

Reflection

Dynamic Habitat Beirut

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complex projects

Dynamic Habitat Beirut

The topic of Complex Project this year focuses on the revitalization of Beirut after the explosion in August 2020. Dynamic Habitat Beirut is a starters community that will be constantly under development, located in Karantina neighbourhood. The project has 3 main ingredients: the infrastructure core, the flexible units system, and diverse shared living and working space.

1. The relationship between research and design

The research and design occurred simultaneously and influence each other in the whole process. In the P0.5-P2 phrase, research is more about gathering comprehensive information related to the topic. Meanwhile, design is also involved in presenting findings, for more efficient communication and decision making. The conclusion of the research leads to a design brief, including functions, urban restriction, users, and clients. For example in this project, I research about the housing market, the living situation of young Beirutis, and potential economic transformation. The findings indicate the necessity of building starters community in the urban revitalization. In the meantime, diversity mapping and the study of the current industry of the Karantina and surrounding neighborhoods emphasize the importance of preserving heritage and the local creative activity.

In the P2-P4 phrase, research about climate, culture and local material verify the feasibility of the design. In this iterative process, the final design can be truly rooted in its context.

2. The relationship between individual graduation topic and studio topic

As mentioned at the beginning, the studio topic focuses on the revitalization of Beirut. The explosion is seen as an imputes of change in many sections. Each project is a protagonist that drives the change in a different section. The individual graduation topic starts with

a personal interest in how people will live together in the future city. Therefore I was exploring the possibility of change in the housing section.

Housing provision in Beirut is disconnected from the local demand: While “ghost” large apartments become an urbanscape in the central area, young people are driven to the suburbs, having difficulties access to public facilities, job opportunities, and social networks in the city center. The explosion caused varying degrees of damage to buildings in the historical area but also gives the opportunity to build back a more inclusive neighborhood for diverse groups of inhabitants.

Based on the research, I proposed the following research question: How can housing be built back in Beirut and what role can it play in the reconstruction and urban revitalization process?

The project answers this question by providing starters housing that can adapt to future demographic change, integrating diverse creative activities with daily life, addressing environmental stress with community-scale infrastructure. In this way, the project supports the urban change by providing a higher quality of life for starters, facilitating a competitive local economy, and promoting a sustainable environment.

3. Research method and approach in relation to graduation studio

In the research phrase (P0.5-P2), mapping is the most important method in the Complex Project studio. Each student research and maps the urban layer that relates to their topic. Mapping is a way of analyzing and presenting the research. In this way, the research is lead to spacial related conclusions. Researchers are able to filter redundant information and organize data, ultimately reaching the design decision. In this project, the mapping of population density, building density, and real estate value prove the rationality of site choice for the project.

In the design phase (p2-P4), the essential approach in Complex Project is to strongly relate the individual project to group work. From this approach, we learn how the building and its context shaped each other. Each group is supposed to develop a collective vision that is supported by individual projects. The individual projects shared the same urban strategy and are impacted by each other. Our group area is the ground zero of the explosion, which makes this approach more important. Before individual design, urban fabric and joint urban rule need to be decided for the new neighborhood, because that will influence all the individual projects. For housing, the target group of the historical neighbourhood should be different from the target group in new neighbourhood. The open space of the group area influences the configuration of the housing project and the design of its ground floor.

4. Relationship between the graduation project and the wider social, professional, and scientific relevance

Cities are becoming denser worldwide. By 2050, two out of every three people are likely to be living in cities or other urban centers, according to a UN report. How can future cities provide sustainable, liveable, and affordable living environments, and how can the limited urban area accommodate the increasing and widespread changing population, have become a widely discussed challenge. An open building system that is “design for change” is one of the answers. This project is an exploration of “design for change”, by designing flexible special organization and dismountable components.

The existing municipal infrastructure is unappeasable for the developing technic of resource reuse and energy generation. Community-scale new infrastructure could be the way to push forward the sustainable reform. Dynamic Habitat Beirut explored how to integrate these infrastructures with our daily life. In this way, the project is also meaningful for a wider social environment.

5. Ethical issues and dilemmas you may have encountered during graduation

The dilemmas I encountered in the design included 2 aspects.

The first one is the balance between human-scale experience and density requirement. To raise the population density to 500 people/hectare, the projects need to provide units for 900 people, which the original fabric will not be suitable anymore. The solution is to combine high-rise buildings with low-rise buildings, which would preserve the human scale for most of the area. In the high-rise building, units are lifted, living green open space for a better walking experience.

The other dilemma is the contract between the current “living in large private house” culture and the dense urban environment. The concept of a developing building itself also means to gradually transform from the current “large private house” culture to co-living culture with the whole society. Meanwhile, shared kitchen and dining space will be arranged for every group of units, providing more efficient space for traditional habits.