Reflection
Complex Projects Graduation Studio

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Project: Manufacture Commune

The relationship between research and design

The project starts from the research about the living, working and manufacturing in the city of Chicago and focuses on the area of Pilsen, which is an Mexican-American area and an industrial zone of Chicago. In the early research, we looked into the situation of manufacturing in Chicago and found that, built on the traditional manufacturing, the city is facing some contradictions between shrinking traditional industries and the changing structure of the city. In Pilsen, the region is clearly divided into two parts, the north living part with a dense grid that filled with individual houses, and the south part with a spare grid that is mostly occupied by industrial buildings. A canal attached to the south of industrial corridor connecting the Lake Michigan is in charge of transportation and suffers from the pollution of industry.

At the same time, newly emerging industry depending on the advanced technology is changing the means of manufacturing, the ways of making and designing products, and also business mode between producers and consumers. The new industry also has a potential to miniaturize and has much less environmental impact that could fit the urban grid. Some parts of Pilsen have already received some creative industrial projects and business that shows the trends of changing.

As a consequence, the urban strategy suggests a renovate to the industrial corridor in a progressive way and stronger connection to other neighborhoods. By extending and divide the grid in a more agreeable way, the industrial corridor will be purified and transformed into a living-working mixed district.

The proposed building in the masterplan intends to act as an incubator for start-up and independent young designers, and a place for the public and people who want to make their own products at the same time. This will also provide a platform for designers and consumers to have a direct connection. In the masterplan, the project
is a combination between building and landscape, this follows the intention of improving the environment of the area and offers a public space connecting the surrounding.

**The relationship between the theme of the graduation lab and the subject/case study chosen by the student within this framework (location/object)**

The project has two points in response to the theme of the graduation studio. The first point is that, the program as a upgraded version to the current Fab-lab response to the concern of the studio to the development of manufacturing in Chicago. This point is related to the operation mode, target group and types of spaces needed. De Waag in Amsterdam as the first Fab-lab is one of the case study to this point. As a pioneer of the advanced digital fabrication, De Waag provides various tools for professional artists, inventors and designers, also have some open lab to citizens, but not yet managing a platform facing the public for design and making for everyone. A more open program for the wider public is needed for the project, for generalizing the concept of easy customization for everyone, and try to make part of the building a public institution. For the second point, the building exists as a part of the city. This point is based on the observation of the urban environment in Chicago. To have a place both improving the quality of environment and providing space for public activities, the open connection to the surrounding is the staring point of forming the place. The space surrounding the building itself will both serve the building and the city.

**The relationship between the methodical line of approach of the graduation lab and the method chosen by the student in this framework**

In order to purify the old industrial area and change the structure of it, some of the old facilities that heavy polluting and occupying a large area will be removed. A necessary earth and water cleaning progress will take place by dividing the area into strips following the original vertical grips, and the program configuration of each strip will be designed according to the situation of the surrounding, basically the purifying green area will be placed next to the water, the small scaled manufacturing facilities will be placed at the north part for convenient transportation, and the living and working area are placed in between. The first strips to develop will be next to the newly rising art and creative industries district for a leading position, and the following strips will be next to the first ones step-by-step.

**Personal Proposal**

The design is taken place in one of the suggested location that has a good connection to the existing and planned creative industrial area, also next to a green corridor. The site is firstly considered as a part of the urban landscape than a building. To bring some change to the vertical and straight urban landscape, the American natural
landscape will be an inspiration for the design. The building is surrounded by slopes and small mounds with a direct connection to the building.

With four openings facing the main direction for people approaching the site, the outline of the building is designed following the possible flow and activities, and will creative places for various activities. Divided into four parts, the volumes are connected by a ring-shaped corridor, and makes a square in the center. Volumes attached to the corridor are divided into rooms for small groups of people to use, and large spaces such as workshop and lecture hall are surrounded by the ring inside. The program of the building is based on the existing fabrication labs that provide work space and equipment, works as a extended version that strengthens the communication with the public and customers, encourages and helps individuals to make their own products. In the shared spaces, the multiple communication happens in between the public, consumers, designers and the institute. This is a platform where advanced technology for making is released to the public, and also provide chances for designers to have more offline cooperation with guests in a physical environment. Activities such as products release and exhibition will be attraction to people, and as season changes, open market and similar events will take place outdoor in between the building and the landscape with some temporary structures, the program of the building will overflow to the surrounding.

The relationship between the project and the wider social context

The Fab-Lab as a new type of institution appeared several years from now along with the popularization of 3D-modeling technology is firstly benefiting the professional artists, inventors and designers, which is really accelerating the creative industry. With the background of increasing need for customization and more powerful tools for fabrication, the advanced technology for manufacture is getting closer to the public and will serve the public directly. As most people has no professional knowledge and skill to make things, especially digital products, a platform connects maker and consumer is needed. If the industry goes this direction, the making of products following your own demands will become a new lifestyle. This program will also drive more related industry such as culture industry and small factories, serving the local and drive the economy.