Mike de Bruijn 4414403

The Urban Beach

P4_Reflection paper



Introduction

This thesis project is part of the Havana Studio of Complex Projects 2016-2017, which relates to the changing situation of Havana, as a general case for the entire country, Cuba. The country is on a turning point in its history. The country is opening up after talks with the former United States president, Obama. Even though it seems that times are changing, both countries had a change of leaders. The situation with Cuba's embargo is changing and so is the living style and architecture.

The graduation studio is focusing on four characteristic areas within Havana, of which Alamar one is . Alamar is the 1970s manifestation of Fidel Castro's communistic regime. The expansion of the capital focused on selfbuilt houses as solution to the housing need. The general question for Alamar is: how will the region deal with the upcoming change in the near capital?

Method

Following the method of complex projects, research based design, students are spending almost half of the graduation on research as input for the design. The study trip and the conversations with the locals are used as main input for the design. The local input is seen as very valuable, as designing in Alamar asks for a local solution, an intervention for the people. It covers the more intangible aspect of architecture.

Th students are not only design a building, but also formulate a master plan idea, which can positively influence coastal and public development. Prototyping combined with sustainability is the method I used to design. Researching shape, organization and solutions by testing multiple options to create a reaction on the current state of the area and the challenges of the future. Testing solutions on the site and arguing from the architecture as well as from the intangible part.

Problem statement

From the research follows the problem statement; "The missing coastal public infrastructure and the unstable availability of electricity in Alamar are not only counteracting future growth, but also the current living standard. To meet the standards of the embargo-free Havana region, Alamar needs to invest in its foundation." The demand for electricity in Cuba, especially in Havana, is growing. The people that have been closed of due to the embargo, are searching for the ways to use internet. The living standard is changing, and so is the country. The electricity production is far from sustainable, and for a lot of dislocated areas more a luxury than a basic. In the stated problem statement can be read that the problem is not solely based on research of hard facts, like the electricity demands, but also addresses a more softer side. Local differences in culture and quality are addressed in the project as a critique on this inequality and is proposing solutions through architecture. Creating awareness for the upcoming change and possible answers are formed by this project.



The problem statement and narrative formed by research are main products for the design input. Formulating a good narrative takes a long time, but makes the design in the end more easy to argue.

The research

After the excursion to Havana, the pre-stated findings were confirmed. The excursion was important to understand the more softer side of the problem, and the real needs for this area. Havana is becoming a more western capital in which tourism is the main source of income. Alamar is like an island that functions as a bedroom community. Before the excursion, research was executed, focusing on mapping to understand the area. As the crow flies, Alamar is only fifteen minutes away from the city centre of Havana, but during the trip we discovered that the expanses of a taxi trip to the area equals two weeks working for a doctor. During rush hours, this trip could even take up to two hours. The problem of inequality is larger than it was estimated before. Inequality is a real issue, housing in the inner city is over thirty times more expensive, and the differences are even expanding.

Alamar is in multiple ways an island that needs to support itself. Unfortunately they are not able to provide the people all basic needs. The living standard in Cuba is completely different for western countries like the Netherlands, but every aspect makes Alamar more like a remote area.

The design conditions

The living standard of the people in Alamar is missing quality. Although many issues, like drinking water, have been solved locally, a stable electricity infrastructure cannot be provided by the people themselves. The instability of the electricity is traceable to the construction period.

Alamar was built on the infrastructure of its previous plan, 'Plan El Olympo'. This plan was meant to become an American style suburb. The current 100.000 inhabitants of Alamar are living in self-built prefab apartment blocks, which are built on the infrastructure designed for only one fifth of the population. Subsequently, this overuse and material scarcity in times of construction resulted in the instability of the electricity net to withstand even the smallest storms. Heavy rainfall or strong winds can already result in power cuts. These black-outs can last up to three days. For a country that is on the edge of new prosperity, improvement of the living standard is impossible on such an unstable foundation. Imagine Alamar growing in numbers of inhabitants on such infrastructure, the first thing to provide is a stable electricity flow. Secondly, due to this material scarcity, the public tissue was whittled. Looking back on the research executed, the project is inspired on the way Alamar was built, both as a critique as a compliment. Built in the so feared water, with the methods and materials as Alamar was originally constructed, the project shows the possibilities of the 'Alamar style' as well as the missed public qualities that were never built.

The public issues are also visible on the shoreline of Alamar. The empty green strip along the coast was meant to be the district dedicated to sport and leisure. The project site is the end of Alamar's major north-south connection, connecting the highway with the coast. This road is surrounded by the few public buildings that were realized within Alamar, in Zona 1. This location, along the coast, has the ability to carry a public catalyst for the rest of the coastal park. Although Alamar is the only new town with a waterfront, but Alamar does not provide in access to the sea.



The ambition of the project, as well as from me as student, is to find a way to combine leisure with the improvement on the supply of electricity. Searching for new ways to produce and store electricity, I found that the problem in Alamar is not the production of electricity, but the quality and the continuity of service. Alamar was never finished, leaving a housing district instead of a functioning town.

The sea could become the potential source of energy for the near and far future. The Cuban administration is willing to invest in renewable energy, but this will not solve the problem of energy availability during storms. The program is twofold; storing energy for periods of difficulty and when not in use, providing a public connection between land and sea, by realizing a pier. This pier will function not only as a bridge to the water, but also as a platform which will carry the public functions for the coastal park. Both programs will be combined as an experience. Realizing such a project in the sea, shows also that not every element in Alamar can be realized bottom up. At some point, the Cuban government needs to pay for their share, and provide elements for better qualities within Alamar.







The concept

The concept is a water replacing battery that is capable of producing local energy in times of high demands or insufficient supply. By occupying space in water, as well as inland, areas are created. These areas are the foundation of public domains within the region. Developing not only the coast, but also providing a more continuous energy supply, which can be expanded and repeated.

The project itself will store and restore the energy on the coastline by introducing an energy storage system, which is capable of providing energy from seawater to the zona-centers during periods of shortness in supply. Not only providing electrical power, but also finishing 'Plan Alamar' by revitalizing the coastline. The energy of the public is generated by connecting land, people and sea: an electrical and public infrastructural intervention. Showing that Alamar is not yet finished, and that qualities are still there waiting to be developed. The Urban Beach.

The architectural intervention as awareness

The project is based on the information of the research in the early phases of the concept and the definition of the program. The coastline of Alamar has been underdeveloped by many reasons, due to multiple reasons. The connection with the sea is lost. The shoreline should have been part of public life, a place for sports, recreation and leisure. A pier is making a creation between the sea and the land. Apart from creating an energy source of the sea, a public connection is made. A pier is a perfect element to create shoreline development within Alamar. The longitudinal manifestation for a new period in which the people become the centre of their new city. Alamar will grow, and hope to develop. For this, a better infrastructure is needed. The pier will not only provide electricity in disaster periods, but also a platform. A pier is no more than a platform with multiple pavilions that function as a whole and as a catalyst for the area. The people need to be stimulated to improve their living standard. The pier will only be the first step, the guides towards coastline growth. Local programs by the locals on a pier as platform for awareness. The project is not a straightforward solution to the problem, but takes distance an developed on the standpoint of creating critical awareness to the fundamental infrastructural challenges of Alamar and its future solutions, which has the ability to leap forward in future (techniques). The method of complex projects, with the main focus on research, created diversity of projects within the studio with a wide range of new programs and typologies. The half year of research and testing have proven itself. Creating different projects with difference in relevance.

Relevance for Alamar

Alamar was initially planned for 20.000 inhabitants, nowadays providing homes to 100.000 Cubans. Although more houses are constructed nowadays, planners should analyse the situation. The infrastructure is neglected for over fifty years. Disconnected and neglected, the area screams for low tech solutions to tackle these problems. And not only now, but also elsewhere in Cuba as well as for the future.

Relevance for Cuba

Cuba has been closed off by the embargo for the last fifty years. In those five decades the country had no western influences. Everything related to architecture and the daily life like buildings, infrastructure but also cars, are old and neglected. Now with the embargo being eased, Cuba is interested in new technologies. The current electricity production comes from oil plants, and although Cuba possibly contains large oil fields, most of the oil is imported from Venezuela. The Cuban administration mentioned that this situation needs to change rapidly. The Cuban government is therefore investing in sustainable resources. Unlike the western countries, Cuba can restart with renewable energy. Still this leaving the same kind of questions as the western world; how can we store energy? Sustainability awareness and storing energy

are not only interesting for Alamar or Cuba, but it is a worldwidechallengetocreatesustainableawarenessand researching architectural solutions for energy storage.

The concept of inhabiting an energy-storing machine is a variant of the known hydro-electricity systems. I was inspired by the ways in which Cuba provides electricity for the poorest and most disconnected areas in southeast Cuba. The ways of using water to produce electricity inspired me to search for a design in which the concept of water storing pumped hydro could be realized. A solution for not only Alamar, but alo for Havana, as well as the rest of Cuba.

Relation with the studio

'The Chair of Complex Projects (CP) targets all scales of the architectural thinking, details, building, city, and region. Expanding the knowledge about design and dense urban areas development, broads the mind and thinking of future architects. Complex Projects investigates settlements around the world that are ambiguous in their development and embedded in the process of globalization. Students and teachers are encouraged to look critically at their surroundings; to gather, organize, and question the complex forces that ultimately manifest themselves into our built environment. In Complex Projects we are interested in the study of different



urban conditions; core or peripheral, dynamic or stagnant, traditional or without history, anonymous or famous; these are the contemporary postmodern realities we must confront as a profession.'

Complex projects is, according to their website, investigating in areas for their relation towards globalization. The real question of Alamar is whether or not they will benefit or disadvantage of the globalization of Havana. Either way, the region will expand in numbers of inhabitants. People that come to the area to profit from the wealth increase of Havana or people from Havana that are driven out of the tourist inner city. In order to house those people, the infrastructure should be improved to provide quality.

Relevance for me, as an architecture student

I have always been interested in inequality. Whether it is in-between countries, regions or households, the urban and architectural question underlying is about how to combine differences, while providing qualities. If this quality also provides sustainable developments, the project is really becoming interesting. For solving both inequalities and sustainable developments, investments are needed. To research the pure needs for the underprivileged, qualities can be obtained. As an architect I believe you are not only serving the higher classes, but you should also use your knowledge within the built environment to provide situations in which both groups are profiting for one another. Last year I have spend more time writing on critiques towards inequality and providing multiple views on this problem. I wrote a paper about the inequality in Molenbeek and its relation with Brussels, as an extreme case study to relate to the relation of Havana and Alamar. Surprisingly, the economical difference in the Cuban case is bigger than in the case of the Belgian capital.

Architecture and research are the ways to make social problems visible, as the architectural interventions are both a critique as a possible solution to the problem. The future of infrastructural interventions will show that the connections between sustainability and inequality are more connected, and an (architectural) challenge for the entire world.