

Alternative approaches to informal settlements in Delhi

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Abstract

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Urban rehabilitation in Delhi increasingly targets *jhuggi* settlements in the name of modernization, aesthetics and land speculation, often displacing residents from the city, the economy of which they are a vital part. This thesis examines the current and former rehabilitation efforts through Henri Lefebvre's concept of the 'right to the city,' arguing that Delhi's contemporary regime extends the logic of the 'Industrial City,' prioritizing exchange value with the idea of a 'world-class city' as its main driver, over the everyday life of informal residents.

A study on state- and market-led schemes, including the current in-situ redevelopment of Kathputli Colony, to analyze how participation, urban form, and material choices reconfigure social ties, livelihoods, and access to the city for *jhuggi* dwellers. In addition, the thesis compares alternative projects and concepts that have been proposed by other architects and planning agencies, focusing on participation, form, materiality, and ownership. The case based approach

has been conducted through primary and secondary sources. The thesis concludes that Delhi's current approaches largely treat *jhuggi* dwellers as obstacles to be managed, producing standardized, inflexible environments, and precarious tenure. In response, it proposes a set of principles for architects and planners that suggest methods of collective tenure, material and spatial adaptability, and meaningful community organization that has been examined from alternative design perspectives.

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Manish, Vikram, and my thesis review panel provided invaluable insight, and helped broaden the ideas that I have incorporated into my thesis.

Glossary of Terms

DDA	Delhi Development Authority; Central Government Agency
EWS	Economically Weaker Section of society
<i>Janta colony</i>	People's colony
<i>Jhuggi</i>	A single Informal Settlement; mainly formed on Government owned land in Delhi Sometimes referred to as <i>jhuggi-jhopdi</i>
<i>Jhuggi colony, Jhuggi cluster</i>	A collection of Informal Settlement; mainly formed on Government owned land in Delhi
<i>Kacha</i>	Raw; temporary dwellings made from natural materials such as mud
<i>Pucca</i>	Solid; Permanent dwelling made from concrete, brick, steel and cement
LIG	Low-Income Groups
MPD-62	Master Plan of Delhi 1962
MPD-01	Master Plan of Delhi 2001
MPD-21	Master Plan of Delhi 2021
MPD-41	Master Plan of Delhi 2041
<i>Muhalla</i>	Neighborhood
PMAY	Pradhan Mantri Awas Yojana; Government slum upgradation scheme implemented from 2015
RAY	Rajiv Awas Yojna; Government slum upgradation scheme implemented from 2013-2015
MCD	Municipal Corporation of Delhi
Household	According to the DDA, a household consists of 4.5 persons

MLA	Member of Legislative Assembly; Member of the lower house of the State Parliament in India
Bhule Bisre Kalakar Trust	Forgotten Artists Trust; A non-profit organization founded by Rajeev Sethi to support the artists in Kathputli
SRA	Slum Rehabilitation Authority; It is the primary government agency in Mumbai responsible for redeveloping slum areas
FAR	Floor Area Ratio

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Introduction

In many parts of the Global South, there exist two typologies within a city: the informal and the formal. These two parts of the urban fabric are often at odds with one another. The informal fabric are self organized and incremental urban spaces that have been largely fueled by migration, rapid urbanization and the inability of the state authorities to plan adequately. While the formal is the planned topology, guided by the state apparatus and its internal goals. Such is the case in Delhi, one of the fastest growing cities in the world, with a population of 23.4 million people as of 2026 (World Popul. Rev. 2026). Delhi's population growth has been fueled since Indian Independence in 1947, along with modernization and industrialization.

The Central Government of India has anointed the Delhi Development Authority (DDA) to plan and develop the city of Delhi. Political turmoil, rural migration, and industrialization have been the main causes of the increase in the population of Delhi. The inability to plan and develop housing for this increase in the population has led many to seek shelter in informal settlements. Delhi has seen an increase in its informal settlements, also known as *jhuggis*, varying in number and size since Independence. There are two types of *jhuggis* in Delhi, recognized *jhuggis* that are surveyed and restricted to a certain size with their inhabitants given a right to in-situ redevelopment, and unrecognized *jhuggis* which have not be surveyed by the government and are thus ineligible for redevelopment schemes. However, both types of *jhuggis* are still considered illegal. As of 2015, there were approximately 1.6 million people living in about 675 authorized *jhuggi* clusters (DUSIB 2015).

Jhuggis are characterized by a combination of temporary (*kacha*) and permanent (*pucca*) houses, made of varying materials such as tarp, sheet metal and brick. They are one- to two-story

structures, formed around the economic mode of the inhabitant, and are flexible, changing to needs of the inhabitants. *Jhuggis* often cluster together, and in Delhi they occupy undeveloped land owned by the government, often near their inhabitants' place of work around affluent neighbourhoods and industrial areas for easy access to income sources. The inhabitants usually work as daily wage laborers, domestic help, street vendors or taxi drivers, earning low wages with unstable cash flow. This informal and unorganized economy provides vital services and forms a vital part of the formal sector of the economy.

However, conditions in *jhuggi* clusters are often sub-standard, meeting the UN's definition of a slum, people living in these clusters are often cramped together. Recognized *jhuggi* clusters have limited access to basic services, such as water, drainage and electricity, and have systemic challenges in accessing the formal grid due to the tenure of the land occupied by them. *Jhuggi* dwellers often rely on electricity siphoned off from the main electricity grid. Water is sourced from public taps, hand pumps, or NGO-run water ATMs. Heavy monsoon and inadequate sewage infrastructure has caused drainage to become a major issue. This has led to numerous sanitary concerns, with disease such as cholera being rampant, and the inability to have access to proper toilets.

Congestion and sanitation issues in *jhuggi* clusters have taken center stage, and are often used as the primary justification for their removal and resettlement. Due to their occupation of government-owned land without consent and encroachment on private property, they are termed 'unauthorized colonies' by the DDA. Another reason for the advocacy of their removal is rooted in an aesthetic sensibility. This reasoning often comes from the middle and upper classes, who, through the DDA, advocate for Delhi to be a 'world-class city'—a nationalistic showcase of the power and strength of Indian society that can only be achieved through a utopian ideal of what

its capital should look like. Arguments for the removal of informality have existed since the British built New Delhi in 1931. The reasons for upgrading and removing *jhuggis* have consistently revolved around modernization and aesthetic characterizations, primarily influenced by European urban planning, such as Hausmann's Paris, the City Beautiful Movement and the Garden City Movement. These movements influenced Edwin Lutyens' and Herbert Baker's design of New Delhi, the imperial capital of the British Raj. The juxtaposition of the new modern city with that of the congested and unhygienic Old Delhi gave rise to the need to modernize—primarily among the Indian upper classes, bureaucrats and intellectuals—taking on an aesthetic reasoning over time.

This attitude of modernization continued with India's first Prime Minister, Jawaharlal Nehru, and advice from foreign consultants. The DDA was given the authority to remove *jhuggis*, which were deemed to be 'blights' on society. The DDA has tried numerous approaches in order to plan, formalize and integrate the *jhuggi* dweller into the modern city, including peripheral resettlement, sites-and-services schemes, and recently, in-situ schemes. These approaches often overlook the *jhuggi* dweller, and rely on top-down planning methods to create a modern utopian city. *Jhuggis* are removed and demolished, often without proper notice to or engagement with the inhabitants. The inhabitants are moved to resettlement colonies on the city's periphery, away from their places of work, with distances growing larger as Delhi grows. Initially, *jhuggi* dwellers were provided a plot in the resettlement colony with four walls and a roof, made from concrete and measuring up to 67 sqm. As time progressed, the size of these plots shrunk and the walls and roof were done away with, providing basic utility connections for the inhabitants to build around. This trend continued further, with plots becoming smaller still and utility connections consolidated to be shared among multiple plots. The conditions were

often worse than at their erstwhile *jhuggis*, leading many to sell their lease over the plot to others who could afford to build and pay the lease. With liberalization in the early 1990s, the approach to *jhuggis* became more market-based, pioneered in Mumbai. This relied on giving a certain percentage of the ‘vacated’ land to a private developer for their use and developing the rest of the land for the *jhuggi* dwellers. On a commercial level, this model was seen as a success, however critiques levelled by scholars note that the new apartments for the *jhuggi* dwellers are the new apartments for the *jhuggi* dwellers are vertical slums.

Current approaches taken by the DDA in Delhi have not been able to provide and deliver spaces for these dwellers, who make up a significant part of Delhi’s population. Many *jhuggi* dwellers have been displaced away from areas with high land values and consequently, from their work places.

Exploration and aim

This thesis focuses on *jhuggis* and their rehabilitation in Delhi. The analysis of urban informality and rehabilitation is done through the lens of the specific political, economic, and spatial processes in Delhi. It examines these processes through the lens of the right to the city, drawing in particular on Henri Lefebvre’s distinction between the ‘Industrial City,’ oriented toward exchange value, and ‘Urban Society,’ rooted in everyday social life and use. Within this framework, the thesis analyzes the history of state- and market-led DDA rehousing schemes, and closely examines the current in-situ redevelopment of Kathputli Colony in Delhi.

Along with this, a series of projects are compared and analyzed, that showcase alternative approaches to informal settlements such as Aranya Low Income Housing Project, Bang Bua Canal Project, and the proposed Anandgram project, among others. Across these cases, attention

is directed to the architectural and urban form of rehabilitation (including materiality, the contrast of forms, different ownership and tenure models, and the underlying design frameworks) in order to understand how these spatial choices enable or constrain residents' capacity to claim their right to the city and space.

This thesis critically examines how current rehabilitation practices in Delhi have shaped and denied the right to the city, and outlines alternative design and organizational principles. To support this, a thorough analysis of contemporary approaches to the rehabilitation of *jhuggis* in Delhi shape, constrain, or deny *jhuggi* dwellers' right to the city was done. Building on Lefebvre's distinction between the Industrial City, oriented toward exchange value, and Urban Society, rooted in everyday use, the thesis interrogates how state and market actors deploy aesthetics, zoning, and built form to reorganize access to land, infrastructure, and visibility. Rather than treating redevelopment as a neutral technical exercise, the thesis understands it as a political project that redistributes who may inhabit central urban space and on what terms.

With this aim, several guiding questions emerge that structure the analysis. First, how do existing DDA- and developer-led rehousing models transform the spatial, social, and economic conditions of *jhuggi* dwellers in Delhi, both inside their new dwellings and in relation to the wider city? Second, what architectural and organizational features of alternative models — such as Aranya, Bang Bua, and Anandgram — enable greater adaptability, livelihood support, and collective agency for residents? Finally, within the constraints of Delhi's bureaucratic and market systems, how might architects and planners work with urban informality without romanticizing it, developing strategies that acknowledge its social and spatial value while addressing its very real challenges?

Methodology

The thesis adopts a qualitative, case-based approach grounded in a critical reading of both primary and secondary sources. It draws on policy documents, planning reports, archival material, academic literature, and existing visual documentation, supplemented where possible by interviews, site visits, and project drawings. Rather than staging new participatory design processes, the thesis analyzes how participation, form, and policy have already been configured in selected cases, acknowledging the ethical and practical limits of simulating engagement with communities who are currently facing displacement and precarity. This approach allows the thesis to situate architectural decisions within broader political and economic structures while remaining respectful to the lived implications of those decisions.

The thesis is organized into five chapters. The following chapter provides historical and political background for the study, tracing the development of Delhi's planning regimes, the role of the DDA, and the evolution of policies towards urban informality. Chapter 3 presents an in-depth case study of Kathputli Colony and its in-situ redevelopment, examining how materiality, form, participation, and market forces intersect in a single Delhi case. Chapter 4 turns to a set of comparative vignettes to identify alternative architectural and organizational approaches to informality. A concluding chapter reflects on these findings, articulating the implications for architects and planners working with urban informality in Delhi and outlining a set of principles and cautions for future practice.

Taken together, this thesis offers two main contributions: First, it develops a critical architectural reading of Delhi's current rehabilitation regime through the in-situ redevelopment of Kathputli, showing how materiality, form, and governance interact to shape *jhuggi* dwellers' access to the city. Second, through comparative vignettes, it proposes a set of context-specific

design and organizational principles for working with urban informality in Delhi, principles that foreground collective tenure, adaptability, and everyday use while acknowledging the structural limits imposed by the city's political and economic systems.

History and background

This section goes through the history of the growth, policy and planning decisions for *jhuggi* clusters in the city of Delhi. It focuses on the development of various institutions that play a key role and influence policy decisions. An exploration into the underlying ideological forces is also explored and describes the various political and spatial constraints that occur when addressing urban informality in Delhi.

Founding of Delhi

In 1638, construction of Shahajahanbad ('Old Delhi') started under the direction of Mughal Emperor, Shah Jahan, and it became the capital city of the Mughal Empire. Delhi's location was strategically important: a major stop on the Grand Trunk Road, adjacent to the Yamuna River and centrally located in the heart of the Mughal Empire. By the late 1700s, the Empire had declined considerably, becoming a small state concentrated around Delhi and the Upper Doab. This was driven by Hindu rulers who rebelled against the authority of the Mughals and the British, who had been expanding into the subcontinent from their foothold in Calcutta, located on the Hooghly River.

In 1803, the Mughal City of Shahjahanabad was captured by the British East India Company. Its capture saw a growth in the walled city's residents, particularly that of the British Military Officers (Priya 1993). This mix of British officers and Delhi residents in the old city existed until the 1857 Rebellion, which culminated in the end of the British East India Company's rule and consolidation of land under the new British Raj. The tight and hectic street layout was a potential problem for further rebellions, as it made it easy for mutineers to take

control, so this prompted the British to move their officers and bureaucrats to a new neighborhood north of the walled city called Civil Lines. Civil Lines consisted of low lying bungalows on wide avenues, a stark contrast to the congested city.

The Delhi Durbar of 1911 saw the imperial capital of the Raj move from the ever-growing city of Calcutta to Delhi. The Raj's decision was based on the centrality of Delhi within the Subcontinent and its vital access to the Yamuna and Ganga river. During the Durbar, the foundation stone was laid for the newly planned city of New Delhi, designed by British architects Edward Lutyens and Herbert Baker (Fig. 1). This area was located southwest of Old Delhi. The plan of New Delhi was highly influenced by the 'City Beautiful' and 'Garden City' movements that had taken hold in urban planning theory in Europe and the United States in the early 1900s. Wide avenues with lush green vegetation, low lying, spacious bungalows and grand bureaucratic offices became the main characteristics of New Delhi. The residential areas of this new city were made of low-density, low-rise houses and apartments that housed imperial bureaucrats and officers. Plans for New Delhi only saw marginal engagement with the urban fabric of Old Delhi (Priya 1993).

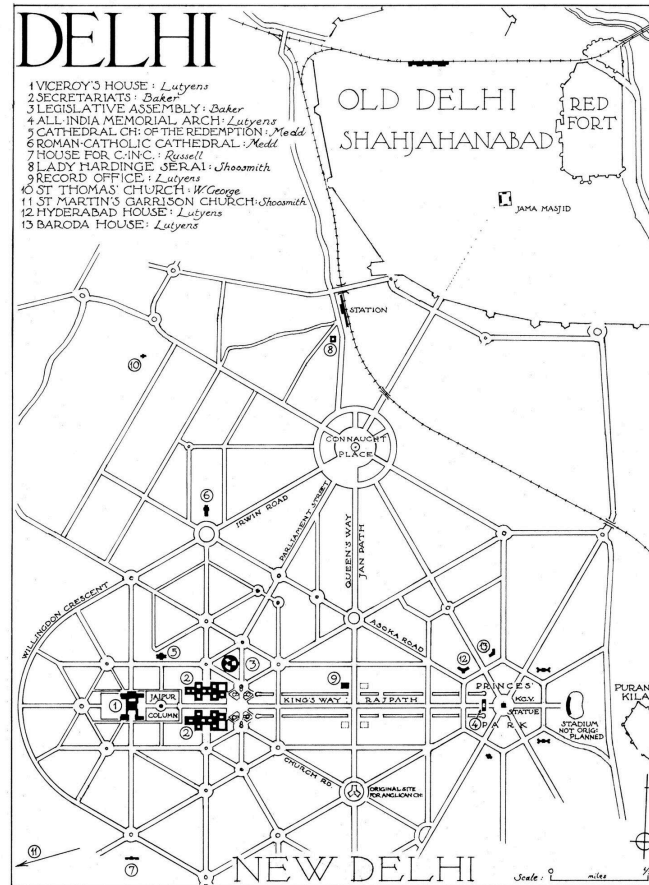


Figure 1: Edwin Lutyens, New Delhi Site Plan, 1931,

<https://jstor.org/stable/community.10811987>.

Peripheral resettlement

The British Raj's new imperial capital was completed in 1931. Old Delhi and its outer neighborhood (Paharganj) saw an explosion of growth. Rural migrants came to aid in construction of New Delhi, causing Old Delhi to become more densely populated and conditions to worsen (Priya 1993). The contrast was stark, with 400 persons per acre residing in Old Delhi, while the density in New Delhi was 4 persons per acre (Sharan 2014). This led the Government to commission Arthur Park Hume, an Indian Civil Service (ICS) Officer, to survey the worsening

conditions and suggest steps for their mitigation (Legg 2008). The report pointed out two main problems that had been plaguing Old Delhi: congestion and sanitation. Hume argued for the creation of an ‘improvement trust,’ similar to that of the Bombay Improvement Trust (BIT). Headed by J.P. Orr, BIT had pursued a policy of slum clearance and peripheral relocation of dispossessed residents. The relocation policy was a crucial component of the slum clearance, as it took away the disorderly, congested, and unhygienic spaces, and moved *jhuggi* dwellers to a space that adhered to European modernization and civility. Hume’s suggestion also highlighted Orr’s relocation policy, seeing it as vital to improvement of conditions for the local urban populace (Legg 2008).

In response, the Raj created the Delhi Improvement Trust (DIT), an institution that was tasked with clearing slums, easing congestion, and accommodating the dispossessed (Schenk 2021). DIT was also tasked with improving the sanitation and upkeep of New Delhi (Priya 1993). The main principle in combatting congestion was to average out the density across the neighborhoods of Delhi. Hume suggested constructing new accommodation to bring down the density to 100 persons per acre in Old Delhi, to help solve the congestion prompted by rural migration to the urban center.

The Raj put forward a slum clearance policy during this period. However, this was ineffective as DIT was unable to acquire adequate funding. Legg notes the callous attitude of the Raj toward rehousing individuals in Hume’s personal letters (Legg 2008). Only 300 families were rehoused under this policy over the 10 years of DIT under the Raj (Jagmohan 1975). Most of DIT’s work focused on water and sewerage infrastructure, covering canals that brought freshwater from the Yamuna river into Old Delhi and converting them into drains (Priya 1993).

The subcontinent gained independence from the British Raj in 1947, with British colonizers leaving the subcontinent and creating two new nations, Pakistan and India. The partition occurred due to religious differences and led people in Punjab and Bengal to abandon their ancestral homes and move to either Pakistan or India, based on their religious affiliation. More than half a million refugees from Punjab and Bengal settled in Delhi during this time.

This presented a challenge for India's first Prime Minister, Jawaharlal Nehru. Nehru was a freedom fighter and sought to lead India into becoming a free and modern democratic state. His idea of modernity was heavily influenced by Western European social democracy, advocating for a strong welfare state (Schenk 2021). Nehruvian Modernity sought to bring the rational and secular Western European approach to nation building, permeating foreign and domestic policy. To help bring India into the modern day, he sought to provide adequate housing, seeing it as the state's responsibility to provide the people with housing. When talking of a 'new modern India' in speeches, he referred to slums as blights within society, further expanding that their existence meant that there is something fundamentally wrong with the current formation of society (Schenk 2021). This 'high modernist' approach frames slums and *jhuggis* as a problem within Indian society, and posits that the best way to solve this issue is to clear them rather than acknowledge the issues in the way society has been structured by the liberal democratic social contract. Nehru argued that in order to bring people into the modern age, the city must adhere to a formal order and aesthetic (Scott 1998; Hameed 2016).

Western architects, consultants and institutions played an important role in bringing the ideas of modernism that Nehru wanted. The high modernist approach is also seen in urban planning, with prominent American and European architects such as Albert Mayer and Le Corbusier, who planned Punjab's new capital of Chandigarh (Figure 2). The clean, formal and

organization that would carry out the former duties of DIT as well as establish a plan for the development of Delhi.

Delhi was established as a Union Territory in 1956, and came under direct control of the Central Government. Upon the Birla Committee's recommendation, the Delhi Development Act was passed in 1957 and the Delhi Development Authority (DDA) was created (Schenk 2021). The DDA was tasked with planning and promoting the development of Delhi. It was given the responsibility of providing housing, infrastructure, utilities, and ensuring the planned urban development of the city.

Peripheral sites-and-services resettlement

While the wheels of bureaucracy turned, Delhi's population expanded rapidly. Migrants from surrounding rural areas came to find jobs, leading to further congestion. The Slum Clearance and Improvement Scheme was passed in 1956 to combat this (D'Souza 2019), giving the government significant authority to remove slums and *jhuggi* clusters and re-house residents in new housing designated for the Economically Weaker Section (EWS) of society. The responsibility for enforcing this scheme was given to the DDA wherein it would provide *jhuggi* dwellers with individual plots, roughly 90–110 sqm in size, a basic structure, and utility connections located on the periphery of the city (D'Souza 2019). The DDA was also tasked with creating new neighborhoods through a 'Self Finance Scheme' (SFS) for middle- and low-income groups. The SFS allowed individuals to pay for their apartments in installments as construction occurred, providing a steady flow of cash for the development of housing schemes. New neighborhood developments were divided into blocks with gentle curves reminiscent of modern American suburbs. There was diversity in the typology of housing, with plots and apartments up

for sale through a cooperative housing system. Neighborhoods such as East of Kailash and New Friends Colony (Figure 3) were developed. Building on New Delhi's Western-idealized approach, the DDA planned neighborhoods with numerous parks and community centers.

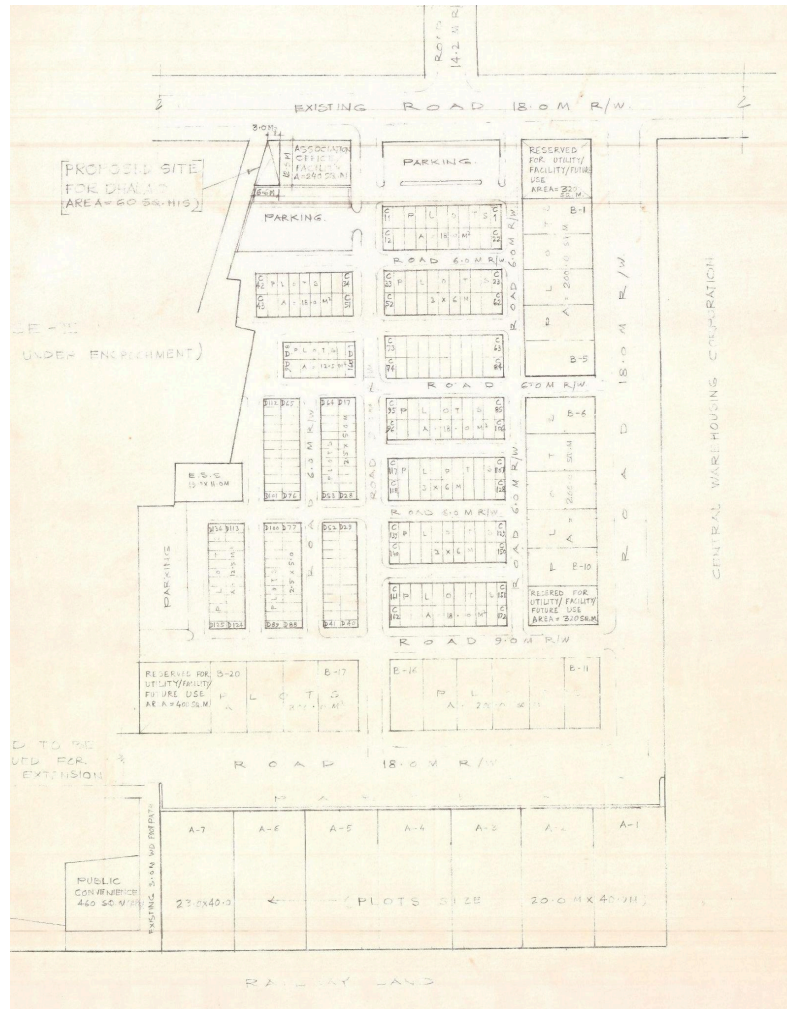


Figure 3: DDA, Kirit Nagar Layout Plan, DDA, 2002.

The 1894 Land Acquisition (a colonial law allowing the government to acquire private land in exchange for cash settlement) and 1956 Slum Clearance acts gave considerable power to the DDA, becoming a monopoly in the development of Delhi (Hameed 2016). With this authority and a top-down modernist ideology, the DDA was able to steer Delhi into a

‘world-class city.’ In order to help Delhi achieve this goal, the first Master Plan of Delhi (MPD-62) (Figure 4) was published in 1962. MPD-62 aimed at “balanced and integrated development” of Delhi (DDA 1962) and was used to guide urban planning and development. It also outlined a formal planning position for Delhi in regard to *jhuggis* and slums. The policy and planning decisions were heavily guided by Ford Foundation consultants, aiming to regularize the city and transition toward strict land use divisions between residential and economic activities.



Figure 4: DDA, Delhi Master Plan 1962, DDA, 1962.

The MPD-62 had set itself density targets to distribute the population more evenly as it saw very low density in New Delhi and Civil Lines, echoing Hume’s and DIT’s approach to solving congestion. Due to an increasing population, density targets for the MPD-62 were raised,

aiming for an average of 75 persons per acre (DDA 1962). Areas such as Mata Sundari, which housed about 40 persons per acre, were aimed to be increased to 200 persons per acre. While Old Delhi was to be lowered from 350 persons per acre to 250 persons per acre (DDA 1962). The plan also encouraged decentralizing employment, spreading out the location of jobs to exterior ring towns like Ghaziabad, to help ease congestion in Delhi.

The planning effort also outlined peripheral relocation for *jhuggi* dwellers, moving them to resettlement colonies that would adhere to three different typologies of homes on plots of 67 sqm each (Schenk 2021; Tarlo 2001). Families of three or fewer would be provided one-room plots, families of three to five would be provided two rooms, and families of five or more would be provided three rooms (Schenk 2021). Homes would be provided with basic utilities such as water, sewerage and electrical connections. An important aspect of the policy and planning position was that of land tenure; *jhuggi* dwellers were to lease the plot of land that had been allotted to them, charging a monthly development fee of ₹12.79, which was unaffordable for most *jhuggi* dwellers (Mukherjee 2012). Slum clearance started to pick up in the 1960s with the MPD-62. The DDA ultimately created eighteen resettlement colonies (Figure 5) during the 60s, including Wazipur and Seelampur I & II (Tarlo 2001). The resettlement colonies were to be integrated with low- and middle-income groups to create more diverse spaces. However, the DDA noted in various amendments to the MPD-62 that construction of new homes for *jhuggi* dwellers had become cost prohibitive. Many development projects in India were being funded by the World Bank, who also provided consultants and advisors to help guide policy. Through several amendments to it, the MPD-62 slowly moved to a sites-and-services model, a model that had been developed by John Turner through his work with informal settlements and slums in Peru creating a ‘new orthodoxy’ within urban planning; one that focused on improving current

conditions and providing basic utilities like water, electricity and sewerage to communities to help attain modern living standards with minimal cost (DDA 1962; Davis 2006).

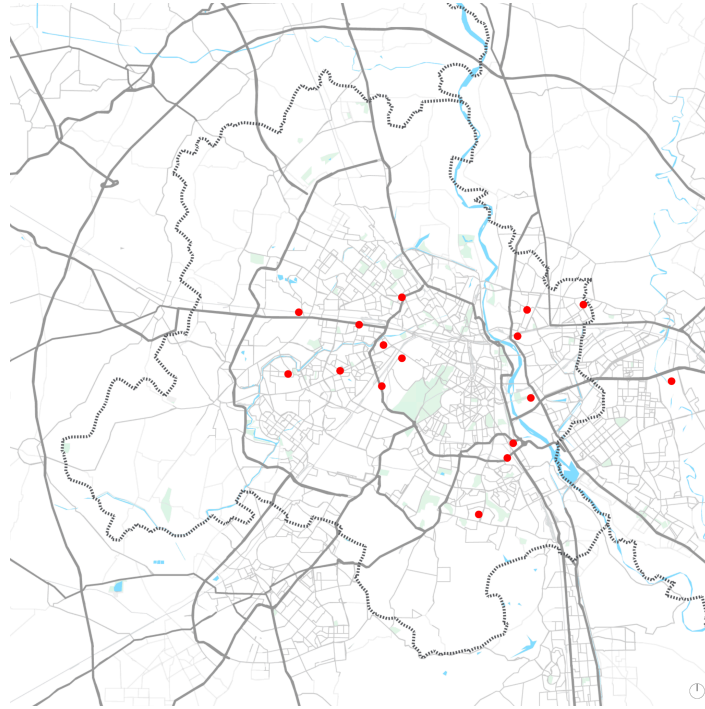


Figure 5: Nalin Chahal, Location of the Initial Jhuggi Resettlement Colonies Part of the Peripheral Resettlement Scheme 1960-1970, 2026.

This approach continued until the 1970s, however, resettlement of *jhuggi* dwellers was not fast enough to keep up with the pace of new *jhuggi* clusters that were popping up. Migration to Delhi had been fuelled by the Bangladesh War of Independence and improved economic prospects for rural folk. Inadequate supply of market rate housing for the EWS and instability of incomes to support transit fares prompted *jhuggis* to develop close to their place of work, placing themselves near Delhi's newly-planned middle-class neighborhoods where work as labourers could be found easily.

Nehru passed away in 1964, but his idea of modernity and formal planning lived on. It was exemplified further by his daughter, Indira Gandhi, who became the third Prime Minister of India in 1966. The early 1970s saw a continuation of her father's efforts of making India into a modern welfare state. This period also saw a rise in World Bank-funded development projects, mainly aimed towards slum rehabilitation, with available funds increasing from USD 10 million to USD 2 billion for slum upgradation projects (Davis 2006). Under Robert McNamara, the World Bank was heavily influenced by John Turner's idea of informal development and through the organization promoted the idea of in-situ slum upgradation, securing land tenure and helping with environmental upgrades rather than a formal modernist approach (Davis 2006). This policy direction was enacted through the Environmental Improvement of Urban Slums Scheme of 1972 that focused on providing basic infrastructure to slums. By 1976, the 'new orthodoxy' of sites-and-services was adopted at the first UN-Habitat conference (Davis 2006) and prompted Indian policy to further shift towards a sites-and-services model.

In 1975, Indira Gandhi declared a state of emergency in the country that lasted until 1977. The Emergency period was marked with authoritative implementation of state policies and a suspension of civil liberties. With more centralized control, the government was able to enact its policies of creating a modern India. Gandhi tapped her son, Sanjay Gandhi, to execute this vision, who also championed Nehruvian Modernity. At this time, the World Bank, IMF and Ford Foundation consultants recommended focusing on India's burgeoning population and implemented family planning restrictions that would be implemented with development programs, tying the two policies. This was presented in Sanjay Gandhi's family planning advocacy and beautification drive that has left a dark mark on India's urban development history.

The process of slum clearance and resettlement picked up during the Emergency period, with resettlement colonies growing from eighteen to forty-five (Figure 6 & 7) (Priya 1993; Tarlo 2001; India 1977). This was spearheaded by DDA's Vice Chairman, Jagmohan Malhotra, with the political backing and encouragement of Sanjay Gandhi. Much of the beautification efforts and planning ideology comes from Jagmohan's manifesto 'Rebuilding Shahjahanabad,' published a few months before the Emergency. Jagmohan spoke of the character of Old Delhi and how, due to the lack of political authority, it had become congested and was experiencing sanitation issues (Jagmohan 1975). He advocated for the necessity of beautifying Delhi and framed the importance of doing so around national pride. He looked to cities such as Paris, and idealized Hausmann's rebuilding of Paris as an inspiration of what the walled city could be. He talked about the importance of preserving history and in order to preserve that history, the overflowing 'belly' of Shahjahanabad (Figure 8) had to be gutted and restored to a more idyllic version (Jagmohan 1975). Jagmohan's manifesto shifted focus to the aesthetic of the city, turning away from Nehru's initial suggestion to help the poor through top-down modern planning. Jagmohan emphasized that it is up to the people to adapt to top-down formal planning in order to bring about a beautiful modern utopia. However, he lacked the authority to conduct the beautification campaign to "rebuild Shahjahanabad" (Jagmohan 1975).

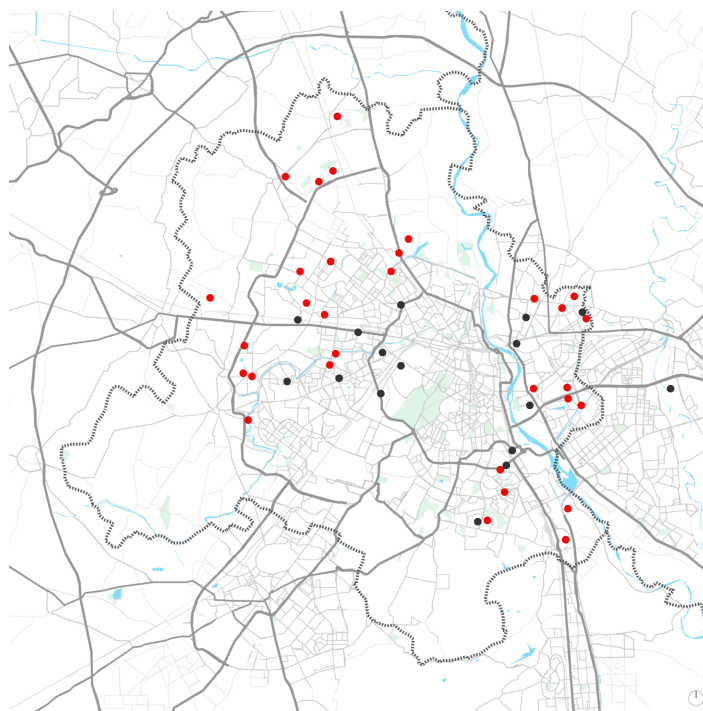


Figure 6: Nalin Chahal, Location of the New Jhuggi Resettlement Colonies in Red That Came up after 1970, during the Emergency Period, 2026.

TABLE
Demolitions before and during emergency*

Period	Structures demolished by			
	DDA	MCD	NDMC	Total
A. Pre-emergency period				
(i) 1973	50	320	5	375
(ii) 1974	680	354	25	1059
(iii) 1975 (Upto June)	190	149	27	366
Total	920	823	57	1800
B. During Emergency				
(i) 1975 (July to Dec.)	35767	4689	796	41252
(ii) 1976	94652	4013	408	99073
(iii) 1977 (Upto 20-3-77)	7545	96	—	7641
(iv) Period unspecified	—	1962	177	2139
Total	137964	10760	1381	150105

Figure 7: Government of India, Table Showing the Increase in the Number of Jhuggis Removed before and during the Emergency Period, Data Sourced from MCD, DDA, NDMC, 1977.

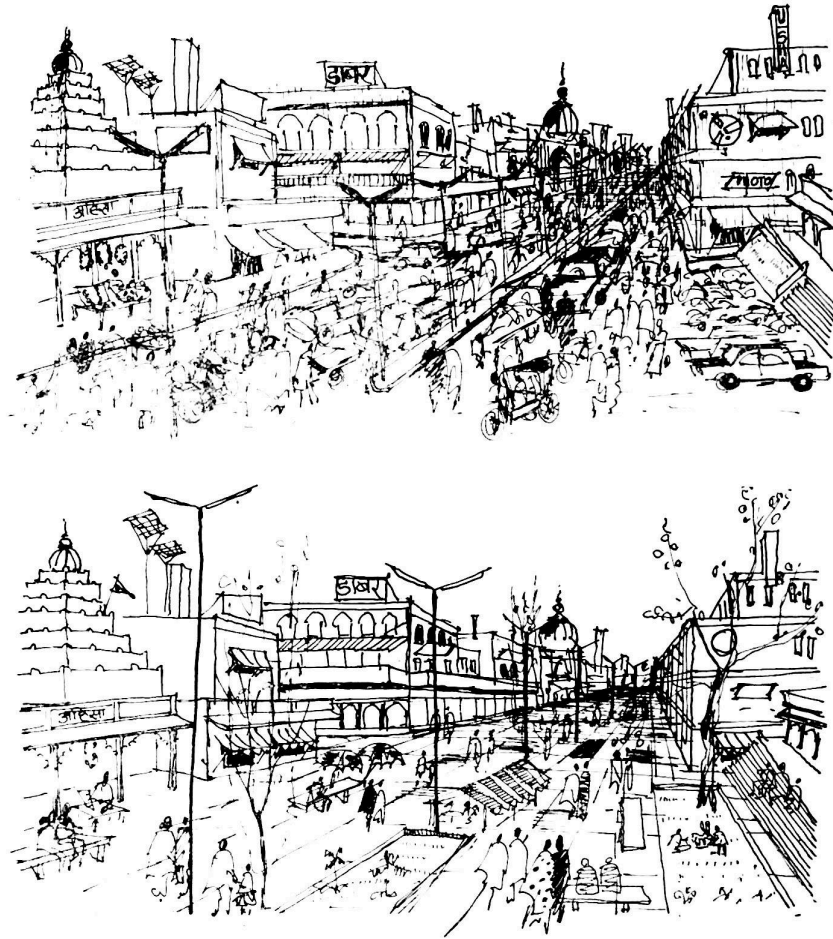


Figure 8: Jagmohan Malhotra, (Above) Sketch Showing the Congested Nature of Chandni Chowk in the 1970s, (Below) Chandni Chowk Reimagined, 1976.

The Emergency had suspended the democratic rights of citizens, and allowed for Jagmohan and Sanjay Gandhi's beautification drive and urban renewal to be put into action (Tarlo 2001). Evictions picked up with a violent confrontation between the DDA and *jhuggi* dwellers in 1976, at Turkman Gate, located at the southwest end of Shahjahanabad, (Tarlo 2001; Jaffrelot and Anil 2021; India 1977).

The *jhuggis* at Turkman Gate were occupied by poor working class people. They lived in small narrow lanes behind the gate, primarily in brick and mud houses with tin, asbestos and steel roofing. Access to water and sanitation was limited. Many families, especially Muslim

households, had lived in the area for decades and saw their homes as part of a long-standing community tied to nearby mosques, bazaars, and kinship networks (Routray, n.d.). Sanjay Gandhi commented that the view from Turkman Gate to Jama Masjid was blocked by the *jhuggis* and should be removed to showcase the boulevard (India 1977). This led to a large demonstration against the eviction process that was taking place at Turkman Gate in 1976 with hundreds of Delhi residents joining the protest. The demonstrations ended with state authorities violently suppressing protesters and removing *jhuggis* with bulldozers. After their homes were destroyed, they were instructed to go to the local DDA office to get a plot in a resettlement colony. What now remains of the space the *jhuggis* occupied is a DDA park and a modern marketplace (Figure 9), that still stands to this day as a reminder of Jagmohan and Gandhi's beautification drive. Seelampur III & IV (also known as Welcome Colony) came up as resettlement colonies, located on the east side of the Yamuna about 9 kilometers away from Turkman Gate (Tarlo 2001).

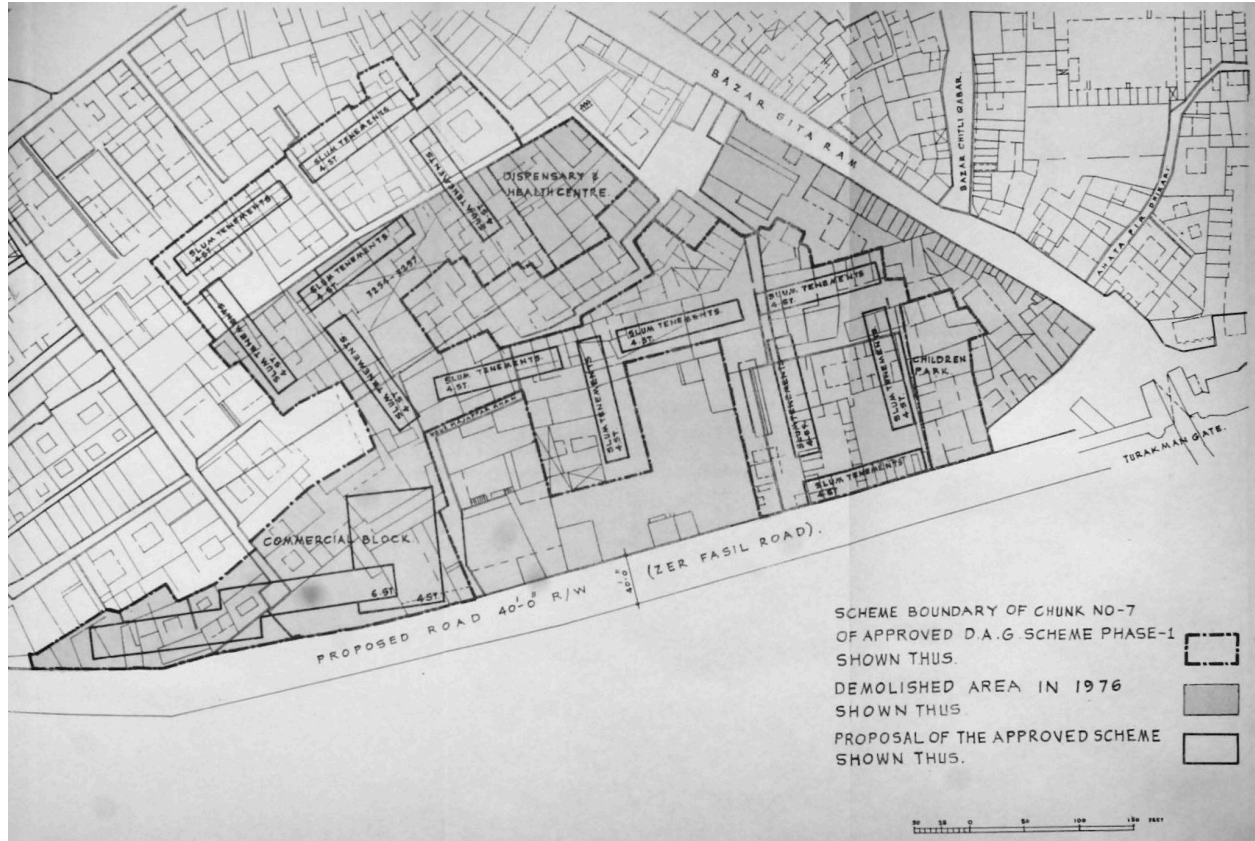


Figure 9: Government of India, Map of Demolished Area in Turkman Gate, Replaced by a DDA Colony, Park and Market, 1977.

After the demolition at Turkman Gate, many *jhuggi* dwellers requested the government for plots in Welcome Colony. However, due to the government's discrimination against Muslims, only a few Muslim *jhuggi* dwellers were able to get plots in Welcome Colony, while others were forced into other resettlement colonies (Tarlo 2001; Hameed 2016). This broke up communal neighborhoods (and kinship ties within) that had formed based on caste and religious affiliation due to being marginalized. The formal order and aesthetic the Central Government and DDA wanted to achieve, as well as Jagmohan's goal of preventing a 'mini Pakistan' in Delhi, were used as justification to do this (Tarlo 2001; Hameed 2016).

Seelampur I & II are existing resettlement colonies that accommodated *jhuggi* dwellers resettled during the clearance drives of the 1960s (Tarlo 2001). Welcome Colony (Seelampur III & IV) were added to the north as extensions and had a gridded block plan, similar to earlier resettlement colonies. However, only a plinth was provided, the plot area was reduced to 37 sqm, and there was a reluctance to institute proper utilities that the government had previously provided in resettlement colonies (Tarlo 2001; India 1977). This was due to the increasing population and several amendments to MPD-62 that reduced the size of plots for *jhuggi* dwellers. There was a shift in DDA's attitude from providing a constructed home to a sites-and-services model (DDA 1962) due to cost and time considerations.

Inhabitants of the extended resettlement colony, Welcome Colony, had a mix of income levels, comprising low- to middle-income families, compared to almost entirely low-income families in Seelampur I & II. There was also a new area that had developed within this extension, called a *janta* (public) colony, which was a *jhuggi* cluster that had been occupied by new rural migrants (Tarlo 2001). A prerequisite to obtaining a plot at Welcome Colony (and other resettlement colonies that came up during the Emergency period) was for all fertile men to first get sterilized, thereby helping the Government in achieving its population control objectives through large scale sterilization. Family Planning Centers, set up by the DDA provided these sterilization procedures. *Jhuggi* dwellers whose *jhuggis* had been demolished during this period were directed by DDA officials to get sterilized at the Family Planning Center and obtain a 'sterilization certificate.' Only upon receiving the sterilization certificate would the DDA allot the applicants their plot which was referred to as a 'family planning plot' (Tarlo 2001). People that occupied these plots in Welcome Colony were a mix of lower caste Hindus and Muslims who were the target of most of the sterilization efforts (Tarlo 2001; Hameed 2016).

Most who had received plots were not able to afford the lease that the DDA had given them and, with no secure land tenure, they were forced to transfer ownership and move back to *jhuggis* in central Delhi, like Yamuna Pushta located on the banks of the Yamuna river (Tarlo 2001). As the plots had been transferred to an individual not related by blood, the DDA was allowed to collect damages from the new occupant, and at the same time further neglect providing utilities and services as their occupancy was deemed illegal (Tarlo 2001). In an effort to cut costs, new resettlement colonies experienced the consolidation of basic utilities; instead of providing every plot with an individual connection, services like water and sewerage became communal. This led to an increase in wait times to collect water from communal hand pumps. Each toilet at the communal toilet block served 30 people, increasing wait times and hygiene concerns (Menon-Sen 2008). Today, Welcome Colony (Figure 10) comprises narrow, straight alleys with two- and three-story buildings lining its streets that follow DDA's gridded layout. It has developed into a DDA neighborhood with each household receiving utilities—an effort that has taken nearly fifty years. With the majority of the original allottees moving out within a few years (Tarlo 2001), the colony has failed to house and accommodate the people it was originally created for. The *janta* colony has expanded north, housing many *jhuggi* dwellers today.

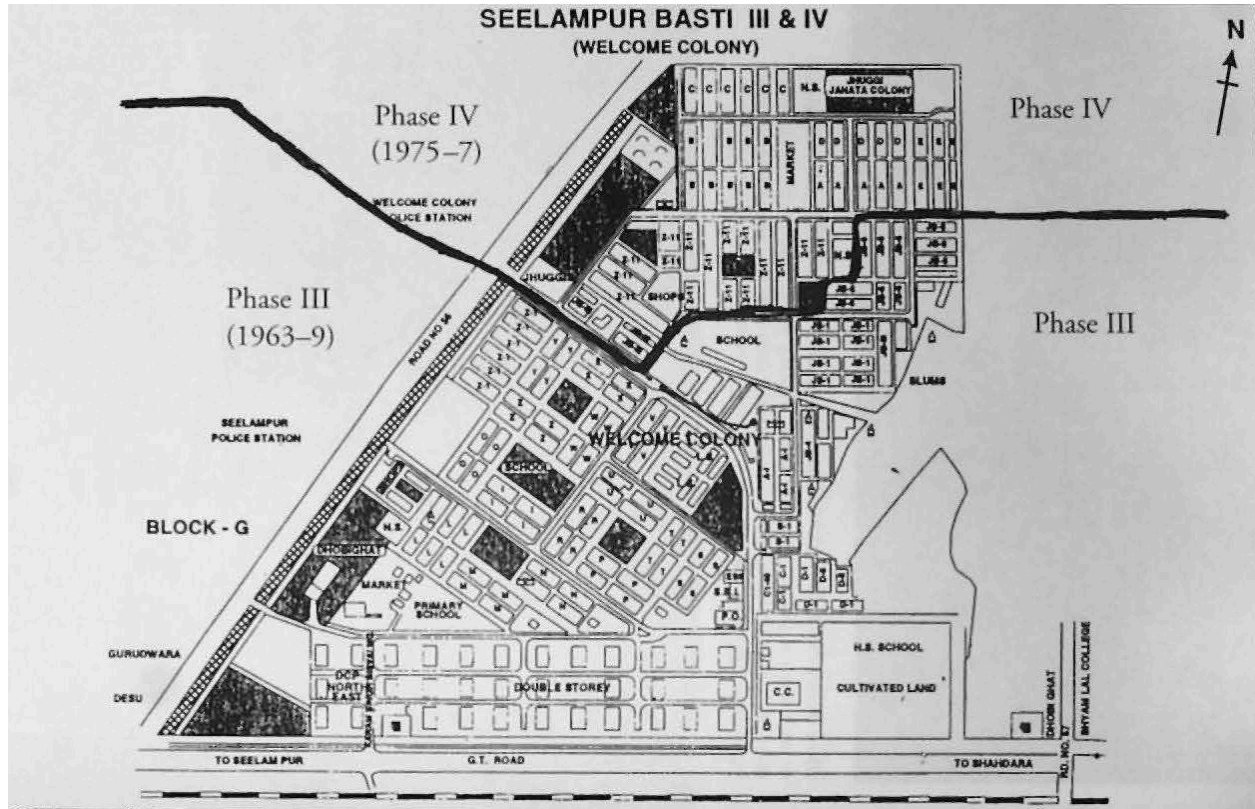


Figure 10: Delhi Police, Master Plan of Welcome Colony (Seelampur III & IV), 1996.

The primary goal under Jagmohan became beautification (Jagmohan 1975), rather than providing a good standard of living for every citizen. This required the urban poor to adapt to the environment of the idealized, modern city. The Emergency ended in 1977, and India's first non-Congress government, led by the new Janta Party, took charge. The change in leadership did not result in a removal of aesthetic policies or ideology or DDA's top-down approach, but it did slow down beautification efforts. In just over two years, the Janta government collapsed and in early 1980, Indira Gandhi was back in power. Beautification efforts this time around were limited, focusing on smaller demolitions and relying on midnight demolitions to clear out smaller *jhuggi* clusters and move residents into existing resettlement colonies or displace them into new *jhuggis*.

The Emergency showcased the top-down and authoritative control involved in planning and settlement to achieve a utopian modernism, one that came at the severe curtailing of people's rights and oversight of what they experienced. This period also cemented the priorities of future central governments, to showcase large projects that would uplift the international status of the nation and promote Delhi as a modern metropolis while hiding what it deemed contradictory to the national modernist project.

The early 1990s saw the liberalization of the Indian economy. This was prompted by the Indian government's inability to repay IMF loans which led to the creation of a Structural Adjusted Program (SAP) (Davis 2006). With the SAP, the Indian economy opened up to foreign investment, and government ownership in many state-run corporations, a pillar of Nehruvian social modernism, was diluted. Many utility services like electricity, water and sewerage were privatized and sold off to be traded as commodities. Along with the sale of state companies, reduced regulations for domestic and foreign investors led to land speculation, which soon became a vehicle for upwards social mobility, especially for the middle class. A McKinsey report from 2001 overestimated the anticipated growth of the Indian middle class. The report stated that speculative land prices would be great for the growing middle class, and would provide a way to build generational wealth (Ghertner 2015).

With major changes in the Indian economy, an opportunity for *jhuggi* dwellers to participate in the new burgeoning economy presented itself. The National Slum Development Programme initiated in 1996 opened up the potential of states to provide subsidies and loans for improvements in slum areas. It was an in-situ proposal that focused on providing basic services to areas deemed to be slums, thereby reducing the burden on the DDA of removing and resettling slum dwellers (Mitra 2021).

In 1997, Delhi issued a new Master Plan for 2001 (MPD-01). The MPD-01 proposed giving partially-built houses to new owners, aiming to increase density from 100 persons per acre to 160 persons per acre in new neighborhood developments to level out Delhi's density to about 80 persons per acre (DDA 1997). These developments were targeted at low-income groups; DDA's attitude had shifted regarding *jhuggi* dwellers and resettlement colonies. DDA washed its hands of responsibility, ceasing to provide basic utilities and sewerage infrastructure funds in resettlement colonies (DDA 1997).

The MPD-01 also showcased Delhi's fervent goal of becoming a 'world-class city,' as it prepared a bid to host the 2010 Commonwealth Games. Ambitious proposals and presentations by the Union Ministry of Culture and Urban Affairs and the DDA led to Delhi being selected to host the Games in 2003. The initiative to bring the Commonwealth Games to Delhi was spearheaded by Jagmohan Malhotra (former Vice Chairman of the DDA) serving as Union Minister for Culture and Urban Affairs at the time (Menon-Sen 2008). Delhi becoming the host of the games reinvigorated efforts of slum clearance, the number of peripheral resettlement colonies increased from forty-five to fifty-five by 2008. One of the major clearance drives during this period was the clearance of the Yamuna Pushta *jhuggi* cluster in 2004, just north of Raj Ghat on the west bank of the Yamuna (Menon-Sen 2008).

Yamuna Pushta (Figure 11) was a large *jhuggi* cluster, consisting of various Scheduled Castes and a large concentration of Muslims. The Yamuna Pushta settlement was first settled in 1967, cleared partially and periodically by DDA, but never fully. The colony kept receiving new settlers over the years, with a major wave of *jhuggi* dwellers arriving during the Emergency when demolitions were carried out at Turkman Gate. This led to some *jhuggi* dwellers settling on the banks of the Yamuna due to proximity to their jobs and the inadequate supply of affordable

market-rate housing. By 2004, about 27,000 families (approximately 135,000 people) called Yamuna Pushta home.



Figure 11: Emma Tarlo, Jhuggis at Yamuna Pushta, 1997.

Jagmohan's drive to beautify Delhi had not stopped and his manifesto had influenced the government to shift their position from providing housing to the EWS to instead having them adapt to the status of Delhi being a 'world-class city.' The government set out an ambitious plan to create a vista along the Yamuna to showcase Delhi with the spotlight of the Commonwealth Games (Menon-Sen 2008). In preparation for this, all 135,000 people at Yamuna Pushta were removed in 2004 and their *jhuggis* demolished. The evictions followed a similar tactic that had taken place during the Emergency, with relocations to the ten new resettlement colonies that had

been created (Menon-Sen 2008). They received a demolition slip which they could show to the local DDA office to receive a plot, however many did not receive the slip and were left in limbo (Menon-Sen 2008), having to gather what little was left and move to other *jhuggi* clusters.

Those that did receive a demolition slip and a plot resettlement were moved to various existing and new colonies, breaking the kinship networks that had been created over the decades between community members. Many from Yamuna Pushta were sent to Bawana Colony, a resettlement colony 26 kilometers away in the north of Delhi. Bawana Colony had emerged under the purview of Jawaharlal Nehru National Urban Renewal Mission, which was a World Bank-supported scheme that would, among other infrastructure projects, provide sites-and-services plots to *jhuggi* colonies. It also gave low-income individuals access to loans to help upgrade their dwelling structure. The colony consisted of market-rate plots and EWS plots, but contrary to earlier resettlement colonies, were segregated by class. *Jhuggi* dwellers were separated and formed into a colony within the neighborhood boundary. Plots had changed with a new exclusionary allotment process. *Jhuggi* dwellers that had proof that they had settled in Yamuna Pushta before 1990 were given a plot (Figure 12) that was 17 sqm in size, a considerable reduction compared to what middle-income groups received under the Master Plan of Delhi and what *jhuggi* dwellers had received previously (Menon-Sen 2008). Those who had settled in Yamuna Pushta between 1990 and 1998 were given a 12 sqm tenement apartment (Menon-Sen 2008), while those who had settled after 1998 in Yamuna Pushta were ineligible for resettlement.

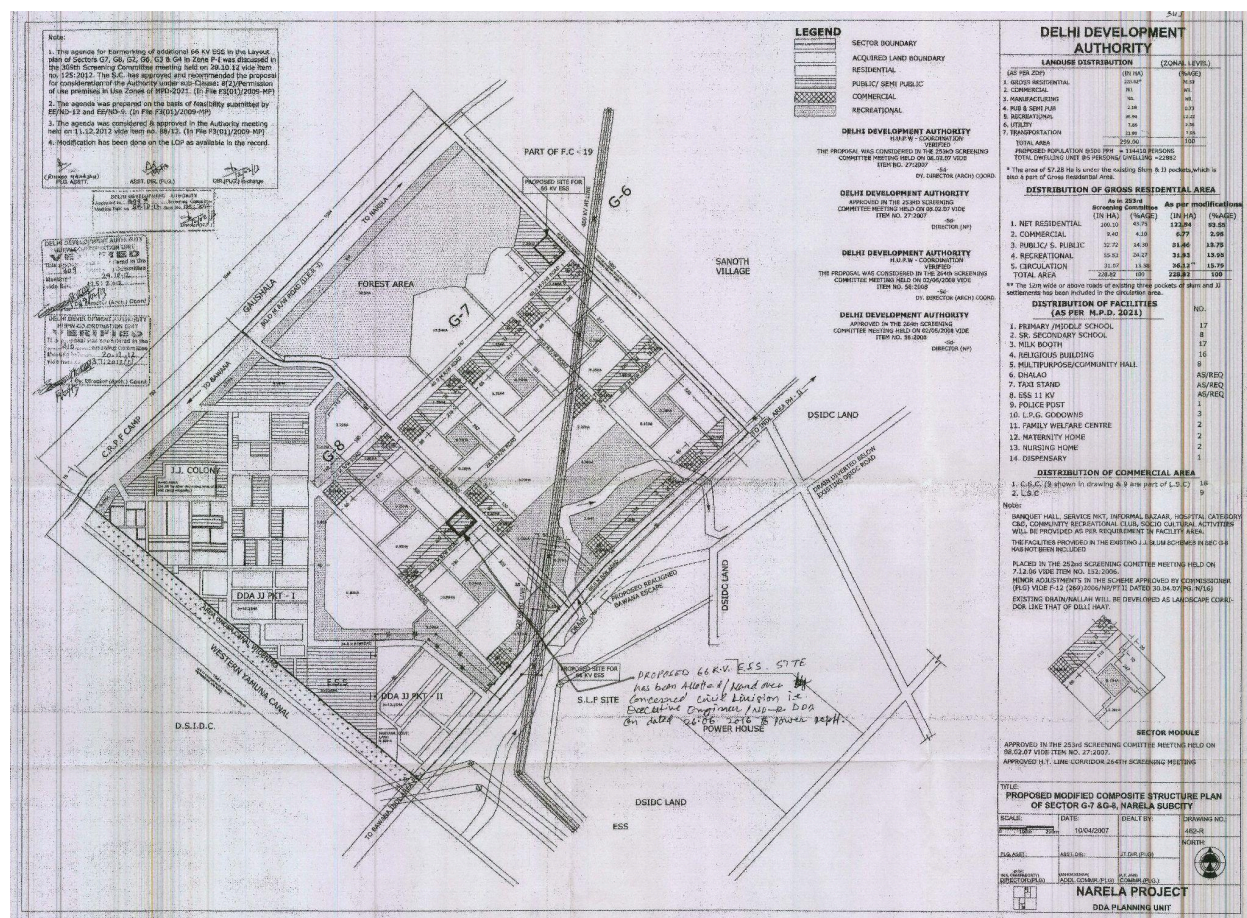


Figure 12: DDA, Master Plan of Bawana Colony, Not the Jhuggi Jhopri Colony on the East Side of the Proposed Development, 2007.

With the physical constraints of plot sizes and tenements, access to utilities became communal. The running and maintenance of latrines was outsourced to local NGOs that charged per use, with an effective ratio of eighty people to a latrine (Menon-Sen 2008). Similar issues also existed with hand pumps; during the first few years of the colony's settlement, many had to wait up to two hours each day to procure water (Menon-Sen 2008). Many had also not received their Below Poverty Line (BPL) ration cards, cutting them off from government subsidized food (Menon-Sen 2008). Even after two years, many were still living in bamboo shacks or

single-room brick units with plastic or tin roofing; the conditions of housing in Bawana Colony at the time were worse than those in Yamuna Pushta. The lack of formal identification, rigid planning structure, and enforcement by government officials obstructed *jhuggi* dwellers' access to food, water and a proper sewerage system (Menon-Sen 2008).

Over time, many original plots were incrementally upgraded: single rooms expanded vertically with brick or concrete, some households created multi-story units to accommodate extended families or renters (Gupta 2023). Despite this, housing remained very cramped. Narrow lanes and high plot coverage meant limited light, ventilation, and open space (Gupta 2023). New blocks and some multi-story apartment-style buildings were built under later schemes, but residents interviewed described these as only superficially better: crowded, no elevators in eight- to nine-story buildings, and overextended public services like schools (Gupta 2023).

In-situ development

Like Delhi, Mumbai was facing a growing population and the growth of *jhuggi* clusters, mostly on private land. Mumbai was pioneering a different approach during the 1990s, known as the Public-Private Partnership (PPP) model. The PPP model was administered by the Mumbai Slum Rehabilitation Authority (SRA) and gave private developers the authority to remove *jhuggi* dwellers on private land on the condition that they would use a portion of the land to develop formal housing for the EWS of society. This model gave developers additional benefits such as an increase in FAR or building height. The policy was later extended to land owned by the Mumbai government. This was seen as a success by many in the government and amongst private developers since it allowed land to be freed up for market-rate developments (Figure 13). However, many critiques have been laid out of the planning and design of the EWS colonies,

such as the creation of vertical slums, breaking of kinship networks, and inconsistent provision of basic services to the families living in these spaces (O'Hare et al. 1998; R. Jha 2023).



Figure 13: Mallappa Korvi, Completed Building at the Ganesh Nagar D Cooperative Society, One of Mumbai SRA's First PPP Slum Rehabilitation Projects, 2020, <https://citizenmatters.in/the-sad-story-of-mumbais-first-slum-self-development-project/>.

By 2007, the Master Plan of Delhi 2021 (MPD-21) introduced the ‘in-situ rehabilitation’ approach to slum redevelopment, in which residents of *jhuggi* clusters are transitioned to temporary housing while the Delhi Development Authority (DDA) reconstructs the settlement, and then moves the slum-dwellers back to a portion of the original plot with improved housing. This was an adaptation of Mumbai’s PPP model of the 1990s that had seen relative success on private land for developers. For Delhi, this was primarily for *jhuggis* that occupied government land and DDA would invite private developers to build tenements in exchange for a certain percentage of land that could be developed commercially. DDA announced a pilot project in 2009 for the redevelopment of Kathputli Colony (Figure 14), a *jhuggi* cluster located in Shadipur in West Delhi that primarily housed puppeteers and artisans from Rajasthan, Maharashtra and Andhra Pradesh. This project was given to Raheja, a private developer, and was the first in-situ PPP model redevelopment in Delhi. This redevelopment will be further analyzed as a case study.



Figure 14: Gian P. Mathur & Associates, Initial Proposal by Gian P. Mathur & Associates for the Development of Kathputli Colony, Proposed New Buildings for EWS Colony in Transparent Blocks Located behind Proposed Luxury Skyscraper, 2009.

The ‘in-situ’ model had gained traction at the national level, leading to the implementation of the Rajiv Awas Yojana (RAY) in 2013. RAY aimed for a ‘slum-free India’ and gave states access to loans for in-situ upgrading or rehabilitation of *jhuggis* and slums where it was deemed tenable (MOHUA 2011). RAY focused on urban planning initiatives by states and specifically targeted EWS groups.

However, this initiative did not last long and was soon replaced by the Pradhan Mantri Awas Yojana (PMAY) in 2015 under the aegis of the Bharatiya Janata Party (BJP), the new government that ousted the Congress in 2014. The PMAY initiative by the Central Government proclaimed that every *jhuggi* dweller would be provided a *pucca* home by 2022. The scheme kept the broad ambition of ‘slum-free cities,’ but reframed the program around individual housing provision and credit-linked support, not just slum projects. PMAY focused on in-situ slum redevelopment with private or public partners and gave individuals access to Credit-Linked Subsidy Scheme (CLSS). It also aimed to provide subsidies to developers to build EWS units. For individuals, it would provide assistance to eligible families to build their own homes. PMAY also increased the scope of the beneficiary group, targeting low-income groups and EWS.

In Delhi, seventeen years after the Kathputli redevelopment project was awarded to Raheja, work is still underway with promises of delivering apartments to the *jhuggi* dwellers by June of 2026. Under the purview of DDA, PMAY has enacted in-situ development projects like Kalkaji and Ashok Vihar that have given former *jhuggi* dwellers new one-bedroom apartments for each family in 2022 and 2024 respectively (Jain, n.d.). However, Delhi’s attempts at the PPP model need to be investigated, as similar concerns to Mumbai’s PPP model have been raised.

In Mumbai, a new in-situ project to rehabilitate the Dharavi Slum has been assigned to the Adani Group. The redevelopment is much larger, more heavily financialized, and more centrally controlled than earlier in-situ projects like Delhi’s Kathputli Colony, Kalkaji, or typical Mumbai SRA schemes (Kulkarni 2025). It is structured as a special purpose vehicle (Navbharat MegaDevelopers Pvt. Ltd.) in which Adani holds eighty percent and the Maharashtra government holds twenty percent of the shares. The project plans to construct approximately 125,000 units, including 58,532 in-situ flats, measuring 32.5 sqm each, for eligible residents who

meet stringent cut-off dates (Kulkarni 2025). Unlike older Mumbai SRA projects that typically needed consent from fifty-one percent of residents and were often fragmented by pocket-wise developers, the Dharavi project waives the consent requirement on the grounds that the developer is state-selected, uses high-tech eligibility surveys, and proposes a mix of in-situ rehousing and off-site ‘Navbharat townships’ plus rent-to-own options for previously ineligible residents, making it more top-down and more spatially-dispersed (Abraham 2025; “Express Investigation | Adani-Maharashtra Roadmap for Dharavi” 2025). It remains to be seen if this approach, with less state control and more private development guidance will be beneficial for the people of Dharavi.

India and Delhi have taken the approach of top-down modernist planning, even before the inception of Nehruvian Modernity. The motivation to remove ‘blights’ and showcase a modern and beautiful world-class city is still the dream of many bureaucrats, business owners and middle-class groups. The approach of state top-down planning has created a repressive system that has sought to retain control on the poorest citizens of India and leave them marginalized. The intentions of the state have been changed, from one of providing housing and development, to one of creating a beautiful image of a state that aims to serve nationalistic interests.

Case studies

This chapter focuses on Delhi's first in-situ slum rehabilitation project, Kathputli Colony in Shadipur Depot. The project is led by DDA through a PPP model with Raheja, a private developer based out of Mumbai. The case study covers the conditions before the colony was cleared, the proposal for its redevelopment, and looks at critiques levelled by scholars on the project's planning and development.

The colony sits in a prime location in West Delhi (Figure 15 & 16) with access to the Shadipur Metro Station and Kirti Nagar Station, part of the Delhi Metro Station Blue and Green lines. Adjacent to the *jhuggi* colony sits a formally developed residential neighborhood known as Pandav Nagar with a high density of five- to six-story buildings. On the west side is a rail line that carries both freight and passenger rail and is part of the Indian Railways and Delhi Suburban Transit system. Patel Nagar Station is a 30 minute walk from the colony. To the north is Patel Road, a major arterial road and to the colony's east is Goswami Girdhari Lal Road, connecting Patel Road and Delhi's Ring Road. These surrounding areas comprise mixed-use corridors with industrial/warehousing pockets, small businesses, service-sector establishments, and apartment complexes, giving the greater precinct a bustling, intensely urban character even as the former Kathputli footprint itself remains under construction. The construction of the Metro line has slowly turned the industry-focused area into a commercial and retail hub along Patel Road, leading to a boom in residential and commercial development opportunities.

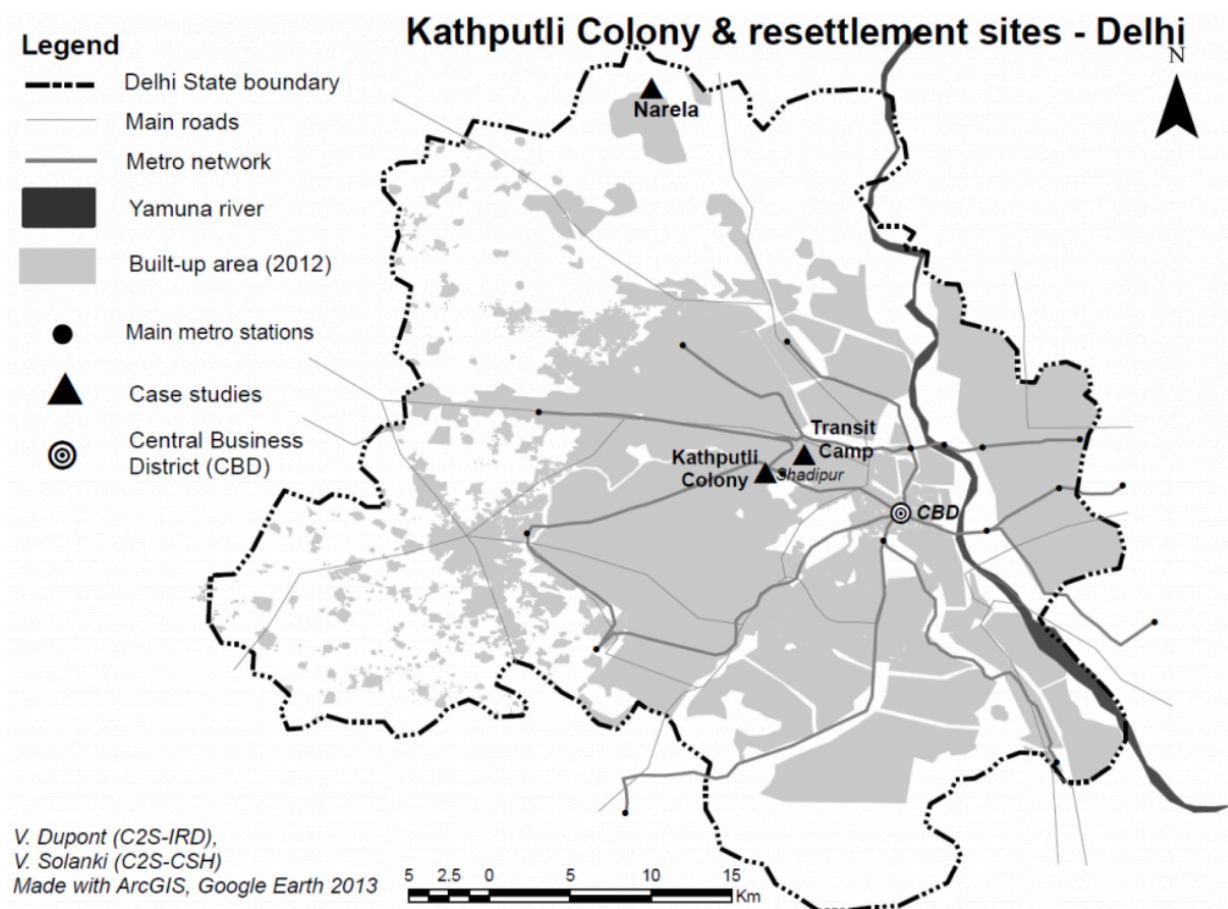


Figure 15: Veronique Dupont, Location of Kathputli Colony in West Delhi, 2021.

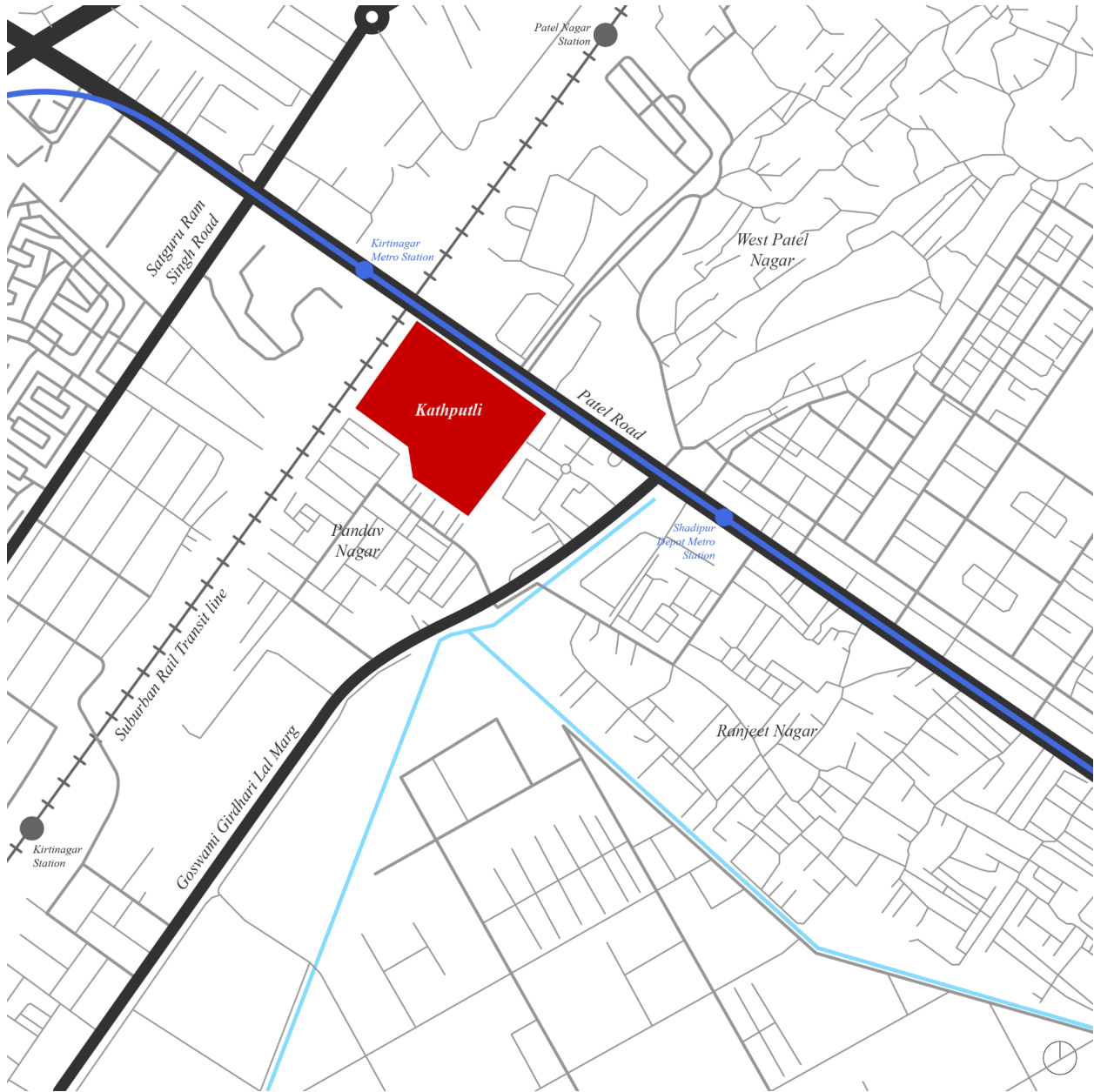


Figure 16: Nalin Chahal, Location of Kathputli in Shadipur, 2026.

Early settlement and growth

Kathputli was first settled in the 1960s by a community of puppeteers originally from the Nutt or Bhaat Community (Chalana and Rishi 2016). The name Kathputli comes from the string

puppets that are made and performed by the community (Chalana and Rishi 2016). The nomadic community settled there after being driven out from other neighborhoods of Delhi during the initial slum clearance drives conducted by the DDA (Dubey 2016).

Attention was brought to this community in the 1970s by Rajeev Sethi, a prominent Indian artist, and his community organization, Sarthi. Through Sarthi, the Bhule Bisre Kalakar Trust was formed to support the artistic endeavors of the *jhuggi* dwellers in 1978 (Dupont 2014). The Kalakar Trust helped bring international attention to the unique artistry of the *jhuggi* dwellers, showcasing the traditional art form through shows in the United States and United Kingdom. The establishment of the Kalakar Trust in the colony attracted more artists to the community. The colony grew to include artisans, magicians and other performers from Andhra Pradesh, Maharashtra and Uttar Pradesh (Banda 2013a).

By 1979, the colony was occupied by approximately three hundred households. Early settlement during this time consisted of *kacha* houses made of tarps, fabric, mud, and found materials in a barren and flat field with minimal development. During this time, DDA was developing the area to connect the outer suburbs to Central Delhi, with Patel Road and the Shadipur Flyover, which reduced the area the *jhuggi* dwellers occupied from 16 acres to about 12.8 acres (Dubey 2016). DDA conducted a partial sweep of the colony to make way for the infrastructure. This development also prompted DDA to look at permanent housing for the *jhuggi* dwellers.

Through Sarthi and the Kalakar Trust, Rajeev Sethi had stepped in and asked DDA to reconsider its approach to the development of formal dwellings for the *jhuggi* dwellers. He commissioned the Egyptian architect Hasan Fathy, whose work on housing for the poor and mud architecture made him a great candidate for proposing an affordable settlement. Unfortunately,

Fathy's proposal was rejected by the *jhuggi* dwellers, primarily due to the proposal not including any input from them (Dubey 2016). Sethi then asked Revathi Kamath, prominent Delhi architects who specialized in mud architecture, to design a proposal, with the prerequisite of community inclusion in the design process. This proposal was ultimately rejected by DDA due to financial and non-conformity to the formal design approach championed by DDA. Another barrier to this proposal was the make up of Kathputli, which had started to become more heterogenous.¹

A local Member of the Legislative Assembly (MLA) in Delhi objected, on behalf of new *jhuggi* dwellers that settled into Kathputli, to their exclusion in the proposal of the new Kathputli development proposed by DDA, Sarthi and the Kalakar Trust (Dubey 2016). The new wave of *jhuggi* settlers to Kathputli had arrived in 1983, consisting of non-artisans from Andhra Pradesh, Maharashtra and Uttar Pradesh. The initial proposal by Kamath only focused on the artisans in the community, per the brief provided by Sarthi. This stalled Kamath's proposal and prompted DDA to look elsewhere for a new formal planning proposal for the Kathputli development.

With this new influx of people, a rift started to grow amongst the artisans and non-artisans in Kathputli (Dubey 2016). Unfair treatment and restrictions on social services provided by the Bhule Bisre Kalakar Trust further alienated the non-artisan community. This prompted the creation of *muhallas* (neighborhoods) within Kathputli, and subsequently, community *pradhans* (leaders) were appointed to advocate for their respective communities. This created divisions along economic and ethnic lines.

By the 1990s, there was growing political pressure from local MLAs and community members. The plans for the new development had to be changed considerably, with DDA eventually asking Anil Laul, a prominent architect known for designing climate-conscious

¹ Kamath's proposal is discussed further in the 'Vignettes' chapter of this thesis.

structures, to create a proposal for the development (Dubey 2016), which eventually did not materialize. The development of the proposal was stalled due to the *pradhans* of each *muhalla* seeking to give input on the development, proposing to have the plans be reviewed by a committee of each *muhalla*. As discussion on the development continued, more and more *jhuggi* dwellers settled in Kathputli. To help with the growing neighborhood, the Kalakar Trust created a school, dispensary and open-air theatre for the artisans to promote their craft. The community also became a tourist attraction based on its past glory, and the support it received from the Kalakar Trust. No new development plan had been realized until the selection of Kathputli to be the pilot project for DDA's in-situ development approach to *jhuggi* colony.

Delhi's first in-situ development project

The new Master Plan of Delhi 2021 (MPD-21), published in 2007, outlined the DDA's new approach to rehabilitation of *jhuggi* colonies in Delhi. The new 'in-situ' model would be conducted through a public-private partnership (PPP) model (DDA 1962; Dupont and Gowda 2020). The model was adopted from the previous success of Mumbai's Slum Rehabilitation Scheme by the Slum Rehabilitation Authority (SRA) (Dupont and Gowda 2020; Mitra 2021; Chowdhury and Samanta 2024).

This approach was adopted in the 1990s in Mumbai, where most *jhuggi* dwellers were squatting on private land. The model would allow private developers to develop their land on the condition that they also create dwellings for the EWS; in exchange, the developer would receive concessions such as an increase in the Floor Area Ratio (FAR). The model proved successful for the developers, who were able to develop their land and profit from it. The model was also praised for its use of community participation, aiming to consult and get input from the *jhuggi*

dwellers on site before moving forward with the proposal (Banda 2013b). It replaced violent slum eradication with a deepening democracy and market-facilitated program that leveraged land speculation and proved to be a relatively humane model of rehabilitation planning (R. Jha 2023; O'Hare et al. 1998). SRA also required that the developer gather signatures from *jhuggi* dwellers before moving forward with the project. The success of this model in Mumbai prompted DDA to adopt it into MPD-21. This allowed DDA to capitalize on its land holdings and conduct formal rehabilitation and resettlement of the *jhuggi* colonies. The approach also absolved DDA of its responsibilities to provide housing and plot resettlement.

By 2013, Kathputli Colony had developed into a dense, incrementally-built settlement characterized by low-rise, self-constructed structures, narrow lanes, and an intricate mix of residential, commercial, and religious spaces that formed a highly-textured urban morphology (Figure 17 & 18) (Chalana and Rishi 2016). The *jhuggis* ranged from permanent, multi-room, brick-and-scrap structures with indoor plumbing to fragile hutments of mud, plastic, jute, and timber at the edges near the railway tracks, revealing sharp internal disparities in building quality and access to basic services (Chalana and Rishi 2016). Within this fabric, the main bazaar street was lined with elevated shop-houses combining ground-floor commerce and upper-floor housing and served both as the only drivable spine and as a vital social space, with plinths extending into informal platforms for display, conversation, and everyday gathering (Chalana and Rishi 2016).

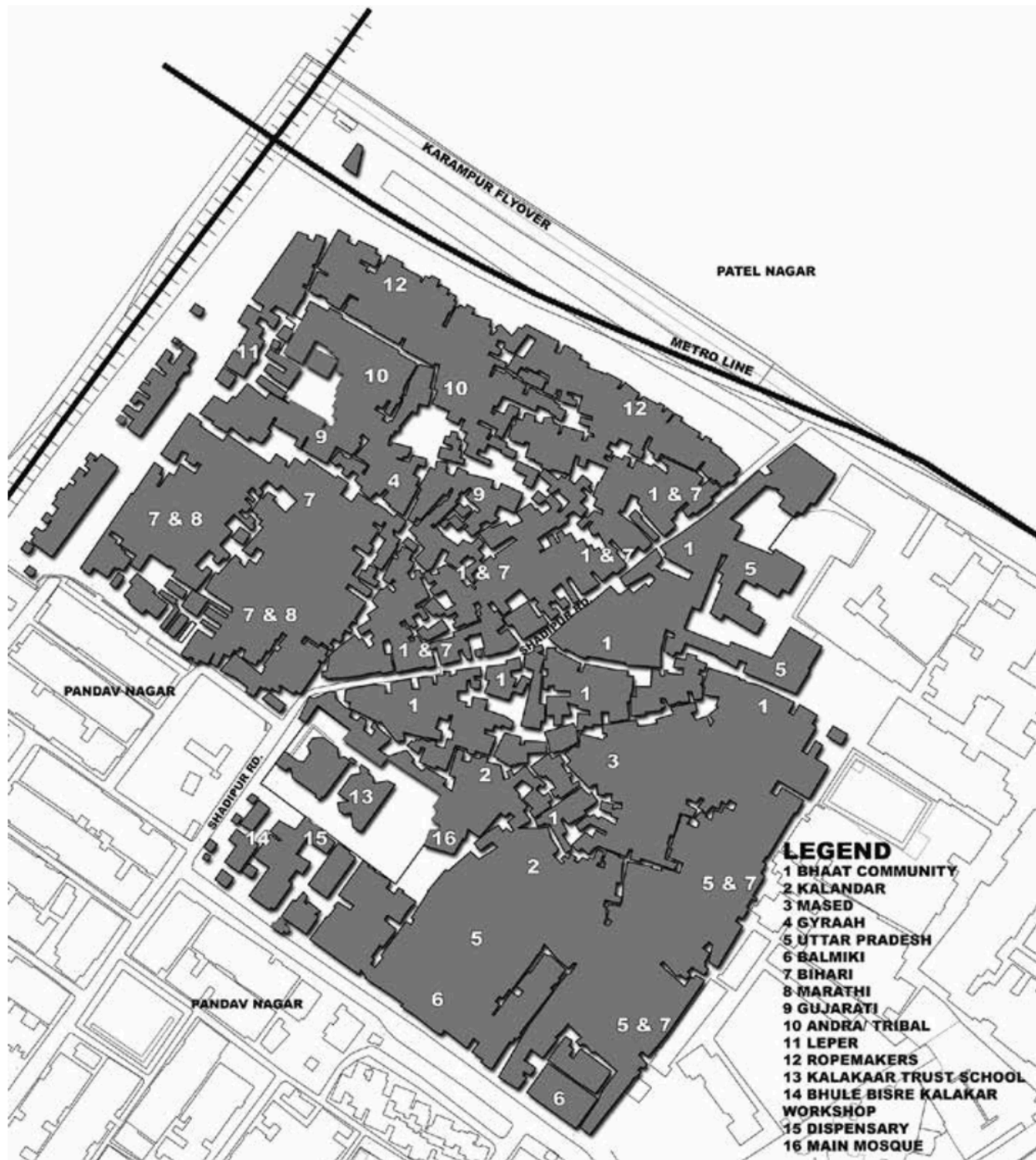


Figure 17: Chalana and Rishi, Neighborhood Map of Kathpulti Showing Clustering Pattern of Community Groups, 2016.



Figure 18: Chalana and Rishi, Low-Rise Built Form in the Artists' Section of the Colony, 2016.

Socially and spatially, the colony was organized into distinct yet overlapping *muhallas*, most visibly divided between an earlier, more spacious artists' section and a later, denser non-artists' section on opposite sides of the bazaar (Chalana and Rishi 2016). The artists' side retained larger plots and vernacular courtyard houses used for living, craft production, and storage of puppets, drums, and other performance materials, while the non-artists' side compressed one-room units into congested vertical stacks with few courtyards or open spaces (Figure 19) (Chalana and Rishi 2016). Layered onto this were finer-grained clusters along lines of origin, religion, caste, and occupation, supported by multiple mosques and small temples that

doubled as social nodes and governance anchors in everyday life (Figure 20) (Chalana and Rishi 2016). With the development of the Blue line of the Delhi Metro along Patel Road, it proved to be a great location for development and capitalizing on the speculative value of the land.

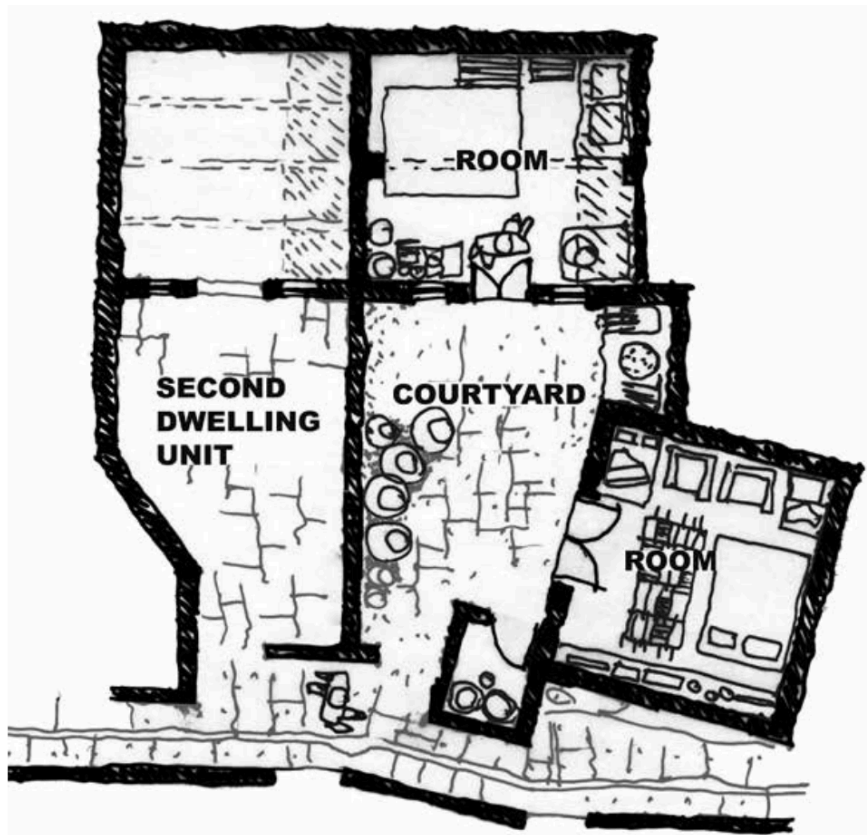


Figure 19: Chalana and Rishi, Plan of Dwelling Unit Showing the Courtyard and Rooms, 2016.

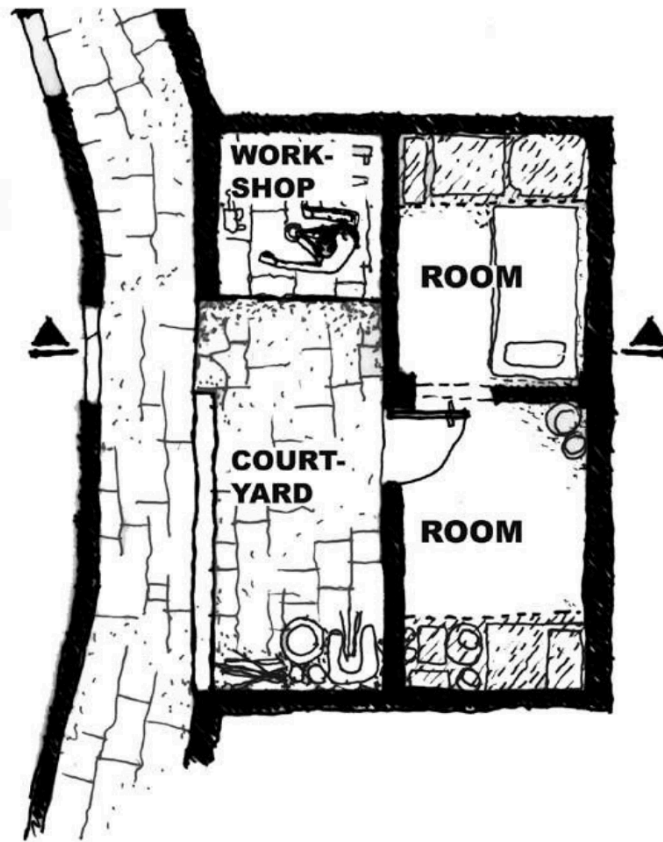


Figure 20: Chalana and Rishi, Plan Showing Dwelling Unit and Workshop Space, 2016.

The Kathputli redevelopment endeavor is administered and planned by DDA. The Delhi State Government passed the Delhi Urban Shelter Improvement Board (DUSIB) Act in 2010, which created a new agency in charge of the rehabilitation of slums and *jhuggi* colonies in Delhi, eliminating the Slum and *Jhuggi* Department of the DDA. The DUSIB mandate was to ensure in-situ rehabilitation of slums or *jhuggi* colonies where tenable, and in untenable cases move the *jhuggi* dwellers to a resettlement colony. Since the Kathputli project was initiated before the passage of the Act and the land was owned by DDA, it did not receive input from the DUSIB.

The project was initiated in 2009 with DDA asking for technical bids from private developers. Nine developers submitted technical bids, out of which eight were accepted; of the

eight developers, only one developer, Raheja Developers Limited, submitted a bid and was subsequently awarded the project (*Kathputli Colony Redevelopment* 2018). As part of the deal negotiated between DDA and Raheja, thirty-five percent of the land, facing Patel road, would be given to Raheja at a cost of ₹61.10 million, and sixty-five percent of the land would be reserved for the EWS colony (Figure 21) (Dupont 2014; *Kathputli Colony Redevelopment* 2018). Raheja was also tasked with building the EWS colony and transit camp for the *jhuggi* dwellers. After completion, the transit camp and EWS Colony would be administered by DDA. As part of the planning approach outlined in the MPD-21, community participation took center stage, with the number of dwelling units being determined by physical, socio-economic, and biometric surveys (DDA 2007; Dupont 2014). This was an important deviation from the original violent methods of midnight demolition and slum relocation that were previously employed with resettlement colonies. This was similar to the Mumbai SRA's approach to in-situ rehabilitation, although one major difference was the relaying of information to *jhuggi* residents facing in-situ rehabilitation (Dupont 2014). SRA was required to relay the findings of a survey to residents and get consent from seventy percent of the residents after the plan had been proposed to residents, which was not required of DDA (Dupont 2014).

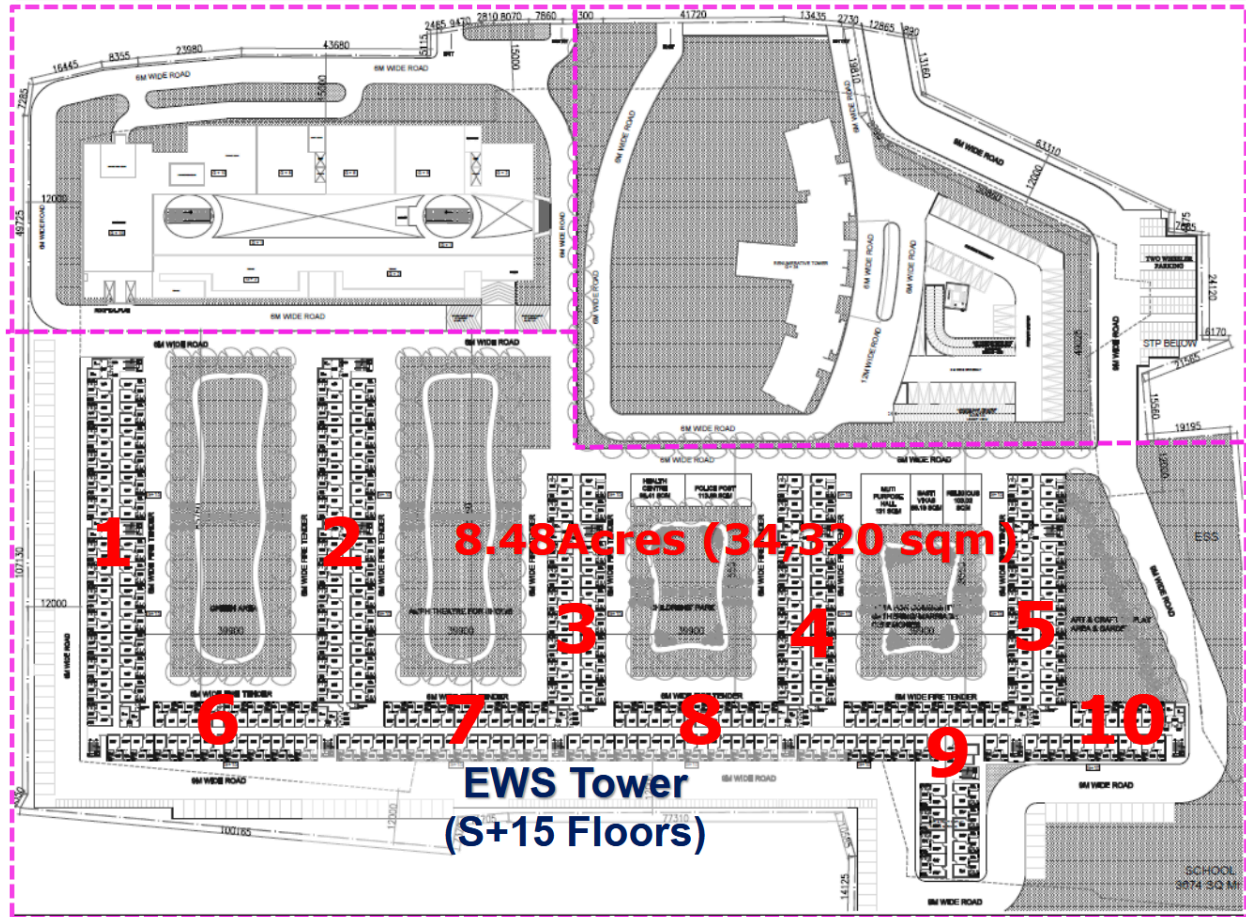


Figure 21: Raheja, Proposed Redevelopment Plan of Kathputli Colony, with EWS Colony in the South, New Commercial Mall in the North East and New Luxury Tower in the Northwest, 2018.

The EWS colony was to consist of a primary and secondary school, community hall, local market, vendor space, park, children's playground, water reservoir and health center (ritimo 2014). DDA contracted the services of architectural consultants Gian P. Mathur & Associates, to conduct the initial physical and socio-economic survey in 2009 (Dupont 2014). The initial survey showed 2,754 households (13,520 people) occupying Kathputli Colony. DDA rounded the number up and determined that 2,800 one-bedroom/one-bath dwelling units were to be provided for the EWS colony. Based on this, Raheja estimated a total project cost of ₹2.54 billion (Banda

2013a). As part of the deal, Raheja was to deliver the 2,800 dwelling units within two years of the residents moving to the EWS colony (Banda 2013a; Dupont 2014; *Kathputli Colony Redevelopment* 2018). Failure to do so would result in a penalty—0.5 percent of construction cost incurred each year up to a maximum of 5 years—if the project was not delivered by the deadline.

With the deal negotiated, DDA commenced finding a suitable location for the transit camp. Many locations were considered, including Delhi Cloth Mill, Jailorwalabagh, Basai Darapur, Rohini, and Ghazipur Flyover. These were rejected due to various political reasons by local Members of Legislative Assembly (MLA) and Resident Welfare Associations (RWA) that pushed against a transit camp (Banda 2013b). Finally in 2011, an empty field was chosen 3 kilometers north of the site in Anandparbat. A petition protesting this was filed in the Delhi High Court by the local RWA, but was subsequently dismissed and the construction of the temporary transit camp for the residents of Kathputli proceeded.

In the meantime, DDA conducted additional surveys—the first being a Land Management Survey in 2010 that identified 3,100 *jhuggis* in the colony (Dupont 2014). The DDA engaged the Bhule Bisre Kalakar Trust to help conduct the survey, with the Kalakar Trust representing the Rajasthani artisan community, which caused some tension between the communities in Kathputli (Dupont 2014). DDA identified each *jhuggi* with a number and each additional floor of the same *jhuggi* with a letter (example: 1203 and 1203A) (Dupont 2014). Being responsible for the *jhuggi* colonies in Delhi, the DUSIB also conducted a biometric survey in August 2011 as part of the RAY scheme and Aadhaar initiative, but this was still underway in 2014 (Banda 2013a). A videography and photography survey was also conducted by DDA, contracted through a private firm, from 2011 to 2013 and identified 2,300 *jhuggis*.

The transit camp in Anandparbat was completed in March 2013 (Dupont 2014). However, *jhuggi* dwellers were not able to move in immediately—being moved in batches from February 2014 and ending in October 2017. With the clearing of all *jhuggis*, the foundation stone was laid in 2018 (*Kathputli Colony Redevelopment* 2018).

Critiques

As of writing (June 2026), the *jhuggi* dwellers are still in the Anandparbat Transit Camp. Currently, there were plans to move the *jhuggi* dwellers into their new formal dwelling by June 2026, but no movement has been initiated yet. There have been numerous critiques that have been laid out by scholars in the process and design of the EWS colony and transit camp. These issues can be grouped into three categories: community participation and surveys, Anandparbat transit camp, and the EWS colony.

Community participation and surveys

Many issues have been raised regarding the execution of the four surveys conducted by DDA, with Dupont noting major discrepancies in the number of *jhuggi* households. She states that the methodology of the conducted surveys has not been disclosed by DDA, leading to questions about the count and approach taken according to its mandate to include the community in the planning process (Dupont 2014; Banda 2013a). The initial survey conducted by Gian P. Mathur & Associates concluded that in 2009, 2,754 households occupied the land in Kathputli. DDA's land management survey, conducted in 2010, showed that the colony had 3,100 *jhuggis* (Dupont 2014). However, the videographic survey conducted in 2011-2013 identified only 2,300 *jhuggis*. This showcases a wide discrepancy in the count of the number of dwellings needed.

Based on the 2010 land management survey, at least 300 households have been excluded from the count. A point of contention with the surveys amongst residents was the exclusion of the first floor of the *jhuggi*. The first floor would house the son/daughter's family of the occupant who lived on the ground floor. Their exclusion meant that they would be separated and not be eligible for a dwelling unit in the new EWS colony.

Another area of concern is how DDA communicated and conducted participation in the design proposal. Initially, DDA communicated with Bhule Bisre Kalakar Trust, a community organization that historically backed the Rajasthani community and was not favoured by the other *muhallas* in Kathputli (Dupont 2014). As communications were only conducted through the Kalakar Trust, many were under the impression that only Rajasthani community members would be moved to the transit camp and be allotted apartments. Others were only made aware of the project after an article in a Hindi-language newspaper in 2011 reported that 800 of the residents were being moved to the transit camp (Dupont 2014; Dupont and Gowda 2020).

A lack of knowledge about which families and communities were eligible for the project and a fear of the unknown led many to be skeptical of the project (P. Jha 2018). *Jhuggi* dwellers had to initiate engagement with DDA through their community *pradhans* to get answers about which families would be eligible to move to the transit camp (Dupont 2014; P. Jha 2018).

Pradhans are the main representatives at meetings with DDA. These leaders hold a lot of political power within their *muhallas*, and are more financially secure than other *jhuggi* dwellers. They agreed to ensure that all *jhuggi* dwellers in Kathputli would receive a dwelling unit and a place in the transit camp before agreeing to move (P. Jha 2018). Multiple pleas were made during 2011 to 2014 to notify residents of their eligibility in the project. *Jhuggi* dwellers were made

aware of their eligibility in March 2014² through the DDA website (Dupont 2014). The initial list only showed 2,641 households being eligible for a dwelling unit and space at the transit camp. This prompted a petition to be filed in the Delhi High Court by the *pradhans* with the help of the Kalakar Trust and the Hazard Center, an NGO that provides information on legal actions taken by the Government of India that affect EWS (P. Jha 2018).

The Delhi High Court dismissed the case but did order the expansion of eligibility for residents, with a new cutoff date in January 2015. The court also ruled that *jhuggi* dwellers should inspect the transit camp at Anandparbat and Raheja should make necessary expansions or accommodations as needed. Initially, DDA did comply with this order, expanding the cutoff date for eligibility to January 2015 and asking residents to fill an application form on the DDA website. DDA also extended applications to first floor *jhuggi* dwellers. Upon receipt of the applications, a total of 3,292 households were eligible for dwelling units and 771 households were found ineligible (Dupont 2014; *Kathputli Colony Redevelopment* 2018). Unfortunately, the new EWS colony's limit of 2,800 units prompted DDA to relocate the remaining 492 *jhuggi* dwellers to EWS flats in Narela, located about 30 kilometers north of Kathputli, moving them further from their original place of work and breaking their social ties. Ineligible residents were able to appeal their case and as of 2018, only fifty-one cases were successfully appealed.

The level of participation has been critiqued by scholars like Dupont, who stated that DDA's approach to community participation can be classified as 'tokenism' on Arnstein's Ladder (Figure 22), superficially listening to the populace with restrictive engagement. Dupont also notes the ineffectiveness of the NGOs with their own agenda and not building trust between them and the residents (Dupont 2014). Jha, on the other hand, notes the positives within the

² President's Rule was declared in Delhi in February 2014. Immediately after the declaration, notification was made that a list of those eligible would be posted on the DDA website.

community and the use of social capital through the *pradhans* to have DDA sit down with the members, and also the expansion of the number of eligible residents (P. Jha 2018).

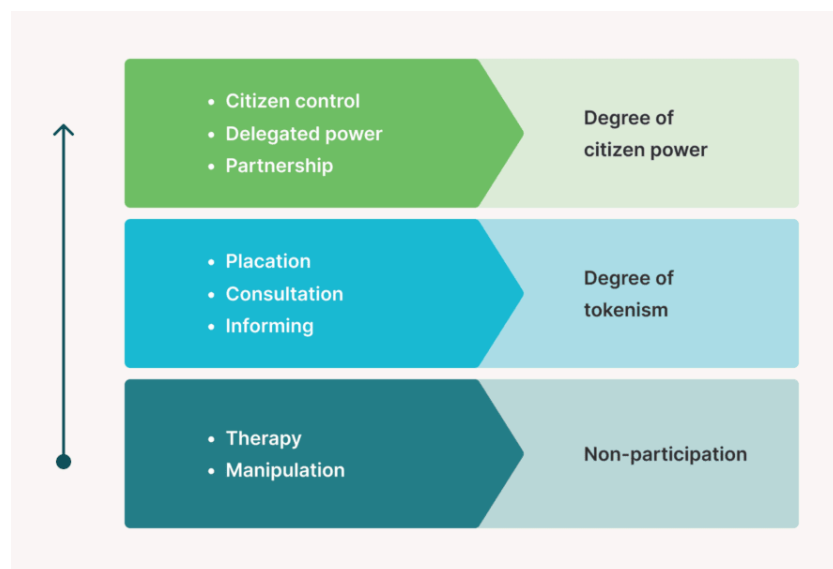


Figure 22: Sherry Arnstein, Arnstein's Ladder, Dupont Points to the DDA Efforts in Participation to That of Tokenism on the Ladder, 1969.

Anandparbat Transit Camp

After the bid was awarded to Raheja, DDA looked at several places for the transit camp, the first one being Delhi Cloth Mills in April 2010. This fell through due to local resistance from residents (Banda 2013a). Basai Darapur was also considered, located 3 kilometers from the colony, but was also met with resistance from local developers (Banda 2013a). A third site was considered in Jailorwala Bagh about 10 kilometers north of the colony, but failed to materialize due to opposition from a local MLA (Banda 2013a). In January 2011, three more sites were proposed, the Ghazipur Flyover, Sector 28 Rohini and Anandparbat. In March 2011, Anandparbat was selected for the site (Banda 2013a). The sites that were initially considered

were located at a great distance from Kathputli (Figure 23). Even with a two-year relocation, the initial sites suggested would have caused major damage to the economic and social ties that had been established in and around Kathputli. Overall the location of Anandparbat is a twenty-minute walk from the original colony and allows community members to be in relatively close proximity to their economic ties.



Figure 23: Nalin Chahal, Map Showing the Proposed Relocation of Jhuggi Dwellers from Kathputli, 2026.

The location of the camp at Anandparbat did face legal challenges by the East Patel Nagar RWA, who filed a petition with the Delhi High Court stating the use of the field for the camp would interfere with its current use for sports. The Delhi High Court dismissed this case

citing the camp would only be there for two years based on an agreement between DDA and Raheja to have the EWS site ready within two years of the residents moving to the transit camp (Banda 2013a). The delay for site selection had halted the progress for the development; furthermore, community resistance to move from the colony without a formal acknowledgement of which households would be eligible (Banda 2013a; Dupont 2014). The construction of the transit camp ended in March 2013 (Figure 24), but households did not move to the camp until February 2014 due to a petition that was filed by the *jhuggi* colony dwellers and the Delhi High Court order for the inspection and expansion of the camp, which ultimately did not take place (Dupont 2019).



Figure 24: Chalana and Rishi, Transit Camp at Anand Parbat Showing Prefab Dwelling Units, 2016.

By December 2014, the first eight hundred households were moved to the camp, primarily the poorer residents of Kathputli who lived in *kacha* housing and had sold most of their material possessions (including the construction materials they had used for their houses) at low costs before moving to the camp (Dupont 2019). Another batch of residents were relocated in December 2016 and the remaining 1,300 households moved in October 2017, when the site was finally razed by DDA and delivered to Raheja for development (Dupont 2019). This went against the court order and did not take into the account the wishes of the residents to move together to the transit camp.

The material and form of the transit camp has also been critiqued. The forms of the transit camp are long linear tenements, one to two stories in height, stacked tightly together with narrow interior alleys and wide streets (Figure 25). The tenements have a singular door and entrance with dwelling units stacked side by side, those which face wider streets are lucky to receive sunlight in the apartment. The interior tenement alleys are concrete alleys merely ten feet in width allowing little light into the space. Each tenement contains multiple 12 sqm dwelling units that hold one family. Each dwelling unit consists of one room, a ceiling fan, and an electrical outlet. Water and bathroom facilities provided by the Delhi Jal Board are shared amongst residents and are located on the larger street. The tenements are made from a prefabricated steel structure and gypsum board is used as sheathing for the dwelling units and metal sheets used for roofing. This brings into consideration the issue of thermal comfort within the dwelling units. Temperatures in Delhi in recent years have reached as high as 48°C in May and dropped to as low as 0°C in December. With only a thin sheet of gypsum protecting residents from the outside in winter, it has caused many to rely on open-air fires in the middle of winter,

creating fire and carbon monoxide poisoning hazards. Delhi has also struggled with poor air quality over the past decade, and the lack of ventilation can cause respiratory issues. While in the summer, many leave their doors and windows open, leading to issues in privacy. Dupont also notes the lack of privacy faced by women, having no separated private areas (Dupont and Gowda 2021).



Figure 25: Google Earth, Aerial View of Anandparbhat Transit Camp, 2025.

The tenements were to be occupied only for two years from the start of construction in 2017. In 2026, the transit camp marked nearly nine years of occupancy. When the camp was first occupied, it sat on 16.19 acres of land with 2,800 households (roughly 13,770 people). Once moved to the transit camp, it had about 850 persons per acre, which is lower than the density at Kathputli (about 1,202 persons per acre). However, an NGO estimated that approximately 21,500 people lived in the transit camp based on relief efforts for COVID provided in 2021 (Chitlangia 2021). This gives an estimate of 1,328 persons per acre now living in the transit camp, a considerably denser dwelling compared to Kathputli.

On a visit to the camp by the author in summer 2025, there had been a marked decline in conditions (Figure 26). The interior alleys were covered by tarps to shield against the high summer sun of Delhi. Many were using the space to hang clothes lines rather than spending time socializing in the interior alleys. At the camp entrance, some dwellers were selling items from their dwelling unit, turning their small unit into a corner shop. The gypsum board had noticeable cracks, and in some cases, holes about one to two feet in diameter. The steel structure was rusted and the paved road was deteriorated, with puddles filled by the monsoon rain. Sanitation conditions were also poor, with trash and sewage in the road. Many residents expressed frustration about this and the reduction in the number of communal toilets and baths, long wait times and the Delhi Jal Board reducing the number of tanks bringing water to the community. Dupont noted that the longevity of stay has created a ‘durable’ form of living for residents rather than the temporary nature it was designed for (Dupont 2019).



Figure 26: Nalin Chahal, Current Conditions at Anadparbat Transit Camp, a 'Durable Space,' 2025.

EWS Colony

"Nobody wants poor people to be their neighbors."

— Navin Raheja, Chairman and Managing Director, Raheja

The formal EWS colony being developed by Raheja, housing 2800 families, has also faced criticism due to numerous delays, its inability to provide adequate space for families in dwelling units, and the lack of space for promised facilities (Figure 27). Another issue is the site itself, concerning the land sale, the amount of land and the division of land. The DDA has been accused by the Aam Aadmi Party in March 2014 of selling the land at a reduced cost of ₹61.10

million. The Aam Aadmi Party maintains that the land value at the time of the deal was assessed to be ₹10 billion (P. Jha 2018). This claim is very likely politically motivated as the Aam Aadmi Party was targeting entities governed by the Congress Party during an election cycle in Delhi.



Figure 27: Nalin Chahal, Pragati Apartments under Construction at the Former Site of Kathputli, 2025.

An issue came up with land division when the sale took place in 2009. Raheja had planned to develop a commercial mall (known as the Delhi Mall, according to promotional material) and a luxury apartment tower called Navin Minar (previously known as Raheja

Phoenix) in its parcel (Banda 2013a; Dupont 2014). The land area given to Raheja was 35 percent of the 12.89 acres that was occupied by Kathputli, which is 4.39 acres of land. This leaves 8.48 acres of land for the new EWS Colony (known as Pragati Apartments as of December 2025). The division of land was made along a northwest-southeast line, with the land facing Patel road, a prominent main road, given to Raheja for their development. A small side road, located in the northeast corner of the land, provides the EWS colony access to the main road. Plans filed by Raheja show no additional entrance into the colony, leading to questions of safety.

The land area allotted to the EWS colony has also come into question, with discrepancy in the planned size and the DDA's own guidelines for the density of space. According to the MPD-21, the DDA has specified that 243 families can occupy a space of 1 acre (ritimo 2014; DDA 2007). With 8.48 acres allotted, the amount of people according to the guidelines that can occupy the space is about 2060 households, which is 740 households fewer than what the space is occupied by. To accommodate these families, building taller has been the solution, resulting in the 15 story colony, made of aluminum-formed concrete. As the population of the transit camp has grown, a new question arises: How will the new dwelling handle the inevitable population growth?

The 30 sqm dwelling units are a considerable upgrade from the conditions of the transit camp, giving each family a bedroom, bathroom, kitchen, living room, and small terrace (Figure 28) (*Kathputli Colony Redevelopment* 2018). With the expected 4.5 persons per household, the dwelling unit does not offer much in terms of privacy. The restrictions in the formal unit also brings into question storage and economic work. Most of the work done by the artisan community in Kathputli revolves around a workshop, which cannot be accommodated in the

space provided. The use of concrete also restricts modification in the apartment due to concerns with structural integrity. The dwelling units are positioned in a double-loaded corridor in a central spine and branches, moving north and south depending on the boundary of the plot. The ends of the corridor of the branches do not play host to a stairwell and are located in the central spine, a potential safety issue as residents in an emergency will have to cover a large distance to leave the building. Elevators are present in the central spine located at the base of each branch. The branches from the central spine form courtyards in the middle where additional facilities for the community lie. During the deal for development, DDA made considerable concessions on the space for the community with a reduction in footprint for the facilities, going against its own guidelines laid out in the MPD-21 (Figure 29) (ritimo 2014). The primary and secondary schools which require a suggested 2,000 sqm and 6,000 sqm respectively have been reduced, by a factor of ten, to 200 sqm and 600 sqm respectively. The community hall, local market, and vendors' space, which together are outlined to have 6,000 sqm, have been given 1,000 sqm. The park and children's playground, which are suggested to have 20,000 sqm, have been brought down to 800 sqm. Similarly, the water reservoir and health centre, suggested to have 3,000 sqm, have been cut down to 1,000 sqm. The fear with this new development is based on what was seen in Mumbai's SRA Scheme, which created vertical slums, broke kinship networks, and provided inconsistent basic services to the families living in these spaces (R. Jha 2023; O'Hare et al. 1998).

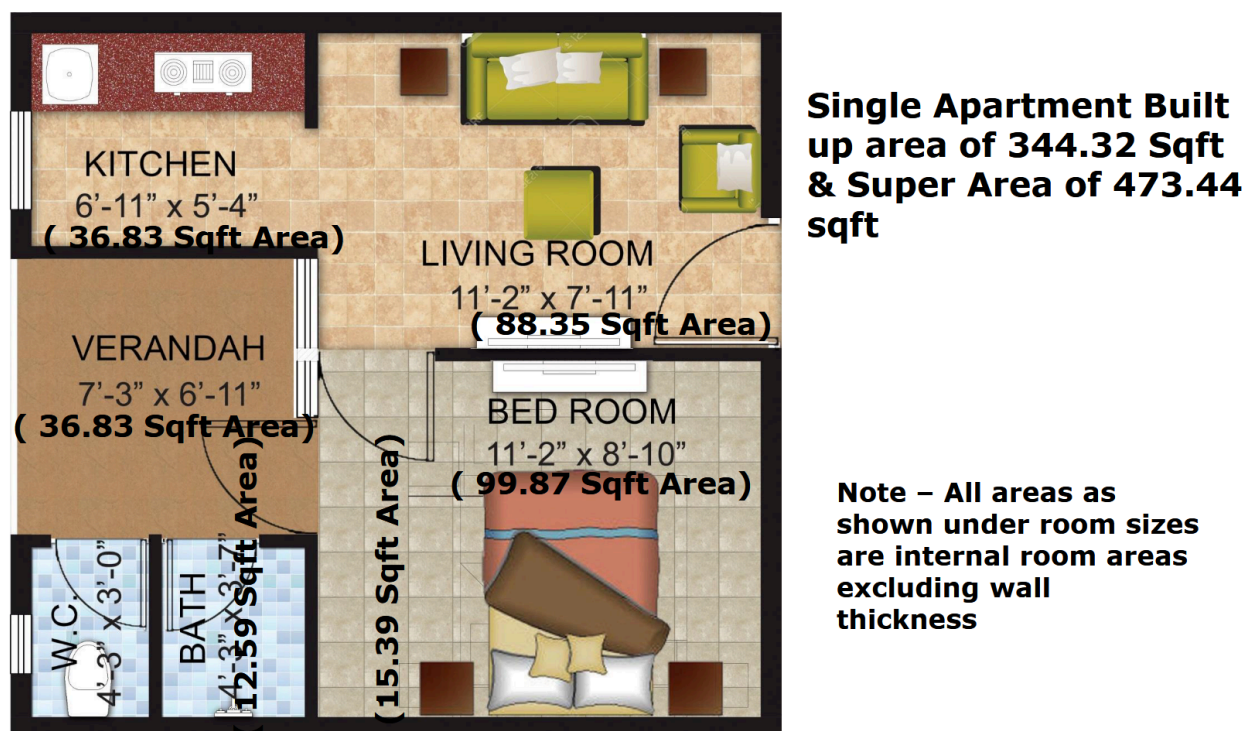


Figure 28: DDA, Pragati Apartment Typical Apartment floor plan, 2018.

	MPD-21 Space Requirements	DDA Proposal
Primary and Secondary schools	8,000 sqm	800 sqm
Community hall, local market, and vendors' space	6,000 sqm	1,000 sqm
Park and Children's playground	20,000 sqm	800 sqm
Water reservoir and health centre	3,000 sqm	1,000 sqm

Figure 29: Nalin Chahal, Concessions on the space for amenities and services at Pragati Apartments made by DDA, 2026.

The progress on the EWS colony has been slow, with satellite imagery showing four branches still being constructed as of May 2025 (Figure 30). A visit to the development showed that windows had been installed as of August 2025. The government expects the apartments to be occupied by June 2026, with a partial move in December 2025 according to news articles, though it has not been confirmed whether these moves have taken place. Raheja as a developer has also been brought into question, as it faces insolvency on failure to deliver Krishna Housing Scheme (a low-income housing scheme initiated by the government of Haryana) in Gurgaon, as of August 2025. On the other hand, development of the Navin Minar and Delhi Mall has progressed significantly, with most of the structure completed for the luxury tower. Raheja has also started to promote the sale of the Navin Minar with three to eight BHK apartments being sold at ₹2,800–3,000 per sqm as of February 2026 and boasting considerable amenities and lush green spaces (“Raheja,” n.d.).



Figure 30: Google Earth, Current Construction Progress of the In-Situ Project at Kathputli, 2025.

Vignettes

As part of the thesis, research was conducted into numerous redevelopment projects that centered around slums. The objective was to explore and gauge different aspects of the design, community participation and ownership and in turn extract lessons for alternative approaches to redevelopment within the context of Delhi. Initially, eight projects were selected that explored different realms of ownership and design. A comparative study was done on three projects. These vignettes were selected as they showcase these different relationships in contrast to DDA's current approach that prioritizes exchange value, modern efficiency, and aesthetics.

Based on the study of Kathputli, the vignettes were chosen to focus on the critical areas where DDA was lacking. These areas include its architectural and urban form; lack of urban, social, and economic engagement; and prioritizing efficiency that was seen previously in Kathputli. The use of concrete in Kathputli's new tenements also prompted an exploration into alternative materials that may be used by residents to construct their spaces. The modern material of concrete is quite costly and requires specialized equipment, which makes it important to consider the rationale behind material choices and how materials may be afforded by participants. Community land trusts (CLTs) were also explored as an alternative to the traditional leasehold model used by DDA and its approach to slum redevelopment and ownership over property. Community participation also was critical to the selection of these vignettes, as DDA's surveys and community engagement in Kathputli proved to be lacking. The projects explored are in the Global South or their periphery, allowing for a comparative study of projects that share a similar global context with Delhi.

Aranya Low-Cost Housing Scheme (Indore, India)

The design of New Delhi was prescribed from a bird's eye view, where Lutyens and Baker looked at an 'untouched' piece of land in order to define the visual character of the British Raj's capital. Similarly, Le Corbusier's approach in Chandigarh identified an idealized version of the 'Indian village,' informed by passive observation. By the 1960s, new approaches were being developed that focused on cultural and climatic conditions of the spaces that they inhabited. These approaches are incremental and put the emphasis on the resident to take charge of the design in order to support their own social interaction. This can be seen in projects like Charles Correa's Belapur Housing in Navi Mumbai, which explored the Indian traditional urban syntax through modern design. The project organizes space through a hierarchy that extends from the individual dwelling to community courtyards and finally to a larger public maidan. This gradation of spaces not only supports daily social interaction but also reinforces a layered sense of community belonging. In the 2000s, architecture firm Elemental took a similar approach in its design of Quinta Monroy project in Iquique, Chile, reinterpreting incremental housing for a Latin American setting. Their incremental design approach focused on the urban and historical traditions it was situated in, allowing the user freedom in defining their spaces, growing with time, social and economic conditions.

A notable example of the incremental approach is Aranya Low Cost Housing Scheme (Aranya) in Indore, India designed by Balkrishan Doshi. Indore grew from a riverside market village into a compact princely town structured around Rajwada Palace, temple precincts, and tightly knit bazaars, with dense mixed-use streets radiating from the old core. Its urban form under the rule of the Holkars layered courtyard houses, temples, and palatial complexes with early planned roads and markets, then expanded along new transport corridors—especially the

railway from the late nineteenth century—into peripheral residential and industrial quarters. By the early 1980s, the city had outgrown its walled, historic nucleus, with gridded extensions, industrial estates, and new housing colonies encircling the older fabric, producing a legible contrast between the congested, fine-grained core and more spacious, planned post-independence neighborhoods.

The Aranya project was initiated in 1983 by the Indore Development Authority (IDA) in response to a housing shortage faced by the city. The growth of *jhuggi* colonies in the city prompted the creation of a new housing development on its outskirts to house the approximately 51,000 people that were experiencing homelessness or living in slums at the time (Kapur and Kumar 2025). The project was to include a resettlement colony for the EWS along with housing for low- and middle-income groups. It was a sites-and-services project that received funding from the World Bank. Additionally, the inclusion of high- and middle-income plots in the settlement would provide funding for a loan subsidy scheme for low-income and EWS members to fund the construction of their homes.

The site for the development was located north of Indore's city center, in rural farmland (Figure 31), along the large arterial AB Road, which provides direct access to the center within 15 minutes by car. To the north, south and west are smaller two-way traffic roads (Figure 32). The project was to contain 6,500 dwelling units on 210 acres of land. The site's topography is characterized by a gentle slope and natural undulations that played a critical role in determining the layout of roads, drainage systems and other infrastructure within the colony (Kapur and Kumar 2025; Architecture 2022). A challenge faced by the architects at the time was the black alluvial soil, which proved to be problematic and required structural concrete piles to stabilize the buildings.

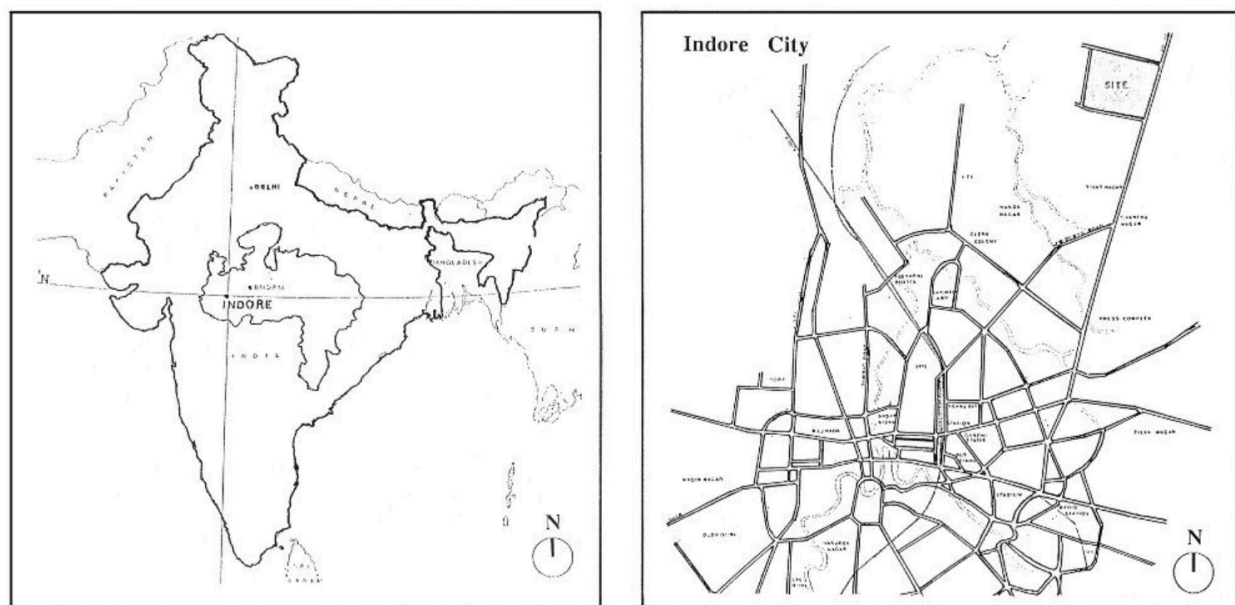


Figure 31: Vastu Shilpa Consultants, Location of Aranya in Indore, n.d.

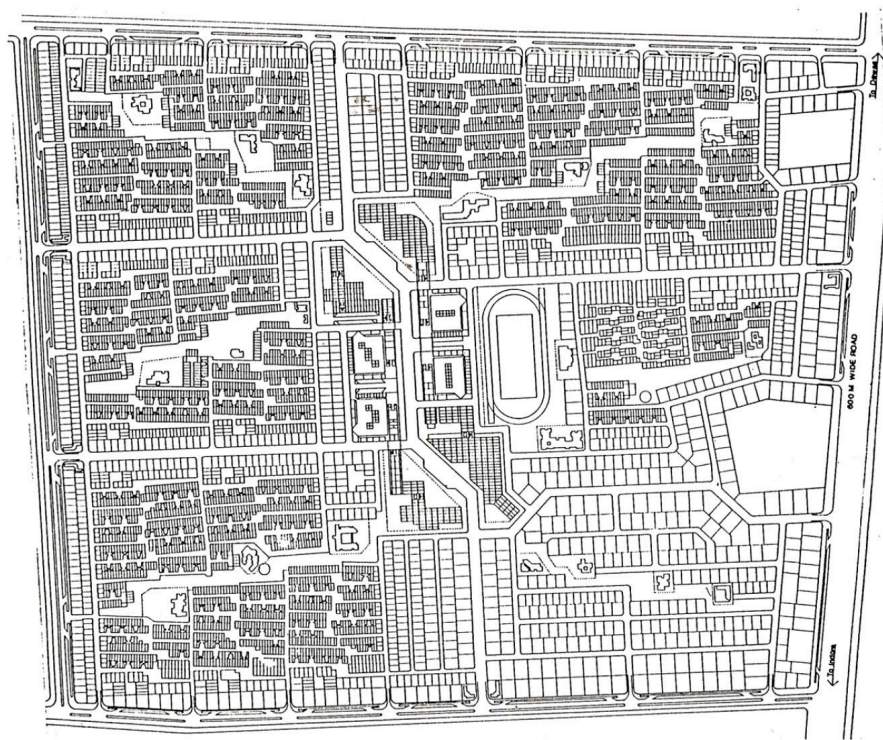


Figure 32: Vastu Shilpa Consultants, Master Plan of Aranya Low Cost Housing, 1989.

IDA's former sites-and-services scheme consisted of a gridded system with concentration of parks and community services in the middle, similar to DDA's plans. Doshi's concept for the urban form rested on three main design components: incremental housing, preservation of livelihood, and social space hierarchy. Through observation of informal settlements in and around India, Doshi's proposal aimed to maintain and form new kinship ties that occur with the informal development of space. Through the development of their own houses, with variations, they would be able to recreate their kinship ties, adjusting to their needs at the time (Figure 33) (Architecture 2022). Tenure over basic utilities was also important, since the predominant approach of sites-and-services schemes was to group community services and utilities, such as water pumps, bathrooms and sewerage to save cost. The individualization of these services to each plot gave greater ownership and freedom on how utilities would be used, cutting down waiting times at communal hand pumps or bathrooms.

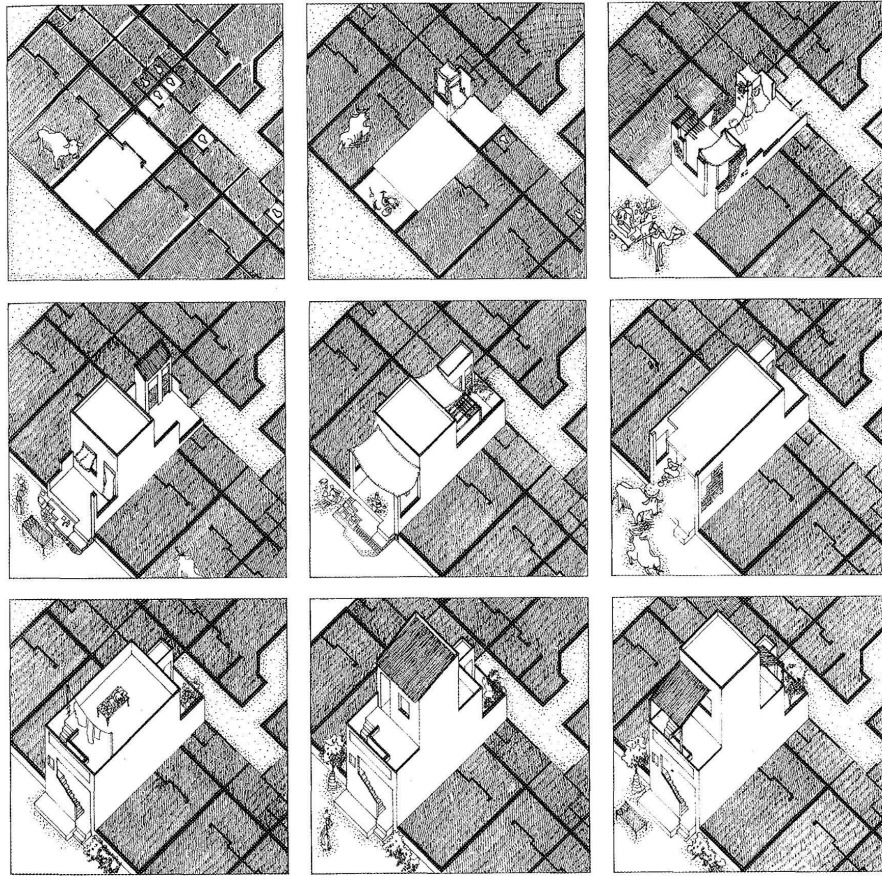


Figure 33: Vastu Shilpa Architects, Evolution and Growth of a House at Aranya, n.d.

Second was the preservation of livelihood and informal economies. The incremental housing would aim to provide flexibility on the layout of homes, changing according to the informal economic work that is done by many living in *jhuggis*. This would allow them to continue their work and with a secure leasehold and they could aim to move their livelihood from the informal to the formal (Kapur and Kumar 2025).

Third, to help facilitate this, great emphasis was put on the human scale and hierarchy within planning, dividing streets and public spaces into 4 levels: township, sector, street and dwelling (Figure 34). At the township level, the main feature was the thoroughfare between the new north-south road, acting as a main arterial road primarily for cars and motorcycles. This

road would also house the main commercial area, with offices and large community spaces such as an amphitheater and sports field. The thoroughfare was also designed with slight kinks to help reduce the speed of motorists. Smaller streets lead away from the main road towards the corner of the site, forming the main circulation at the sector level. These were periodically interrupted by large open spaces, which included additional community spaces and smaller markets. Smaller streets lined with small business would lead into clustered housing that would form around a semi-private shared courtyard that interacted with differently configured dwellings (Figure 36). The hierarchy in levels allowed for varied forms of social spaces that facilitated different types of interactions. The focus on pedestrianization heading towards the dwelling unit emphasized human scale and kept a passive form of security through the 'eyes on the street' concept by Jane Jacobs. Streets had slight variations while keeping a planned hierarchy opening up to public spaces that would get smaller and more private as one moved away from the main town center to the dwelling, aiming to maintain the urban spatial syntax of Indian *muhallas*.

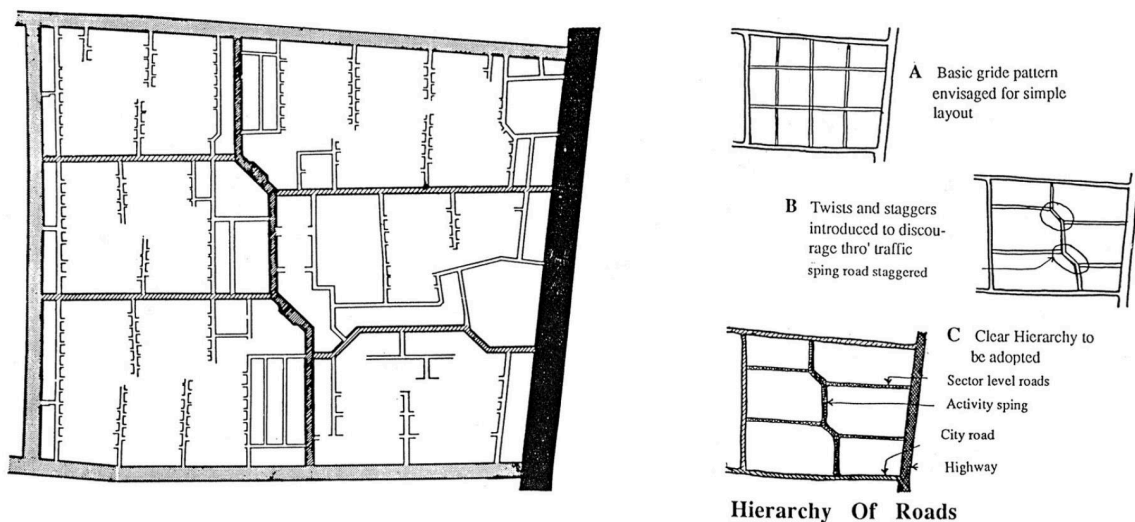


Figure 34: Vastu Shilpa Consultants, *Hierarchy of Roads and Access at Aranya, n.d.*

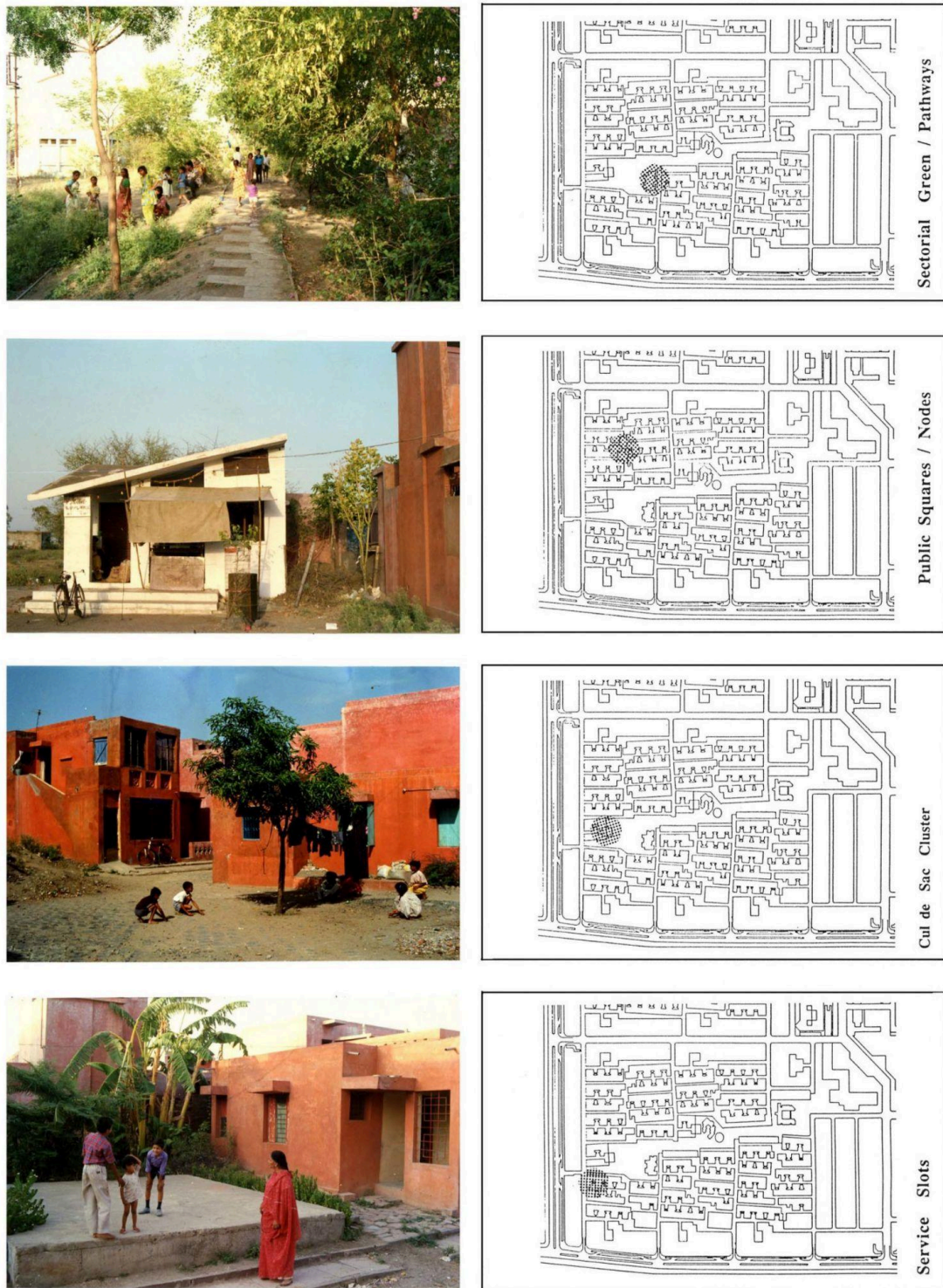


Figure 35: Vastu Shilpa Consultants, Different Configurations of Dwellings Creating Different Social Spaces, n.d.

The dwelling itself consisted of just a plinth with concrete piles that would allow for the construction of a ground floor and two additional stories, and an enclosed service core which included a toilet and kitchen (Figure 36). The service cores were kept to the back of the plot, aiming to maintain the Indian vernacular and reduce the number of connections to the sewage line. The clustering of the units around a shared courtyard allowed for multiple drainage lines to connect to a single, larger manhole (Figure 37) (Architecture 2022). This also kept sewerage lines to every other street, reducing excavation and material costs.

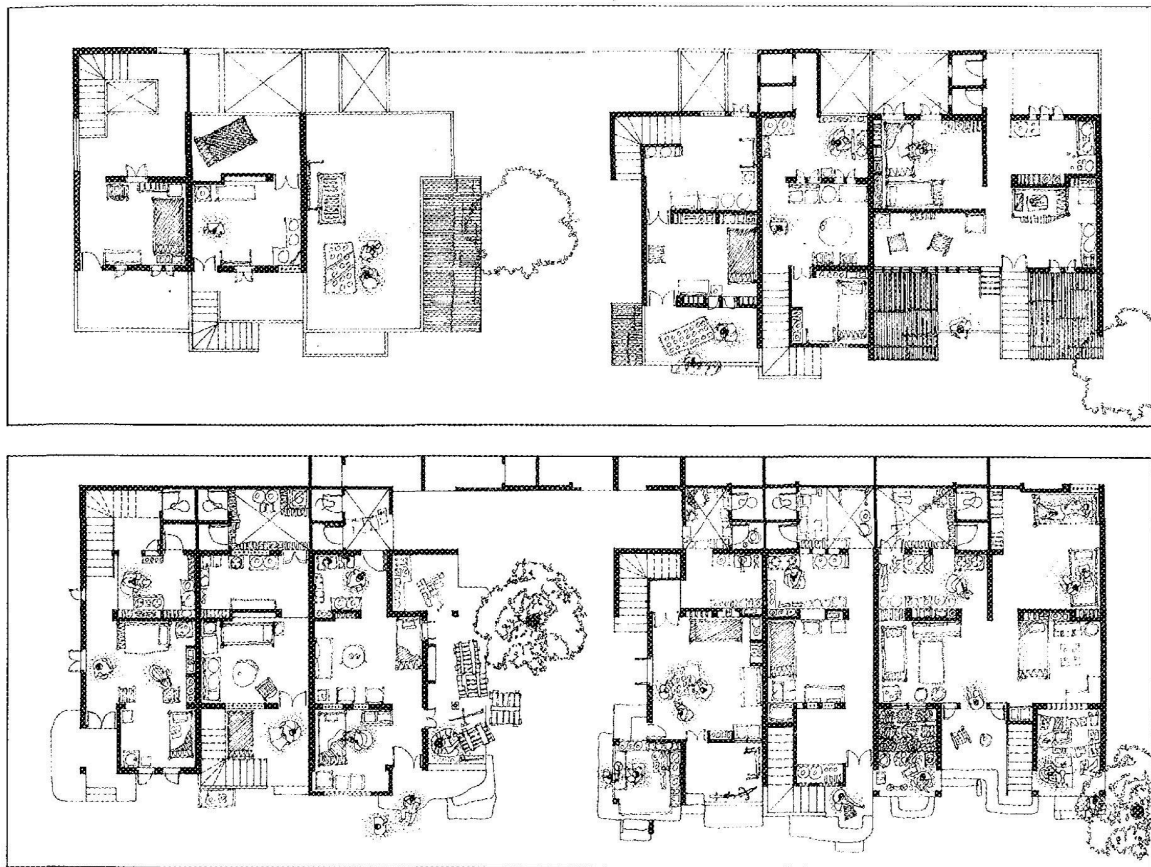


Figure 36: Vastu Shilpa Consultants, Plan of Proposed Cluster with Shared Courtyard and Interacting with the Pedestrianized Street, n.d.

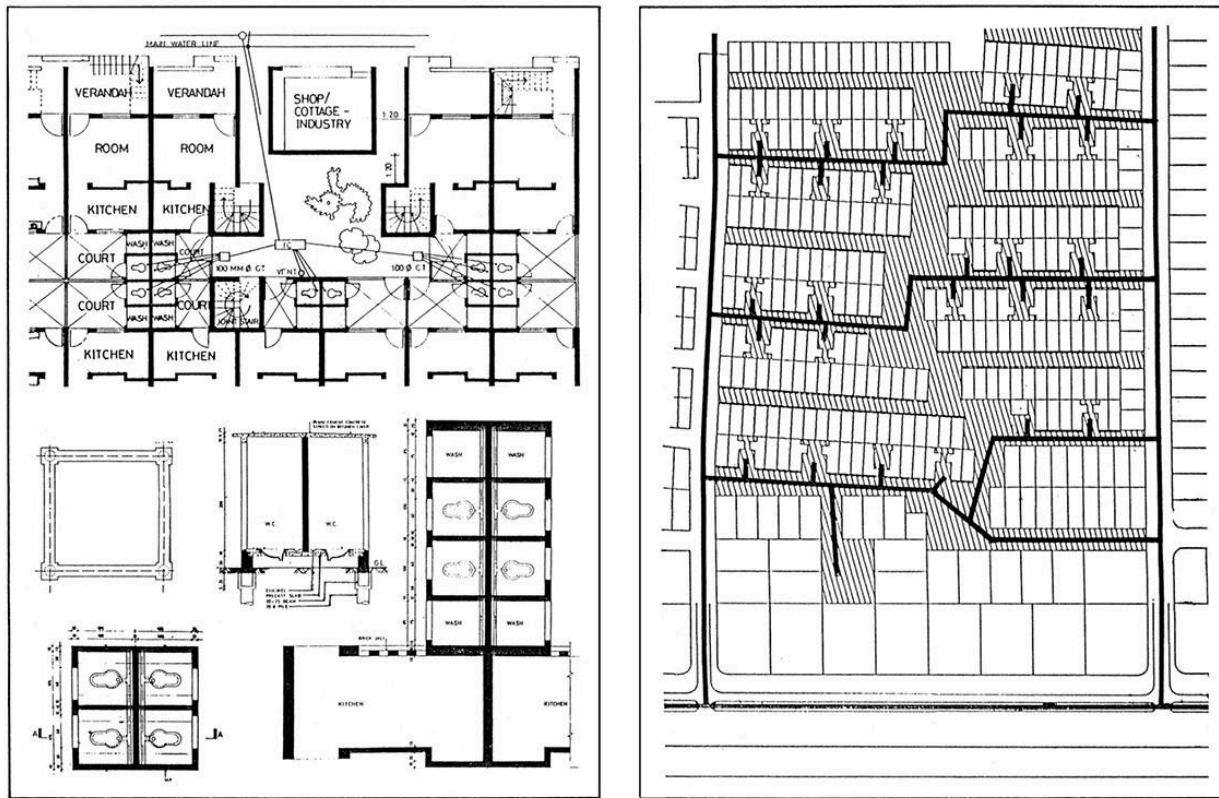


Figure 37: Vastu Shilpa Consultants, Shared Courtyard and Shared Drainage Connection among Clustered Houses and Drainage Plan, 1989.

The proposal also included material banks, where materials could be purchased by plot holders and receive support from local cooperatives that would manage and help in the expansion of the incremental homes (Kapur and Kumar 2025). This was supplemented by Doshi's suggestions on how the dwelling may expand, giving details on different forms of window details, stair configurations and room expansion. This culminated in eighty demonstration homes that showcased the clustering of plots and suggested how incremental housing may develop to its full capacity (Kapur and Kumar 2025).

The incremental housing allowed for flexibility in design and tailored spaces for each individual. Their homes could now double up as a workspace, saving them economic overhead of commuting, childcare and rent. Home industries such as garments and textiles, carpentry, and retail shops could be run from the same space as residential spaces. This flexibility allowed for the preservation of their livelihoods and facilitated their businesses to be more economically self-reliant. It also made more capital available for the expansion of their homes. The hierarchical planning made efficient use of space, the varying degrees of large and small open spaces prompted social interaction at all levels. Shared streets and courtyards with ample trees allowed for great thermal comfort and promoted wellbeing. Water and waste management systems were effectively implemented, minimizing resource consumption and allowing for greater spending in other areas of the design (Kapur and Kumar 2025).

The project was initially celebrated as an exemplar of participatory and incremental development, but has faced numerous challenges since it was built. One of the major difficulties has been maintaining uniformity and quality in incremental upgrades. As households expanded or modified their homes based on individual resources, disparities emerged in terms of what materials were used and how many floors were constructed. This uneven growth highlighted deeper income inequalities among residents, undermining the original vision of equitable community development (Kapur and Kumar 2025).

Financial and organizational hurdles further complicated the process. The failure to effectively implement material banks and cooperatives meant residents lacked access to affordable construction materials and credit, delaying incremental improvements. This limited financial capacity also forced many EWS owners to sell their plots due to the burden of maintenance and lease payments. This pattern would repeat; plots would change hands multiple

times, changing the socioeconomic composition of the settlement and weakening its commitment to affordability.³

Urban growth introduced additional pressures. As Indore expanded and liberalization reshaped land markets, Aranya, once on the periphery, became part of the urban core. This shift spurred land speculation, raising property values and pricing out lower-income groups. Moreover, overcrowding developed in certain clusters due to population growth, while green and open spaces were encroached upon as residents expanded beyond their allotted boundaries. The deterioration of public infrastructure, exacerbated by insufficient funding for maintenance, further strained living conditions.

At a broader scale, the replication of Aranya's model in other cities ran into political and administrative barriers. The large area required for such developments did not suit the dense urban contexts of metropolises like Delhi and Mumbai, limiting adoption. Additionally, little institutional support was available to help residents' small-scale enterprises grow into sustainable industries, curbing the project's potential for economic upliftment. Collectively, these issues reveal the complex intersection of design ambition, governance limitations, urban development, and socio-economic dynamics that shape the long-term success of inclusive housing initiatives.

Aranya, as a sites-and-services project, has been successful in celebrating the individual in spaces and providing basic necessities. The hierarchy in Aranya allows for a human-centered approach to design, focusing on the small everyday interaction and how that may be configured within the larger whole through multiple connections. The frameworks of housing give subtle nods to individuals on what may be possible and can be expanded on. A revisit to Aranya by Vastu Shilpa Consultants⁴, found the building height increased by an additional one to two

³ Interview with Rajeev Kathpalia, Principal of Vastu Shilpa Consultants.

⁴ Doshi's architecture and urban planning firm.

stories, and owners had found creative solutions to add more floors even with the structural limitation of the concrete piles. The integration of low- and high-income plots allows for more frequent interaction across classes, and the use of proceeds from high-income plot sales to facilitate loans helped community members realize their spaces. Individualization of services helps inhabitants effectively use their time and have a sense of agency. The preservation of livelihood encourages the informal economic modes to become part of the formal economy.

Anandgram (New Delhi, India)

The study of Aranya shows that the architect is still in control of the design process, claiming to know what is best for the user and being acknowledged as a master of designing space. Though the architect as a singular force skews perspectives and has different priorities that reflect economic efficiency, functionality or experience. As seen in the Kathputli case study, the new dwelling units and transit camp have been made to prioritize efficiency, stacking as many dwelling units as possible, and using cheap, readily-available materials and methods of construction. In contrast the URBZ architecture group has taken on the role of facilitator, acting as a tool for the community living in Mumbai's Dharavi slum. Their approach prioritizes working within the existing fabric of Dharavi, making surgical architectural decisions to preserve and enhance the innate qualities of the informal settlements. They engaged local contractors from Dharavi to help understand and facilitate the upgradation of their spaces. They asked local artisans to describe their living and working spaces with their craft. They were then able to implement designs that aided community members, challenged the narrative of formality and idealization of the architect, and allowed the inhabitant to dictate the terms rather than the architect.

Similarly, Estudio Cruz + Forman have also replicated the idea of community participation within a more formal structure along the Tijuana/San Diego border with the Santuario Frontera immigrant housing project. The project is a base structure made of steel and masonry, inspired by the informal communities near the US-Mexico border. The space provides housing, workspaces, and medical facilities for incoming migrants. The workspaces aimed to build on economic skills, making components for the structure they lived in before moving to more permanent housing. The projects and materials used in the workspace focus on helping expand the base structure, adding personality and craftsmanship to the structure through the people that inhabit it temporarily. In these projects, the integration of other perspectives, especially of inhabitants, through surveys and design workshops is an approach that is not often taken, especially for slum rehabilitation.

An approach that is engaged and considerate of residents' way of life was the initial proposal for the development of Kathputli. In 1979, the colony was relatively small, hosting about 400 families over 16 acres, compared to its present population density. Efforts of the Bhule Bisre Kalakar Trust, founded by Rajeev Sethi through his organization Sarthi, helped artisans and puppeteers receive considerable attention and care. However they still lived in *jhuggis* made of found materials reminiscent of their nomadic vernacular (Figure 41). To expand on the care, Sethi was determined to make Kathputli a permanent settlement that catered to these artisans. The initial phase of design took place between 1979 and 1983, and focused on puppeteers and artisans that had first settled in Kathputli, as they were the only inhabitants on DDA-owned land. Sethi had received ₹4 million in funding for the project through the Times of India Foundation and Vastu Shilpa Foundation (Sandal 1985; Dubey 2016). He initially asked Egyptian Architect Hassan Fathy to work on a proposal for the colony, aiming at an affordable and efficient mode of

dwelling, one that could also be used as a case for future developments by the DDA (Dubey 2016). Unfortunately, residents had rejected the proposal, citing a lack of input from the community in the design process. This prompted Sethi to reach out to Revathi Kamath, an Indian architect who primarily worked with mud as a medium.



Figure 41: Kamath Design Studio, Kathputli, 1989.

Anandgram (Figure 42), proposed by Kamath, centered on collaboration with inhabitants. It aimed to provide a new township that centered around the daily routine of inhabitants and functions within the city of Delhi. The design focused on daily activity and integrated residents

into the design process. It created specific spaces for residents that adapted to their needs as craftsmen and artisans. Kamath leveraged their craft skills to prompt inhabitants to create models and diagrams of their ideal space and home, describing the living conditions and challenges they might face. She also aimed to use mud as the main structural material. This provides a deeper connection to the dwelling through repair and care, one that the inhabitants could employ their skills as craftsmen to repair, expand and change, providing flexibility in design (Figure 43). Kamath also spent time with each community member, observing patterns in their ritual habits of cooking, sleeping, working and praying. These surveys and workshops were conducted with the help of Sarthi and the Kalakar Trust.

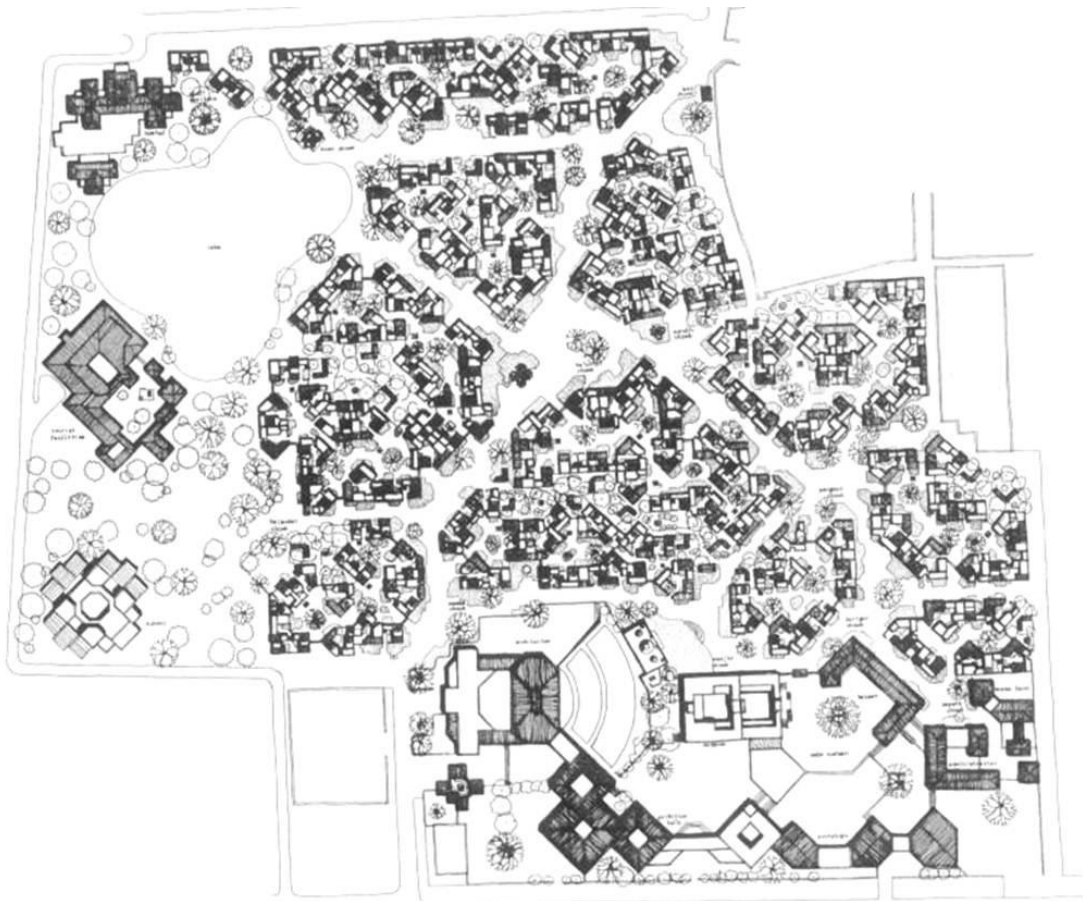


Figure 42: Kamath Design Studio, Master Plan of Anandgram, 1983.

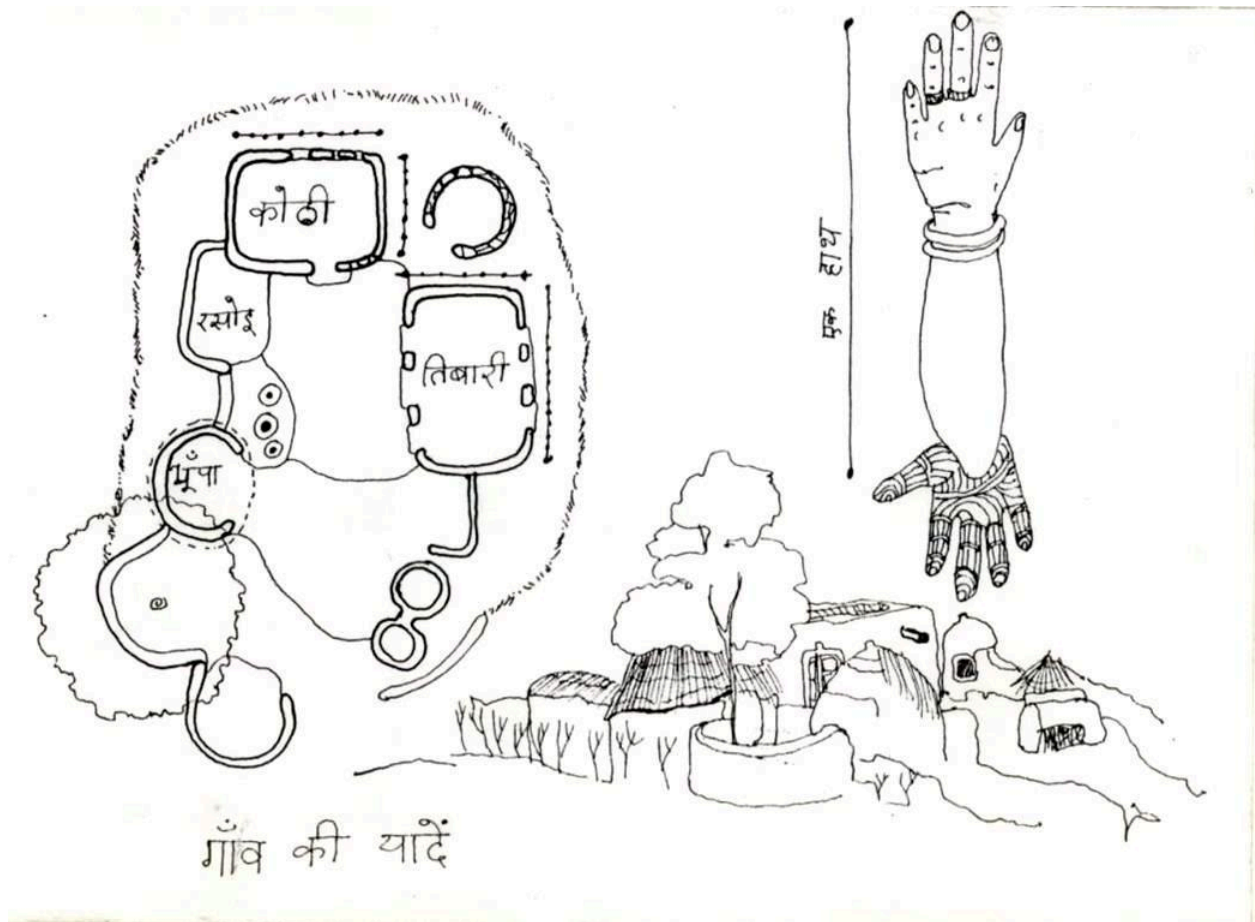


Figure 43: Kamath Design Studio, Diagram Illustrating the Use of the Length of an Arm to Size and Construct New Mud Structures at Kathputli, 1983.

The resulting spaces revolve around nature and communal courtyards, evoking the Indian village. Kamath arranged three to four low-lying ground floor dwelling units into small clusters around a communal courtyard (Figure 44). The units were assigned according to residents' familial connections and the villages from which they came from, seeking to preserve the kinship ties rooted in their shared history. The small clusters were then grouped together to form neighborhood clusters of eighty to a hundred dwelling units that grouped them according to

artistry and associations, strengthening economic ties in the community. The core of the dwelling unit was the courtyard, with the rooms and services forming around it, communal toilets were placed on the outskirts of the dwelling space, including a separate private area for women (Figure 45) (Dubey 2016; University of California, Berkeley, n.d.). The dwelling units for nuclear families were 32 sqm and 46 sqm for joint families (University of California, Berkeley, n.d.) The project also consisted of a community center, exhibition center, school, medical facilities, and tourist center.

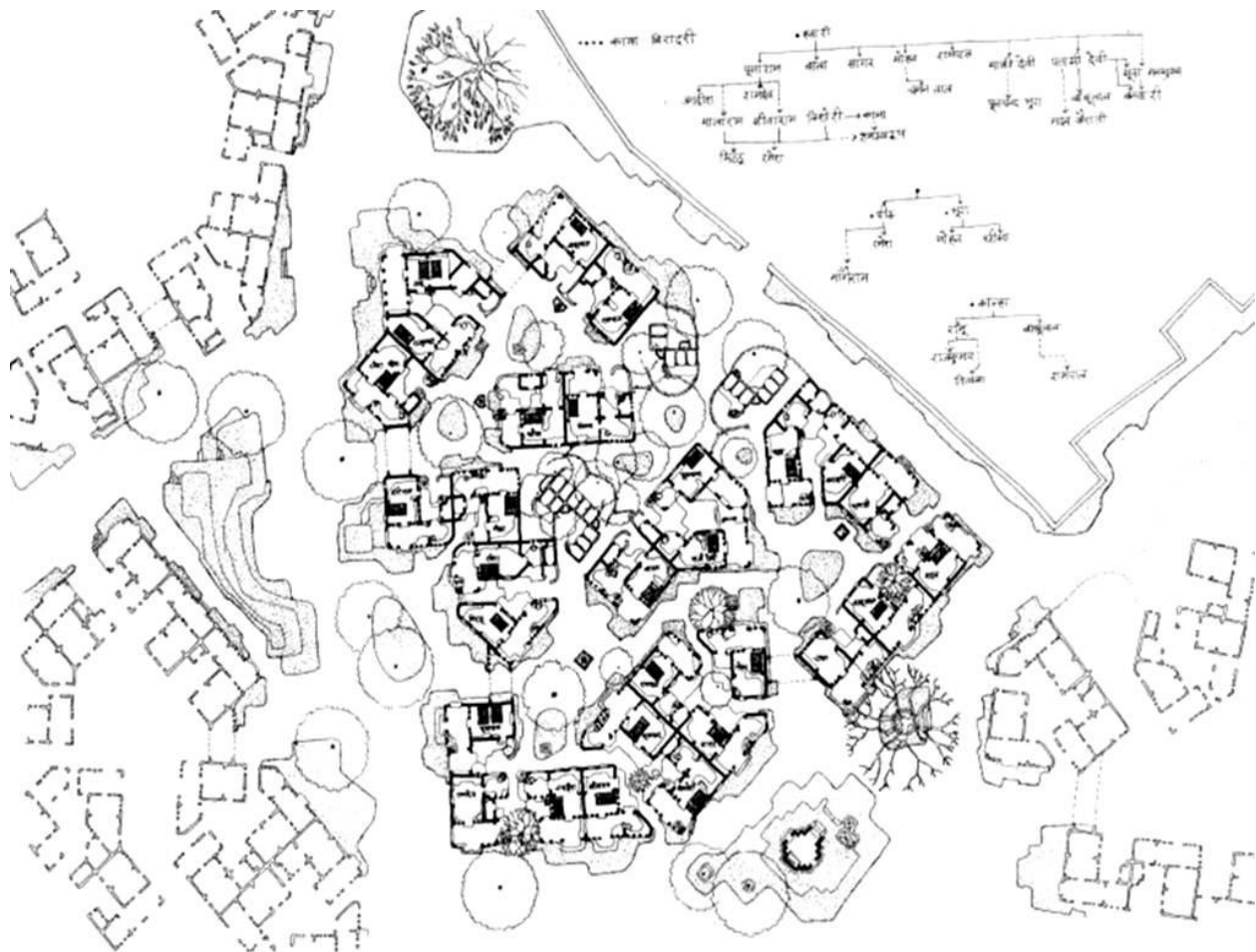


Figure 44: Kamath Design Studio, Clustered Housing of Fully Evolved Homes at Anadgram, 1983.

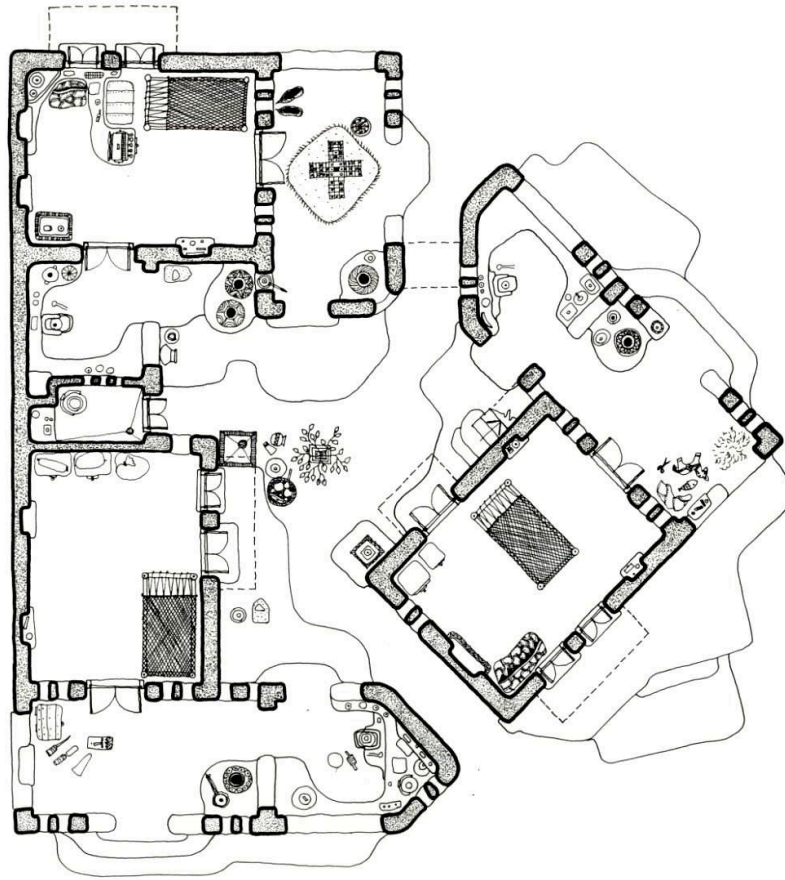


Figure 45: Kamath Design Studio, Dwelling Units Created around a Courtyard and Tree at Anandgram, n.d.

The use of ethnographic interviews and cultural observations helped bring multiple perspectives into the design process. The role of architect—especially in such a large plan—was to provide individual attention to the needs of community members. The community had a part in the formation of the dwellings; they knew their habits of working, sleeping, eating, and socializing the best. This also helped maintain kinship and economic ties, direct observation had allowed social elements to be replicated from an informal setting to a formal one. Through the

cooperative, they had begun to formalize their craftsmanship, and with the inclusion of the exhibition center, school and tourist center, they would be able to further formalize and legitimize their cottage industry and preserve their culture. The use of mud as the main material was an affordable choice as it was readily available and already part of the community's vernacular in their *jhuggi* structures.

Anandgram faced many political and bureaucratic challenges, causing it to be left as design on paper. After 1983, the expansion of the population beyond artisans, prompted the MLA of Shadipur to demand plans be changed to include the new community members. This received considerable pushback from Rajeev Sethi and Pupul Jayakar, who founded the National Handicrafts Museum and was a close friend of Rajeev Gandhi, then Prime Minister of India. The exclusivity of the project led to a rift between the artists and puppeteers and the new members. Services provided to artists by the Kalakar Trust in the community did not extend to other community members (Dubey 2016). This led to the creation of *muhallas* within the Kathpulti community, fracturing the community along ethnic and caste lines.

DDA also rejected the Anandgram proposal, saying the extent of the project covered a much larger area than originally intended, and the plans did not conform to the standards of the Master Plan. The use of mud as a building material also deterred DDA, as it would require regular maintenance and conflicted with the idea of the 'world-class city' that it wanted to achieve. The location of the colony was also too valuable to DDA, as the return on the speculative value of the land would be greater if developed into apartments for higher income groups.

The scope of the project was limited, with no clear view on how the community would expand with the addition of new members, and population growth within the community. The

space required was generous and preserved the socio-economic relationships that had been formed, transferring them to a formal state. However, this did not allow for the growth of the permanent or *pucca* structure, relying on the development of the community to stagnate to a form of novelty, one to be looked at from an exterior lens. Kamath's proposal for Anandgram also did not set up a system for how the community may expand, the antagonism toward new, non-artisan members by the Kalakar Trust and Sarthi led to an exclusionary attitude and the home and larger community being frozen in its development. The Kalakar Trust and Sarthi were also not made up of community members, and thus its further development would not represent the community and its future would be very much up to the NGOs. The proposal also didn't address tenure, whether it would follow DDA's lease-holding policy and how it would look when *jhuggi* dwellers moved out of the community.

Anandgram's use of participation, ethnographic interview and surveys allowed for a thoughtful and tailored approach to homes for the community. This deepened the sense of ownership amongst members and allowed them to have a say in a more formal way. The engagement of the community and the bottom-up design approach aimed to preserve social ties, with careful consideration and care to the community it sought to serve.

Bang Bua Canal Project (Bangkok, Thailand)

Another design approach that is worth considering is the community land trust (CLT). Community members drive the CLT, with limited input from the state, engaging the architect only when a common design idea is solidified. This approach brings the community and State facilitators into direct contact with each other and also procures tenure for residents. Tenure of land through CLT does not individualize ownership of property; it brings ownership from the

house level to the neighborhood level. CLTs also have more say in the entire design process, through a collective voice that is done through a direct democracy rather than a representative democracy as was seen in Anandgram. The Caño Martín Peña CLT in San Juan, Puerto Rico, is an example of community-led planning and anti-displacement strategy. Located along the Martín Peña Channel, the area developed from informal settlements established in the 1930s into a dense community of 15,000 to 25,000 residents by the early 2000s (US EPA 2015b; Caño Martín Peña Ecosystem Restoration Project Draft Feasibility Report 2015). Decades of unregulated land filling, dumping, and informal construction severely degraded the channel, leading to flooding, sewage overflows, and public health risks (US EPA 2015a). The approach implemented by the State authority was to establish a community land trust. The government formed the Corporación del Proyecto ENLACE del Caño Martín Peña, or ENLACE Corporation, to help facilitate a CLT that engaged local community groups and residents directly. Around 200 acres of public land were transferred into the trust to be held in perpetuity, while residents received surface rights to their homes (J. E. Davis et al., n.d.; Arnold and Varnai, n.d.). The planning process was highly participatory, involving over seven hundred meetings, workshops, and mapping sessions that informed the Comprehensive Development and Land Use Plan approved in 2007 (J. E. Davis et al., n.d.). Governed by a board comprising residents, community organizations, and technical advisors. The CLT structure ensures community control, prevents land speculation, and integrates housing, infrastructure, and environmental restoration into a unified framework.

In the Baan Mankong (BMK) Slum Upgradation project, headed by the Community Organization Development Initiative (CODI), informal settlements were targeted for upgradation by the government of Thailand. The initiative focuses on providing a framework for informal settlements around Thailand with the aim to provide tenure, formal housing through access to

subsidies and loans, and development of neighborhood and housing through community led design workshops. Prior to this initiative, the state's response had oscillated between neglect and eviction threats tied to flood-control and road infrastructure, with little integration between housing, environmental management, and community development (Hunter 2011).

The pilot project proposed by CODI for this initiative targeted informal settlements along the Bang Bua Canal, a waterway located in Northern Bangkok, Thailand (Figure 47). These settlements hovered over the polluted drainage canal and were defined by dense, self-built housing on stilts, connected through plank walkways (Usavagovitwong and Posriprasert 2006). The main objective of the project was to provide long-term collective land leases, improve drainage and environmental degradation, upgrade housing, and pull settlements away from the edge of the canal by forming a three-meter continuous walking path (Usavagovitwong and Posriprasert 2006). The project affected twelve to thirteen informal settlement communities along the waterway starting in 2004 (Figure 46) (Usavagovitwong and Posriprasert 2006; “Canal Housing Development,” n.d.). Roughly 2,000 low-income households with insecure tenure and mainly living in informal structures were targeted for development on government-owned land along the canal (“Canal Housing Development,” n.d.; Hunter 2011). The initiative included faculty of architecture from Naresan University that acted as a facilitator between CODI and the residents.

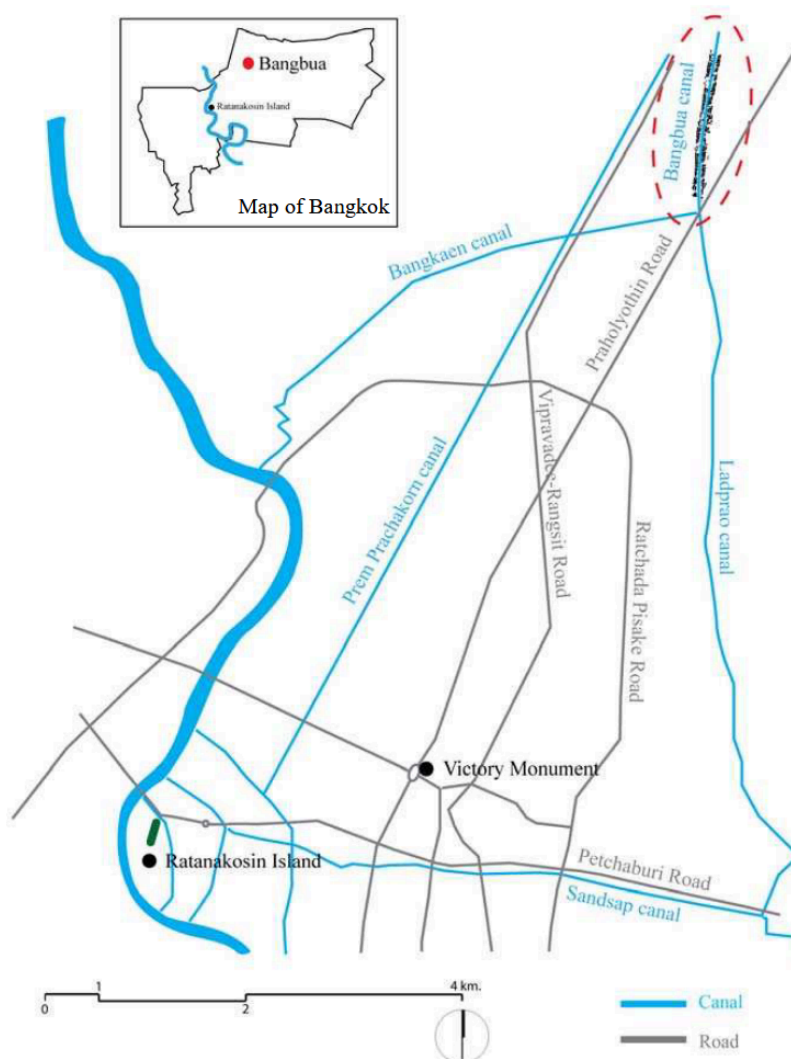


Figure 46: Boonanan Natakun, Location of Bang Bua Canal Project in Bangkok, 2010.

The approach prioritized community organization as the foundation for securing communal land tenure. Central to this strategy was the creation of communal savings groups: small local banks that received funds from residents as well as additional financial support from the Thai government's Community Development Fund. Alongside economic measures, physical improvements were pursued through the construction of flood management infrastructure and the development of a three-meter-wide public walkway along the canal edge (Usavagovitwong and

Posriprasert 2006). Participation was structured through a variety of forums and units, including community meetings, BMK working groups, savings groups, and small group management units that clustered households for collective decision-making and later, co-living arrangements (Natakun 2010).

Different neighborhoods along the canal experienced distinct outcomes in community participation. In Samakkee Ruamjai, an informal settlement, early involvement in planning and design was dominated by local leaders and BMK-affiliated residents. This imbalance led to conflicts, mistrust surrounding savings groups, and a breakdown of participation that ultimately derailed the agreed-upon master plan (Natakun 2010). By contrast, in Bangbua Lang Kongkanparp, transparent elections of small-group leaders fostered high trust and broad participation. The co-designed plan, developed together with architects from Sripatum University, was largely realized as envisioned (Natakun 2010).

Each community along Bang Bua undertook detailed house-by-house surveys and mapping of existing structures, walkways, and services. These records became the foundation for participatory re-planning at the block and cluster level (CODI 2013). Households were typically grouped into small clusters of about five families, who negotiated relocation, the sequence of reconstruction, and the layout of shared lanes and thresholds (CODI 2013). One illustrative case from this process shows how a planned four-meter-wide internal lane was modified around a household unwilling to move; the adjustment produced an inventive mix of solutions, including a shared home for two bachelors, a compact two-meter-wide unit, and a narrowed lane that turned into a lively communal space (Figure 47) (CODI 2013).



Figure 47: CODI, Illustration of Proposed Redevelopment at Bang Bua, n.d.

Design workshops played a crucial role in refining plans. They brought together residents, CODI staff, community architects, and university teams to explore reblocking options, canal setbacks, walkway sections, and three prototype housing typologies—single, semi-detached, and row units of roughly 90 sqm (CODI 2013; Hunter 2011). These workshops ranged from community-wide discussions on major public facilities and circulation routes to detailed cluster-level adjustments of individual house footprints and shared spaces, often using sketch plans, scale models, and on-site measurement walks (CODI 2013). In this collaborative setting, community architects acted as facilitators and translators of technical requirements and building regulations, rather than as designers imposing layouts or spatial clusters (CODI 2013; Hunter 2011).

Construction was largely executed by *chang chumchon*, or local community builders' groups, who also developed the initial model houses. Subsequent building phases were organized so that residents could remain close to their homes during reconstruction (CODI 2013; Hunter 2011). After official construction concluded, residents continued to adapt and personalize their surroundings by appropriating thresholds, lane edges, and small corners for work, storage, gardening, and socializing—thus enriching the everyday life of canal-side communities beyond the formal design frameworks (Natakun 2010).

The Bang Bua project demonstrates how combining collective land tenure with community-managed finance can transform informal settlements into legitimate partners in urban environmental management. Through this model, communities secured long-term state leases on strategic canal-side land, effectively reversing the usual eviction logic and enabling informal dwellers to assume a proactive role in managing and maintaining the canal environment (CODI 2013). The initiative also succeeded in creating a continuous, publicly accessible canal walkway while preserving housing for existing residents, improving drainage systems, and substantially reducing both wastewater discharge and structural encroachment into the canal (Usavagovitwong and Posriprasert 2006).

The use of cluster planning enabled many families to remain close to their former neighbors and relatives, strengthening existing social ties during redevelopment. Within these small clusters, residents negotiated shared spaces (such as common front yards, storage corners, or connecting lanes) that reflected local lifestyles rather than externally imposed street layouts (Natakun 2010). This process fostered a sense of ownership that shaped the physical design around everyday life practices and community preferences.

Bang Bua's success established a visible precedent, enhancing CODI's political influence and inspiring similar canal-side projects throughout Thailand. The initiative showed that community-driven urban upgrading could simultaneously achieve infrastructural improvements and spatial coherence at sites critical to city-level development (Hunter 2011). It also positioned collective participation as a sustained social and territorial process, extending beyond planning meetings to continuous involvement through BMK, steps that promoted empowerment, local rule-making, and the ongoing management of near-home communal spaces (Natakun 2010).

Although the Bang Bua project promoted a participatory narrative, several key parameters were predetermined by state agencies. The fixed canal setback and the requirement for a continuous three-meter-wide public walkway were established largely for flood-control and engineering compliance, restricting opportunities to experiment with alternative canal-edge morphologies or more adaptive spatial forms (Hunter 2011). Similarly, the use of three standardized house prototypes and corresponding loan caps ensured scalability and affordability but tended to normalize a narrow range of housing sizes and configurations, limiting the potential for more varied or collective dwelling forms (Hunter 2011).

Everyday life in these redeveloped spaces often proved more dynamic than anticipated. Designed open spaces and lanes were frequently underestimated in terms of their intensity and diversity of use, prompting residents to informally re-appropriate areas drawn for circulation or greenery into active zones for work, storage, gardening, and socialization (Natakun 2010). In practice, uneven community capacity, local leadership politics, and what some researchers call 'pocket-urbanization' could fragment implementation efforts. CODI's institutional mechanisms, even within Bang Bua, sometimes struggled to reconcile top-down planning intentions with on-the-ground inequities and social realities (Hunter 2011).

Participatory design relied heavily on iterative negotiation among small clusters coordinating internal lanes, shared thresholds, and near-home arrangements. Cases such as the internal lane that had to be redesigned around a non-relocating house exemplify how social negotiation can both enrich and constrain spatial outcomes. These examples highlight the fact that participation requires time, patience, and iterative design cycles to balance collective aspirations with practical constraints. Standardized prototypes and sections proved useful in providing a shared technical language and speeding up construction; however, they need to be matched with intentional design flexibility at the cluster and near-home scales to accommodate diverse livelihoods, family structures, and informal adaptations (Hunter 2011).

Analysis

The analysis for this thesis is done through the lens of Henri Lefebvre's concept of the 'right to the city.' Lefebvre envisions this right as a collective right: not guaranteed by a divine or natural power, in contrast to an individual right (Lefebvre 1968; Purcell 2014). Lefebvre describes the urban fabric as containing two main components: the Industrial City, primarily focused on increasing the economic output and the monetary value of space; and Urban Society, made of the daily social and cultural interaction of humans (Lefebvre [1970] 2003; Purcell 2014). Lefebvre writes that capitalist industrialization has asserted itself over the workings of the urban fabric, reducing everything to exchange value. Investment and improvements are done at the behest of economic value and commodify all aspects of the urban fabric. With a need to gain and accumulate further monetary value, the Industrial City is an expansionist force that takes over any and all corners of the urban fabric. In contrast, Urban Society is spontaneous, and primarily a result of social interaction (Purcell 2014). It is done through self-management,

without a central authority. The physical manifestation of Urban Society can be seen in urban informalities: they are a coping mechanism that is in response to the expansion of the Industrial City.

These vignettes showcase the importance of the state planning authority involved in facilitating slum rehabilitation projects. While there are other stakeholders, the developer or state planning authority has the final word. What sets these vignettes apart from each other is the underlying motivations of the state planning entity. Consequently, there are two categories of facilitators or liaisons: planning authorities like DDA, that act in the interest of the Industrial City and its expansion; and the CLT, an organization that is created in tandem with Urban Society.

In Anandgram, this is showcased by DDA's rejection of the proposal, due to its goal of modernization, sanitation and decongestion. Its main motivators are to prioritize the exchange value of the land, maintaining and expanding the formal order espoused during the colonial era. These motivations are prompted by external forces such as the Indian upper and middle classes, that cite aesthetics and property values as concerns.

The CLT on the other hand, as seen in Caño Martín Peña and Bang Bua, offers a more democratic approach, where goals are set directly by the community. The CLT, acting as facilitator, has a stated objective that is defined by the Urban Society, allowing the goals of the spaces to be determined directly by the individuals living in those spaces. The community structures in Caño Martín Peña and Bang Bua allow the community to be drivers of change within the lived spaces, rather than be driven by modernist ideals.

This thesis further analyzes the aspects of form, materiality, ownership, community organization and design framework. This allows for a critique of certain aspects of each vignette within the context of Delhi.

Materiality

Adaptability is inextricably linked to materiality. Materials used showcase the level of development and longevity of the inhabited space, as moving from mud, wood and tarp to brick and sheet metal showcases the move from *kacha* to *pucca*. Most *jhuggis* are initially constructed with tarp, wood, mud and other lightweight materials that are easy to adjust and affordable. As *jhuggi* dwellers become accustomed to the land they reside on, they invest more resources into their living conditions, using brick and sheet metal to construct a *pucca* home. There is adaptability and control over the creation of space with the use of these materials, as they are fairly easy to obtain, implement, modify and reuse. The use of these materials provide greater control over the space by the *jhuggi* dweller, responding to immediate social and physical context with ease. This allows for the growth and development of space based on the inhabitant and their social relationships, creating corner shops, courtyards or workspaces depending on the individual need and their mode of production, as seen in Kathputli before its demolition (Chalana and Rishi 2016).

However, in many cases the aesthetic appeal of even the *pucca* dwelling is rejected as inadequate to meet high modernist aesthetic standards. DDA, in its mission to provide housing, turned instead to other materials like steel and concrete to dictate the use of space, as seen with the Anandparbat Transit Camp and Pragati Apartments. Concrete, steel and gypsum have a higher cost and are in turn harder to obtain. They require much more planning to implement, and

specialized equipment to use. At Pragati Apartments, concrete is used to reduce the expenditure for DDA and Raheja. Unit layouts are standardized, which helps with replicable formwork that reduces cost, but also restricts adaptability of space. This forces residents to conform their way of living to the standardized unit.

Doshi's approach at Aranya sought to tackle this problem with the use of an incremental housing model. Although not implemented, additional support with the material banks and co-operatives for implementation could have assisted in the creation of more formal units that conform to the aesthetic put forward by the state. Easy access to subsidized materials can help give rise to more permanent structures, and with guidance, inhabitants can maintain and expand their structures. The flexibility in incremental housing has also allowed businesses, especially cottage and home industries to flourish, as individuals are not constrained by regulations or materiality in their endeavors.

Conversely, Kamath's proposal for mud housing at Anandgram can also be seen as a successful alternative to the formal dwelling. Mud as a construction material is affordable, accessible, and adjustable for the creation of space. Mud is generally considered primitive and unrefined for the sensibility of a 'world-class city,' however a strong case can be made for the use of mud as a traditional method of construction. Its local availability and cultural precedent makes it well suited for use in Delhi and the Indo-Gangetic plains. However, great consideration needs to be taken with technique and maintenance to help create strong structures that can provide structure and thermal mass for the climate. The additional benefit with mud is the preservation of craftsmanship that can be passed on from generation to generation, leading to a greater sense of cultural tradition.

Form

At Pragati Apartments, the architectural form of the structure is dictated by an efficient use of space and utilitarian functionality. This can be seen with the one-unit type that is available and the deployment of a double-loaded corridor. Its primary purpose is to provide efficient connectivity to the residential units. This leads to a long and narrow hallway that restricts social interaction. Efficiency is also seen in each 35 sqm unit, consisting of a terrace, bathroom, and kitchen stacked in a standardized layout for easy production. Raheja has chosen a standardized form due to its replicability and to reduce the cost of construction. The resulting apartments are a form of abstract space, as Lefebvre notes, a place of conformity and maximization of profit. The mid-rise tenement is a space into which *jhuggi* dwellers are forced. These restrictions limit interaction with neighbors and break social ties. They also restrict the ability of the space to be used for home industries and instead force the *jhuggi* dweller to seek income in the Industrial City. The apartments follow a high modernist tradition, expunging all history of the site and creating a purely functional space.

In the vignettes, most within the cultural context of Asia, the planning of clusters around a shared courtyard is a welcome alternative to the rigid structure of the grid in the earlier cases of sites-and-services and peripheral settlement. The courtyard acts as a transition space from the street and allows for social interaction and community building to take place. Such courtyards were also found in Kathputli before its demolition (Chalana and Rishi 2016). In the case of Aranya, the use of the courtyard is twofold: as a space for social interaction and for maintenance of drainage. This provides efficiency in the use of infrastructure and gives space to the development of social ties. In his diagrammatic suggestion of how houses may develop in

Aranya, Doshi emphasized the interaction that takes place on the roof between neighbors as a potential social space. In Bang Bua, the use of the courtyard is geared towards socialization and interaction, while in Kamath's proposal for Anandgram it serves the additional purpose of showcasing the artisans' work.

As time went on, the courtyards disappeared from Aranya, due to individuals expanding beyond their plot sizes. As seen in Bang Bua, the creation of the three-meter walkway along the edge of the canal came at the expense of the demolition of the houses that stood on the canal. Various solutions could have been explored with the community through the design workshop, but the clearance of this space was a stipulation of CODI. There is a certain vision that CODI has in its upgradation efforts, especially with its use of standardized housing types for homes that could not be upgraded. Though the decisions have been made with community inputs on how the standardized housing should be configured for each family, they still conform to CODI's standardized form and are restricted from augmentation unless absolutely necessary. For Delhi, many groups have suggested having a standardized four- to six-story apartment building⁵, with plenty of space for retail and commercial on the ground level, a similar approach seen with the five-over-one typology in the United States. The current approach to form and architecture is based on standardization, efficiency and minimizing costs to deliver the bare minimum, constricting spaces of social interaction and access to the larger city.

Ownership

DDA has relied on a leaseholding model since its inception when allotting land to displaced *jhuggi* dwellers. This is influenced by the British Raj system of leasing land to

⁵ Interview with Rajeev Kathpalia, Principal of Vastu Shilpa Consultants.

individuals for set periods of time with intent to renew, which is influenced by the feudal system of rent-seeking from those living on the land. The purpose of the system is to maintain the services that DDA has provided. Unfortunately, DDA has not been providing these services and has been restricting its access for the EWS and LIG. The leaseholds that are offered have a high monthly lease payment compared to the income levels of individuals living in *jhuggi* colonies, and force them to either terminate their lease or transfer it due to income instability.

Restrictions on land use and the types of construction as seen in sites-and-services schemes have caused undue stress on the inhabitants (Menon-Sen 2008). The *jhuggi* dweller has had to leave their home, move to an empty piece of land—often with only a handful of material possessions— and been expected to create a new dwelling within months by taking on loans. The leasehold system is universally applied to all income levels, although in recent years, the higher income groups have been offered freehold over their property. Construction restrictions also apply to higher income groups, however due to their stable incomes, they are able to work around them. The Industrial City, through the use of the leasehold system, is able to extract value from the occupation of land.

Alternatively, the Caño Martín Peña aims to provide tenure through a community land trust while providing surface rights to the built environment for each individual. This secures collective tenure and gives each individual a sense of agency. The community would be able to make decisions about the land in a democratic manner while individuals are still able to adjust and adapt their housing to their needs. Similarly, the use of community savings groups in the Bang Bua project provides a common fund for community projects (supplemented with government funds) to maintain and upgrade their spaces. The right to the city also involves ownership, specifically a common ownership over the urban fabric, but the leasehold system

does not provide agency due to the precarious nature of the economic conditions of the *jhuggi* dwellers. Therefore, they become unable to enact much-needed upgrades or maintenance individually. A collective arrangement could allow them to keep their homes and share the responsibility.

In Aranya, the use of the leasehold system is primarily due to the restriction from IDA. The cross-subsidized program, funded by the sale of plots geared towards high- and middle-income groups, is a good example of working within the constraints of the system to provide additional help. However, the people this was intended for only exist on paper, as many of the EWS and LIG plots have changed hands to higher-income groups (Verma 2002; Davis 2006). The neoliberal reforms of the 1990s and expansive growth of the city made Aranya a central part of Indore, raising property values. It is unknown how many times each plot has exchanged hands on average within Aranya without a deep dive into the property records, but it is speculated to be around two to three times.⁶ Similarly, Kamath's proposal does not touch on the issue of leasehold, possibly due to the abandonment of the project at an early phase of design, raising questions around exchange and speculative value within the artisan and puppeteer community. However, it is reasonable to assume that the project would still follow this system in an effort to extract value from the inhabitants living on the land, as it was proposed under the charge of DDA.

Community organization

In Delhi, the use of the Bhagidari System, an initiative by the Delhi Government to allow members of Resident Welfare Associations (RWA) to raise issues for DDA to address, has been

⁶ Interview with Rajeev Kathpalia, Principal of Vastu Shilpa Consultants.

seen as a success in communicating woes to government bodies. RWA are governing organizations formed primarily in middle- and upper-class neighborhoods in Delhi. This system has given significant advantages to the community organization of upper and middle classes (Ghertner 2015). Grievances are heard directly by high-ranking bureaucrats who have the political will to address these matters. A common grievance that Ghertner addresses is the ‘nuisance issue’ with *jhuggis*, particularly with regards to their aesthetic appearance (Ghertner 2015). *Jhuggi* dwellers, however, do not have such access to the state apparatus, as can be seen with the Kathputli redevelopment process. Instead, *jhuggi* dwellers rely on the charity of NGOs and cooperatives formed by them.

Community organization in Kathputli, under the involvement of institutions like DDA and organizations such as Sarthi and the Kalakar Trust, reveals significant tensions between empowerment and exploitation. While these bodies ostensibly sought to help residents organize and improve their living conditions, their approaches were often fragmented and exclusionary. The Kalakar Trust, for example, primarily focused on aiding artisans and puppeteers, neglecting other *jhuggi* dwellers and reinforcing internal divisions. This selective engagement exposed the Kalakar Trust’s underlying motive of spectacle: turning the community into a site of cultural display for a Western audience. As Sethi envisioned it, the ‘Kalakar Village’ was less a genuine social rehabilitation effort and more an attempt to preserve an idealized version of rural craftsmanship through aestheticized, mud-and-cloth structures designed to attract tourists. In doing so, the project reproduced orientalist narratives and denied residents their full ‘right to the city,’ casting them as living exhibits rather than as urban citizens with agency and needs.

Despite these criticisms, the efforts at Kathputli reveal an important truth: there exists a large latent capacity for community organization among marginalized urban groups. Residents

showed a willingness to collaborate and mobilize when offered platforms, even when these were flawed or paternalistic. The problem did not lie in their ability to organize but rather in the institutional frameworks that prioritized visibility and external validation over genuine participation. Kathputli underscores how uneven power dynamics between government agencies, NGOs, and local communities often distort redevelopment projects into instruments of control rather than empowerment, turning human settlements into staged experiences.

In contrast, other models of urban intervention, such as the cooperatives for developing neighborhoods and RWA used by middle- and upper-class Delhi neighborhoods or initiatives like the Community Savings Grounds in the Bang Bua project, demonstrate a more inclusive and developmental approach. These structures function as grassroots support systems, enabling residents to take part in decision-making and co-designing their living spaces. They allow local knowledge to shape housing and infrastructure solutions rather than imposing externally designed visions of authenticity or modernization. Learning from such examples, the goal moving forward should be to channel the organizing potential seen in places like Kathputli toward more equitable frameworks that treat communities not as showcases or as cattle, but as active, creative agents in shaping their own urban fabric.

Design framework

Understanding the collective right to the city as a principle to follow, to not exclude individuals from the city and analyzing the system and urban fabric as a whole would benefit architects and planners in their decision making. This would go beyond the narrow focus of economic gain and expand the scope beyond current physical conditions. With urban informality, it is paramount to understand the people the architect is designing for. Current approaches to

designing for urban informality as discussed in previous chapters with DDA and Kathputli, have been superficial and token participation that do not have a clear methodology (Dupont 2014).

Kamath's use of ethnographic survey, personal observation, interviews and design workshop is a great way to engage with community members. Kamath had the knowledge in designing a space that was tailored and appropriate for the needs of the *jhuggi* dwellers. They were able to have thorough input in making decisions, with the use of diagrams and models to illustrate their needs and wants to Kamath. Her observations were able to preserve the artisans and puppeteers workshop within the space, provide private space, especially for women, and places for communal interaction in the courtyard. On a larger neighborhood scale, designing for kinship amongst residents and grouping people according to villages, would have preserved those social bonds. An approach like this allows a better understanding of what is needed by community members, rather than pushing solely for an efficient use of space. Similarly, URBZ's approach with local contractors in Dharavi and having them describe and make rough models and creating 2D and 3D architectural drawings allowed a better understanding of the conditions of the site and the issues faced from a more personal point of view. Bang Bua design workshops also encourage engagement with the design, allowing changes to the standardized housing units to be tailored to each individual and in some cases making decisions based on community members' reluctance to move in certain cases.

Conversely, Doshi's approach in Aranya is based on passive observation of the informal, rather than wholehearted engagement. It can be reasonably speculated that the passivity of engagement is a constraint of working within the system, but it still relies on the generosity of an architect with considerable authority to suggest such an approach compared to the standardized form used by government institutions. Even so, Doshi's proposal took into consideration various

scales of interaction, focusing on the human scale at every hierarchical level. Pedestrian access is an important consideration, with traffic calming techniques used to slow cars down in the central axis and limit them to the periphery of the neighborhood. The layout of streets has still kept the individual in mind, and even set up chances of interaction through the clustering of houses around a courtyard and varying degrees of open spaces with retail and commercial space. In all these projects the human scale is central to the aspect of designing for large scale, contrary to the efficient approach used by the Industrial City.

Conclusion

Both in terms of physical form and organization, every city looks like two cities. The 'formal city' built with legal sanction, official patronage, complete with healthcare, education and community facilities, and a 'parallel city' which is much larger, built 'illegally' through dwellers' own initiatives and characterized by deficient but gradually improving housing and service facilities. When the two confront each other, the image is almost surrealistic.

— Jorge Hardoy, Diana Mitlin & David Satterthwaite, *Environmental Problems in Third World Cities*

DDA's mission to plan and develop Delhi for its citizens has left out a large section of society that is crucial to its formal economy. The approaches taken by DDA have been influenced by its colonial past, and it has still to shed the notion that certain forms of urban informality have no place in Delhi. Since liberalization in the early 1990s, there has been more incentive to redevelop the land that *jhuggi* dwellers occupy. The urban fabric of Delhi has changed by prioritizing aesthetics and efficiency at the behest of future exchange value. Housing and infrastructure in Delhi has been prioritized for upper- and middle-class Indians, while leaving the Economically Weaker Section (EWS) of society to carve out their own space in Delhi.

The expansion of the Industrial City requires the removal of urban informalities. This is done through the taking over of Urban Society, which in the case of Delhi is the *jhuggi*. The primary issue identified with *jhuggis* is sanitation and congestion, which are valid concerns. These issues should be addressed, but there are aspects of urban informality that should be preserved and celebrated. DDA has taken an approach of complete clearance, where the urban informality does not fit the aesthetic of a 'world-class city.' This framing of *jhuggis* as only unsanitary, overpopulated and unorganized space that offer no other benefits has been used in

Delhi to reinforce an idealized version of Delhi, and neglects a version of Delhi that embraces its informality. This was initiated with the colonial regime, and subsequently reinforced by Nehruvian Modernity, and on an international level by the UN, which also focuses on aesthetic characteristics in its definition of slums (Ghertner 2015; Davis 2006). The argument of the aesthetic is one that the Delhi Government has been using for a long time: through a High Court ruling, the Delhi Government is able to clear out *jhuggis* and slums having declared them a nuisance (Ghertner 2015). This is a development of Nehru's vision of Modernity and use of top-down planning to create an exterior image of India, one that is utopic, modern and free from the 'blight' of slums.

The use of aesthetics to expand the Industrial City at the cost of urban informalities is viewed favourably amongst the upper-class Indian population (Ghertner 2015). Most of the aesthetic issues pertain to the abstract idea of 'civic sense,' while the main cause for removing *jhuggis* is often tied to speculative land values (Ghertner 2015). The creation of a utopia, goes beyond the property line of the upper-class Indian's home, encouraging the removal of *jhuggis* even if they are not near the property line, but merely visible from it. The need to maximize exchange value prompts the removal of these *jhuggis*.

New houses that are developed today by Indian upper classes, conform to a regularized style, with the current approach designated by Delhi by-laws being the ground-floor-plus-four model, which prioritizes parking on the ground floor. In contrast, the *jhuggis* are formed based on the use case of each individual, taking into account social, physical and material restrictions and economic need. *Jhuggis* are formed with the push-and-pull of what is needed at the given time, and are adaptable to their current situation. There is flexibility in the *jhuggis*, many create courtyards, rooms that change their use depending on the time of day, and extend to engage the

street. The *jhuggis* are also adaptable to the form of economic conditioning, becoming storefronts or workshops as seen in Kathputli before its demolition (Chalana and Rishi 2016). To a certain extent, these *jhuggis* can be seen as a form of vernacular. They do not have a larger design intent from an architect and their designs are instead based on utility and need. These spaces do not conform to the state's enforcement of what is deemed valuable, rather it is based on human-level interaction, and as a consequence are a social product not an economic one. They then become a target for demolition, in order for the Industrial City to expand, as the *jhuggis* do not contribute to adding value and are considered to be detracting from the spaces they occupy.

There are, of course, very real issues that come with *jhuggis*, and it is important not to romanticize these urban informalities in their current conditions (Boano and Astolfo 2016). Issues of sanitation, congestion and access to basic utilities are very real problems caused by DDA restrictions, and should be addressed. DDA rehabilitation policies are far from ideal, the initial peripheral resettlement sought to move *jhuggi* dwellers out of sight and confine them to apartments or one-room houses which proved ineffective due to the relocation of the *jhuggi* dwellers away from their places of work. The deployment of the sites-and-services model as a cost effective way of rehousing people had the same issue, only this time it came with further challenges of having a stable income to construct a space by themselves after their homes were demolished. The new in-situ model has also proved to be ineffective as seen with Kathputli, with DDA effectively washing its hands of responsibility and letting the market dictate the design and construction. Issues with participation and prioritization of economic gain proved to be detrimental to the *jhuggi* dwellers that has left them in a state of limbo in a transit camp.

Ideally, the government should execute its plan of participation and engage the people it is rehousing as described in DDA's in-situ redevelopment policy, where survey and participation

are crucial. However, antagonism toward *jhuggis* as a nuisance and the prioritization of exchange value leave the *jhuggi* dwellers to the whims of the bureaucratic system, to be marginalized and victimized by the market. Thus it is important for architects and planners to understand the broader context and exert the 'right to the city' that all citizens have in the urban fabric. While there is no universal development model that can address all concerns, it is important to continue to work with urban informality rather than sweep it away.

Architecture is political; the physicality of space informs the behaviour and interaction of space, even in slight ways. Much of the forces when dealing with urban informalities rely on the political system that is in place. The bureaucratic system in Delhi, geared towards the increase of exchange value, does not show signs of change. Approaches from peripheral to in-situ are motivated by cutting costs rather than community development. The way architecture has been applied to address urban informality in Delhi has shown an indifference to *jhuggi* dwellers, as they are not seen as contributing to the expansion to the Industrial City, but rather as obstacles. Market forces have become the primary driver of redevelopment of *jhuggi* colonies. The prioritization of profits over people is clear at Kathputli, where Raheja has failed to meet its initial deadline for Pragati Apartments, while continuing civil construction of their luxury tower.

The effect of DDA as a facilitator of change to the urban fabric of Delhi, is done at the behest of the Industrial City, with its priority being the removal of *jhuggis* and commodification of land. In contrast, community land trusts (CLT) offer a more constructive method of change. They not only engage with the community that is being affected by the redevelopment process, but are also made up of the community. The CLT offers itself as a space to converse, debate and execute a vision of the urban fabric that is suited for the daily needs and life of *jhuggi* dwellers. The CLT can preserve aspects of urban informality that are unique to the inhabitants and help

contribute to the wider diversity of the urban fabric. The CLT model is relatively new and its issues require further study and should not be treated as a universal approach for informal settlements. However, in Delhi, it is a progressive step forward to better policy for *jhuggi* dwellers that can help them in a more inclusive manner compared to the current redevelopment approaches.

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