mumbai



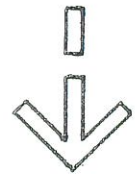
House No. 26



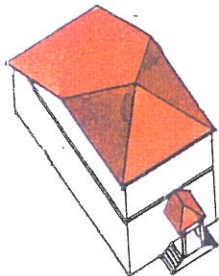
House No. 31B



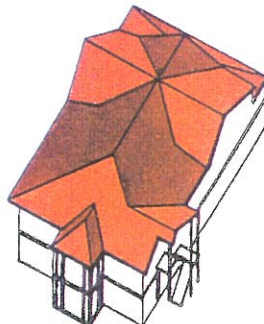
House No. 31D



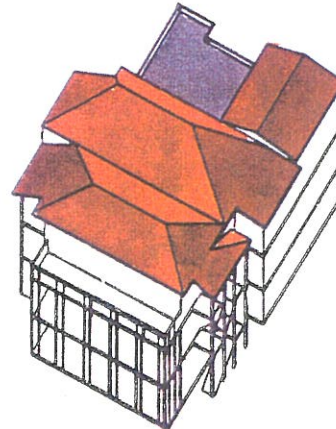
Derived Built
forms in
Mahatar Pakhadi
Enclave



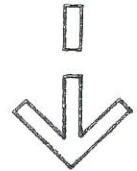
House No. 23D



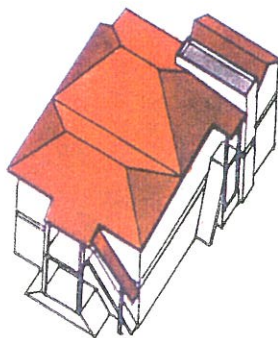
House No. 22



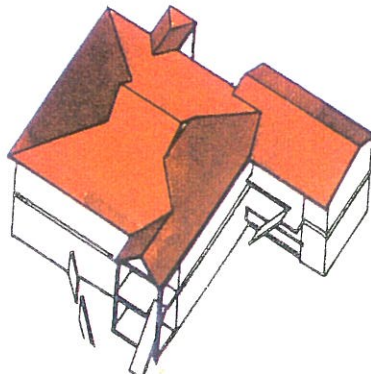
House No. 20



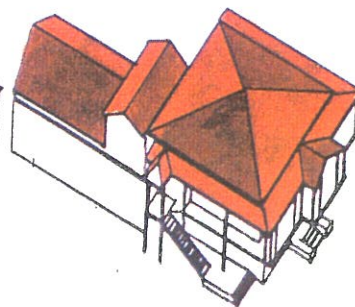
Culmination
of Design
Progression
in Built forms



House No. 21



House No. 23



Lions Den

Chronology of Design Progression in Built Form

Drg. 35 Visual chronology of Built Form
Development

Source – Joshi (1995)

	<p>SCALE</p>	<p>TITLE VISUAL CHRONOLOGY OF BUILT FORM</p>	<p>CONSERVATION GUIDELINES OF MAHATAR PAKHADI PRECINCT MAZAGAON, MUMBAI FOR MMR - HERITAGE CONSERVATION SOCIETY</p>	<p>PANKAJ JOSHI CONSERVATION ARCHITECT 2/204, YASHODHAN APT, FOUR BUNGALOWS ANDHERI (WEST), MUMBAI - 400 053 TEL: 8230625, 6356674 (R) FAX: 8260557 email: pjarch@bom5.vsnl.net.in</p>	<p>25 AUG 01</p>
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4.3.6 Inhabitant Level - People and their Activities

4.3.6.1 Occupation of People

4.3.6.1.1 Looking back in time Mazagaon in 16th century was inhabited by Kolis and Bhandaris who dwelt around its brab covered eminences. Mahatar Pakhadi then was a part of this vast brab growth. In between the brab palm was a rich tropical vegetation consisting of fruits orchards and vegetable plantation.

4.3.6.1.2 Under the Portuguese rule the primeval animism and brahmanism which formed the Koli and Bhandari religion was exchanged for a debased form of Roman catholicism, *26 mainly due to forcible conversion and coercion by Portuguese missionaries. Thus the majority of native Christians were from the Koli, Mahar, Kunbi, Bhandari and Agri communities.

4.3.6.1.3 In 1661 the population of Bombay group of islands numbered 10,000. It was composed of few Portuguese of pure blood and of the topazes of Indo-Portuguese, a people of European and Asiatic parentage and of native Christians, residing chiefly in Cavel, Mazagaon and Parel.*26

4.3.6.1.4 *26 Da Cunha (origin of Bombay) remarks that:- "Thousands of Indian families had been converted by the Portuguese to Christianity, and from these early British Government drew their supply of clerks, assistants or secretaries. They were the first fruits of the instruction and education imported to them by Portuguese priests, at a time moreover when there was hardly a Moslem, Hindu or Parsi able to the Roman Characters. They were the early instruments for spreading the influence of the new rule among the native of Western India or the first helpers in the expansion of British power throughout the country."

4.3.6.1.5 The Roman Catholics in Mahatar Pakhadi because of the education received first under the Portuguese and later under British found themselves in a favourable position for the employment in the Portuguese and still more than in the British Administration. In British Yoke the Christian in Mahatar Pakhadi held positions of importance in the administrative and professional areas.

4.3.6.1.6 Because of major expansion and development of port and shipping activities in the post independence era the occupational trend of people of Mahatar Pakhadi switched towards shipping and related services, presently majority of working inhabitants are in the shipping profession.



Above Koli Housing in Salsette
Below Victorian Motif on Railing
Source – Joshi (1995)

4.3.6.2 Religion and Social Life

4.3.6.2.1 The Christian community of Mahatar Pakhadi has been patterned upon the setting for the way of life designed to embody religious and social ideals of Christianity in which men live together, pray together and share common aspiration. The object has been to gather together and not to scatter, to unite and not to divide.

4.3.6.2.2 Church has one of the most important functions in a Christian urban society. It is not only a place of worship and prayer but provides a multitude of function at the same time. It is a place for social gathering providing opportunities for strengthening spiritual and material bonds amongst the members of the society as well as fostering brotherhood amongst all people from different walks of life and standing.

4.3.6.2.3 On a Sunday, people of Mahatar Pakhadi and other neighborhoods of Mazagaon congregate at Nossa Senhora De Rosario Church for prayer. These Sunday prayers are held in the morning hours with speech by the priest (father) concerning the socio religious matters of the community, communal and judicial announcement may also be made at the same time.

4.3.6.2.4 In the Christian dominated neighbourhoods of Mazagaon crosses even at the desired spots are a common site. The settlement of Mahatar Pakhadi has two crosses one being the Pereira family cross and the other at the northern end of the enclave.

4.3.6.2.5 The purpose in erecting them was to ward off the influence of evil spirits, who were known to be instrumental in way laying travelers and causing them to lose their way. The wooden cross at the northern side has a chapel built over it plague chapel set in around 1904. Its main purpose was to seek deliverance from the plague that year and as thanks giving for its end.

4.3.6.2.6 The presence in plague in Bombay was noticed in 1896 with the death of hundreds of people subsequently. Thousands of people fled the island of Bombay, with people of Mahatar Pakhadi fleeing to Salsette only to return after the holocaust was brought under control by 1902.

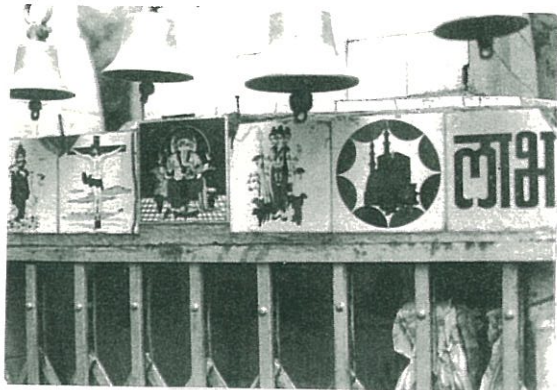
4.3.6.2.7 On May 1st, a feast is celebrated at this little oratory. It is the annual feast of the village heralding the month of by the people. The streets are lit up, decorations are flaunted. A nine day novena of thanks is conducted by the parish priest who is invited to officiate the religious part. To involve both the youths and the old in the settlement,



Oratory
Source – Joshi (1995)

annual sports are organised for the children on the May 1st feast morning and entertainment for all in the evening.

4.3.6.2.8 Another major annual event is the parish feast at N.S. Rosario church. It is celebrated to honour the patron saint of the parish. Religious services are held several days in advance to prepare for the event which is seen as an occasion to pray for the spiritual and temporal welfare of the parish. Decorations in the church and in the homes lend colour and gaiety to the celebration. It is a day of family reunion, when relatives make it a point to visit each other and those faraway come home to spend the day. If friends or relatives cannot meet due to some circumstances to enable them to partake of the joy of the feast sweets are sent to their home.



4.3.6.2.9 Children daily meet in the streets and mostly in the open spaces found at the junction of the street and in the tank square garden, in rainy days at each other's houses for playing together. Women at home follow their routine activities of housework, cooking, baking, child care, washing, cleaning etc. They go to each other's houses and have their solidarity in helping each other for housework and all like matters when required. The village atmosphere of closeness still prevails especially in moments of trial, sickness and death.



Above Hindu Shrine
Below Street Activity
Source – Joshi (1995)

4.3.6.2.10 Within the neighbourhood the inhabitants have themselves maintained the streets, oratory, temple and well, the expense of which is recovered through donations, collections and charities of residential population. Though in majority, the catholic population maintains a living harmony with the other communities in the settlement evident in the Hindu shrine, which was constructed by the catholic residents for their Hindu counterparts.

Because of the acquaintance of people with each other, they have succeeded in managing many services in simple but reasonable ways. The financial stability and unity in the way of living has kept the builder dominated building activity at bay.

4.3.6.2.11 Mahatar Pakhadi thus shows a well-woven fabric of social network integrating people from all classes and occupations to live in harmony.

Reference
 Pankaj Mohan Joshi, Mahatar Pakhadi - Study of a Preindustrial Vernacular settlement in Mazagaon, Bombay ; unpublished thesis Academy of Architecture, Mumbai 1995.



Drg. 36 Mahatar Pakhadi Trail
 Source - Joshi (1995)

	<p>SCALE</p>	<p>TITLE MAHATAR PAKHADI TRAIL</p>	<p>CONSERVATION GUIDELINES OF MAHATAR PAKHADI PRECINCT MAZAGAON, MUMBAI FOR MMR - HERITAGE CONSERVATION SOCIETY</p>	<p>PANKAJ JOSHI CONSERVATION ARCHITECT 2204, YASHODHAN APT. FOUR BUNGALOWS ANDHERI (WEST), MUMBAI - 400 053 TEL : 8230625, 6356674 (R) FAX 8260557 email pjarch@bom5.vsnl.net.in</p>	<p>25 AUG 01</p>
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5

ARCHITECTURAL &
DEVELOPMENT CTRL
GUIDELINES

5.0 ARCHITECTURAL AND DEVELOPMENT CONTROL GUIDELINES FOR MAHATAR PAKHADI PRECINCT

5.1 Applicable Regulations as per Development Control Regulations No. 67 for Greater Bombay

5.1.1 Mahatar Pakhadi as heritage Grade III

Precinct comprises of buildings of importance for townscape; they evoke architectural aesthetic or sociological interest though not as much as in Grade II. These contribute to determine the character of the locality, and, can also be distinguished by setting on a street line, or special character of the façade and uniformity of height, width and scale.

5.1.2 Grade III deserves protection of unique features and attributes.

5.1.3 External and internal changes and adaptive reuse would generally be allowed. Changes can include extension, additional buildings in the same plot or compound provided that extension / additional building is in harmony with and does not detract from the existing heritage building especially in terms of height and/or façade. Reconstruction may be allowed when the building is structurally weak or unsafe or when it has been affected by accidental fire or any other calamity or if reconstruction is required to consume the permissible FSI and no option other than reconstruction is available. Reconstruction may also be allowed in case of those buildings, which attract the provisions of Regulations, 33(6), 33(7), 33(9) and Appendix II and Appendix III of Development Control Regulations, 1991, but shall adhere to the guidelines stated further for cessed and non-cessed properties. Reconstruction may be allowed in those buildings being repaired / reconstructed by MHADA. However, unless absolutely essential, nothing should spoil or destroy and special features or attributes for which it is placed in the Heritage List.

5.1.4 Development Permission would be given for changes by the planning authority itself but in consonance with guidelines, which are to be laid down by the Government in consultation with the Heritage Conservation Committee.

5.2 General Precinct Guidelines

5.2.1 Sub Delineation of Precinct (Ref. Drg. 37)

Based on the value classification and delineation of the core area (Ref. Drg 10) the Mahatar Pakhadi precinct could be divided into two distinct zones.

a) **Core Zone** - The core area is conceived as the most valuable section of the precinct with strongest architectural archives of the original dwelling units and heritage streetscape.

The dwelling units in this area besides being consistent in terms of architectural and urban design qualities are integral to the image of a residential enclave of pre industrial phase.

b) **Buffer zone** - Transitional area around core area is defined as Buffer Zone

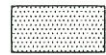
This area constitutes the fringes development which a different character belonging to a later phase of architecture or transformed completely from its original character.

5.2.2 Applicability

5.2.2.1 In addition to Development Control Regulations for Gr. Mumbai, 1991 & Heritage Regulations for Gr. Bombay, 1995, No.67, these regulations will apply to those buildings, artifacts, structures within the precincts of historical and/or aesthetical and/or architectural and/or cultural value which are included in the notified Mahatar Pakhadi Precinct (The original boundary of the precinct is as per the notification issued by the Government under Resolution No. DCR / 1090 / 3197/RDP/UD11, dated 21st April, 1995 more specifically shown on the map on page 64 and listed at Sr. no.522, in the list of heritage buildings & precincts published with the notification). This boundary is further extended to the North-west and west as shown on drawing Drg. No. 37 which is notified along with the regulations prescribed below.



Buffer Zone



Core Zone



Drg. 37 Zone Delineation
Source – Joshi (1995)



SCALE



TITLE

CONSERVATION GUIDELINES OF
MAHATAR PAKHADI PRECINCT MAZAGAON, MUMBAI
FOR MMR - HERITAGE CONSERVATION SOCIETY

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5.2.2.2 All structures, including cessed or non-cessed, reserved, redeveloped, and rehabilitated plots and building in the demarcated precinct boundary shall be developed in accordance with these prescribed guidelines. Any development, redevelopment, repairs, addition, alterations shall be carried out only after obtaining the necessary approval from the Heritage Conservation Committee.

5.2.3 Restriction on development / redevelopment / repairs, etc-
No development or redevelopment or engineering operation or additions, alterations, repairs, renovation including the painting of buildings, replacement of special features or demolition of the whole or any part thereof or plastering of all buildings in the precinct boundary shall be allowed except with the approval of the Mumbai Heritage Conservation Committee (MHCC).

5.2.4 The plots and buildings in the precinct shall follow the covenants and the existing leases, Restrictions existing as on date of this notifications imposed under convenience, terms and conditions on the leasehold plots either by State Governments shall continue to be imposed in addition to Development Control Regulations.

5.2.5 No temporary or Semi-permanent structure shall be built on any plot, pavements and any other reserved and unreserved site without the prior approval of MHCC.

5.2.6 Signage's & Hoarding: In view of the manner in which many buildings are defaced by objectionable signs and notices that all sign-boards, sky-signs, advertisements or any temporary attachments to the exterior of a structure must be approved by the state government on approval of the Heritage Committee.

5.2.6.1 Signage or display of any form, on any building or erection built or erected, any sky signs, sign boards, advertisements or any permanent or

temporary attachment whatever the nature of an advertisement shall not be permitted in the precinct. Provided always that a small nameplate may be affixed to the entrance door of any flat occupied by any person and a convenient position outside the building near the compound gates and that small boards indicating the names of the tenants and the numbers of the flats occupied by them may also be affixed to the wall in the main entrance hall of the building erected upon the premises and as approved by and to the satisfaction of the MHCC.

5.2.6.2 The designs of all new buildings (other than private, residential) shall provide for suitable spaces for signboards, name plates and inscriptions, and the general arrangement of these shall be shown on the drawings. Sign boards and name plates shall be permitted only when appropriate spaces are provided for them and on approval of the MHCC

5.2.7 **Grant of Transferable Development Rights in cases of Loss of Development Rights.** If any application for development is refused under this Regulation or conditions are imposed while permitting such development which deprive the owner/lessee of any unconsummated F.S.I. the said Owner/lessee shall be compensated by grant of Development Rights Certificate (hereinafter referred to as "TDR") of the nature set out in Development Control Regulation No.34 and Appendix VII A and as may be prescribed by Government from time to time. The TDR from heritage buildings in the Island City may also be consumed in the same ward from which it originated. The extent of TDR Certificates to be granted may be determined by the Commissioner, if required in consultation with the Heritage Conservation Committee and will not be awarded unless sanctioned by Government.

5.3 Checklist of Documents Required for Submission to 'Heritage Committees' N.O.C.

- 5.3.1 Owners letter of application inclusive of appointment of architect /licensed surveyor confirming to abide terms and conditions of the N.O.C. to be issued by the heritage committee and faithful compliance of the said conditions according to which permission is to be granted.
- 5.3.2 Set of coloured photographs of the building in 4 different angles as well as photographs of the surrounding buildings to show existing structures / architecture. Photomontage of street and surroundings buildings (upto 50 metre radius). Photographs of architectural /sculptural details and affected parts (if any).
- 5.3.3 Complete set of measured drawings of existing building including architectural features completely in accordance and matching with existing /surrounding and complimentary to existing architecture.
- 5.3.4 Set of detailed drawing showing proposed additions & alterations /reconstruction including full details of architectural features proposed, matching with existing/surrounding and complimentary to existing architecture. (list stated below).
- 5.3.5 Property registered card or any other document to show ownership of the property/ structure.
- 5.3.6 Zonal remarks from Executive Engineer (DP) of the municipal corporation.
- 5.3.7 Remarks for road regular line from the Executive Engineer (traffic) of the municipal corporation.
- 5.3.8 Scaled model of the existing building and the adjoining buildings in 50 Mts. Radius.

5.3.9 Scaled drawings: -

a) Location plan	1:200
b) Site plans	1:100
c) All floor plans	1:50
d) Roof plan	1:50
e) Area Line Diagrams with Area calculations	1:50
f) Lift block and water tank plan/details	1:25
g) Reflected Ceiling plan	1:50
h) Structural framing plan	1:50
i) Elevations of all sides with adjoining buildings section	1:50
j) Longitudinal and cross section with adjoining buildings	1:50
k) Section through toilets, Section through staircase block.	1:50
l) Section through lift blocks	1:50
m) Toilet details & Flooring details	1:25
n) All Elevational and Sectional details of elements on the external façade Articulated railing / balustrade / door-window details	1:10
o) Main entrance detail / compound wall detail	1:10

5.3.9 Complete set of structural drawings and details including detailed specification with certificate of structural stability from the structural consultant.

5.3.10 Complete set of service drawings and details including detailed specifications of HVAC, water supply, drainage, electric supply, lighting, and fire fighting and building management systems.

5.3.11 When submitting the structural drawings (all plans, elevations, sections and details of the buildings) the architects / structural consultants shall supply information regarding the safe-working stresses for steel and concrete assumed by them in calculating the dimension of the RCC structural members of the building, and shall also quote the authority they follow in the designing of the RCC members.

5.3.12 The above-mentioned after execution shall be submitted in as built drawings and specifications in triplicate.

5.4 Demolition of Buildings/Structures: No buildings/ structures within precinct, whether listed, cessed or non-cessed or part of building or any artifact shall be allowed to be demolished in part or whole without prior permission of Heritage Conservation Committee. In case demolition is absolutely essential due to structural distress, it shall be restored/reconstructed to its original status as per the recommendations of the Heritage Conservation Committee.

5.5 Regulation for Redevelopment / Reconstruction / Repairs and Rehabilitation of Buildings in the Precinct
With reference to the Condition Survey plots with buildings in extremely poor and poor conditions would have to undergo Redevelopment / Reconstruction / Repairs and Rehabilitation for which the following guidelines would apply. Note that these guidelines shall be applicable to all cessed and non cessed buildings and will need written approval from the MHCC.

5.5.1 Reconstruction / Redevelopment of cessed building of A category:

By owner, co-operative housing society formed by owner/ tenants/ occupiers

In this category, the permissible floor space index shall be 2.5 or the existing F.S.I whichever is higher + 50% bonus in form of T.D.R. with compliance of the setback and height guidelines and balance if any will be used as T.D.R.

5.5.2 Repairs and reconstruction of cessed buildings and urban renewal schemes:

Under these categories, the entire development is carried out by MHADA / BHADA / Corporation as their own scheme and floor space index shall be 2.5 or the existing F.S.I (whichever is higher) + 50% bonus in form of T.D.R. with compliance of the setback and height guidelines and balance if any will be used as T.D.R.

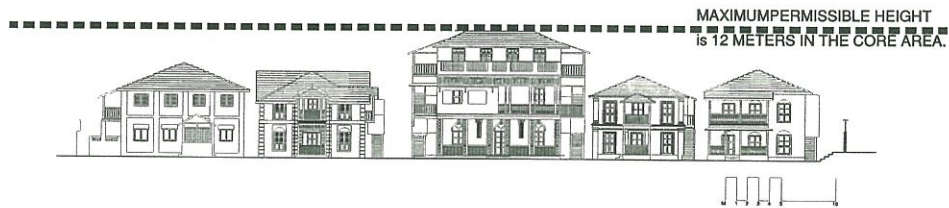
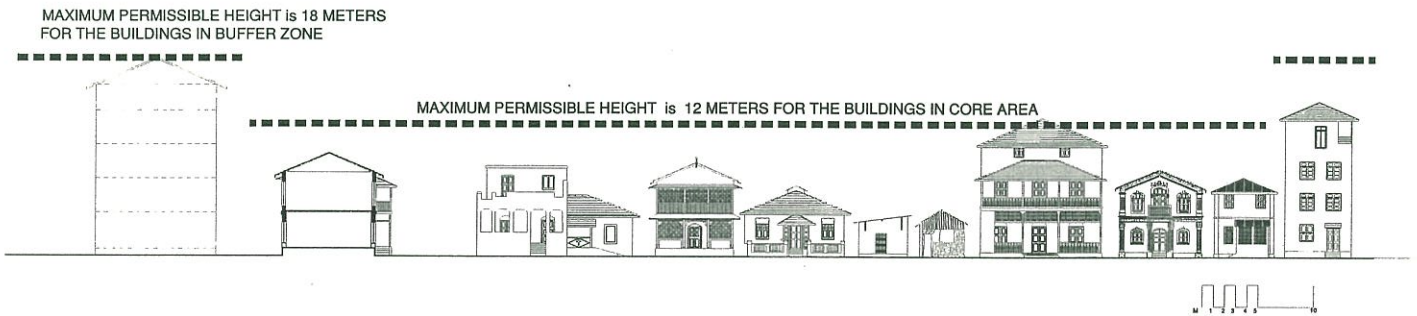


Drg. 38 Amalgamation
Source – Joshi (1995)

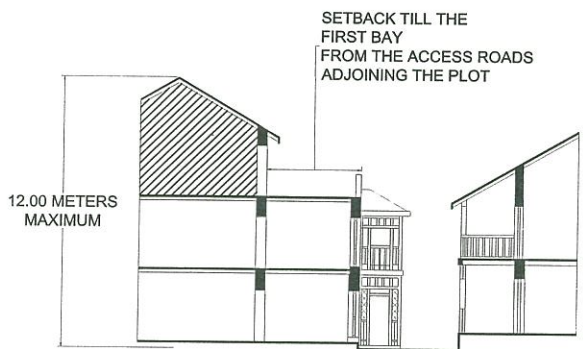
- 5.6 Road Widening:** No road widening of the existing roads/paths would be permitted within the precinct so that it would damage or cut through building line.
- 5.7 Open Spaces:** All open spaces (residual, non-residual, chowks etc) within the precinct shall be maintained without being built upon.
- 5.8 Amalgamation and Subdivision of Plots** (Ref. Drg. 38)
Development or Redevelopment involving Amalgamation and Subdivision of plots would detract from the essential built fabric.. Amalgamation and Sub-dividing of existing plots (properties) is not allowed within the precinct.
- 5.9 Floor Space Index:** The FSI allowed to be consumed in this precinct shall not exceed 1.33. However, in case of cessed building, the excess permissible FSI available as per other regulations shall be allowed to be consumed in the form of TDR in accordance with the Appendix-VIIA of the DCR no.67 of these regulations.
- 5.10 Crosses, Landmarks and Street Shrines:** Position and placement of landmarks within the precinct are to be retained, however, no additional landmarks/shrines/markers/crosses (religious or non religious) shall be permitted in the core area of the precinct.
- 5.11 Height of Buildings** (Ref. Drg. 39)
Notwithstanding anything contained in the Development Control Regulations 1991, for Greater Bombay Mahatar Pakhadi Precinct the height of the buildings after reconstruction shall be limited to the mean existing height of the buildings in the surrounding area. Similarly any new buildings shall conform to the specified height pattern as specified in the following table.

5.11.1 Height restriction for the buildings would apply as follows (Ref. Drg. 39)

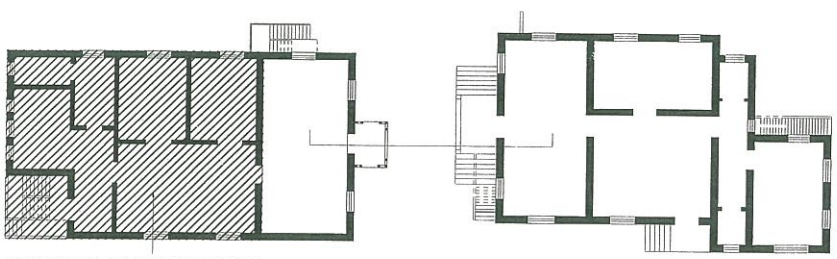
Core Area	Buffer Area
<p>New Buildings in this area shall have a height restriction of 12 Mts with maximum of Ground +2 Upper storeys. If a new floor has to be added on the existing structure (maximum height permitted would be 12 meters) it has to be set back one bay from the access roads adjoining the plot. All roofs shall be sloping of 23 to 25 Degrees angle with of burnt clay tiles/ terracotta / mangalore/ country tile.</p>	<p>Buildings in this area shall have a height restriction of 18 metres with maximum of Ground + Four Upper storeys. All roofs shall be sloping of 23 to 25 degrees angle with of burnt clay tiles/ terracotta/ mangalore/ country tile.</p>



Drg. 39 Height of Buildings & Setback Detail
Source – Joshi (1995)



SCHEMATIC SECTION



EXTENT OF ADDITION OF THIRD STOREY

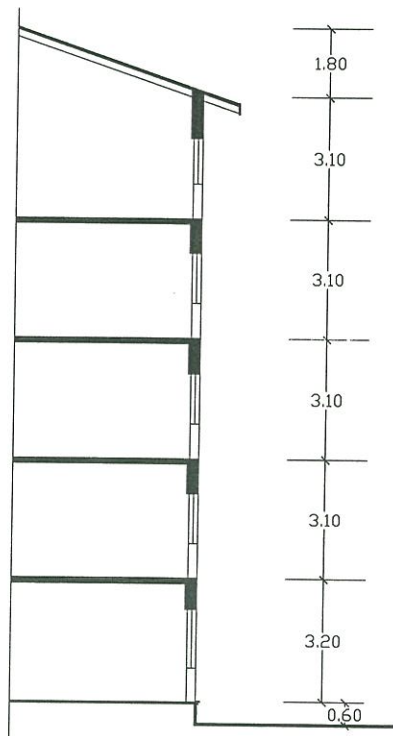
SCHEMATIC PLAN



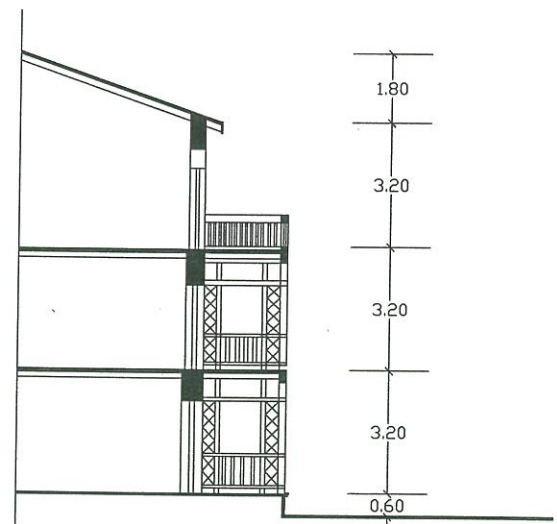
5.11.2 Height of habitable rooms in buildings
(Ref. Drg. 40)

	Core Zone	Buffer Zone
Total Height	12 meters	18 metres
Plinth	0.6 meters	0.6 meters
Ground floor	3.2 meters	3.2 meters
Upper floors	3.2 meters	3.1 meters
Sloping Roof Ridge including enclosed staircase block / Water tank loft level	1.8 meters	1.8 meters

Note - The plinths of all buildings to be erected, exclusive of the coping which may be of cement concrete if so desired, shall be faced with natural or artificial stone of approved quality and colour. The heights of the plinths shall be regulated with reference to the finished levels of the crowns of the roads on which the buildings front.



FOR BUFFER ZONE



FOR CORE AREA

Drg. 40 Height of Habitable Rooms
Source – Joshi (1995)

5.13 Basement Permissibility

Basements shall not be permitted in any development or redevelopment in precinct.

5.14 Lofts

Height of loft : Clear Head Room under a loft shall not be less than 2.4 Mts and above that it shall not be more than 1.5m, if it exceeds 1.5m, it shall be counted towards F.S.I

5.13 Mezzanine Floor

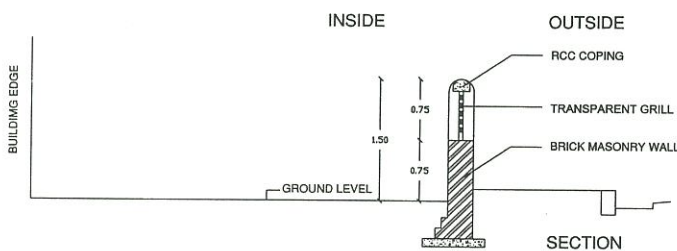
Adding mezzanine floor is harmful for the structural stability of building. Therefore mezzanine floor shall not be permitted.

5.14 Compound Walls (Ref. Drg. 41)

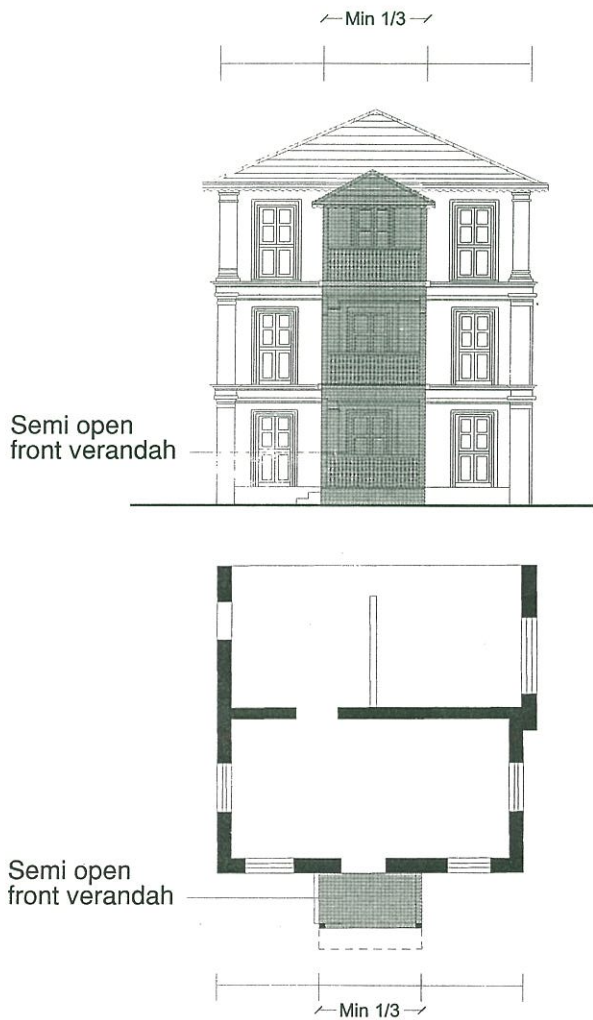
The designs of the compound walls to be erected on the plots shall be as follows: -

- 5.14.1 **Front walls:** - Solid wall raised to the height of 75 centimeters from the ground level shall be constructed along the front boundary of each plot. This wall shall be built in natural stone or cement concrete finished on exposed faces to resemble natural fine dressed stone. The upper parts of this wall, which may be of the railing type, or of perforated R.C.C. work or other suitable type, shall be designed to suit the frontage, but the total height of the gate pillars shall not exceed 2.2 meters as measured from the ground level. The upper parts of the gate pillars above the height of 75 centimeters, as measured from ground level may, if so desired, be built in brick masonry and finished with cement plaster.

- 5.14.2 **Side and rear walls:** - The treatment of the lower parts of the side and rear walls up to a height of 75 centimetres from the ground level shall be similar to that of the front walls. The upper parts of the side and rear walls may, if desired, be built either in cement concrete or brick masonry, finished with cement plaster but the total height of these walls shall not exceed 2 meters as measured from the ground level. The upper parts of the side and rear walls may also be of the railing type or of RCC perforated work if so desired. These walls may be built



Drg. 41 Section - Compound Wall
Source – Joshi (1995)



Drg. 43 Schematic Façade

Source – Joshi (1995)

with half their thickness situated on each side of the common boundary between two plots, with a square pillar 2.2 metres high and having sides measuring 45 centimetres (22.5 centimetres of the pillar to fall on each side of the common boundary between two plots) at each end of the frontage to serve as a connecting link between the treatment of the boundary walls of two plots.

Guidelines for Development/Redevelopment / Reconstruction in Core Area

5.15 Footprint : (.Ref. Drg. 42)

5.15.1 Any reconstruction / redevelopment proposal in the core area of the precinct should follow the exact size and shape of the existing/original footprint of the building.

5.15.2 Verandahs /porches/ external staircases and outdoor rooms on porches shall be retained in their location, shape and size.

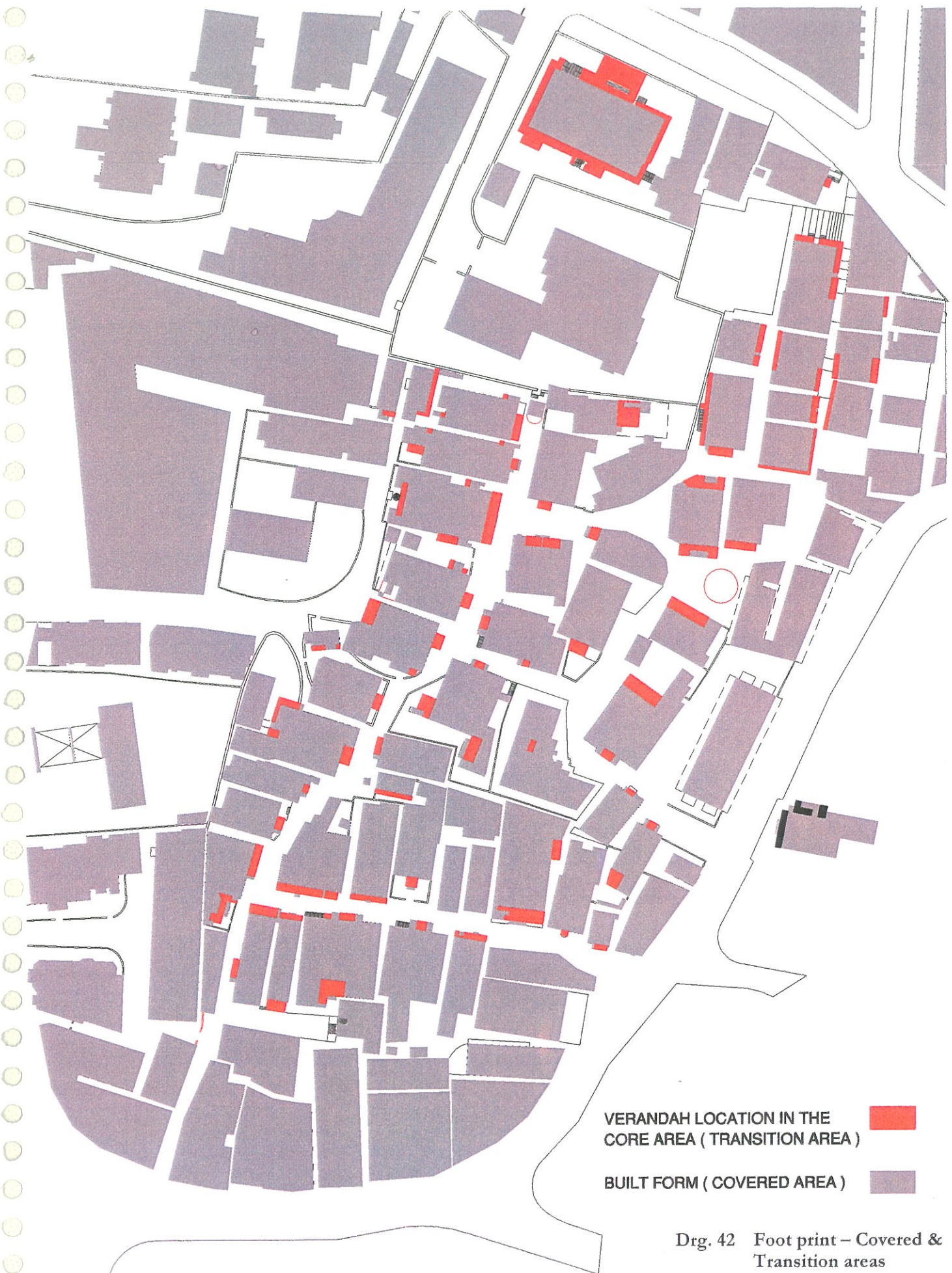
5.15.3 Roof covered connections to external toilet blocks in the rear yard shall be permitted as an accepted alteration in the foot print.

5.15.4 In new developments minimum one third of the front façade shall have a semi open verandah/porch spanning all floors of the structure. (Ref Drg 43).

5.16 Roofscape :

5.16.1 In any case of reconstruction, redevelopment, new development, addition, repairs and alteration buildings shall retain/have sloping burnt clay tile/mangalore/country/terracotta tiles with an angle of 23 to 25 degrees.

5.16.2 Enclosed staircase blocks and overhead water tanks shall be positioned such that they do not rise above the ridge of the roof and are not visible from access roads serving the plot.



VERANDAH LOCATION IN THE CORE AREA (TRANSITION AREA)

BUILT FORM (COVERED AREA)

Drg. 42 Foot print – Covered & Transition areas
 Source – Joshi (1995)

5.16.3 Roofs shall have a minimum overhang of 75 cms in buildings till 12metres maximum height and 90 cms in case of buildings from 12 to 18 metres maximum.

5.16.4 Roofs shall be adequately detailed with a cast iron finial, timber eaves/barge board, fascia with half round gutter and rain down takes in cast iron pipes with lead jointing.

5.17 Façade Controls and Finishes

5.17.1 Modification of the Façade and Architectural Features: Modification of the original façade element or any other architectural features would have to be with prior permission of the Heritage Conservation Committee. Replacement of existing materials shall not be allowed as far as possible, however, it may be allowed in case where the original is in the state of complete disrepair.

5.17.2 Verandahs /porches and outdoor rooms on porches in reconstruction / redevelopment / repairs or development proposals shall be retained as transparent spaces without enclosing walls on three sides. Verandahs / porches shall retain their timber / cast iron railings and balustrade and shall not be replaced with masonry wall or aluminium grills.

5.17.3 External staircase with roof covers shall be retained in its semi open form with its railing and balustrades and sloping roof cover. Railings shall not be replaced with masonry wall or aluminium grills.

5.17.4 The elements like railings, roof projections, eaves boards, cornices, trellis and fret work on balconies, verandas porches and outdoor rooms shall not be changed or removed from the existing facades.

5.17.5 Key horizontal elements such as stucco work cornices demarcating floor heights and plinths, and roofline with the vertical stucco pilasters shall be retained, repaired and reconstructed in



Above Porch Detail
Below External Staircase
Source – Joshi (1995)

repairs, reconstruction and redevelopment in the precincts.

5.17.6 Windows

- 5.17.6.1 Full height timber double windows shall be retained with its two sets of shutters and shall not be shortened with masonry /panelled infill.
- 5.17.6.2 Timber double windows with Louvered shutters in addition to glass panelled shutters shall be retained with all its hardware, coloured glass, fanlights, ventilators and shall not be replaced with aluminium windows.
- 5.17.6.3 Windows shall not be covered with projecting box grills of any type at any level.
- 5.17.6.4 Window Air conditioning units shall not be positioned by altering the existing/original timber windows and shall be located on facades visible from any access road to the plot.
- 5.17.6.5 Windows shall be either oil painted / natural finishes or treated with solignum.

5.17.7 Doors

- 5.17.7.1 Full height panelled timber double doors shall be retained with its two sets of shutters and shall not be altered or replaced with block board or aluminium framed or PVC doors.
- 5.17.7.2 Low height double shuttered wicket gate shutters shall be retained and shall not be replaced or altered with aluminium framed or PVC shutters.
- 5.17.7.3 Doors shall be either oil painted / natural finishes or treated with solignum.

5.17.8 Masonry Walls:

- 5.17.8.1 Masonry walls shall not be cladded. They shall be covered with lime surkhi plaster with appropriate relief grooves and drip moulds.
- 5.17.8.2 Plastered walls shall be painted with coats of lime wash with soluble natural glue (saras).
- 5.17.8.3 All plaster grooves, mouldings, cornices, stucco work, pilasters, architraves, keystones shall be documented, retained, repaired and restored.
- 5.17.8.4 75 centimeters of ornamental / elevational projection shall not be free of FSI in redeveloped or reconstructed buildings in the precinct.
- 5.17.8.5 Boarding up of plaster ornamental panels, railing, removal of jalis, eaves & fascia boards shall not be permitted.
- 5.17.9 Any proposed building additions, alterations, reconstruction and repair should be consistent in scale and design with the precinct in general and the original architectural vocabulary of the adjoining buildings that have not been reconstructed. The proposed developments /redevelopment's in the precincts should maintain and incorporate features such as external timber staircases, front porch, veranda, out door room, railings, fascia and eaves board, trellis work, fret work, jalis, door and window details of the existing built typologies.
- 5.17.10 There shall be general uniformity and harmony of design as regards prominent architectural features, height of plinth and colour of external walls in all buildings.
- 5.17.11 Curtain walls glazing and glass facades complete or partial shall not be allowed in the precinct.

- 5.18 Stilt Parking will not be allowed in the core area of the precinct.

Guidelines for Development / Redevelopment / Reconstruction in Buffer area

5.19 Footprint : (Ref. Drg. 44)

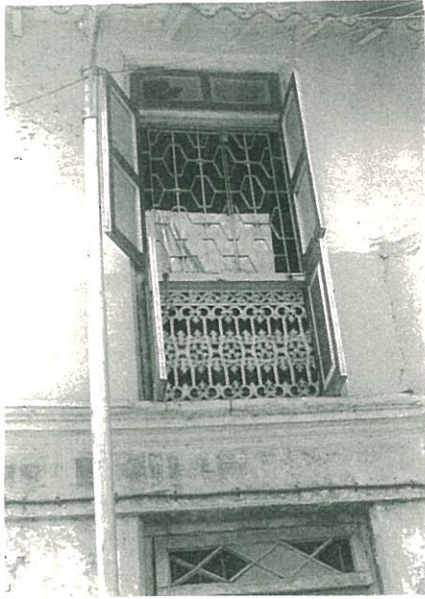
- 5.19.1 In new developments minimum one third of the front façade shall have a semi open verandah/porch of 1.5 metres depth (minimum) spanning all floors of the structure.

5.20 Roofscape :

- 5.20.1 In any case of reconstruction, redevelopment, new development, addition, repairs and alteration buildings shall retain/have sloping burnt clay tile/mangalore/country/terracotta tiles with an angle of 23 to 25 degrees.
- 5.20.2 Enclosed staircase blocks and over head water tanks shall be positioned such that they do not rise above the ridge of the roof and are not visible from access roads serving the plot.
- 5.20.3 Roofs shall have a minimum overhang of 75 cms in buildings till 12metres maximum height and 90 cms in case of buildings from 12 to 18 metres maximum.

5.21 Façade Controls and Finishes

- 5.21.1 Verandahs /porches and outdoor rooms on porches in reconstruction / redevelopment / repairs or development proposals shall be retained as transparent spaces without enclosing walls on three sides. Verandahs / porches shall retain their timber / cast iron railings and balustrade and shall not be replaced with masonry wall or aluminium grills.
- 5.21.2 External staircase with roof covers shall be retained in its semi open form with its railing and balustrades and sloping roof cover. Railings shall not be replaced with masonry wall or aluminium grills.



Double Window
Source – Joshi (1995)

5.21.3 Windows

5.21.3.1 Windows shall be in timber double shuttered glazed/pannelled.

5.21.3.2 Windows shall not be covered with projecting box grills of any type at any level.

5.21.3.3 Window Air conditioning units shall not be positioned by altering the existing/original timber windows and shall be located on facades visible from any access road to the plot.

5.21.4 Doors

5.21.4.1 Doors shall be Full height pannelled timber double doors. They shall not be altered or replaced with block board or aluminium framed or PVC doors.

5.21.5 Masonary Walls :

5.21.6 Masonary walls shall not be cladded. They shall be plastered with appropriate relief grooves and drip moulds.

5.21.7 75 centimeters of ornamental / elevational projection shall not be free of FSI in redeveloped or reconstructed buildings in the precinct.

5.21.8 Any proposed building additions, alterations, reconstruction and repair should be consistent in scale and design with the precinct in general and the original architectural vocabulary of the adjoining buildings that have not been reconstructed. The proposed developments / redevelopment's in the precincts should maintain and incorporate features such as external timber staircases, front porch, veranda, out door room, railings, fascia and eaves board, trellis work, fret work, jalis, door and window details of the exiting built typologies.

5.21.9 Curtain walls glazing and glass facades complete or partial shall not be allowed in the precinct.

5.22 Stilt Parking may be permitted in rear sections of plot not visible from any access road in the precinct.