

HOUSING TYPOLOGIES IN MUMBAI

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Research Team

Prasad Shetty

Rupali Gupte

Ritesh Patil

Aparna Parikh

Neha Sabnis

Benita Menezes

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Front Cover: Street in Fana swadi, Inner City Area of Mumbai

Study of House Types in Mumbai

As any other urban area with a dense history, Mumbai has several kinds of house types developed over various stages of its history. However, unlike in the case of many other cities all over the world, each one of its residences is invariably occupied by the city dwellers of this metropolis. Nothing is wasted or abandoned as old, unfitting, or dilapidated in this colossal economy. The housing condition of today's Mumbai can be discussed through its various kinds of housing types, which form a bulk of the city's lived spaces.

This study is intended towards making a compilation of house types in (and wherever relevant; around) Mumbai. *House Type* here means a generic representative form that helps in conceptualising all the houses that such a form represents. It is not a specific design executed by any important architect, which would be a-typical or unique. It is a form that is generated in a specific cultural epoch/ condition. This generic 'type' can further have several variations and could be interestingly designed /interpreted / transformed by architects.

The focus of this study is on documenting and describing the various house types found in Mumbai with discussions regarding their respective cultural contexts, evolution of form, policies under which they took shape, delivery systems used to generate them, agencies involved, financial mechanisms, uses and occupations, tenure patterns, transformations, etc. It is neither a comprehensive history of housing in the city nor a study of housing conditions, but instead a study of house types. The compilation however would be valuable for undertaking a historical study or describing the present housing condition.

Housing has been a function of Mumbai's changing landscapes. For the purposes of this study, seven types of landscapes are identified: These include

1. Agrarian Landscapes with Strategic Points for Trade and Control

Mumbai was a set of seven islands dotted with fishing villages, paddy fields and agricultural villages. Mumbai also had some small ancient ports around which mercantile villages developed. These villages were typically made up of small single family houses densely packed together. The economy was primarily agrarian with fishing and agriculture being the two predominant occupations. Mumbai also was strategically important along the western coast due to its ports. Hence various Indian and foreign rulers tried to have control over it. These rulers built forts and other military infrastructure in the agrarian landscapes. People lived in free standing single or double storied houses.

2. Landscapes of Trade Routes and Market Places

Parts of Mumbai were established as strategic trading nodes since the 15th century. The colonial rulers strengthened Mumbai as a trading node by using the natural harbour at the south of the city. Large amounts of goods passed through the Mumbai harbour. Subsequently, the adjoining lands were developed into markets. Farmlands were used for real-estate development. The geographical limitation of the seven islands was overcome by integrating lands with large scale reclamations. Planning was done for encouraging Trade and Revenue collection and cartographic maps were prepared during this time to aid the collection. The Colonial Fort was developed at the south to house the rulers. Outside this fort a large town grew with densely packed housing stock and shops. The wadis of Mumbai developed here as set of buildings with shops in the front and houses behind and on higher floors. Land owners became land lords and rented houses in these wadis.

3. An Industrial City

The end of textile supply from America after the American Civil War forced the British to look for other places to manufacture textile. Textile industry was encouraged in India. A number of textile mills were set up in Mumbai during the second half of the 19th Century. At the same time train tracks were laid to move goods and military very quickly. By the turn of the century, Mumbai had already become one of the most important textile producing centres in the world. The focus was on developing the infrastructure for industries. Economy was now driven by the Mills of Mumbai. The landscape was characterised by mills, bridges, railway stations. It was here that one of the most famous housing types - the chawl came into existence. These were multi-tenanted buildings with shared utilities built by mill owners and other landowners for the working class in the city.

4. A Colonial Presidency Capital

With the national freedom movement gaining strength during the end of the 19th century, the colonial government was forced to get actively involved in governance issues. The Colonial government started planning the city as an imperial outpost. Organisations and Institutions like Municipal Corporations, Improvement Trusts, Public Transport Companies, Courts and Universities were set up. These institutions became responsible for planning and managing the city. The landscapes during the time were characterised by planned plotted developments with wide roads and public transport facilities. The apartment type was introduced in the city and started gaining prominence as a mass housing type. While the state became the most important agent in the delivery of land and housing, the landlord group proliferated by building rented apartments in the newly planned plots. While as a capital of a colonial presidency Mumbai received money from outside for its expenditure, the predominant economy of the city was based on Industries.

5. State Capital

After independence Bombay remained the regional capital. Industrial production still dominated the economy of the city. Its capital status also continued after the formation of states in the mid 60s. It became the capital of the Maharashtra State. Planning focused on Planning for equity and efficiency of the Socialist State where regulations of Urban Land Ceiling and Rent Control and instruments of Floor Space Index, Development Plan, Land use Zoning were framed. Also large service institutions like the Housing Board, Repair Board, Housing Authority, Industrial Corporation were created. The landscape was characterised by new industrial districts, town planning schemes, large mass housing colonies, Bungalows and apartments in suburban areas and some commercial districts. While Apartment became the predominant housing type, slums started growing. With the landlord community discouraged after the rent control act, the housing delivery was managed by state agencies and cooperative housing societies. The builder group was born during this time.

6. Overgrowing Metropolis

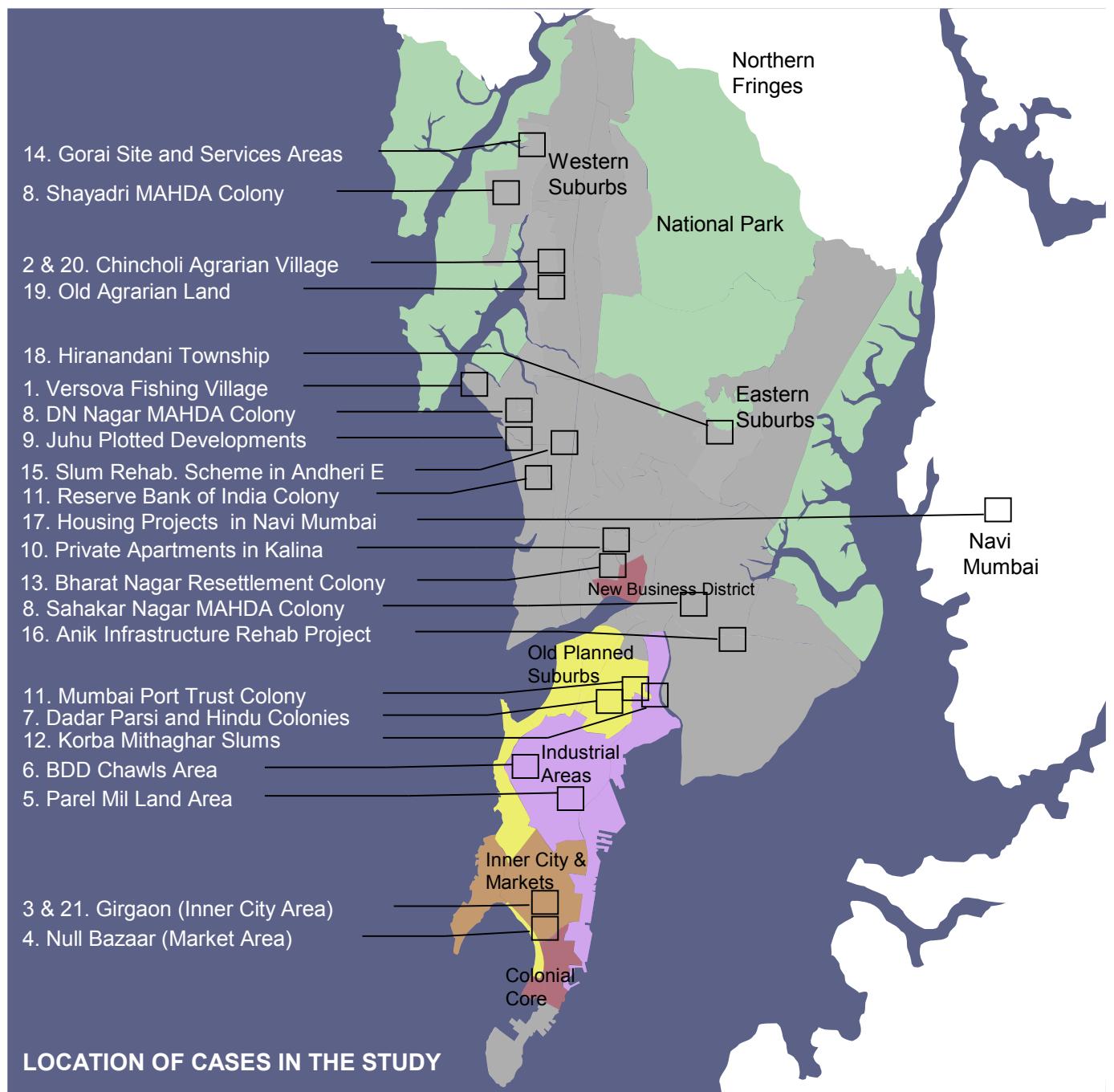
Discussions on slums became intense since the 70s. The high rate of migration into the city was blamed for this. High Population in the city became the central conceptual point to discuss urban issues. Institutions like the Metropolitan Authority were set up to discuss and organise growth outside the city boundaries. The Regional Plan was born in this context that created a plan for a new Central Business Districts and a satellite city. Slums, suburban developments, urban fringe sprawl started proliferating on account of immense demand for real estate. Site and services schemes, apartments and slum housing became the predominant type. State Agencies remained active in providing housing, but the builder and developer group became the most important agents in the housing delivery system.

7. Base for a Global Capital

The City transformed rapidly since the 90s after the state adopted liberalisation policies. Since the mid 80s, the industries of the city started dismantling. The Economy of the City now rested on the magnanimous and ambiguous service industry that ranged from large Business Process Outsourcing Units to small entrepreneurs. The new geographies in the city are characterised by large Infrastructure Projects, Rehabilitations, Malls, Multiplexes, Luxury Townships, Redevelopments and Rehabilitations. Planning has diverted its strengths towards managing the Market with regulations for protecting heritage, providing additional FSI for redeveloping dilapidated Buildings and Slums, Transferring development rights, Redeveloping old industrial areas, encouraging private actors, donors and civil society organisations. Housing Types include Large Luxury Townships, High Rise Apartments, Slums, Rehabilitations of Slums and Dilapidated buildings, Apartments in Old Villages and Agrarian Lands and Fringe Townships. The Most important actors in the Housing delivery system include Builders/Developers, NGO-State-Donor-Builder Coalitions, Financial Institutions and Slum Lords.

For the purpose of this study, 21 house types are identified across these historic landscapes identified above. While, these are more or less chronological categories, the last two (discussing slums and new housing) specifically focus on present experiences. These types include:

1. House in a Fishing village
2. Single family houses in Agrarian villages
3. Wadis from the Mercantile Economy
4. House from a Market in the Mercantile Economy
5. Chawls built by Private Initiatives
6. Chawls built by Government agencies
7. First Apartments in planned parts
8. Mass Housing by state after Independence
9. Houses in Plotted developments
10. Private Apartments of 70s and 80s
11. Public Sector Employee Housing
12. Slum
13. Slum Improvements and Resettlements of the 70s and 80s
14. Site and Service Housing
15. Slum Rehabilitations with Private Initiatives
16. Rehabilitation for Infrastructure projects
17. Housing in the Urban Fringes
18. Townships in Suburban areas
19. Apartments in old agrarian lands
20. Apartments in old villages
21. Dilapidated Building Redevelopments





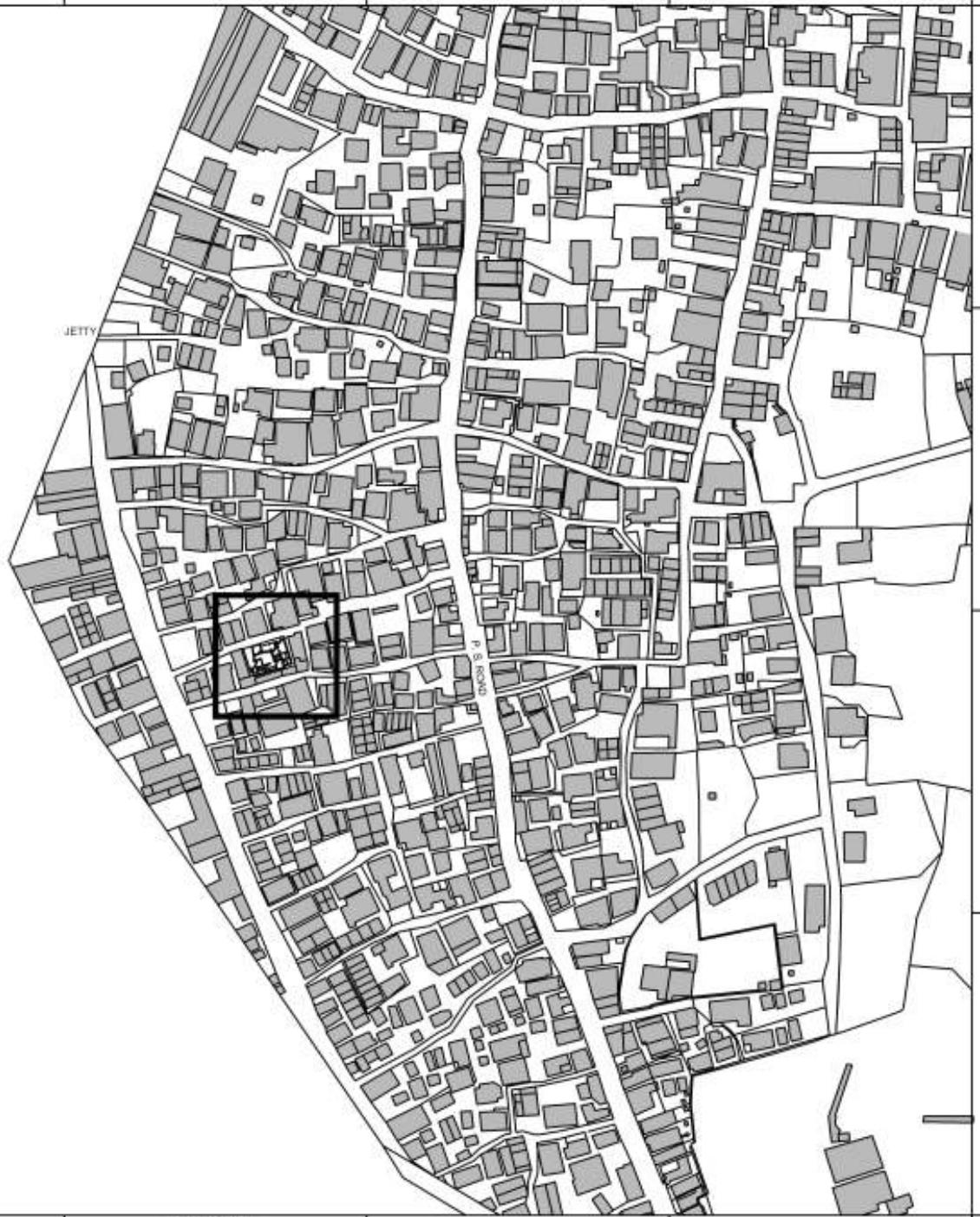
1. House in a Fishing Village

The seven islands of Mumbai, prior to the colonial rule, were inhabited by indigenous agrarian settlements. These communities, the kolis, the bhandaris, the kunbis, were engaged in fishing, farming, toddy-tapping respectively. Though substantially transformed, some of these settlements still exist today in the city, now engulfed by newer developments all around, facing impending pressures of development.

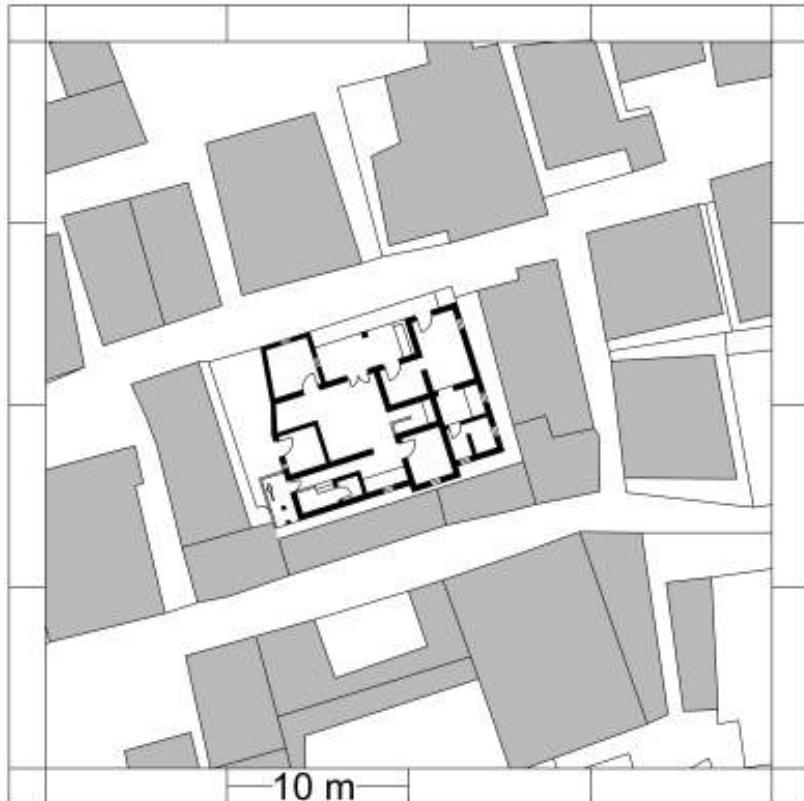
There are several fishing villages along the coastline of the city. Though some of the people, especially the younger generations in these villages have moved into other occupations, a substantial section of people from these villages are still involved in fishing activity.

The structure of the villages has mostly remained unchanged. This includes a main central spine that cuts through the village and end up on the coastline. Spaces for several activities involved in fishing, such as boat repair, drying of fish, drying of nets, etc are located at the mouth of this spine near the coastline. Also located close to the coastline are allied activities of cold storage, auctioning markets etc. Typically a small shrine with a deity is located somewhere in the middle of this spine. Often in the vicinity of the shrine is located a co-operative building which carries out several activities of the fishing co-operative. Also strung along the spine are small restaurants, grocery shops, medicine shops and other retail outlets for every day needs. On either side of the spine are thin finger-like streets that lead to the residences. The built form here is densely packed, interspersed at several places with small courts and open spaces. These form important spaces, where the everyday activities of the fishing community spill out – They spaces are used to clean and repair nets, tools, etc. Most of the activities in the fishing village are done communally.

A typical house in such a settlement consists of a large multifunctional living space, several small rooms, a tiny kitchen and a toilet. The verandah outside the house becomes a very important element. It is used for various purposes. Tools of fishing are stored along one side of the veranda. Small rooms are added to this house after every marriage as the family grows. While older houses are typically ground storied with sloping tiled roofs and wooden columns, newer houses are two to three storied, flat roofed, built in RCC construction. The new houses come up exactly in the places where the old houses had existed, but are taller. In some cases, upper floors of these new houses are rented to outsiders who are not involved in fishing activities. Finances for additions or for reconstruction are mobilised by the family itself through savings or loans from money lenders.



100m



Opposite page (pg 10): Versova village

*Previous page (pg. 8) and above: Bhainu house
in Versova*

BHAINU HOUSE	
VERSOVA FISHING VILLAGE	
No. of tenements	1
Size of each tenement (sq m)	114
Ground Cover of building (sq m)	114
Plot Area (sq m)	155
No. of inhabitants	11



Above: Main Spine in Versova village

Middle: Internal street in Versova village

Below: Fisherfolk house in Versova village



Right: New Developments in Versova village





2. Single family houses in Agrarian villages

Agrarian landscapes in Maharashtra are characterised by large farm lands, dotted with large single family houses and compact villages. The large houses in most cases belong to big land owners. Their fields surround their houses. These houses are called *wadas*. Typically a *wada* has a courtyard in the centre and single storied rooms all around it. There are separate rooms for storing agricultural products, rooms for deities, rooms reserved for pregnant women, rooms for cooking, sheds for cattle etc. Such houses however are now difficult to find in Mumbai.

The compact settlements in the agrarian landscapes are either inhabited by people who own small pieces of land or are lower caste landless agricultural labourers. There are also other lower caste settlements that specialise in some production or the other i.e tanning, pot making, etc. The lands outside these settlements are kept for agricultural purposes.

Mumbai still has some of these compact agrarian villages, but fewer agricultural fields. These villages are characterised by a main street with shops on either sides. Thin roads lead perpendicular to the main spine, into the settlement. There is generally a religious place within the village – either a temple or a mosque. While most of the houses are single family houses, there are also buildings occupied by multiple families who rent these tenements. These are generally single room tenements with a common corridor and shared toilets. These buildings often have shops at the ground floor. Some single family houses along the main road also have shops in the front.

A typical single family house is a set of rooms with a verandah in the front. These houses generally have a backyard where the toilets are located and which is used for washing utensils and clothes. Additions in the family are accommodated by adding a room or a floor to the houses. Some houses are double storied. In most houses there are attic spaces which are used for storing household goods. Finances for building these houses were mobilised through the savings of the families or through loans from large landlords.

Over time these buildings saw several transformations with haphazard additions to accommodate growing families, structural modifications to build internal toilets, in cases where they were outside, and enclosures of semi private areas for reasons both of security, privacy and accommodating growing families. Today, these villages are seeing significant transformations due to high demand for land with tall buildings coming up in place of these antiquated houses.





Previous page (pg14): House in Pali village

Opposite page (pg 16): Chincholi village

Top Left: verandah of Yadav house

Top Right: Backyard in Yadav house

Above: Yadav House in Chincholi

YADAV HOUSE	
CHINCHOLI AGARIAN VILLAGE	
No. of tenements	1
Size of each tenement (sq m)	106
Ground Cover of building (sq m)	106
Plot Area (sq m)	183
No. of inhabitants	6



Top Left: House in Chincholi village

Bottom Left: Street in Chincholi village

Bottom Right: Double storey verandahs in a house in Chincholi village



Top Right: Chowk in Andheri Gaothan

Bottom Right: Multitenanted building with shops on the ground storey.





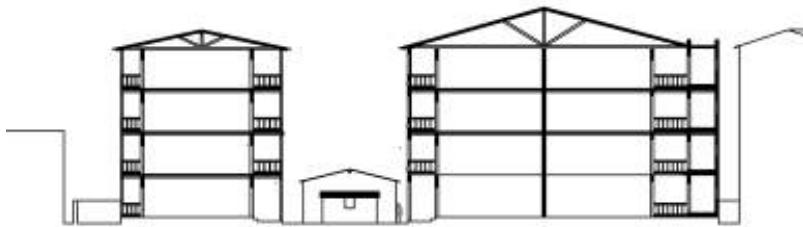
3. Wadis from the Mercantile Economy

Several trade settlements came up in northern parts of Mumbai, which had formed important points in the trade routes connecting the hinterlands to the outside world. The colonial governments later capitalised on the natural harbour in the south of the city, which subsequently gave rise to trade-based settlements in the adjoining lands. Incentives were given to Indian traders to act as middlemen in the trade. Several communities like the Parsis, the Bohras, and the Banias came to Bombay and began to settle outside the fort walls in south. This came to be known as the native town, morphologically distinctly different from the low density fabric inside the fort. These settlements have till date worked as large wholesale market areas for the city trading in all commodities passing through the harbour.

Earlier these lands were predominantly agrarian with large plots. These lands specialised in producing certain agrarian products and came to be known after the product produced there or after the name of the family that lived on that land. For example the name *Fanas Wadi* came from *fanas*, which means jackfruit or the name *Vaidya Wadi* comes from *Vaidya* which is the surname of a physician. When the economy of the city started changing from being agrarian to mercantile, the agrarian plots were hurriedly changed to accommodate the trading community. Land was developed either by the original owner or by a new owner from the trading community. Buildings were built in these plots to house the migrant traders and the trade labourers. Lower floors of these buildings were made into shops. The old names of the places still remain. The *Wadis* became the predominant type. A *wadi* is originally a piece of land. But in later developments the suffix *wadi* is assigned to an area with a group of buildings occupied by several households and with a single owner, who collects rent. Thus mass scale rented houses came into existence in Mumbai during the 18th and 19th centuries. The urban fabric of these settlements is densely structured. It is characterised by small nodes and open spaces with buildings around them. The fabric is essentially mixed use with shops on the ground story and residences above. The 'native' settlers brought with them the artisans of the regions they came from and the influence is seen primarily in the intricately carved building skins. A building within a *wadi* consists of single room tenements with common corridors and shared toilets. These corridors generally overlooked a street or an open space. These buildings are generally two to four storied.

Initially it was common practice for traders to have shops in the ground floor and houses above. The buildings in the interiors would be purely residential. Usually traders of the shops stayed in the residences behind. Later years saw an exodus of large sections of the affluent trading community to other parts of the city. These premises were then rented out for residential or commercial use. In many cases traders who moved out maintained their shops. In other cases the houses were sub-let to either the trade labour or to small enterprises. Commercial use slowly percolated from the ground storey to the floors above with people finding tactical ways to use the premises as work places.





Previous page (pg 20): Koliwadi in Girgaon

Opposite page (pg 22): Plan of Fanaswadi in Girgaon

Top: Central courtyard in Koliwadi

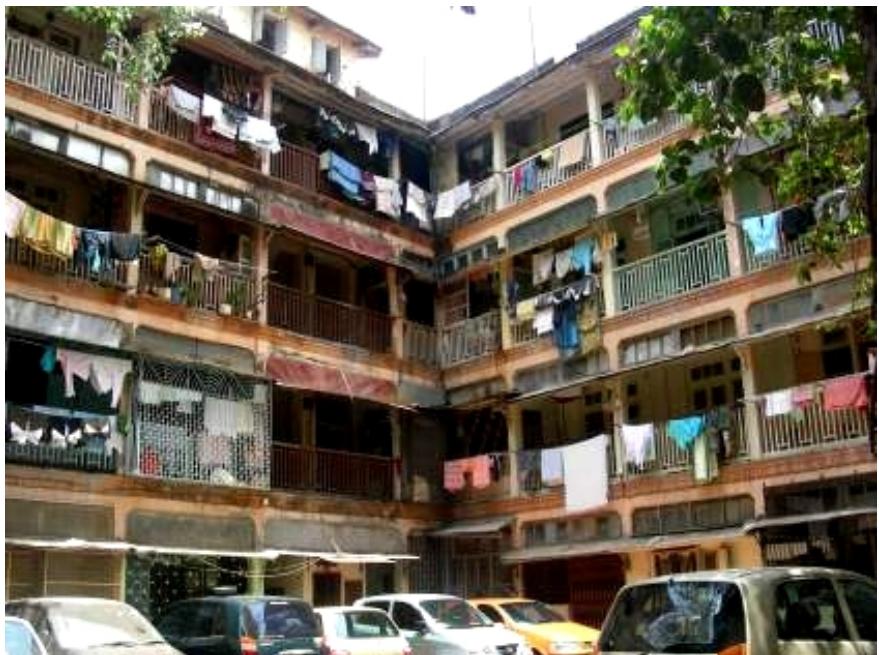
KOLI WADI	
GIRGAON INNER CITY AREAS	
No. of tenements	152
Size of each tenement (sq m)	29
Ground Cover of building (sq m)	1815
Plot Area (sq m)	2808
No. of inhabitants	760



Opposite page (pg 24): Internal street in Fanaswadi

TopRight: Entrance to the wadi with shops on the ground floor

Bottom Right: Courtyard space in Fanaswadi





M.A-CLASS BANGLES STORE

WHOLESALE DEALERS
IN ALL KINDS OF FINESS BANGLES & PRECIOUS JEWELRY.
44, JAWAHAR NAGAR, MUMBAI - 400 001.

Golden Glass Centre

AL-FAIZ SALEHBHAI BADRUDDIN'S BROS

PICTURE FRAMES

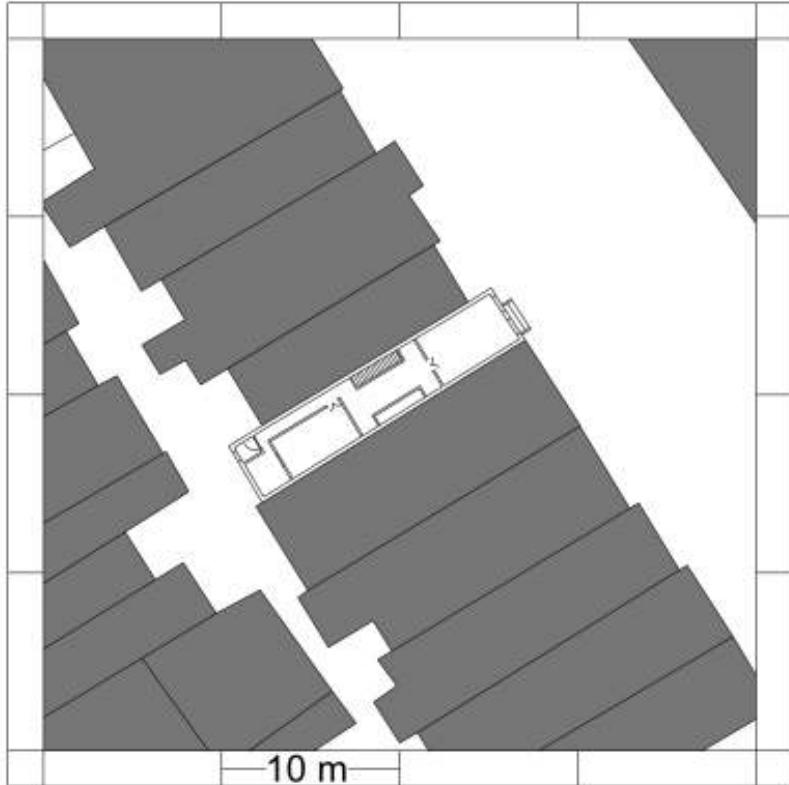
4. House from a Market in the Mercantile Economy

The southern part of Mumbai was developed as the colonial fort where the British lived. Immediately outside the fort, grew the large native town. The native town developed into a large market place with entire streets operating as guilds, specialising in various commodities. Even today there are several streets that specialise in single commodities. There are streets that only have textile traders or only jewellers, or glass traders. There is also a street that sells stolen goods called *chor bazaar*.

Here the densities of people and intensity of activities is extremely high. In case of Null Bazaar, thin types evolved that are three meters wide and twenty meters deep. This was to maximise the number of shop fronts. Houses were located on the rear of the buildings away from the road and on higher floors. These buildings are generally two to four storied. The traders often had shops in the ground floor and houses above. Later one of these used to be rented and the trader moved on to either work or live somewhere else.

Today these areas have twin problems – of highly dilapidated buildings and over burdened infrastructure. Even then, the place commands very high real estate price. On account of such demands we see several of these older typologies being demolished and tall towers coming up in their places. While these new types promise luxurious internal spaces, the questions on overburdened infrastructure remains unanswered.





Previous page (pg 26): Thin building types in Null bazaar

Opposite page (pg 28): Plan of Null bazaar

Top Right: Close up of thin types in Null bazaar with shops below

LOKHANDWALA BUILDING	
NULL BAZAR MARKET AREA	
No. of tenements	10
Size of each tenement (sq m)	15
Ground Cover of building (sq m)	62
Plot Area (sq m)	62
No. of inhabitants	50



5. Chawls built by private Enterprise

Mid nineteen century saw the process of industrialisation move to Bombay, with the first spinning mill being set up in 1856. A cotton boom followed as a result of the American Civil War and discontinuation of textile supply from America to Europe. Many more mills were set up during this time. Large capital was poured into the industrialization process. In 1873 the Bombay Port Trust was established. New industries like tramway and railway workshops, ship building, dyes and chemicals and oil and paper mills were set up. Some of the rich and influential traders shifted to owning mills. This created huge job opportunities and brought a steady stream of migrants especially from drought affected interior regions of Maharashtra to the city. Demand for affordable housing stock followed. Private landlords provided a fair share of housing stock to the city. Housing for these migrants were developed by private entrepreneurs who bought agricultural lands around the mills and constructed buildings of one room tenements with common toilets and corridor. This type of housing is called the *Chawl*. The central areas of the city today are densely packed with these chawls that were developed on all available lands. Open spaces were mostly found inside the cotton textile mills.

The precedents of a chawl could be seen in the army barracks or even in the *wadis* of the inner city. But these were made for the male migrant labourers of the industries who lived in the city for eight months and went to their villages during the monsoons for agricultural cultivation. Earlier, each tenement of 8 to 15 sqmts was shared between 4-5 labourers. Later on, the labourers, entangled in debt traps sold their ancestral lands and brought their families to the city. Families also came to the city to get better opportunities for their children. The tenements of the chawl came to be later inhabited by families rather than individual migrants. It is now usual to find such a single tenement housing a complete joint family of more than 6 people living in a single room of 10 sqmts and around 30 such households sharing 3 water closets and 3 bathrooms.

The chawl can be described as a typology comprising of several single units of a multipurpose space with a kitchen facility and a wash area (*mori*), all strung along one common access corridor also leading in to the shared toilet. This typology is known for housing densities as high as 3000 persons/ha. The urban character of these areas gets defined by the corridors flanking the streets. Most chawls on the busy streets have shops on the ground floor. Some times the types also have a courtyard in the center with tenements strung around this courtyard. The building construction is generally load bearing type with wooden frames and pitched roofs. Some later *chawls* were also constructed with reinforced concrete frames. The corridors become significant for not only climatic reasons but also cultural reasons, when rooms inside are small and time is spent outdoors most of the time. The shared spaces, high densities and a common class helped the area develop a culture that would later on fight vehemently for its land and work.

INDIA UNITED 1 COTTON TEXTILE MILL

BABASAHEB AMBEDKAR ROAD

100m



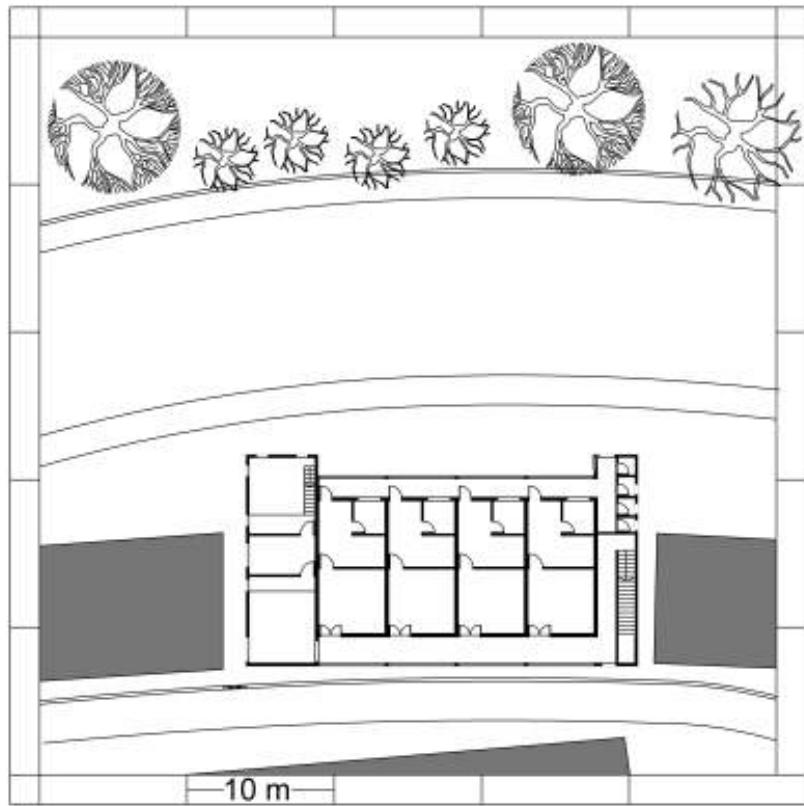
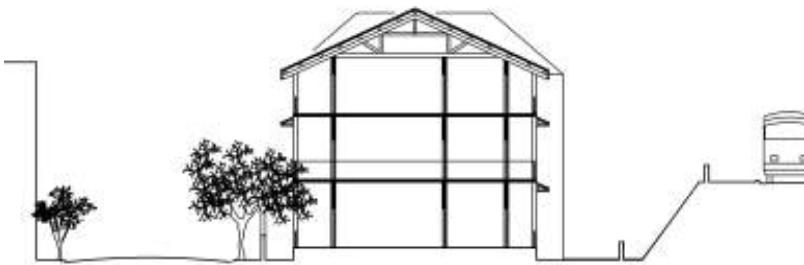
Previous page (pg 30): Haji Kasam chawl in Parel

Opposite page (pg 32): Plan of Mill lands in Parel

Top Right: Corridor space in Haji Kasam chawl

HAJI KASAM CHAWL	
PAREL MILL LANDS	
No. of tenements	500
Size of each tenement (sq m)	13
Ground Cover of building (sq m)	2121
Plot Area (sq m)	3931
No. of inhabitants	2500





Opposite page (pg 34): Plan of Mill lands

TopRight: Pradhan building, a chawl in the Mill lands

Above: Verandah space in the chawl

PRADHAN BUILDING	
DADAR MILL AREAS	
No. of tenements	15
Size of each tenement (sq m)	45
Ground Cover of building (sq m)	357
Plot Area (sq m)	426
No. of inhabitants	75



*Left: Chawl along
main N-S city corridor
with shops on the
ground floor*

*Opposite page (pg
35): Chawl in Parel
with corridor
wrapping around*





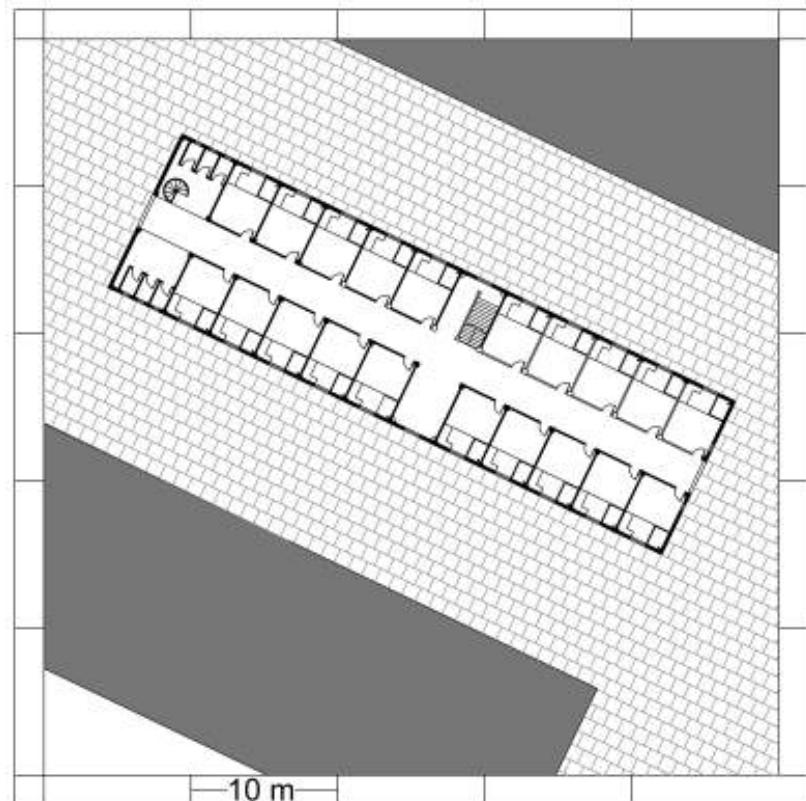
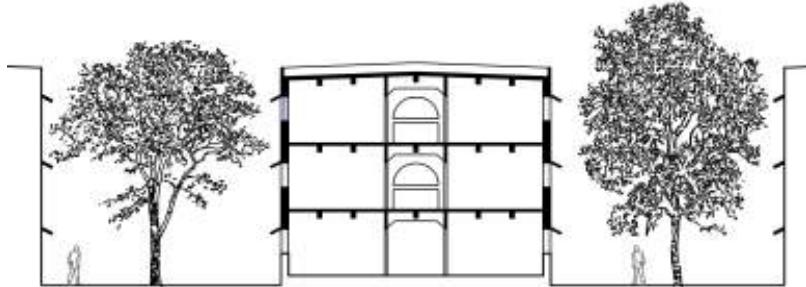
6. Chawls built by Government Agencies

The Bombay Improvement Trust (BIT) was set up in the late 19th Century to address the problems of over crowding, dilapidation and infrastructure. BIT also made new plans for several parts in the city for new housing development. Several chawls were constructed by the BIT to house the burgeoning labour groups. Similarly the Bombay Development Department and other government agencies like the Bombay Port Trust and the Railways also constructed several chawls in the city.

While the basic type of single room tenements strung along a common corridor with shared toilets remained similar to the privately developed chawls; the chawls built by the Public agencies ensured a master plan for them with adequate open spaces around them. Spaces between chawls that remained neglected in the privately developed ones became important community open spaces in the chawls developed by public agencies. While in the privately developed types, internal courtyards were common, in the publicly built chawls, one rarely found internal courts. Instead individual buildings sat in an open urban fabric making spaces between buildings work as public and semi public spaces.

Today, the industrial labour does not exist as the industries have shut. But their families still live in one of the densest parts of the city. Their tenement in a chawl in which they live, remains as their only saving and asset. The rents of these tenements have not increased, but it is very difficult to get cheap accommodation in these parts. The large demands of housing and real estate have pushed the price of the rights to occupy one of these tenements very high (Rs 5000 – Rs 10000 per square foot). The chawls on the other hand have become seriously dilapidated on account of overuse and neglect. While they stand to remind one of the industrial might of the city; they simultaneously run a risk of being pulled down to be scavenged for the precious land they hide below them.





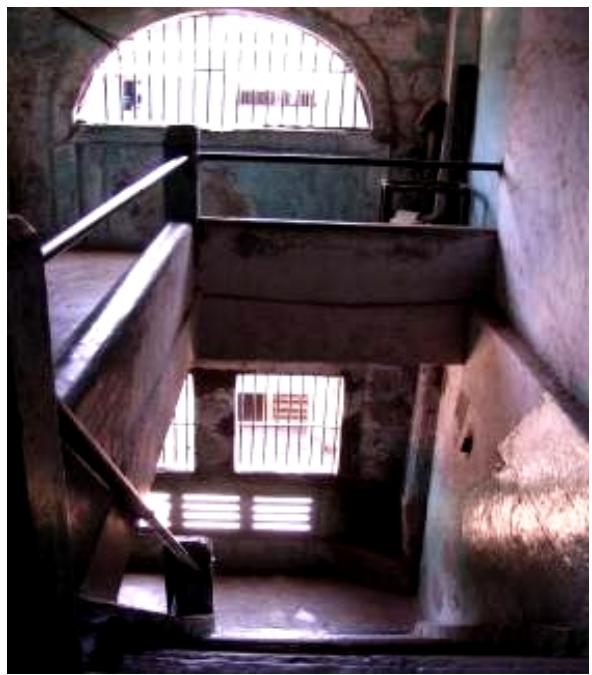
Previous page (pg 38) : Bombay Development Department chawls in Worli built in 1923

Top right: BDD chawl

Above: Market operating in spaces between buildings in the BDD chawls

Opposite page (pg 40): Plan of BDD chawls

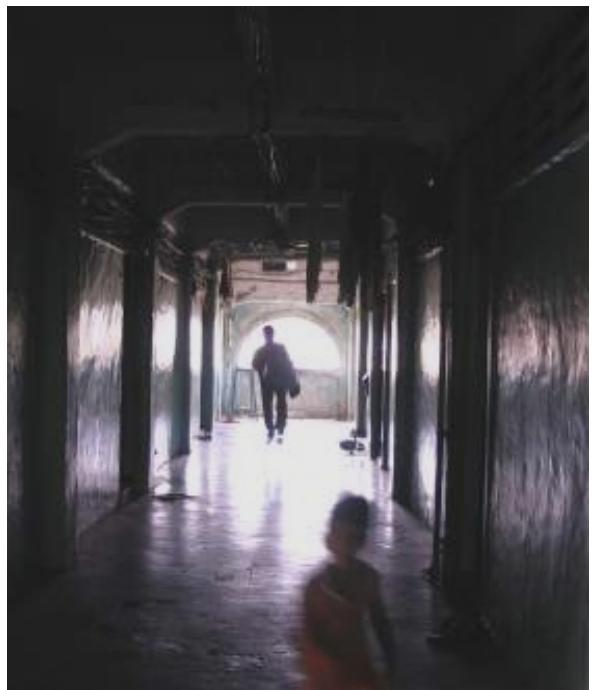
B.D.D. CHAWLS	
LOWER PAREL MILL AREA	
No. of tenements	60
Size of each tenement (sq m)	15
Ground Cover of building (sq m)	480
No. of inhabitants	300



Left: Staircase space in the BDD chawl

Bottom: Corridor space in the BDD chawl

Opposite page (pg 43): Bombay Improvement Trust chawls built in 1904 in the innercity areas of Girgaon







7. First Apartments in Planned Parts

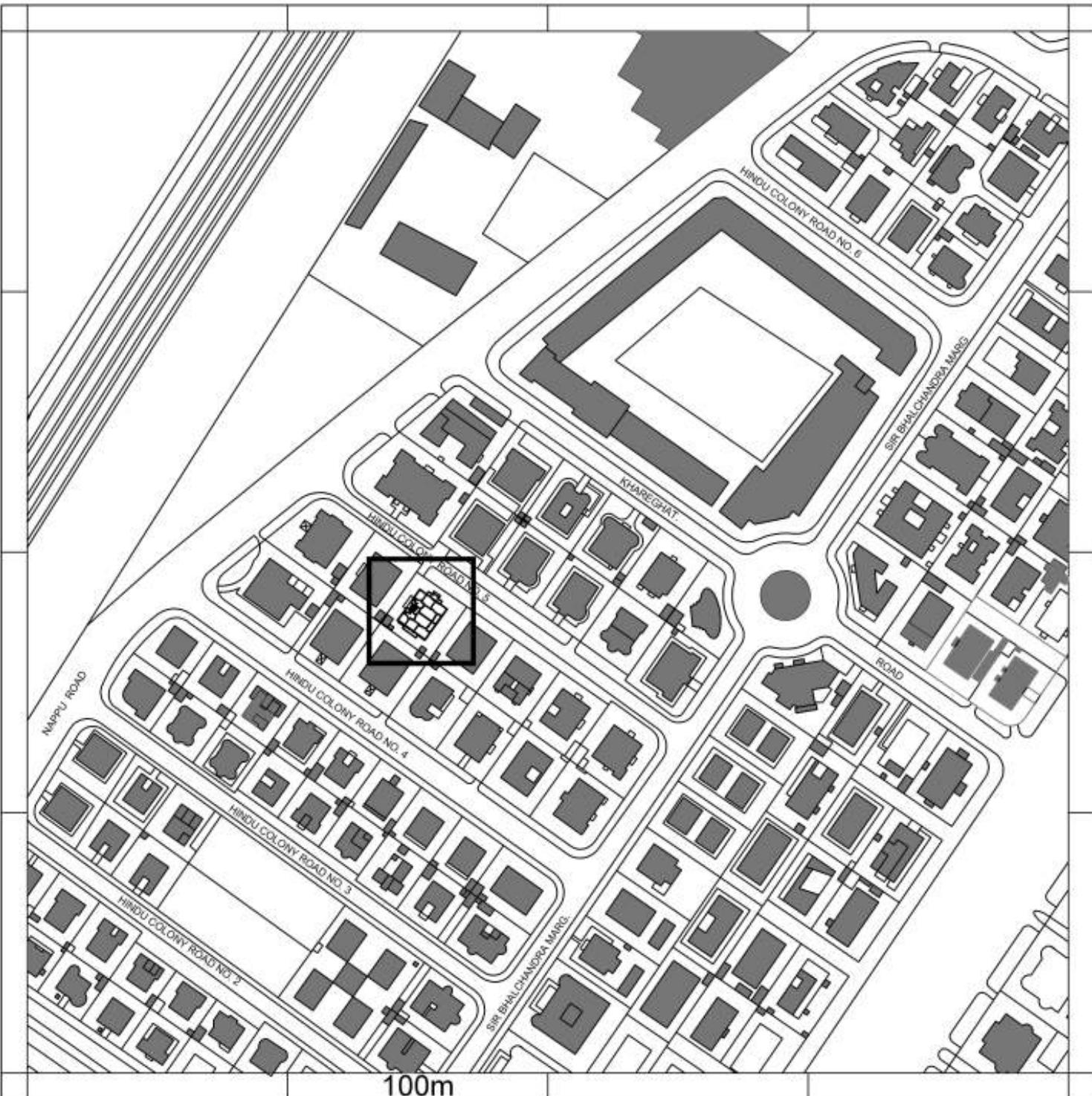
With industrialization and continuous migration, came degradation of the city fabric. The city was getting congested and there were problems of inadequate light, ventilation and sanitation. On the other hand the Colonial Rule in India was forced to take up active governance by the end of the 19th Century. This was marked by the establishment of the Raj in the country and the City Government in Mumbai. Bombay was gaining prominence as the administrative centre of the British Empire. Public Institutions were strengthened and new city-building activities were undertaken. With the rulers being small in number, the Raj now required a whole set of educated people to take care of the administration: this gave birth to a new class of people - the administrative class. These people had to be provided with housing far removed from the congested city. The influential traders and the business community were also demanding better housing conditions.

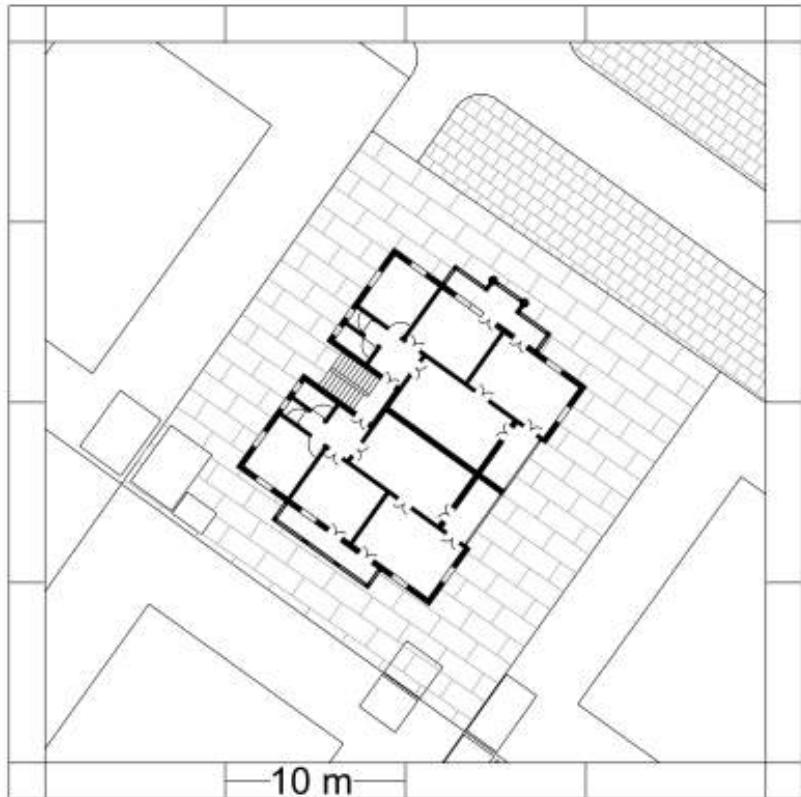
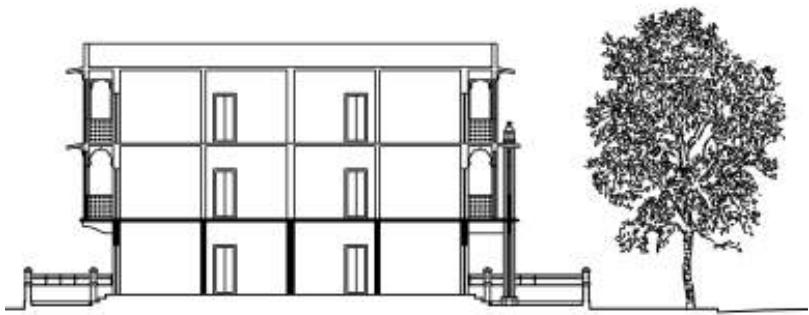
The Bombay Improvement Trust was born out of the need for dealing with poor living conditions . Its tasks were to cut bigger roads, providing sanitary facilities in the congested parts of the town and chalk plotted developments and facilities. BIT planned several schemes in the city of Mumbai over newly reclaimed lands. These schemes resonated the garden city concepts and were characterised by tree lined streets with gardens and parks. Several education and health institutions were set up to ensure good living conditions. The Dadar Parsi Colony Area in central Mumbai itself has some 13 education institutions within 1 sq km area. Tramlines and Roadways were planned for rapid movement from these 'suburbs' to the city centre in the South.

Dadar Parsi Colony and Hindu Colony precinct is one such scheme developed by the BIT. This was the colonial suburb, now in the heart of the city. The area was called Scheme 5 of the BIT and was divided into 816 plots of area ranging from 300 square meters to 1000 square meters each. Initially some plots were developed by the government as institutions. A number of residential plots were bought by community based private trusts. These trusts developed charity housing for the respective communities. Individual owners from the same community preferred to buy and develop plots around their community trust owned plots. The trusts also developed institutions.

The Bye Laws framed by the BIT were based on regulating the ground coverage, building heights and set backs. They reflected the BITS approach to city planning, which used urban design tools that combined concerns of sanitation and infrastructure with those of a residential environment. The entire area developed as a low rise, low density precinct. Here one finds the first instance of the apartment typology developing in the 1900s similar to the Parisian apartment or the apartment of Edinburgh. These were the first rented apartments in the city developed by private owners for the educated Indian families. The types showed generous spaces within the houses with small shared spaces to include entrance corridors and staircases. This was the birth of large scale private space in the city. This typology gained popularity and notions of upward mobility were soon associated with it. As opposed to shared facilities of toilets and community-shared passages of the chawls, the apartment provided privacy with individual bath and toilet arrangements and separate living and bed spaces. Moreover the chawls were now associated with the dense and congested working class parts of the city. The flats were characterised by verandahs and balconies overlooking the streets. The buildings and their inhabitants established a relationship with the streets and open spaces due to these verandahs and balconies. The streetscape on the other hand was defined through large pavements and low boundary walls. Several experiments of Art Deco are also seen in these precincts.

Under pressures of recent urbanisation and high value of real estate, these areas are seeing changes. Low rise apartments are being developed into tall high rise towers with stilts for car parking spaces disrupting the relationship of the buildings with the streets and open spaces. There are however attempts to save the area from such change using arguments of heritage conservation.





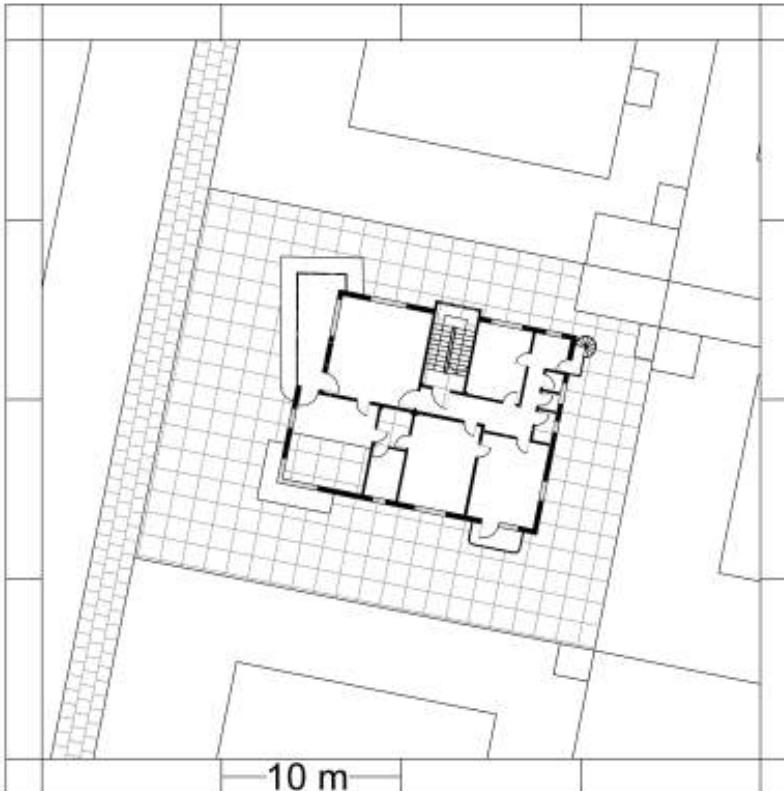
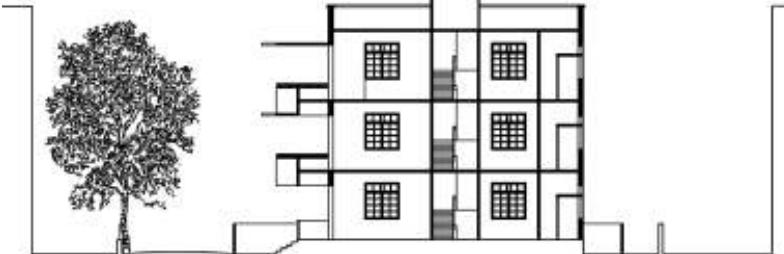
Previous page (pg 44): Apartment in Dadar Parsi Colony built in the 1920s, located in a layout planned by the Bombay Improvement Trust (BIT) in the 1920s.

Opposite page (pg 46): Part Plan of Dadar Hindu Colony Scheme 5, planned by the BIT.

Above: Vartak Building in Hindu colony

VARTAK BUILDING	
HINDU COLONY DADAR (E)	
No. of tenements	6
Size of each tenement (sq m)	94
Ground Cover of building (sq m)	198
Plot Area (sq m)	570
No. of inhabitants	30





Opposite page (pg 48): Part Plan of Dadar Parsi Colony Scheme 5, planned by the BIT.

Top right : Art Deco Apartment in Parsi Colony

(Plan and section of Gold Finch after 'Buildings that shaped Bombay, works of G.B. Mhatre, edited by Kamu Iyer, 2001)

GOLD FINCH BUIDING	
PARSI COLONY DADAR (E)	
No. of tenements	3
Size of each tenement (sq m)	165
Ground Cover of building (sq m)	177
Plot Area (sq m)	547
No. of inhabitants	15



8. Mass Housing by the State after Independence

With independence came further migration, both by victims of partition and people seeking opportunities in the city. This raised the housing demands in the city. Rents started spiralling. At the same time the Government took up a stance of providing for the poor and at the same time encouraging capitalist initiatives. To check the spiralling rents, the Rent Control Act was enacted in 1947, which froze rents at 1940 levels. With meagre returns from rented properties, landlords could no longer maintain them. Moreover providing rented accommodation was not a viable business anymore. This saw the demise of the landlord and rented housing stock in the city. In 1967 the Development Plan was sanctioned. Along with this came the concept of FSI (Floor Space Index) which laid restriction on how much one could build according to the infrastructure available. FSI in large parts of the island city were fixed at 1.33, which was lower than that already consumed, by much of the rental housing stock. Hence repairs of dilapidated properties faced a roadblock. New housing stock had to be built in areas that were undeveloped. Land had to be acquired. The state took up the responsibility of providing new housing stock through the Housing Board and later MHADA (Maharashtra Housing and Area Development Board). Land was acquired through enacting the Urban Land Ceiling Act whereby a ceiling was defined for private ownership of land and the state taking over remaining land. With concepts of FSI and Urban Land Ceiling, land became a scarce commodity and very expensive.

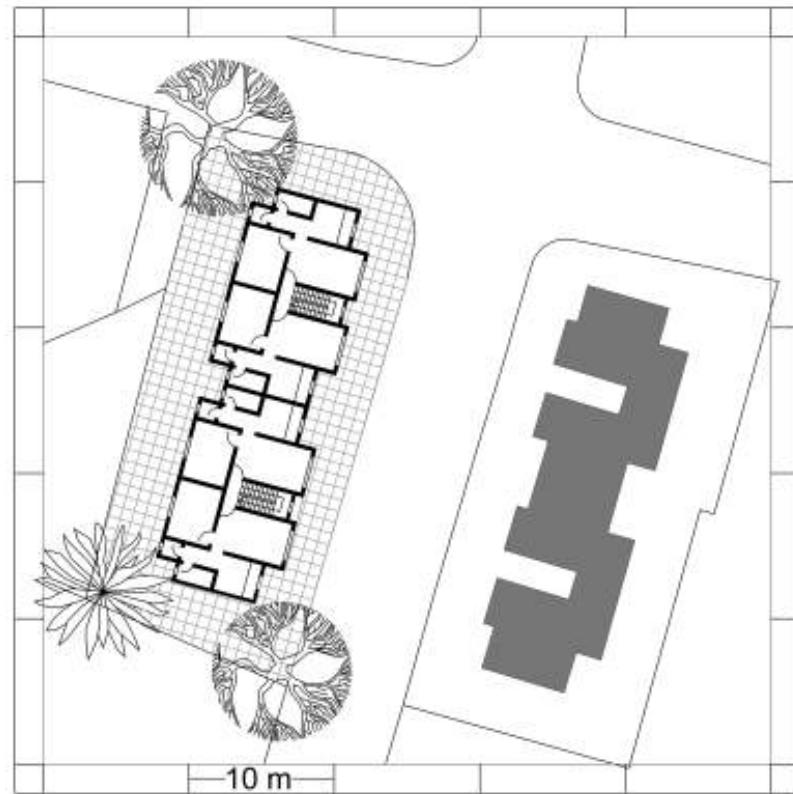
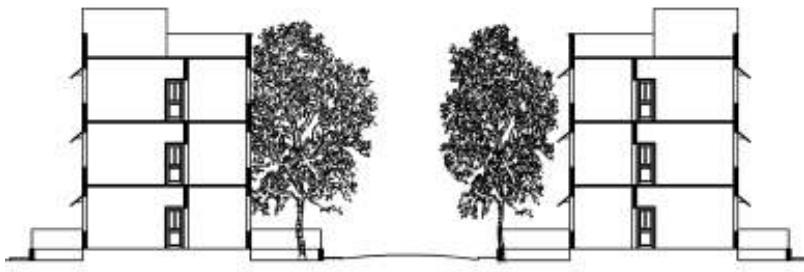
The State further made policies for targeting the housing supply to various classes. The concepts of HIG (Higher Income Group), MIG (Middle Income Group), LIG (Lower Income Group) and EWS (Economically Weaker Section) were formulated. State started building rented apartments for these classes. The size of the houses and specification of construction depended upon the income group. However, adequate open spaces, light, ventilation and sanitation arrangements were ensured in these colonies. The typologies also reflected the income group. The Lower income groups had houses that resembled the chawls, but had larger tenement sizes and individual toilet facilities. Lower income groups were also sometimes given small serviced pitches of land where the families built row houses. As these families grew they added rooms and floors to these houses. In some cases, the state also built houses for cooperatives of working-class, wage-labour and other groups. On the other hand, apartments with bedrooms were made for middle and higher income groups.

All colonies were typically low rise and the densities depended on the class of the inhabitants. Today these colonies, though dilapidated, still are places with maximum amount of open spaces around them. As these colonies invariably consumed lesser FSI, recently, we find a big rush to redevelop these colonies into higher density residential colonies. These redevelopments are undertaken by private developers whereby the existing population is resettled in slightly larger accommodation (as the families had grown larger) and the additional development is sold in the open market.

TILAK NAGAR RAILWAY STATION

KAMRAJ ROAD

100m



Previous Page (pg 50): A building at DN Nagar Middle Income Group Housing Colony

Opposite Page (pg 52): Plan of Sahakar Nagar Housing Colonies for various income groups built by the state in the Eastern Suburbs

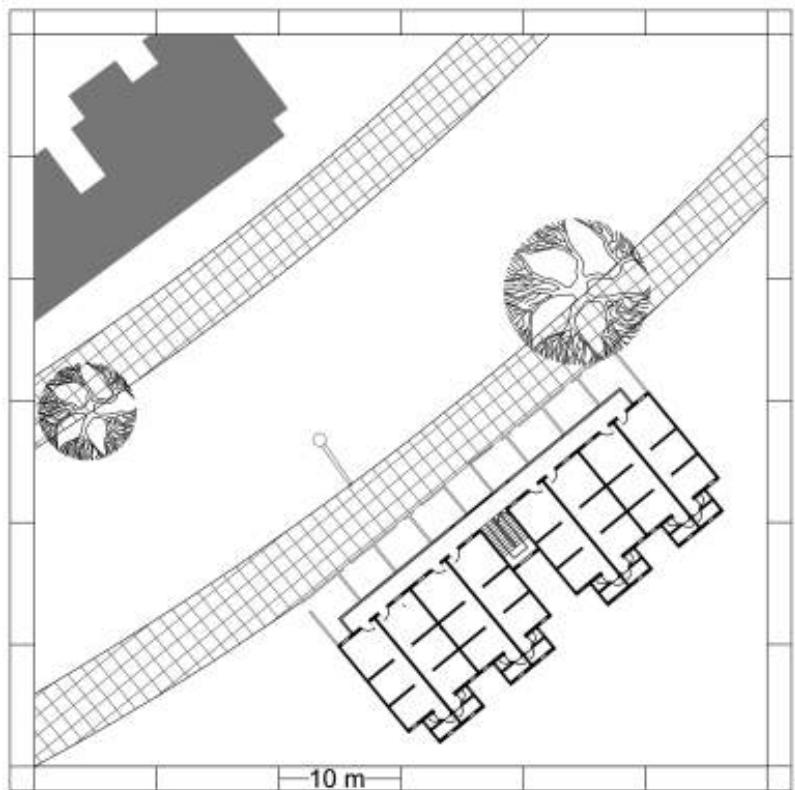
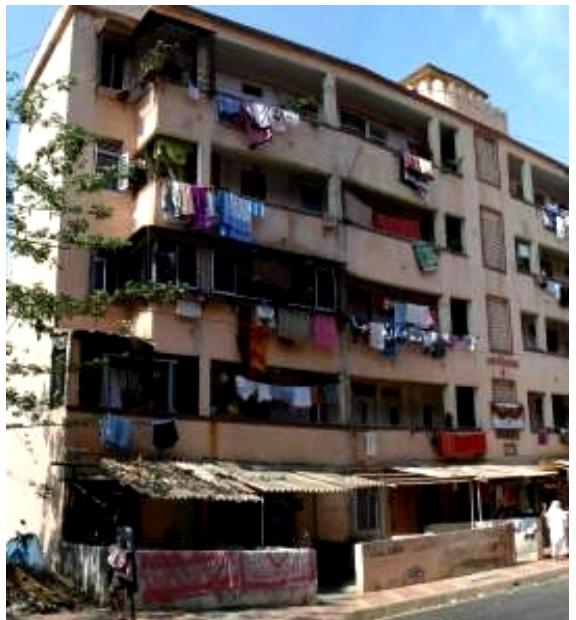
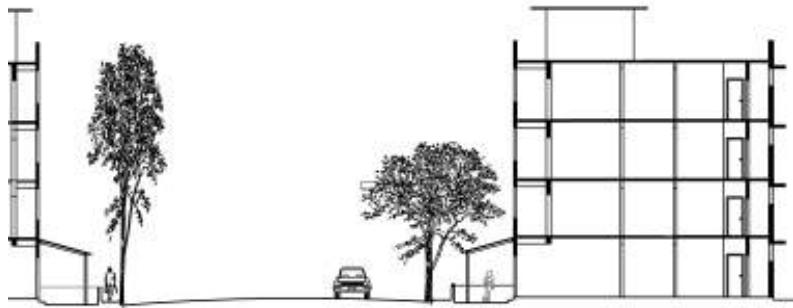
Above: Higher Income Group building at Sahakar Nagar

BUILDING NO. 30	
SAHAKAR NAGAR MHADA COLONY CHEMBUR	
No. of tenements	12
Size of each tenement (sq m)	50
Ground Cover of building (sq m)	223
Plot Area (sq m)	533
No. of inhabitants	60

COSMOPOLITAN EDUCATION SOCIETY MARG

D.N NAGAR

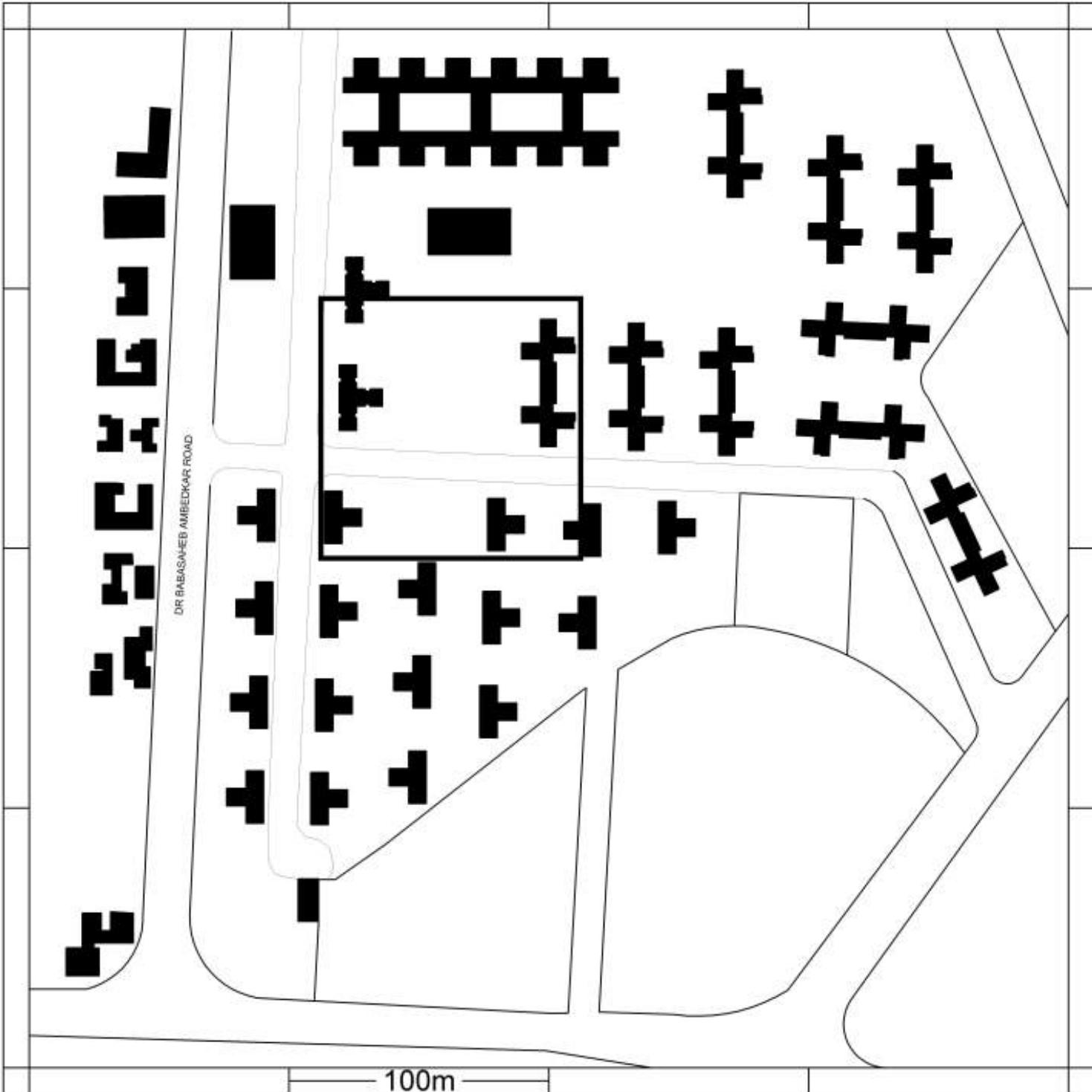
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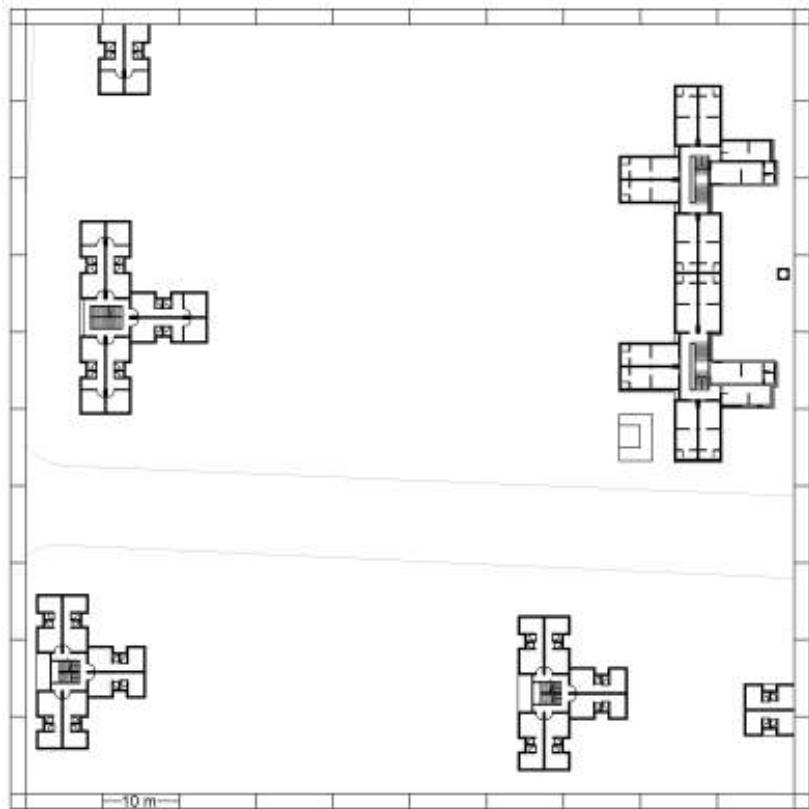
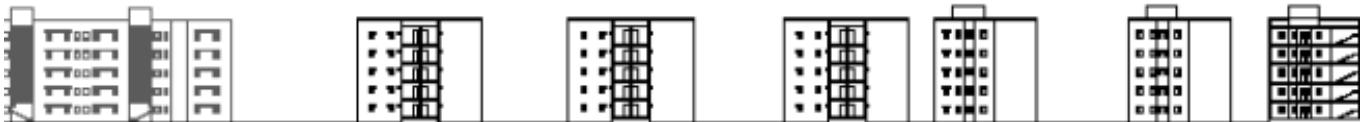
Opposite Page (pg 54): Plan of DN Nagar Housing Colonies for Middle Income Groups built by the state in the Western Suburbs

Above: Ashtavinayak Building in DN agar

BUILDING NO. 8 ASHTAVINAYAK	
D.N.NAGAR, MHADA COLONY ANDHERI (W)	
No. of tenements	32
Size of each tenement (sq m)	40
Ground Cover of building (sq m)	385
No. of inhabitants	160



100m





Top and Bottom: High Density, Medium Rise Lower Income Group Housing built by the State in Malvani (Western Suburbs)

Opposite Page (pg 59)

Top: Row Houses in Lower Income Group Plots allotted in early 70s at Sahakar Nagar, Chembur (Eastern Suburbs). The houses were subsequently improved

Bottom: Row Houses in Lower Income Group Plots allotted in the 80s at Motilal Nagar, Goregaon (Western Suburbs).







9. Houses in Plotted developments

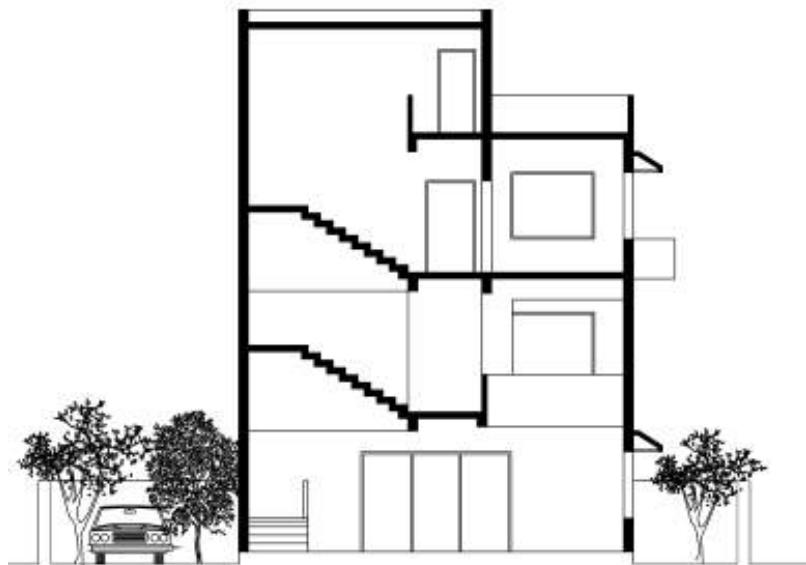
After independence, along with building housing stock by itself through housing agencies, the government also planned suburban areas for housing purposes. Small plots of 450 square meters to 1000 square meters were plotted in these areas. These plots were then sold at nominal rates to individuals, cooperative societies and also in some cases to developers. The cooperative societies took an active part in producing the housing stock.

These plotted developments are characterised by broad streets with adequate health and education facilities. The city government also laid all the roads and service lines in these parts. The buildings that came up in the plots were low rise with 12-36 self sufficient apartments.

While the cooperative societies built the apartments, several bungalows were also built in these areas by richer families. A bungalow is a type developed during the colonial period all around India. It is typically a large single family house within a bounded plot with open spaces on all sides. It may be one or two storied. In Mumbai, it is characterised by having verandas at lower level and balconies at a higher level.

Today these areas are one of the most expensive residential pockets of the city.

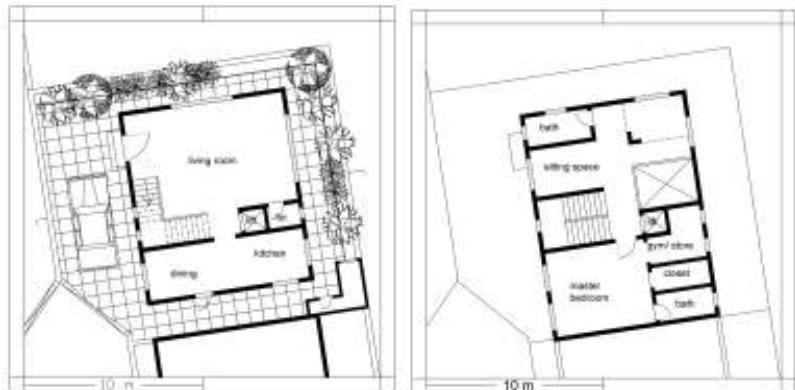




Previous Page (pg 60): Bungalow in Khar (Western Suburbs) planned areas

Opposite Page (pg 62): Plan of Juhu Scheme Area

Above: Bungalows in Juhu Scheme



JUHU BUNGALOW

JUHU WESTERN SUBURB

No. of tenements	1
Size of each tenement (sq m)	204
Ground Cover of building (sq m)	102
Plot Area (sq m)	246
No. of inhabitants	5





Opposite Page (pg 64)

Top: Upper Middle Class Row Houses in Dutta Kripa Society, Deonar planned in early eighties

Bottom: Bungalow in Khar (Western Suburbs) planned Township

Above: Apartment building in a planned township in Juhu



10. Private Apartments of 70s and 80s

With rented housing in the city strangled due to the Rent Control Act and the state unable to supply enough housing to the growing city, the cooperative housing societies became important players in the housing delivery system. However, by the end of 70s and early 80s another important actor came into the housing production: the Builder. The builder has since then remained the central most important actor. The builder's work included every activity from acquiring land, clearing permissions, appointing architects, mobilising finances, constructing buildings and even selling them. The builder came up as an agent who was capable of delivering ready tenements to the end user.

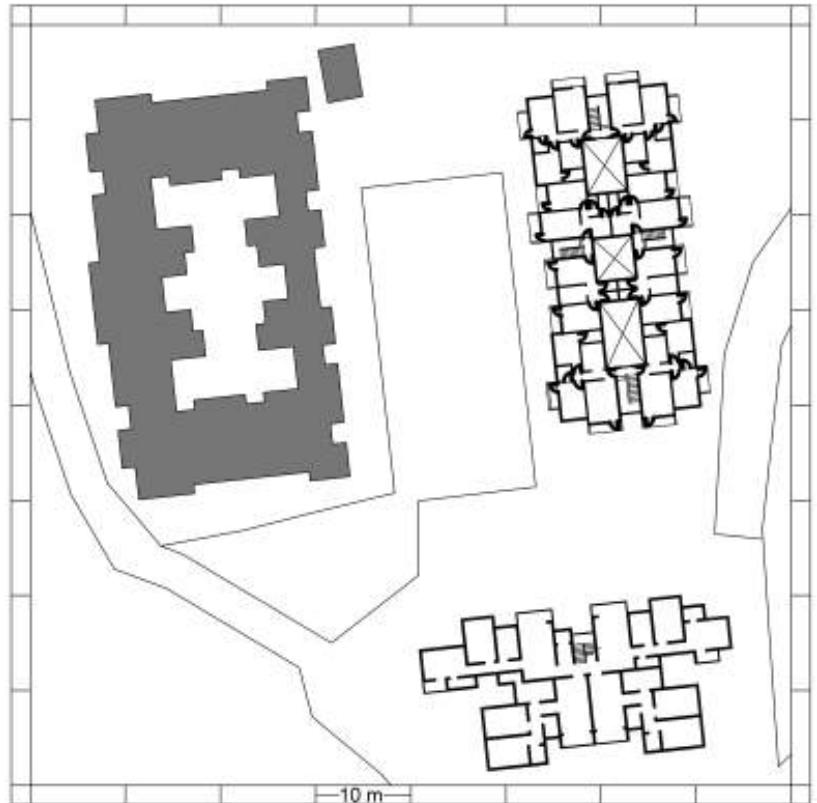
The history of large builders in the city could be traced back to them being agents dealing with real estate after independence. These agents had enough local knowledge to find the best opportunities in the city and harness them. The Builders raised money from a chain of financers. In some cases, money was also raised from the mafia. Since several permissions and clearances were required for the house production activity, the bureaucracy and the political class also got involved. Cases of corruption in the housing industry began to emerge during this time. Bureaucrats and politicians helped to twist policies and regulations to maximise floor space and hence profit. The famous cement scandal of Mumbai is representative of this time, where the nexus between the builders, bureaucrats and politicians came to the front.

While the end users got ready flats, these were extremely expensive. Bank loans required large number of documents (which were generally not available with the migrants) and collaterals. Also interest rates were very high and unaffordable for many. End users typically raised money through informal savings (chit funds), borrowing, and other means. The City's economy also saw the growth of black money during this time.

The Builders typically built buildings with apartments of all sizes. The buildings ranged from a small one in a plotted development to large housing colonies in older agrarian areas. These apartments were mostly four storied with maximum private space. The staircases, common lobbies and corridor spaces were kept very small. This was also because the calculations of FSI included these spaces. So the builder could not sell these common spaces. Hence the builder tried to maximise private spaces. Open spaces were left or planned between the buildings.

After all the tenements were sold, the group of people living in the same building or colony formed Cooperative Housing Societies. These Cooperative Housing Societies then undertook maintenance of the buildings. Construction quality was generally poor in these cases and we find several examples where buildings have had to undergo serious repairs in recent years.





Previous Page (pg 66): Apartment buildings in the Western Suburbs built during the 70s and 80s

Opposite Page (pg 68): Plan of Housing Colonies in Kalina, Western Suburbs

Above: Nav Monica Apartments in Kalina, Western Suburbs

NAV MONICA APARTMENTS		
KALINA SANTACRUZ (E)		
BUILDING	A	B
No. of tenements	26	32
Each tenement (sq m)	86	63
Gr. Cover of building (sq m)	364	440
No. of inhabitants	130	160



Opposite Page (pg 70): Apartments in Lalubhai Park (Western Suburbs) built in the 70s

Right: Buildings with Water-proofing. A common sight of buildings built during the cement scam of the 70s.

Below: Apartments in Andheri (Western Suburbs) built in the 70s





11. Public Sector Employee Housing

After Independence on account of the Rent Control Act rented accommodation became unavailable. Outright buying of houses too became impossible for the working classes due to high prices and expensive loans. On the whole it was very difficult for public sector employees to find accommodation in the city with their meagre salaries. Most of the Public Sector organisations then decided to provide housing for their staff. There were several models of such provisions that were experimented with.

The Mumbai Port Trust for instance, themselves developed housing and rented it out to their employees. The employees would have to vacate their houses after their retirement or in case of early termination of their jobs. These houses would then be given to new employees. The buildings are maintained by the organisations themselves.

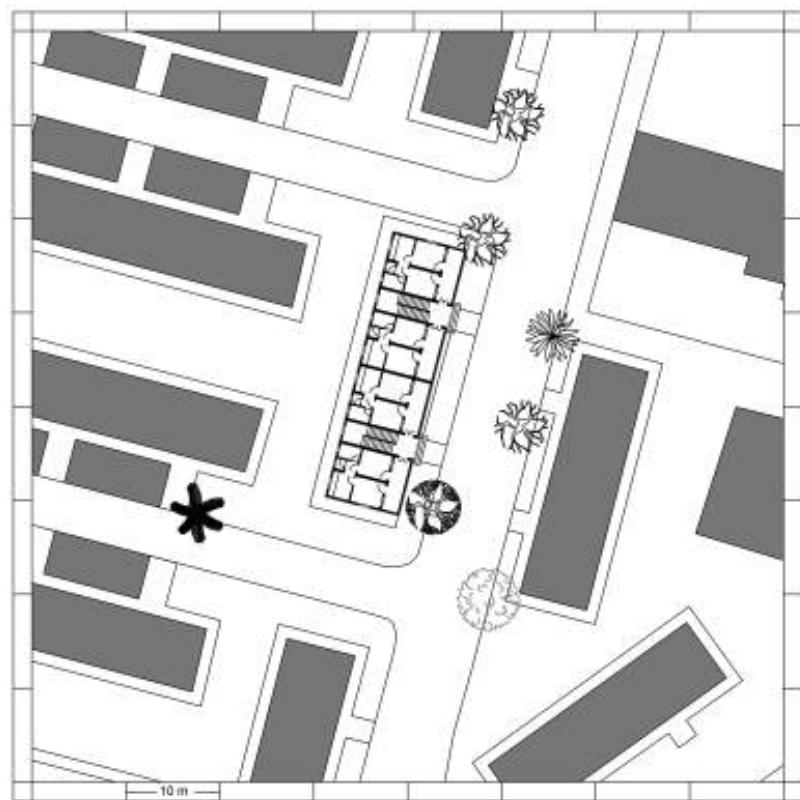
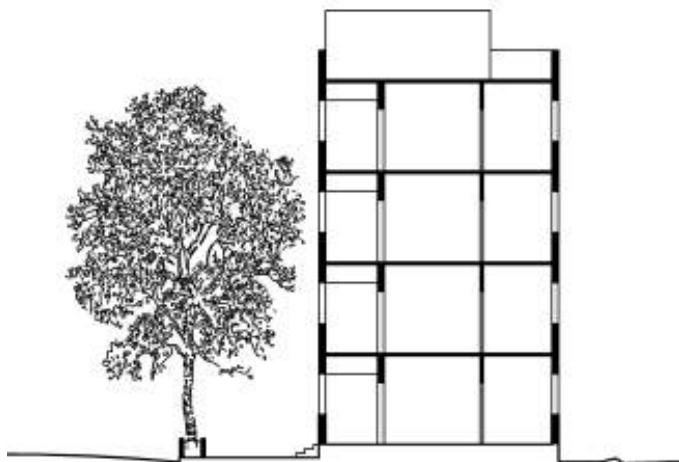
In many cases, like the Bombay Electric Supply and Suburban Transportation, the houses are built by the organisation and the employees pay a monthly premium from their salaries. This premium is the instalment towards the soft loans that the organisation gives to the employees for buying the houses. After some years when the loan is paid back to the organisation, the house becomes the property of the employees. In this case, a cooperative housing society of the employees is formed which undertakes the maintenance of the houses.

In other cases, organisations help the employees to get land whereby the employees have to form a housing society beforehand. The employees either buy the land from the organisation at a nominal rate or the land is given free of cost. The houses are then built with assistance from the organisation, where the organisation provides the employees with soft loans. Here the employees themselves are promoters of the housing wherein they decide their house designs, construction specifications etc.

There are also cases where the organisation buys or rents houses from other agencies in the open market and provides to its employees at subsidised rent rates. Here the organisations themselves maintain the buildings. Many private sector organisations also provide housing to their employees in this model.

In all cases however, sizes of the houses depend upon the grade of the employee. Hence while a lower grade staff would get a room and a kitchen with toilets; the higher grade officer would get an additional bedroom and more space. The layouts in most of these cases show a generosity of open space planning. The premises are maintained by the organisation itself and today these are some of the best maintained housing in the city. In cases where they are old and dilapidated, like in the case of Mumbai Port Trust, the employees are evacuated and shifted to new buildings.





Previous Page (pg 72): Lower grade Staff Quarters of the Mumbai Port Trust at Wadala

Opposite Page (pg 74): Plan of the Mumbai Port Trust Staff Housing at Wadala

Above: Officer's Quarters of the Mumbai Port Trust

B.P.T. HOUSING	
WADALA (E)	
No. of tenements	16
Size of each tenement (sq m)	49
Ground Cover of building (sq m)	238
No. of inhabitants	80

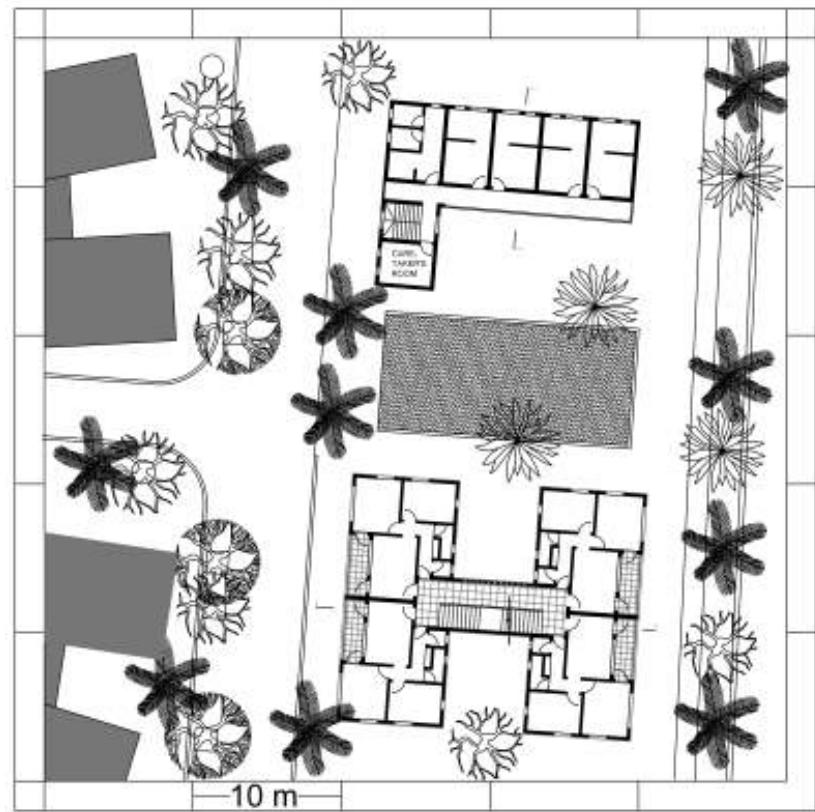
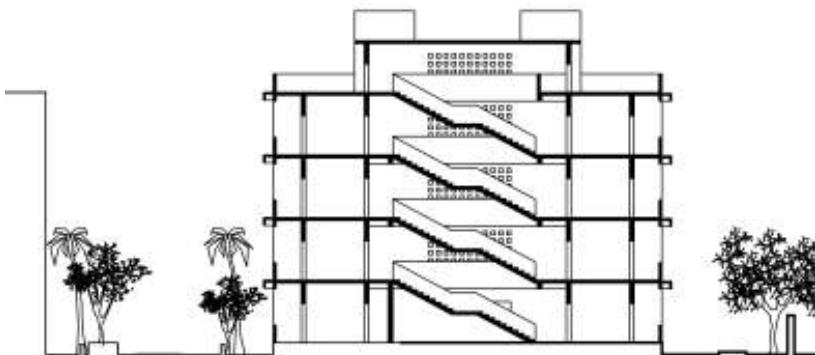
NORTH AVENUE

15TH ROAD

100m

SWAMI VIVEKANAND ROAD





Opposite Page (pg 76): Plan of Reserve Bank of India Staff Quarters in planned areas of Western Suburbs

Above: Street in the Reserve Bank Colony

R.B.I. HOUSING 1		
WESTERN SUBURB SANTACRUZ (W)		
TYPE	1	2
No. of tenements	16	12
Each tenement (sq m)	56	18
Ground Cover (sq m)	261	138
No. of inhabitants	80	60

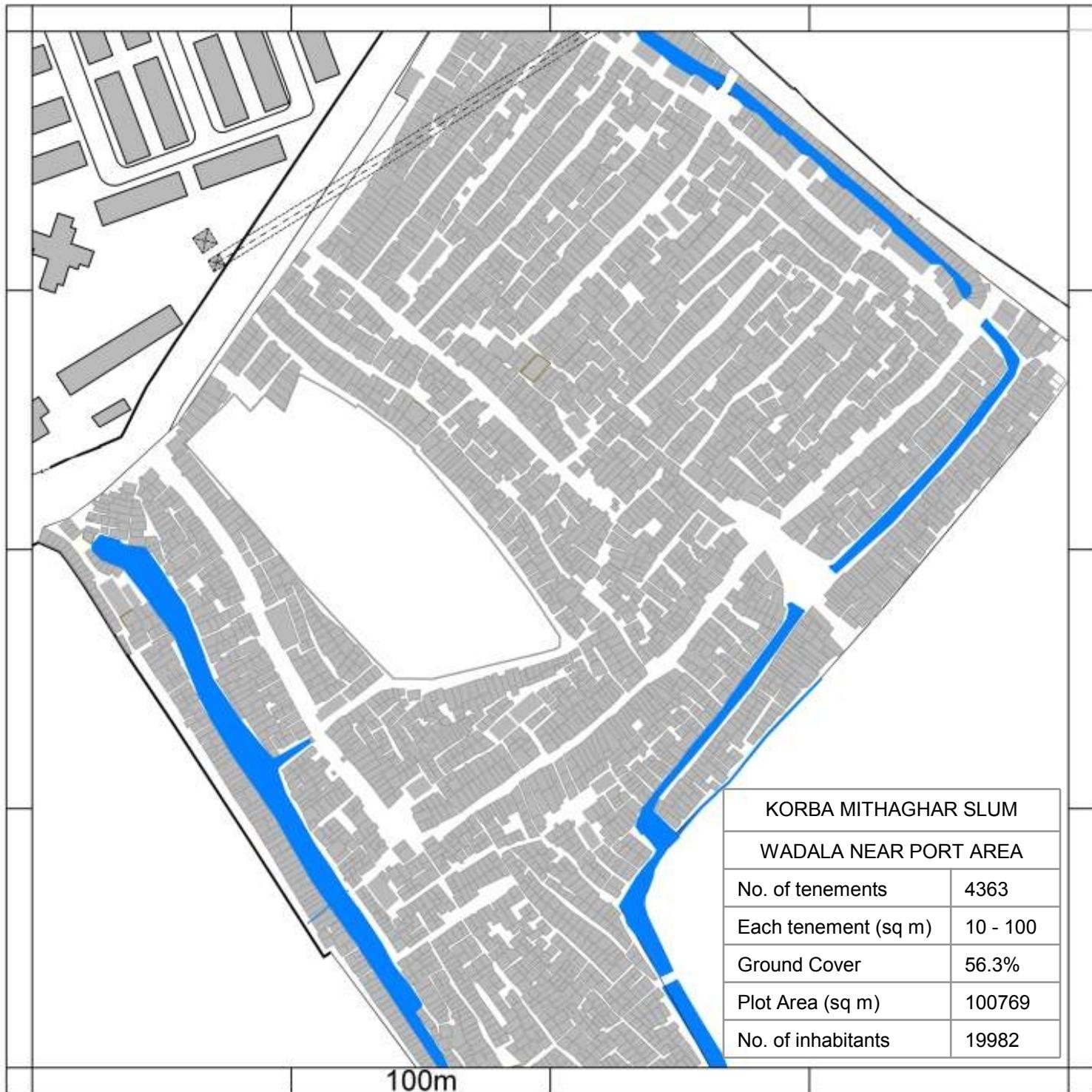


12. Slum

The economic vibrancy of Mumbai attracted people into the city much before independence. The access to housing remained inadequate and people started living in slums since the late 19th Century, providing services to the formal industries and city building activities. These settlements however grew on the outskirts of the city on marshlands and other difficult places. The city grew rapidly since the beginning of the 20th century. Marshlands and outskirts were developed. The slums that were earlier on the outskirts of the city came within. However in spite of the annual housing need for 46,000 dwellings in the 1960s and 60,000 dwellings in the 1970s, the supply of formal housing by the public and private sectors was only 17,600 and 20,600 respectively. The rest fulfilled their shelter need in the slums. But slums only came into real urban concern in the 70's when the real estate prices started climbing. Today about 60 % of Mumbai's Population live in the slums, which exist everywhere - on marshlands, along railway tracks, on open areas, public lands, private lands, between buildings and also on the pavements. The construction type varies from wood to plastic to asbestos construction and to double storey brick and concrete structures. There are slums that have a concentration of ethnic communities, of work based communities, and other such associations. There are slums that come up on construction sites and move on to other construction sites after the work gets completed.

Houses in a slum are generally very small (about 100 sq ft.). But there are instances where large houses of about 1000 – 2000 sq ft could be found. These mostly belong to the slum-lords who control land in the slum. These slum-lords use muscle-power and bribing tactics to squat on free land (generally belonging to the government). They make houses of tin sheets and bamboo (or some times even of brick and concrete). These small houses are then rented to poor people who are in search of housing. There are also houses in the slum that have original squatters. These families also in most cases build an additional room or a floor to accommodate growing families. Sometimes these additional rooms are further rented out bringing about a complex tenure pattern in a slum. A slum settlement is mostly located along a natural drain which takes care of the sewerage. Electricity and water was generally stolen, but the government makes efforts to provide basic facilities. Water supply in slums is mostly in terms of shared community taps. A slum mostly has a toilet block built by the government, but that remains inadequate. Some houses in a slum have toilets within them.

In the 70s the slums were seen as a disease, and stood for poor living conditions. But perceptions of the slums have changed. A slum dwelling has been a unit of production and a slum dweller, a unit of enterprise. The slum is not only a place for living, but is also a place of work. It has spaces, which accommodate a community washing space, a leather tannery, a ceramic kiln or a food-manufacturing unit. Today, the slum dwellers are considered integral parts of the city contributing to the economy. Their right to live in the city is protected and they cannot be evicted without rehabilitation.



*Previous Page (pg 78):
Slum in Santacruz East*

Opposite Page (pg 80)

*Plan of Korba Mithaghar
Slums in Wadala near the
Port Area*

This page

INFRASTRUCTURE IN THE SLUM: Clockwise from top left: Slums edging the natural watercourse, Water Pipes laid by the Government, Internal Streets with Drainage lines, Public Toilet, Open air bathroom





Opposite Page (pg 82)

Top Left: Slums along railway tracks

Top Right: Slums with sub-tenants on the upper floors

Bottom: Pavement Dwellers

This page

WORK IN THE SLUM:

Clockwise from top left: Pan Shop, Cane workers, tailors shop, toy maker, cane worker and leather bags makers in the slum.





श्री गणेश
अस्पताल

मांगल स्टोर लेटर

Hee
COOLER!

PLOT NO. 11, SHIV PADA BLD

ANDHERI, T. MUMBAI

13. Slum Improvements and Resettlements of 70s & 80s

It was not until 1970s that the state began to think about slums as possible solutions to housing shortages. In 1970s the Slum Improvement Program was launched with the mandate to provide water supply, toilets, roads, drainage and streetlights for slum dwellers. The scheme included provision of community taps, community latrines, construction drains and pathways and streetlights and was financed by grants from the central. The Maharashtra Slum Improvement Board was set up by the state government in 1974 to co-ordinate this work. This was later merged with Housing Authority in 1977 and it improved slums on government and private lands. The Municipality also improved slums on municipal land. Shortage of funds also hampered the success of this programme. Another development in the 70s was the passing of the Slum (Improvement, Clearance and Redevelopment) Act in 1971 under which, a competent authority may, declare an area to be 'slum' if it is a source of danger to health, safety or convenience of the public by the reason of that area having inadequate amenities or being unsanitary, squalid or over crowded. Improvements under the Act were only carried out in slums on government lands. Paradoxically owners of slums on private land took advantage of this act to evict slum dwellers. The government of Maharashtra subsequently issued an ordinance to prevent eviction of occupants in notified slums.

Later in 1975, in an effort to prevent further proliferation of squatter settlements, the state government enacted the *Maharashtra Vacant Lands (Prohibition of Unauthorised Structures and Summary Eviction) Act, 1975*. According to the Act, all lands encroached by squatters could be considered vacant, all slums covered by the Act, temporary and could be removed, police could be mobilized for eviction and alternative accommodation would have to be provided. Squatters had to pay 'compensation' for unauthorized occupation of land. Due to these provisions, courts could not move against evictions and hence a spate of demolitions was carried out in the wake of this act.

The slum dwellers that were evicted during the mid 70s were relocated by the state in various parts of the city. They were given serviced pitches of about 160 square feet where they had to build their houses. These families had to pay rent to the state and they thus became tenants of the state. Such pitches were adjoining each other and we find a variation of row houses in these resettled colonies. Later as families grew, they added a room or a floor. Some times rooms were also added and rented. Houses along the road were converted into shops and residences moved to upper stories. Such settlements were also provided with community toilet facilities and community water connections.

Today, lands under these settlements are highly sought by builders for redevelopment. In many places, builders pay a very high price and evict the slum dwellers from these colonies. They then take possession of the land and build towers.

Vakola Nala

Bharat Nagar Road

Bandra-Kurla Complex

100m



Previous Page (pg 84): Bharat Nagar MHADA Resettlement Scheme

Opposite Page (pg 86): Bharat Nagar (Note: The additions and subdivisions are recorded in the central surveyed part. The remaining parts are drawn as per original allotments to families)

Above: Streets in Bharat Nagar carrying services



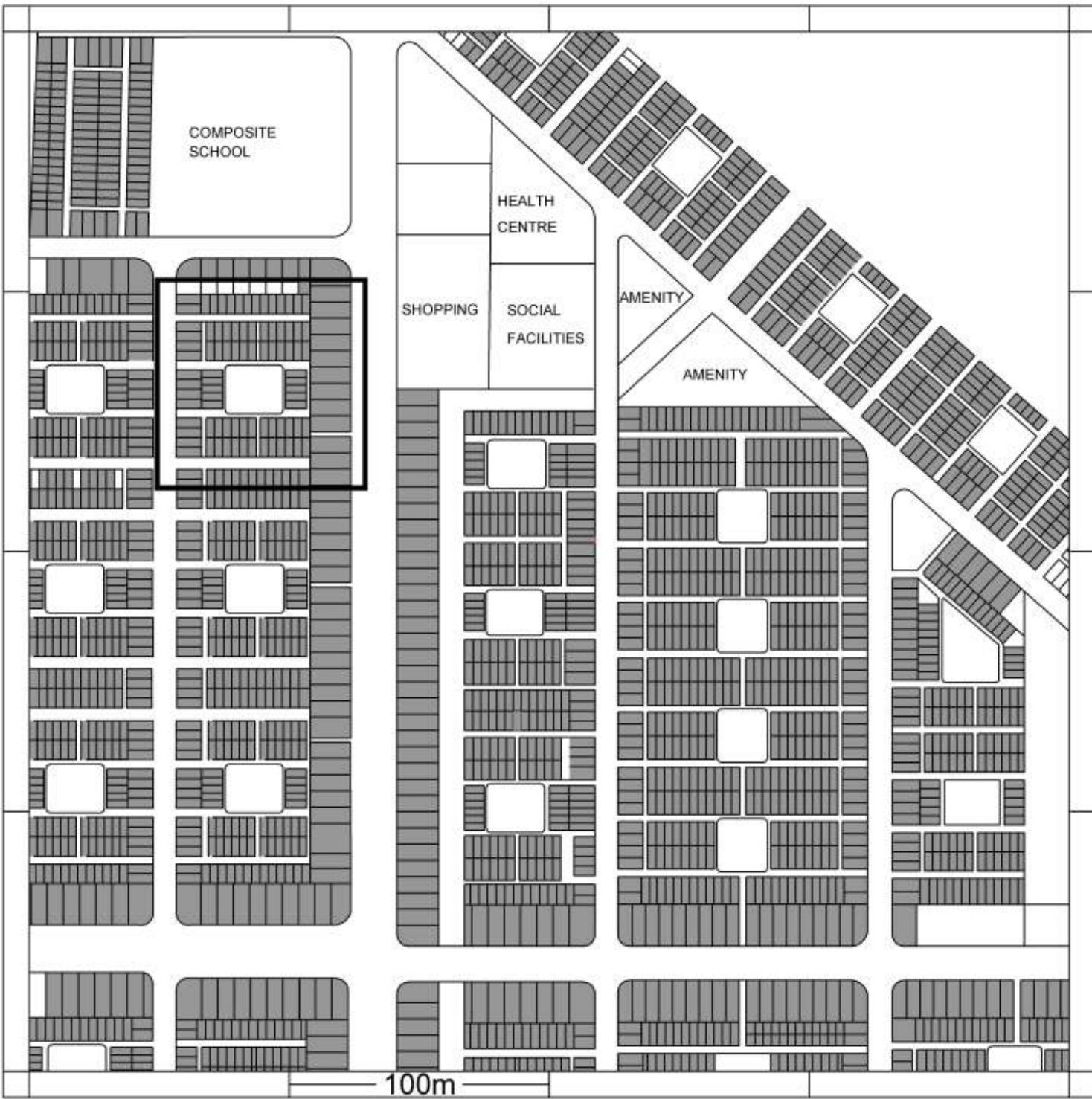
14. Site and Service Schemes

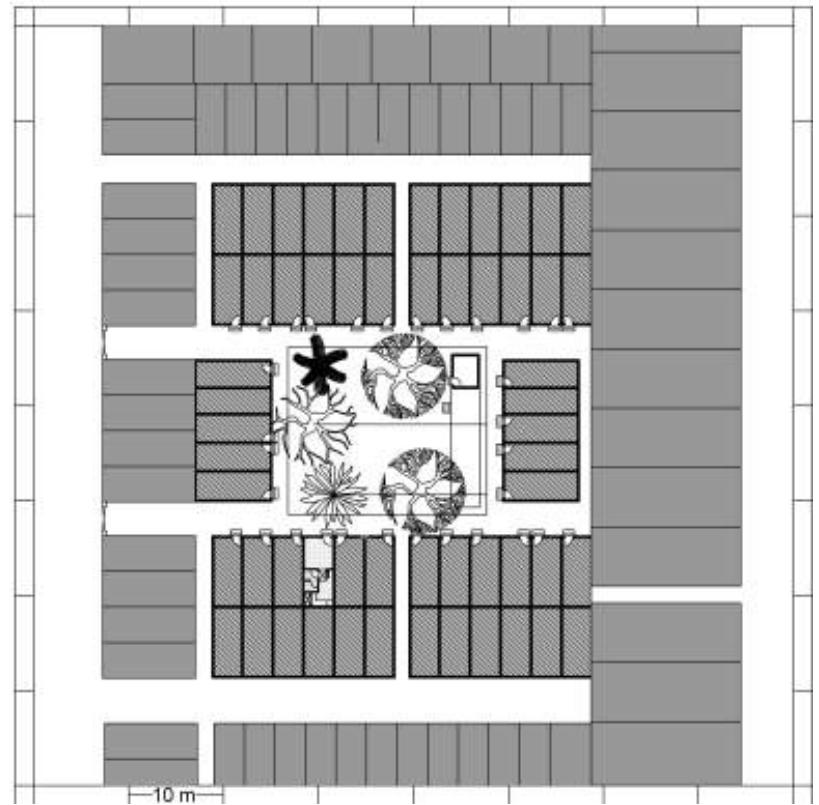
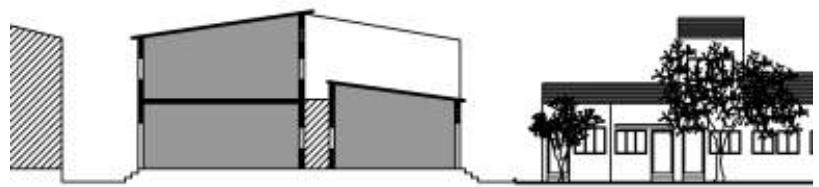
By 1986 the state had provided about 100,000 houses to various income groups out of which 75% were for the lower income groups. However post 1986, the share of high income housing increased as private sector involvement grew in the housing sector. Supply of low income and affordable housing continued to drop abysmally. Subsequently the 80s saw major demolitions with the vision of turning Mumbai into Singapore. However a Supreme court judgement decreed that the evictions would not only result in deprivation of shelter but would also inevitably lead to deprivation of their means of livelihood which means deprivation of life. The Right to Life under article 21 was invoked here. This judgement brought about a major shift in the Government's stance.

The World Bank's *Bombay Urban Development Project (BUDP)*, came into being in 1985, with two programmes – *the Slum Up gradation Programme (SUP) and the Low Income Group Shelter Programme (LISP)*. These were the Mumbai versions of the Site and Services Schemes. In the SUP, the slum lands not reserved for public use were given on a long lease of 30 years to the co-operative societies of slum dwellers at a nominal rent. Government could provide upgraded civic amenities on a cost-recovery basis and soft loans to the slum dwellers for renovation of their structures on an as-is-where-is basis against the mortgage of individual leasehold rights. Under the LISP, the state provided subsidized land to Economically Weaker Sections (EWS) and Low Income Groups (LIG) to build their own houses. The major mantras brought in with the BUDP were regularization of slums, supply of serviced lands to manage slums, granting of secure long term legal tenure and cost recovery.

However there were several problems with this scheme, the first being that many were excluded from the scheme as it did not recognize the various complex tenancies that slum areas involve. Further establishing the eligibility of households created serious problems. Secondly, technical problems of extending services and augmenting site infrastructure were faced. The recovery of infrastructure costs failed because of lack of mechanisms to assess incomes and strengthen systems of disbursements and collection of loans. Further pressures from Real Estate Developers to not transfer land to slum dwellers, the refusal of the Central government to allow the implementation of the scheme on land held by them and perhaps a lack of push from the state government side, caused the demise of this scheme. Only about 22,000 households were covered in this scheme until it was terminated in 1994.

Typologically these schemes had a row of houses strung around a courtyard. These courtyards would be accessed from roads that were then connected to the main roads. The edge of the main roads had higher income group housing. People built their houses as per their capabilities in these schemes. Today, these settlements are showing a degree of transformation as there is a new class moving into these lands. Some houses in these are getting transformed into clinics, design studios, etc.





Previous Page (pg 88): Site and Service Scheme at Gorai

Opposite Page (pg 90): Plan of Gorai S&S Scheme

Top: Internal Courtyard in the S&S Scheme

Above: Entrance to the S&S Scheme

PLOT NO. 28 TAPTSYA	
GORAI (DISTANT WESTERN SUBURB0	
No. of tenements	70
Size of each tenement (sq m)	24
Ground Cover of building (sq m)	1422
Plot Area (sq m)	2688
No. of inhabitants	350





Opposite Page (pg 92): Birds Eye View of Gorai Site and Service Scheme

Above: Internal Courtyards in the Gorai Site and Service Scheme

**SAIBABA
GALAXY
RESIDENTIAL COMPLEX**

**1-2-3 BED-ROOM
HALL KITCHEN
FLATS & SHOPS**

SHOW ROOMS

15. Slum Rehabilitation with Private Initiatives

Projects involving private initiatives in Slum redevelopments came about since the early 90s. The Scheme sought to involve the Private Developers to address the problem of Slums. As per the scheme, the slum dwellers need to form a society and register it with the Slum Redevelopment Authority (SRA, instituted as a single window to overlook the schemes). The society formation required 70 % of the slum dwellers to agree to the scheme. These societies could then appoint a Developer who would develop the land on which the slum existed. The Developer is required to provide free tenements of 20.9 sq m to all families registered in the society. During the construction period, the Developer is required to accommodate the slum dwellers in a transit camp and also needs to deposit Rs 20000/- per tenement with the SRA for future maintenance. In return, the Developer gets free additional development rights (75% to 133% of free housing for the slum dwellers). The Developer could use these rights to develop real estate to be sold in the open market. The Developer has to use this right on the same site where the slum is rehabilitated. To accommodate this intensive development with very high densities, the schemes got additional FSI and rules on open spaces were relaxed. Two buildings of 8 stories could come next to each other at a distance of 3 meters. If with all these relaxations, the Developer was still not able to still use the additional development in the site, then these rights were given as Transferable Development Rights that could be used in an other site.

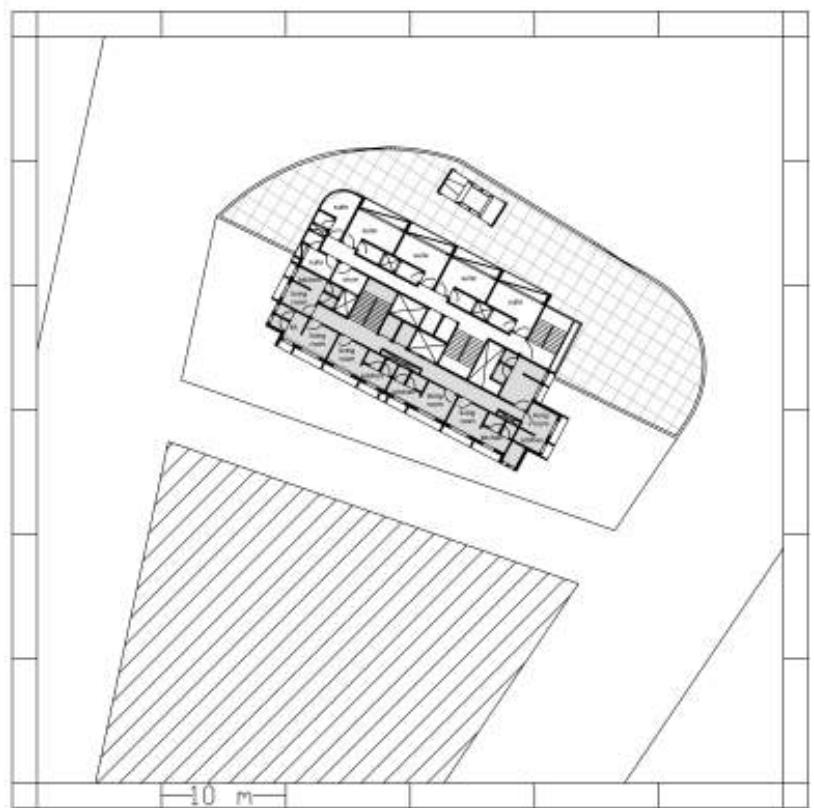
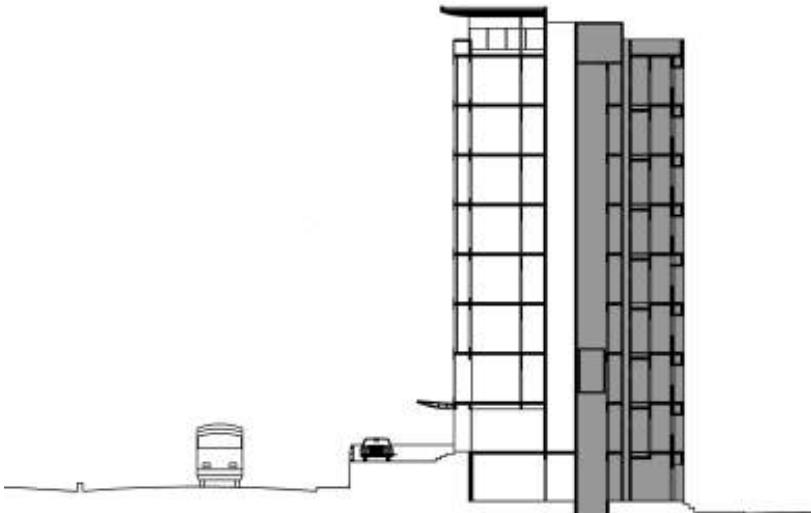
The Slum Rehabilitation Scheme continues to be the present housing delivery for the poor. All other slum improvement schemes have slowly phased out. Builders continue to look at the land as valuable resource to be usurped. The city has recorded many instances where builders have forcibly taken over slum lands by producing bogus names of slum dwellers or getting their consent by fraudulent means. Moreover this scheme being a market oriented one works in areas of high real estate prices and not in many others. A close look at the designs of the rehabilitation components show a complete disregard to the community structures and work and living patterns of slum communities. In the attempt to maximize profits no attempts are made to rethink these designs and typologies. Developers and architects seem to spend all their time designing for the open market. Many other issues like the complex and multiple tenancies that the slums house, remain unanswered in this scheme and those 'ineligible' find themselves thrown out of the system. Many of the slum communities cannot manage the high maintenance costs associated with the built forms.

More recently, the Government has proposed a new model for redeveloping large slum areas. In this model, a planning agency is declared as a Special Planning Authority over such a slum. Such an authority could then make plans and develop the area. Incentive FSI in this model is much higher than the existing scheme. Moreover, the Authority does not even require 70% consent from the slum dwellers. Such a model is being experimented in Dharavi.

TELJ GALI

PROF. N. S PHADKE MARG

100m

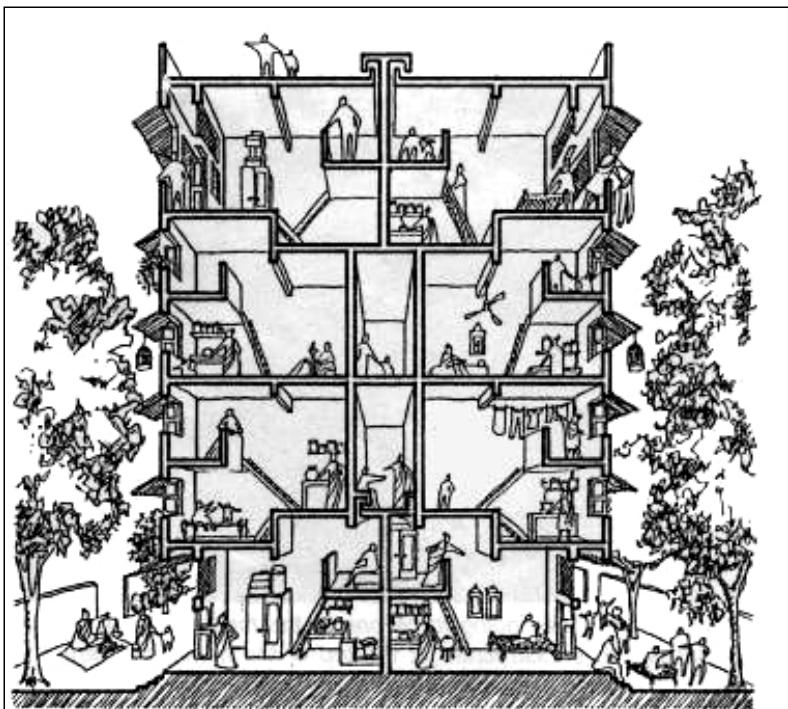


Previous Page (pg 94): Privately built Slum Rehabilitation Scheme in Jogeshwari (Western Suburbs)

Opposite Page (pg 96): Location Plan Slum Rehabilitation Scheme in Andheri East (Western Suburbs)

Above: Slum Rehabilitation Scheme with a Hotel built in the front using the incentive FSI

SUBHA GALAXY	
ANDHERI (E) WESTERN SUBURB	
No. of tenements	40
Size of each tenement (sq m)	14
Ground Cover of building (sq m)	274
Plot Area (sq m)	316
No. of inhabitants (only rehab)	200



Top Left: Transit Camp for Slum Dwellers built with prefab construction at Sewri near the port lands

Above: Construction of Transit Camps with prefab units

Left: Experiment by an NGO, SPARC that provided 14 feet high tenements for slum dwellers allowing mezzanines to be inserted, thereby increasing space for economic activities or for accommodating larger families



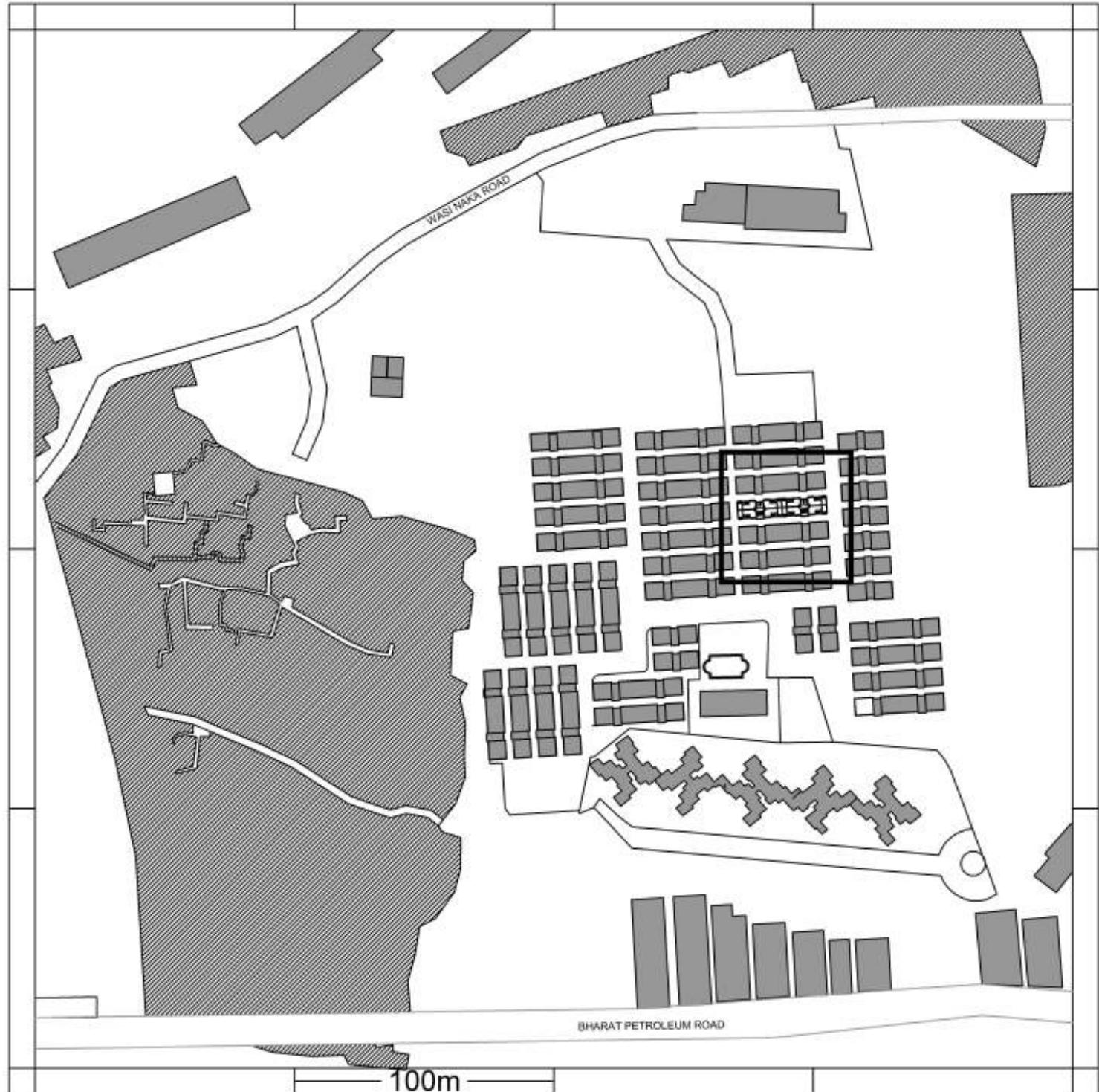
Above: Examples of Privately developed Slum Rehabilitation Schemes in the Western Suburbs. The adjoining buildings are built for sale using the incentive FSI .

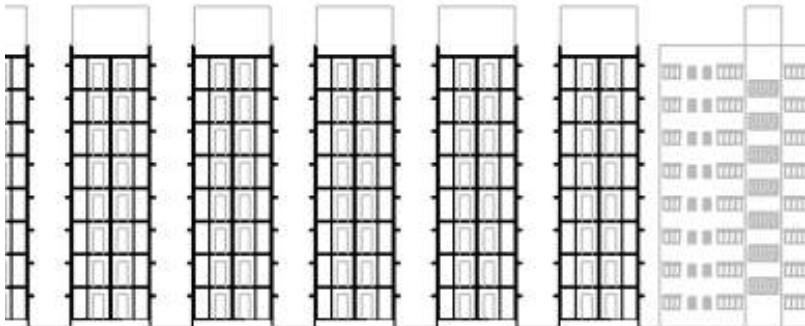


16. Rehabilitation for Infrastructure Projects

Since the past 5 years, the Government is aiming to construct some 50,000 tenements to relocate and rehabilitate slum dwellers that are being displaced due to the mega road building projects of the state. About 25,000 families have been relocated so far in these tenements. The state has adopted an interesting model to undertake this resettlement. A private builder is involved in building these tenements of 20.9 sq m each. The builder is to give these tenements free of cost to the state. In return the builder gets transferable development rights which could be used in other parts of the city. For the builder it is an extremely profitable endeavour. The builder builds each sq ft for about Rs 600 to rehabilitate slum dwellers. The builder also builds another sq ft at Rs 900 (with better specifications) to sell at a place with very high land price. The builder gets about Rs. 4500 to Rs 6000 for this per sq ft. Hence for each investment of about Rs. 1500, the builder makes Rs 4500 to Rs 6000. Also the builder is able to dispose off land with cheap real estate value in the city and get a higher price for it. On the other hand the state gets these houses free of cost. The problem however is that the rehabilitation sites are on the outskirts of the city where the slum dwellers are made to move to. These places do not provide opportunities for people to work. A women in a slum who works as a household maid prefers to be close to her house to organise her time for household work. On the other hand industrial workers in the slum also have to move and find new work that may require new skills as these industries are forced to close down as they become unviable in the new locations that do not offer the same networks. These schemes have so far proved to be not very popular with slum communities.

The government appointed NGOs to negotiate with the slum dwellers to make the shifting easy. However, the scales of operations being large, the NGOs are taken away from grass roots fine-grained operations of working with communities and their specific needs to mega management and gross generalisations. Such broad brushed approaches are unable to understand the complexities of multiple tenancies through which communities claims rights over space and the various socio-economic networks. When such understanding does not become a part of the interventions, housing is equated with compensating 20.9 sq m floor space minus all the other complexities. Moreover, these houses cross all limits in compromising with the habitability. Bars of 8 stories building are developed at 3 m distances from each other. Light and ventilation conditions in these tenements remain pathetic. Further, high densities in these buildings are bound to overuse the resources such as lifts. Maintaining such buildings might get more difficult. Further, the relocations have stripped people of their economic networks and the designs show no recognition of the slum dwelling being a place of work. Further, it would be extremely difficult to deal with these sites in cases of disaster or after they get dilapidated, which they are showing signs of, within a year or two of their construction. This model of Resettlement and Rehabilitation is sought by more and more government agencies to execute mega projects like enlarging the airport, conserving a fort or even for protecting the national park.





Previous Page (pg 100): Resettlement and Rehabilitation (R&R) Scheme built by the State for slum dwellers displaced by Road Projects

Opposite page (pg 102): Plan of R&R Scheme at Anik Panjrapol

Above: 3m distance between two buildings of G+7 buildings in an R&R Scheme

ANIK 1 R&R	
ANIK PANJRAPOL CHEMBUR	
No. of tenements	64
Size of each tenement (sq m)	24
Ground Cover of building (sq m)	230
No. of inhabitants	320
45 such buildings are constructed over an area of about 19000 sq m.	



17. Urban Fringe Housing

With geographic limits of the city being small, the pressures of intense urbanisation are seen in the larger city region. New Bombay was planned in the 70s to relieve the pressures from the city. Other than indigenous agrarian houses, four types of housing are predominantly seen in these fringes that have come about due to the intense urbanisation. These include dense developments; large residential townships and housing projects; large satellite luxury cities and weekend farm houses.

Dense housing started coming up since early 80s along the northern fringes of the city. The train connections made these places accessible and ineffective governing bodies in these areas allowed for developing of dense housing stock. These areas suffer from unavailability of basic infrastructure like water, sanitation and roads making living conditions here poor. One could find two 4 storied apartments with 1 meter distance between them. These were the only affordable housing for the labour in the city. These were built by land owners and small builders and rented to end users.

When New Bombay was developed on the eastern side of the city across the harbour, several low rise high density housing projects were experimented. The types ranged from one or two storied clusters around courtyards, row houses and multi storied apartments. These were made for various classes. The planning and development authority of New Bombay spearheaded these developments. It invested in the building and took charge of selling or renting them.

On the hand, in the northern parts, large townships were developed by big builders with apartment type housing. These started coming up in the 90s and were generous in terms of open spaces and managed basic infrastructure. In most cases, these townships also provided bus services from the nearest railway stations. The builders ensured maintenance of these townships before all the flats were sold. Afterwards the housing societies were responsible. These were targeted towards formal labour that could not afford housing within the city, but had capacity to mobilise a loan, which had started becoming accessible since the 90s.

The fringes of the city were also looked at as places outside the city that provided spaces for relaxation. The desire of the elite to escape the city coupled with the aspiration of having privately owned 'village house' spurred another type of development - large luxury townships with state of the art infrastructure with plots chalked out for elite families to build their houses. The dream of having a weekend bungalow without having to worry about maintaining it with city facilities were fulfilled in these gated townships. These townships were targeted towards the non-resident Indians wanting to have a house in India. In other cases, the elite have also built bungalows on large plots on the outskirts of the city as weekend homes, typically designed by famous architects from Mumbai.





Above: Artist Village at Belapur, Navi Mumbai (Clockwise from top: Cluster of housing, a house decorated by an artist, internal courtyard and entrance gateway)

Opposite page (pg 106): Housing at Sanpada, Navi Mumbai (Clockwise from top: Entrance gateway, edge buildings, internal courtyards, courtyard connectors)

Previous Page (pg 104): Vasant Nagari Housing project at Vasai (Northern Fringe of Mumbai)



Top and Bottom Left: Unregulated housing at Mulund Checknaka Area in the northern fringe

Opposite page (pg 109):

Top; Luxury Township at Sahara Ambivalley (Eastern Fringe) with serviced plots

(Photograph Courtesy: Yogita Lokhande)

Bottom: Internal Courtyard at Vasant Nagari at Vasai (Northern Fringe)





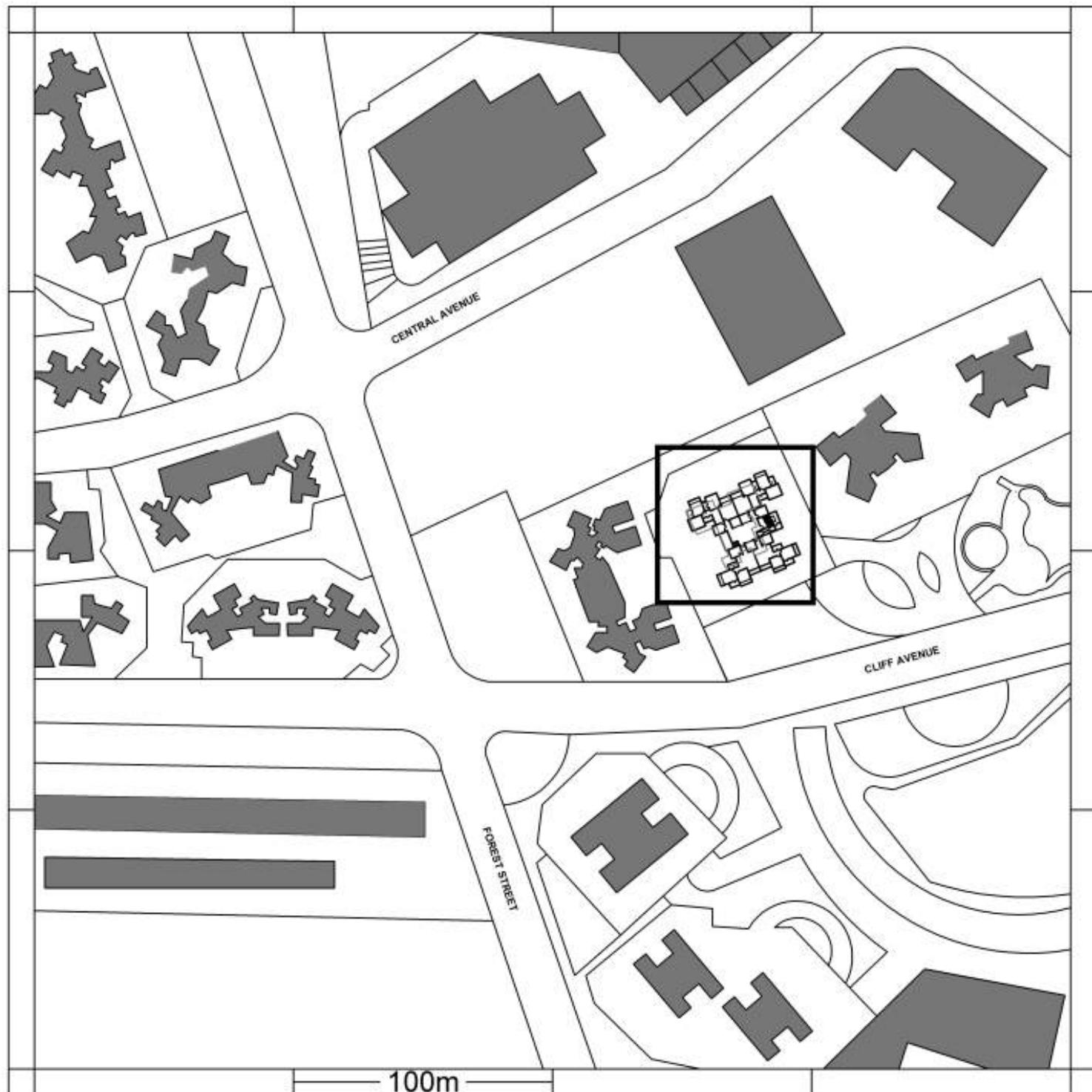


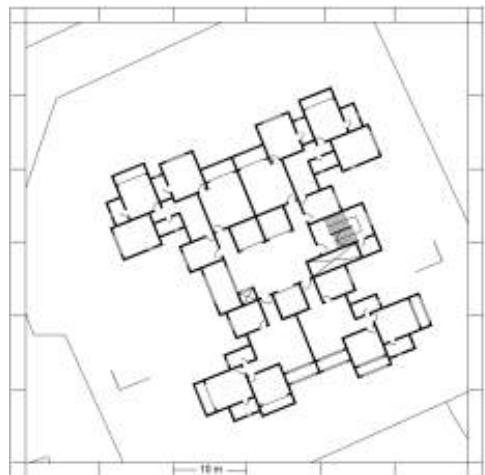
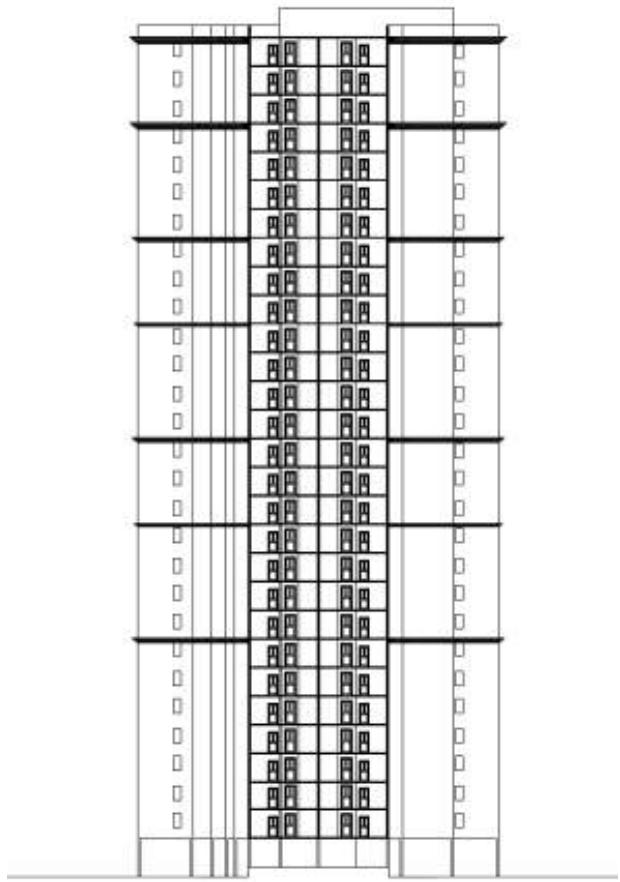
18. New Suburban Township Housing

Economic Liberalisation policies in India in the beginning of the 90's opened up the financial institutions and other sectors for multinational investment. Along with this, the Government also adopted the recommendations of the Fifth Pay Commission which tripled the salaries of formal labour during the mid 90s. On the other hand industries within the city were discouraged and the economy of the city started resting on the magnanimous and ambiguous service sector – including the financial sector. Formal labour suddenly had money that they were not used to spending. This was coupled with introduction of financial products like low interest loans, credit cards, debit cards, personal loans, etc. Affording newer products in the city became easier and people started buying. Real Estate was bought for not only use purposes, but also as investments. Rented real estate was already strangled earlier by the Rent Control Act and the newer loans made owning a property easier than renting it. On the other hand, the new real estate had to be much more than simply a functional space – it had to include elements of high luxury for the population with newer desires. This gave rise to large luxury apartments and townships that promised relaxed and lavish lifestyles.

The townships came about in areas that were earlier protected for environmental purposes - sensitive coastlines with mangroves, or edges of the forest land. Land was mobilised through getting the land use zoning converted on these lands. This required a huge amount of law-twisting and bribes that the developers undertook. The developers who were involved in these developments were large established business houses that could raise money due to their good will in the market. In some cases real-estate was also securitised for raising money from intermediate financers.

These self contained townships provide greatest luxuries with clubs, swimming pools, gardens, shopping places and entertainment centres. They have generously planned streets with abundant parking spaces. The whole township is extremely well guarded. Individual buildings are maintained by cooperative housing societies formed by the residences of the buildings. On the other hand, the overall township is maintained by the developer for the first few years. Later on the federation of newly environment-conscious residents took over. The maintenance costs borne by each household is also generally very high. While it is about Rs. 2-3 per sqft in other areas, it is about Rs. 5-7 per sqft in these townships. The housing type is generally 14 to 25 storied towers with two to four large apartments on each floor. The buildings are generally pasted with skins copied from classical Greek or ancient Egyptian embellishments. Some townships themselves resemble a theme park with adequately eclectic skins outside but stacks of flats within. Generally all overhead tanks are made to look like Gothic domes or Greek temples. Apartments in these townships are extremely expensive and can be afforded only by the highly paid executives of multinational companies or large businesspeople. Houses for the other classes with lesser affording capabilities are provided by smaller builders.





Previous Page (pg 110): Hiranandani Gardens at Powai

Opposite page (pg 112): Plan of Hiranandani Gardens

*Above: Glen Heights at Hiranandani Gardens
(Photograph Courtesy: Chitra Venkataramani)*

GLEN HEIGHTS	
HIRANANDANI GARDENS, POWAI	
No. of tenements	168
Each tenement (sq m)	200(3bhk) 160(2bhk)
Ground Cover (sq m)	948
Plot Area (sq m)	3343
No. of inhabitants	840



Top, Bottom: Large Townships in the Western Suburbs

Opposite Page (pg 115):

Top: Mind Space Complex at Malad (Western Suburbs)

Bottom: Hiranandani Gardens at Powai







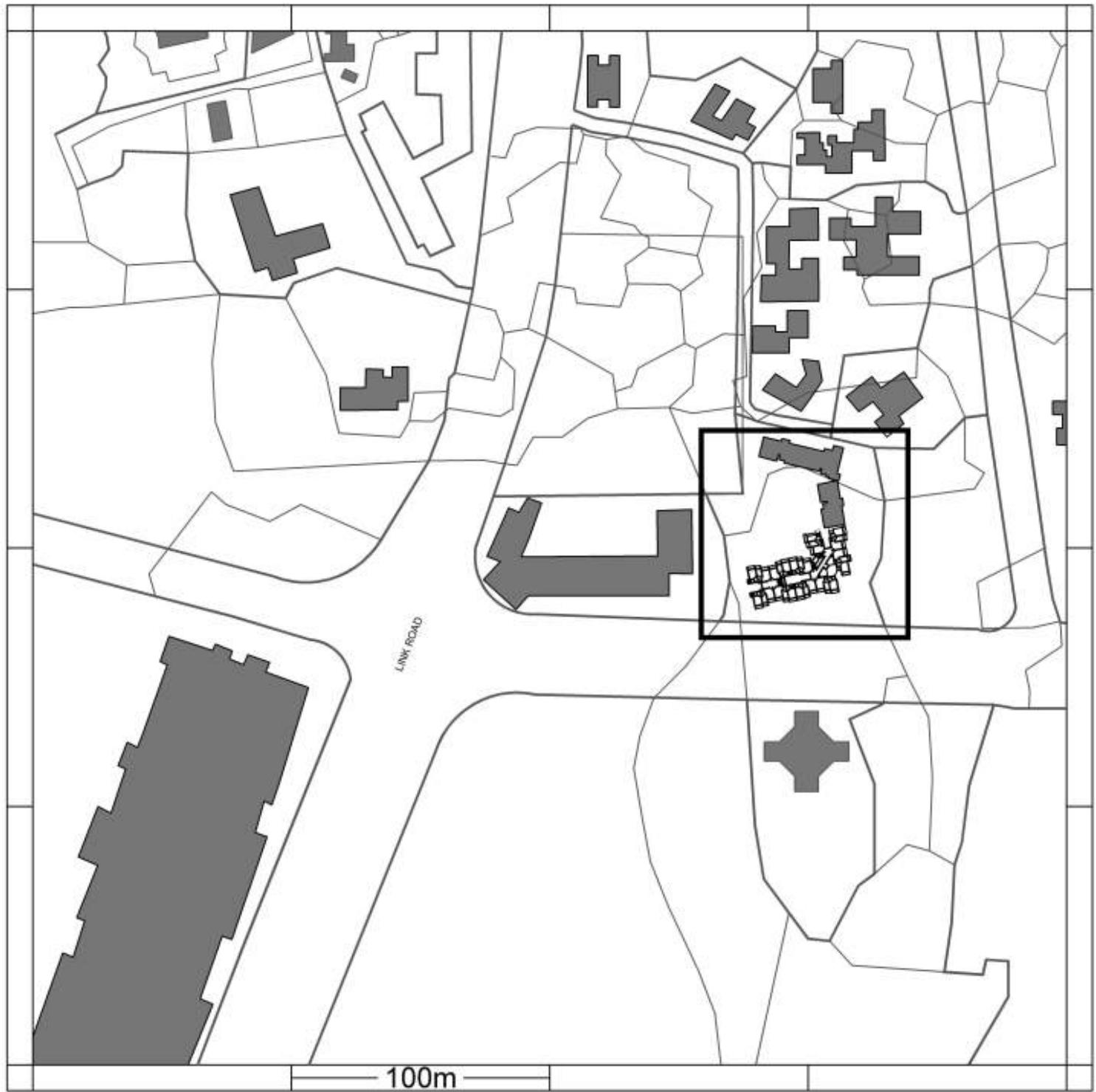
19. New Apartments in agrarian lands

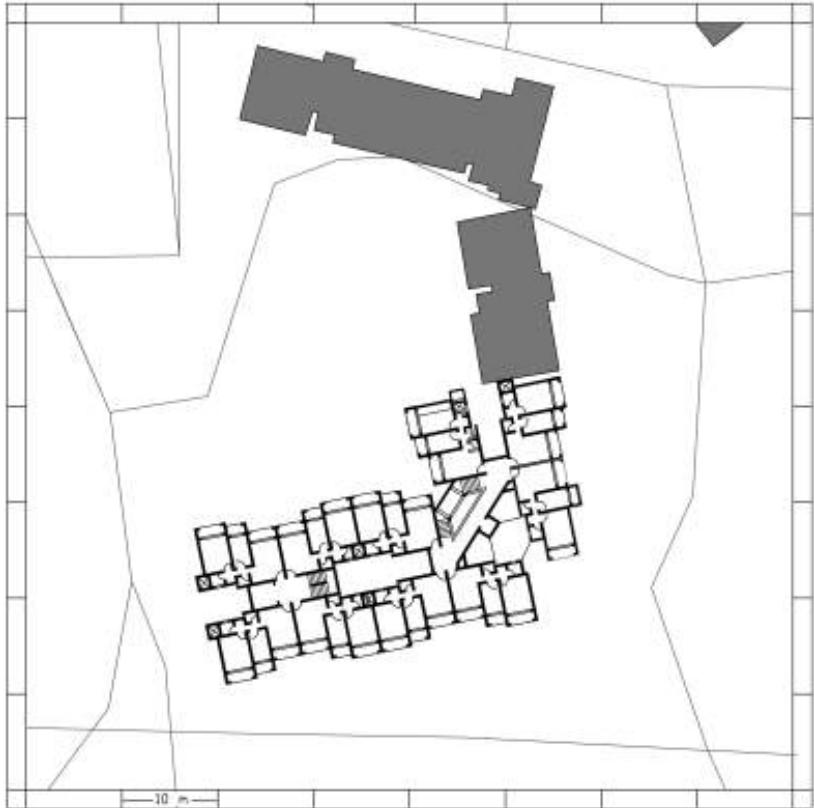
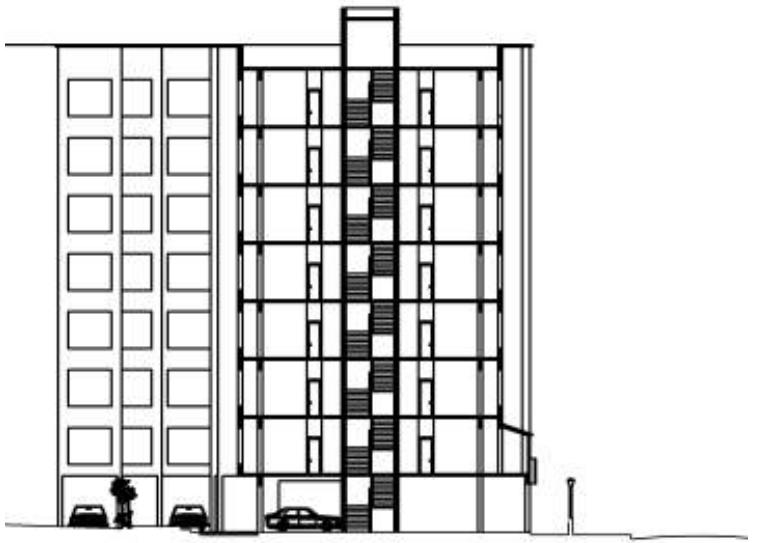
While large builders involved in mobilising large pockets of lands that were earlier designated as environmentally sensitive areas; medium sized builders operated on medium-sized lands owned by agriculturists. These pockets of land are available in the distant suburban areas.

Medium sized housing colonies with small and medium sized apartments were built in these pockets. Investments for these colonies are raised from large financers and also at times from the mafia. Middle class families buy these flats on loans mostly for their use. But significant numbers of these flats are also owned by families who buy them for investment purposes. These flats are rented out to tenants on something called a 'leave and license' contract which is an 11-month lease. The 11-month lease is a concept used to avoid the enforcing of Rent Control Act, whereby the owner of the flats can not only hike the rents but also can evict the tenants.

The building types typically included eight storied buildings edged around plots with open spaces in the centre. These buildings are eight storied high with apartment sizes ranging from 450 square feet to 1000 square feet. The ground floor of these buildings is generally stilted to accommodate the parking spaces. Buildings facing the roads usually have commercial premises in their ground floor.

The areas of lifts, corridors and staircases in these buildings are generally generously planned. This is primarily due to the concept of 'Super-Built-Up Area'. 'Carpet Area' is the amount of area within the flat. 'Built up area' includes the area under the walls. 'Super Built-Up Area' is an ambiguous area that includes areas of shared spaces like the staircases and corridors (even watchman's cabin and society offices sometimes) in proportion to the built up area of each flat. Hence if a flat has a carpet area of about 500 square feet, it has a built up area of about 575 square feet (about 15%). The Super Built-Up Area would then vary from 650 to 700 square feet. The Super built up area is quoted for the cost of the flats by the builders. This means higher the super built up area, higher is the cost of the apartment. And since the shared spaces like staircases and corridors are not counted for the calculations of FSI, the builder can build as much of these without encroaching on the flat size. But more the size of such shared spaces more will be the Super Built-Up Area. Hence it is profitable for the builder to provide luxurious shared spaces.





Previous Page (pg 116): Agrarian Lands converted into Real Estate at Malad (Western Suburbs)

Opposite Page (pg 118): Plan of Agrarian Land (note the land sub-division lines) with new developments. Plan also locates Shravasti Housing Society

Above: Generous Common Spaces at Shravasti

SHRAVASTI A & B WINGS	
AGRARIAN LANDS WESTERN SUBURB MALAD	
No. of tenements	70
Size of each tenement (sq m)	52
Ground Cover of building (sq m)	608
No. of inhabitants	350
Total Shravasti Complex has plot area of 4343 sqm with 5 wings and 154 flats	



Top Left: New Roads in Agrarian Lands at Malad

Left, Bottom and above: New Developments in the Agrarian Lands with shops edging the street and large internal courtyards

Opposite Page (pg 121): Internal Courtyard of Shravasti with stilts at the ground floor for car parking



Selling Power Tool Brand
LECTREX

A METAL CORPORATION

HITACHI

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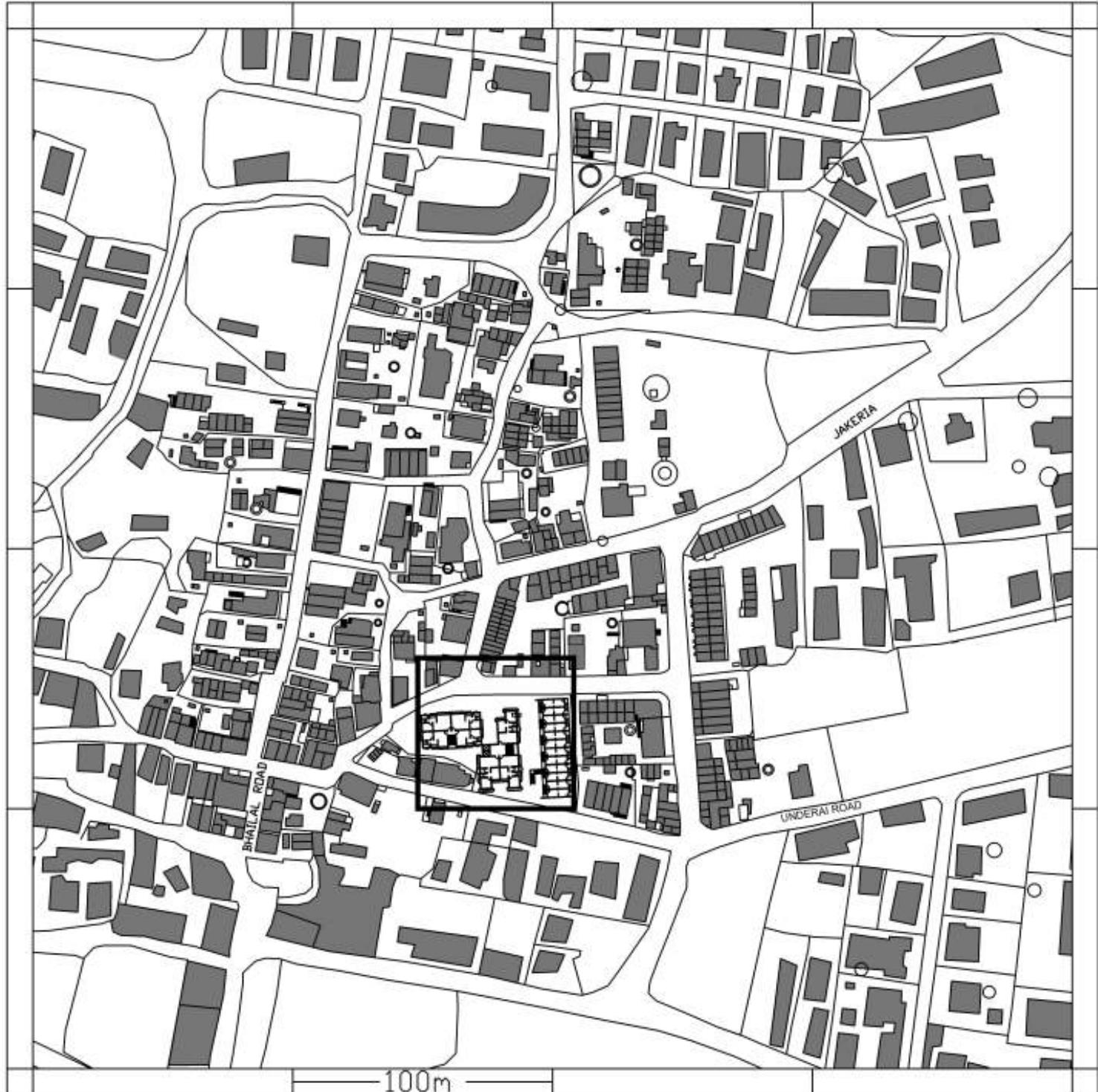


20. Apartments in old villages

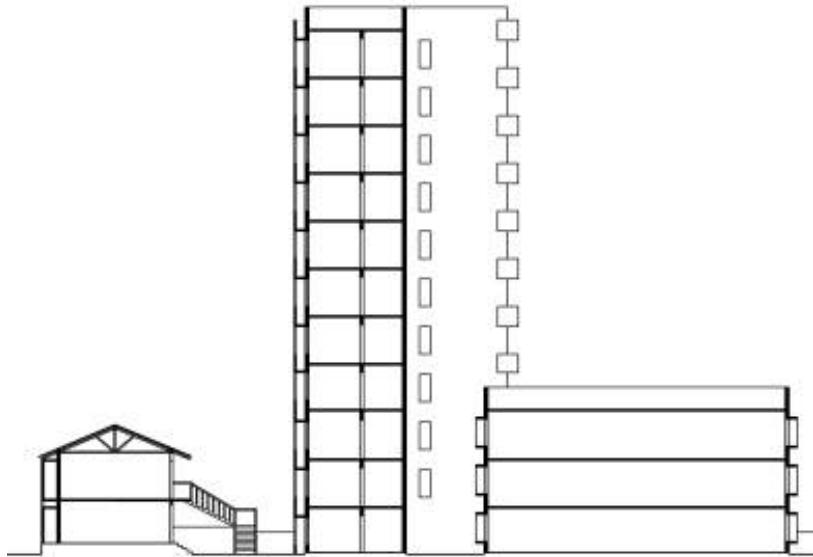
The rush for real estate also put humongous pressure on the old agrarian and mercantile villages of the city. Invariably, the plots in these villages are trapped in legal hassles on issues of sharing, sub-tenancy etc. Here the small builders operate. They excel in clearing the tenure issues and manage to get a clear title on a single name. They do it either by paying off the stakeholders or threatening them with muscle power.

In other cases, land is also acquired from state agencies at a subsidised cost. These lands are reserved for cooperative housing societies that want to build houses by themselves. In these cases, the builder forms a cooperative society with fake members and applies for the land. Top level bureaucrats who evaluate the applications are paid bribes and the land is acquired. The builder is generally the chief functionary of the society and his/her relatives are the other office members. After the building is made, the new buyers are made members of the society through paying bribes to the lower level staff in the administrating authority. Once land is acquired, the building activity begins. These lands are very small plots situated in densely packed low rise houses. Tall towers are built in these plots. Typically these buildings have to rehabilitate existing occupants on the land. Hence a separate building is built or lower stories of the new building are allotted to the existing residents. The ground is stilted for parking and residences start from the upper floors. Effort is made here to maximise floor space by including features that are not included in the FSI calculations like architectural projections on the window. These features are later encroached upon to increase the area of the house.

The small builders are generally short of funds and also do not have enough good will to raise money from the markets. Hence large chunks of real estate are pre-sold to investors who are ready to finance the project. Sometimes the investors are also the holders of black money or mafia members. The builder then gets his/her share of real estate to sell. All the people investing on the project appoint their agents. These agents then fetch buyers. Generally it is seen that while the builder's flats are most expensive, the investors sell it cheaper and the mafia members who want to quickly get away from the investments sell their flats for the cheapest rates. Sometimes, a fixed lower price is negotiated below which no party is allowed to sell. Invariably, the builders and financers know people in some banks due to their earlier dealings. These bankers then become additional agents in the housing delivery system and help home buyers with their loans.



100m



Previous Page (pg 122): New Development at Chincholi Village

Opposite Page (pg 124): Plan of Chincholi Village

Above: New Shreenath Towers, Chincholi Village

SHREENATH TOWERS	
CHINCHOLI AGRARIAN VILLAGE	
No. of tenements	31
Size of each tenement (sq m)	84
Ground Cover of building (sq m)	324
No. of inhabitants	155
Total Plot Area is 1426 sqm with 12 flats of rehabilitation and 84 flats of sale.	



*Opposite Page (pg 126):
New Developments at
Chincholi Village, Malad*

*Right: New Developments
in Pali Village, Bandra*



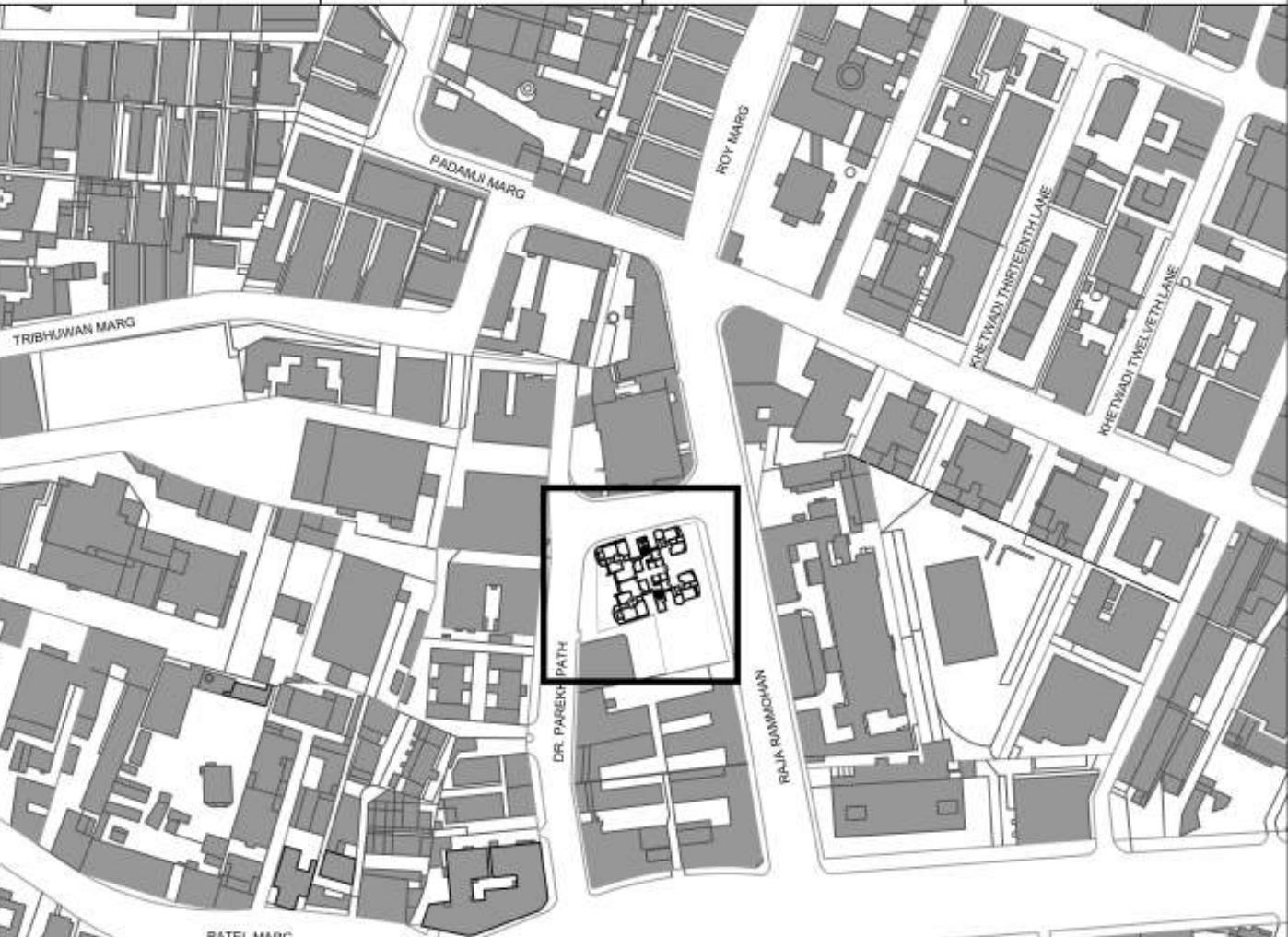


21. Dilapidated building Redevelopments

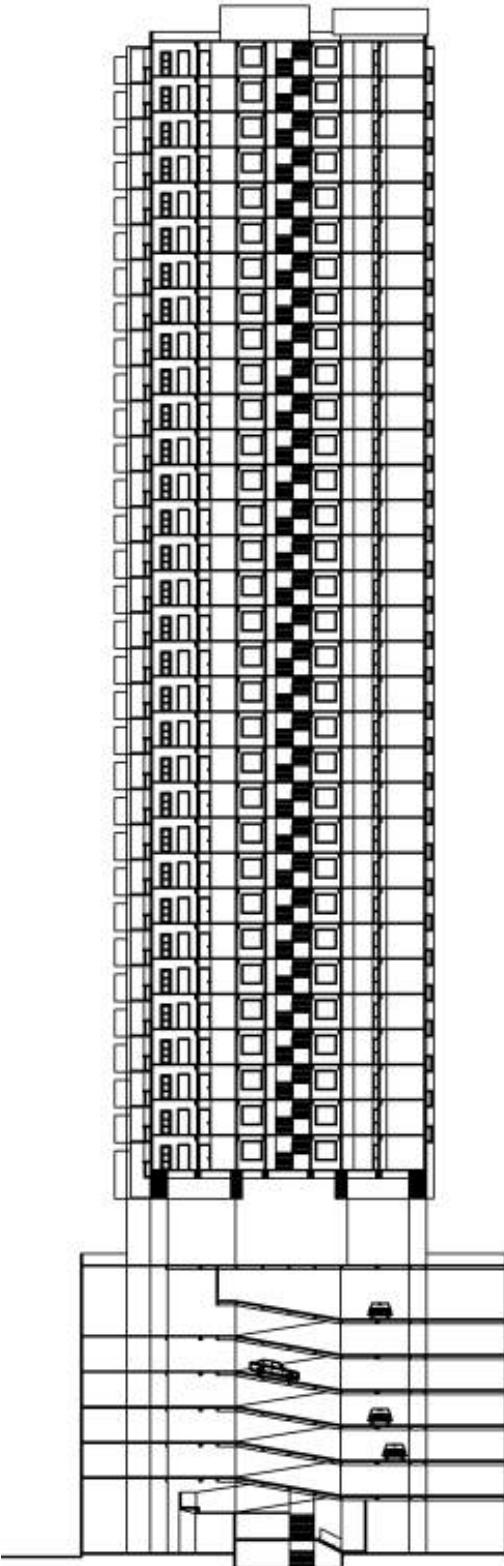
The central and inner city areas of Mumbai have a large number of old housing stock built during the late 19th and early 20th century. It is estimated that there are around 19000 such buildings in the central and inner city areas. There have been several instances of building collapse in these areas in the 50s and the 60s. The Rent Control Act is popularly blamed for the dilapidation of this housing stock as it is argued that landlords did not get enough resources to upkeep of the buildings. Along with the effects of the Rent Control Act, the overuse of resources, the poor economic situation of the tenants as well as aging building stock could be listed as reasons for the dilapidation of this housing stock. The deteriorating housing stock and loss of life due to building collapses forced the government to take up the responsibility of repairing rent controlled buildings. The government collected a nominal Repair Cess to support this activity. As the money accumulated for repair was extremely less, such an programme did not yield much. It was uneconomical for the Government to undertake such an activity all by itself without a clear financial policy. Moreover, there was a view that it wasn't worth repairing these buildings, but rather it would be better to reconstruct the entire building.

With such a background, the government came up with a complete new regulation in 1997 popularly called as the CESS Rule. At the core of the policy was the idea to encourage private participation in reconstructing dilapidated buildings and to discourage their repair. The policy suggested that a building listed as a CESS building could undergo reconstruction if the landlord and seventy percent of the tenants agreed. In such a case they could hire a developer for the new construction. The old tenants get flats that are as large as their old tenement or 20.9 square meter, whichever is more. To offset this large cost, the regulation provided additional development rights on the property. Hence, the new building would have tenements for the old tenants plus an additional real estate for selling in the open market. The additional development right is marked at 50% (or FSI of 2.5, whichever is more) of the existing development. There was also an incentive 10% additional FSI given for older buildings making the total additional FSI at 60% for quicker responses.

The policy brought about a rush by developers to invest and redevelop the dilapidated buildings. However, one sees that the new developments have come up only in areas with very high real estate values and not in the other areas where the problem of dilapidation is very acute. But the greater problem was the larger implication of the rule on the city. The new developments are typically tall towers in the middle of dense old city fabrics. These towers have large houses, large multi storied parking spaces, terrace swimming pools etc. Their location close to business areas of the city make them highly sought amongst the elite groups. The profits made from these are never invested back into the city rather this newer development has gentrified these areas and further heavily burdened the infrastructure.



100m



Previous Page (pg 128) : New Redevelopment of a dilapidated building in the Inner-city Area following the new redevelopment policy

Opposite Page (pg 130): Plan of the Inner-city Area of Girgaon

*Above: Rushabh Apartments at Girgaon
(Photo Courtesy: Ubaid Ansari)*

RUSHABH APARTMENTS	
GIRGAON INNER CITY	
No. of tenements	124
Each tenement (s m)	108(3bhk,84(2bhk
Ground Cover (sq m)	1216
Plot Area (sq m)	1729
No. of inhabitants	620





Above and Opposite Page (pg 132): New Redevelopment of dilapidated buildings in the Inner-city Area



Collective Research Initiatives Trust

**A/501, Divya Smruti, Opposite Toyota Showroom, New Link Road, Malad (West), Mumbai 400 064. Phone:
+91-22-28886618 Web: www.crit.org.in Email: crit@crit.org.in**