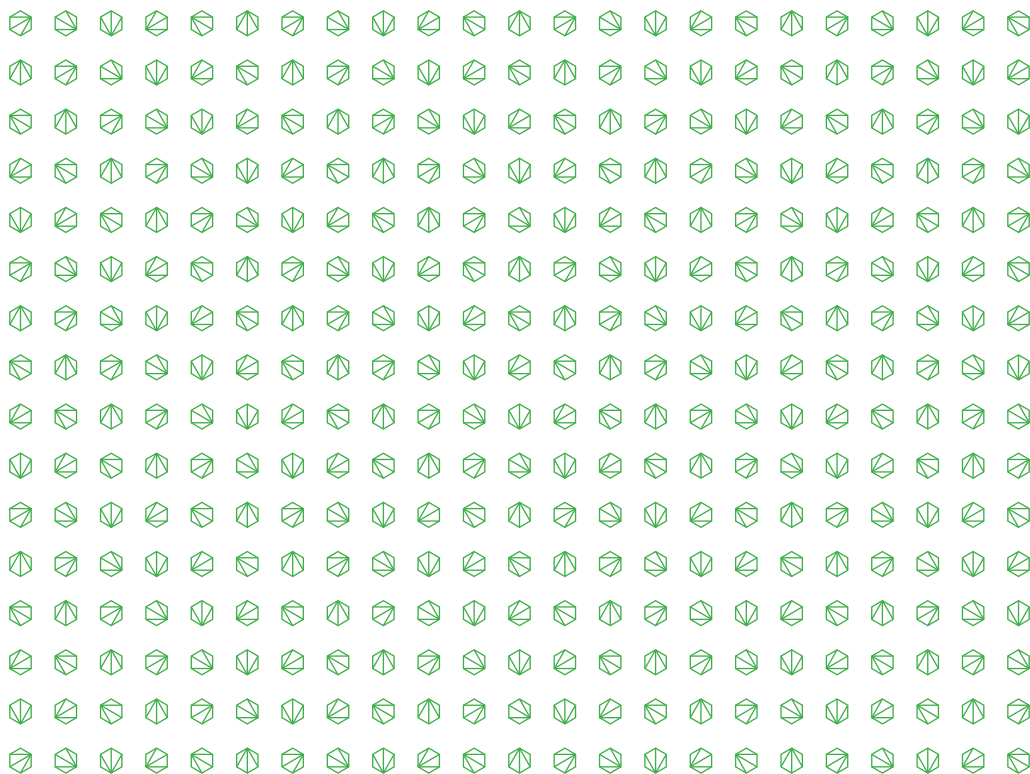


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[Ai Weiwei dragged a white grand piano to Idomeni refugee camp, Greece-Macedonia border]



[Two Birds, Maurits Cornelis Escher, 1938 -
modular drawing]

Ethnic and religious conflicts, territorial disputes, wars, in almost every continents with greater incidence in the Orient and in Africa, lead to enormous destruction of the cities, heritage, and the persecution of innocent people.

To this tragedy, it adds the problem of massive emigration - the dramatic escape of entire populations to other countries, other territories, in search of survival, new conditions of life, work and a dignified life.

This gigantic escape and emigration, which takes months and sometimes years, poses enormous problems to countries of transit and also to the host.

As architects, we are unable to reverse, or resolve the reason for these problems. But we have the ability to help, because it is our role to propose and improve conditions of inhabiting in all circumstances.

We do not offer peace, only some tranquillity and security, in order to achieve peace.

The response is based on a modular housing system. It will not be a house, but it can not be a tent. It will not be le petit cabanon of le Corbusier, thought-out for a person but for a standard family of two adults and two children. Surely it will be based on minimum residence.

The first part of the exercise is directed to the study of the model in order for it to respond the conditions of basic housing needs and comfort: cooking space, common space, sleeping space,



hygiene space, security and stability.

For this matter, exercises of approximation of the 1:1 scale, as well as different tryouts of planing solutions led to a basic measure of 1.2m and 0.9m as the basic grid for the module. The module should not be thought as a unique cellule, but part of a bigger system, where we can associated a big concentration of models that raises problems of urban construction.

Also, it should provide a healthy connection between interior and exterior space where areas and devices of transition are taken in consideration.

It was fundamental to adequate space to energetic sustainable questions with particular emphasis on the temperature and ventilation issues, as well as collection and drainage of water. These circumstances were decisive for the very form of the modules both in section and plan and the functional distribution of space.

The second part of the exercise addresses to an abstract thinking of the organization of a camp/temporary city based on each module generating the typical urban activities, such as squares for social gathering, exceptional buildings like schools, health or security points, storage, etc.

The big concentration of refugees implies universal and unpredictable territorial settlement. The principles of the cities urban plans have strong roots in the history of the city. It was taken as reference the basic timeless ortogonal grid seen in the most iconic urban plans of cities in all world over the years.



[Gallery Transplant, Dennis Oppenheim - drawing a plan on
the scale 1:1, 1969]



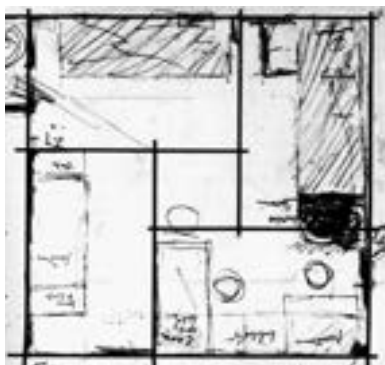
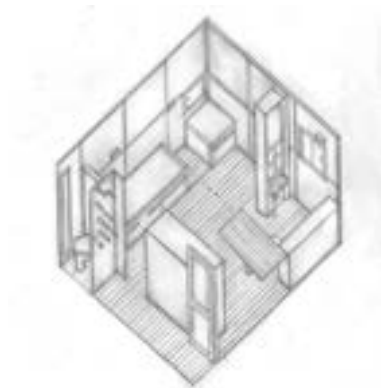
[Plan for Hippodamus of Miletus]



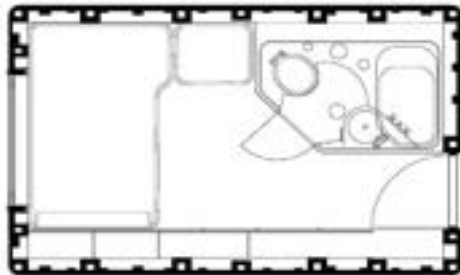
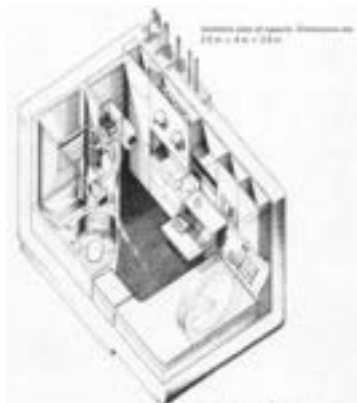








[Petit Cabanon, Le
Corbusier, 1952]



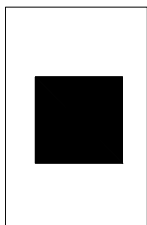
[The Nakagin
Capsule Tower, Kisho
Kurokawa, 1972]

Alicia Francisco Sánchez

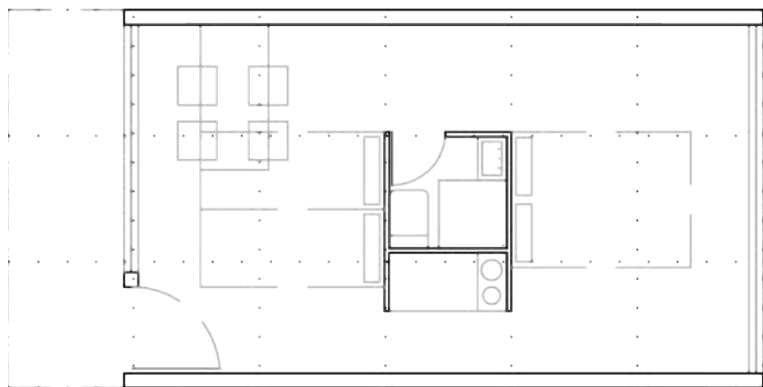
[Farnsworth house, Mies

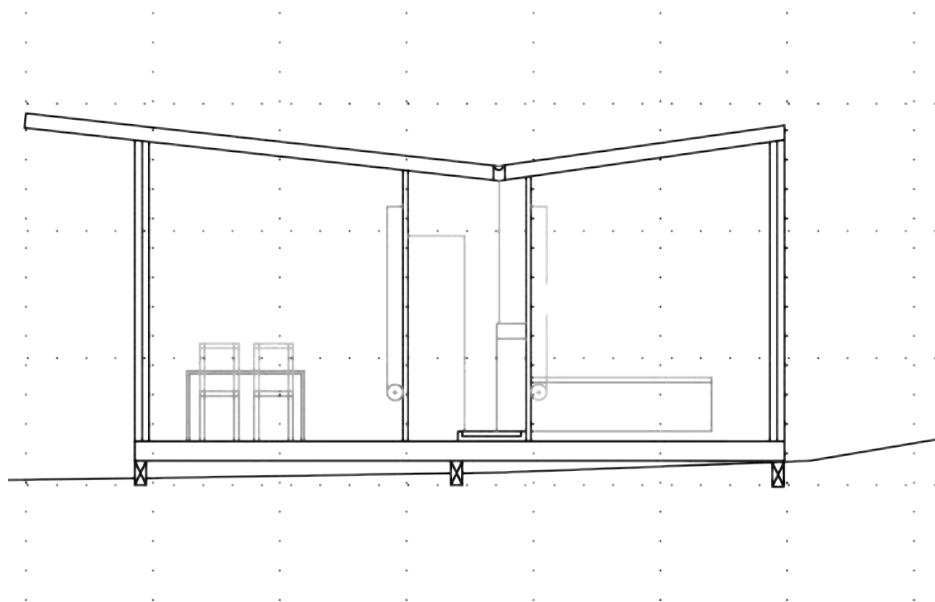
Van der Rohe, 1951]

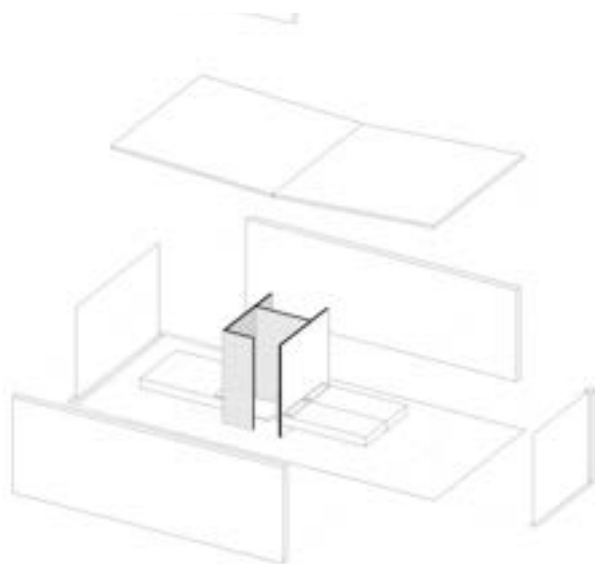
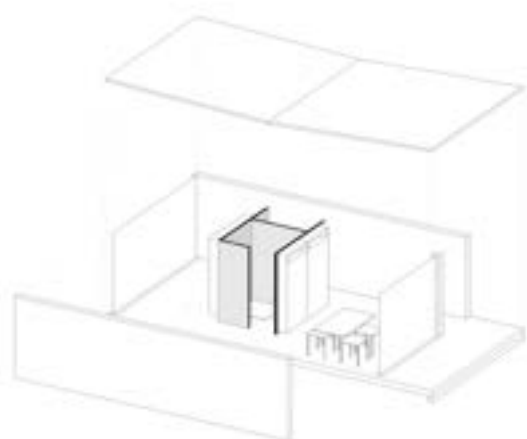




This house has been thought in order to solve all the basic needs of refugees in the minimum space. Following this constraint, all the living area is arranged inside a cube, which is able to fold and unfold whenever is needed. The cube includes spaces such as the kitchen, bathroom, bedroom and living room. Used as an inspiration, the Farnsworth house, designed by Mies Van der Rohe in 1951, served me as an example when designing the central space, showing a massive and heavy central unit, followed by lightweight space surrounding it. As a conclusion, it gets the appearance of something really soft instead of what it really is, a solid body which contains the totality of the spaces. The connection of these models will be made longitudinally so then the shorter sides of the house will provide the whole building of natural light.









[Manhattan NYC, John Randel's plan 1811, USA]

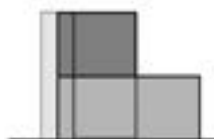
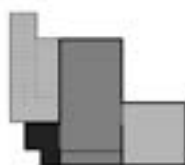
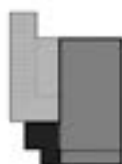


Aws Omran

[Concrete boxes, 1980-

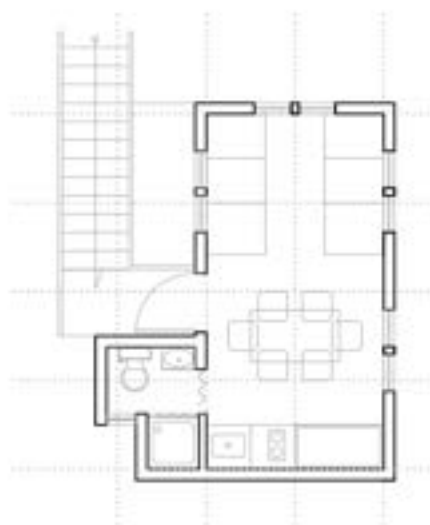
1984 Donald Judd]



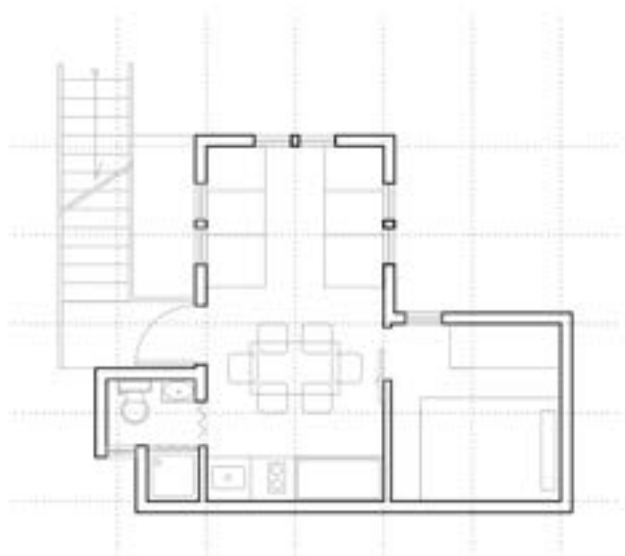


The model consists of 2 floors, the ground floor made of 3 basic spaces an addition of the hygiene area and designed to accommodate 6 persons, first floor made of 2basic spaces and hygiene area as well and designed to contain 4 persons, the modular unit is 1.2 * 1.2m, this kind of vertical composition reduce the length of the infrastructure network which means low cost and more efficiency.

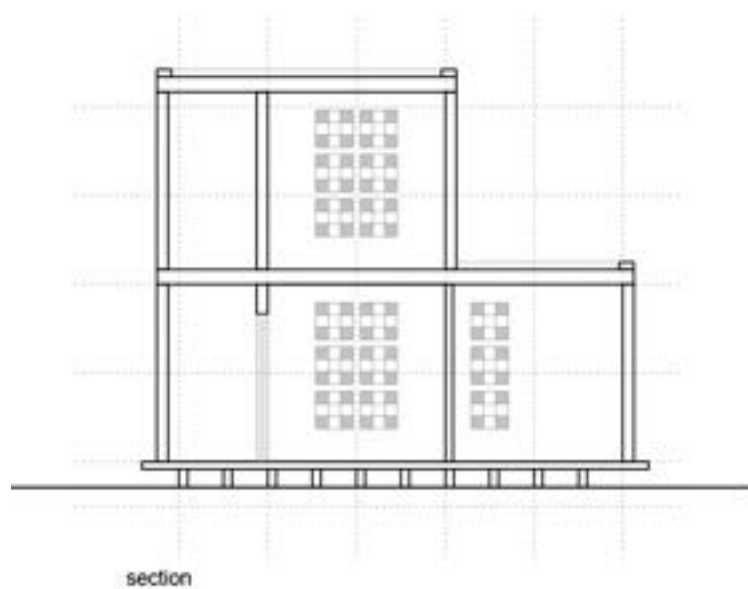
The main principle of assembling is to put four units together in a way to place the hygiene area around the technical space which provides the equipment and ventilation, such this technical space with the surrounding units are repeated in a matrix which gives advantage to plan a strong infrastructure system based on connecting all technical spaces by efficient network which is very important to create a healthy environment for users. The repetition of the units creates spaces which could be used as a public spaces where people interact and communicate this kind of interaction improve the quality of life with in the complex, also these spaces are suitable for public facilities such as schools, shops, health Unit.... etc.

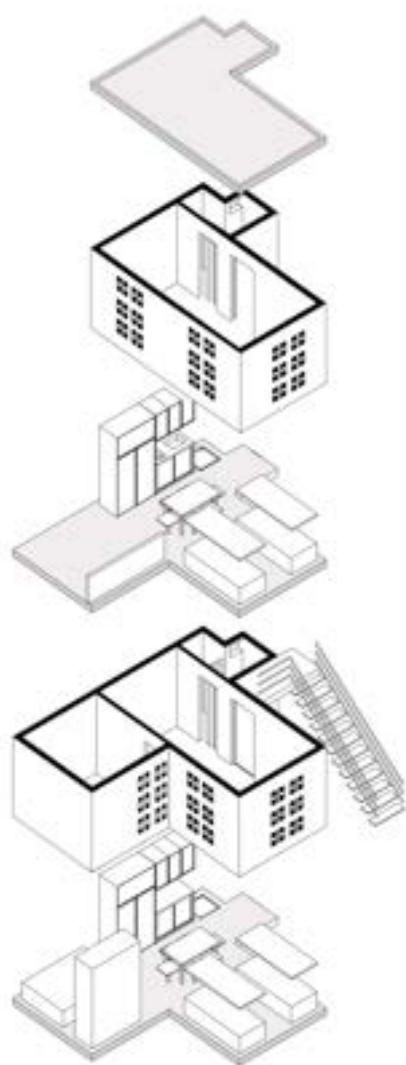


First floor plan



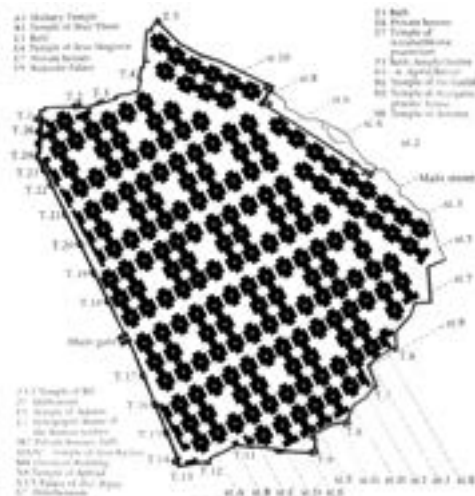
Ground floor plan







[Dura Europos, around 200 CE, Syria]



Gianrico Iuliano

[Porto - Ilha na Rua de
S. Victor]

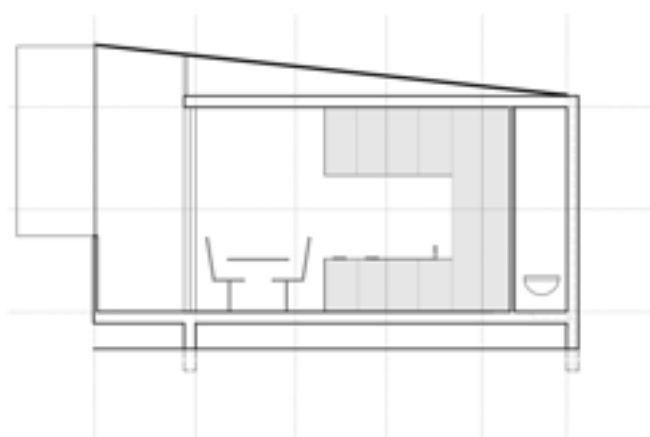
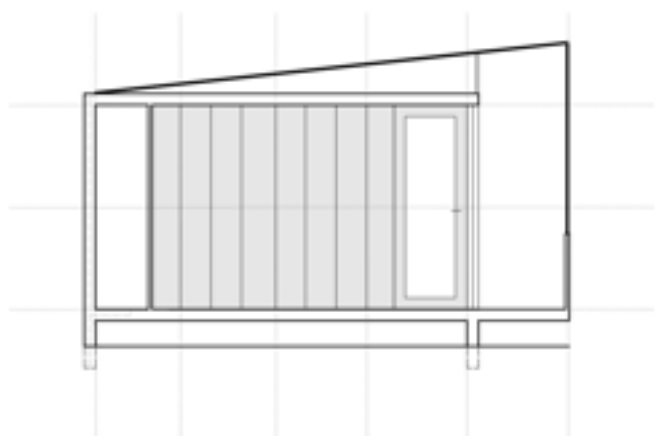


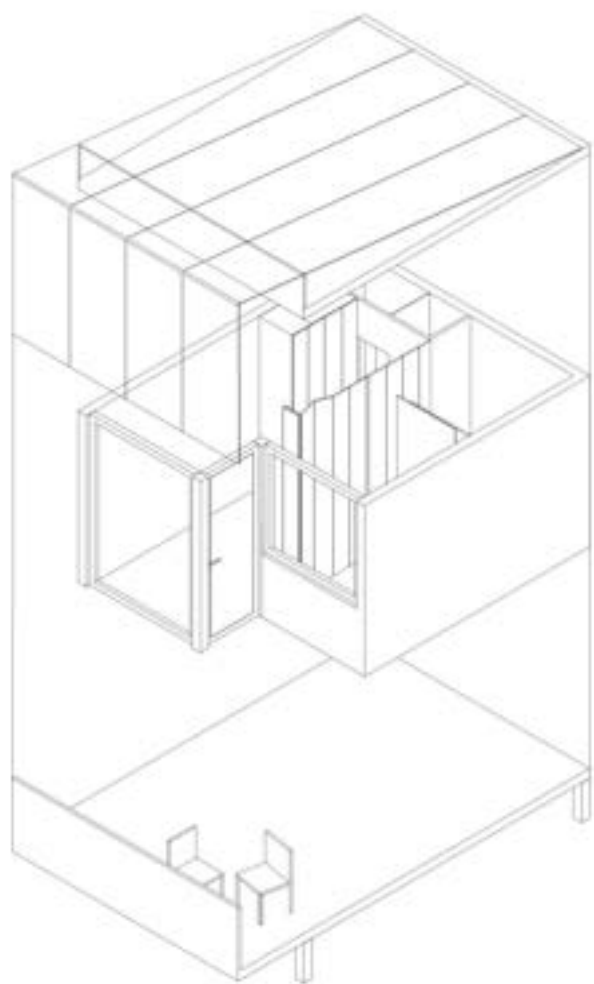


The minimum dwelling space analysis was from the beginning the most important question that I thought about the design of a camp for refugees. Inspired by Le Corbusier, the Modulor and the Petit Cabanon, I defined the minimum modules and the “radial” organization of functions. From the center of the home I met the will to open to the exterior a continuous extra-space, like in so called “Ilhas” of Oporto I thought in a gallery that could link the units and lives of the ideal inhabitants. The second step was to think about the versatility of the object, in any easy transportation of it: the concept of “container”, a compact pre-dimensioned box and a structure that could be functional, lightweight and sustainable: a “tent” structure consists in linear and punctual elements that allow the easy management and control of it.

At the end the characterizing elements of the idea are the continuous gallery who created a social space, the movable roof that can adapt to different climates, the “floating” structure of the platform that comes in handy for water collection and emission system.









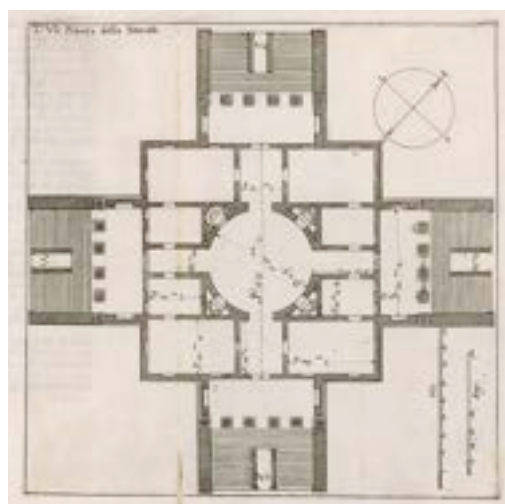
[Trieste, cityplan 1829, Italy]

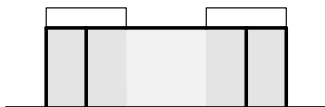
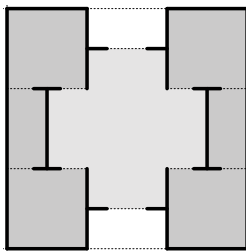


Guillermo Gonzalez Cebrian

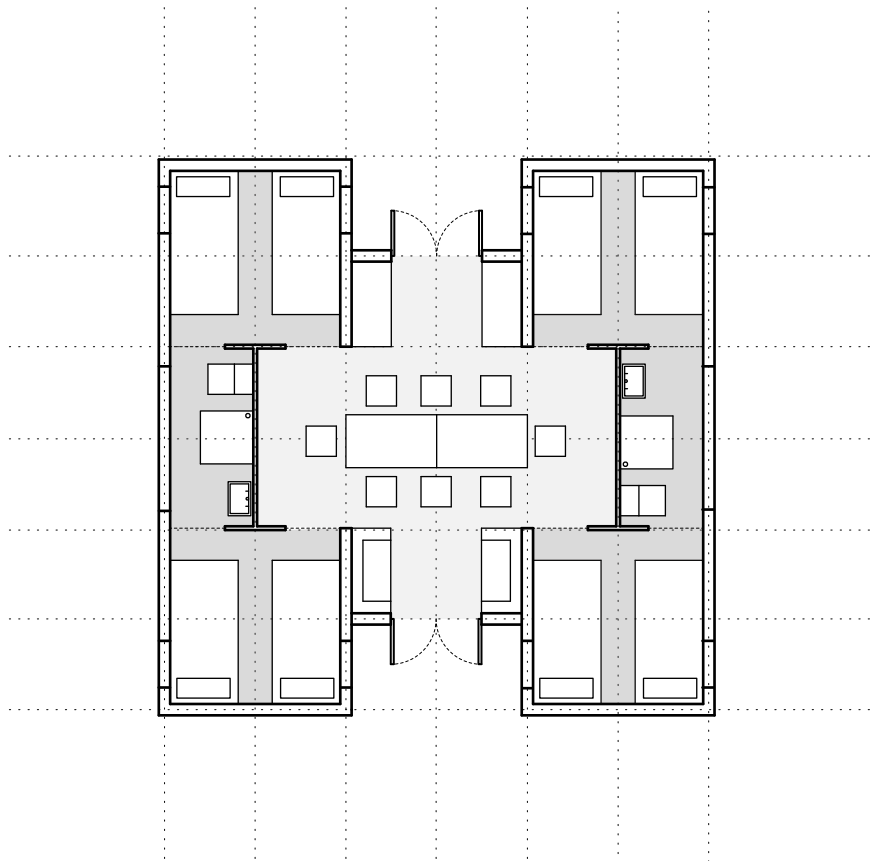
[Andrea Palladio ,Villa

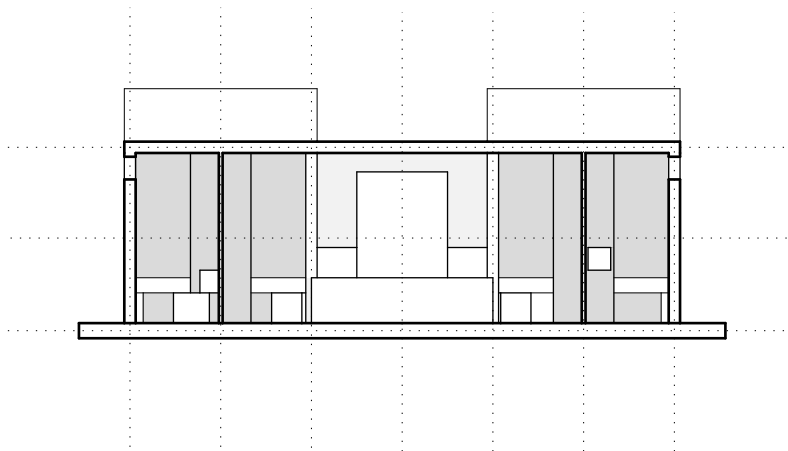
Rotonda, 1566]

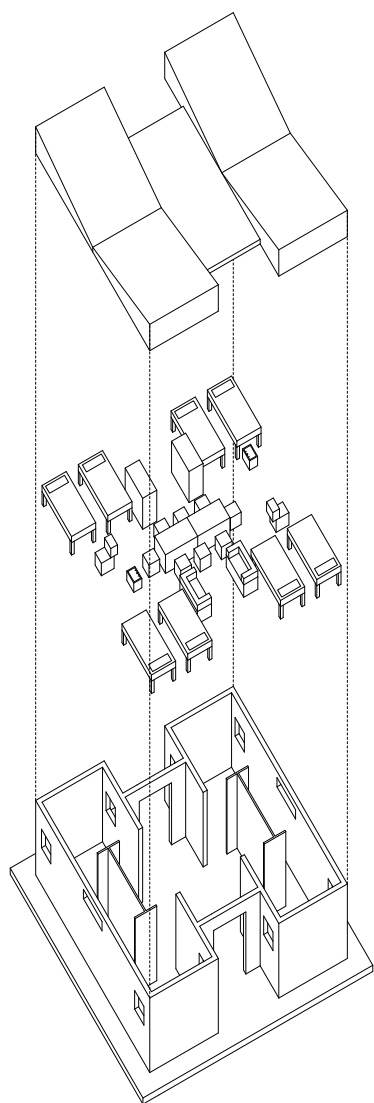




Seeking temporary security, health, and a welcoming community, thousands of refugees face a survival journey that goes against all odds. As architects, our main job is to go beyond the construction of functional spaces. We have to put ourselves in the same shoes as the people that will occupy, in this case, the shelters. With that being said, we have to do more than provide the basic needs for them such as hygiene, food, water, a place to sleep, etc. The needs just mentioned mostly solve the main physical health. But, what about the mental health? This question has been on my mind all through-out the design process of the project. My approach was to create two completely functional shelters, for one family each, joined together by the central space, in a greek cross shape, which accomodates the dinning space and a full kitchen. My intentions behind sharing this space is to promote the construction of a community, and not merely functional shelters. The plan of the project consist of an H shape which, when connected to another one, creating a terrace and green space. Flirting with the line between a shelter and a house, the use of minimum space became a most, as well as the well-being for an entire community.









[Savannah, cityplan 1818, USA]

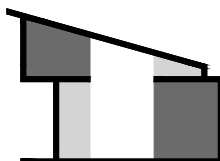
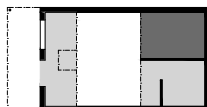


Jan Kozák

[Marco Zanuso

Casa Arzachena, Sassari, 1962-64.]

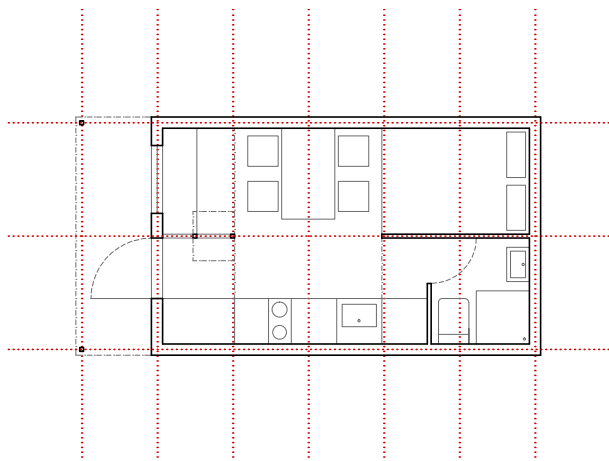


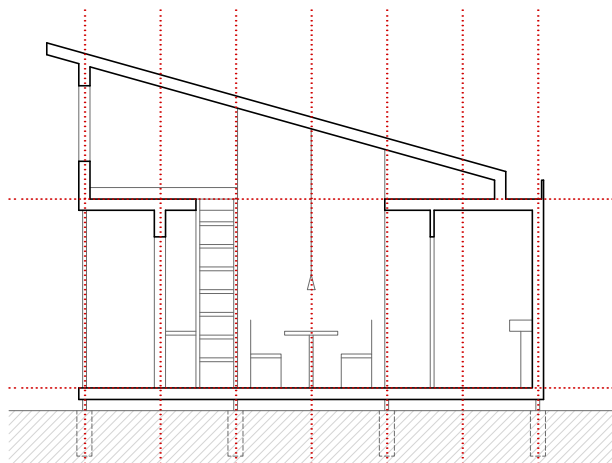


Even refugees, who are going through difficult situation, can live in a decent house. Idea of the design is to make houses as small and effective as possible, but still offering pleasant places, where people feel at home.

Main space, where inhabitants spend the most of time, is located in the centre of house. Double-height volume is surrounded by supporting rooms with standart-height ceiling such as bedrooms, bathroom, storeroom. House is separated from the street with veranda, which adds outdoor living space. It also functions as a lee protecting from wheater when residents are entering the house.

Prefabrication, construction in modules, association in grid (1 x 1,5 m) is used in order to make houses accesible and portable. Units are placed tightly to each other to save energy, material for walls and tubes for canalization or rain water.

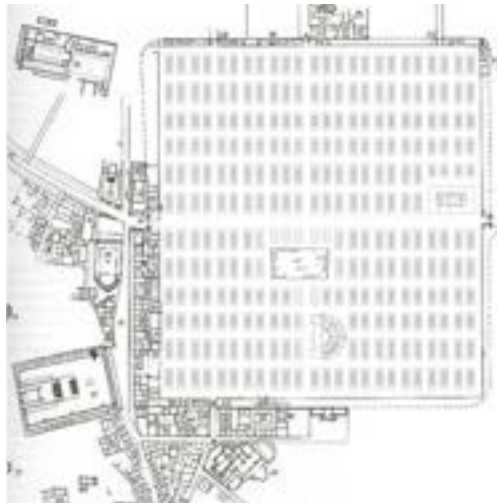








[Plan of the city of Thamugas (after Saumagne 1962), Algeria]



Martin Kláška

[Amino Acid Structures]

Small



Hydrophobic



Aromatic



Acidic



Basic



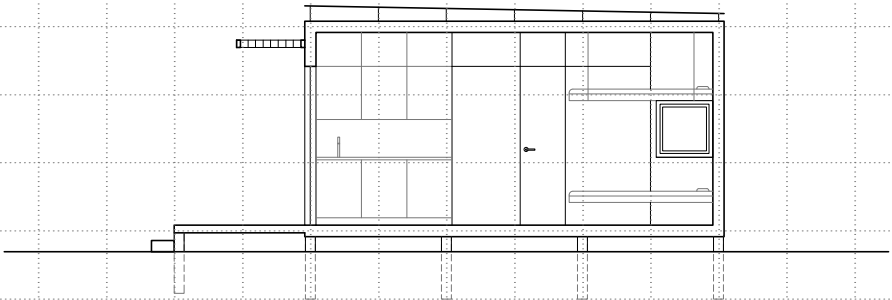
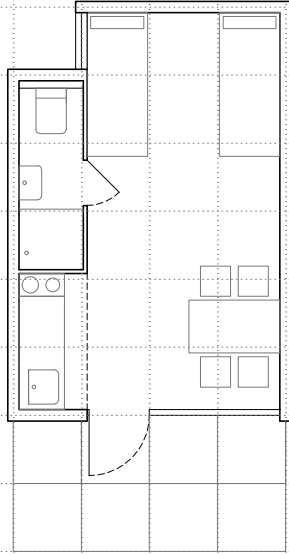


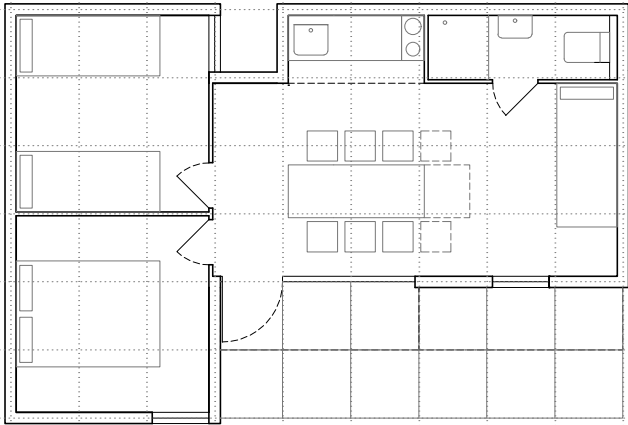
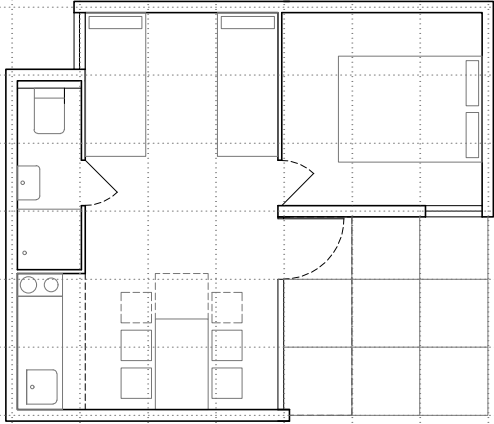
The housing for the refugees is designed as a simple modular prefabricated structure. The module of the shelter is 90 centimeters.

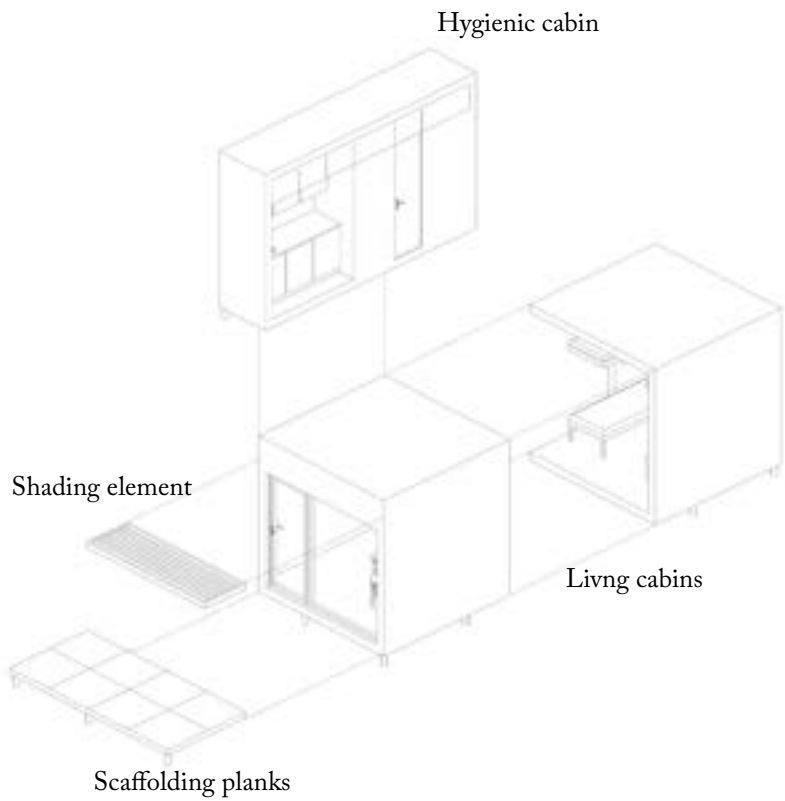
The idea of the design is in repeating of the same elements. The basic unit, for a normal family contains four people, is composed of hygienic cabin (4x0,9x2,7 meters), two living cabins (2,7x2,7x2,7 meters), shading element and scaffolding planks.

The basic unit could be extended just by adding the living cabin. This principle enables to create the shelters for four, six and eight people.

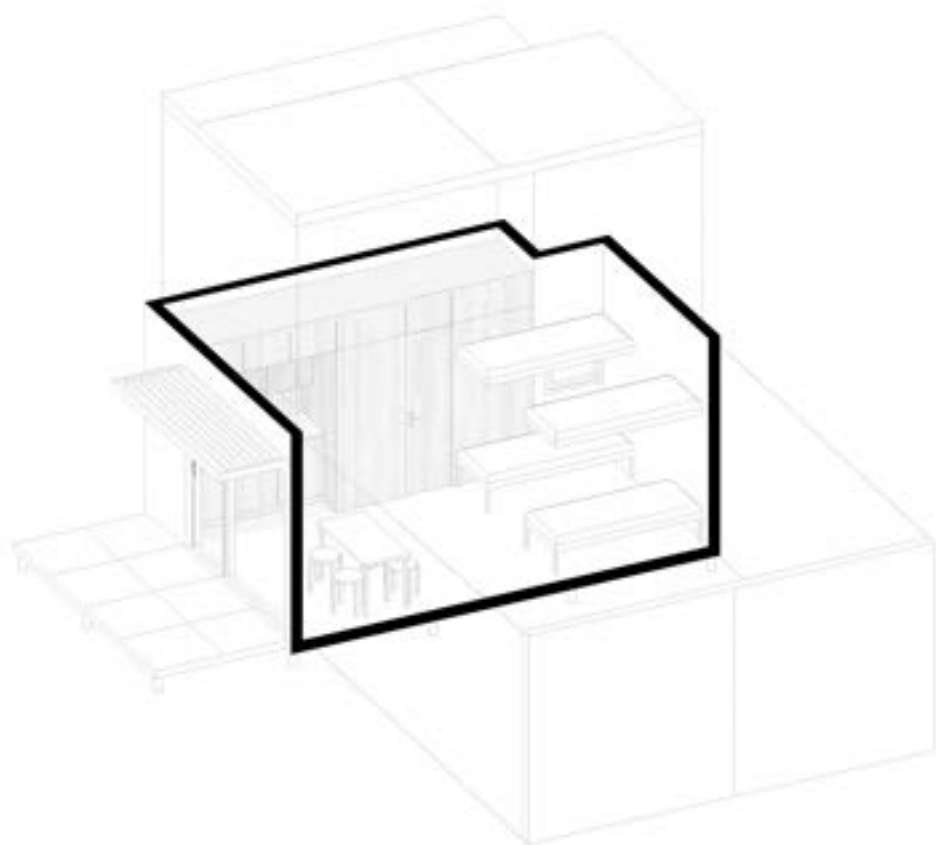
The urban structure is very diverse, although the shelters are made of the same size elements. The shelters are associated in rational urban grid. This arrangement spares the energy and reduces the technical infrastructure.













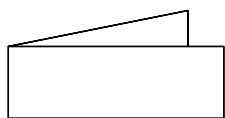
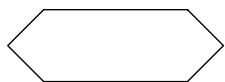
[San Francisco, Daniel H. Burnham's plan 1905, USA]



Mathias Foulon

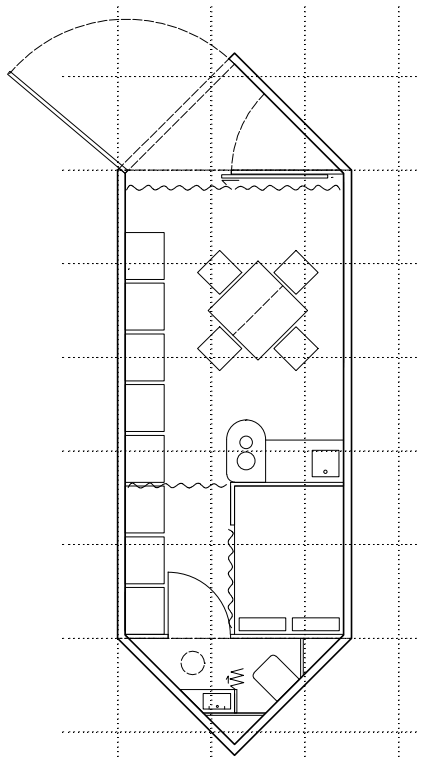
[Gathering around the stove]

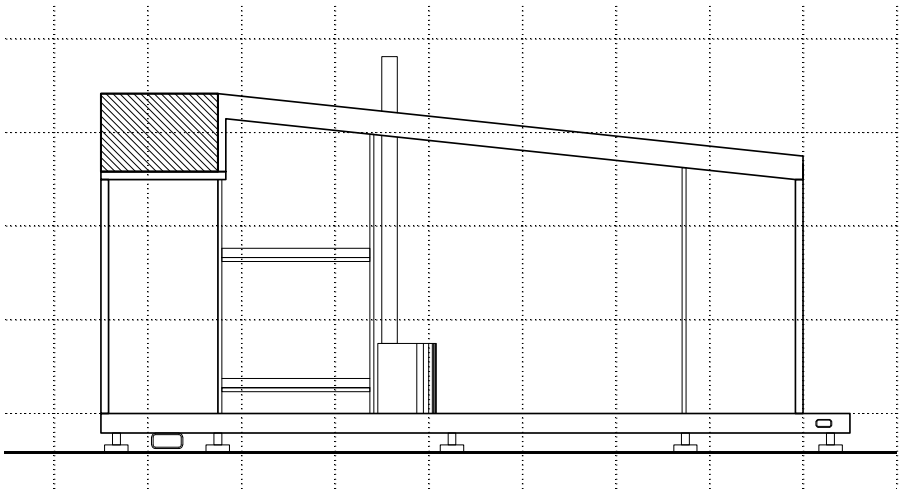
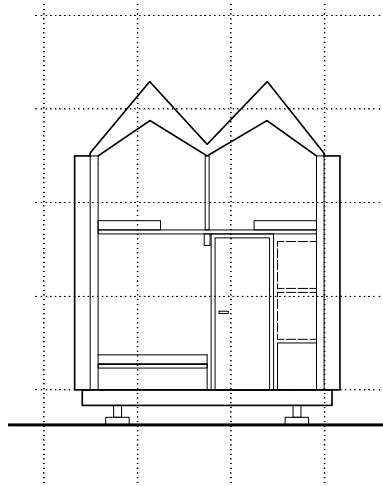


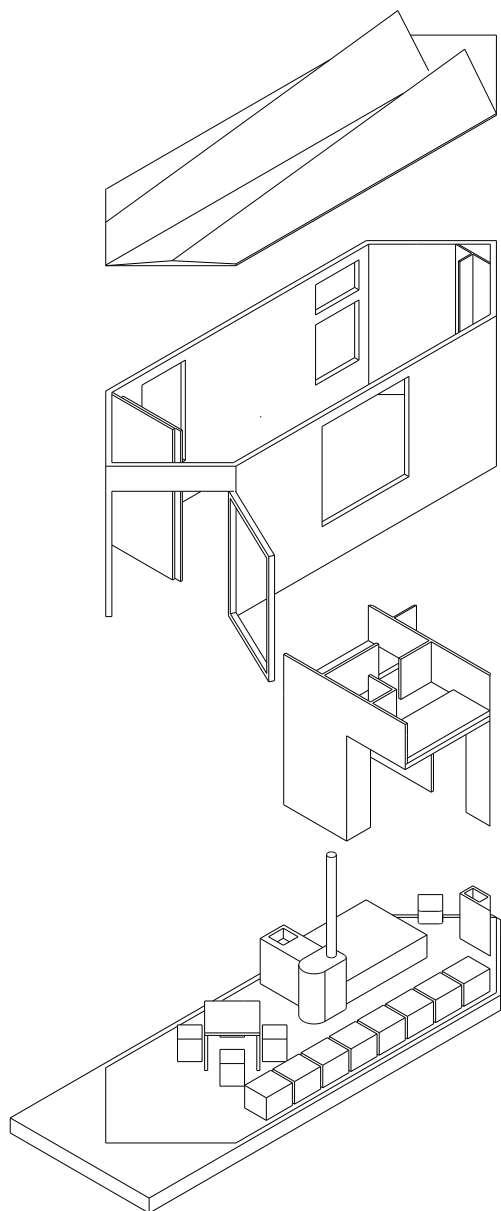


With the ever-growing scale of the refugee groups in mind, sheltering cannot be considered to just providing a decent roof. This project focuses on a sustainable infrastructure as the primordial intervention of a temporary refugee camp, of which the expiration date is rarely determinable in advance. Following the principle of the aqueduct, water, sewage, electricity and Internet are concentrated in one pipeline, which forms the spine of this urban structure in the making. Onto this *tecniduct* city life can then connect. For this, one primitive form is developed that allows numerous modular combinations. Functions are thus not characterized by a particular typology, but rather a specific combination of the primary type.

In the residential unit, the organization is focused on the traditional and universal idea of a home. A central stove determines the space and is involved in every part of the daily life of the inhabiting family. The entrance of the house serves as a filtering gradient that abstracts the public space from the intimate private atmosphere.

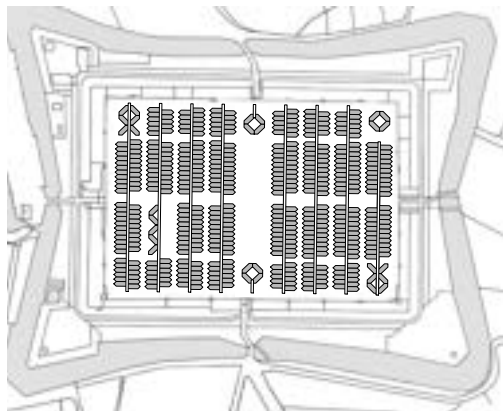








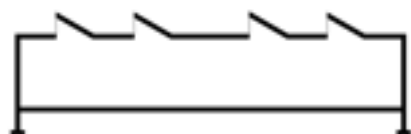
[Elburg, cityplan 1836, Netherlands]



WangJianfeng

[Accordion (Flexibility)]

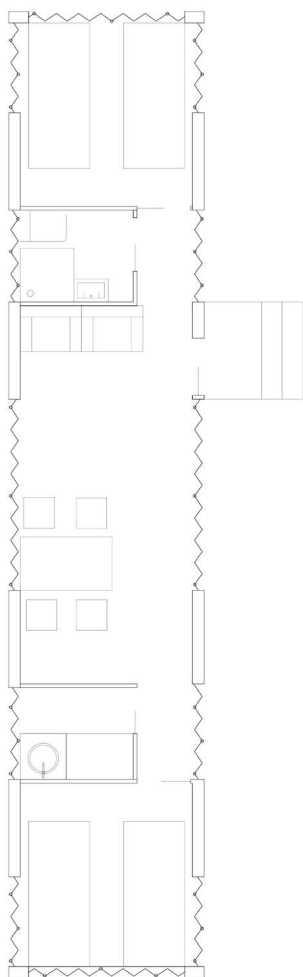




Many countries are now facing problems of the accommodation of refugees, as an architect i think it's more important to use architectural way to deal with the problems and provide the best solution for refugees.

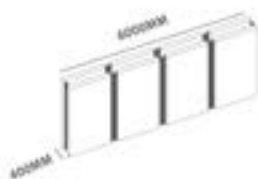
For me there are two major points i consider about, one is i want to create a really typical unit which is really comfortable even in minimum size, also it should be easy to build and transport. Another point is i try to think a way to combine the single unit to create different typologies of building and then final create an "city image", even it's contemporary. For the single unit i choose the module which is 2.5*2.5m, whole module is for bedroom and living room, half module is for the kitchen and bath room, the whole area of each house is 30m² for 4 persons family. According to the module of house, i design a foldable structure. when the house is folded for transportation, the size can be really small(like 400mm*6000m). Cause of the shape and the structure of the house, it's really easy to combine several houses to create different form and typologies. Big house, School, theatre... Finally, i think i found one developable system...i really want think about it more and let it be more reasonable.



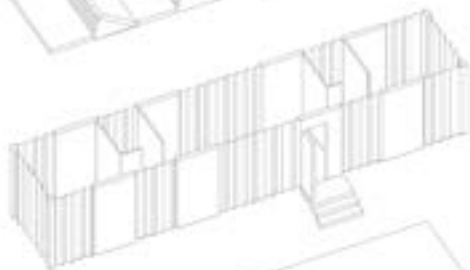




Roof



Base





[Lisboa, Eugénio dos Santos plan 1765, Portugal]

