

# T-BOX COMMUNITY FOR AZC

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## RELATIONSHIP BETWEEN RESEARCH AND DESIGN

For the first semester, all the efforts were made to set up a topic. Information were collected in order to design a transformable asylum seeker center by using different transformable construction systems and transformable furniture pieces.

A general view on the current housing situation of the asylum seekers is done by literature research, field trip and interview. According to the research, the existing AZC are lack of privacy and flexibility.

In order to provide privacy for all the residents, individual rooms are especially important. According to the research, the average size for each individual is only 5m<sup>2</sup>, the size is so limited for daily life, so how to reach the maximum use of the minimum space is discussed, different products of transformable beds, table and chairs were compared. Murphy bed, down folding table and free folding chairs were the final choice which could be directly used in the design process.

In order to make flexible housing for families, the idea of easy combination of several individual rooms resulted in a smart connection. The choice from the research was sliding wall system within a CNC milled timber structure. All the rooms are connected. But in the later design process, a sliding wall system cannot meet the acoustic requirements for individual rooms. Structure separation of each individual rooms are needed, thus came up with the idea of replacements of all the facade panels. By replacing the panels, different panels could be used to create different space. When the rooms need to be combined, the solid panels in between could be replaced by the sliding wall panels. But this solution brings two another problems: the storage of all the replacement panels and the gap between two rooms. The storage of all different panels need great extra space and the gap is only 5cm width, so the storage would be a problem because the insert block would be so tiny.

Though replacement way can solve the acoustic problem but it is not a fantastic solution. The next solution is to create a standard setting for each individual room while the elements could be used to fill the gap when it changed into a family room. The idea of rotating panel and folding panels are discussed, by using the panels to fill in the gap, the elements could be stored directly inside the room without using extra space. But the rotating panel and folding system is quite complex and not easy to realize with low budget.

The final solution is using removable panels between all the individual rooms. The panels are lightweight made of paper and plywood, with easy lockers it could be fixed between the columns and be fixed on the ground.

From this research and design process, it's easily to see that abstract principles are proposed from the research, while in the design process, all the results are tested and changed in a more practical way, Though the principles are the same, the products are always changing to create a better solution.

## **RELATIONSHIP BETWEEN GRADUATION STUDIO AND THE CHOSEN SUBJECT**

The chosen subject is the transformable housing. This subject fits the studio. Transformable is a technical issue which could solve problems. The refugee housing crisis is the most urgent problem currently. By using transformable technique, better housing could be provided. The graduation studio aims at dealing with problems using technique. For me, the transformable housing is a technical system which combines structure, architecture, furniture together to create better housing which could solve the current social problem. It's a generic system which could be used to solve a specific problem.

## **RELATIONSHIP BETWEEN THE METHODOICAL LINE OF APPROACH OF THE GRADUATION STUDIO**

The methodical line of approach of the graduation track starts with a technical fascination. This fascination forms the basis of the research paper and guides the main direction of the design. In my project, the fascination really starts with transformability between spaces. How to use space more sufficiently and how to save space is the first idea for my pitch at the first week. I started with the technique and try to find in what kind of case could this technique be used. Then the refugee problem caught my eye. The need for space and the need for privacy and flexibility is really a good question which could be answered by transformable technique. This process is in line with the methodical line of approach of the graduation studio.

## **RELATIONSHIP BETWEEN THE PROJECT AND THE WIDER SOCIAL CONTEXT**

Because of the Syrian civil war, the number of refugees are rising in Europe. Though the increasing speed is decreasing, the great need for housing still exists. A lot of existing AZC are fully used while there is still shortage according to the COA report. The newly built containers are better for individuals not for families which is lack of flexibility. At the same time most of the rooms are shared by two persons, which is lack of privacy.

The graduation project is aiming at building fast housing for asylum seekers, providing privacy for individuals and flexibility for families. This system could be applied in all kinds of circumstances, on undeveloped land, in vacant factories or making extension of the existing AZC. It not only could be used in Netherlands, but by replacing the material in different countries according to the climate and market, by reaching the maximum use of the minimum space, the principle of the system could be used globally to solve the urgent housing needs after disaster or war. To create better living habitants for the people and to help them to start a new life.