

## SLUM STRATEGIES: From Housing to Urban Scenarios

The reflexion behind the research and my masters project started while as an architecture student, I was interested in the living conditions in developing countries and how architecture could have an impact on it. In between my studies, I had the opportunity to go to Chile for five months to work in an NGO that builds social housing for people living in campamentos (chilean slums).

In Chile, the slum subsidy model is based on eradication of the existing constructions and reconstruction of new social housing. Although these new small housing, of poor construction quality, bring water, electricity and more decent living conditions, they do not promote jobs, nor do they integrate the urban and social context. Moreover it usually takes up to 8 years from the beginning of the subsidy process to the end of the construction.

During my stay, I had the chance to talk with the people living in campamentos, understand why they were here, what they were looking for and what their aspirations are. I also had the opportunity to design and build some small, more temporary, public programs with the inhabitants inside a campamento. These experiences lead me to have doubts about the state strategy and the projects following it.

The goal of my project is to question the demolition/social-housing model by exemplifying a general strategy for recurring problems in a precise architectural project. To do so, I first started with a research to understand what a slum is through its definitions. Then, I developed a slum analysis methodology to understand context, problems and opportunities both by drawing and discussion with inhabitants. I then used this methodology to compare two slums, one in Brazil where the people are satisfied and do not want to leave and one in Chile where they do. The aim was to see what one could learn from the other and see how the different approaches of the state to dealing with slums affect the conditions in which people live in them. Finally in the research I compared six different intervention strategies in relation to built projects in different countries, linking them to the country policies towards slums.

Roxy: "Our biggest problem isn't housing. Our problems are with the water that comes by truck. When they bring it every two weeks, the children get sick. The electric network is dangerous and houses sometimes set on fire. And the trash... Our Campamento is used as an open dump by the rest of the neighborhood. We would like to turn them into public spaces, playgrounds and greenhouses to grow porotos."

Mauricio: "We know how to build, we have all built our houses; most of us work in construction, some even make bricks. But we could get kicked out any day, so we invest as little as possible in our houses and neighborhood."

When talking with the inhabitants of the campamento San Francisco in Santiago de Chile, it came quite clear that their biggest concern is infrastructure and security of tenure and that the housing itself is not the biggest problem.

The strategy I propose is to be an on-going process that could start very quickly and bring in the urging infrastructure efficiently. To do so my project takes the form of an aqueduct. Re-using this ancient way of bringing water allows it to be more flexible over time and a cheaper

and more suitable solution for the existing context than buried pipes. Moreover this aqueduct system is designed to be a safe structure on which houses can plug onto and expand, to build a second floor for example.

The aqueduct is built with a simple beam and columns. The columns are made with raw compressed stabilized earth bricks that are a more robust reinterpretation of the traditional adobe. The bricks are made in the campamento in a new community building that produces them out of recycled earth from excavated constructions in the city. Each family also receives a bathroom plugin that consists of a bio gas dry toilet system and a solar heating DIY panel kit.

Along with the infrastructure, the project brings a system of various community programs filling in the empty lots used as dumps.

The whole economic and property system would be organized as a cooperative, securing the tenure for the inhabitants.

By bringing in the necessary infrastructure, public programs, job opportunities and land titles, that respond to the actual needs, the inhabitants will be able to improve their housing over time knowing it is a long term secure investment. Moreover this strategy keeps the quality of housing in slums, flexibility of use and size, that are lost in the social housing projects.

Furthermore, as a precise surgeon, it defines where to implement the project to transform the public space, atmosphere and identity of the neighborhood.

This project is a community led evolving process that builds a resilient social and technical infrastructure coupled with flexible shared spaces. It concentrates on sustainable infrastructure, generating job opportunities, empowering the people, cooperative land titles and organization and giving a sense and identity of a neighborhood.