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Slumdogs vs. Millionaires Balancing Urban Informality and Global Modernity in Mumbai, India

Mumbai and other Indian cities are rapidly transforming to address the needs of global commerce and the expanding middle class. Mumbai's vernacular environments, home to most working-class residents, are consequently being redeveloped using supermodern global aesthetics. The urbanism emerging from the current wave of modernism is an unprecedented radical departure from existing patterns of place. Proponents claim the new developments serve low-income residents' interests, when actually they ignore fundamental socio-cultural and economic realities. This paper considers two case studies, Dharavi and Girangaon, highlighting a subset of Mumbai's vernacular environments to argue for their significance and to explore alternative redevelopment approaches.

Introduction: India's Trysts with Modernism

India has experienced several waves of modernism in architecture and planning. The first, brought about through colonialism, saw the creation of New Delhi by Sir Edwin Lutyens and Herbert Baker, as well as distinct European sections in many Indian cities. As King argues, "the notion of 'the modern' was firmly and powerfully fixed in 'the West' and then conveyed into other parts of the world through the uneven relationship of colonialism and global capital."¹ Nevertheless, patterns of colonial modernity in Indian cities developed hybrid forms, as Hosagrahar's work on Delhi demonstrates. Its products were not essential versions of European modernity, but rather negotiated imperfect and localized readings that resulted in an urbanism which engaged the traditional and the modern, the new and old.² In the mid-twentieth century, a second wave of modernism, unhinged from tradition and cultural restraints, was a choice of style used to express a spirit of unified nationalism in newly independent India. Le Corbusier's Chandigarh was developed as a symbol of modern India, and continued to influence development of new towns around the country for decades.³

Currently, India is experiencing a third wave of modernism, one brought about through post-

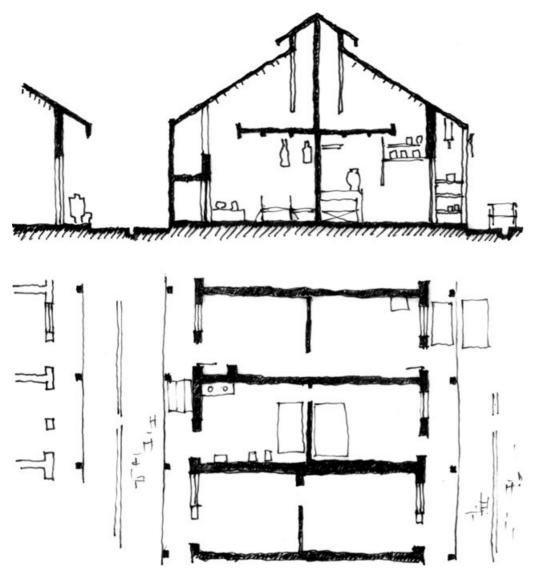
colonial economic and cultural globalization. This global modernity promotes some of the same ideals of large-scale modernistic planning theory, but is distinct in its use of abstract, "hyper-modern" or "supermodern" architecture, also called the architecture of "non-places."⁴ The force of this wave is unprecedented; as in much of Asia and other rapidly developing economies, entire urban centers are being progressively redeveloped in a new global image. The mega-projects in Indian cities showcase styles, materials and technologies in a scale that does not readily facilitate indigenization of this modern wave, as previous waves allowed to varying degrees.

The city of Mumbai provides an ideal location for looking at how the existing vernacular environments are transforming in the face of rapid globalization. In a city that retains a rich variety of vernacular environments from its indigenous, colonial and post-colonial past, the creation of global spaces is often in direct competition with the local.⁵ These locally produced spaces, however, have been relatively powerless in the face of global capital. At the same time that patterns of global modernity are spreading across the city, there is a growing resistance to western ideas of planning and design that disregard the local experience of place and its production. Through this work I argue that the globalmodern design approaches being applied to redevelopment in Mumbai are detrimental to existing patterns of the city's rich vernacular environments, especially places where the working class populations live and work. The large-scale projects that are replacing these communities undermine and neglect the inherent spatial patterns and disregard the practice of everyday life that these places facilitate. With the disappearance of these vernacular places, the city also loses its memory and history about its own development and the struggles and aspirations of the citizens who built it.

Path to Global Modernity: Bombay Dreams Shanghai

Mumbai (formerly Bombay) is India's largest city, home to fourteen million residents. With a population density of about 57,000 persons per square mile, it is more than twice as dense as New York City.⁶ Roughly two-thirds of the city's population is concentrated on less than 10 percent of the land area, making these areas some of the largest concentrations of humanity on earth. Despite growth of smaller and midsized cities in India in recent decades, the appeal of megacities like Mumbai remains unparalleled. The city attracts immigrants from around the country in search of

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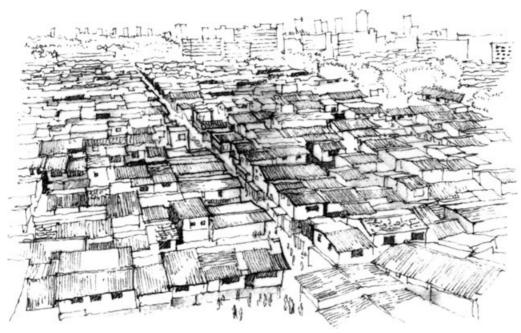
employment, which can be relatively easy to find in the growing economy. Adequate shelter, on the other hand, is not. Over three quarters of Mumbai's residents live in tenements and squatter settlements defined by the generic term "slum," which has given the city the disrepute of being the "global capital of slum dwelling."⁷ The largest such area in Mumbai, Dharavi (featured in the popular motion picture *Slumdog Millionaire*), is located in the heart of the metropolis and is often dubbed the largest slum in Asia.

Nearly half of Mumbai's squatters are located on private lands, while the remainder is split between city, state, and central government (i.e., federal) lands. As the population of Mumbai continues to grow (expected to double by 2025, at which time it is projected to be the world's second largest urban conglomeration after Tokyo), the city struggles with rapid urbanization fueled by global demands, but constrained by geography. For Mumbai the availability of buildable land is particularly acute, given its location on a long, narrow peninsula at the end of an island. Mumbai is currently participating in a major urban overhaul that would upgrade the city's crumbling infrastructure, create new housing, and initiate "beautification" projects. It would make land that is currently in other uses (including tenements and squatters) available for urban renewal projects. The city seeks both the involvement of the private sector and monies from the national urban renewal program of the Central Government-India's vehicle Plan and section of a unit in Ganjawala Chawls in Tardeo, Tulsiwadi. Single story *chawls* are rare today. The mezzanine in the chawls is a useful feature for storage and creating additional living areas. Today squatter dwellings utilize a similar arrangement of floor spaces. The graphic is redrawn by Amit Ittyerah from a sketch in Mayank Shah, "Chawls: Popular Dwellings of Bombay," *Architecture + Design* 7 (1991): 48.

to modernize select cities (including Mumbai) into "world class" cities.⁸

Mumbai has long been a stronghold of the Shiv Seng—a far right political party that continues to promote a divisive anti-immigrant and pro-Hindu agenda. The party is also anti-slums, and has on several occasions tried sanitizing the city using their slogan: "Beautiful Mumbai, Mumbai for Maharashtrian." In 1985, it launched a massive slum clearance program, but guickly abandoned it realizing that the votes they needed to remain in power came from the poor Hindus who also lived in the so called slums (along with immigrants and Muslims).⁹ In 1990, Shiv Sena proposed another redevelopment program that relied on demolition of existing informal settlements and rebuilding using greater densities. This program eventually evolved into the Slum Rehabilitation Scheme (SRS) in 1995 with greater involvement of free market and publicprivate partnerships. Under this Scheme the residents are eligible for an apartment (at no cost to them) in new mid-rise apartment blocks on or off site depending on the specifics of the project. The "free" apartments are cross-subsidized by market rate real estate from bonus FAR (floor area ratio).¹⁰ Given the astronomical real estate prices in Mumbai (comparable with London and New York) the SRS remains a lucrative business proposition for many local (and global) development companies in neoliberal Mumbai.

Vision Mumbai—a plan created by the US-based McKinsey & Company in 2003 to revamp Mumbai according to the dictates of global capital—relies extensively on the changing institutional climate around slum redevelopment that SRS facilitates. The plan seeks investment in upwards of forty billion dollars over a period of ten years to achieve a Shanghai-like transformation of the city. The plan notes that to achieve such an urban renaissance, "entire city blocks will *have to be* demolished and rebuilt with modern infrastructure: earthquake resistant buildings, wide roads, correct infrastructure and open areas for gardens."¹¹ Among



the new construction will be high-end retail, Class A offices, luxury residences, sports complexes, and a convention center that would potentially serve only a sliver of the city's residents.

Despite the replacement of existing affordable housing with high-end construction, the plan does read as sympathetic to the concerns of the urban poor. It includes a section on housing reforms aimed at increasing the availability and improving the quality of low-income housing stock. Unfortunately, the world-class standards that Mumbai is trying to achieve through Vision Mumbai is derived from a survey of cities, mostly in the West.¹² The plan for housing rehabilitation includes fundamental misunderstandings about life, community and economic networks in existing low-income settlements, and undervalues the city's own historic and cultural heritage. The Vision Mumbai plan has already received strong criticism from various groups, and renowned Indian architect and planner Charles Correa bluntly referred to it as having "very little vision" and more "hallucinations" $^{\rm 13}$ Yet. in the words of McKinsey themselves, the plan has already played an important role in "influencing policy makers both at the central and state levels to recognize and address the immediate need for urban renewal in the city."¹⁴ To recognize the shortsightedness of the plan, it is necessary to understand Mumbai's heterogeneous forms of lowincome housing communities that Vision Mumbai seeks to eliminate.

Places of Their Own: Low-Income Urban Vernacular Environments

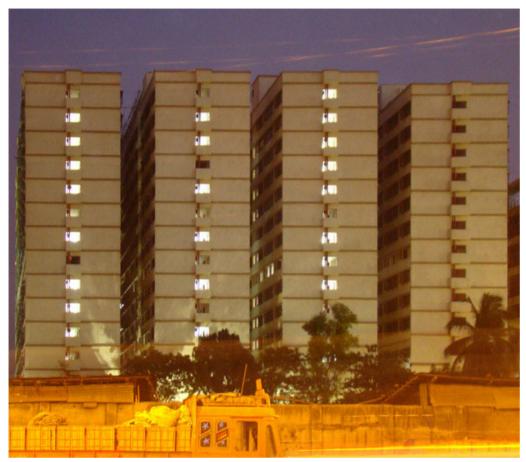
Mumbai retains a rich variety of vernacular environments, covering the full span of the citv's urban history from its agrarian and industrial past up to the present time.¹⁵ In this article, I focus only on a subset of the vernacular environment in two low-income neighborhoods of the city. These include the tenements (chawls) in Girangaon and the squatter settlements (Jhuggi-Jhopri) in Dharavi. Although the emphasis is on two neighborhoods, it should be noted that over half of the city's populations (the bulk of the working class) live in similar environments spread across the city. As a result, these places remain dominant in the urban landscape of the city as they continue to provide affordable housing and informal livelihoods for the majority of the city's residents.

Chawls

In the nineteenth century, Bombay emerged as the base of the Indian textile industry. This laborintensive industry brought thousands of men from Maharashtra state—particularly from the Konkan and Deccan regions—to work in the mills.¹⁶ Following a general pattern of emerging industrial communities around the world, the companies developed worker housing possessing three qualities desired by the employer: "cheap, convenient and controllable."¹⁷ In the case of Mumbai, the form that housing took came to be 2. Often dubbed as Asia's largest slum, the expanse of Dharavi reveals fine grain urbanism resulting from self-built and incremental housing using found materials. This informal neighborhood is located in the geographic center of the city, and on land that has very high value. The city plans to redevelop the neighborhood using global modern design aesthetics. Some resident groups are contesting the proposal. Sketch by Sudhir Prakash.

known as the chawl. This highly utilitarian form was adapted from earlier housing and barracks styles, and possessed a series of one- or two-room dwellings facing an open (but covered) hallway with shared toilets (Figure 1). Many chawls during colonial times were timber frame structures, and some displayed individualized styles and features such as decorative gateways and uniquely crafted building details. Others also displayed hybrid styles mixing colonial and traditional elements. The one-to-five story structures were usually organized in a linear form, but other shapes were common. Their appeal extended beyond the textile industry, and they quickly became ubiquitous in the city; entire neighborhoods of *chawls* developed, and persist to this day. They were built for mass housing by the state; for example, the work of the Bombay Improvement Trust (a colonial public agency) constructed sanitized chawls with larger rooms $(10 \times 10 \text{ feet})$ and a latrine for every six to eight units, for which it charged higher rents.¹⁸

Even in their compactness the dwellings in the chawls accommodated a variety of uses and a host of activities, including cooking and washing. In the case of the two-room dwellings the back room usually contained the kitchen while the front room served all other functions. Chawls facing the streets were generally lined with retail on the first level and residence above. The vernanda or open hallway was roofed with projecting eves and extended across the front and side of the *chawl*. This was a particularly useful feature in hot and humid climates, as it kept the interiors cool and the rain out. It was also used as an extension to the small living guarters for a variety of activities, including socializing, sitting, sleeping and drying laundry, among others.¹⁹ Due to the compactness of the living quarters, the alleys and the courtyard around the chawls evolved as communal spaces, used as playgrounds and for festivals and celebrations, including marriage ceremonies.



Currently chawls house nearly 20 percent of Mumbai's population, and provide the bulk of the affordable housing in the city outside the squatter settlements. Most *chawls* are regulated by Mumbai's rent control act, which maintains rents at a tiny fraction of the market rate, and allows tenancy to be passed through generations. Although wellintentioned, the legislation discourages owners from taking care of their properties, as they see no benefit in the form of increased rents. This has resulted in all types of dilapidated vernacular building stock around the city, but especially for chawls, as overcrowding puts excessive stress on the timber framed structures.²⁰ Despite the congestion and neglect, most *chawls* are highly functioning neighborhoods where lower-middle class residents have stable jobs and send their kids to schools. Low rents and costs of services in the neighborhood allow for additional savings and potential upward mobility. Yet the chawls are often described as "vertical slums" and have been targeted for redevelopment.²¹ This process has recently accelerated with a court ruling that allows the

owners (and tenants) of *chawls* to redevelop their properties, simplifying the permitting process from the state housing authority. Many *chawls*, irrespective of their condition, could be redeveloped based on the ruling.

Jhuggi-Jhopri

Squatter settlements, on the other hand, are characterized by super-high densities in low-rise urban form, typically one or two stories, although sometimes as high as four. They are also generally organized around a non-grid street network (Figure 2). They exhibit a variety of building traditions from different regions of the country, reflecting the immigrants' native places, and ingenious use of materials and techniques of construction. They are self-built incrementally over decades, as funds to purchase new or recycled materials become available, to be "recycled into new spatial narratives and informal infrastructure."²² The *jhuqqi-jhopri* areas are commonly defined by the blanket term "informal sector," but they are not homogenous places. The

3. Slum resettlement housing on Tulsi Pipe Road from 2006. The concrete blocks of the low-income housing are spaced about 10 feet apart to maximize land usage. The development presents a grim living environment reminiscent of the worst type of public housing projects that funded the urban renewal program in the United States. Photo by Robert Verrijt, courtesy of the photographer.

larger settlements in particular are incredibly diverse, organized into districts (*mohallas* or *nagars*) that cluster by regional, linguistic, religious, caste and occupational affiliations that give them unique spatial and social qualities.²³ Irrespective of their scale, they are mostly mixed use, which are especially beneficial for women, as close proximity to work and home means that they can pursue economic mobility without foregoing familial responsibilities.²⁴

Squatter settlements are certainly not without problems. Most lack even the most basic of services, and residents have to deal with the stresses of intense overcrowding, insecure tenure, poverty, pollution and social exclusion.²⁵ In the absence of proper land tenure, they may face harassment and extortion at the hands of the police and slumlords. Although different governments have actively participated in the production of these places as a way of dealing with the massive wayes of immigrants (and amassing a "vote bank"), they have also systemically neglected them to "fend for themselves." These neighborhoods are simultaneously places of hope and despair, but they are generally projected as one or the other, more often the latter.

The *jhuggis* have other assets that are important to keep in mind, particularly for those considering their redevelopment. One is their relative environmental efficiency. The structures require significantly less energy to build and maintain than any other housing form, a valuable asset for Mumbai as a whole when climate change is impacting the city more rapidly than the rest of India due to its coastal geography. Moreover, owing to the unreliability of state-subsidized housing, the *jhuqqi* is particularly efficient in providing affordable living and work space in a relatively familiar social environment that helps new immigrants cope with urban life. However, although the social leverage in these neighborhoods provides opportunities of upward mobility to some, most residents can only



depend on the existing social support to sustain a basic life and livelihood.²⁶

Urban Transformations: From Vernacular to Global

The chawls and jhuggis are classic examples of "everyday urbanism," reflecting a "fabric of space and time defined by a complex realm of social practices—a conjuncture of accident, desire, and habit."²⁷ Their urbanism is completely devoid of the "spectacle" of architecture that professional designers often place great emphasis on; instead they are developed for the practice of everyday life.²⁸ As a result, residents tend to have greater control on the production and/or appropriation of space and architecture, which reflects their needs and aspirations. Although they lack the monumentality and regularity of colonial Bombay, or the high-tech glass and steel modernity of the emerging global city, these places are rich repositories of the city's social meaning and cultural history.

Many of these neighborhoods today are under threat of redevelopment, dividing them into districts of hypermodernity funded by global capital, and designed with their needs in mind. The original residents are relegated to nondescript "project-like" concrete blocks away from or in the shadow of the emerging global centers (Figure 3). Here I consider two major cases of this ongoing transformation.

Case Study I: Mill Village

The area of Girangaon in South Mumbai is widely considered to have been the birthplace of India's textile industry in the 1860s. The booming cotton trade in the city led to the establishments of mills in Tardeo, Parel, Lalbaug, and Byculla districts to the north of the colonial settlement. Collectively these districts are identified as "Girangaon," Marathi for "mill village." For over a century, the textile industry was a major driver of the economic, political, and cultural character of the city, and a majority of the mill workers lived in the chawls with their families at walking distances from the mills (Figure 4). The physical proximity led to the formation of distinct social communities and institutions (labor unions), networks (committees), and spaces (community halls, playgrounds and gymnasiums).²⁹ Historically, Girangaon has been recognized by the rest of the city for its vibrant community life and tolerant attitudes. Today, however, the neighborhood is seen largely in terms of its prime real estate potential, due to the

4. A typical *chawl* neighborhood in Girangaon where most workers lived within a short walking distance from their places of work. The small living spaces encouraged use of outdoor spaces (including the veranda) for a variety of activities. Sketch by Sudhir Prakash.

availability of developable land and its proximity to the existing business districts of Mumbai.

As in many of the megacities of Asia, the economy of Mumbai shifted dramatically in the 1980s and 1990s from predominantly manufacturing to service-oriented. Even as the textile industry declined, the mill lands could not be sold for development due to the Urban Land (Ceiling and Regulation) Act of 1976. As a result, there still remain over fifty functioning cotton mills (of which nearly half are government-owned) and many chawl neighborhoods in Girangaon. The Act was reversed in 2006, however, and since then there has been a spate of activities around sale and redevelopment of private and public mill lands. The National Textile Corporation (a central government-owned agency) recently sold three historic chawl complexes in Girangaon spread over eight acres that would potentially dislocate over 1,200 families.³⁰ Mill redevelopments are required to rehabilitate the residents in small (250 square feet) flats, and can only proceed with a 70 percent resident approval. In exchange, the developers receive bonus FAR allowances that make the redevelopments financially viable.

If early redevelopments on mill land are any indicator, Girangaon is on its path to becoming a supermodern skyscraper city. Consider a redevelopment project in the Lower Parel area of Girangaon by Indiabulls Real Estate Limited (IBREL). The original Elphinstone and Jupiter Mills have been demolished, and the mill sites are slated to house multiple skyscrapers. These include One Indiabulls Centre (the company's headquarters) designed by Hafeez Contractor and providing world class amenities for global capital and commerce (Figure 5), Jupiter Mills Tower (a seventy-five-story luxury residence tower), and Elphinstone Mills Tower (a sixty-story Class A office tower) both designed by Chicago-based Adrian Smith + Gordon Gill Architecture (Figures 6 and 7).³¹ The development includes underground parking, highend retail, and landscaped plazas on what was until recently the sites of mills and the homes of



millworkers. Despite the obvious negative social and environmental impact of these large-scale projects, both mill towers are slated to meet LEED (Leadership in Energy Environmental Design) platinum standards. Almost all of the remaining mills are likely to be replaced by similar global 5. One Indiabulls Centre, showing large footprint and global aesthetics. Indiabulls Real Estate's website (http://www.indiabulls.com/RealEstate/ microsite/oneindiabulls/) advertises the development as providing a "world-class work environment [for] prestigious firms from around the world [in the] emerging new business centre of Central Mumbai." Site plan from the Indiabulls Real Estate website (ibid); view taken from architect Hafeez Contractor's website (http://www.hafeezcontractor. com). All sites accessed on October 12, 2009.

architecture of steel and glass towers. This type of development is a complete departure from the existing urbanism of the mills and *chawls* it is replacing.

Once the transformation is complete, a working-class neighborhood with a rich history, sense of community, and vernacular architecture will be transformed into a space that reflects the culture of US-dominated global capitalism. With the erasure of the industrial fabric of Girangaon, the city is losing virtually all of its physical connection to the early industrial and cultural history that allowed it to gain its current prominence. However, there are two exceptions to the prevailing pattern of mill redevelopment: the United Mill and the Phoenix Mill. The former has been set aside for preservation as a museum to interpret the city's industrial history, while the latter already has been adapted for reuse as a shopping mall for high-end retail. Although both of these approaches are certainly improvements over complete loss of the historic fabric, they are still greatly limited in their value. For the former, this kind of "museumification" of a site frozen in time does little to ensure continuity in the ways of life that the existing built environment facilitates and the opportunities that it offers the residents. For the latter, the reuse may help to preserve portions of the built fabric of the industrial landscape, but the high-end nature of the project severs all connections to the social and cultural life that the existing neighborhood's built fabric fostered (Figure 8).

Case Study II: The Dharavi Redevelopment Project

Dharavi was originally located on the fringes of the city in swampy lowlands. In fast urbanizing India, however, the city periphery is a constantly shifting boundary.³² Today, this informal sector occupies a prime location in the heart of the city close to the Bandra-Kurla business center and the airport (as well as along suburban railways lines). Dharavi is



spread over 530 acres, with an estimated population of at least 600,000; the resulting population density is at least ten times that of Manhattan. The area is organized in roughly eighty districts (nagars) with distinct populations and spatial organizations. For example, Kumbharwada is a 12.5 acre district settled by immigrants from the state of Gujarat who earn a living making pottery using the traditional methods of their homeland. Their homes are organized to accommodate this livelihood, with a workshop in the back for the production of pottery. Beyond this is a common area where the pottery kiln is located and shared among residents. The potters sell their finished product from the shop room or the road in front of their homes (Figure 9). Another district, 13-compound Nagar, is largely industrial with a bustling recycling industry. In contrast, Koliwara, an old fishing village that has been incorporated into Dharavi, is now

predominantly residential with commercial activities on the fringes. Koliwada is defined by the Holi Maidan—the largest open space in Dharavi—used for celebrating weddings and festivals, political rallies and cricket matches, and home to a large fish market. Koliwada retains its village-like spatial organization even as it is part of a dense urban neighborhood (Figure 10).³³

A typical housing unit in Dharavi is a rental structure between 100 and 200 square feet shared among families and without a water closet. These homes are incrementally built using a variety of materials, many of which are "found" or recycled objects. In their low-rise form, they have the ability to be flexible, allowing for multi-use and appropriation to suit individual needs and livelihoods.³⁴ The housing here demonstrates "an underlying intuitive grammar of design that is totally absent from the faceless slab blocks that are still being built around the world to 6. Jupiter Mill Tower (foreground) and Elphinstone Mill Tower (background). Jupiter Mill Tower (a.k.a. Indiabulls Sky) will be luxury residential, while Elphinstone Mill Tower (a.k.a. Indiabulls Financial Center) will be high-end corporate offices. Design Architects Adrian Smith and Gordon Gill of Adrian Smith + Gordon Gill Architecture, Chicago, USA. The buildings' aesthetics and forms are unadulterated versions of global modernity. Image © Adrian Smith + Gordon Gill Architecture.

'warehouse' the poor.''³⁵ Although the city government has addressed issues of urban marginality by extending some basic services such as water and sewerage, they have been very cautious to limit themselves to incremental improvements in order to discourage squatters.³⁶ As a result, all of the *nagars* of Dharavi suffer some disinvestment and neglect and from overcrowding and decay, some considerably more than others. Even the mid-rise concrete-block "social housing" built by the Slum Rehabilitation Authority in 2000 along the periphery of Dharavi is already exhibiting more signs of decay than one might expect of a well-maintained property of its age.

Since the 1990s, there have been ongoing efforts by the municipality to reorganize Dharavi into formal housing. However, none of the previous attempts have been at the scale of the most recent Dharavi Redevelopment Project (DRP) touted as the "Opportunity of the Millennium" project. DRP seeks to completely restructure the neighborhood as a zoned high-rise city—a "glittering township of parks, skyscrapers, shopping arcades and good life."37 The U.S.-based MM Construction Company is in the process of creating a master plan that divides the neighborhood into five sectors, each of which would be developed by companies selected through a competitive global bidding process. Residents who can demonstrate evidence of residency prior to a cut-off date of 2000 (initially 1995) would be eligible for a 250-square foot apartment (originally 225) in the new buildings. MM Construction's master plan entails building the rehabilitation housing zones on less than half of the original land, and allocating only 2 percent of the land to retain "non-polluting" industries. The remainder of the land is set aside for upscale residential, commercial, and open space. The plan was approved by the government of Maharashtra in 2004 and work was to start shortly after, but due to the contentious nature of the project and the slowdown of the global economy, the project has been delayed until now (2009). In the meanwhile, project costs have escalated significantly. The design



details of the master plan are not publicly available. Yet, based on a schematic rendering and the allowable FAR, much of the redevelopment is expected to incorporate high-rise towers (Figure 11).

Few disagree with the need to improve the infrastructure of Dharavi, but there are multiple views on how the redevelopment should occur. There is a growing consensus among the residents, and (to a lesser degree) design and planning professionals and policy makers, that the proposed DDP is problematic on several fronts, particularly in its use of Western-style modernist planning (and urbanism) for redeveloping an area that depends heavily on mixed-use for livelihood. The project has faced increasing grassroots resistance, and residents have been able to successfully extend the cut-off date for rehabilitation from 1995 to 2000 and increase the size of the rehabilitation apartments from 225 to 250 square feet. However, many are

7. Entrance to the Elphinstone Mill Tower exhibiting the materiality and high-tech modernity of global architecture. The building provides a covered parking area for 3,000 cars along with other luxury amenities including outdoor terraces and garden atria at all levels. The site is promoted internationally by Houston-based Richards/Carlberg firm. Image © Adrian Smith + Gordon Gill Architecture.

still not satisfied with the way the project has been conceived by MM Construction and the community participation process thus far. In a recent development (July 2009) a State committee appointed to advise on the planning and implementation of the DDP released its findings in which they likened the project to a "sophisticated landgrab" that does not take into account issues of livelihood in the redevelopment proposal.³⁸ The Committee made the point that housing the majority of the current residents in less than half of their existing land (so as to make the remaining land available for market rate developments) would increase the density of people per square foot of built residential space, even after factoring in the excess FAR. And, although the developers are required to make some infrastructure improvements in the locality, the added densities would put considerable stress on the existing transportation, electricity and water infrastructure. (A study on the potential impact of a development of this scale on the already stressed infrastructure of the city has yet to be conducted.) The plan is not only noninclusive; it is also divisive as it is already creating friction between residents who would be rehabilitated and those who would not, based on the arbitrary cut-off date. Finally, the DDP would likely create additional homelessness, as some estimates suggest that about a guarter of the existing residents would not be eligible for rehabilitation based on the residency requirement. The Committee of Experts recommended "an alternative approach to the redevelopment of Dharavi" which is less commercially exploitative and takes into account the "wishes and preferences of the people who live there."39

Lessons from History: Potential Development Alternatives

In this section, I review some prototypes that may provide useful sources for current and future redevelopment of informal settlements in Mumbai. While I contend that these approaches should



resonate with the present-day Mumbai, their usefulness in the current sociopolitical context of the city is by no means assured. Their success would require more support and engagement from the State than is currently occurring in neoliberal Mumbai, and a more robust public participation process. I return to this point below.

Conservation Surgery

The issues being faced in both Girangaon and Dharavi are not new. A century ago, the British sought to improve living conditions in native cities throughout urban India: they created civic institutions like the Public Works Department (PWD) and the City Improvement Trust (CIT). The former was originally created in 1854 to undertake public works projects, but by the turn of the century had evolved into a vehicle for "modern" town planning. The latter began with the establishment of the Bombay Improvement Trust in 1898 following an epidemic of bubonic plaque. The Trust worked on improving the squalid housing conditions in the native city by demolishing areas of blight and rebuilding sanitary housing. However, they were not able to build housing at the same pace at which they demolished, perpetuating the problems they set out to eradicate.⁴⁰

The Scottish sociologist-town planner Patrick Geddes, who was in residence in Bombay in 1915,

was extremely critical of both the PWD and the CIT. He advocated "conservative surgery" as an alternative to the grandiose slum clearance being applied to entire neighborhoods, focused on documentation, preservation, and rehabilitation. This approach reflected a deep appreciation and understanding of the indigenous experience and local ways of building and planning.⁴¹ Geddes was equally disheartened by the experimentation with modern town planning paradigms to address urban issues in India. This was a time when India was experiencing its first wave of modernism through colonial projects, most notably the development of New Delhi by Lutyens and Baker in the tradition of the City Beautiful. In Cities of Evolution, Geddes underscored the gap between grand modernist designs and local needs:

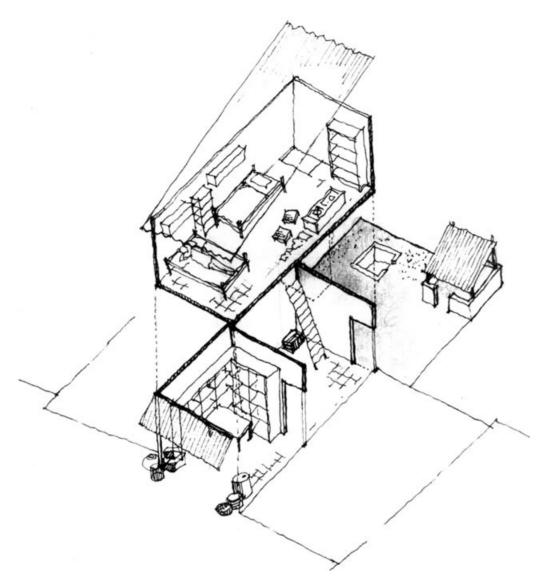
From ancient Egypt to eighteenth-century London to nineteenth-century Paris, twentieth-century Berlin, has it not ever been the fault of the generalising and masterful city architect to become so satisfied with his stately perspectives, his massive façades and formal proportions, as to forget the simpler beauties and graces which are needed by the people...? Is not [a] disastrous reaction inevitable, so long as such architects continue to derive their inspiration mainly from the majesty of the 8. The Bitia Mills (later renamed Phoenix Mill) that began operation in Parel in 1905 was converted into a luxury mall, High Street Phoenix in 2000. This is one of the largest malls is Mumbai with nightclubs, multiplex and a bowling alley. Some of the mill workers now live across the street in Tapovan—a resettlement housing neighborhood—and cannot afford (or have much interest in) the many offerings of the mill-mall. Photo by S. W Ellis, courtesy of the photographer.

State and its Institutions? -too little from and towards the human interest of each neighborhood, the individuality of its homes?⁴²

Geddes's observations on Colonial Bombay hold true a hundred years later in neoliberal Mumbai. The State continues to promote a "blank slate" approach to urban redevelopment, which is inspired by grand modernist planning traditions, clearly detrimental to the continuity of the vernacular built environments and the communities that created them. Geddes's conservation surgery is but one precursor to the modern field of historic preservation planning. That he developed it partly as a result of his experiences in Mumbai lends it a particular sense of contemporary relevance for Girangaon and other chawl neighborhoods. As cities around the world have discovered, maintaining and reusing their historic vernacular built environment is in their long-term cultural, environmental, and economic interest. Mumbai is no exception.

Contemporary Vernacular

For both *jhuggi* and *chawl* residents, rehabilitation into high rise apartments might ensure better services, but it does not guarantee better guality of life or living conditions. On the contrary, the drastic rearrangement of life in a vertical high-rise has great potential to lead to social isolation and the breakdown of community and economic networks, as seen in the failure of public housing projects from the 1960s in the United States.⁴³ Research indicates similar issues of dislocation and disruption in previous projects in India and elsewhere.⁴⁴ Often the residents are unable or unwilling to organize their lives in vertical urban forms with partitioned internal spaces, and feel uncomfortable in those spaces. More importantly, for many, the house is not only a home, but also a place of work. The small apartments do not accommodate live-work (including storage) uses readily. A vertical formal



arrangement destroys the informal economy on which many families rely. For some, renting out the apartments is a good supplemental income, supporting their families. Although illegal for the rehabilitated apartments, this practice is quite common. Others are persuaded by developers to sell their yet-to-be-constructed dwellings for less than the market rate. Hence the apartments are often occupied by people other than those for whom they were intended.⁴⁵ Finally, cost of living and consumption of scarce resources is greater in the apartments, as opposed to traditional houses, owing to an increased need for maintenance. especially when residents cannot readily rely on the informal network of inexpensive (and barter) services. As Correa argues:

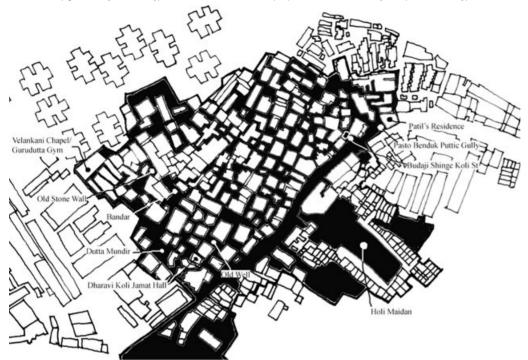
[Many low-income housing projects] perceive housing as a simplistic problem of trying to pile up as many dwelling units (as many boxes) as possible on a given site, without any concern for the other spaces involved in the hierarchy. Result: the desperate effort of the poor to try and live in a context totally unrelated to their needs—a state of affairs not only inhuman, but uneconomic as well.⁴⁶

Even the current Slum Rehabilitation Scheme continues to rely on the outdated concrete block housing models designed without the economic, social and environmental needs of the residents in mind. Correa argues that the most economical and culturally appropriate housing in the Indian context 9. The residents of Kumbarwada in Dharavi are potters who produce mostly utilitarian pottery for domestic use. Their homes demonstrate the intimate live-work arrangement where the upper floor is used as living quarters and the lower floor (and outdoor spaces) are used for producing and selling pottery. Sketch redrawn by Sudhir Prakash based on a sketch by Wahid Seraj, in Matias Echanove and Rahul Srivastava, "The Tool-House" in Urban Design Research Institute, *Mumbai Reader* (Mumbai: Urban Design Research Institute, 2009), p. 386.

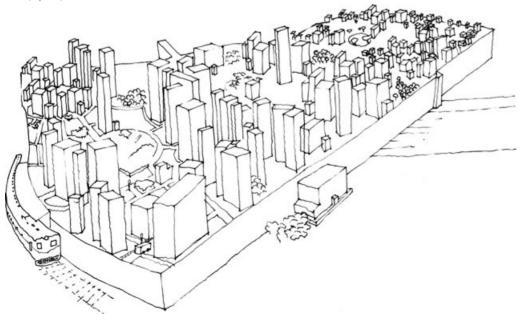
is a "low-rise, high-density configuration, making extensive use of terraces, verandahs, and courtyards."⁴⁷ It is also the most resource-friendly; instead of squandering resources to "air-condition a glass tower under a tropical sun," buildings create the climatic controls the users need through their design.⁴⁸

Solutions to many of the issues facing the redevelopment of Dharavi and other *ihuggis* can be found in examples from across India, including one right across the harbor in the city of Navi Mumbai (New Bombay). There, at Belapur, Correa developed a project implementing many of the locally evolved architectural and planning concepts for housing. This incremental housing project is spread over 136 acres and organized in low-rise structures around courtyards. The houses are organized in clusters of three that form modules of twenty-one houses; three such modules create a micro-neighborhood (Figure 12). Following this spatial hierarchy, the entire township is created with houses that can grow incrementally.⁴⁹ This makes them far more able to accommodate the types of residential and occupational integration crucial to the lives of current *jhuggi* residents. In Belapur, Correa also experiments with the concept of "contemporary vernacular" which he defines as a "self-conscious commitment to uncover a particular tradition's responses to place and climate, and thereafter to exteriorize these formal and symbolic identities into creative new forms through an artist's eye that is very much in touch with contemporary realities and lasting human values."⁵⁰ In doing so, he provides a template that is far more sensitive to the needs of the residents for a familiar and non-alienating environment.

Elsewhere in India, the Aranya Housing project in Indore exhibits many elements of an ingenious spatial grammar well-suited for the socio-economic reality of the residents and the local climate. For this "sites-and-services" project spread over 210 acres, architect Balkrishan Doshi used a spatial network of 10. Koliwada is one of the fishing villages or *Kolis* that existed on the Mahim Creek before Dharavi became an urban informal settlement. This map of Koliwada demonstrates the original village-like layout and highlights some of the significant sites in the neighborhood. Based on their ancestral claim to the land, the residents of Koliwada are considering legal action against the Dharavi Redevelopment Project. Map redrawn by the author based on a schematic map generated by the Urban Typhoon Koliwada-Mumbai workshop. Open source material courtesy of http://www.urbantyphoon.com.



11. A schematic rendering of Dharavi Redevelopment Project showing the vertical massing, wide roads and open spaces. Although the Dharavi Redevelopment Project (DRP) proposed by U.S.-based MM Consultants has been approved by the government, it has not proceeded on schedule due to its contentious nature. Sketch redrawn by Amit Ittyerah from Nauzer Bharucha, "Blueprint for Changes Ready" Times of India Mumbai Edition, April 24, 2006.



high-density, low-rise clusters around courtyards and streets integrating different socio-economic and religious groups. The project was awarded the Aga Khan Award for Architecture in 1995.⁵¹

Both Belapur and Aranya have achieved densities of 500 and 650 persons/hectare respectively (compared to current density of Dharavi at about 1,000 persons/hectare). Although any redevelopment of Dharavi would need to achieve higher densities than these developments, the differences are not so great that the projects cannot be considered a useful template. Well-known examples in other countries include the Ju'er Hutong redevelopment in Beijing, and more recently Teddy Cruz's work with Mexican immigrant communities in San Diego, where he uses design strategies rooted in traditions extracted from the shantytowns of Tijuana.

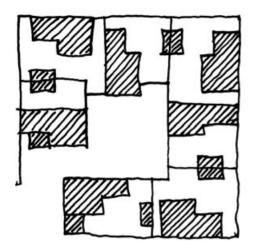
Best practices as these provide a clear alternative vision for the redevelopment of informal settlements like Girangaon and Dharavi. As approaches of this kind are currently out of favor in the strongly neoliberal environment of contemporary Mumbai, it is incumbent upon us architects and planners to document and disseminate the long-term positive impacts of these projects in concrete economic terms.

Past Forward: Embracing Equitable Change

Mumbai can become a "global city" while retaining its urban vernacular and upgrading or rebuilding its urban informal sector. But, to do so, the city must learn the lessons of past attempts, both locally and elsewhere, before it is too late.

First, any redevelopment must begin with an appreciation for the working classes and their economic and cultural contributions to the city. The informal settlements accommodate local, homebased, informal industries, and any attempt at rehabilitation that does not address this simple fact is bound to be far more disruptive than helpful.

Second, the city must rethink the future of its vernacular environments including Girangaon, and



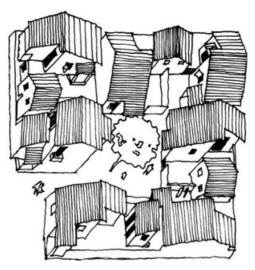
recognize their great historic and social value. They remain the clearest evidence of the history of working-class people in Mumbai, and shed light on "neglected aspects of urban history and its pluralistic nature."⁵² Such places help us all to recognize the slums of the developing world not merely as "doomed, deforming environments," but as communities built by "displaced, formerly rural, people drawn into the modern urbanized economy and energetically aspiring to a better life."⁵³ In the process of helping today's urban poor, the city should not aim to erase all physical evidence of the struggles and aspirations of the generations who came before them.

Third, any plan must recognize that without the influence of professional planners and architects, Dharavi (and the city's many other working class neighborhoods) have

"created an organic and incrementally developing urban form that is pedestrianized, community-centric, and network-based, with mixed use, high density low-rise streetscapes. This is a model many planners have been trying to recreate in cities across the world.⁵⁴

That is, such neighborhoods not only create the small-scale economic opportunities needed by new immigrants, they also encourage social and community support, make a wide range of services accessible to a population unable to afford transport, and impose little environmental impact per capita. Current rehabilitation plans do little to address any of these points.

In the redevelopment projects of Mumbai, the architects and planners involved have an



opportunity to cross the paramount divide in our profession—"the gap between social responsibility and artistic experimentation."⁵⁵ The aesthetic of global modernity undoubtedly has its place in the city, as it seeks to find its niche in the emerging global marketplace. But in the rush to find new ways to house the city's massive population of working poor, designers and planners must not prioritize the values of this approach over a true respect for local urbanism and for the lives and livelihoods of those affected. In the words of Mehrotra, "we cannot jump from our present situation to some ideal condition. The city here is not about grand design but about grand adjustment."⁵⁶

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5. As Hosagrahar has noted, buildings and spaces have socially constructed identities and hence cannot be "labeled as inherently 'modern' or 'traditional' on the basis of their visual characteristic at a moment in time." I do not intend to use the word vernacular as a synonym for traditional in this somewhat false dichotomy. Rather, I use the term more broadly to describe a section of the built environment that evolves over time, and for which the local community is engaged in its creation and/or appropriation.

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15. For an overview of the full range of vernacular environments in Mumbai, refer to a study published in 2007 by the Collective Research Initiatives Trust (CRIT), titled "Understanding Housing Typologies in Mumbai" (available online at *http://www.urban-age.net/10_cities/* 07_mumbai/mumbai_HT.htm). For more on the built environments of Mumbai's colonial past, particularly the process that led to the production of Colonial Bombay, refer to Preeti Chopra, "Reconfiguring the Colonial City: Recovering the Role of Local Inhabitants in the Construction of Colonial Bombay, 1854–1918." Buildings & Landscapes: Journal of the Vernacular Architecture Forum 14 (2007): 109–25.

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18. United States Bureau of Foreign and Domestic Commerce and Henry D. Baker, *British India with Notes on Ceylon, Afghanistan, and Tibet, Special Consular Reports* (Washington: Govt. Print. Off., 1915).

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22. <u>Rebecca Solnit, Storming the Gates of Paradise : Landscapes for</u> *Politics* (Berkeley: University of California Press, 2007), p. 98.

23. Kalpana Sharma, *Rediscovering Dharavi: Stories from Asia's Largest Slum* (New Delhi: Penquin Books India, 2000).

24. Neera Adarkar, "Gendering of the Culture of Building: Case of Mumbai," *Economic and Political Weekly* 38 (2003): 4527–34.

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28. Rahul Mehrotra, "Constructing Cultural Significance: Looking at Bombay's Historic Fort Area," *Future Anterior* 1 (2004): 24–31.

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33. For more information on the different districts within Dharavi refer to Kalpana Sharma, *Rediscovering Dharavi: Stories from Asia's Largest Slum* (New Delhi: Penguin Books India, 2000). 34. Charles Correa, *The New Landscape* (Bombay: Book Society of India, 1985).

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