Reinventing Dharavi

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An unforgettable lesson from Dharavi

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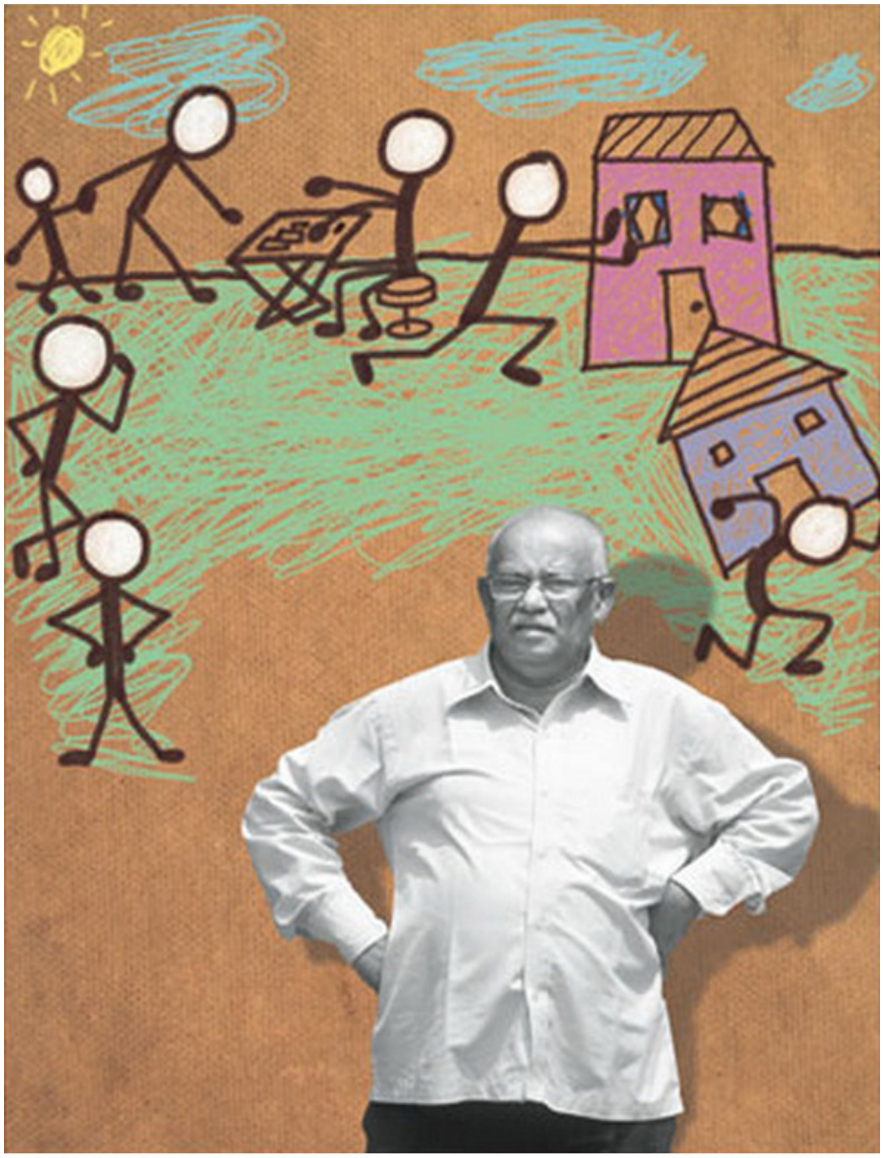
The same period when the bachelor students of UMA3 stayed for a month in Dharavi, I went with a group of master students of UMA´s ´Laboratory of Sustainable Architectural Production´ to Mumbai. The students were from Austria, Estonia and Finland. Their semester theme was ´Hygiene and Health´ and the starting point of their projects were the eight UN Millenium Goals:

Reduce child mortality, improve maternal health, combat diseases, promote gender equality, empower women and ensure environmental sustainability are closely connected to basic hygienic conditions which are missing in big parts of Mumbai. This is a huge sphere of operation for future architects. For us it appeared a societal catastrophe when only in India 800.000 people die every year of something so easy to prevent and to cure in Western countries like diarrhoea. Most of these deaths are children younger than 5 years.

It is evident, that in an area like Dharavi, with family dwellings as small as 12 m2 in total

with missing sewage systems and irregular water supply, individual toilets would be desirable but are not feasible. On the other hand, we found public toilets in neighbourhoods which were not used, desolate and even dangerous.

So we were happy having organized a discussion with Dr. Jockim Arputham, president of



dr. jockim arputham **a public intellectual**
UN representative for slum sanitation

the National Slum Dwellers Federation (NSDF) and UN representative for slum sanitation. Born in 1947, with long experience in fighting for the rights of slum dwellers being one of them and supporting their struggle against all forms of urban poverty, he is an inspirational figure and a public intellectual, whose activities have a strong impact in many slum dwellers living conditions. For his substantial efforts and successes, he received an honorary Doctor´s degree although he never had the chance to go to University.

The first words he addressed to our students sounded like a well-placed provocation: *´architects don´t know how to design a toilet´*. The examples he presented and the public toilets his assistant showed us later in a study tour proved he was very right. Toilets designed by ´specialists´ without integrating the community were situated on not accepted sites, were badly lit and not enough ventilated. Their water collection was not well dimensioned so there was a lack of cleaning water which made them unhygienic and smelly locations. In the nights, it was rather dangerous and dark places, more inhabited by stray dogs than a safe place for humans. So they did not improve the tough life in Dharavi and were a waste of spatial and financial resources which are scarce anyway.

On the other hand, toilets built on base of the community´s common intelligence proved to be working well and they appeared like milestones for a future urban upgrading. This was visible in newly built community toilets as well as in the transformation of former examples which were designed in a technocratic way and failed.
One major decision was a commonly accepted location, well to be reached by all community members and preferably close to other public institutions like a medical centre. A key question was the responsibility for permanent cleanliness and this was solved with ingenious social intelligence: all members of the community (in the case shown on the pictures 226 families) pay 20 rupees/family/month, which is equivalent of about 2 hours work every month for access to hygienic sanitation. With this money they finance a cleaning family who has their apartment on top of the toilet.

This cleaner´s apartment has comparatively high standard, in the shown case even a generous private terrace. But it only can be entered through the inner courtyard of the public toilet. This spatial closeness to the toilets and its access generate strongest self-interest for the cleaning family to keep the premises clean and therefore avoid smells in their apartment as well as a dirty access that keeps visitors away. The toilets are airy, well ventilated and naturally lit and they provide separate spaces for gender and children. Technically, huge water storage allows continuous cleaning in a climate where it does not rain for 7 months. The materials for doors, floors, wall coating etc. are robust and friendly.

Decisive cultural details, like toilets for Muslims should not be oriented to Mekka are taken into consideration of the design.

This simple but important example gives a hint that environments like Dharavi are stronger and more radical laboratories for urban developments than some closed academic training institutions. Jockim Arputham´s lecture and the examples we visited raised the awareness and self-reflection of our master students as well as a consciousness of the imperative for user integration. It was an unforgettable lesson.