

POLITECNICO DI TORINO
FIRST SCHOOL OF ARCHITECTURE
Master of Science in Architecture (Construction)
Honors theses

Increasing open space in Dharavi: incremental design process in a slum in Mumbai

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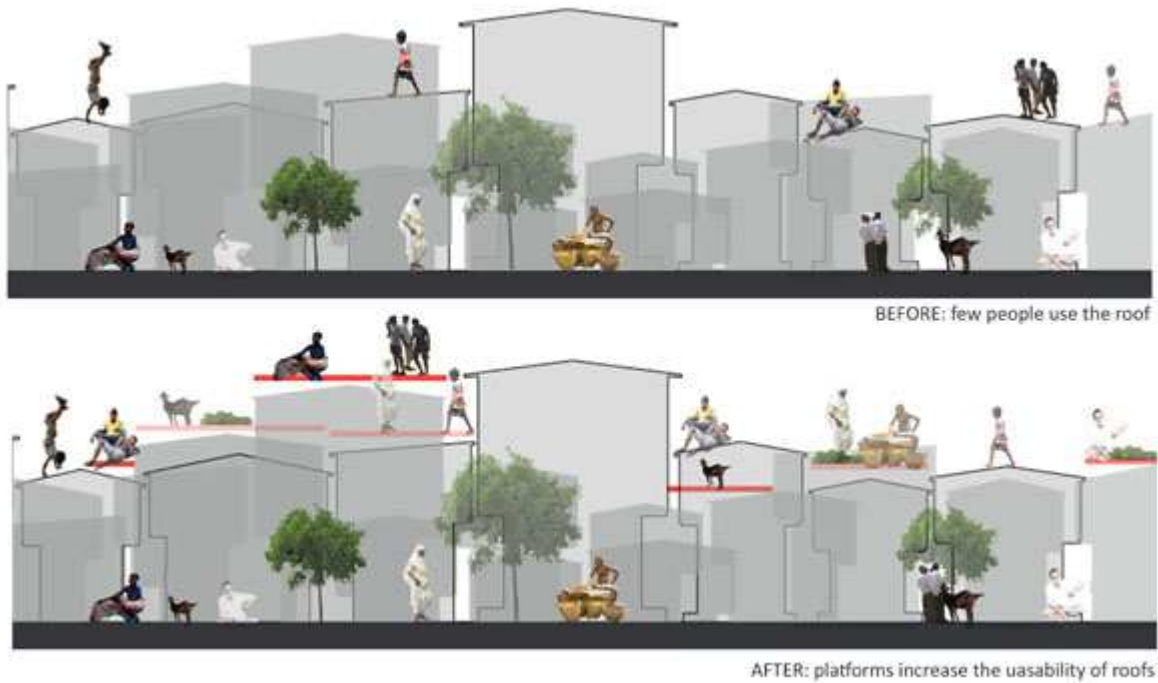
Co-tutors: Matias Echanove, Rahul Mehrotra and Rahul Srivastava

One of the main issues in Dharavi as, probably, in every other informal settlement, is the lack of space. We spent a month in Dharavi and thanks to this stay we were able to experience how the inhabitants face their problems like lack of infrastructures, hygiene, and such – but most of all how they cope with the main issue, as we said before, the scarcity of space. It is the lack of space that has driven the inhabitants to create hybrid spaces, house- manufactures, hou- se- shops, house- workshops; these spaces are necessary to the survival of the inhabitants, 80% of which, to prove the point, work in Dharavi and 40% of which are self- employed.

A more specific examination of the issue is pursued through our attendance to the 361° Conference: “Design and Informal Cities”, which was held in Mumbai in October. –this allowed us to analyse and take apart pillars of the historical tradition such as the dichotomy “formal/informal”, and the need to find a “solution” to the “slum problem”.

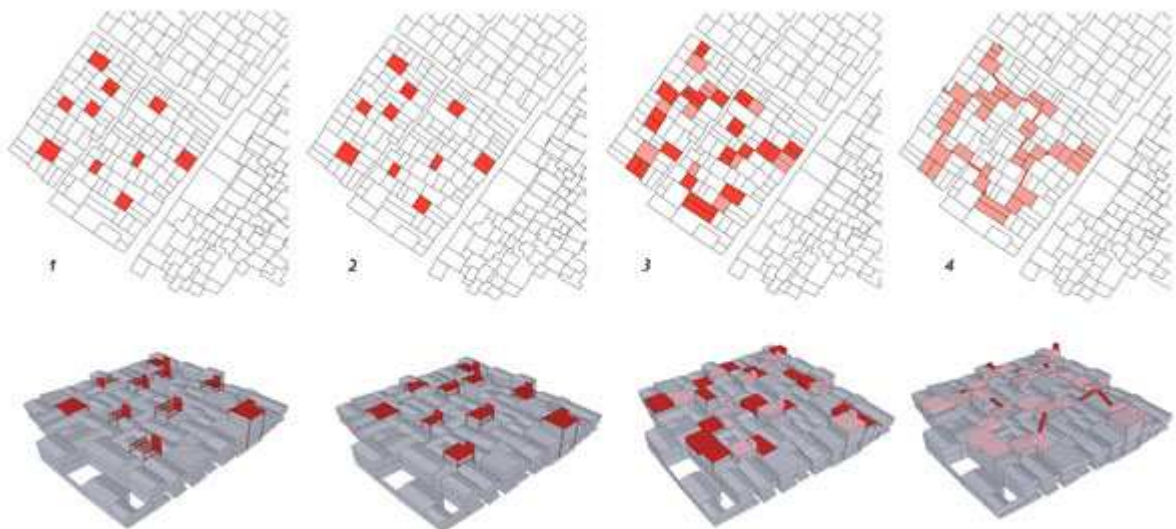
An alternative of this dichotomy was given by Mehrotra with the “kinetic City” concept. The “kinetic city” is a city where every space can change its conformation depending on the time and needs of its users; where density is so high that there is a mean ratio of 0,2 square meters of open space per person. From this standpoint, our research goes on to consider how the inhabitants find spare space where they can: grill boxes at windows to put plants and objects in; single rooms that work both as a house for a family of five and as a manufacturing workshop; lofts to sleep on, even with very low ceiling heights; and, finally, asbestos roofs used as surfaces to play, fly kites, sleep, socialize, and even store goods.

The roof, as we saw it, is a sort of outlet and refuge place away from the over-crowded, overdynamic street life: since it is not possible to talk about public space in Dharavi, as the functions are so spontaneously mixed that they become inextricable, the roof appeared to us as a sort of virgin space that the inhabitants could turn to, to increase open spaces. As it is, only young boys actually use that surface, because it is not properly accessible and structured to host any other function than that of casual playing and walking.



Concept

Our final project, then, tries to find a way to give people the possibility of using that space as they see best fit: by building an initial series of well- structured platforms on the roofs, over and under which the inhabitants can obtain certain spaces, as a sort of upgrading, “urban acupuncture” design that can be considered as an incipit to a series of modifications that will supposedly be made by the inhabitants.



Different phases of the process

In the best tradition of incremental building, our project aims only to put inhabitants in the position of obtaining certain advantages and achieving certain results, which aren't definite yet: the platforms could be used to replicate the different functions of the street level; could become a social, gathering space; could be maintained as a more private space, used for manufacturing and family functions, and so take different configurations, depending on inhabitants needs. This same indefiniteness is, paradoxically, the process' point of strength, because it permits the users to combine the advantages of planned, "formal" structures, with those of unplanned, self-built spaces, an alternative between the formal and informal way of planning.



Integration of the platforms and views

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