POLITECNICO DI TORINO
Repository ISTITUZIONALE

Incremental open spaces: the case of Dharavi, India

Original
Incremental open spaces: the case of Dharavi, India / Alcamo, S.S., Bosco, D., Federighi, V.. - In: THE JOURNAL OF DESIGN STRATEGIES. - ISSN 1947-5268. - STAMPA. - 6:1(2013), pp. 56-66.

Availability:
This version is available at: 11583/2678712 since: 2017-08-30T17:16:28Z

Publisher:
Parsons New School for Design

Published
DOI:

Terms of use:

This article is made available under terms and conditions as specified in the corresponding bibliographic description in the repository

Publisher copyright

(Article begins on next page)

21 November 2026

THE JOURNAL OF DESIGN STRATEGIES

Designing for Billions

VOL. 6, NO. 1 | SPRING 2013

PARSONS THE NEW SCHOOL FOR DESIGN

VOL. 6, NO. 1 | SPRING 2013
DESIGNING FOR BILLIONS

EDITORIAL STAFF

Guest Editor
Carlos Teixeira

Executive Editor
Matthew Robb

Managing Editor
Emily Culliton

Copy Editor
Ellen Keelan

Template Design
Pure+Applied

Graphic Design
HvADesign
Henk van Assen
Loide Marwanga
Sarah Eidelson

Illustrations
Serena Alcamo
Daniela Bosco
Manuela Celi
Valeria Federighi
Roberto Iñiguez Flores
Laura Mata García
Cristina Handal Gonzalez
Sonia Manchanda
João Tezza Neto
Jagrut Raval
Rebecca Reubens
Martin Woolley
Haian Xue

The Journal of Design Strategies is published by The New School in association with the School of Design Strategies at Parsons The New School for Design.

PARSONS
2 West 13th Street, 9th floor
New York, NY 10011

Parsons focuses on creating engaged citizens and outstanding artists, designers, scholars, and business leaders through a design-based professional and liberal arts education.

Parsons students learn to rise to the challenges of living, working, and creative decision-making in a world where human experience is increasingly designed.

The school embraces curricular innovation, pioneering uses of technology, collaborative methods, and global perspectives on the future of design.

Volume 7 of the *Journal*, addressing the theme of "Alternative Fashion Systems," will be published Fall 2013.

© The New School 2013. All rights reserved. ISSN: 1935-0112.
ISSN: 1935-0120 (online).

TABLE OF CONTENTS

3 LETTER FROM THE DEAN

4 STEPHAN WEISS LECTURE SERIES

5 LETTER FROM THE EDITOR
Carlos Teixeira

9 SECTION 1: DESIGNING FOR BILLIONS

10 *Design Strategies Dialogue:* Sonia Manchanda, João Tezza Neto, Lou Yongqi, Moderators Bruce Nussbaum and Carlos Teixeira

19 *Green Economy and the Challenges of Conservation in the Amazon* João Tezza Neto

28 *Daring to Dream: The Origins of the DREAM:IN Project* Sonia Manchanda

35 SECTION 2: CASE STUDIES

36 *Design and Nostalgia: Idealized Memory and Strategic Design Innovation in China* Haian Xue and Martin Woolley

45 *Design as Value Catalyst for SMEs in Emerging Contexts: The Case of Guadalajara, Mexico* Manuela Celi, Roberto Iñiguez Flores, and Laura Mata García

56 *Incremental Open Spaces: The Case of Dharavi, India* Serena Alcamo, Daniela Bosco, and Valeria Federighi

67 *Holistic Sustainability Through Collaborative Innovation: The Rhizome Approach* Rebecca Reubens

76 CONTRIBUTORS

INCREMENTAL OPEN SPACES: The Case of Dharavi, India

Serena Alcamo, Daniela Bosco, and Valeria Federighi

INTRODUCTION

Tabula rasa urban renewal programs, with their massive disruption of existing communities, are notoriously intrusive. What alternatives might exist for intervening in slums and other "informal" settlements in less destructive ways? Can the rigid dichotomy of "formal/informal," when applied to urban neighborhoods, be challenged by designing for incremental building? Does the distinction between these two conditions actually impair our understanding of urban life, its problems and its possibilities?

Dharavi, in Mumbai, India, is one of the largest, liveliest—and wealthiest—slums in the world. Working with the urban planning research organization URBZ[1], the authors have been exploring the ways in which its inhabitants' informal way of living benefits Dharavi as well as the whole city of Mumbai, and how these benefits would be compromised or destroyed if the city's current redevelopment plan[2] is carried out, resulting in the razing of the entire district and depriving its inhabitants of basic means of support.

HISTORY OF REDEVELOPMENT EFFORTS IN MUMBAI

Dharavi is often referred to as the largest slum in Asia (though it is now believed that a larger slum exists in Karachi, Pakistan). Its one million inhabitants, by informal census estimates, make up approximately one-seventeenth of the total population of Mumbai, on 220 hectares (530 acres). At 315 people per square meter, Dharavi is six times as densely populated as Manhattan **(SEE FIGURE 1).**[3]

1 URBZ: User-Generated Cities. See www.urbz.net.

2 Mumbai approved a plan in 2004 providing for complete renovation of the Dharavi settlement. Source: *Mumbai Reader* 2007, published by The Urban Design Research Institute, www.udri.org.



FIGURE 1: View of Dharavi.

A peninsular city, Mumbai is not well suited for geographical expansion, and as a result land values are extremely high.[4] Dharavi, originally a peripheral fishing village,[5] now occupies an enviable location within the city that has grown around it; the high-end Bandra-Kurla business complex, for example, is being developed just across the river.

In 1971 the government passed the Maharastra Slum Areas (Improvement, Clearance, and Redevelopment) Act, officially defining Dharavi and other settlements in the city as slums—that is, areas unsuitable for human habitation. As a result, some improvements were made in water infrastructure and drainage, and the settlement's two largest arteries—the 90 Feet Road and the 60 Feet Road—were created. But in the 1980s, about 50 percent of Mumbai's population, about 4.5 million people, still lived in informal settlements, 70 percent of them in recognized slums, giving rise to the city's nickname of "Slumbay."[6]

To address the ongoing issue of Mumbai's slums, two further initiatives were carried out: the Slum Improvement Program (SIP) in 1976 and the Slum Upgradation Program (SUP) in 1983–84. Both initiatives attempted less radical interventions in comparison with previous plans that had simply razed settlements wholesale, displacing masses of people from one slum to the next. This change reflected a shift in approach to the problem of slums, from a top-down to an increasingly bottom-up one. In 1985, under Prime Minister Rajiv Ghandi, one billion rupees (about ten million dollars) was allocated for urban recovery plans in Mumbai. The Bandra-Kurla complex was built at this time, as

3 "Inside Slums, Light in the Darkness," *The Economist*, Jan. 27, 2005.

4 Source: www.mumbaimirror.com. Since 2007 the average Mumbai land value per square meter has increased from 450 to 2,000 rupees.

5 The origin of Dharavi is connected to that of Koliwada village, the oldest district of Mumbai, which has been developed since 1777.

6 Source: www.censusindia.org. "Slumbay" plays on Bombay, the city's former name, which was officially changed in 1995.



FIGURE 2: Design for new open space is provided in the redevelopment plan.

well as seventy-two seven-story buildings, mostly along the fringe of Dharavi. While the aim was to coordinate public welfare and private interests, the law was not well-structured, and as a consequence of the program only housing—and no services—was built for over a decade.

In 2004, the municipality of Mumbai[7] approved the Dharavi Redevelopment Plan, under which the settlement is to be razed and replaced by a high-rise, mixed-use district designed by local architect Mukesh Mehta. The plan is part of a bigger scheme intended to make Mumbai a "world class city" on par with Hong Kong, Shanghai, and Dubai **(SEE FIGURE 2)**.[8]

While this plan clearly implies an improvement in hygiene and density issues within Dharavi, it would also involve the uprooting of an enormous number of inhabitants. Negotiations involved representatives of three primary stakeholder groups: the local population; NGOs such as SPARC[9] and affiliated groups including Mahila Milan and the National Slum Dwellers Federation; and the municipality, which agreed to assign a housing unit to any family that can prove it has lived in Dharavi from at least the year 2000. This concession would reduce the number of families forced to relocate to other slums farther from the city and enable better integration between different social classes. However, according to local organizations such as URBZ, many local families cannot officially prove their total years of residence, as they have no formal or legal documentation.

In any case, the Dharavi Redevelopment Plan would irrevocably remove most local people's means of support—informal industries such as textiles and recycling, pottery, and workshops, which form the economic backbone of Dharavi—forcing them to look outside the district for employment.

7 The Municipal Corporation of Greater Mumbai, also known as the Brihanmumbai Municipal Corporation (BMC), is the civic organ that governs the city. It is the richest municipality in India, with a yearly GDP higher than that of some small Indian states. Created through the 1988 Bombay Municipal Corporation Act, it is responsible for civic infrastructure as well as the administration of the city and some smaller suburbs.

8 See "Vision Mumbai: Transforming Mumbai into a World-Class City," report commissioned by the Maharashtra State Government and produced by business advocacy group Bombay First and the McKinsey consultancy.

9 Society for the Promotion of Area Resource Centers. See www.sparcindia.org.

Two groups have been active in trying to avoid this outcome: the Concerned Citizens of Dharavi, a coalition composed of associations protesting the new plan; and the Dharavi Development Committee, a federation of cooperatives organized in 1987, when the first version of the plan was proposed.[10] Recently these two consortiums have united in order to more effectively pressure the municipality to revise the plan with greater consideration for current inhabitants. To date, the largest concession has been to lower the maximum height of buildings from thirty stories to eight. The plan is currently estimated to cost $2.9 billion; however, no action has yet been taken.

DHARAVI: THE HEART AND LIVER OF MUMBAI

Dharavi is sometimes called "the heart and liver of Mumbai": the heart because of its central position within the city; the liver because its informal industries collect, process, and recycle most of the city's waste. In fact, Dharavi is a major exporter of recycled plastic, supplying international firms such as Johnson & Johnson, and of recycled cardboard, in addition to its leather tanning and pottery manufacturers. The district's yearly income is unofficially estimated at around one billion dollars, a significant contribution to the GDP of Mumbai as a whole, which includes the Bollywood film industry. Eighty percent of Dharavi's population is employed within the settlement, with as much as 40 percent self-employed **(SEE FIGURE 3).**[11]

These industries thrive in various *nagars* (districts) throughout Dharavi, organizing themselves in various informal ways. But what does informal actually mean here? In the in context of architecture and urban planning, "informal" typically refers to a lack of legality; thus the dichotomy formal/informal indicates compliance or noncompliance with regulated standards such as those governing building height, infrastructural soundness, and population density. Lofts built without regard for minimal interior heights are illegal, or informal, just as a temporary commercial shack in the middle of a sidewalk is informal.

For the most part, informality is not a choice but a reaction to the lack of alternatives within the bounds of formality.

In Dharavi's case, informality is the very condition by which wealth is created and its inhabitants supported. No formal settlement would succeed in recreating Dharavi's mix of housing, industry, and commerce, because the standards of formality, in particular zoning regulations, would not accept the consequent juxtapositions (plastic recycling workshops next to residential rooms, for example). This is true of all informal settlements: for the most part, informality is not a choice but a reaction to the lack of alternatives within the bounds of formality. Because of this, the small Mumbai settlements that sprout in the interstices of the formal city—in swamps, on pavements, and under bridges—house the labor force that is the very engine of the city. Ironically, this population could not survive elsewhere, and certainly not close enough to the formal city to enjoy its advantages. This leads to a contradiction: the benefits of informality are not replicable in the formal city, yet the problems that derive from informality can be solved only by resorting to formality. But is the dichotomy between informality and formality truly this rigid? Is it possible to find some continuity through which the designer can operate more lightly and encourage the mixing of these two dimensions?

KINETIC DHARAVI

An alternative definition for Dharavi, and one that seems to serve this purpose well, is that proposed by Harvard Graduate School of Design professor and architect Rahul Mehrotra: "kinetic city."[12] The kinetic city is one where meanings shift continually, where formal becomes informal and vice versa; a

10 Sheela Patel and Jockin Arputham, "Plans for Dharavi: Negotiating a Reconciliation between a State-Driven Market Redevelopment and Residents' Aspirations," *Environment & Urbanization* 20, no. 1, April 2008.

11 "Inside Slums, Light in the Darkness," *The Economist*, Jan. 27, 2005.

12 Rahul Mehrotra, 361° Conference: Design and Informal Cities, Mumbai, October 2010.

city that grows wherever people expand its margins to create space; and one that adjusts and changes over time, leaving few permanent traces. A new dichotomy thus suggests itself: static/kinetic—"static" representing the city made of matter and monuments that are permanent, and "kinetic" meaning the city made of temporary materials and located in the static city's interstitial spaces. In the kinetic city, major variations happen on the temporal axis: an area of a public park may be a cricket field in the morning; undergo a rapid change starting at noon to become the setting for a Bollywood-style evening wedding, complete with flowers, tables, and festoons; only to be dismantled later that night in order to host a cricket game the next morning. According to Mehrotra, "If in Europe the city lives and people seem to disappear, here architecture disappears swallowed by a numerous and lively population." **(SEE FIGURE 4)**[13]

Dharavi is ultimately a kinetic settlement. Its stretch of railroad, officially public land, is used alternatively for hanging clothes to dry, gardening, and even sleeping. Its major roads continually shift from holding markets, to religious functions, to improvised manufacturing, to traffic. Meanwhile, the houses themselves—especially in the New Transit Camp Nagar, one of the richest in Dharavi—are a clear example of informal housing development taken to a high level. Originally one-floor row houses set 1.6 meters apart, they have been incrementally added onto, their upper floors overhanging from the initial structure so that the roofs almost touch each other, blocking light and air and making what were originally alleys into long, dark passages.[14]

Each house sits on a concrete basement foundation that becomes a sort of mediation space between inside and outside, and can host a variety of activities including retail and light manufacturing. Instead of glass panes in the windows, most houses have what are known as grill-boxes hanging from the outer wall, which provide additional storage for household items **(SEE FIGURE 5)**.

When we think in terms of the distinction formal/informal, we are predisposed to valorize formality over its opposite, and to accept that urban development must always tend toward formality. Without this rigid and invidious distinction, it is much easier to imagine design in a slum as a hybrid process.

The space inside these houses is extremely flexible: so much so that Institute of Urbanology founders Rahul Srivastava and Matias Echanove refer to them as "tool houses."[15] Usually consisting of one room and housing up to six family members, the house is a living space during the night and at meals, during which times space is maximized through lofts, stackable mattresses, and folding tables; during the day, the house becomes a workspace, or is rented to various businesses as storage space **(SEE FIGURE 6)**.

In settlements like Dharavi, nonresident designers typically play an ambiguous role. Often they have served as the agents through which mass formalization is physically implemented. Historically, most proposed interventions in informal settlements have consisted either of *tabula rasa* plans—like Mukesh Mehta's—or of more incremental plans to upgrade the physical environment. *Tabula rasa* slum clearing, of course, represents a definitive resort to formality in order to solve problems caused by informality. But the either-or quality implied by such initiatives can actually weaken the targeted settlement, by forcing out the advantages that informality had previously brought to slum dwellers. Upgrading,

13 Mehrotra, 361° Conference.

14 Source: *Mumbai Reader 2008*, published by The Urban Design Research Institute, www.udri.org.

15 Source: www.urbanology.org. See also J. Grima, "URBZ: Crowdsourcing the City," *Domus* 955, 2012.

16 A. Brillembourg and H. Klumpner, co-founders, Urban-Think Tank; see "SLUM Living: Informal Toolbox for a New Architecture," *Lotus* 143, 2010.

17 The Aranya housing project, initiated in 1985 in Indore, India, by architect Balkrishna Doshi, is a site-and-services project for mixed-income housing. See William J. R. Curtis, "Aranya Low-Cost Housing," 463, July-August 2006.

18 Alejandro Aravena, "Quinta Monroy: Elemental," 742, 2006.

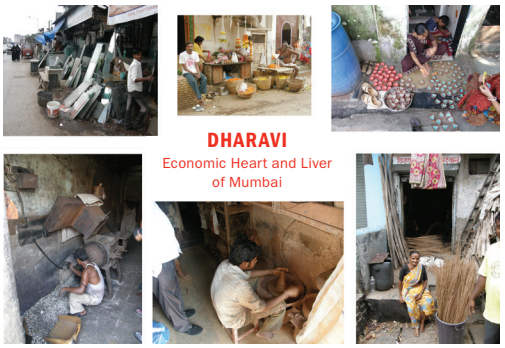


FIGURE 3: Widespread manufacturing activity in Dharavi creates an elevated level of production for Mumbai as a whole.



FIGURE 4: Versatility of open space in Dharavi: a street is used for celebrating, praying, trading, and other purposes throughout the day.

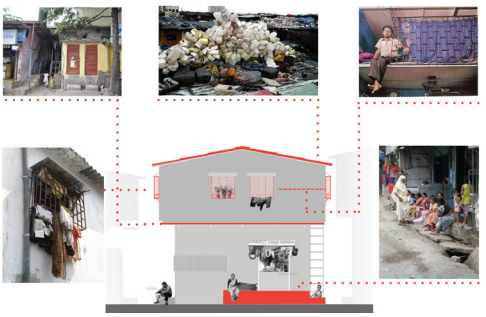


FIGURE 5: Different ways to improve limited space (clockwise from top left): overhanging floor, roof, loft, basement, grill-box.



FIGURE 6: Scheme of tool-house: different configurations of limited space in houses.

whether spontaneous or planned, is often seen as a lighter way to intervene: rather than disrupting the existing urban pattern, it seeks to reinforce its positive qualities while mitigating its problems.

One example of light intervention is Alfredo Brillembourg's Caracas Metro Cable,[16] a cable-car system designed to improve transportation within the slums of that city. This kind of solution, of course, requires a large public investment, something that has been accomplished in many cases in South America (the case of Medellin, Colombia, is particularly exemplary) but that is not always possible. In any case, and referring again to the formal/informal dichotomy, many of these supposedly lighter solutions merely attempt to establish a formal structure to contain the informal; in other words, despite the intention to elicit a more gradual transition, these initiatives nevertheless involve imposing a massive change in the daily lives of thousands or millions of people.

In the last thirty years or so, another stream has developed: design that is predisposed for completion by the end users. This is the case in site-and-services plans such as Balkrishna Doshi's Aranya project,[17] in which the designer provided future inhabitants with an abacus of elements to use in any combination they wished. A more recent example is Alejandro Aravena's scheme in Quinta Monroy, Chile, built by his firm, Elemental.[18] These models enable an actual mixing of the two dimensions: the



FIGURE 7: Asbestos roofs are currently used primarily by young people as an outlet space to play, rest, or socialize.

formality of planning can be completed informally, through the design of a menu of modular elements that can be adapted to specific situations. The scheme generally includes a formal support that is intended to be filled in incrementally over time, in a more or less ad hoc and informal way. The Quinta Monroy dwelling, for example, was predisposed by the designer to be expanded by its inhabitants to a certain point. Other designers, such as John Habraken, Yona Friedman, and Teddy Cruz, have also theorized shelf or umbrella structures that would give an initial formal input to the informal settlement that is intended to emerge over time. In projects such as these, the dichotomy fades: when we think in terms of the distinction formal/informal, we are predisposed to valorize formality over its opposite, and to accept that urban development must always tend toward formality. Without this rigid and invidious distinction, it is much easier to imagine design in a slum as a hybrid process, answering to Mehrotra's definition of the kinetic city. We believe this is a more appropriate approach in the case of Dharavi.

PROJECT PROPOSAL

This project belongs to a great extent to the long tradition of design for incremental building. Most of that tradition, however, consists of *ex novo* plans such as Doshi's Aranya, Aravena's Quinta Monroy, and Yona Friedman's umbrellas, in which the formal design element is an infrastructure that serves to make the subsequent informal building easier, more sanitary, and more structurally sound. By contrast, in Dharavi we wished to respond to the municipality's *tabula rasa* plan with a project that would highlight the settlement's existing strengths, reducing demolition as much as possible. Our design for incremental building, then, is a sort of "urban acupuncture"[19] that attempts to add a layer of

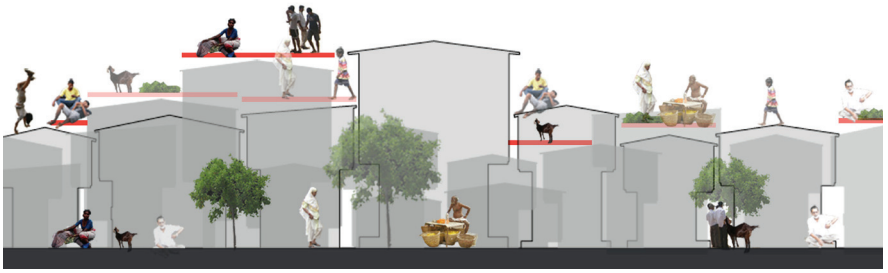


FIGURE 8: Roofs may be turned into new open and usable space for inhabitants, with walkable platforms.

development over the existing fabric of the district.

One of the kinetic elements we have observed in Dharavi are the roofs, which generally consist of simple sheets of asbestos supported by slim steel profiles. While not formally accessible, the rooftops are used extensively by children for playing or socializing, and by family-scale firms for storage **(SEE FIGURE 7)**. We believe that the roofs hold much potential for maximizing the availability of open space—and they undoubtedly belong to local tradition, as most of the oldest houses have beautifully tiled rooftop terraces, particularly those in Koliwada Nagar, the original fishing village from which Dharavi later developed.

The main idea of the project is to increase the usability of the roofs through construction by the municipality of a number of platforms over the existing roofs, which can then be completed and replicated by the inhabitants according to their own needs. In this way, the project attempts to unite formal (municipal intervention) and informal (inhabitant input and completion) approaches to the surrounding urban infrastructure, melding these into an incremental process where they not only alternate temporally but also intertwine, thus creating a third dimension that, for lack of a more precise definition, we could call kinetic **(SEE FIGURE 8)**.

The project is organized into four sequential phases, with the only "designed" intervention, the building of the platforms, occurring in the first phase. The emergence of subsequent phases depends on the success of the first; we imagine the platforms as placeholders for what may happen, which preserves maximum flexibility of use for the inhabitants themselves. Mediation could be performed by a social service agency with established ties to the local government—one that has been in the area for some time and has earned the inhabitants' trust (possibilities include SPARC and Slum Dwellers International).

In the first phase, the municipality builds ten platforms distributed throughout the block that will serve as the project site **(SEE FIGURE 9)**. To maximize flexibility, inhabitants are given a choice of a simpler platform consisting of a green roof on steel pillars or a larger one made up of a two-story skeleton structure with no finished roof. The chosen NGO is responsible for ensuring that families understand the options and act according to their interests. The two types of structure allow participants to opt for one of the following: an immediately usable space (the green roof) that offers a good alternative in terms of thermal mass and practical usage, such as vegetable growing; or a more flexible space that involves more commitment to complete in terms of time and money but that offers wider possibilities for additional rooms, for example, or a henhouse. The choice of a structure on steel pillars standing on the ground, which may at first seem invasive, results from a series of considerations regarding the district's pattern and the identity of these new

19 Expression coined by Alfredo Brillembourg at 361° Conference: Design and Informal Cities, Mumbai, October 2010, in reference to using redevelopment projects more surgically to regenerate degraded areas.

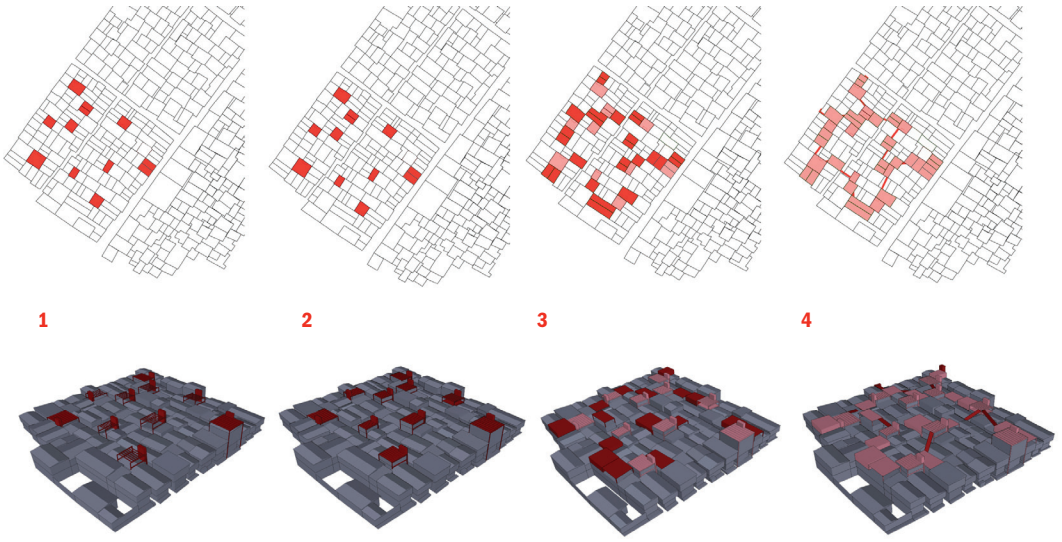


FIGURE 9: Phases of incremental process: (1) public intervention (2) self-building completion (3) self-building intervention (4) final public intervention.

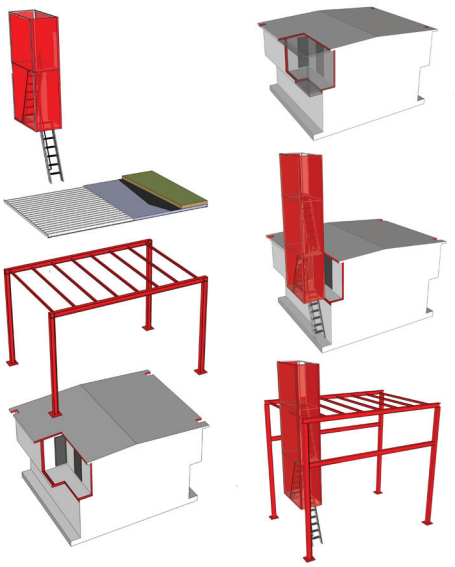


FIGURE 10: Two possible light structures: a completed green roof structure and an incomplete two-level structure.

objects: first, the structure of the existing houses lacks the strength to (formally) support additional weight; secondly, building a self-supporting structure allows the inhabitants to complete the whole whenever they are able **(SEE FIGURE 10).**

The second phase involves residents filling in the missing parts of the platforms according to each household's individual preferences and needs. Those who have purchased a green roof platform simply remove the asbestos slabs and close the peripheral walls against the platforms; alternatively, they can leave the asbestos on temporarily. With the two-story platforms, the possibilities are more numerous. The dwellers can complete the structures to serve as chicken coops, small gardens, or lofts, for example. The height of the intermediate space is limited in order to discourage inhabitants from creating additional housing units for sublet, an important condition given that the goal of the project is to increase the ratio of open space per inhabitant; however, this restriction cannot be practically enforced.

Incremental building generally relies on a slow process of communal assimilation of technique and know-how. If the municipality-built platforms are appreciated and considered useful by



FIGURE 11: The incremental process applied to a block in Dharavi.



FIGURE 12: Possible configuration of platforms in Dharavi: roof level replicates street-level life.

the inhabitants, it is possible that in time they will be replicated and become part of local construction knowledge. This represents the third phase of the project. With the final form of the self-built platforms left undefined, one can easily imagine that the cheapest and easiest mode of construction would be chosen most often. Possibilities for basic construction include a simple walkable roof in place of the asbestos one, or extending the house by raising the height of the roof. These choices cannot themselves be planned; indeed the strength of the project lies precisely in this uncertainty, and in the freedom of the inhabitants to choose whichever solution they wish, or none. Therefore, in this prospective third phase, with the acceptance and replication of the platforms, the number of these structures begins to increase throughout the district and their surfaces together begin to delineate a space parallel to street level but higher—an alternative open space above the crowded streetscape of Dharavi.

This replication pattern could in fact change the diffuse use of the platforms. While a limited number of platforms scattered across the block would inevitably limit them to private use, once their number grows their use could become increasingly public. While private and public cannot truly be separated in an area where space is so scarce, one could imagine a more private use replicating the functions of the home, and a more public one replicating those of the street. If this latter

happens, which seems probable, then in a fourth phase the municipality would build simple connections between the platforms in order to increase their usability within the community as a whole **(SEE FIGURES 11–12).**

CONCLUSION

The intention of this project is to address the scarcity of open space in Dharavi. Our aim is not to solve all of Dharavi's problems in the manner of the redevelopment plan: obviously, enormous issues relating to such matters as hygiene and infrastructure would persist.

The strength of the project lies precisely in the freedom of the inhabitants to choose whichever solution they wish, or none.

The project is a design experiment that attempts to utilize the technique of incremental building, already widely used in informal settings, for purposes other than to create simple housing units and in ways that go beyond *ex novo* designs. The application of guided incremental building in the design of public spaces could lead to an easier coexistence between the formal and informal dimensions of densely populated urban landscapes, and could potentially be applied in other settlements. As Mehrotra puts it, the study of Dharavi should serve to prepare the discipline to work constructively in numerous similar settlements currently sprouting across the developing world. In the best tradition of designers like Aravena and thinkers like Friedman and Habraken, this proposal aims to stress the underestimated potential of incremental building as an organic way to intervene in an extremely complex urban texture, as opposed to the oversimplifying and violent practice of destroying to build anew. It is our belief that design can play an important role in allowing new voices and perspectives to contribute to the decision-making around urban life, infrastructure, and planning.