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Chawls: Analysis of a middle class housing type in Mumbai, India

Priyanka N. Karandikar
Iowa State University

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Chawls: Analysis of a middle class housing type in Mumbai, India

By

Priyanka Karandikar

A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of
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Program of Study Committee:

Nadia Anderson, Major Professor

Francis Owusu

Kimberly Zarecor

Marwan Ghandour

Iowa State University

Ames, Iowa

2010

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ABSTRACT

This thesis documents and analyzes a building-type called *chawl* in Mumbai, India. Typically occupied by middle class residents, *chawls* provide access to a range of services and, most importantly, a social support-system that makes life easier in contemporary Mumbai. The research examines how chawls developed within the urban context of Mumbai and how they contribute to the social and cultural lives of their residents. Research methods include a literature review of books, journals, newspaper articles as well as pictographic record and interviews with residents living in the two case study chawls. The analysis shows that a dense social-network between the residents is one of the main reasons for them to live in the chawls. In a dense city like Mumbai, with a lack of affordable housing, chawls provide a sustainable model for middle class housing that should be maintained and can potentially serve as a model for future housing projects.

CHAPTER 1

Overview

The housing type *Chawls* has been a very significant part of Mumbai's history and this research looks exclusively at chawls in Mumbai. Many chawls were built during the nineteenth century and twentieth century. They were built by government or private landlords to accommodate the migrants coming from villages due to the rising employment opportunities in early Mumbai.¹ Chawls are buildings with one room or two room units of not more than two hundred square feet attached by a common corridor with shared toilets on each floor.

Many of these chawls in Mumbai built during the British Raj are over seventy to eighty years old and many of them are dilapidated. Reporter of the newspaper *Times of India* Milind Kokje mentions how currently many of these dilapidated buildings are collapsing or getting redeveloped by builders². A report by S.S. Tinaikar Committee and housing authority, MHADA (Maharashtra Housing and Area Development Authority) study showed that living conditions in upgraded slums were better than some of the chawls.³ The present condition of these 70-80 year old chawls is such that many of them have been declared dilapidated and unfit to live in by the government and other housing agencies. Some have structural problems

¹ Sujata Patel, *Bombay and Mumbai: The City in Transition*, ed. Sujata Patel and Jim Masselos, (New Delhi; New York: Oxford University Press, 2003), 6.

² Milind Kokje, "Mumbai's changing Landscape", *Times of India* (Mumbai), July 12th, 2004, <http://timesofindia.indiatimes.com>

³ Vidyadhar Date, "Slum Up-gradation Beneficial than Rehabilitation." *Times of India*, May 15th 2002. <http://timesofindia.indiatimes.com>

while some have problems related to sanitation and services or light and ventilation. In spite of this, people continue to live in them. In one similar case where people refused to move out, the municipality even decided to stop the water supply and electricity to make the residents vacate these buildings.⁴ This shows how residents of chawls simply refuse to leave their chawls even when they know the chawl buildings can prove to be hazardous. The question arises as to why the residents are still living in spite of such living conditions.

This focus of the study is to investigate why middle class residents have been living in the chawls for generations in spite of difficult living conditions. This project's research, also examines the contribution of the building type to the lifestyles and cultures of the people living in the chawls.

For example, the building shown in Figure 1 and 2 illustrate some of the physical problems with chawls. Building in Figure 1 was taken up by the Heritage Committee in Mumbai to structurally reinforce corridors, staircase and balconies since the building had become structurally weak. Many chawls in Mumbai can be seen with steel or wooden members attached to the existing building to support some of the building elements like balconies.

⁴ Sujit Mahamulkar, "Of 721 shaky buildings, 132 are in Byculla: BMC survey", *Hindustan Times (Mumbai)*, June 8th 2010, <http://www.hindustantimes.com>.



Fig.1: Example of old chawl.

Source of Image: Heritage committee

<http://theheritagekids.org/pdf/jermahal.pdf>



Fig.2: Example of old chawl.

Source of Image: Outlook India Magazine

<http://www.outlookindia.com/article.aspx?228540>

To investigate why middle class residents have been living in the chawls for generations in spite of difficult living conditions, two case studies along with interviews with residents of chawls were conducted. This study examines the contribution of the building type in the lifestyles and cultures of the residents. The case studies support more research that shows that social support networks and mixed uses within a neighborhood are critical in lives of residents. For example, Jane Jacobs' book *The Death and Life of Great American Cities*, where she mentions that social network and diversity in neighborhood are the key features for a city to sustain itself.⁵

The building form of the chawls contributes substantially to the close-knit social life that the residents lead. The combination of all common areas like courtyards, corridors, staircases and so on provide ample scope for social interaction in these

⁵ Jacobs, Jane, *The Death and Life of Great American Cities*. (New York: Vintage house, 1961)

cohesive chawl communities. This social network is the support system of the residents and needs to be maintained. This dense social network is one of the main reasons why the residents have not moved out of the chawls. This building form provides an example of successful affordable community housing in urban areas of Mumbai for the middle class.

The chawls also offer the residents with affordable housing to the middle class residents and this is another important reason for the residents to not move out. Currently; the rent is not more than Rupees (Rs) 250. The rents of newer one bedroom 710 square feet apartments in the same case study areas are anywhere from Rs. 25000 to Rs. 50000.⁶ According to the National Council for Applied Economic Research, New Delhi (NCAER) data, currently people of Mumbai, spend about 11.2 percent of their total incomes on housing and utilities and more than 50 percent of incomes on food and transport together.⁷ Sources have shown that Mumbai is richer as compared to rest of India. It is extreme in terms of average income, average cost of living and so on. An average middle class person in Mumbai is wealthy by Indian standards. A kilogram of rice in Mumbai can cost anywhere from Rs. 25- Rs. 100. However, Jan Nijman takes NCAER's data to categorize middle class. Groups with income INRs 70000- INRs 140,000 per annum can be categorized as low to lower-middle income groups and groups with incomes

⁶ Posted by Property Agent on August 18 2010 on IProperty about rent in Parel.
<http://in.iproperty.com/mumbai/search/For-Rent-Apartment+Flat/budget+/postedby+Agent+Builder+Individual/rooms+Min1BHK/Parel/Sort-Newest-1.html>

⁷ Sunil Jain, "Mumbaikars spend least on education", *Business Standard*, 9th August 2008.
<http://www.business-standard.com>

above INRs 140,000 can be categorized as core to upper middle income groups.⁸ These categories simply help understand the overall income structure of middle class people in Mumbai.

The dense social network is very important to the residents of a neighborhood as especially in urban areas, because the inter-dependency and close-knit relations with neighbors make the lives of the residents easier. Alexandra Curley in article *Relocating The Poor: Social Capital and Neighborhood Resources* says that research has shown that social networks often play an important role in the development of people in life and that neighborhood of residence can shape these networks. Although she talks with reference to the 'low-income' group, it can be true in general irrespective of the income group.⁹

⁸ Jan Nijman, "Mumbai's Mysterious Middle Class." *International Journal of Urban and Regional Research* 30/ 4 (2006).

⁹ Alexandra Curley. "Relocating The Poor: Social Capital and Neighborhood Resources" *Journal of Urban Affairs*, Vol32/1, (February 2010): 79–103.

Methodology:

This study began with research into the contemporary conditions of chawls in Mumbai and approaches to their repair and/or replacement by developers, architects, and planners. This established a base line from which alternative strategies could be investigated. Information about the current conditions of chawls in Mumbai and the lives of their residents was found primarily in the public press including newspaper and magazine articles as well as web sites. Architect C.S. Prabhu, for newspaper DNA, for example, discusses about the large amount of money spent by the housing authorities and tenants to repair old chawl buildings in Mumbai.¹⁰ Numerous newspaper articles mention about the number of chawl buildings that collapse each year. For example Milind Kokje's article "Mumbai's changing Landscape" in the *Times of India* mentions that there are about nineteen thousand old dilapidated buildings and chawls out of which twenty-five collapse each year partially or completely.¹¹ Neil Pate's article "MHADA not ready with buildings repairs policy," for the *Times of India*, gives current information about the actions various government bodies and courts plan to take with respect to dilapidated chawls, like the decision court made, which said that MHADA would undertake repairs of dilapidated buildings.¹² Magazine articles like Manu Joseph's "How many legs in a square foot" and Smruti Koppikar's "Thereby hangs a storey"

¹⁰ C.S Prabhu, "Tenants must unite to save their homes." *DNA*, August 26th 2007.
<http://www.dnaindia.com>

¹¹ Milind Kokje, "Mumbai's changing Landscape", *Times of India (Mumbai)*, July 12th, 2004,
<http://timesofindia.indiatimes.com>

¹² Neil Pate. "MHADA not ready with building repairs policy." *Times of India*, June 10th 2004.
<http://timesofindia.indiatimes.com>

in *Outlook India* document the lives of the residents who live with many family members in a small room without complaint.¹³

Journal articles, like engineer Suryawanshi's "What ails old buildings?" and Dilip D'Souza's article "Nobody touches the Act" explain in detail why the condition of chawls has deteriorated over the years. This not only justifies the condition of chawls, but indicates the factors that need to be eliminated if these chawls need to be maintained.

Milind Kokje's article "Mumbai's changing Landscape" and Neil Pate's article "MHADA not ready with buildings repairs policy," for the *Times of India* mention how government has proposed budgets for the reconstruction of old and dilapidated chawl buildings in Mumbai.¹⁴ When municipal or government authorities do plan to evict families out of dangerous buildings, for repairs or reconstruction, they simply refuse. Smruti Koppikar in article "Thereby Hangs a Storey" for *Outlook India* gives two examples of hundred year old chawl buildings in old city Mumbai where the Housing Authority had planned to evict all families because the chawl buildings had become structurally weak. She describes the residents of having an "unbelievable stubbornness to move to safer places".¹⁵

¹³ Manu Joseph. "How Many Legs in A Square Foot?" *Outlook India*, 18th August 2003.
<http://www.outlookindia.com> Also,

Smruti Koppikar. "Thereby hangs a storey." *Outlook India*, 12th September 2005.
<http://www.outlookindia.com>

¹⁴ Milind Kokje, "Mumbai's changing Landscape", *Times of India (Mumbai)*, July 12th, 2004,
<http://timesofindia.indiatimes.com>

¹⁵ Smruti Koppikar. "Thereby hangs a storey." *Outlook India*, 12th September 2005.
<http://www.outlookindia.com>

The first question raised was, why the residents do not move out of the chawls when the chawls can prove to be dangerous. This gave rise to new questions that if the residents have lived there for many years, what are the advantages and disadvantages, what are other housing options for the residents and how has the building form contributed to their lifestyle and how has this housing type affected the overall urban fabric in Mumbai.

The next stage of study involved investigation into the history of the urbanization and spatial development of Mumbai. This helps determine how chawls were developed, within the city and how this building type related to social and economic systems such as caste, class, and occupation. Various books like Marriam Dossal's *Theatre of Conflict, City of Hope*; Sujata Patel's *Bombay to Mumbai: The City in Transition*; Gillian Tindall's *City of Gold: The Bibliography of Bombay*; Nigel Harris's *Economic Development, Cities and Planning: The Case of Bombay*; describe the history and background of Mumbai. These books analyze not just the pattern of growth in Mumbai, but also the clustering of people in various areas. This literature articulates the various factors that affected the spatial distribution of people in Mumbai according to economic factors such as class and occupation.

Jan Nijman's article "Mumbai's Mysterious Middle Class", describes the current income levels of various populations in the city particularly the middle class while Prashant Kidambi's *The Making of Indian Metropolis: Colonial Governance and Public Culture* talks about the middle class historically in terms of their occupations,

the areas they lived in and importantly, their chawl housing.¹⁶ Books like Chandrasekhar's *India's Population* and Neera Adarkar's article "Gendering of Culture of the Building: Case of Mumbai" explain chawls in details and the way people live in them. To understand the conditions of the chawls and their middle class residents better, it was essential to know their history of development.

In addition to understanding the socio-economic development of chawls, the study also examined the history of the built form in an attempt to ascertain its potential origins. A paper by Rajashree Kotharkar, S.A. Deshpande and Rajesh Gupta for the Architecture Department, VNIT, Nagpur, India studies houses in an area called 'Varhad' in Maharashtra. Their research analyzes how the vernacular buildings are climate responsive. This paper introduces the native houses locally called *wadas* or *wadis* (singular: *wada*). Prashant Kidambi's book *The making of Indian Metropolis: Colonial Governance and Public Culture* and two other newspaper articles help conclude that the chawls in Mumbai have potential origins in the *wadis* of the rural areas of the state.

Two case studies in central Mumbai were used for this study to exemplify the ideas articulated in the literature and to provide specific examples of spatial conditions and social practices. They were selected because of their typical spatial features such as small units connected by common corridors with common toilet facilities. Both chawls are in the old city of Mumbai yet the areas in which they lie

¹⁶ Jan Nijman, "Mumbai's Mysterious Middle Class." *International Journal of Urban and Regional Research* 30/ 4 (2006). Also, Prashant Kidambi, *The Making of Indian Metropolis: Colonial Governance and Public Culture in Bombay*, (England: Ashgate Publishers, 2007)

have different histories and backgrounds. The residents in these chawls differ slightly in income levels. Interviews were conducted with ten individuals living in the two chawls and the chawl building is pictographically documented and measured. The interviews were conducted using the 'snowball' technique in which each participant refers the interviewer to subsequent participants. The questions focused on asking why the respondents have been living in chawls for so many years, the problems they have encountered in the chawls and the ways the chawls' built forms contribute to the social lives of the residents. The typical questions and responses to those questions are organized in a tabular form in the Appendix.

The case studies indicated that the three main reasons why the chawl residents have not moved out of the chawls are location, affordability and more importantly, the strong social culture shared by the chawl residents.

Additional literature was subsequently reviewed to place the social systems of these specific case studies within a broader context related to the importance of social support systems in urban neighborhoods. *The Death and Life of Great American Cities* by Jane Jacobs, for example, shows how social network and diversity is important for a community to sustain itself.¹⁷ Alexandra Curley's article, "Relocating the Poor: Social capital and Neighborhood Resources", discusses the

¹⁷ Jacobs, Jane, *The Death and Life of Great American Cities*. (New York: Vintage house, 1961)

different dimensions of social capital and the factors affecting it particularly within contexts where social networks are disrupted through relocation.¹⁸

A number of films were also studied that illustrate both how spaces are used within chawls and the types of social networks that occur in these spaces. (Fig.3) They have shown various areas where interaction takes place. For example: The movies show how interactions happen in the staircase and corridors. This was also seen in the case studies. The interview participants said that the ladies get together in the afternoons to chat, cook together and watch TV. Old people are seen in both case studies spending time in the corridors with their friends to chat.



Fig.3: Example of life in chawls.

Source of Images: Movie clips (see Appendix)

¹⁸ Alexandra Curley. "Relocating The Poor: Social Capital and Neighborhood Resources" *Journal of Urban Affairs*, Vol32/1, (February 2010): 79–103.

CHAPTER 2

History and Background

The purpose of this chapter is to understand how Mumbai's urban fabric developed and how chawls developed with respect to this context. The history of Mumbai's growth informs the evolution of the middle class in Mumbai and the various factors that influenced the spatial distribution of people within the city. This helps further in the research to understand the old and current generation of middle class better in terms of their practices, choices with respect to living areas, occupations, and housing. The history of the middle class and its housing also frames the questions that were used for the case study chawl interviews.



Fig 4: Map of India showing location of Mumbai.

Source of Image: Indian Embassy
<http://www.indianembassy.org/indiainfo/India%20Map.jpg>

Marriam Dossal, in her book *Theatre of Conflict, City of Hope*, describes the journey of Mumbai from a fishing hamlet to one of the world's most important cities through not just text but maps and pictures.¹⁹ Mumbai's development began with the East India Company. The company arrived in India as traders at the end of the sixteenth century and their involvement in India increased gradually after that. The rule of the English lasted until 1947 and they significantly impacted the overall urbanization of Mumbai. The spread and use of colonial architectural styles were interlinked with traditional building types, creating a mixture of building styles in Mumbai. The English language was used along with traditional languages. Thus Mumbai developed, as author Sujata Patel in her book *Bombay to Mumbai: The City in Transition* describes, into a cosmopolitan culture consisting of many languages and practices.²⁰ Housing in Mumbai, which forms a large part of the urban fabric of the city, similarly developed as a mixture of old customs and newer western traditions.

¹⁹ Marriam Dossal, *Theatre of Conflict, City of Hope: Mumbai, 1600 to Present Times*. (New Delhi: Oxford University Press, 2010)

²⁰ Sujata Patel, *Bombay and Mumbai: The City in Transition*, ed. Sujata Patel and Jim Masselos, (New Delhi; New York: Oxford University Press, 2003), 7, 8.

The Urbanization of Mumbai:

Mumbai was a group of seven islands with fishing villages until the sixteenth century. The East India Company acquired it from the Portuguese as a gift.²¹ A range of sources discuss the ways in which the early population of Mumbai clustered spatially. For example, Neera Adarkar, in her article “Gendering of Culture of the Building: Case of Mumbai” and Prashant Kidambi in his book *The Making of Indian Metropolis: Colonial Governance and Public Culture*, explain how, the East India Company’s trade with India was well established and by the 1780s most of the employment and housing in Mumbai was within the area of the fortified walls known as the Fort area situated on the southern tip of the island.²² (Fig.5) By the end of the eighteenth century, population was pouring in from many parts of India, to find employment in ports, transportation systems, postal services and trade in opium.²³ Most of the migrants came from Deccan and the coastal strip of Konkan in states of Maharashtra, Gujarat and Karnataka.²⁴ To accommodate more population, Prashant Kidambi explains that land was being reclaimed northward and the seven

²¹ Sujata Patel, *Bombay and Mumbai: The City in Transition*, ed. Sujata Patel and Jim Masselos, (New Delhi; New York: Oxford University Press, 2003), 1. Also, Nigel Harris, *Economic Development, Cities and Planning: The Case of Bombay*, (Bombay; New York: Oxford University Press, 1978), 6. Also, Gillian Tindall, *City of Gold: The Biography of Bombay*. (London: Temple Smith, 1982), 41, 42.

²² Neera Adarkar, “Gendering of the Culture of the Building: Case of Mumbai.” *Economic and Political Weekly*, Vol 38(43) (2003):4528. Also, Prashant Kidambi, *The Making of Indian Metropolis: Colonial Governance and Public Culture in Bombay*, (England: Ashgate Publishers, 2007), 32. Also, Nigel Harris, *Economic Development, Cities and Planning: The Case of Bombay*, (Bombay; New York: Oxford University Press, 1978), 24.

²³ Sujata Patel, *Bombay and Mumbai: The City in Transition*, ed. Sujata Patel and Jim Masselos, (New Delhi; New York: Oxford University Press, 2003), 6. Also, Nigel Harris, *Economic Development, Cities and Planning: The Case of Bombay*, (Bombay; New York: Oxford University Press, 1978), 6.

²⁴ Kunj Patel, “*Rural Labor in Industrial Bombay*”, (diss. Mumbai: Bombay University, 1963), 1.

islands were eventually connected.²⁵ Gillian Tindall provides a map in his book *City of Gold: The Biography of Bombay* to illustrate the reclaimed areas.²⁶ These authors explain that the reclamation did not happen at once but occurred gradually. (Fig.6)

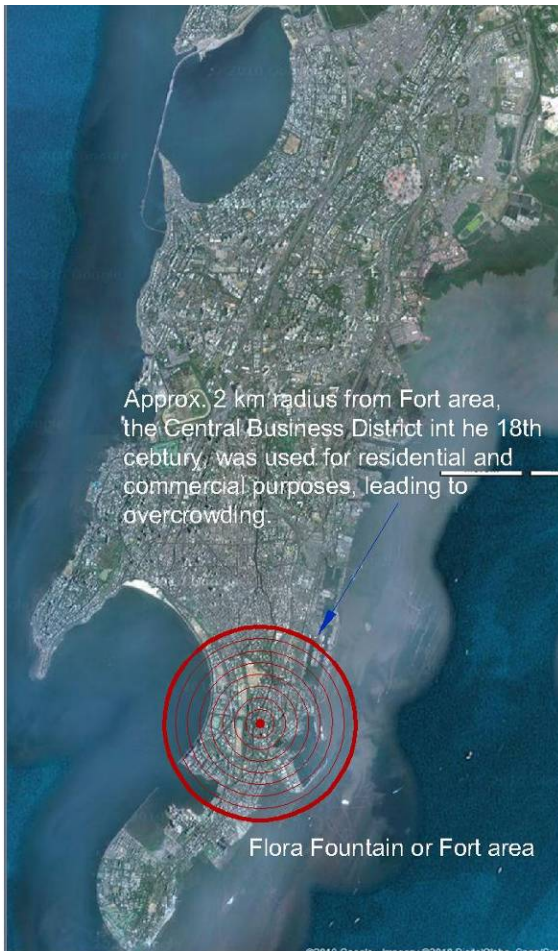


Fig 5: Image showing the areas used for commercial and residential purposes by the end of the 18th century.
Source of Image: maps.google.com

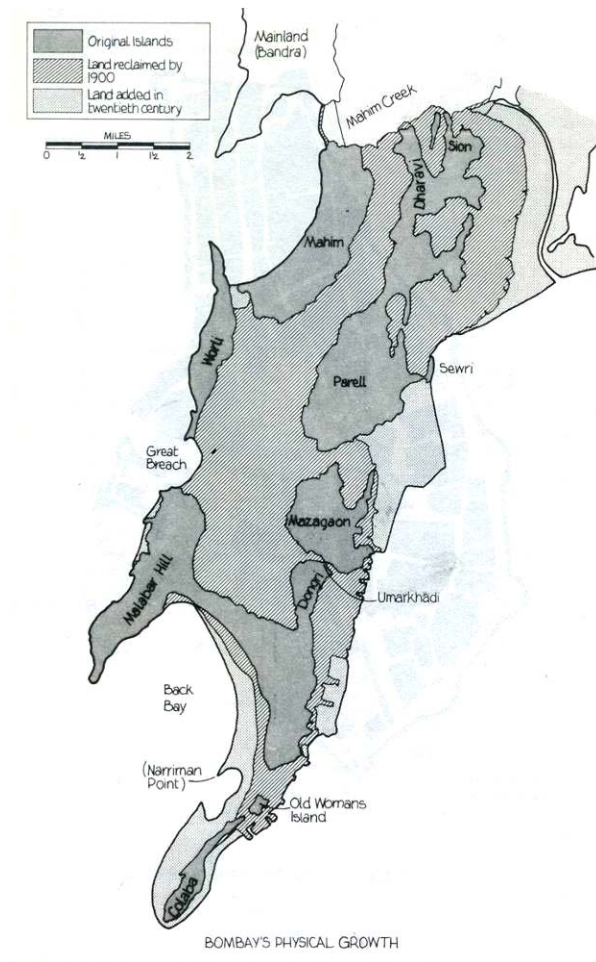


Fig.6: Image showing Mumbai with reclaimed areas by the end of the 19th and start of the 20th centuries.
Source of Image: Book: City of Gold

²⁵ Prashant Kidambi, *The Making of Indian Metropolis: Colonial Governance and Public Culture in Bombay*, (England: Ashgate Publishers, 2007), 32.

²⁶ Gillian Tindall, *City of Gold: The Biography of Bombay*. (London: Temple Smith, 1982).

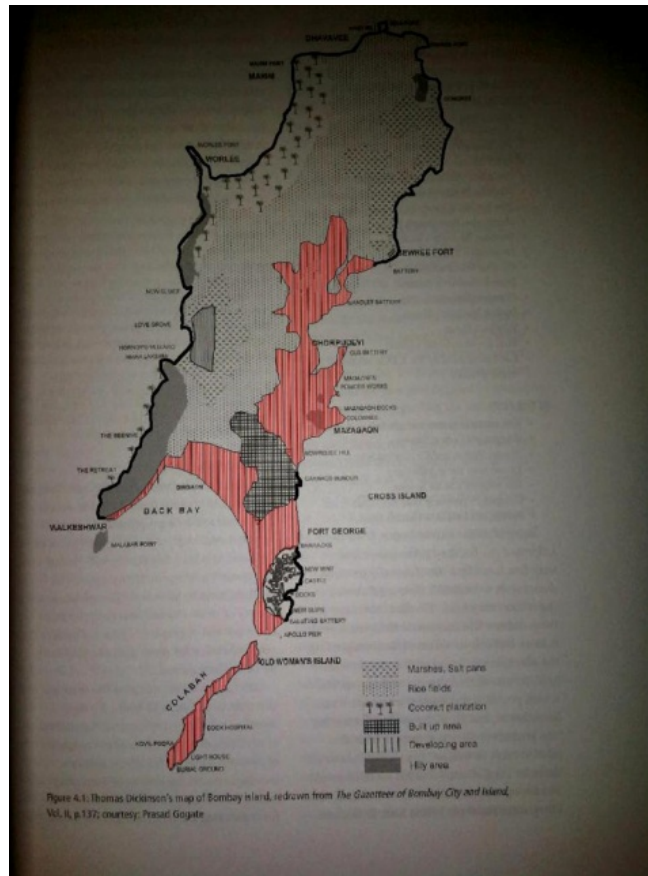


Fig 7: Survey map by Lieutenant Thomas Dickinson from 1812 to 1827. Part in red showing the portions of Mumbai outside of the Fort area that were developed over time.

Source of Image: Book: *Theatre of Conflict, City of Hope*.

Bombay and Mumbai: City in Transition and Economic Development, Cities and Planning: the Case of Bombay, explain that there were two major factors that transformed Mumbai in the nineteenth century. The first was the opening of the Suez Canal in the 1860s, which reduced the distance from England to India and Mumbai, on the west coast of India, became a closer port than the previously dominant port of Calcutta on the east coast. The second was the shortage of cotton

during the American Civil war which made Mumbai the primary exporter of cotton to England. Raw cotton produced inland came to Mumbai for export.²⁷ As the port expanded, more employment opportunities developed. The number of textile mills in Mumbai also increased. The profits from the textile sector were put into other industries like food processing, pharmaceuticals and small and medium sized engineering. This attracted a huge wave of migration of people belonging to various castes from the rural areas to Mumbai.²⁸

²⁷ Sujata Patel, *Bombay and Mumbai: The City in Transition*, ed. Sujata Patel and Jim Masselos, (New Delhi; New York: Oxford University Press, 2003), 6. Also, Nigel Harris, *Economic Development, Cities and Planning: the case of Bombay*, (Bombay; New York: Oxford University Press, 1978), 6.

²⁸ Ibid.

Clustering on the basis of 'caste' and 'class':

The caste system historically influenced the spatial distribution of people in Mumbai. However, as Mumbai developed economically during the nineteenth century, the spatial distribution of people on the basis of castes reduced while class became a more significant factor. The study of the spatial distribution of people in Mumbai helps the research by showing the relationship of different communities with the city and its development. The urban fabric of Mumbai that developed decades ago still has a large influence on Mumbai. For example, Dionne Bunsha reports for *New Internationalist* magazine that the areas where textile mills used to stand until the 1980s are now being converted into malls and offices. This is also increasing the property value of the neighboring residential areas and multistory buildings are built next to old chawls. These chawls, many decades ago, used to be neighborhoods of moderately earning mill workers.²⁹

The influence of caste on the spatial distribution of people in Mumbai has been explained by authors like I.P Desai, in his article "Should 'Caste' be the Basis for Recognizing Backwardness?" and Jan Nijman's article "Mumbai's Mysterious Middle Class". Both these articles explain that historically, caste was an important factor in influencing the formation of spatial clusters or communities of people from similar castes. As Mumbai went through the economic development of the eighteenth and nineteenth centuries, different economic classes developed that

²⁹ Bunsha, Dionne and Richard Swift. "Powerloom Prison." *New Internationalist* 399, April 2007.
<http://www.newint.org>

became more significant than castes in influencing the spatial distribution of people.³⁰

For generations, Indian society was organized around the caste system. Authors Philip Adler and Randal Pouwel explain in detail the division of the Hindu caste-based society in their book *World Civilizations: Since 1500*. The division of the society based on castes is believed to have developed between 1500B.C to 500 B.C. when the Aryans came from the west and settled in India. For example, within the Hindu society there was a hierarchy of four main groups. Starting with the “highest caste,” the *Brahmins* were the priests and teachers who could read and write. The *Kshatriyas* were the rulers and warriors, whose job was to fight. The *Vaishyas* were merchants and traders and the *Shudras* were workers and peasants. Caste division was based primarily on an occupational hierarchy and every caste had respective duties, privileges and restrictions. People were restricted to the occupations related to their castes for generations and these restrictions were also connected to housing.³¹

Caste divisions dominated Indian society until social reform movements were initiated during the British Raj. For example, some of the educated Indian leaders upheld the cause of untouchables or Shudras in early nineteenth century. As India developed, the caste-based divisions became blurred especially in the big cities but

³⁰ Desai, I.P. “Should ‘Caste’ be the Basis for Recognizing Backwardness?” *Economic and Political Weekly*, Vol. 19/28 (1984): 1106–16. Also

Jan Nijman, “Mumbai’s Mysterious Middle Class.” *International Journal of Urban and Regional Research* 30/ 4 (2006): 762.

³¹ Philip J. Adler and Randall L. Pouwels, “*World Civilizations: Since 1500*”, (Belmont, CA: Wadsworth Publishing, 2008)

did not dissolve completely. The economic progress in India started creating a new division based on the occupations and incomes of individuals. Various income groups evolved over time, creating a social organization based on economic class.

Kunj Patel in his book *Rural Labor in Industrial Bombay* and Mahesh Gavaskar and Edward Rodrigues in their article "Emancipation and Dalit Politics" explain in detail how the influences of the caste system prevailed in deciding which occupation one became involved in. Occupations like clerical or teaching jobs were typically taken by people from castes that were allowed to acquire education and therefore could read and write. Jobs that did not require people to know how to read and write and those that required manual labor created employment for the population from the laboring castes.³² In this way, the textile industry and other manufacturing jobs created employment for people from castes traditionally involved in work that did not require reading and writing.³³ People engaged in such occupations over time became the lower section of middle income group based on income rather than caste. Most of these people, as the World Bank Research Paper "Urban Poverty and Transport: Case of Mumbai" describes, live close to their work places. This paper concludes that middle class people normally depend on walking or using public transport to reach their jobs and hence live in close proximity to their work places.³⁴ This shows that people with similar jobs, who had similar historical caste

³² Mahesh Gavaskar and Edward Rodrigues, "Emancipation and Dalit Politics" in *Bombay and Mumbai: The City in Transition*, ed. Sujata Patel and Jim Masselos, (New Delhi ; New York : Oxford University Press, 2003), 142

³³ Kunj Patel, "*Rural Labor in Industrial Bombay*", (diss. Mumbai: Bombay University, 1963), 27

³⁴ Judy Baker, et al., "Urban Poverty and Transport: The Case of Mumbai," *World Bank Policy Research Paper* 3639, (September 2005), 42 and App. D. <http://econ.worldbank.org/>

backgrounds, therefore clustered spatially in areas around their work places. The caste of an individual was thus an important historical factor in deciding his or her occupation and this choice of occupation was a large factor in the spatial distribution and clustering of different populations during the development of Mumbai. Different types of occupations created different income levels and, as caste became a less significant social system, economic class became more important. The clustering of communities in contemporary Mumbai has thus evolved into one based predominantly on class with roots in the caste system.

Neera Adarkar in her article *Gendering of the Culture of the Building: Case of Mumbai* gives an example of how class was also a big factor in influencing the spatial distribution. She discusses how over decades, from pre independence era, migrants settled in different locations of the city depending on their economic class ranging from prestigious Malabar Hill, middle class culture centre of Girgaon in their vibrant chawls to the slums and homeless in other pockets of the city.³⁵ Another example, explained by Author Prashant Kidambi is that by the middle of the nineteenth century, Mumbai began to grow northward and different income groups became visible. Since most of the offices were around the Fort area, people belonging to the more educated castes were clustered in areas around the Fort, which formed the middle class.³⁶ Another different income group was that of the rich

³⁵ Neera Adarkar, "Gendering of the Culture of the Building: Case of Mumbai." *Economic and Political Weekly*, Vol 38(43) (2003):4528.

³⁶ This fact is supported in the book *Economic Development, Cities and Planning: the case of Bombay*, 24 : "Apart from the four southernmost wards 'A', 'B', 'C' and 'D', all other wards depended mainly on manufacturing employment. These wards had offices related to service, trade and commerce sector".

businessmen involved in trade and commerce. As the employment and middle class population grew, the city started to get denser. The rich merchants, businessmen and government officials started to move to secluded areas in Mumbai like Malabar Hill and Breach Candy. Due to the overcrowding of the population in the city, the newer mills and factories also moved toward the northern outskirts of Mumbai in areas beyond Tardeo.³⁷ (Fig 8) The majority of the labor population was therefore concentrated around factories and mills located beyond Tardeo, the northern outskirt of the city after the middle of 19th century.³⁸ (Fig. 9)

³⁷ Prashant Kidambi, *The Making of Indian Metropolis: Colonial Governance and Public Culture in Bombay*, (England: Ashgate Publishers, 2007), 32, 34.

³⁸ Judy Baker, et al., "Urban Poverty and Transport: The Case of Mumbai," *World Bank Policy Research Paper 3639*, (September 2005), <http://econ.worldbank.org> Also, Kunj Patel, *Rural Labor in Industrial Bombay* (Mumbai: Bombay University, 1963), 27

Graphic representation of the urbanization of Bombay:



Fig 8: Image showing the spread of different income groups in Mumbai after the middle of the 19th century. The dotted line shows the extent of the town at the end of the 18th century.

Source of Image: maps.google.com



Fig 9: Image showing the spread of the manufacturing sector (mills and factories, from Tardeo to Worli) in Mumbai in the 19th century.

Source of Image: maps.google.com

The spatial clustering of communities is therefore tied to a range of socio-economic factors including caste, class and occupation. Although the formation of communities depended on castes historically, over time class became the primary basis of the spatial distribution of people and communities in the city. I.P.Desai says that, “the class, to which an individual belongs, can be identified by the activity he engages in for earning a livelihood,” thus linking class to caste through occupation.³⁹

Author Prashant Kidambi mentions about a note made in *Gazetteer* in the end of nineteenth century. The *Gazetteer* noted that many middle class family members with clerical type of jobs lived in chawls. He also talks about chawls built to house mill workers.⁴⁰ Currently, as seen from the case studies, chawls mostly accommodate the working middle class; for example people working in government offices and other administrative jobs and professionals like doctors, engineers, and so on. Many chawls of Mumbai still have residents who were engaged in textile mills before they shut down in 1980s.

³⁹ Desai, I.P. “Should ‘Caste’ be the Basis for Recognizing Backwardness?” *Economic and Political Weekly*, Vol. 19/28 (1984): 1106–16.

⁴⁰ Prashant Kidambi, *The Making of Indian Metropolis: Colonial Governance and Public Culture in Bombay*, (England: Ashgate Publishers, 2007), 32.

Origins of Middle-class Housing in Mumbai:

Housing for the expanding working middle class in Mumbai evolved in the form of a particular type of building known as a *chawl*. While the direct origins of chawls are not clear, they do appear to be related to traditional Indian courtyard housing and *wadis* translated over time to the urban conditions of Mumbai.

In *Sir Banister Fletcher's: A History of Architecture*, Banister Fletcher describes many Indian traditional houses and other buildings as built according to the climate of the region and the available materials yet the overall layout was often similar. Most of the structures were built around an internal courtyard that was used for sleeping, sitting and conducting daily household chores.⁴¹ The origins of this layout can be traced back to the houses of the Indus valley civilizations which existed from approximately 2600 B.C. to 1700 B.C.⁴² (Fig 11.) Two of the most famous cities situated in the Indus Valley, Harappa and Mohenjo-Daro, had houses with internal courtyards surrounded by rooms to maximize light and ventilation.⁴³

⁴¹ Banister Fletcher, *Sir Banister Fletcher's: A History of Architecture* (Oxford, Boston: Architectural Press, 1996), 786

⁴² British Museum, www.ancientindia.co.uk/indus/home_set.html

⁴³ Banister Fletcher, *Sir Banister Fletcher's: A History of Architecture* (Oxford, Boston: Architectural Press, 1996), 786

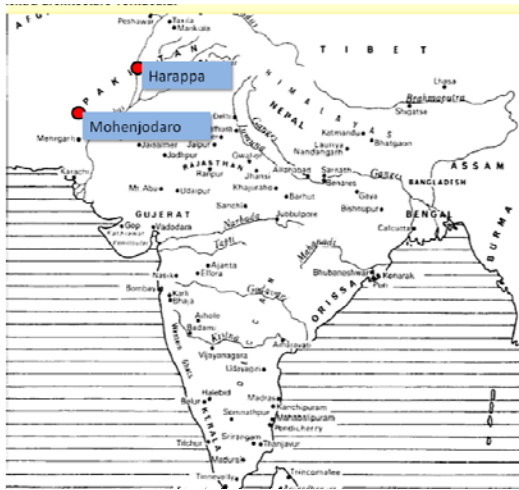
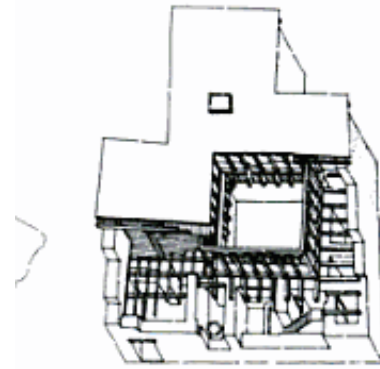


Fig.10: Map showing location of Indus Valley Civilizations.

Source: Book: Sir Banister Fletcher's: A history of architecture



D TYPICAL HOUSE

Fig.11: Image showing a typical house in the Indus Valley.

Source: Sir Banister Fletcher's: A history of architecture



Fig.12: Image showing the use of courtyard system in India. The image is of a Buddhist monastery built around the 3rd Century B.C.

Source: Photo by Author



Fig.13: Image showing the use of the courtyard system in India. The image is of an exhibition centre taken in 2007.

Source: Photo by author

Courtyard housing is also native to the state of Maharashtra, in which Mumbai lies. The study done by Rajashree Kotharkar, S.A. Deshpande and Rajesh Gupta for the Architecture Department, VNIT, Nagpur, India looks at houses in an area called 'Varhad' in Maharashtra. Their research is based on how the vernacular buildings are climate responsive. The native houses are locally called *wadas* or *wadis* (singular: wada). (Fig 14) They have courtyards primarily for light, ventilation and privacy surrounded by various rooms. These native houses can be found in most of the village areas in the state of Maharashtra.⁴⁴ These wadis have some spatial similarities to chawls in that the rooms are arranged along a common corridor with toilets outside the living areas.



Fig.14: Images showing houses/wadis with central courtyards in the state of Maharashtra.

Source: Article in International Seminar on Vernacular Settlement 4 (2008)

⁴⁴ Rajashree Kotharkar, S.A. Deshpande and Rajesh Gupta, "Responding to the Change, Making 'The Vernacular' Relevant: Case Study 'Varhad' Region in Maharashtra, India" in *International Seminar on Vernacular Settlement 4* (2008) <http://203.77.194.71:83/isvs-4-1/paper-dump/full-papers/43.pdf/view>.

Author Prashant Kidambi also discusses the modification of wadis in urban Mumbai in a way that suggests they could be predecessors to chawls. In his book *The Making of Indian Metropolis: Colonial Governance and Public Culture*, Kidambi explains that traditionally, one joint family would live in one wadi but gradually as the population in Mumbai increased towards the early nineteenth century, various rooms were occupied by different families. He also mentions a *Gazetteer's* note on chawls that says that the old style of Bombay houses began to disappear and in response to the ever-increasing demand for accommodation, builders divided the houses into many compartments without any consideration for light and ventilation.⁴⁵ In the newspaper *Mumbai Mirror*, Mitali Parekh and Kunal Bhatia in respective articles "A hall called Home" and "Wadis, Mumbai's very own" use terms *chawls* and *wadis* as synonymous. For example, Mitali Parekh talks about an example of a chawl; "Many small business owners work out of their homes, making the wadi self-sufficient. There are doctors, crèche, tailors, and coaching and music classes."⁴⁶

It therefore appears to be possible to interpret chawls as an urban translation of the rural wadi housing type.

It is still unclear, however, as to when chawls, as they are today, began to be built in Mumbai. Marriam Dossal in her book *Theatre of Conflict, City of Hope*

⁴⁵ Prashant Kidambi, *The Making of Indian Metropolis: Colonial Governance and Public Culture in Bombay*, (England: Ashgate Publishers, 2007), 38.

⁴⁶ Kunal Bhatia, "Wadis Mumbai's very own," *Mumbai Mirror*, January 29th 2009. <http://www.mumbaimirror.com> Also, Mitali Parekh, "A hall called home", *Mumbai Mirror*, 1st August 2010. <http://www.mumbaimirror.com>

mentions that by middle of eighteenth century, two Englishmen were appointed to allot plots to the people who wished to build and live in Mumbai, leading to a sudden influx of people who bought plots in the city.⁴⁷ Authors of the book *Environment and World History* give a generic description of industrial cities. They say that these cities adsorbed migrants and provided housing after 1860s. Then they say that Mumbai illustrates this global process.⁴⁸ So from this, it is possible to conclude that although the housing sector took off in the eighteenth century, the number of chawls built rapidly increased after the 1860s.

Overall, it can be concluded that *chawls* in the city of Mumbai were modified from the rural wadis, due to the growing pressure to accommodate population. It still cannot be deduced as to when the chawls in Mumbai actually started to get built. This fact is known that the number of chawls increased rapidly after the 1860s.

Numerous chawls were built during the British Raj either by the government or private landlords.⁴⁹ Most of the chawls were built after the industries especially textile industry, started booming around the 1860s.⁵⁰ As seen earlier, the rise of industries and the rise of different socio-economic classes had a huge influence on the spatial development of Mumbai. Thus it can be said that, chawls do form a significant part of the growth and urbanization of Mumbai.

⁴⁷ Marriam Dossal, *Theatre of Conflict, City of Hope: Mumbai, 1600 to Present Times*. (New Delhi: Oxford University Press, 2010)

⁴⁸ Edmund Burke and Kenneth Pomeranz, *The environment and World History* (Berkeley: University of California Press, 2009)

⁴⁹ United Nations Human Settlements Program, *The challenge of slums: global report on human settlements* (London: Earthscan Publication, 2003), 81.

⁵⁰ Edmund Burke and Kenneth Pomeranz, *The environment and World History* (Berkeley: University of California Press, 2009), 66.

CHAPTER 3

Chawls in Contemporary Mumbai:

Presently, there are many chawls in Mumbai that lack sanitation, are structurally weak and are dangerous to live in. Smriti Koppikar in the article “Thereby Hangs a Storey” gives two examples of hundred-year-old chawl buildings in the old Mumbai where the Housing Authority had planned to evict all families because the chawl buildings had become structurally weak. She describes the residents as having an “unbelievable stubbornness to move to safer places” despite the buildings condition.⁵¹ Another example of a family that moves to a newer apartment from a chawl provides potential insight into this resistance. Sharmila Ganesan reports in her article “The chawl-to-flat trauma” that the lady of this family “feels suffocated” and misses the chawls after moving into the apartment building.⁵²

Why people do not want to move out of hazardous conditions and why they miss these places when they do move is central to this project. To better understand these issues, two case studies were conducted to provide insight into the relationship between the chawls and their inhabitants.

To understand chawls, it is necessary to study their typical characteristics. Chawls have been described by many authors; for example Author Chandrasekhar,

⁵¹ Smruti Koppikar. “Thereby hangs a storey.” *Outlook India*, 12th September 2005. <http://www.outlookindia.com>

⁵² Ganesan, Sharmila. “The chawl-to-flat trauma.” *Times of India*, April 22th 2007. <http://timesofindia.indiatimes.com>

in his book *India's Population: Fact and Policy*, has used an extract from a report made by a delegation on British Trade Union Congress which visited India in 1928 to describe chawls. The description mentions chawls as buildings having rooms of nine feet by nine feet used as multifunctional areas, and so on.⁵³ Thus chawl buildings typically have two to four stories with ten to twenty units on each floor. Each unit has one or two rooms and opens in a common corridor. The toilets are outside the units. The overall placement of the toilets differ from chawl to chawl but typically, four to five toilets are located towards the end of the chawl. There is one common bathing area or a common washing area. Every unit also has one bathing area called 'mori'. These units are typically 150- 200 square feet each.

This chapter presents the documentation and analysis of the chawl case studies in Mumbai to show the present conditions of the chawls as well as the factors that bind the residents emotionally and practically to them.

⁵³ Chandrashekhar. *India's Population: Fact and Policy*. (New York City: The John Day Company, 1946)

The two case studies are both in the old city Mumbai. The first case study is in Naigaon (Fig. 15) and the other is in the Grant Road (Tardeo) area. (Fig. 16)

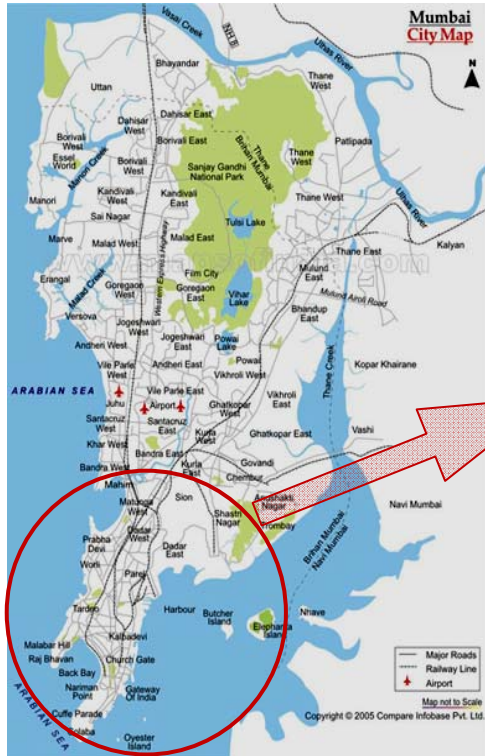


Fig.15: Map of Mumbai with highlighted old city area.

Source of Image: Maharashtra Gazetteer.
<http://www.maharashtra.gov.in>

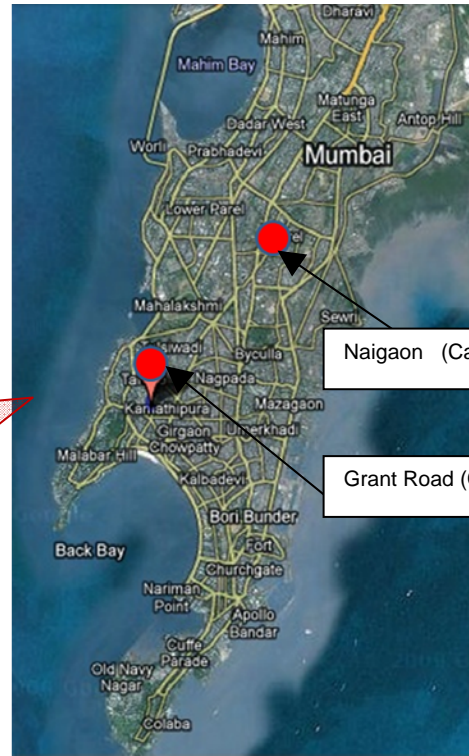


Fig.16: Map of Mumbai showing the locations of the case studies.

Source of Image:
maps.google.com.

These chawls were selected based on their locations. Both are in the old city of Mumbai yet have different characteristics and histories. Naigaon lies in the belt shown in Fig.9 where the textile mills and factories were set up in the nineteenth century. The Grant Road area is in a belt where clerical and office workers settled historically, as Prashant Kidambi puts it, “Clerks belonging to literate middle

class".⁵⁴ Thus both these chawls, built in 1930s, represent the housing of the middle class, which was one of the large components of the spatial clustering in these areas as explained in chapter 2. Both chawls have residents have slightly different income levels yet both these groups still lie within the middle income group. The spatial configuration of both these case study chawls is similar.

Case study 1: Chawl at Naigaon, Mumbai and Case study 2: Chawl at Grant Road, Mumbai

Location:

Everyday amenities lie within walking distance of both the case study chawls. (Fig.19 and 20) Hospitals, parks and theatres can be walked to easily. Students can also walk to school and people going to offices can walk to the train stations and bus stops. Almost all of those interviewed use the public transport service on a daily basis and both case study chawls are well connected to most of the areas of Mumbai by rail and bus services. Most of the internal streets in the neighborhoods of the case studies have grocery stores and other general shops to provide everyday needs and therefore residents do not have to venture far from home for everyday activities. (Fig.17) Many shops take orders by phone and deliver the shopping items directly to the buyers' homes. This convenience is not always

⁵⁴ Prashant Kidambi, *The Making of Indian Metropolis: Colonial Governance and Public Culture in Bombay*, (England: Ashgate Publishers, 2007),

possible in other places in Mumbai where commercial and residential areas are highly separated.



Fig. 17: Image showing how shops on the lower levels of the chawls make it convenient for the residents to shop. Both case study chawls have this facility.

Source of Image: Taken by Author

The following maps (Fig.18, 19) show the location of different amenities and services within a 2 to 2.5 kilometer radius from the chawl.

- Recreation
- Services
- Hospitals
- Shopping
- Schools/ Colleges

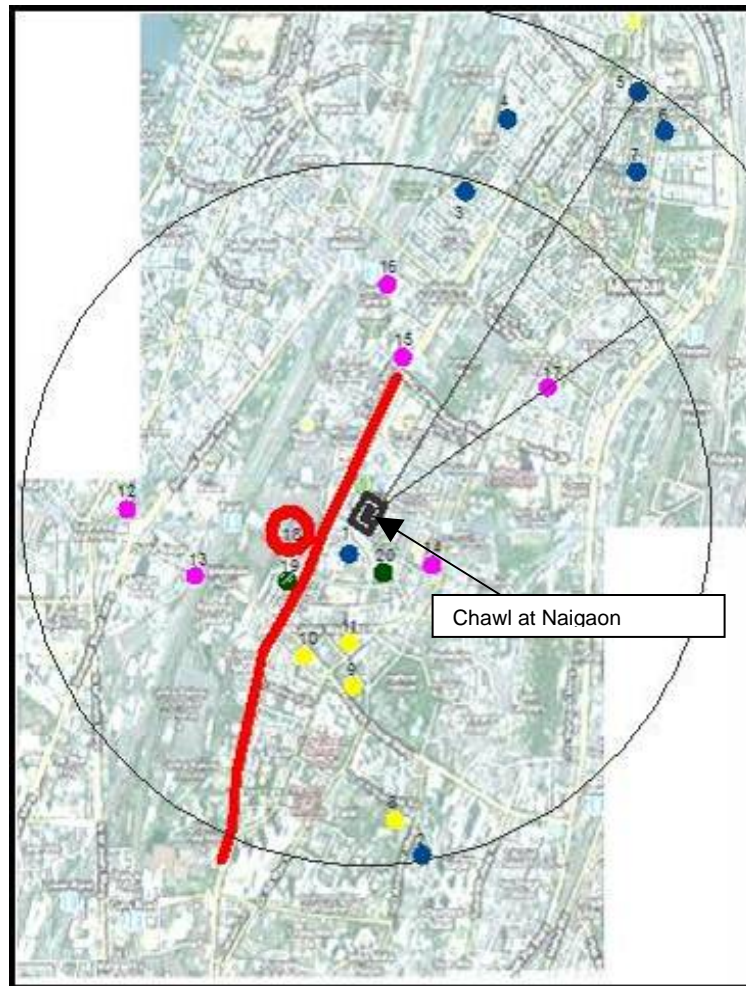


Fig.18: Map showing amenities and other services within two kilometer radius of the case study1 chawl at Naigaon.

Source of Image: maps.google.com, Drawing by Author

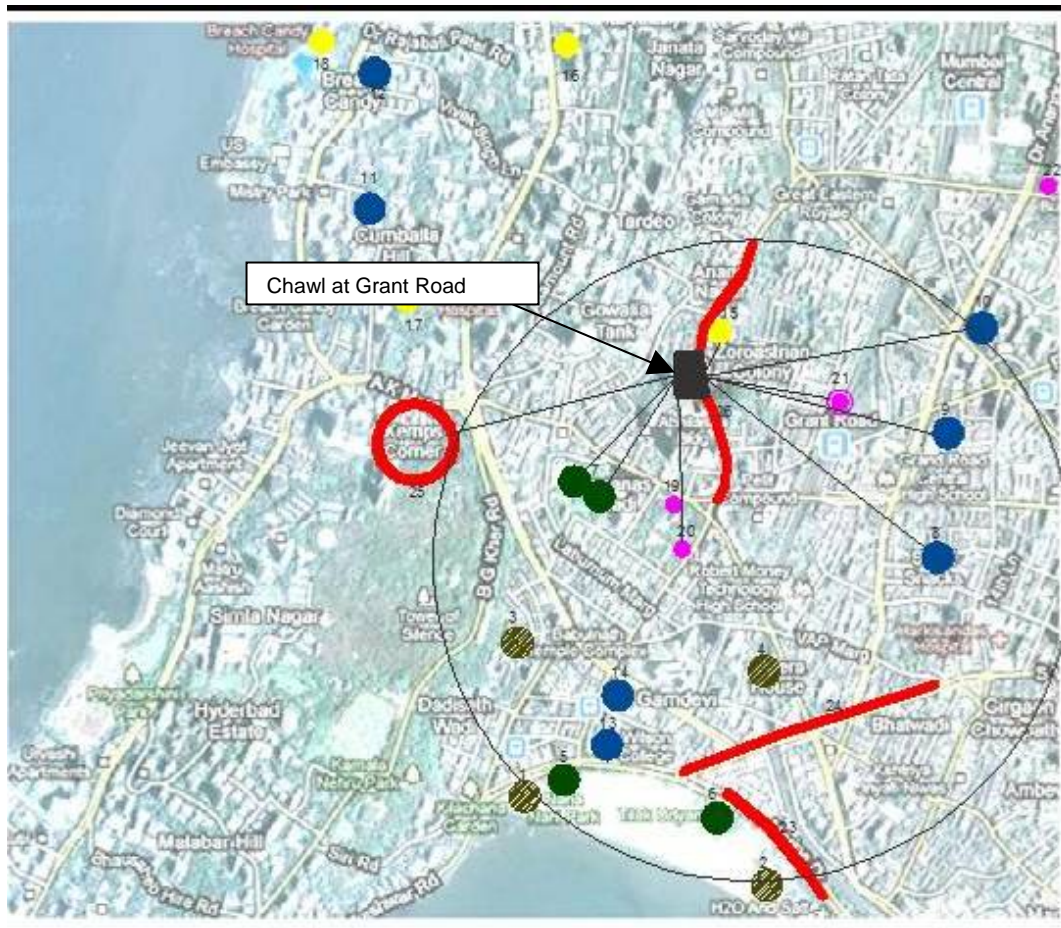


Fig.19: Map showing amenities and other services within two and one-half kilometer radius of the case study 2 chawl at Grant Road.

Source of Image: maps.google.com, Drawing by Author

In the interviews, the participants frequently mentioned the importance of their chawls' locations. The residents are attached emotionally and practically to the chawls they live in and their location for many reasons. Most of the bigger units in Mumbai and its suburbs are unaffordable for this income group. Pravin Doshi, chairman of the Mumbai-based real estate developer Acme says, "Prices have gone

beyond common man's reach."⁵⁵ Even Jan Nijman in his article "Mumbai's Mysterious Middle Class" explains that while there are some relatively cheaper flats deep in the suburbs, even those are out of reach of the middle class.⁵⁶ Other bigger units are found in the suburbs in Mumbai where the convenience of walking is not always possible. Moreover, most of the offices of the residents are towards the southern end of Mumbai. For example, out of five male participants from the Naigaon chawl, three participants have offices around the Fort area of the old city. Travelling everyday to and from the suburbs located far away from the work places would be highly inconvenient and time-consuming for the residents and would increase their transportation costs. The participants stressed that they would never leave these locations because of the convenience they offer. Thus it can be established that the chawls' locations within Mumbai is a significant reason why people have not moved to other locations.

Housing affordability combines with location to make the chawls desirable for their residents. It is very difficult for the residents to afford any other apartment type of housing in the same locations. Currently, the area in which Case study 1 lies is one of the "hottest" properties in Mumbai as explained by Dionne Bunsha and Richard Swift in their article "Powerloom Prison." This chawl lies in an area where, in the nineteenth century, mills and factories were set up. Since all the mills shut down in 1980s, developers have been converting mill land into offices, theatres,

⁵⁵ Nauzer Barucha, "Mumbai realty rates spiral beyond reach" *Times of India*, June 12th 2010. <http://timesofindia.indiatimes.com>

⁵⁶ Jan Nijman, "Mumbai's Mysterious Middle Class." *International Journal of Urban and Regional Research* 30/ 4 (2006).

shopping malls and so on. This is changing the skyline drastically in this area and old chawls are seen next to tall multistory apartment buildings.⁵⁷ The Grant Road area also has high property rates compared to many other places in Mumbai and many new high rise buildings have been built in place of old buildings. This current urban pattern also suggests that the urban fabric of Mumbai as created in the nineteenth century is rapidly changing. Currently, in Parel, a neighboring area of Naigaon, rent for a 750 square feet apartment is Rs. 25000 and rent for a 600 square feet apartment in Grant road is Rs. 30000.⁵⁸ This shows that the moderately earning middle class chawl residents, who pay not more than Rs.250 per month in rent, would not be able to afford living in other apartment buildings in the same area and as of now, chawls are the most affordable housing option they have.

Thus, it can be said that the importance of location is one of the main reasons why residents have not moved out of chawls. The proximity and easy access to shopping, transportation services, and amenities and so on, reduce the dependence of the residents on cars, which is sustainable to a large extent.

⁵⁷ Bunsha, Dionne and Richard Swift. "Powerloom Prison." *New Internationalist* 399, April 2007.
<http://www.newint.org> Also

⁵⁸ Posted by Property Agent on August 18 2010 on IProperty about rent in Parel.
<http://in.iproperty.com/mumbai/search/For-Rent-Apartment+Flat/budget+/postedby+Agent+Builder+Individual/rooms+Min1BHK/Parel/Sort-Newest-1.html>

Posted by Property Agent on September 14 2010 on 'Easy To Let' about rent in Grant Road.
[http://easytolet.in/Residential-Apartment-for-rent-in-GrantRoad\(e\)-Mumbai/ETP22134.htm](http://easytolet.in/Residential-Apartment-for-rent-in-GrantRoad(e)-Mumbai/ETP22134.htm)

Occupations:

To find out the socio-economic status of the residents of the case studies, the participants were asked about their occupations. This information helps identify the economic classes of the residents as a basis for comparing social patterns within the chawls.

There are seven participants in all from the Naigaon chawl: Two women and five men. Both women are around sixty years old. One woman is a house wife and the other is a small time free lancer. One man is sixty years old and the others are from the age group thirty to forty-five years. Participants aged thirty-five years and above from the Naigaon chawl are engaged in either clerical work or with the Brihanmumbai (Bombay) Electric Supply and Transportation, just like their fathers were. There are three participants from the Grant Road chawl: One man and one woman of sixty years and above, who have retired after working in an office and a bank respectively and one woman of forty to forty-five years old, who tutors students who need help with studies outside school. The participants mentioned that residents aged thirty-five years and above from the Grant Road chawl are mostly doctors, managers, chartered accountants, engineers and other such professionals.

Many women in both chawls work either from home or in offices. Some women that work from home provide the working people with lunch boxes. Some women babysit. According to the participants, there has been a growth in the number of

college graduates and number of working women. The number of graduates and working women is greater in the chawl at Grant Road and this has been the case since the previous generation. Most of the residents at Grant Road have cars yet most of them commute by public transport. Research done by Judy Baker and other surveyors for the World Bank Research paper, show that typically middle class does live in close proximity to their work places and commute by public transport.⁵⁹

The differences between the occupations of residents in both chawls create differences in income between both sets of residents but the income levels of residents from both the chawls still lie under the broad ranging 'middle-class' or the 'middle income group.' Some visible differences resulting from income differences are the levels of upkeep of both chawls and individual unit furnishings. The differences in the maintenance of the two case studies can be seen in Figures 20 and 21 which show for example, chipping paint on the chawl building at Naigaon compared to the maintained condition of the paint on the chawl building at Grant Road. In spite of this, the residents of both the chawls have maintenance funds which shows that the residents are willing to take care of the chawls in which-ever way they can. This also indicates that different chawls with residents from different income groups will have different levels or degrees of issues, depending on how much the residents are ready to spend on the chawl.

⁵⁹ Judy Baker, et al., "Urban Poverty and Transport: case of Mumbai," *World Bank Policy Research Paper 3639*, (September 2005), 42 and App. D. <http://econ.worldbank.org/>



Fig.20: View of chawl buildings and courtyard as seen from the entrance to case study 1 chawl at Naigaon.

Source of Image: Taken by Author



Fig.21: View of chawl buildings and courtyard as seen from the entrance to case study 2 chawl at Grant Road.

Source of Image: Taken by Author

Utilities:

In the past, all residents on one floor of the Naigaon chawl had one electric meter and the final bill was divided between residents. After the use of electrical appliances increased, every dwelling unit had its own meter. Only the light fixtures in common areas are taken care of by the landlord.

In both the chawls, the landlord does not take full responsibility for the buildings. This lack of initiative is related to the high labor and material costs in the city as against low rents the tenants pay their landlords. The residents have therefore formed funds for maintenance, security and garbage. Residents of the chawl at Grant Road contribute Rs. 250 per month to a maintenance fund. Residents of the chawl at Naigaon spend Rs. 30 a month for maintenance. This difference in the

maintenance fund amount of the two set of residents is related to the slightly different income levels of the two chawls. Thus it can be said that, the residents of both the chawls are willing to maintain the building as their landlords apparently do not take any initiative towards maintenance of the buildings. The residents of the chawls have taken charge to maintain the building. This also shows their attachment towards the chawl. The residents are thus responsibly maintaining the chawls through collective social action.

The residents do find using the common toilets awkward and inconvenient, especially the women, but they have become accustomed to this condition. Including the toilets in the units of the existing structure would be difficult because this would require significant structural and utility changes. If these changes were possible, many chawls in Mumbai would have already made them. This suggests that simply adding a toilet in each unit is not possible unless it is reconstructed or is a new chawl building.



Fig.22: Common toilets, case study 1 chawl at Naigaon.

Source of Image: Taken by Author



Fig.23: Toilet, case study 1 chawl at Naigaon.

Source of Image: Taken by Author



Fig.24: Common tap area, case study 1 chawl at Naigaon.

Source of Image:
Taken by Author



Fig.25: 500 liter water tank installed above *mori*, chawl at Naigaon.

Source of Image: Taken by Author



Fig.26: Entrance to the toilets in case study 2 chawl at Grant Road.

Source of Image: Taken by Author



Fig.27: Toilet, case study 2 chawl at Grant Road.

Source of Image:
Taken by Author



Fig.28: Common bath area, case study 2 chawl at Grant Road.

Source of Image:

Approximately ten years ago, the supply of water in Mumbai was reduced. According to one participant, this was due to the increase in the number of slums in their area and hence the amount of water to their homes was reduced. Another

participant felt that it was due to the increase in the number of shops in their vicinity that require large amounts of water. The oldest resident had found out that the water pressure in the main municipal source had reduced causing the reduced water supply. The earlier two reasons cannot be fully discarded as they can be possible due to the rise in the number of slums and commercial units within the residential zones. Municipal water was available from the common tap only for an hour every morning. (Fig.24) Every member of the family had to stand in a queue with drums to fill with water. This was very inconvenient. The residents at Naigaon chawl contributed extra money in the maintenance fund and put up a tank in the open space around the building. After this tank fills up, with the help of the pump, the water is filled in the individual five hundred to nine hundred liters tanks kept over the bathing areas in each house. (Fig.25) This problem was similarly solved by the Grant Road residents by putting up individual water tanks over the *moris*.

Currently, the rents of both the chawls are under two hundred fifty rupees a month according to the interview participants. This is one of the biggest reasons why residents have been living in the chawls for generations. The Rent Control Act has frozen the rent rates to the rates of the 1940s and this makes living in chawls very affordable. Along with other advantages that the location and the social networks that the chawls provide affordability is a primary reason for people to stay in the chawls.

Structural problems of chawls:

The main problem with the chawls is the fact that many have structural issues resulting from their ages and lack of maintenance. For example, in the chawl at Naigaon, many of the original timber ceiling joists have been replaced with steel members. In some places, steel W-sections are used as additional columns. (Fig. 29, 30) These structural additions were the result of 'strengthening' work conducted by an engineer ten to fifteen years ago when cracks were seen in the original timber columns and beams. The current condition of the building is uncertain as no technical inspections have been conducted recently.

The condition of many chawls continues to deteriorate with respect to structure. One of the main reasons for this is explained by Dilip D'Souza in his article "Nobody Touches the Act" and R. Padmanabhan in his article "Rent Act under Review." Both authors state that structural deterioration of older residential buildings results from the Rent Control Act 1999. Originally called the *Bombay Rent, Hotels and Lodging House Rate Control Act of 1947*, this legislation froze housing rents at 1940s rates.⁶⁰ According to engineer Suryawanshi, this did not motivate the landlords to maintain the buildings as the labor wages and other maintenance charges kept increasing while rental income did not. Other reasons for the physical deterioration of chawls include the use of different materials to maintain the buildings over time,

⁶⁰ R. Padmanabhan, "Rent Act under Review." *Frontline*, Vol 15/8 (April 1998) <http://www.hinduonnet.com> Also, Dilip D'Souza, "Nobody Touches the Act." *India Together* (November 24th 2005). <http://www.indiatogether.org>

which create differences in stresses, strains and elasticity between the new and the original material, reducing overall structural strength.⁶¹



Fig.29: View of courtyard seen from the entrance, chawl at Naigaon.

Source of Image: Taken by Author



Fig.30: Steel W-sections and timber posts supporting corridors, case study 1 chawl at Naigaon.

Source of Image: Taken by Author



Fig.31: Timber and steel joists, case study 1 chawl at Naigaon.

Source of Image: Taken by Author



Fig.32: Steel joists, case study 1 chawl at Naigaon.

Source of Image: Taken by Author

⁶¹ C.S. Suryawanshi, "What ails old buildings in Mumbai?" *Indian Concrete Journal* (October 2004). <http://www.icjonline.com> (views)



Fig.33: Entrance of the Chawl, chawl at Naigaon.
Source of Image: Taken by Author



Fig.34: Sagging Treads of the timber staircase, chawl at Naigaon.
Source of Image: Taken by Author



Fig.35: Rusted railing of the staircase, chawl at Naigaon.
Source of Image: Taken by Author

All the chawl buildings in the Grant Road chawl complex also went through major renovation around 1975 and participants said that "this added to the life of the building." Overall strengthening was done by building reinforced concrete columns wherever necessary. Plastering and painting were also done which improved the aesthetic look of the chawl buildings. Two more floors were also added to the original two-story building, making it a four-story building.

Built form:

There are eight chawl buildings in the Naigaon chawl complex, with fifteen tenements on each floor. One out of these eight has been documented. There are four floors per chawl. The overall layout of each chawl is a 'C'. (Fig.36) At one end of the 'C' shaped chawl are the four common toilets on each floor. It is very inconvenient for the person living on the other end of the 'C' to pass all the units just to reach the other end to use the toilets.

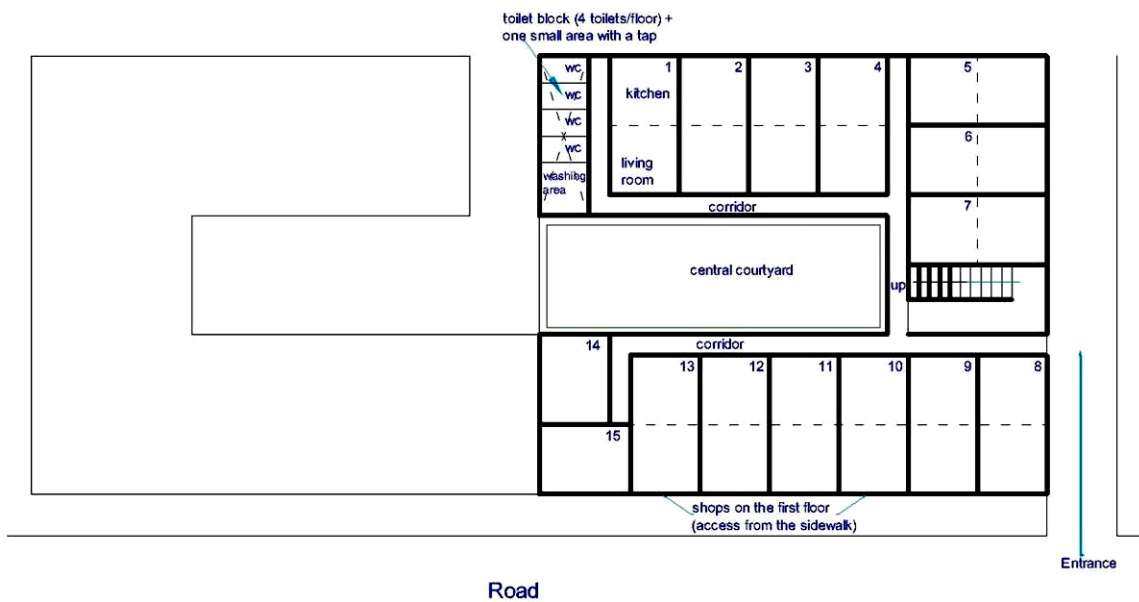


Fig.36: Layout of case study 1 chawl at Naigaon.

Source of Image: Drawing by Author

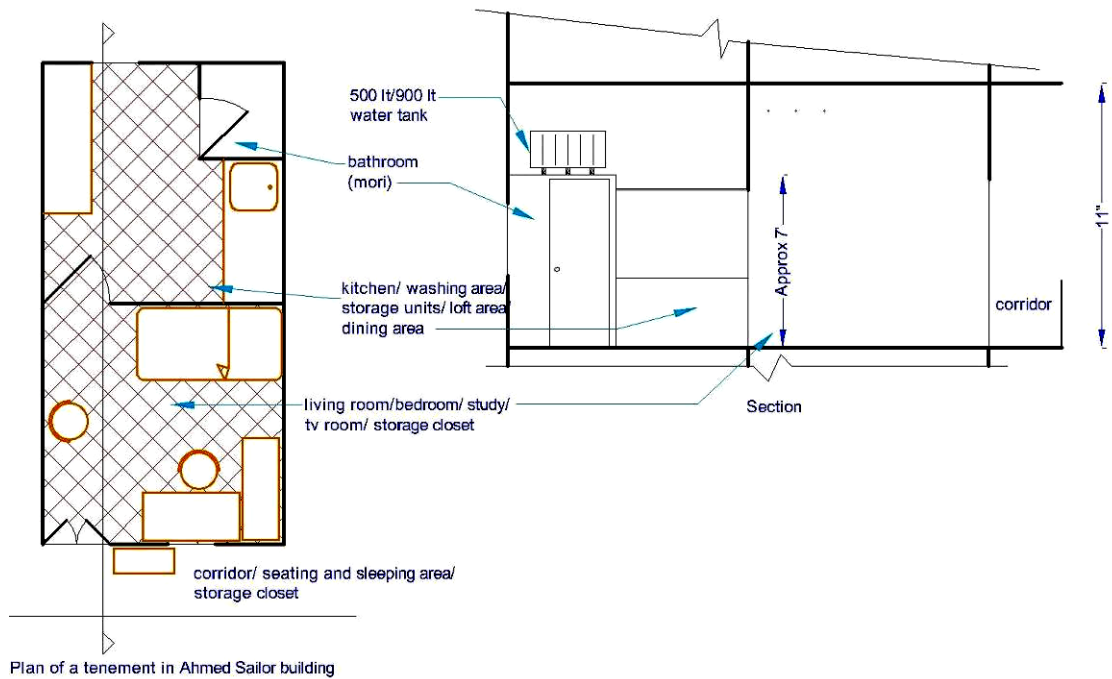


Fig.37: Plan and section of a unit in case study 1 chawl at Naigaon.

Source of Image: Drawing by Author

The entire chawl complex at Grant Road is made of eight chawl buildings enclosing a large courtyard. (Fig.38) One of these chawls is documented. This chawl has eight units on each floor. (Fig.39) Unlike the Naigaon case study, this chawl is linear and has toilets on either ends of the chawl. There are two toilets on each end for eight units in all. Although the shapes of the chawls are slightly different, their overall layouts are very similar in that they have common corridors that circle internal courtyards and provide access to individual dwelling units as well as shared toilets and staircases.

Each dwelling unit in both chawls has two rooms of ten feet by ten feet. The kitchen has a small bath area called a *mori*. This bath area is not more than one meter square. All the units on one floor are attached to a common corridor about five feet wide. The corridor is connected to one staircase.

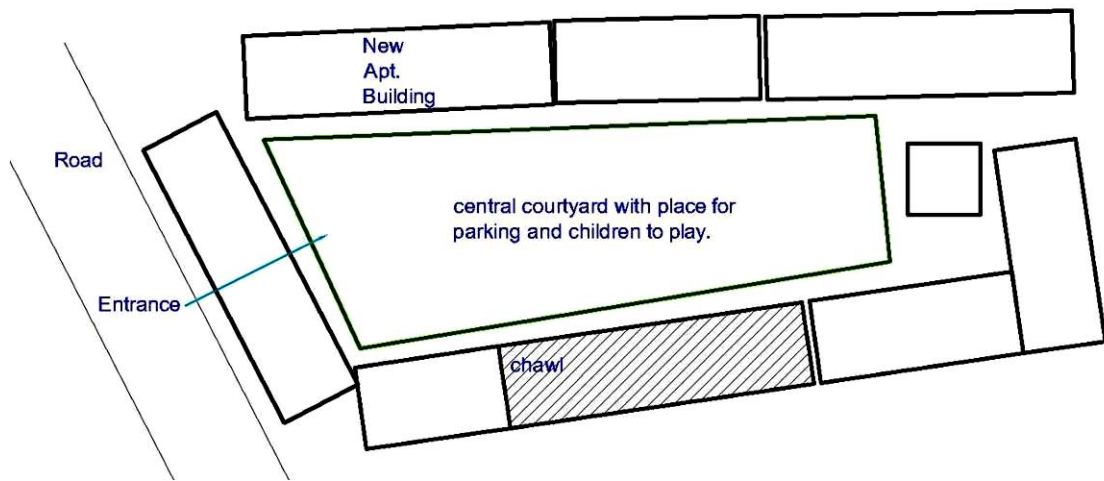


Fig.38: Layout of the chawl complex at Grant Road.
Source of Image: Drawing by Author

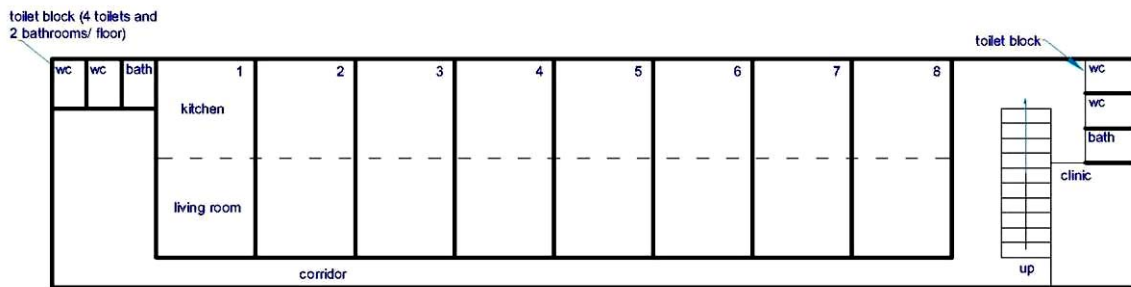


Fig.39: Layout of the case study 2 chawl within the chawl complex at Grant Road.
Source of Image: Drawing by Author

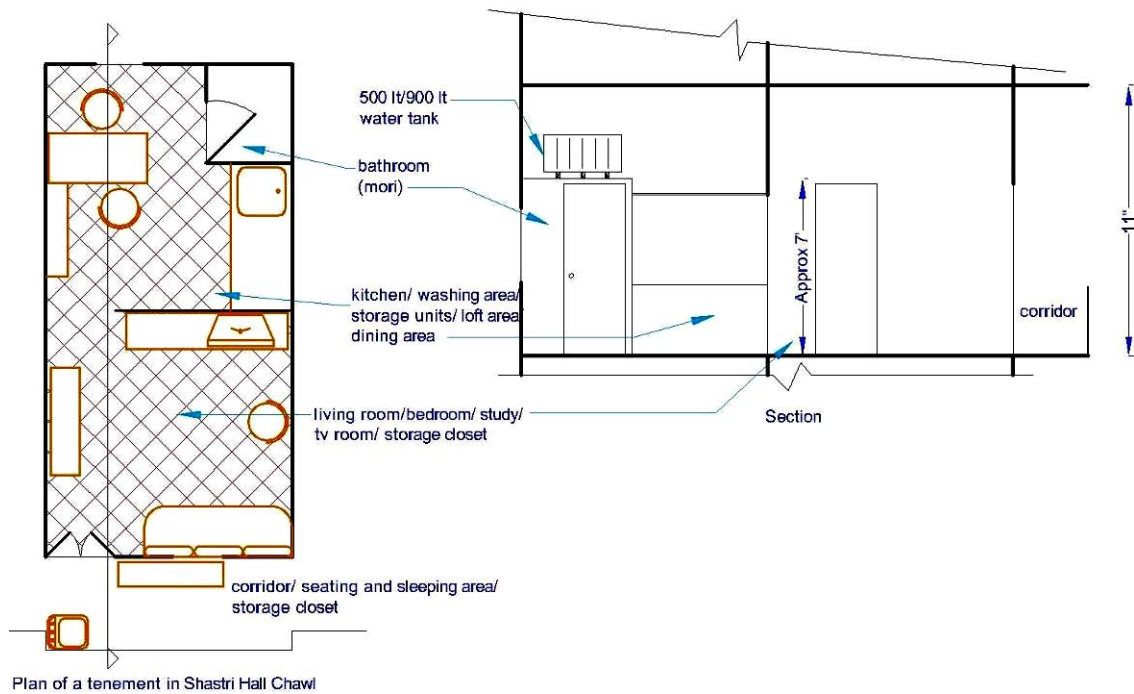


Fig.40: Plan and section of a unit in case study 2 chawl at Grant Road.

Source of Image: Drawing by Author

The participants of the Naigaon chawl mention that the internal courtyard in Fig.36 formed by the 'C' shape of the building was originally used by children to play. Now it is mostly used by the residents to hang clothes, park cycles and carry out other daily chores. The courtyard at the chawl in Grant Road is still used by the children to play. Activities like cultural events also happen in the courtyards of both chawls. The internal courtyards form a very significant parts of the chawl complexes from a social as well as spatial point-of-view.



Fig.41: View of courtyard seen from the entrance of case study 1 chawl at Naigaon.

Source of Image: Taken by Author



Fig.42: View of courtyard seen from the entrance of case study 2 chawl at Grant Road.

Source of Image: Taken by Author

In the book *A Pattern Language: Town-Buildings-Construction*, the authors refer to Dr. Cappon's clinical experiences which relate mental health to high rises, mentioned in Canadian Public health Association in April 1971. Dr. Cappon explains that, mothers often become restless if they cannot see their young ones playing on the street. Children from high rise buildings go out in public only if there is a need otherwise the tendency becomes to stay at home and watch TV. Dr. Cappon also says that living in high rise buildings deprives children of kinetic activity leading to lethargy and anti-social behavior.⁶² This is totally avoided in the chawls. Children from both chawls organize cultural events in the courtyard while the elders become the supervisors and spectators. This allows all members of the chawls to get involved in cultural activities like Ganesh festival. The interview participants mentioned how they feel secure when they can see their children playing within the

⁶² Christopher Alexander, et.al. *A Pattern Language: Towns- Buildings –Construction*. (New York: Oxford University Press, 1977), 116

community and not on the street. The parents can keep an eye on their children from their homes just by stepping into the common corridors.



Fig.43: View of children playing in the courtyard of chawl complex at Grant Road.

Source of Image: www.mumbaimirror.com

Another very interactive space is the common corridor. It is used for sitting, sleeping, reading, storing and playing. The families often make a sitting cabinet with storage in it and keep it in the corridor. (Fig. 45) This can be used by a family member to sleep on, in case a guest comes. When the male participant in the Grant Road chawl, now 77 years old, got married, his wife and he used to sleep in the kitchen, his parents and two sisters in the living room, and brother in the corridor on a similar multipurpose cabinet. The participant pointed out that this was the case with most of the families in the chawl. Even now, the corridor is used by the old people to sit, read and chat in the evenings. (Fig. 46) The corridor is lined with

foldable chairs that these old people use. (Fig.47) In both chawls, the corridor is used to hang clothes but it does differ in the overall appearance. The clothes are hung close to the ceiling in the Grant Road chawl such that they do not mar the appearance of the corridor or look shabby from outside. (Fig.48, 49) The common corridor is where most of the people meet, interact and socialize.

In *A Pattern Language: Town-Buildings-Construction* the authors suggest how buildings can be configured to create successful social spaces. Every building, for example, needs a space where people are still in the building but are in touch with the outside and windows are not enough.⁶³ This is fulfilled in the chawls by the common corridors. When parents say that they can see their children play in the courtyard from the homes, what they mean is, by stepping in the corridor, they are almost in their homes but are in touch with the rest of the community outside. When people sit in the corridors to chat, they are indoors, yet connected with the outside. The authors also say that in theory, it has been said that corridors or balconies at least six feet wide are ideal but their field studies found that balconies or corridors three to four feet wide are used the most. This is true in the case of chawl corridors that are less than six feet wide, yet are one of the most multi-functional areas in the buildings.

⁶³ Christopher Alexander, et.al. *A Pattern Language: Towns- Buildings –Construction*. (New York: Oxford University Press, 1977), 778-782



Fig.44: Corridor space, case study 2 chawl at Grant Road.

Source of Image: Taken by Author



Fig.45: Storage cabinet used by participant's family to sit and sleep, case study chawl 2 at Grant Road.

Source of Image: Taken by Author



Fig.46: Image showing how corridors are used in case study 2 chawl at Grant Road.

Source of Image: Taken by Author



Fig.47: View of the entire corridor, case study 2 chawl at Grant Road.

Source of Image: Taken by Author



Fig.48: Multifunctional corridor, case study 1 chawl at Naigaon.

Source of Image: Taken by Author



Fig.49: View of courtyard from second floor corridor, case study 1 chawl at Naigaon.

Source of Image: Taken by Author

Other multi-functional areas of the chawls are the rooms of the units themselves. Living rooms of all the units of the chawl at Grant Road have a niche on one of the walls. (Fig.50) This niche used to be a door, leading to the neighbors' house. The idea was to keep the door open in case one family had extra guests that needed space to spill over, they could use their neighbor's place to rest, sit or sleep. This was a symbol of the relations the residents shared. The area of the door in the wall is closed but the neighborly relationships have not diminished.



Fig.50: Niche in the living room wall created when the door leading to the neighbor's house was taken out, case study 2 chawl at Grant Road.

Source of Image: Taken by Author

The living room is typically used for entertaining, studying, sleeping, sitting, watching TV, chatting and so on. The kitchen is used for cooking, dining, bathing, sleeping, sitting, changing and storing. (Fig. 51- 54) The kitchen door needs to be shut while using the bathing areas in individual homes which the women participants find inconvenient. Most of the houses in this chawl have a loft to store household items. (Fig. 54)



Fig.51: *Mori* (bathing area), case study 1 chawl at Naigaon.

Source of Image: Taken by Author

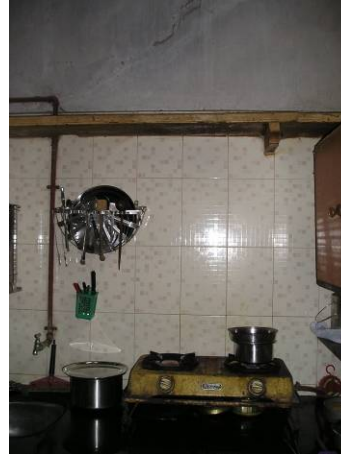


Fig.52: Kitchen, case study 1 chawl at Naigaon.

Source of Image: Taken by Author



Fig.53: Storage in kitchen, case study 1 chawl at Naigaon.

Source of Image: Taken by Author



Fig.54: Lofts used for storage, case study 1 chawl at Naigaon.

Source of Image: Taken by Author

The spatial forms of the chawls influence the lives of their residents in a number of ways. The shared courtyards and corridors provide places for common activities and interactions and the corridors in particular create a zone between inside and outside as well as private and public. Space is also highly optimized by the

residents who use every available square meter in multiple ways. The combination of shared spaces and spatial optimization enable affordable lifestyles that are highly functional within the crowded and expensive city of Mumbai.

When the Chawl at Grant Road was renovated around 1975, a new high rise apartment building was built in the complex on a vacant area and some of the old chawl residents were housed in it. (Fig. 55, 56) One of participants explained that this new building has one-bedroom apartments tied together by a common corridor and every unit has a private toilet and bathroom. While all three participants have friends in this new wing who enjoy the privacy of their new housing, it is different from the chawl buildings in that the interaction that takes in the common spaces of the four story chawls does not occur in the high rise building even though it has a common corridor like a chawl. For example, the interaction of residents on the staircase of the old chawl does not occur in a "high rise chawl" with elevators. As D. M. Fanning suggests, the "Different connections are lost after four stories."⁶⁴ The author is saying that for example, the connection of a person at the window looking at or talking to someone on the road below is lost once you go on higher stories.

Overall it can be established that, the spatial configuration of the chawl creates opportunities for the residents to come closer as one social unit. The combination of spaces like the corridors, courtyards, staircases and so on, are spaces where the social connections are created. If the current residents are taken out from this

⁶⁴ Fanning, D.M. "Families in Flats," *British Medical Journal*, Vol 4/5576 (November 18 1967): 382-386

environment and put into newer high-rise apartment buildings, as D.M Fanning suggests, the social connections will be lost.



Fig.55: New wing of the chawl complex at Grant Road.

Source of Image: Taken by Author



Fig.56: New wing of the chawl complex at Grant Road blending with old parts of the complex.

Source of Image: Taken by Author

Social System:

Both the chawls are similar in a way that they were built to house middle class 'Maharashtrian' families. (Generally speaking, people from the State of Maharashtra, in which Mumbai lies, who speak the Marathi language, are called Maharashtrians.) The oldest participant aged 77 years explained that in the early to middle of the twentieth century, families typically had five to eight members. These family members adjusted without complaint within the tiny spaces of the chawl

dwelling. Sometimes men would sleep in the corridors or use kitchens as bedrooms and so on. All older participants said that women did find it inconvenient to use the common toilets but never complained.

As the children grew and started their own families, one of the brothers and his family would often move out, leaving his parents with another brother's family to live in that unit. For example, one of the male participants chose to stay with his family in the chawl at Naigaon as he was too attached to the place he had lived for sixty years. There was no room for his brother's family and hence he moved to a chawl in the eastern suburbs as he was very attached to the chawl culture. Some of the vacant units have been occupied by members from other castes and communities speaking different languages (Gujarati and Marwari). The original residents do not have a problem with the new residents although when asked about their preferences, they would not want their old neighbors to leave as they feel the chawl community would split.

According to Kleinhan, Priemus and Engbersen, attachment to the location is related to various social practices like social interactions and activities, length of interactions, income, trust and so on, which they call as dimensions of social capital.⁶⁵ All the residents of the building know each other and their relatives. For example, if a person passes three to four units before he gets to his own, he meets people along the way and drops into those three to four units to chat. As a result,

⁶⁵ Reinout Kleinhan, Hugo Priemus and Godfried Engbersen, "Understanding Social Capital in Recently Restructured Urban Neighborhoods: Two Case Studies in Rotterdam," *Urban Studies*, Vol 44(5/6), (May 2007):1083

over the years the residents have come to know each other very well. All the neighbors are ready to help in whichever way they can. All the neighbors are like family and they know that with one call for help, everyone would be there. This is the reason many of the participants do not lock their houses. The residents know their neighbors so well that they even know when they normally use the toilets and adjust their own use accordingly.

Many families live with their retired parents and parents-in-law. As a result, children coming back from school typically do not need to go to a baby sitter. If a child needs baby-sitting, the neighbors are typically willing to watch him or her. Some families in the Grant Road chawl, where both parents work and have no one else at home to look after the children, use the unofficial baby-sitting facility within the community. Many women who don't work outside the home come together and babysit for those who are working. Since all the resident families are known, the mothers keep their children with these women without hesitation. Women working from home and housewives get together in the afternoons to cook, watch TV and sit on the staircase to chat. Many women from the chawls also work from home and generate income not only through babysitting but by making lunchboxes for office workers, providing tutoring services, and other types of informal activities.

Since most of the children in the respective chawls go to the same school, they study together and go to school together. One of the participants from the Naigaon chawl particularly remembers several types of social interactions that occurred in the chawl when he was young. His friend from school used to live in the same

chawl. They would talk across their corridors and discuss homework. Children often conduct cultural programs and the older kids manage them. For traditional festival celebrations the entire chawl takes part and celebrates.

One of the main problems faced by the residents of this chawl is that young women who have not grown up in chawls do not readily agree to marry young men from chawls. The participants explained that these women do not accept the idea of common toilets and feel deprived of privacy. They also do not like the idea of living in a very small unit with just two rooms. One of the women participants, aged 40 years, did not grow up in a chawl and was similarly was skeptical to marry into the family living in this chawl. Once she did come to the chawl and became part of the culture, she totally felt “at home.” The participants pointed to an interesting phenomenon where women who have spent their entire childhoods in chawls do not want to leave the chawls and live in apartment buildings where residents hardly know each other. These women typically prefer to marry men either from the same chawl or a different chawl nearby.

This kind of rich culture is hard to find in more contemporary apartment buildings in Mumbai where there are typically three to four apartments on each floor with one core consisting of staircase and elevators and a tiny lobby that joins the apartments and cores. As Friederike Schneider mentions in his book *Floor Plan Manual: Housing*, in contemporary housing “floor space is typically dedicated to achieve a maximum of pure dwelling-unit floor space” and is not used for common spaces that

create social connections between neighbors.⁶⁶ Figures 57 and 58 illustrate the types of social interactions that are facilitated by the typical chawl configuration and, conversely, prevented by the typical apartment building configuration.

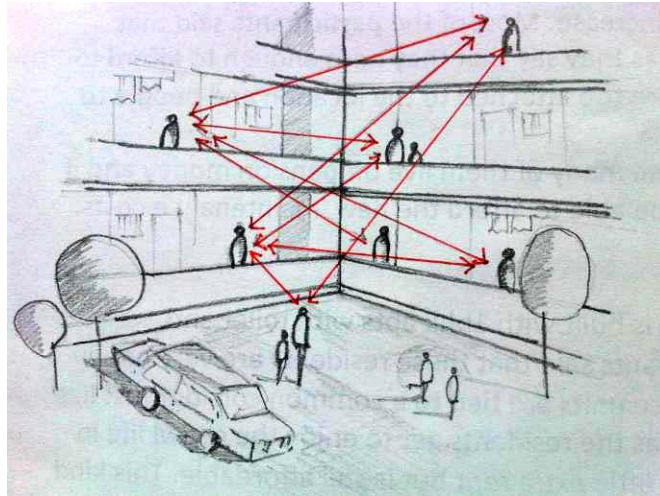


Fig.57: Number of social connections in a Chawl.

Source of Image: Drawing by Author

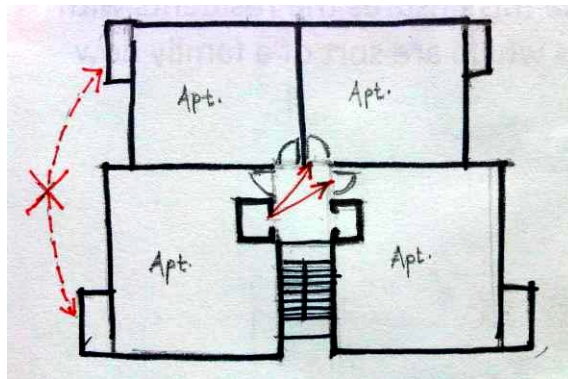
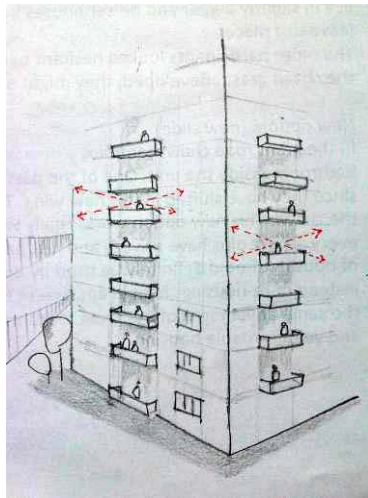


Fig.58: Number of social connections in a typical apartment building.

Source of Image: Drawing by Author

⁶⁶ Friederike Schneider, *Floor Plan Manual: Housing*, (Germany: Birkhäuser, 2004)

Sharmila Ganesan, in her article "The chawl-to-flat trauma," makes a note of a family who moved from a chawl to a flat. The mother states that she misses the evening chats with other women in the corridor. The reporter however also makes a note of a similar family where the man thinks the opposite. He says that a person is automatically respected if he lives in a flat and not a chawl. She says that such people, who like living in apartments better than chawls, think that is a way for their children to escape poverty. Her research says that such people are few. Many people from chawls find the apartment system impersonal.⁶⁷ On the same lines, Alexandra Curley says that research has shown that social networks often play an important role in the development of people in life and that their neighborhoods of residence can shape these networks.⁶⁸

The chawl social life embraces all age groups including old people. Authors of the book *A Pattern Language: Towns-Buildings-Construction* say that old people have a natural tendency to live together in a community. Contemporary society excludes old people creating a rift between young and old, making the old live in old age homes or communities.⁶⁹ This is avoided in the chawls. Old people are as equally involved in the chawl activities as the young. Since many families have old people residing with them, old people can group together to socialize. This was seen during the interviews when old residents from respective units came out in the

⁶⁷ Ganesan, Sharmila. "The chawl-to-flat trauma." *Times of India*, April 22th 2007. <http://timesofindia.indiatimes.com>

⁶⁸ Alexandra Curley. "Relocating The Poor: Social Capital and Neighborhood Resources" *Journal of urban affairs*, Vol32/1, (February 2010): 79–103.

⁶⁹ Christopher Alexander, et.al. *A Pattern Language: Towns- Buildings –Construction*. (New York: Oxford University Press, 1977), 216

corridor to chat. This is also partly because of the Indian tradition of living with parents or parents-in-law which occurs commonly within chawls.

The social networks of chawls are clearly very interactive. In the case study interviews, participants frequently mentioned that they consider their neighbors to be family. The residents of both the chawls genuinely love the communities they live in because “everyone cares for one another” as one participant puts it. All the residents in general are so attached emotionally to the chawl life that the idea of living in another place scares them. The spatial configuration of the chawls clearly facilitates the creation of strong social support networks that not only explain why residents resist relocation to newer apartment buildings or suburbs but also how chawls enable middle class people to live effectively in the center of Mumbai.

Future of the chawl:

The residents of the Naigaon Chawl are concerned that the 70 year old chawl has become structurally weak and may get pulled down one day. Some builders may approach them to redevelop the area. The older participants did not seem to be too keen on this idea of redeveloping the chawl as it would mean a change of residence, culture, neighbors, high maintenance and an overall change. One of the older participants mentioned that this would be a bad option for the ones who live off pension money as they would not be able to afford the new increased maintenance charges. It would also mean an end to the friendly chawl atmosphere.

The younger, wage-earning participants are open to the idea of redevelopment as long as the chawl culture, neighbors and the location of their building is not changed. Their children often ask them if they could move to bigger apartments since they see many advertisements but never complain about the small space they live in. The participants of the Grant Road chawl, who are typically professionals, earn enough to afford a slightly bigger place in the suburbs but are too attached to the location and the people in the chawl to move elsewhere. The younger generation wants the builder to provide them with self-sufficient units so that they can buy a unit adjacent to theirs or anywhere in the same community if they feel like expanding.

It is clear that the residents do not want to leave the place neither their neighbors. This shows the convenience provided by the location, affordability of chawls and dense social network within the residents of the chawls, outweigh the structural flaws of the old chawls and hence residents still continue to live in them.

CHAPTER 4

Conclusions

Location, close-knit community social support systems and affordability are the three main reasons why the residents of the case study chawls want to continue to live there and do not want to relocate despite problems with building infrastructure. These case studies also illustrate how the historic spatial and social clustering of Mumbai has translated into the present, creating opportunities for economically and socially sustainable living for the middle class despite the dissolving of the historic caste system and the rising costs of living in the central city.

The study of the chawls and their residents give an in-depth look into how close-knit these communities are and how the chawls' spatial configurations contribute to creating this culture. This kind of community is becoming increasingly rare in busy global cities like Mumbai. It is a community where people care for each other and consider neighbors as family. This social network is very important for the development of the community. As Kleinhans, Priemus and Engbersen explain, attachment to a location is related to social interactions and activities, length of interactions, similar income or class, and trust, all of which constitute dimensions of social capital that are necessary to successfully sustain a community.⁷⁰ All of these conditions are fulfilled by the chawls. While the case studies have slightly different

⁷⁰ Reinout Kleinhans, Hugo Priemus and Godfried Engbersen, "Understanding Social Capital in Recently Restructured Urban Neighborhoods: Two Case Studies in Rotterdam," *Urban Studies*, Vol 44(5/6), (May 2007):1083

income levels and typical occupations, this only affects the amount the residents pay toward collective maintenance. Both communities have similar problems, opinions, and advantages. Residents of both case studies are capable of generating employment within their communities. One of the participants aptly calls the chawl a 'vertical village.' The chawls provide the middle class with affordable living, security, friendly neighbors, play areas for children, social interaction and a future outlook based on sharing and maximizing of assets. As a result, chawl families typically they have not left the chawls for generations.

At present, the participants find the chawl rents to be very economical. Another main reason why they would not consider moving is that most of the residents have been born and brought up in the chawl and have many friends within the community. Moving out would mean losing the chawl culture where neighbors are family. The residents want to retain their units for them to stay in after retirement or to pass on to their children.

Due to the initial clustering of people based on castes, many cultural practices, regional music and dance and other traditional customs are maintained today and contributed to by the strength and continuity of the chawl communities. While the social structure provided by the historic caste system has largely disappeared in urban areas such as Mumbai and been replaced by organization according to economic class, the chawls provide a new kind of social support system that allows residents to continue to live in the diverse central city.

Chawls provide a model for urban housing in cities like Mumbai. In developing these cities, consideration needs to be given to not only housing density but also to the kinds of social supports that can be created within housing complexes. More housing with qualities like those of the chawls needs to be provided for the middle classes in urban areas like Mumbai to accommodate more people and offer them a rich culture and social life that can be sustained over time. More of such communities would create more diversity as different people would have different customs, traditions and living patterns. According to Jane Jacobs, author of *Death and Life of Great American Cities*, is the key for a city to sustain itself.⁷¹

Chawl communities are a good option in urban areas since the density of people they accommodate is very high. For a place like Mumbai where more than half the population is middle class, chawl-type housing would be ideal.⁷² The chawls would accommodate a large number of people from the middle class, thus reducing the demand for affordable housing in Mumbai. From a socio-economical view, Saskia Sassen explains that it is very important to retain the middle classes in a city as more money circulates within the city than the rich who invest their money either outside the city or even outside the country.⁷³ Although D. M. Fanning suggests that four-story buildings are ideal because the higher the people live off the ground, the more likely are they to suffer from illness; this is debatable from a builder's point of

⁷¹ Jacobs, Jane, *The Death and Life of Great American Cities*. (New York: Vintage house, 1961)

⁷² Nijman, Jan. "Mumbai's Mysterious Middle Class." *International Journal of Urban and Regional Research*. Vol 30.4 (2006): 737-979.

⁷³ Sumana Ramanan, "Will Mumbai get its glamour?" *Hindustan Times*, October 28th 2007.
<http://www.urban-age.net>

view as it may not be feasible economically.⁷⁴ The height and the number of floors in a building should be determined by experts so that connections between the residents are not lost yet is feasible for the builders to actually build it.

This study is intended to draw attention to the range of socially and economically sustainable systems that are present in chawls as a middle class housing type in Mumbai. Their locations provide easy access to work, school, transportation, and services without extended commutes or high costs. Their social support systems create opportunities for informal employment, reduce the need for paid services such as baby-sitting and tutoring, and enable multi-generational interaction. They also create a high degree of interconnectedness between residents that generates social capital and the ability to weather difficulties. These qualities are closely connected to the spatial configurations of the individual chawl complexes and to the historic development of chawls and the middle class within the city of Mumbai. It is important that future designers, developers, and government bodies think sensitively about issues of middle income housing and create new housing that includes the qualities present in the chawls of Mumbai.

⁷⁴ Fanning, D.M. "Families in Flats," *British Medical Journal*, Vol 4/5576 (November 18 1967): 382-386

APPENDIX

The following is the tabular form of the case study interview questions and responses. A total of ten participants were asked questions pertaining to their occupations, backgrounds, problems and life in general in the *chawls*.

Two case studies were conducted in Mumbai. Case study 1 is in Naigaon and the Case Study 2 in Grant Road area of Tardeo. Some abbreviations and terms have been used in the table. Legend:

- Case study at Naigaon: 'N' and Case study at Grant Road, Tardeo: 'T'
- Number after 'N' or 'T' represents number of participants. For example 'N2' means two participants from Naigaon Case study.
- The number in the brackets in the first row is the number of participants.
- BEST: Brihanmumbai (Bombay) Electric Supply and Transport Company. The Public bus service and electric supply in Mumbai is handled by this company.
- Coaching classes: These are private tuition classes for students who need help with studies outside the school.

Table 1: Age group 60 years and above, Type of questions: Cultural

Questions:	Women (1)	Men (2)
1) Number of years in this chawl	Almost 45	68.5 (77,60)
2) Reason to choose this chawl	Got married	Father in government job
3) Number of family members living at the time you moved in	6	7.5 (6,9)
4) Effects of mills being shut, on your family	None	None
5) Difference between chawl culture now and then	Less Homogeneity now.	Less homogeneity, no class (Brahmin) preference now, open spaces have turned into parking lots.
6) Highlight of chawl culture back then	Neighbors were family (even now).	Close-knit community.
7) Thing you treasure the most	Homogeneity	Concern of neighbors for each other
8) Ladies' activities once the men were out at work	Work or do household chores	Either working or doing house chores. Some women watched TV and chatted together.
9) Major area of interaction	Children interact the most on the play-ground	Play ground and corridor
10) Description of cleanliness	Good. Person to clean WC every 3 days	Good. Person to clean WC every 4 days
11) Missing feature in chawl culture now-days	Nothing	Not as much interaction as before but still close-knit.
12) Feature present now that was missing earlier	Nothing	Nothing
13) If ever thought of moving, where and why	No. Location is great. It is accessible to buses and railway.	No. Location and security is good. Residents keep an eye on kids.

Table 2: Age group 60 years and above, Type of questions: Related to the *chawl* building

Questions:	Women (1)	Men (2)
1) Owner of the chawl	Case study Tardeo: Brahmin	Case study Tardeo: Brahmin Case Study Naigaon: A Muslim Sailor named Ahmed Both landlords preferred Brahmin tenants due to their cleanliness and fact that they paid rent regularly.
2) Income	Was enough. Rent control Act froze rents at 1940 rates hence it was very affordable	Was enough. N: Sometimes had to take another job as a young boy but overall enough
3) Water system	Until 20 years back: 24hrs water 20 years back: water supply only in morning for an hour.	Until 20 years back: 24hrs water 15 years back: water supply only in morning and in the common tap room or one tap in the kitchen. Often resulting into long queues.
4) Frequency of power failure	No	No
5) Rent and utilities	Affordable	Affordable. (Both chawls had) Common electric meter for all tenants on the same floor. The bill got divided.
6) Toilets outside	It was tough but adjusted	No choice
7) Appearance of Chawl over the years	Overall same	Overall same with a couple of more floors, more cars, less area to play etc.

Table 3: Age group 30-60 years, Type of questions: Cultural

Questions:	Women (3)	Men (3)
1) Number of years in this chawl	Ranging from 15 to 35 years after marriage.	Ranging from 35-45 years
2) Family affected by mills' shut-down	No	No
3) Number of family members living at the moment	Average 4.6 (No. of family members in each participant's house: 3,5,6)	Average 4.6 (No. of family members in each participant's house: 3,5,6)
4) Workplace and mode of transport	N1: free-lancer, walking/ bus/ train N2: Suburbs/ train T: Coaching classes at home.	N1: BEST/bus, train N2: BEST/ bus, train N3: Suburb and town/ bus, town
5) Friends in and around chawl	A lot of friends in chawl	Many in chawl
6) Part in cultural activities	Kids are more involved in cultural functions; elders just provide funds or supervise.	Attend many events. Kids make arrangements.
7) Highlight of chawl culture	It is safe here. Meeting in corridor is frequent	Very close-knit
8) Ladies activities once the men were out	Many ladies work outside or from home	Some women make 'tiffins' for working men, some teach students or house wives get together to chat
9) Number of ladies working and arrangements for baby-sitting	Ladies who work, keep their children with baby sitters and once who don't work or have in-laws at home do not need baby sitters	This generation, almost 75% women work from home or out
10) School most kids go to	Kids from T: St. Columba Kids from N: IES, St.Paul, Navbharat Kids walk to school.	Kids from T: St. Columba Kids from N: IES, St.Paul, Navbharat All schools can be walked to.
11) Apprx. Number of graduates	T: Almost 80-90% N: Almost 60-70%	T: Almost 80-90% N: Almost 60-70%

12) Privacy	T: not much N: No complaints, habituated to this lifestyle	T: not much N: No complaints, habituated to this lifestyle
13) Particular wants of your children	Children are happy overall. They do express their preference over bigger houses sometimes	Children are happy because of the have many friends
14) Major problems with the chawls	Toilets being outside	Toilets being outside bother men less. Girls are not ready to marry boys from chawls because of this fact
15) Different communities	There are many 'Gujaratis' and 'Marwari's', from different communities. They are not as involved with the older tenants since they have moved in only last 10-12 years	There are many 'Gujaratis' and 'Marwari's', from different communities. They are not as involved with the older tenants since they have moved in only last 10-12 years
16) Feature needs to be changed	Toilets to be moved inside	Toilets to be moved inside

Table 4: Age group 30-60 years, Type of questions: Related to the *chawl* building

Questions:	Women (3)	Men (3)
1) Owner of the chawl	Case study Tardeo: Brahmin Case Study Naigaon: A Muslim Sailor named Ahmed. His daughter-in-law looks after his property	Case study Tardeo: Brahmin Case Study Naigaon: A Muslim Sailor named Ahmed. His daughter-in-law looks after his property
2) Rent and utilities	Individual meters	Individual meters except the bulbs and taps in the common area.
3) Maintenance fee	Approx Rs 30/month	Approx Rs 30/month
4) Frequency of	Very sparse	Very sparse

power failure		
5) Body responsible for maintenance work	N: Tenants contribute and would have an engineer come and check the structure. T: MHADA	N: Tenants contribute and would have an engineer come and check the structure. T: MHADA
6) Engineer/ expert visit to the chawl	N: Last done some 10 years back. T: Last done in 1975	N: Last done some 10 years back. Only replaced some wood beams and columns with 'I' members. T: Last done in 1975 Walls, plastering and overall strengthening
7) Ever received notice as building is 'unfit to live in'	No	No
8) Structural/superficial problems	No	'I' members are not as strong as Burma Teak beams
9) Water supply	No problem with respect to less water supply or queuing for water	500/ 900 liter tanks in individual houses get filled by municipal water
10) Toilets	Better if inside the house	It is preferred inside but men are more 'ok' than women
11) Hygiene	Good	Good
12) Light and ventilation	It is okay	Enough
13) Place to dry clothes	Corridor or kitchen	Corridor
14) Close proximity between work place and home	That is one of the reasons for being bound to the place. Security, homeliness.	That is one of the reasons for being bound to the place Location accessible to shopping, offices, busses, railway.
15) Idea about redevelopment of chawl	Good	Good if builder retains the culture, community and keeps the maintenance affordable. Pensioners might not agree.
16) Amount of time	N: Forever	N: Forever

you want to live in the chawl	T: Undecided Both cases, location is utmost important	T: Undecided Both cases, location is utmost important
17)Factor in need for a change in chawl	Toilets	Toilets
18)Factor to be retained in chawl	Harmony	Good neighborliness

Many movies have been made that revolve around a chawl community. In these movies, the social interaction, close-knit neighborliness and interactive lifestyles of the residents is shown most often. Some of the Bollywood movies where the director has captured the cultural aspects of chawl and portrayed them are:

Shikshanachya Aichi Gho: This movie shows a common middle class man with two children, trying to make a living within his meager income. This man goes through many difficulties and is backed morally and financially by his neighbors who are more like a family to him than his real brother and sister.



Fig.59: Use of corridor in a typical chawl as shown in movie *Shikshanachya aaicha gho*.

Kathaa: The story revolves around 2 friends living in the chawl with completely different natures and their race to achieve something in Mumbai professionally and personally. This movie clearly shows all the social aspects of a typical chawl.

Interaction in corridors, courtyard and staircase:



Fig.60: Interaction between residents in various areas of a typical chawl as shown in movie *Kathaa*.

Interaction amongst ladies and children:



Fig.61: Interaction between women of a typical chawl as shown in movie *Kathaa*.

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