

Land Art Generator Initiative 2014

Vegener.CAR6B181.

When I had to start the design for the competition, my priority was to make something that would not overshadow the environment. That is the reason why the project is made out of a very light structure, and it is covered by a natural surrounding. I took the decision to make a plan which would give nature relevance, but at the same time something which might induce the people of Copenhagen to get involved with a project that is meant to bring a relevant benefit for the city.

With this concept in mind, my project is a Biomass Power Plant, which takes the wood chip to produce energy and heat for the inhabitants. The Biomass power plant is only visible from the water, because it is below the ground, into the water, and it will grow up like a glass box. It works in a very simple manner. There will be access for the transport, which will arrive with the wood, which will be incinerated later to produce energy. At the same time steam will be made to heat up the houses.

Our power plant has 10.445 m² and it will produce 279.225 mwh which will be converted to heat up 15000 houses per year. At the same time this power plant will generate 93.045 mwh which will provide energy for 14000 houses per year. It is possible to believe that 3272 persons per year will be supplied with green energy from our power plant.

The chimney of the power plant will be camouflaged within an apple tree plantation. The power plant needs a concrete structure, because this volume will be submerged into water. On top of the concrete foundation, traditional methods of construction will be utilized with masonry, which is a traditional material in the city. And the volume will be finished with a green roof which will contain the apple tree plantation. The green roof will be decomposed at the site, changing into a vegetable garden.

The power plant is a learning center, which is meant to raise awareness among the citizens. Everybody will be able to get into the project to learn how a biomass power plant works, and how any individual can contribute to generate green energy. This aspect is very important to Copenhagen, because this city is the Capital of

Green Energy in Europe, and it is estimated that there will be 0% emissions of CO₂ in 2025.

Under the Biomass Power Plant we found the bicycle parking, which have an surface of 3929,4 m², this space have the capacity for 2620 bicycles.

The organic garden supplied by the green rooftop will provide the people who live in Copenhagen with a place to work and grow BIO vegetables with their own hands. In this city the most consumed vegetables are carrots, potatoes, onions, cabbages and leeks. The module to make the structure which contains these vegetables will allow enough space for the organic produce to grow up healthily. It will have 30/40 cm per vegetable line with the space of 40 cm to walk in between, which is necessary to work into the garden and it is based on the size of our arm. This pattern will be repeated in the vegetable production garden. This module needs to be in the north-south sense, to profit the sun.

The vegetable garden have 10.853 m², we know that in this site we have to consider an production of 0,5 kg/m², so we will have an production of 5426 kg of vegetables per year, one person eats 140kg of vegetables and fruit per year, so we will deduced that we have 39 persons that are eating from our vegetable garden every day during one year.

Another module is created in the project, this module is based in the size of the cherry tree (Prunus Avium) this tree have a diameter of 5 or 8 metres and it can grow 15 or 20 metres, so we make only one line in the public space of this tree because we don't want to have shadows in to the vegetable garden. This module make the pathway.

We can see that the project take the social compromise, it works with the nature, it helps the city to make the green energy, it helps the habitants to have the Bio vegetables, and most important everybody can learn in to the project, learn from the nature, learn how we can produced our food, how to recycle to have the energy and the heat in our homes.

The project take the characters of the environment to make something natural. Everybody can see this project like a big park, it is a green surface with vegetables production, at the same time you can see the project from the water and see that this green surface is floating over the glass box and it will appear to be floating or

flighting. We choose glass because we believe in the reflection of the water, the glass, the nature, the city. This reflection is infinite and we will arrived to everywhere if we look in to the glass. We can see the interior, how the power plant works, but at the same that we can make the focus and see what happens behind us, how is the city, include the little mermaid. This is why we believe that choose this glass is the decision to include the environment in the project, to make the transparence of our intentions.

We will resume that we give an shock of nature to Copenhagen, this shock works with the more green and sustainable energy in the world which is the photosynthesis, we will take the solar radiation to make grow our vegetables, this vegetables are the energy for humans, and with this energy humans can live in a very healthy way without increasing the ecological footprint, at the same time we take the garbage and we convert them in energy, green energy. In this concept is based the name of the project VEGENER, VEGetable ENERgy. This is our compromise with the city, with the people, and with an architecture more humanistic.