

COME BACK TO THE NEW CITY

In early 2011, Syrians began their protests to oust President Bashar Al- Assad following the example of the revolutions of the Arab Spring. However, they had a different result because they originated a civil war between the rebels and the President.

This cruel conflict has caused more than 3 million refugees; it has left 40% of the population in a crisis situation and most cities have suffered a major devastation. On top of that, it should be taken into account that there was already a problem with the drinking water supply because both petroleum refining processes (main industry along with oil) and urban center sewage have polluted major rivers and freshwater sources.

One reasons for the shortage of water is deforestation due to the agricultural land use manner, a major economic activity along with oil industry. The land of Syria is divided into three bioclimatic types: the Mediterranean forest in the lowlands and in mountainous areas, while the meadow steppe is in the Middle East and the Mesopotamian desert shrub.

These refugees have been moved to various camps to the borders of neighboring countries. This large volume has made huge fabric cities to be built, with hard living conditions due to the sweltering sun, the absence of natural

shadows and continuing sandstorms. The difficulty of access to drinking water due to its scarcity, hygiene, sanitation and management of the own waste in the camp should also be taken into account. Common laundry areas with toilets, showers and sinks have been created whenever possible. These are very favorable conditions for people, especially children, to develop severe illnesses due to a poor hygiene. They should be provided with a decent minimum standard of living, a place to be rest, eat and bath.

Traditional houses of the old Syrian cities are organized around one or more courtyards with a fountain in the center and decorated with fruit trees, vines and flowers.

Outside the big cities, small villages with very old buildings, transmitted from generation to generation arise. The construction is usually made of unpainted cement or stone, and the palette of a Syrian village is therefore gray and brown.

There are more types of buildings in which the courtyard is the centerpiece and the movement of people is made around it, such as the Friday mosque (place of worship), or madrasas , a multifunctional building with an open courtyard surrounded by galleries , or janga , a house where a group of disciples used to gather around a teacher.

Islamic cities are divided into neighborhoods based on ethnic and cultural affinity and they constitute a system of urban organization that makes civic administration easy. In every neighborhood, there is always a mosque. Inside or near it, there is a bathhouse, a fountain, an oven and a grouping of stores. Its structure consists of a network of streets and alleys, and a group of houses.

The market (suq) acts as a hub for local businesses and is the most relevant characteristic element of Muslim cities.

Based on these two ideas, the courtyard and the urban organization, the construction of a house from a module with a dimension of 2.5 m (maximum width allowed in articulated vehicles) is suggested. This module (2.5 x 2, 5m) contains the wet items (kitchen and bathroom). If 2 such modules are put together, a larger one (5 x 2.5 m) is created with an open space for other activities such as eating, living, sleeping ... This module is closed with folding doors that allow a facade or an interior partition, depending on how it is placed.

Now there are two modules that can be moved. They are placed around a courtyard and thus larger modules that constitute different housing adapted to the needs of the time are created. Additionally, these modules are joined together creating a larger module that is a residential module, which is accessed by the outer edges. If several of these modules are arranged, they create a draughts board forming streets; and if one of them is not placed anywhere, an even greater courtyard is created acting as a square and therefore as the focal point of the city.

The junction between modules is a simple clasp mechanism in which they hold each other.

These modules are built with local materials from the Mediterranean forests and the desert. From there you can get mainly wood and stone. Wood is used for the main structure (porch) as well as for the secondary structure, to which the insulation is attached. It is coated on both sides with OSB wood leaving it finished inside. The exterior is covered with smooth metal sheet.

The courtyards are covered with fabrics from the own country. They can be extended or folded depending on the needs. This helps to create a circulation of air that helps to keep in good conditions the indoor environment.

As mainly simple materials from the area are used, modules can be built in a studio and several of them can be transported at a time in an articulated lorry without any problems, the cost is significantly reduced.