In the studio Methods and Analysis, the general topic is *Positions in Practice: Constructing the Commons in the Latin American Metropolis.* The definition of the commons is a space with communal resources, like recycled wastes or refreshable solids, that the architects could take as tools to form collective programs for different groups of people. More specifically, the same theme is researched in Valparaiso, Chile, where the site of my project is at. The unfamiliar cultural context as well as the unique topography both inspire designers and help us to reconsider the way architects are designing. Personal and creative methods are required in this studio by researching and designing the commons, in my case, I found unique approaches to proceed the design in relation to my research.

Theoretical study

In the beginning, there was a requirement of understanding the definition of the commons. As a general topic, the commons can be related to space and events, behaviorology and affordances.

In the research stage of *the gradients of property: public, private and the commons*, on the purpose of defining the urban space in Valparaiso, my research starts at the urban events on the plain area of the city, where the main streams of people trade and work. Bernard Tschumi stresses out the significance of understanding spaces and events in Architecture and disjunction: "…architecture—its social relevance and formal invention —cannot be dissociated from the events that happen in it." In Jane Jacobs' book *The death and life of great american cites* also helps to form research methods by analyzing the city in a citizen's perspective, in order to fully understand how and why the city is formed in the way it is. It means that I need to be a part of the events while observing them.

The research of events leads me to another stage of *behaviorology* from Atelier Bow-Wow. To design collective space that events could happen, it is crucial to understand how this urban space is used by people, or how people usually appropriate certain spaces for certain activities. When the scale of research is gradually narrowed down, the concept of affordances which I read in *A rich landscape of affordances* is involved in the theoretical study. The affordances, as *"Possibilities for action provided to an animal by the environment"*, which is also a common resource especially in Valparaíso.

Since the border and boundary condition is obvious in Valparaiso, that its ecological border also defines its urban border, I think the edge conditions deserve to be paid attention to. In Richard Sennet's lecture series about edge condition he mentions how active that urban edges could be if it is well-designed, considering people are meeting daily on the urban border.

Methodology

In the research, the main tool that I use is mapping and sketches. Before site investigation, there is a need to understand public, private and the common space in the city, thus mapping the city in a way to distinguish each space is a demand. However, when I find there is no chance to specifically define the space, I change my strategy to understand the city by zooming into the plain where main public squares are.

In site investigation, the way that I collected information was making sketches with additional narratives to explain the feeling when I was on site. Over 70 sketches are made in Valparaiso, trying to capture all the important urban features that trigger events and interactions. When back in the studio, these sketches are transformed into an event map that shows both locations and the activities that happen in the place.

However, the map was still a base of further study. In order to relate the events and locations in a spatial and visual way, panoramas are made with activities, spaces, and locations, both in the horizontal and vertical way. Making panoramas is also me reinterpreting the urban space with my own comprehension, as I point out the public features, like markets, urban settings and sidewalks, translate and connect them with each other.

When on the site, the city itself triggers my sensitive thinking when considering its segregation between the ocean, the plain and hills. To present this idea that the city is in this segregation but requiring bounds of people and the city, I write a poem and make a watercolor painting by collage style. The painting has fragments of urban spaces and it compares them with utopia cities appear in many movies. This optimistic views of Valparaiso and gloomy images of future cities with high-speed developed technologies are pointing to two different directions of cities in a global perspective. What I want to express is how can architects act to influence future city by their buildings, that is the main reason of hands keep showing in the following paintings. Fragments of urban spaces on one painting is a way to twist perspectives to show one space or one continuous routine in different orientations and scales. Although it is two-dimensional drawings, it shows three-dimensional information, also could be seen as a collage of views. The same skill is also applied to the panorama drawings.

In the design process, I continue the same tool that I use in research. Panoramas which have spaces and material proposals fit the shape of mass — a circular building. Watercolor paintings are made to abstract certain spaces in order to find new possibilities. The whole process is an experiment, by trying and creating without boundaries, both interior and exteriors, also the landscape itself is freely designed.

On the other hand, rational views of the structure and the real spatial qualities are built on physical models. Load bearing system is firstly tested on 1-200 cardboard working model. With a fundamental understanding of it, inner space is formed by replacing several load-bearing elements. Models also show many problems and demands during design, like where are tiles and beams on the ground floor and the problem that some market columns might not fit the structure grid.

From research to design

The main outcome of research is the theoretical base of how space, events, and affordances could benefit the commons and an overview of urban space in Valparaiso. These theories direct my ways of design in different aspects.

Urban strategy comes from the concern of the ecological border of Valparaiso, and the decay of coastline public space. Based on theories from Richard Sennet about edge condition, my urban strategy contains the idea of organizing a new city center on the edge of hills and plain, forming a liner connection between city centers on the same edge, and eventually change the city layout with multiple city centers. I believe in this way there would not be only one main routine of people that they usually transport up and down the hill, but locals and tourists would share different routine and finally meet somewhere both on the coastline, the plain and on the hillside. With the on-going expansion of Valparaiso, this strategy could benefit the border and hills, as well as the expanded area on the top of hills now and in the future.

From an urban scale to the border itself, a spatial way that breaks the edge is to have looped circulation in a circular form. The routines are set along the edge of the building and close all the main programs inside its loop. I take advantages of the shape since circular building barely has orientations. When people are walking around the building, the edge of hill turns vague, but they still could orient themselves by the direction of Pacific Ocean.

To make my building as a common space, I capture one physical resource: the waste, and a main public feature: the market, these I could use as starts of program design. The resource has its local condition that it needs to be sorted and recycled but remains a big trouble in the city, and local studios are practicing in various ways to use them. It is a resource that should benefit the city in its appearance, public lives and educational activities in which people could participate. These up-cycling events should be helped by the public feature: a market, which absorbs people to gather according to my summary of site investigation. In this way, programs are bound together, while in the city there are many spaces that have different activities happening at the same time.

Comprehension of the commons helps me to have a firm concept that makes sense on the site and becomes a beginning point of the multiple city centers strategy.

When designing the space of the building, I make the routine in a circular loop to break the sharp edge of the hill, expand the "public area" of the building. By squeezing people in narrow path and release the space in the next area, visitors would have the feeling that they are walking in the urban space instead of walking into a building. These spaces are referring to the real urban space that I collect in research. What I am trying to do is to link the building routine to the urban space, in a way lead unexpected interactions (which are quite normal in the city) into my building. There would be no sharp distinguish of this waste upcycling market about where is the landscape and where is the architecture, they are merged into one urban space.

From the research of affordances, many soft and open divisions of space are created. Shelters, sunken round squares, columns in grids, slight height differences, open small yards and a beautiful curved bridge, these elements follow the same principle as the building, but in various materials and scales. Events are allowed to happen in there centralized space located in different directions of this round building, which has no direction and hierarchy, implied the freedom of acts that people can have on site.

The wider social context and relevance

In an urban scale, Valparaiso cultural park will become a new city cultural center. Now it is already a leisure place as a public park on the hill where people would choose to have picnics. However, it does not have programs that abstract both locals and tourists to come, in this sense the waste upcycling market could help cultural park gather people. At the same time, the workshop levels of my project building also take an educational role to teach techniques and knowledge to people and spread the concept of upcycling wastes, which enhance this area as a "cultural city center". These two buildings will be organized by the same authority, which means the free market will still be in order.

What would happen in the future? The cultural city center is just a starting point, but it will activate the mountainside in a positive way. It does not only act as a market building but also an educational center, and an industrial building but has public features. The way of mixing programs and building positions and to create new possibilities shows a big potential. In contemporary city lives, people are asking for more urban space and they want to occupy spaces for temporary use, what this mixedprograms building would do is to offer extra spaces that one program may not need but another may do.

Personal reflection on the process.

The main guides of my project are "visions" and "questions". I constantly shift from one to another and keep trying new tools that help to visualize my visions and answer my questions. There is no order of which comes first, but each of them represents my poetic sense and rational thinking.

What would make this building successful? What program that would fit in the space and co-work with another one well? How can I lead people to the main entrance of this underground building? How the rooftop becomes a landscape with dynamic ground space? It is a process of hesitating and wandering, seeking more possibilities by throwing many questions that I could not instantly answer, which means it has the value to be solved and it is crucial to my project. Also, sometimes with help from tutors, I find new questions that are really good but I do not have the answer, and new experiments start.

Visions are common during design which represents my own aesthetic preference. Usually, visions have a part of my subconsciousness that I build during research stage. Why I would have vertical line sequences, why I would like to use circular shape as the basic mass, these questions show when I start to draw, it always ends in my reinterpretation of the city and theoretical base.

As I have all the materials that I need to form a building, what I need to do is to visualize it in a physical model with materials and the events that I mention. However, visions would continue in the forms of drawings and paintings, what I would like to have is an album of it.