Design for Social Impact

Design a Sustainable Housing Shelter

by Lucas Lira
Use it for living
Introduction to the Social Challenge

The recent escalation of conflicts around the world again forces families to flee their homes. They can not access basic services, are struggling to get groceries, housing, health care and other basic resources for their families. MSL is a sustainable housing resource to keep these families protected!
Vision

Sustainability is the key to our future. It means producing something in a way that makes it serve its purpose entirely, using only the absolute minimum of resources. For MSL it means the great impact of collaboration and production for the benefit of the sustainability of life.
What is a Modular Shelter for Life?

An MSL is a comfortable shelter space, flexible and simple to build, that can be installed and appreciated virtually anywhere. It offers a vision of how we can live in an economic and sustainable construction.
Minimum Resources

Traditional houses make the work, but needs a lot more resources. Tents need less resources, but performance lacks. MSL serves both requirements because it was originally planned to do so.
Use it for living

There are several lenses through which the evolution of a sustainable and affordable housing can be seen.

1. Because of its minimalist size, an MSL needs much less material than conventional buildings and is more economical in production.

2. The mobility of the "MSL" allows quick, easy and economical installation with minimal impact on the construction site and environment, which is normally impossible to achieve for traditional residences.
Sustainable  Expandable  Flexible  And More...
MSL A dwelling for life
Housing Floor

Initial construction phase:
Floor of the MSL, metal columns are used to make the fixing of the wooden floor.
Secondary phase:
Fixation of the beams in wood, creating the structure of the residence.
Most of the construction of the MSL residential project consists of recycled components to keep the use sustainable and accessible to people. The use of the PET bottle helps to maintain the structural yield of the residence.
Project Architecture
MSL
The construction of the MSL are ecologically correct and resource efficient. Among other things we are reusing plastic bottles to build parts of the residence.

The modular design allows you to expand your living space.

An MSL offers a simple installation and due to its portability and independence from a fixed location.
Housing MSL

- Dining room
- Setting reserved for rest
- Window available for ambient ventilation
- Environment for adaptations
- Fully enclosed wooden wall
- Access ramp
Dimensions of Housing
Dimensions of Housing
Prototyping and Validation

Elaboration of the model on a scale of 1:40
Prototyping and Validation
Prototyping and Validation
MSL - UNHCR
Thank You

by Lucas Lira