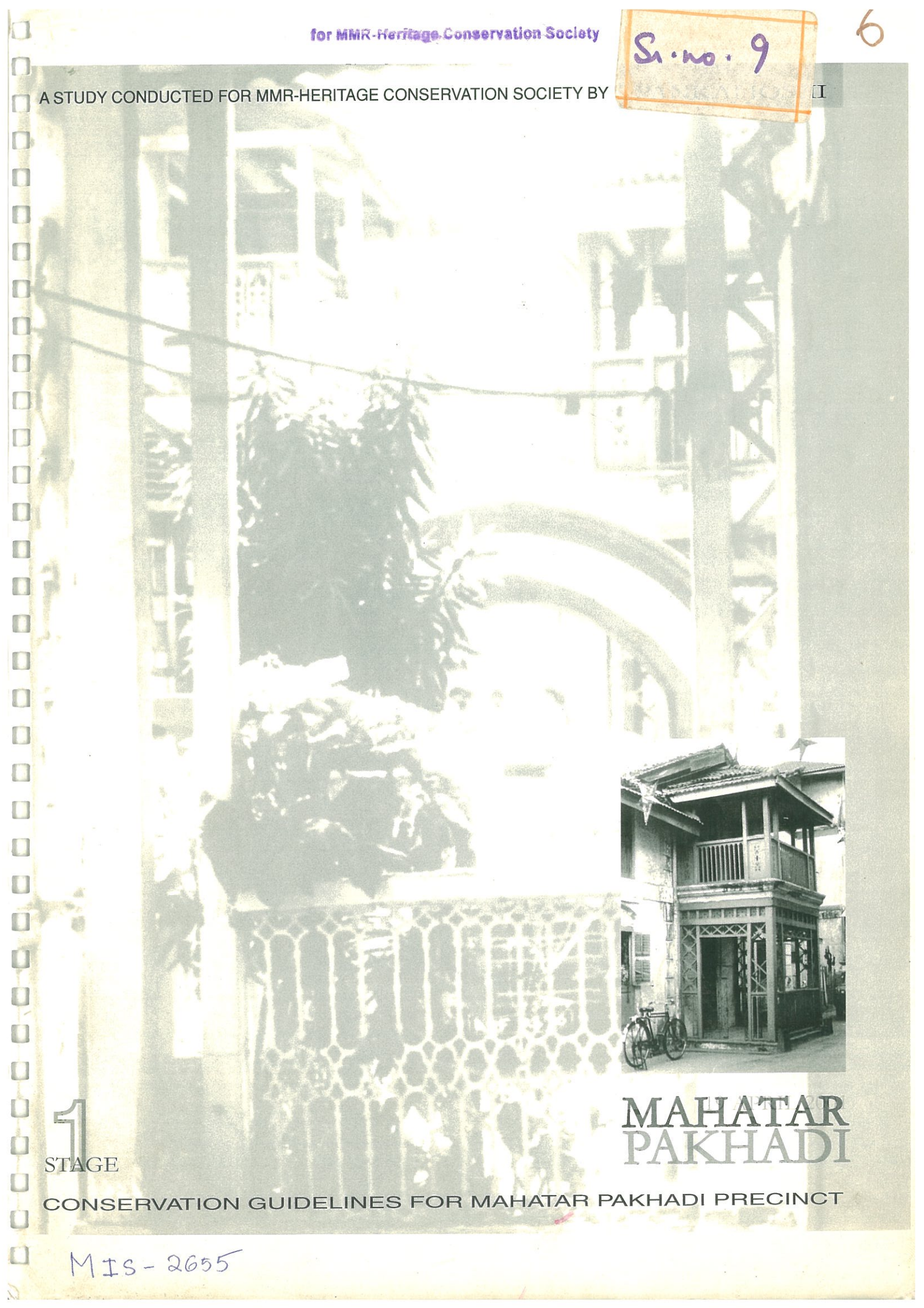


A STUDY CONDUCTED FOR MMR-HERITAGE CONSERVATION SOCIETY BY



1

STAGE

MAHATAR PAKHADI

CONSERVATION GUIDELINES FOR MAHATAR PAKHADI PRECINCT

MIS-2655

CONSERVATION GUIDELINES
FOR MAHATAR PAKHADI PRECINCT, MUMBAI

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

1st
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REPORT

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ORIGIN
AND ITS GROWTH

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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

Intentions are recapitulated in the Fourth Chapter.

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 researched data.

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

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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 (Lioneal 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 if 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 Bhoysalem (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 mûda 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.

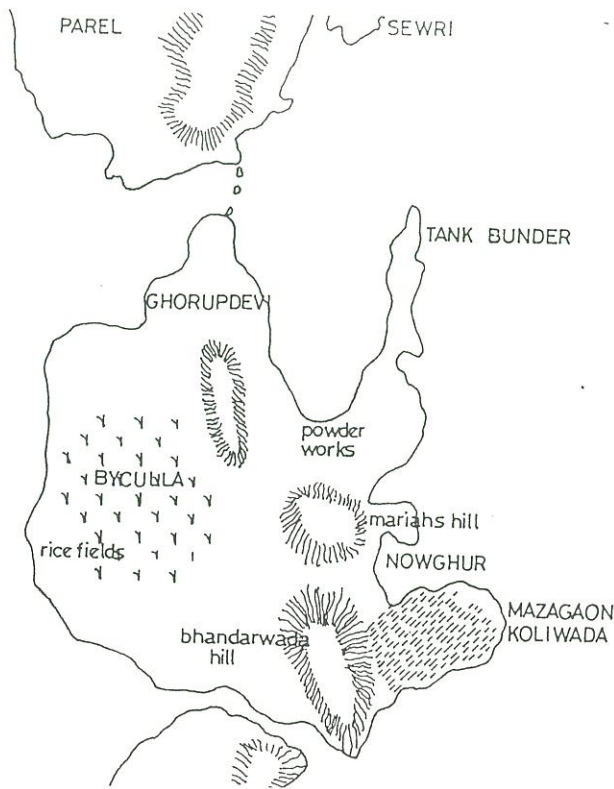
1907 - Mahatar Pakhadi Tank filled up as it had become redundant due to proper functioning of Bhandarwada reservoir.

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.

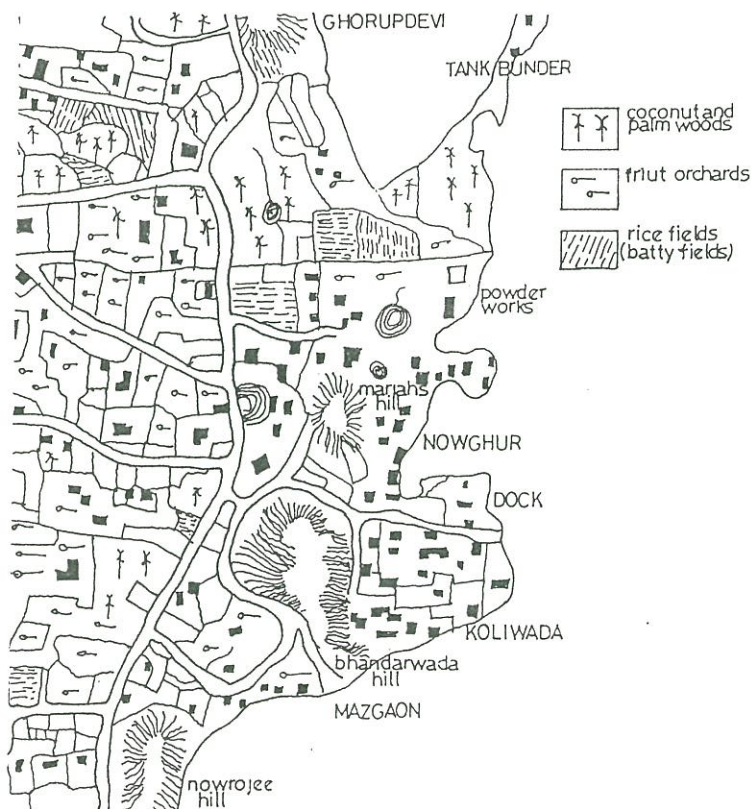
*26 Mahatar Pakhadi lands appropriated for Port Trust Railways

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



Dr. 1. Mazagaon & Its Environs in 1670 (After Murphy's Map 1844)

Source- Joshi (1995)



Dr. 2. Mazagaon & Its Environs in 1812 (After Capt Dickinson's Survey Map)

Source- Joshi (1995)

1.4.1 Pre 1650 (Ref. Dr. 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. Dr. 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. 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.

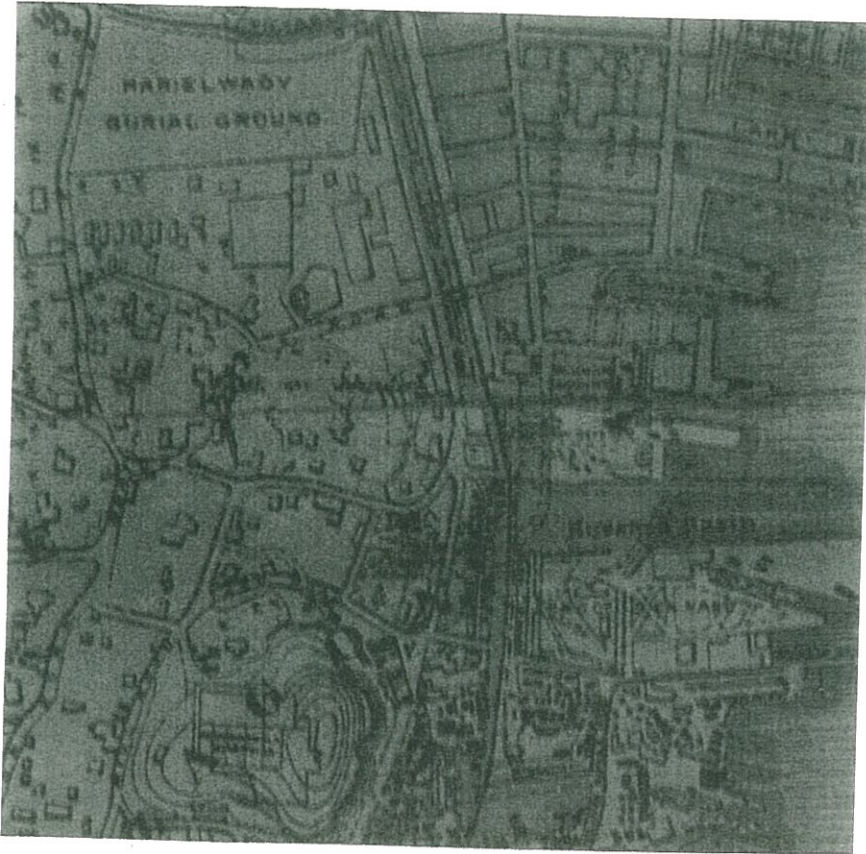
1.4.4 1906 (Ref. Drg. 4)

- 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)



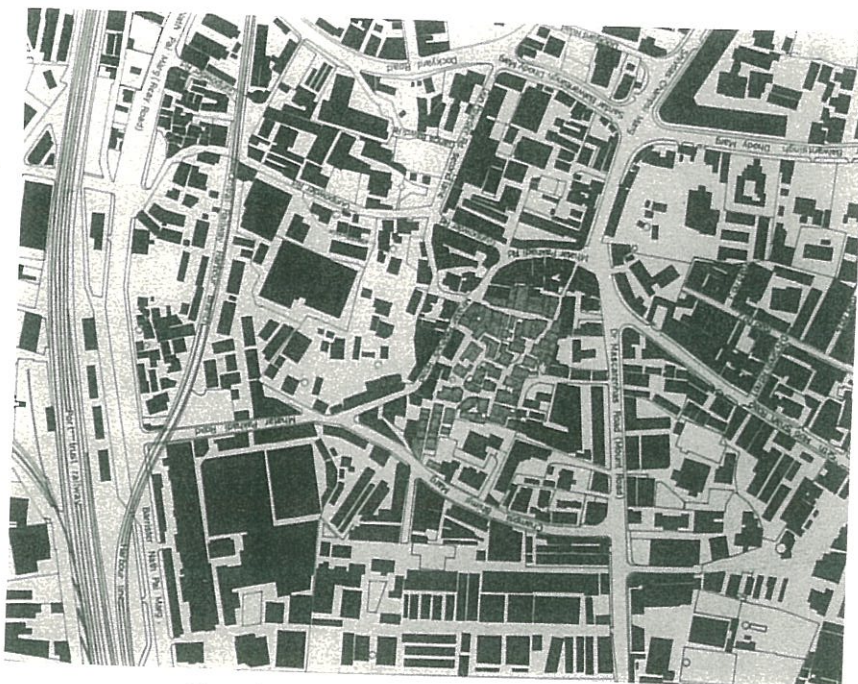
Drg. 5 Mazagaon & Its Environs in 1915 (After Col. Laughton's Survey Map)
Source- Joshi (1995)

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 will be accomplished in the third stage.

2.2.4 The fourth stage shall include compilation of the study into a final presentation report.

Targets set for the first have been achieved and we are well into the second stage of the project

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.

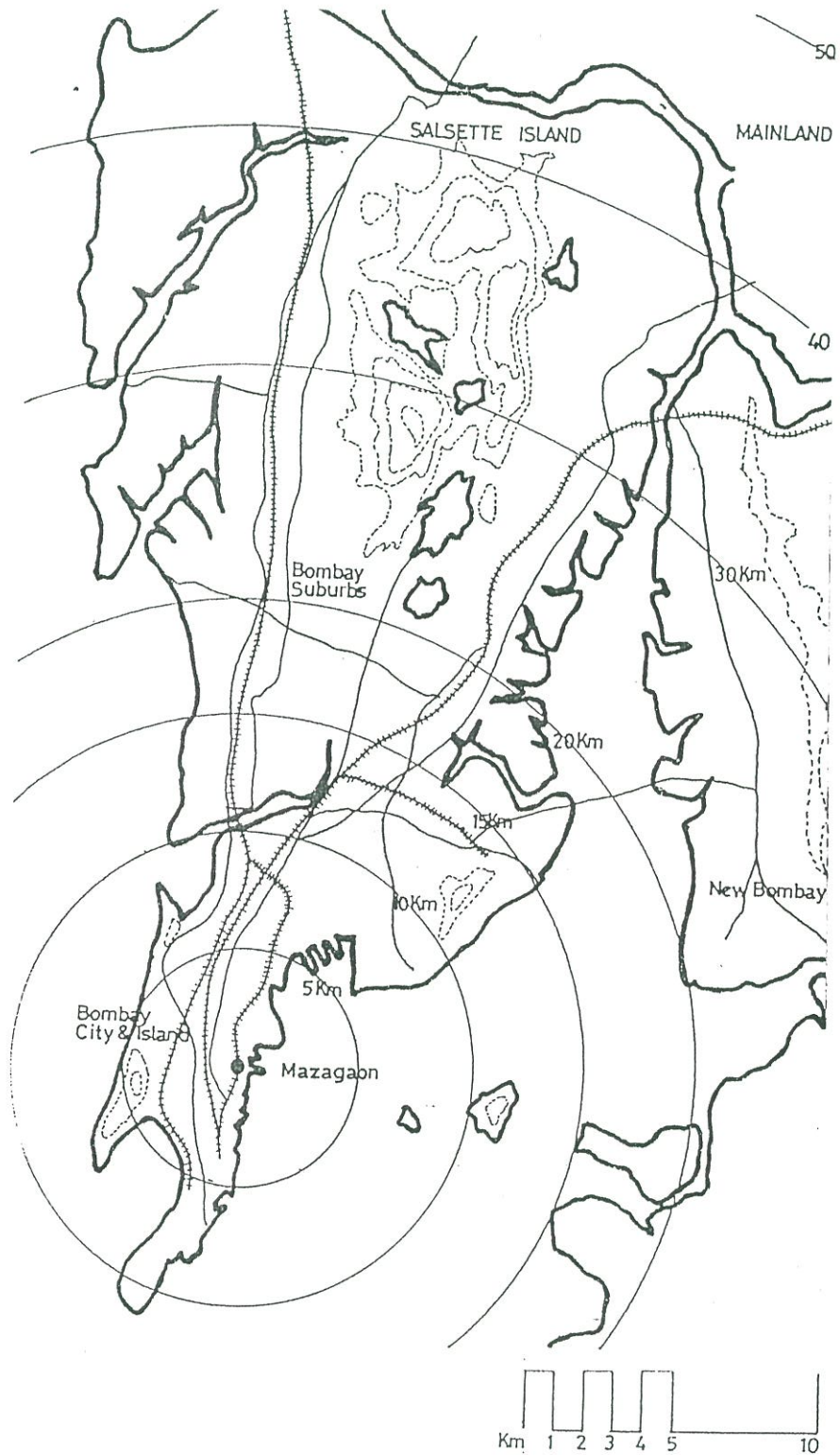
3.3 The updated information shall be analysed to formulate draft base guidelines.

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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05
APR 00



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 Champsai 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 Champsai 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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05
APR 00



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

	<p>SCALE</p> 	<p>TITLE LOCALITY SEGMENT 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 : 8230925, 6356874 (R) FAX 8260557 email pjarch@boms.vsnl.net.in</p>	<p>05 APR 00</p>
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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

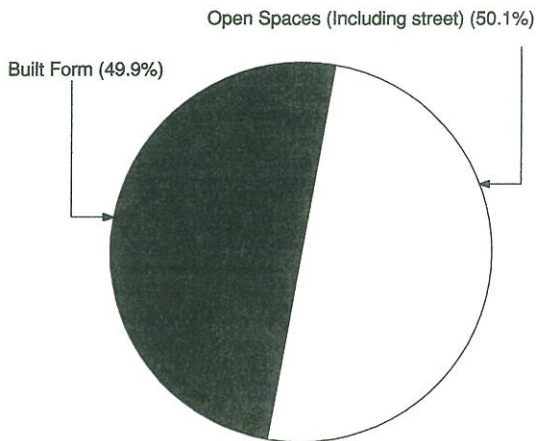


Drg. 10. Precinct Delineation Plan
Source- Joshi (1995)

	<p>SCALE</p>	<p>TITLE PRECINCT DELINEATION 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 : 8230825, 8356674 (R) FAX 8280557 email pjanj@boom5.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.

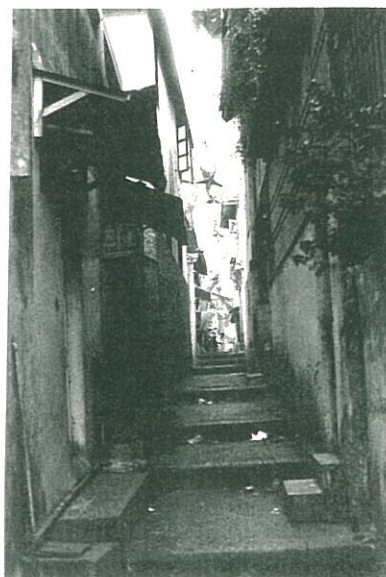


BUILT FORM/OPEN SPACE RATIO

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)



Built form

Open Spaces (Including street)

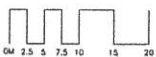


MAHATAR PAKHADI ROAD

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



SCALE



TITLE
FIGURE GROUND PLAN

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

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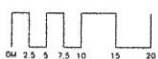
05
APR 00



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



SCALE



TITLE
FIGURE GROUND

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

PANKAJ JOSHI
CONSERVATION ARCHITECT
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email pjarch@bom5.vsnl.net.in

05
APR 00

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.

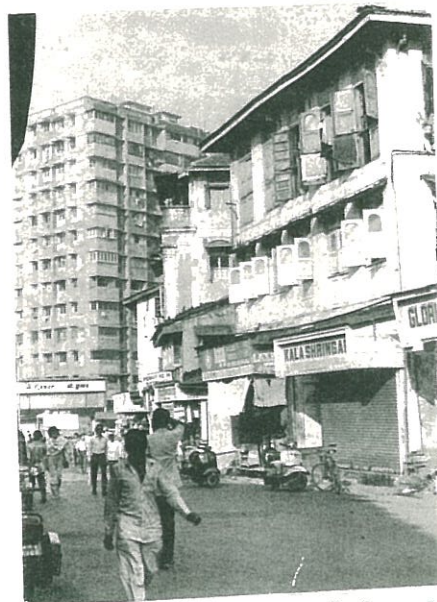
c Clarification of Survey

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%

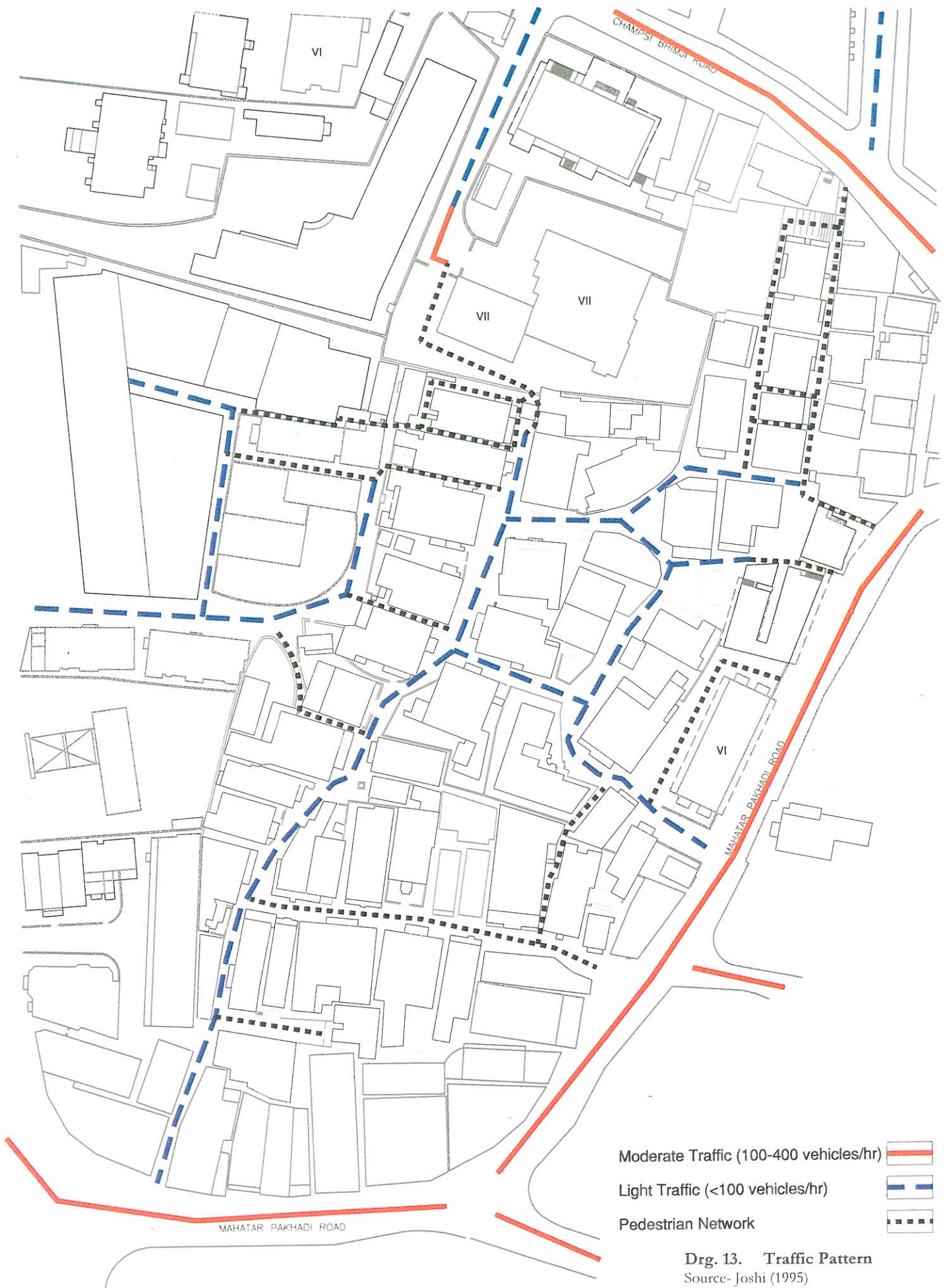


Left Mahatar Pakhadi Road

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)



SCALE



TITLE
TRAFFIC PATTERN

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

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05
APR 00

4.1 4 Topography of Buildings (Ref. Drg. 14)



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



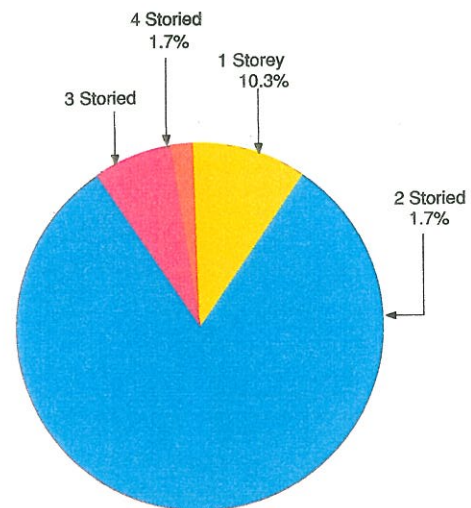
Aerial view of the main spine
Source- Joshi (1995)

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

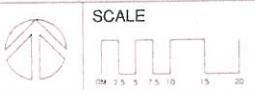


Aerial view to the north
Source- Joshi (1995)



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

- I Storey
- II Storeys
- III Storeys
- IV Storeys
- IV Storeys
- IVI Storeys & Above



TITLE
TOPOGRAPHY
OF BUILDINGS

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

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APR 00

4.1 5 Building Use (Ref. Drg. 15)

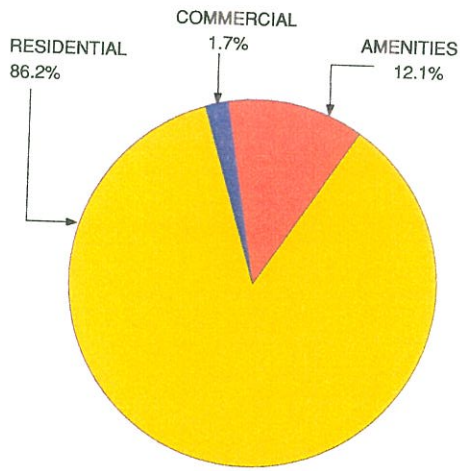
a Fig 15 presents the building use pattern of Mahatar Pakhadi precinct which is predominantly residential.

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

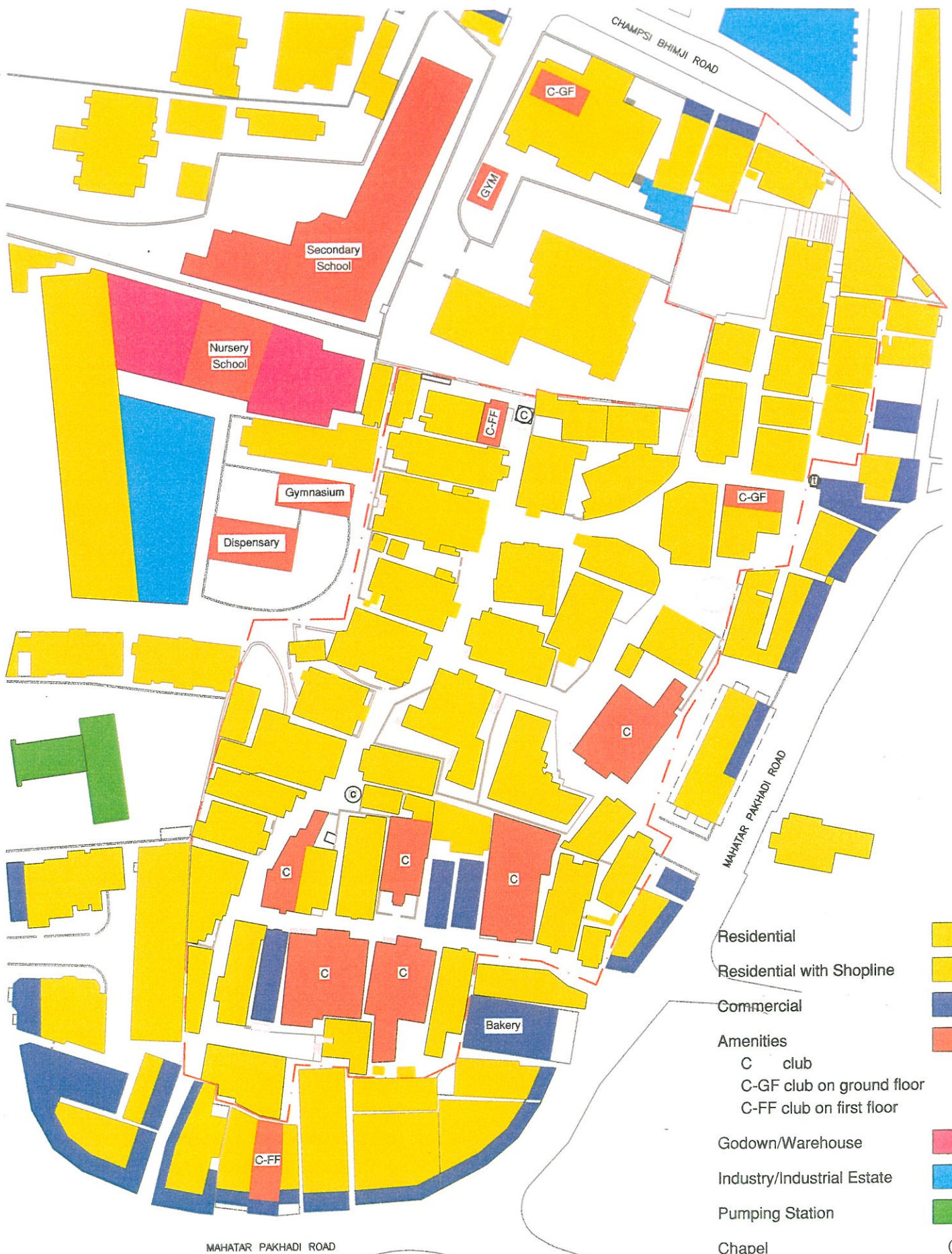
Residential -	86.2%
Amenities (clubs) -	12.1%
Commercial -	01.7%





USE OF BUILDINGS



Left Residential buildings on the main spine
Center Clubs on clubs street
Right Holly cross oratory
Source- Joshi (1995)



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

	<p>SCALE</p> 	<p>TITLE</p> <p>BUILDING USE</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: 8228026, 8258074 (R) FAX 8280557 email: pjarchi@boom5.vsnl.net.in</p>	<p>05 APR 00</p>
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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.

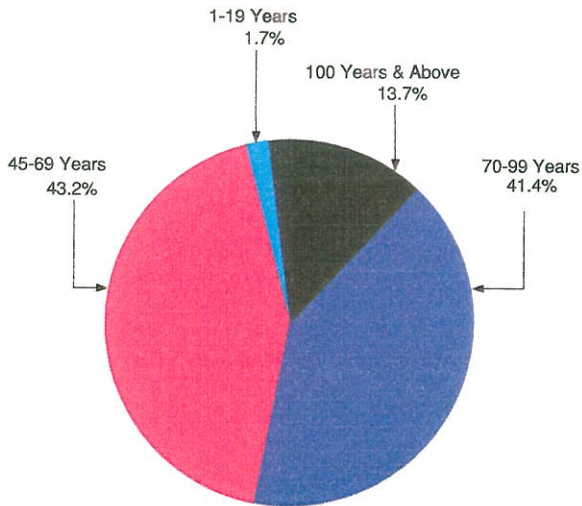
b The fig 16 shows that buildings alongside Mahatar Pakhadi lane form the older core while that towards the fringes are later developments.

c Composition of the age of buildings in Mahatar Pakhadi:

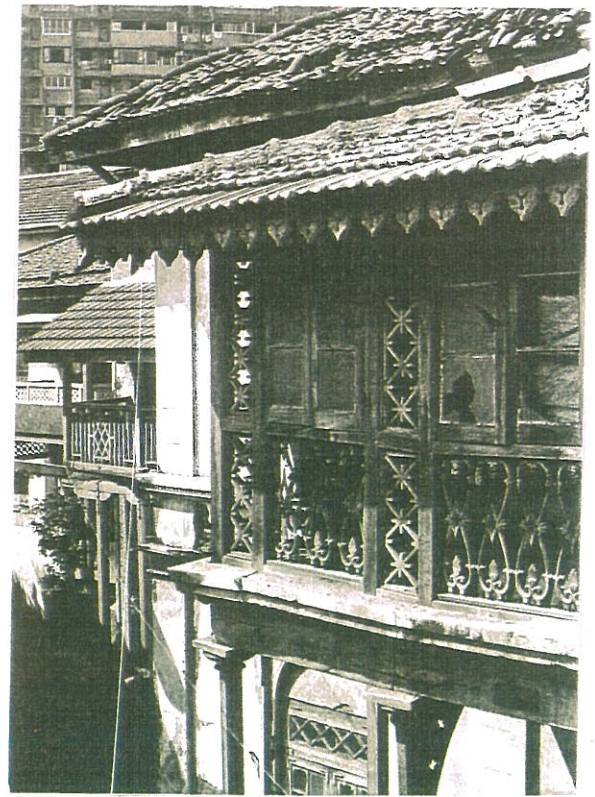
100 years or more	08 nos. i.e.	13.7%
75 years - 100 years	24 nos. i.e.	41.4%
50 years - 75 years	25 nos. i.e.	43.2%
01year - 25 years	01 nos. i.e.	01.7%

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).

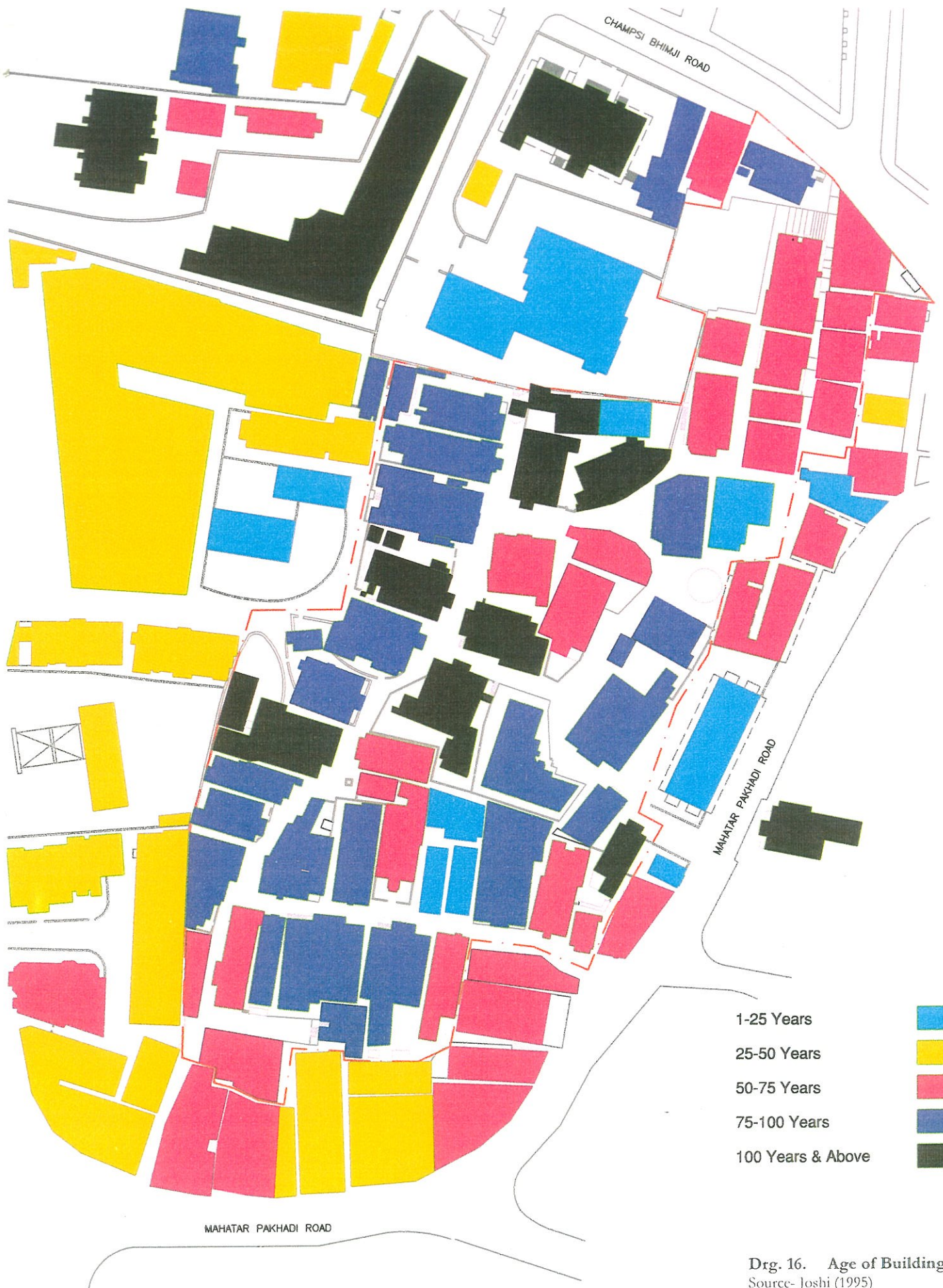
e With a considerable pressure of transformation on the core but so far Mahatar Pakhadi has sustained its older expression.



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)

	<p>SCALE</p> 	<p>TITLE</p> <p>AGE OF BUILDINGS</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 : 8220025, 8358674 (R) FAX 8280057 email pjerch@bom5.venti.net.in</p>	<p>05 APR 00</p>
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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

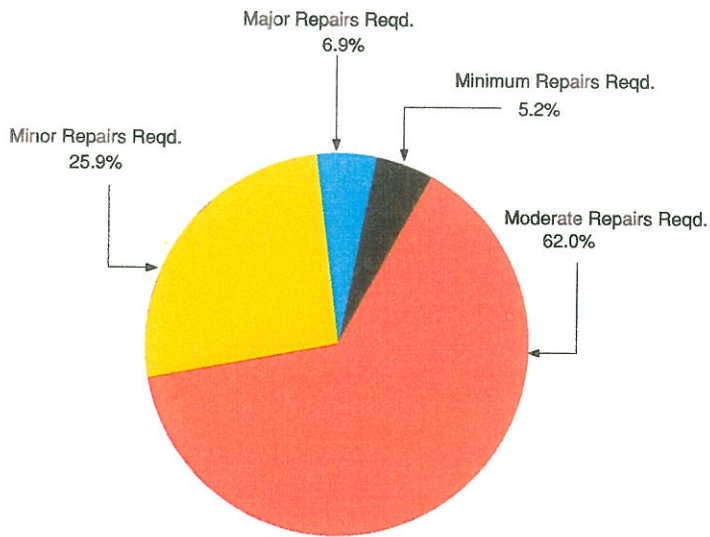
376 buildings (62.0%) are in fair condition requiring moderate repairs

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

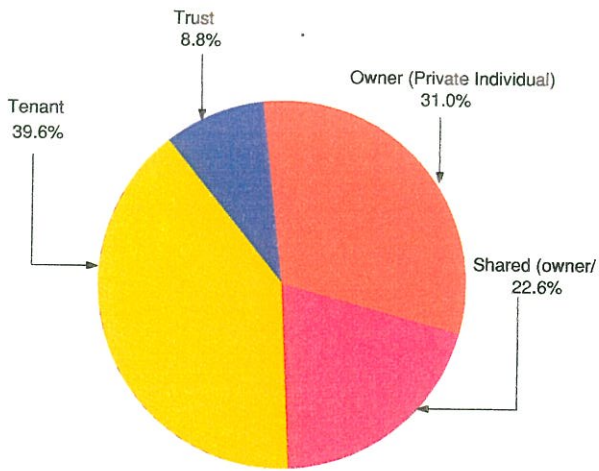


Left Lions Den-building in satisfactory condition
 Center Gods Gift-building in fair condition.
 Right Building in poor condition
 Source- Joshi (1995)



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)



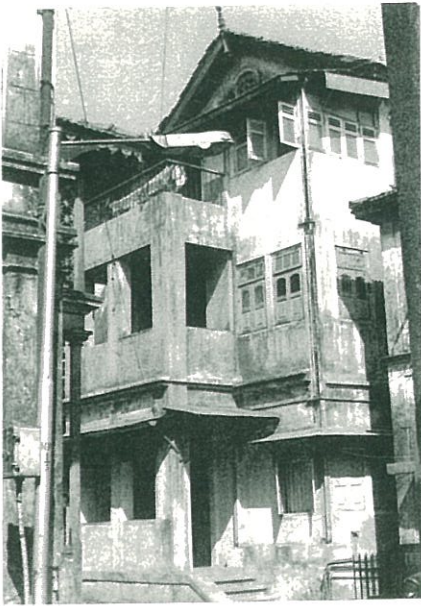
Drg. 18 Ownership Survey at Ground Floor Level

	<p>SCALE</p>	<p>TITLE</p> <p>OWNERSHIP SURVEY GROUND FLOOR LEVEL</p>	<p>CONSERVATION GUIDELINES OF MAHATAR PAKHADI PRECINCT MAZAGAON, MUMBAI FOR MMR - HERITAGE CONSERVATION SOCIETY</p>	<p>PANKAJ JOSHI CONSERVATION ARCHITECT 22004, YASHODHAN APT, FOUR BUNGALOWS ANDHERI (WEST), MUMBAI - 400 053 TEL : 8230625, 8256674 (R) FAX 8260557 email pjarch@bom5.vsnl.net.in</p>	<p>05 APR 00</p>
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Drg. 19 Ownership Survey at First Floor Level
 Source- Joshi (1995)

	<p>SCALE</p>	<p>TITLE</p> <p>OWNERSHIP SURVEY FIRST FLOOR LEVEL</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 - 400 051 TEL : 8220825, 8356674 (R) FAX 8260557 email pjarch@bom5.vsnl.net.in</p>	<p>05 APR 00</p>
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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.

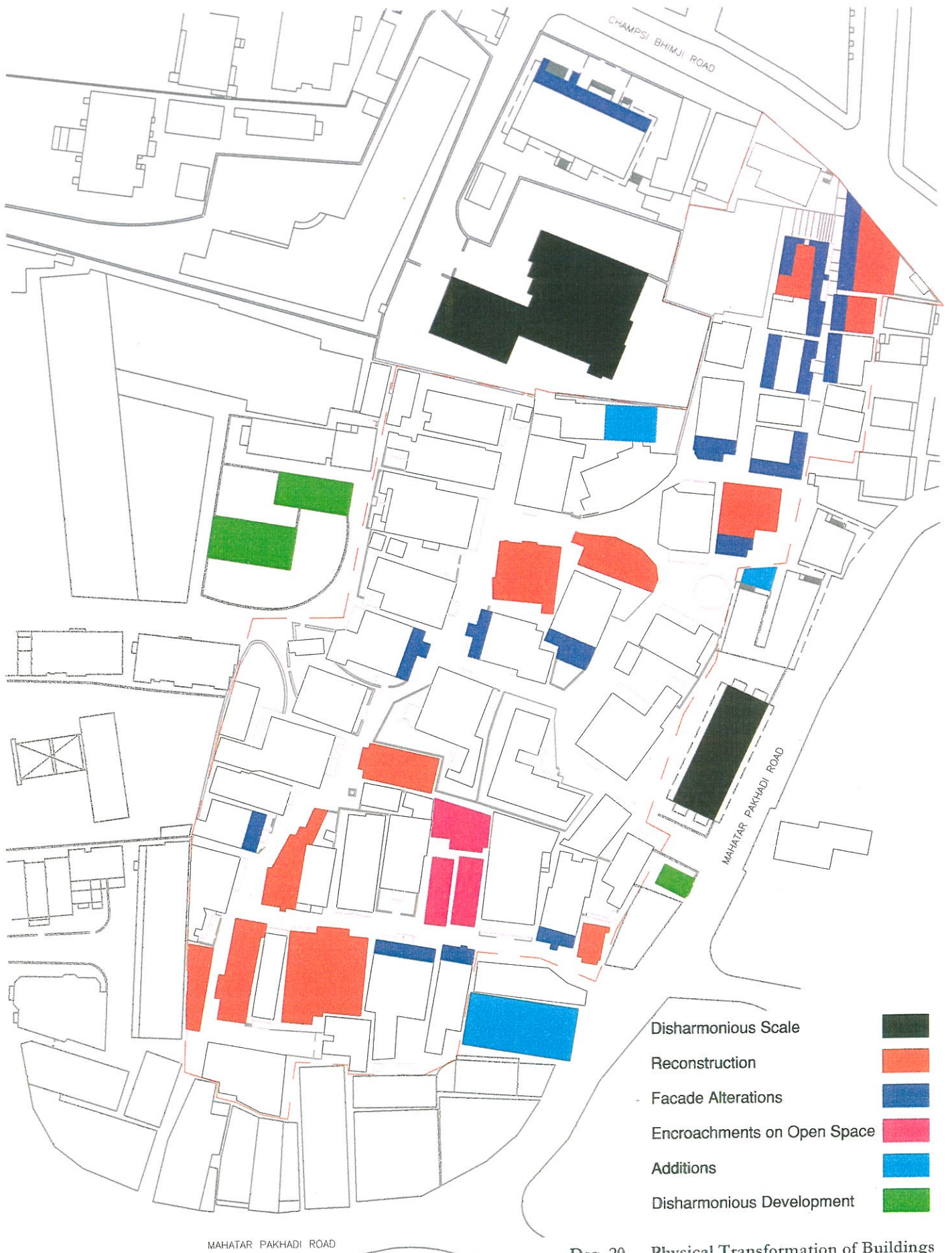
c High and mid-rise developments within the locality, and on the fringes are totally incongruous to the scale and the character of the settlement's original built form.



MHADA repaired building

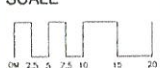
Left, Right, Center-Buildings transformed during repair

Source- Joshi (1995)



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

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

	<p>SCALE</p> 	<p>TITLE</p> <p>PHYSICAL TRANSFORMATION OF BUILDINGS</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, 8356674 (R) FAX 8290557 email pjarchi@boms.vent.net.in</p>	<p>05 APR 00</p>
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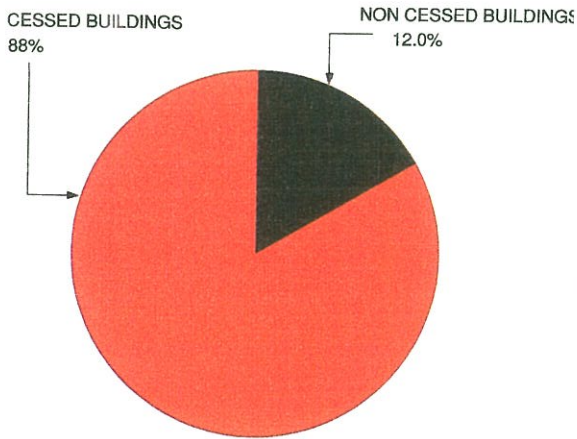
4.1.10 Survey of Cessed Buildings (Ref. Drg. 21)

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)

	<p>SCALE</p> 	<p>TITLE</p> <p>CESSED BUILDING LOCATION PLAN</p>	<p>CONSERVATION GUIDELINES OF MAHATAR PAKHADI PRECINCT MAZAGAON, MUMBAI FOR MMR - HERITAGE CONSERVATION SOCIETY</p>	<p>PANKAJ JOSHI CONSERVATION ARCHITECT 2204, YASHMOHAN APT, FOUR BUNGALOWS ANDHERI (WEST), MUMBAI - 400 053 TEL : 8230825, 8368674 (R) FAX 8280657 email pjkrc@com5.vsnl.net.in</p>	<p>05 APR 00</p>
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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).

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Source- Joshi (1995)

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