


Reclaim Growth!

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The team proposes the idea of *tabula prouta* – suggesting that public funds should be made available to residents to expand and improve their own homes and businesses. The proposal espouses, in particular, the concepts of the tool-house, home-grown urbanism, participatory urbanism and incremental upgrading. The jury found the proposal to be sound in its guiding vision and to provide a framework for reconstruction within which residents can build themselves. However, the jury was concerned about the feasibility of installing a grid-based structural frame in Dharavi.



PREMISE

Due to rapid urbanisation, the need for affordable housing is growing constantly in India. Private developers and Governments are unable to cope with the demand, especially as construction and land operating costs keep escalating. The standard response is to increase the production of housing, while reducing the cost per unit. This means scaling up housing projects, reducing the surface area of each flat to the minimum, and building further away from city centres. When this is not enough many developers reduce their cost by compromising on quality. As a result, many affordable buildings quickly degrade and become extremely costly to maintain for the people who live in them. This ultimately impacts the quality of life of the residents and the value of their property.

In Mumbai, the SRA provides private developers with an incentive to resettle slum dwellers into small high-rise apartment blocks in exchange for building rights in other parts of the city. The local economic lives in Dharavi as well as their social and cultural lives are systematically overlooked in these redevelopment projects that focus purely on one dimension of urban dwelling: housing. Those who manufacture goods from their homes or run small shops in the street find themselves locked up in high-rise apartments and are forced to commute far from home in search of employment (which also increases traffic congestion). Eventually, many choose to sell off the units and use that money to live elsewhere in the city, usually in a suburban slum less developed than the one they lived in before redevelopment. Another major shortcoming of the scheme is that it only benefits those who can prove they resided in the area for over ten years. Thus, the majority of occupiers or settlers who are tenants or not

eligible are pushed out of any negotiation from the start and move elsewhere. It also never gets rid of the problem of providing housing for the poor, nor does it improve the quality of life of the city as a whole, which has to deal with a constantly shifting, and proliferating population that continues to live in areas with poor or non-existent infrastructure. This strategy has not succeeded in making much dent on the problem of housing for a majority of residents.

From the point of view of the new migrant, or that of the suburban slum-dweller, parts of Dharavi are aspirational. Over the years people have replaced their shacks with brick and concrete houses, which often double as retail or production spaces.

Dharavi has grown into a densely populated neighbourhood, its identity marked by low income, low caste migrants from all over India, playing a central role in the economy by absorbing a huge manufacturing workforce. Yet, the settlement also piles up garbage, community toilets are overcrowded and storm water drains double up as sewage systems.

Some parts of Dharavi are well built and consolidated, other are struggling. Its tens of thousands of houses must be considered as an existing stock of affordable housing, waiting to be improved and infused with better civic infrastructure. Along with this, there is a deeper structure that pulls the habitat into coherence. This proposal presents architectural and planning ideas that could help people in Dharavi expand their own homes and improve the entire area, without displacing anyone and maintaining community engagement as the larger infrastructure is put into place.

GUIDING PRINCIPLES

1. Reclaim Growth

Dharavi doesn't need to be "re" developed. What is essential is to recognise the dynamics at work in Dharavi and imagine ways of supporting them. It is in its growing dynamic ecology that urbanists and architects can learn to evolve a new vocabulary of urban planning and reinvent the economy in a manner that responds to contemporary needs.

2. Home-Grown Neighbourhoods

Dharavi can be understood as built by local contractors in response to residents' growing needs. The proximity between end users and builders increases the agency of the end user, her sense of identity and attachment to the neighbourhood. It also keeps precious resources (jobs) within the area. Finally, it reduces the cost and increases the quality of housing as local contractors rely on their reputation to get more jobs. Working within the existing fabric and with local actors, urbanists, architects, engineers and policy makers can contribute meaningfully to ongoing user-led improvement in home-grown neighbourhoods.

3. Neighbourhood in Formation - Beyond the Informal

Dharavi's in-formation continually generates structures and institutions that respond to local needs and means. They are typically mixed use and overlap economic, social, and residential functions, at both the level of the individual home and that of the community. Among many other things, they provide affordable housing to a city in dire need of it. No planning can happen without recognising the structural and spatial importance of the existing habitat of Dharavi.

4. Tabula Pronta

A tabula prona approach acknowledges the logic and the needs of incrementally developed habitats. It depends on working with local actors, and employing a range of activities and partnerships, using the knowledge embedded in neighbourhoods as a starting point. These neighbourhoods negotiate with local political and municipal authorities and have managed to create a symbiotic relationship with new migrants and tenants in the locality as well.

5. Occupancy Rights

At present occupancy right is a political rather than a legal right. Although elected representatives recognise the political right of inhabitants to remain on Government or vacant land, the arrangement is always conflict-ridden, as residents are not legal owners but can live there by negotiating this arrangement on a daily basis. The bureaucrats and the middle-class usually perceive unplanned neighbourhoods as encroachments, regardless of their history. By officially encouraging occupancy rights, and recognising the right of using land over that of buying or selling it, neighbourhoods can be protected from speculative redevelopment during or after the process of rehabilitation.

6. Radical Incrementalism

The incremental growth of cities is the default form of urban development all over the world, especially when there is no grand master plan imposed. Yet, its nascent forms, and potential is dismissed in cities like Mumbai where urban development is dominated by speculative interests and narratives of a world-class and master-planned city.

Radical incrementalism is all about making whole-hearted moves of incorporating high quality sewage systems, garbage disposal mechanisms and clean water supply by using elements of retrofitting and simultaneously projecting their future on idealised versions of those neighbourhoods. Radical incrementalism points out that the history of incremental development connects urban contexts that everything else seems to set apart.

7. Tool-house

The tool-house is a space that is used both for living and for income generation. Most structures in Dharavi have multiple functions. Tool-houses are usually clustered together and create lively mixed use neighbourhoods. Unfortunately there are no tool-houses in master planned and zoned neighbourhoods, where living and working are effectively segregated by building codes and land use regulations. Neighbourhood boundaries are often defined along ethnic lines, and the same logic structures the neighbourhoods internally.

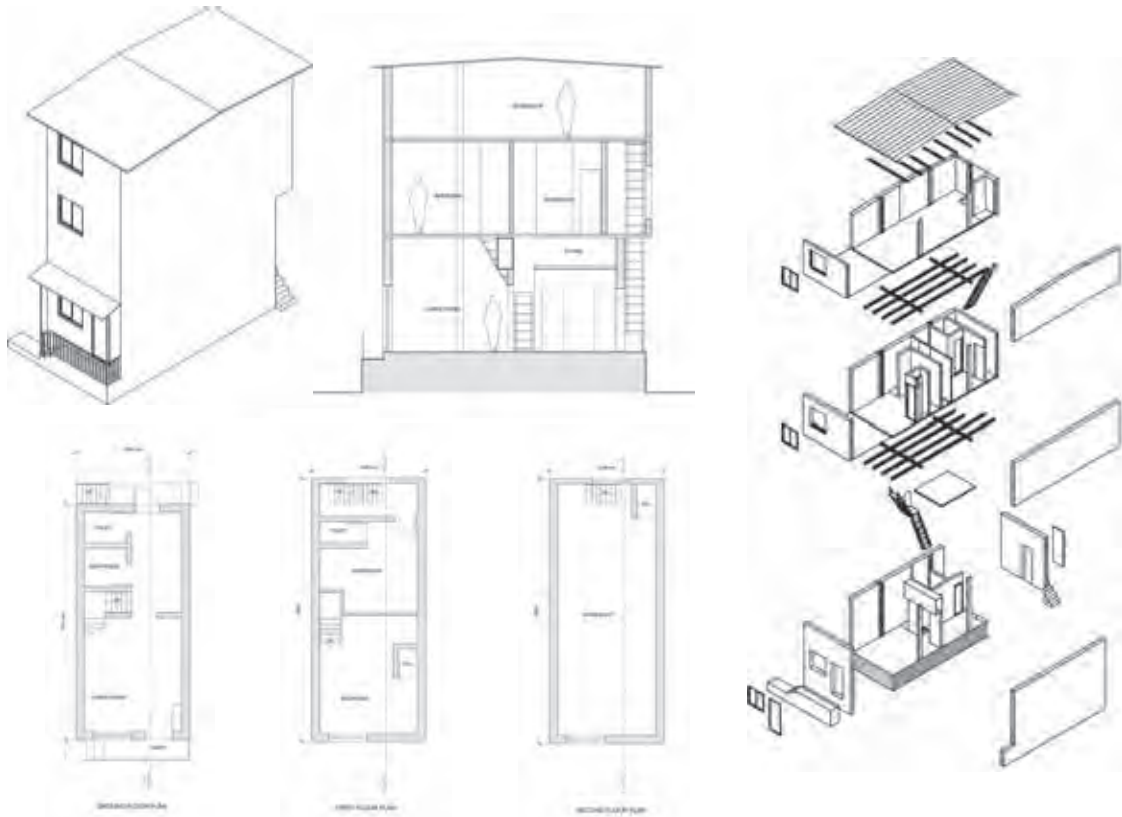
Clusters of specialised activities relying on economic cooperation produce economies of scale. Agents connect these clusters to spaces of trade. Economic interdependency and trade networks consolidate neighbourhoods and create bridges between different communities, promoting social peace. Within neighbourhoods, community ties help raise capital and resources for individuals and families and help provide social security to tide over bad times. These are the typologies that the proposal tries to maintain.

8. Participatory Urbanism

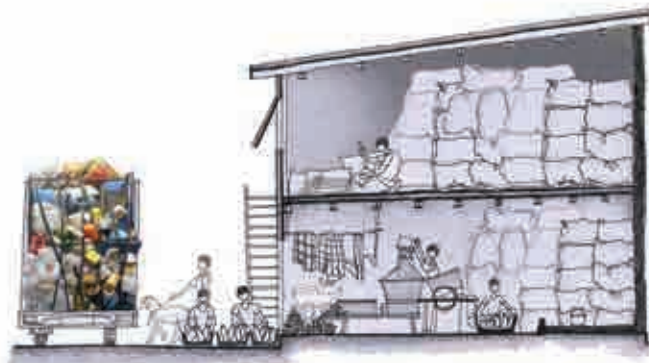
This idea is based on the broad consensus that citizens' participation in civic and urban spaces is a sign of democratic vitality and that it can improve governance.

9. Bringing Health Back Home

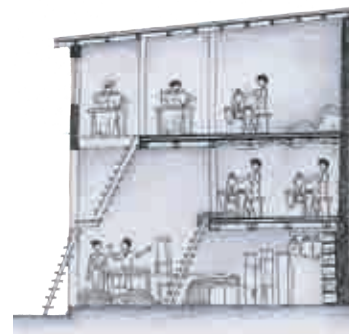
Bringing about small changes in arrangements like ventilation, chimneys, sunlight can be incorporated into plans on a home by home basis more easily than bringing in large scale, total transformation of the neighbourhood. The enhanced presence of women in the work context with greater proximity between work and residence also goes to their advantage. Mass housing projects, leached of income, land up declining quickly into poorly maintained areas in which the combination of poverty and the expensive upkeep has a greater negative impact in the long run. Incremental improvement is in sync with many of their concerns with regards to health improvements, incomes, education and social issues.



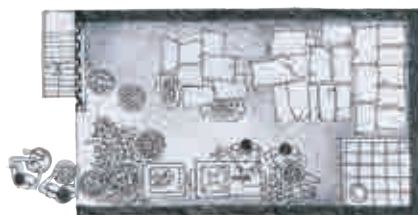
Study of a house in Dharavi built in 2013 by a local contractor. The house required four weeks and fourteen workers in total, to be built. The family who owns it are long time residents of Dharavi. They rent out half of the first floor and the entire second floor to embroiderers.



Recycling industry



Embroidery workshop



Tool-houses in 13th Compound, Dharavi

GOVERNANCE

Participatory Budgeting

The creation of nagar-level committees elected yearly by residents is recommended, which decide on the allocation of the budget generated by universal rent. Proposals for new investments could come from residents and non-residents alike. Representatives of local NGOs, religious organisations, political parties and other honorary residents and local leaders could sit on an advisory board that would give its recommendation to the committee.

Representatives of each nagar level committee would also sit in a Dharavi-wide committee that would decide upon Dharavi-wide resource allocation.

Guild-based Associations

Construction workers should be encouraged to create guild-based professional associations that can then adopt norms for safety and health standards.

FINANCE

Local Currency

This could be managed by a social bank that finances local enterprises in construction or improvement of new houses or businesses. It could grant microcredits with low interest rates with no requirement of registration, proof or guarantor.

Universal Rent

Government land in Dharavi could go to a public trust, which collects a small tax on every structure in which bigger spaces would pay proportionately more. In this scheme,

the Government gives everyone who lives in Dharavi occupancy rights in exchange for rent. The money collected would go to a public trust with a mission to improve the infrastructure of Dharavi. This rent would increase by 8% every year over 20 years and be re-evaluated accordingly. The budget would be divided between urgent priority infrastructure work and a communal fund that would be in the hands of representatives at the nagar level. A part of the budget could be used to provide incentives to home builders to use certain kinds of non-toxic materials over others.

POLICY

Tenure Rights

Granting occupancy right rather than property rights reduces the risk of promoters/municipal authorities buying out slum dwellers to develop high value housing or office structures and the resulting financial gain for transfer of public land into private hands.

Home-Grown Construction Codes

A new set of protocols for improving the house through environmentally friendly ventilation systems and non-toxic construction materials must be created. This new code should be based on existing construction practices and costs and produced in consultation with local construction experts and representatives.

PLANNING

Zoning

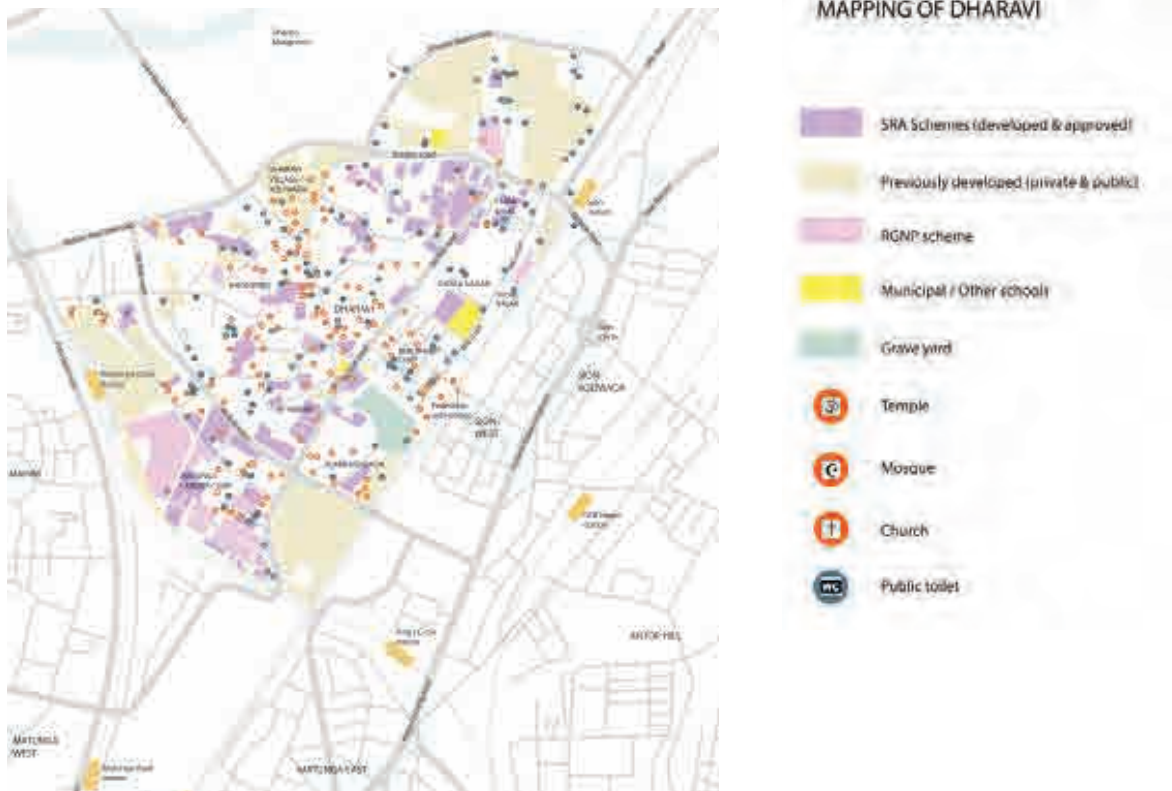
No strict zoning should be imposed on Dharavi barring for pollution causing or health risk activities. On the contrary, a new zoning code should be created based on the recognition and legalisation of all the forms of mixed use typologies that can be seen in Dharavi.

Special Economic Zone

A new special economic zone can be designated to recognise small scale economic units, industrial and artisan areas.

Accommodating High Density

To lessen displacement, it is not recommended to reduce density or create more open grounds if it means displacing people. However, more can be done to optimise existing open spaces, whether they are streets and roads, or courtyards around temples and schools. Such spaces should be redesigned so they are accessible to all and in particular to children. It is recommended to plant trees along existing streets and roads wherever space allows it. These increase the conviviality of public spaces, help clean the air and provide shade.



Map of Dharavi showing religious sites, toilets, large scale buildings and public institutions. The many neighbourhoods of Dharavi are organised around temples and mosques. These are among the most important structuring features of the area along with schools and public toilets. No planning can happen without recognising their structural and spatial importance.

HOUSING

A constructive system is proposed that would allow people to consolidate their existing houses and provide the structural strength to add more stories, a roof garden, and courtyard on top. Opportunities are provided for the extension of living and working spaces. New floors can be used to accommodate growing families and businesses. They can also simply be used as extra space for current residents. The proposal hence, is about a systemic addition of scalable improvements in infrastructure (water and drainage) and structural stability creating an open system that is susceptible to configuration as a palimpsest: incremental layers of growth. Each individual project can support its neighbours and connect them into a large infrastructural network. Interventions are such that they learn, borrow and improve on current construction and material practices which local actors can implement.

SOCIAL INFRASTRUCTURE

Water and Toilets

Existing ad hoc networks should be maintained. Phase wise improvement of water systems is proposed in consultation with end-users and local plumbers. Local associations could be set up to manage and prioritise sewage and drainage systems on different streets collectively. Individual toilets must be encouraged and subsidised where possible. All open drains should be immediately covered by the BMC. In the meantime, long-term solutions can be elaborated on a case to case basis by local associations working with experts.

PHASING

Phase Wise Development of Transit Camp



Existing Site



First level of houses added along the street front and around the courtyards



Structural pipes and service pipes superimposed on the existing to reinforce and allow for vertical expansion while connecting to infrastructure



Second layer of houses added and gradual amalgamation of plots within the site

LIVELIHOOD

Special Economic Zone

A tax moratorium for small businesses of up to 50 employees in Dharavi for 10 years must be proposed, so they can get out of their so-called informality and get an incentive to invest in their activities and grow.

Vocational Training

Vocational training institutes that allow local youth to connect fields of activities that are well developed in Dharavi, such as embroidery, food production or recycling with state of art technology could be established.

E-Commerce

Promotion of web-based technologies to support existing businesses in Dharavi would unleash an enormous potential for better management and coordination of existing activities, but also allow local producers to reach out to new markets outside of Mumbai and India.

TRANSPORT

Pedestrian Zone

Dharavi should be recognised as a pedestrian neighbourhood. Only four wheelers that should be authorised in Dharavi and through its main arteries (90 Feet Road, 60 Feet Road, MG Road, Dharavi Main Road, etc.) are public transport, utility vehicles.

Tramway

The proposal suggests developing a low cost tramway line that would connect the different train stations around Dharavi. 60 Feet Road

and 90 Feet Road would be excellent axes for tramway lines.

Rails for Pushcarts

It is recommended to do a large study of innovative ways of carrying goods in and through Dharavi, connecting it to the main transportation networks in the rest of the city. For instance, one can imagine handcarts on rail that could be pushed manually and could go through some of the most active zones of activity in Dharavi.

ENVIRONMENT

Air and Water Pollution

Encourage the relocation of polluting industries and incentivise those who relocate quickly or stop polluting.

Green Roofs

Create maximum incentives for the conversion of health damaging asbestos roofs into non-asbestos, green roofs.

High Tension Lines

It is vital that government urgently remove or elevate high tension power lines over Dharavi, which are a health hazard.