

MÓDULOS BÁSICOS DE VIVIENDA



Módulos construidos en el A.H. "Los Olivos de la Paz" en Pachacutec Ventanilla



Clockwise from top left:

Realized dwellings in Ventanilla, Lima;

The sun sets over Santa Rosa, behind cloud banks on the Pacific Ocean;

Loadbearing wall;

The mayor of Santa Rosa, Pachacutec measuring the base of a house.



INTRODUCTION

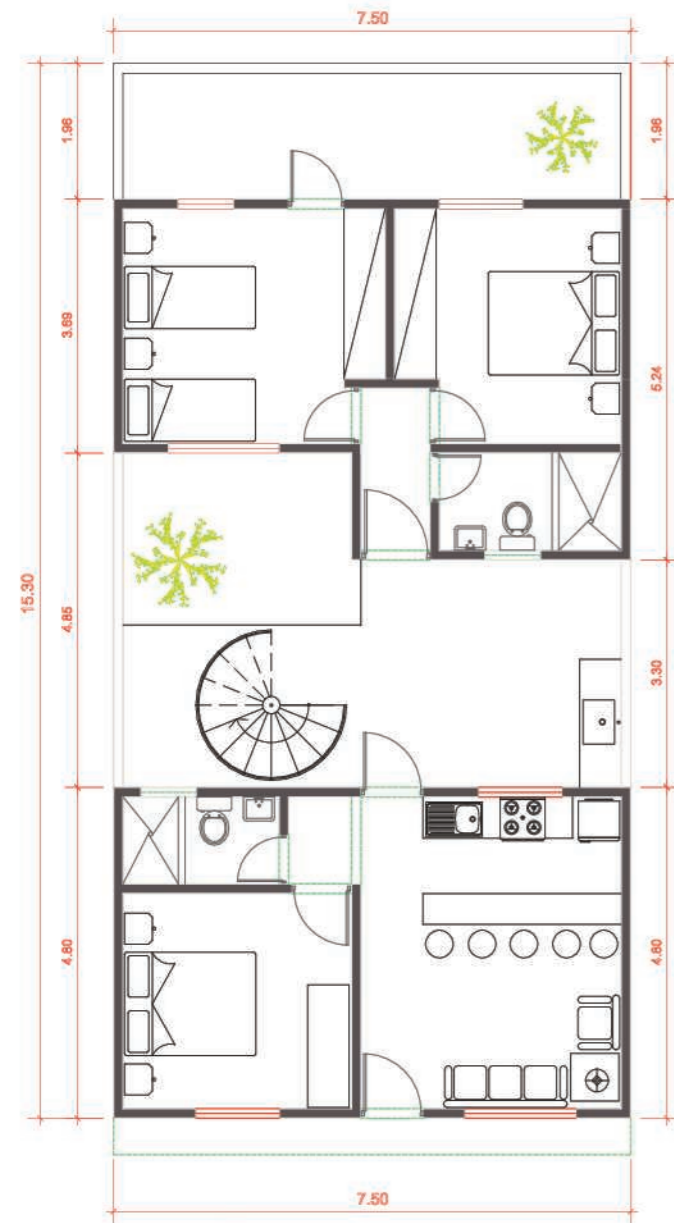
The project was a collaborative effort between ONG Estrategia, SENSICO Institute, (Perú) and Arquitectos Sin Fronteras, (Spain). Its main objectives were improving house construction skills and housing for the participants.

Through a series of workshops low-income residents of Santa Rosa, Ventanilla Peru were taught how to use the tools of an architect to draft, measure, and calculate what is needed for house-construction.

Utilizing reinforced concrete geometry safe, structurally sound housing was produced providing shelter, climate control and the possibility of constructing three storeys.

Particular emphasis was placed on recruiting women. Enabling them to construct their own habitat, as well as becoming employable in the construction industry is beneficial not only for global human rights but also to impoverished communities as a whole.

MODULAR HOUSING ONG ESTRATEGIA



Clockwise from top left:
 Sample plan entrance level;
 Calculations;
 The block, cured with water.
 Sketch of mold for dome.

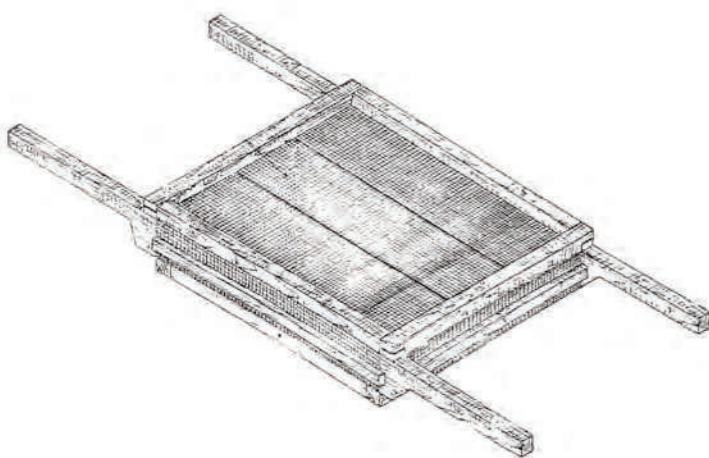
MODUS OPERANDI

Building modular housing from three concrete components, the dome, block and beam. Start by calculating necessary reinforcements, if any, then manufacture the components.

The dome is made in a wood mould, getting its shape from empty rice sacks. The block is made in a metal mould, as is the beam.

When adding a level, 30 mm of concrete is cast over the domed roof, creating the loadbearing structure for the next floor.

This technique utilizes simple components and geometry and offers climate control, lower price, more design possibilities, seismic resistance, and fire safety.



MODULAR HOUSING ONG ESTRATEGIA



Clockwise from top left;

Reinforcing beam with longer span.

View of the alps, Chur Switzerland;

View of the church Santa Rosa, Peru;

Foundation and wall reinforced concrete;

Young ladies of Santa Rosa, Peru.



REFERENCES

The technique in this projects heralds from Switzerland- inspiration for the housing project was found where simple components are used to create spectacular architecture relating to its environment and inhabitants.

Constructing in geographically difficult to access areas with specific climatic constructions face the same challenges whether the inhabitants be extremely poor (South American shantytowns) or extremely wealthy (Swiss alps).

In the end we are all human, with the same basic needs for safety, shelter, and beauty.

Urban sprawl or remote habitations requiring services are other issues facing both rich and poor communities around the globe. Adding height rather than girth makes space more inhabitable and fascilitates infrastructure.

MODULAR HOUSING ONG ESTRATGIA

REFLECTIONS

The primary goal was skills, and housing, primarily targeting women.

In a series of workshops, low-income residents of Santa Rosa, Pachacutec, Peru were taught how to manufacture individual components, calculate reinforcement and construct.

The technique used facilitates housing that can accommodate an extended family, or be sublet, making available to inhabitants the tradeable commodity of real estate.

Intended place for manufacture of the components was on public property and the idea was to create a co-op that would eventually sell ready-made concrete components.

Controversial to some, beneficial to all—equal rights and responsibilities are the one fundamental principle that will make a lasting difference and impact on the state of things.

Building just habitat is the start.



Clockwise from top left:

Measuring iron rod prior to cutting.

How to draw up the base of a house in 1:1.

Formatting and fitting reinforcement for beam with a metal tube.



MODULAR HOUSING ESTRATEGIA