POLITECNICO DI TORINO
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Master of Science in Architecture
***Honors theses***

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**DESIGN AND BUILD WITH THE COMMUNITY, the construction process of a rural building with raw earth in the Oaxaca region, Mexico**

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The long tradition of earth buildings shows the durability of this traditional material, even if the most believe that this type of constructions presents disadvantages.
The researches on this field have always focused on improving the structural strength and durability of this building material. Anyway, for inner curtain walls, earth bricks already offer interesting solutions, without the disadvantages normally associated to the material.
SouthAmerica has always had a thorough knowledge of earth buildings, giving special attention to environmental conditions, according to different habitat. Some of these techniques have been improved over the centuries and so are now appreciated.

Due to environmental problems, low-energy and low impact development techniques have started shaking the architecture and way to built of the twenty-first century; to face the current development model that only provides an uncertain future, it's time to take actions for global sustainability as an ethical commitment, exploring new paradigms for habitat construction.
These techniques use earth as a building material, that offers added value in several aspects, such as quality of life, low energy consumption, comfort, wellness health, economy and socio-cultural conservation.

In this framework, we analyze the experience I carried out in Mexico during the workshop "Proyectar el habitat en desarrollo, culturas en red" promoted by Archintorno and ONG CAMPO, with technical and financial support from UNAM of Mexico City and the Politecnico di Torino, in order to create an earth building for the indigenous community of Pensamiento Liberal Mexicano.

At the end of this experience in Mexico, I'd like to stress the benefits of earth as building material, especially when applied to specific contexts such as the village. The guideline used to realize the *Centro Microregional de Tecnologias Sustentables* has a lot of advantages, first of all its applicability both in service buildings and social housing.

In places where means are limited, being able to realize what is needed in a short time and with low costs is important, and the raw earth is certainly an optimal choice, since it is an easily available material and so it is good for ensuring population self-sufficiency.

Looking at its technical performance, the earth also allows to have a good level of acoustic and thermal comfort, especially in the presence of temperate climates. Furthermore, the technique used for the construction of the Center preserves the local building tradition.

Using the clay instead of adobe, material already known by the community, allows to transmit a faster self-build mode. Having quick installation involves, however, some limitations such as high thicknesses and special technical devices in masonry joints. The survey conducted on the material was highly educational but not more than the way started between of the shelves of CRD-PVS, where the project took shape, and ended in remote valleys of the Sierra Sur, where the design has become architecture.

The experience has allowed me to be a part of a building site and thanks to the community I understood the pleasure of sharing everything and to feel part of a group at any time. Living in contact with a socio-cultural reality quite different from that reflected in my daily life that has allowed me to reflect, sometimes expanding my horizons sometimes pointing out my beliefs.

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