POLITECNICO DI TORINO Master of Science in Architecture Construction City Honors theses

LEARNING FROM TOOL-HOUSES: URBAN ALTERNATIVES IN DELHI AND MUMBAI

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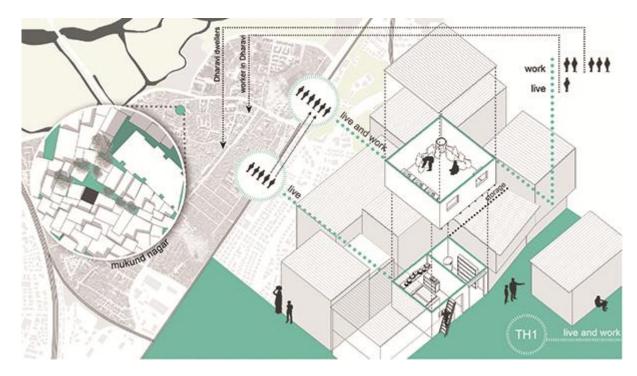
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In the fast world urbanization process, urban areas of the developing countries play a fundamental role. The inhabitants of these megalopolis are intended to increase, and the slums all over the world will absorb most of the rural migrants. Only these neighborhoods are able to respond to the poor population's housing demand. This thesis is focused on houses of these places, and defines their value and meaning, within the wider urban system where they are inserted. Houses here are "Tool-Houses", architectures where living and working functions coexist and constantly overlap. The direct research on the field allowed us to understand and compare the situation between the informal settlement of Dharavi, in Mumbai, and the resettlement colony of Savda Ghevra, in New Delhi. The result is a comparison full of contrasts: on the one hand the virtuous features of the informality, on the other hand the government's ruinous attempt to respond to the housing demand of the poorest class, through the formalization of illegal settlements.



Inside view of a Tool-House engaged in gloves production in Dharavi

Through the analysis of twelve case studies, we reconstructed the daily dynamics of each house, examining the use and the flexibility of the space, the movements and the ways of transport of people and goods, the families' migration phenomena and the economic relationships. This allowed us to throw light also on some key-themes in order to understand the whole settlements, specifically: the economic-productive structure, the access to the urban world, the organizational system, the mobility, etc.



Analysis of the use and the flexibility of the space in a case study

In Dharavi the urban system was born spontaneously from the inhabitants needs, that caused the develop of a mixed-use and high-horizontal-density urban pattern. The result is a resilient, changeable and chaotic settlement, characterized by sets of problems, but also by extraordinary positive features. Even though Dharavi and many informal settlements are an efficient answer to housing and working needs for millions of urban poor, their models of development are not protected nor even examined by governments and public administrations. On the contrary, their attention is focused on the transformation of Indian megalopolis into "slum free" cities through the demolition of illegal settlements and making then the inhabitants move to new planned colonies. New Delhi proves the point: its urban boundaries are changing into shelter for the city's rejects. In this process the access to the city is denied to the poorest population, with the final result of increasing inequality.



View of Savda Ghevra resettlement colony

It is important to look at and preserve the informal settlements spread all over the world. One layer at a time they reveal innumerable potential useful lessons for architects and planners to develop and protect alternative urban models. Understanding these places, for instance, could be the starting point to meet the new urban sustainability requirements of our future cities (flexible and resilient architectures that absorb the variables into the built environment through little upgrades, reduction of land consumption, home-based productive system, adhocratic organizational systems, sustainable mobility system). Keeping the eyes open on those realities means also making them visible and spreading knowledge. It is then important to be able to subvert the traditional way of looking at informality and consider these places as solutions, in order to contribute simultaneously to deghettoize them and build new urban alternatives.

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