presentation 6: exam

Date: 24-06-2015
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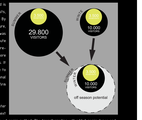
Insula Ambla

'design for a spa at the intersection of landscapes'

In the prospect of the ever increasing costs to keep Ameland in existence, the question whether the efforts are worth the benefits will sooner or later arise. With the sea level rising due to climate change, the traditional way of keeping the island save, by building dikes, will eventually become unaffordable.

With farsightedness, twenty-five years ago an experiment with dynamic coastal management was started at the far east side of the island, where the dike was allowed to wash away. By dropping sand from the deep North Sea close to the northern coastal line, and allowing that sand to be blown deep onto the island by removing some vegetation from the dunes, the natural dynamics of the island were enhanced. Now this 'hoof' tithe has shown its merits: the island is growing instead of shrinking. Additionally, this method creates a more natural coastal landscape, with a larger diversity of habitats, flora and fauna. With the method proven to be successful, the island is now ready to use it on a larger scale.



For its own source of income, Ameland is dependent on the presence of tourists visiting to experience its beauty. By making the choice to work with nature, instead of against it, a wise choice was made. The benefits for nature contribute to an even stronger back-to-nature feeling which makes the island even more attractive for nature seeking tourists. It creates opportunities for architecture to connect the new landscape to additional forms of recreation, to in return, confirm Ameland's right to exist.

Together with Rijkswaterstaat the center of the island was chosen to be the new location to be transformed for the new dynamic method. The transformation will add dynamic dunes and salt marshes to the existing landscape.

Goal of the project:

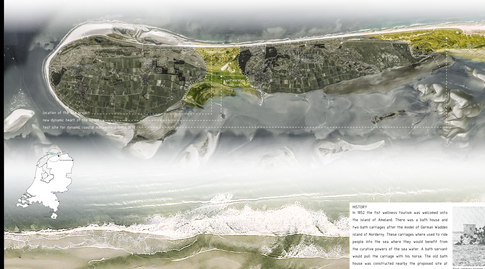
Tourism is the main source of income for the island, and the infrastructure to accommodate tourists is available year-round. However, the high season seems saturated, while the touristic infrastructure to understand during the off-season. To look for growth opportunities, the choice to look at the off-season is obvious. The project aims to create a year round recreational facility that celebrates Ameland's nature and identity, allowing tourists growth during the off-season, and creating new jobs on the island.

Subject of the project:

The project is the design for a spa that will emerge at the intersection of different landscapes, offering unique qualities of experiencing nature. The new dynamic landscape but also the traditional dunes and the forest all have different characteristics that cause an overall experience of the Amelander landscape.

Why a spa fits the goal:

Because it is a form of recreation that is not impeded by cold weather. By providing facilities that invigorate the body to replace the absence of the hot sun, the tourists will find the perfect setting to enjoy the fresh air. A small scaled spa is relatively extensive in use and fits the natural environment very well. Underneath the island a thermal spring is located which is the source of salt and salt(ed) thermal source of our country. The sea water is already present as a latent asset, waiting to be utilized and finds pet Ameland on the map.



Concept of the design:

Seeing the 'building' as a landscape. The visitor approaches the building from the edge of the forest. The transition from the exposed outdoor space to the protected inside space is done by adding gates that function as transitory environments which are not outside anymore but not yet inside either. The interior space of the project feels like as if the visitor moves along a dune landscape. Floors and walls are guiding the user along the different views, baths and other wellness functions that make you experience the unique environment.

Design for a unique location:

Early on in the design process I concluded that my usual design approach would not be suited to design this unique place. The location however realized me to look beyond my usual design styles. With this design I am for harmony between architecture and nature. The design merges with its surrounding. The design is not alien but really becomes a part of the environment.

The shape of the building is characterized by the fluent horizontal lines that relate to its environment. The material however forms a contrast to the environment and sets the design stand out. I think the artificial intervention and the natural environment should connect to each other. I believe the shape of the project should be designed to fit the landscape. Nonetheless I think it should be clear that the intervention is artificial. While the shape connects to its surroundings, an abstract use of material offers a certain amount of contrast. Without the project becoming a dissonance I am on setting out the artificial intervention. The horizontal lines are made out of a bronze anodized aluminum cladding. I deliberate choose to use a material that suits the color palette of the dunes but clearly looks like a non-natural element. The task of the design is to make the landscape look even better.

Making the landscape look even better:

The quality of the location is that it finds itself at the intersection between three types of landscapes. The forest, the conventional dunes and the new, dynamic dunes. Where the top layer of the dunes is being scalded away natural dynamics get grip on the exposed sand, causing a new open landscape which contributes to the dynamic coastal defence mechanism.

From a distance the building lifts the landscape because it is shaped by picking up the shape language of the landscape. The building is shaped by using fluent horizontal lines that are also present in the landscape. The height of the building resembles the height variation in the dunes.

From within the project the three landscapes are being framed so that visitors become aware of the transition between the landscapes. The building points out to its visitors what makes this place so unique. In between the different frames, the landscape is blurred. By using perforated aluminum panels, the visitor still sees a part of the view but has to move to the next frame to totally experience the next landscape. The design also has got several balconies and terraces that offer a free uninhibited view over the landscape.

Stimulate the wellbeing of the visitors:

I believe that health related architecture should stimulate movement. The building has a clear way of communicating with the user. The open layout of the plan offers easy to read spaces and by adding several ramps, the user quickly knows how to get from one place to another. This minimalizes the need for elevators, the user is not bound to a central vertical transportation point.

Wellness experience

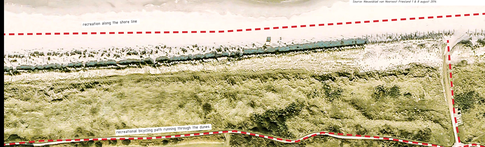
The overall experience is defined by the track that connects the consecutive wellness facilities. By going from one bath to the next, stopping at a resting point to experience the landscape and continue along the path until all baths and views are being discovered one finally releases at the sauna at the end of the track. Some of the wellness facilities are aiming at the experience of the location while others are about become aware of yourself and enjoy having nothing on your mind.

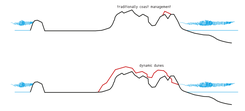
Sustainability

Because the building is placed at a very exposed area, careful placement of the plot is desired. The large amount of glass needs shading from the sun to reduce the amount of sun heating. This is done by positioning the building close to the existing forest edge, making use of the shade of the trees. But also by applying an altering overhang, small on the north side and larger on the south side, the sun heating is being enhanced. Another important aspect to keep in mind while designing this type of building is the use of water. For the different baths as well as the treatment areas sole water is used. Sole is being extracted from the thermal spring at a depth of 700 meter. Sole is water that is fully saturated with natural minerals. The thermal spring underneath the islands is the warmest and salt(ed) source present in the Netherlands. Because of the intensity of the salt-like Na to be softened down before using with different intensities in different baths. The water from the baths needs to be refreshed and filtered. By collecting this water together with the salted water from the drain gutters and running it through a filter and then a non-chemical process of reverse osmosis, the water can be used for showers, toilets, washing. The shower and washing water can recirculate this process making the demand for fresh water minimal. Heating and cooling of the building is done by concrete core activation, where the thick massive concrete floors act as a buffer that provides a steady inner climate. The highest roof on top of the hotel is being used to generate energy: it facilitates in 1000m² of solar and evacuated tube panels, reducing the energy usage to a minimum.

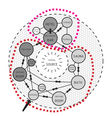
What does this project have to offer at a local scale?

First of it generates a non-seasonal form of employment. But more important, it adds a new element to the island's identity. The sole water is already present as a latent asset, waiting to be utilized and finds pet Ameland on the map.





Principle of dynamic coast management
source: document 'Pilot analyse herstelmaatregel voor duinen Ameland Fase 1', Lievense, 2015



The shape of the building is derived from the programmatic concept. The concept is to place the functions in a loop. Studying the divers functions it became clear that the idea of a loop is not applicable on the entire program. Some functions do not really participate in the spa routine. It can however be seen as a double loop with some several functions that overlap. So the program is actually put in a figure 8 shape. Next step is to place to figure 8 on the site and adapt it to its surroundings. By caressing the shape, a welcoming gesture is made to attract visitors to the entrance. The inner courtyards function as transition zones from the open landscape towards the closed building.

3d printed model of only the floors. The concept of the design is to act on the fluent horizontal lines that are present in the landscape. These lines are translated to the design into floors.

The natural environment is created by wind and sand, those are the key ingredients for the dynamic coast. In the pictures you can see how these elements already influence the site, I feel that my design should make use of these ingredients. The facade in the design does express the same fluent shape and at the same time gives a twist on the oriental organization of the building.

site

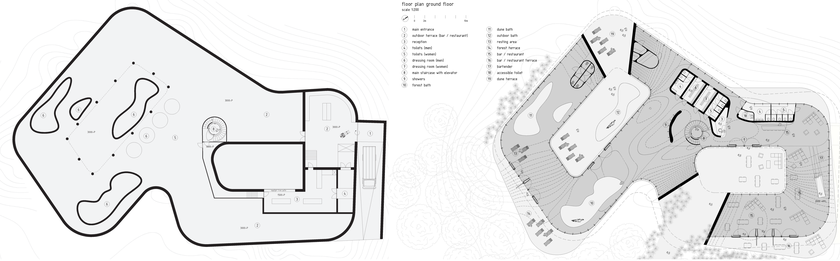
scale 1:500

floor plan basement

scale 1:200

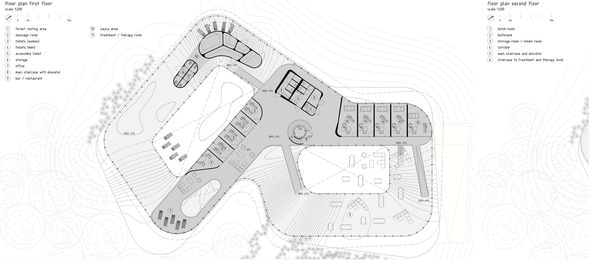
floor plan ground floor

scale 1:200



floor plan first floor

scale 1:200



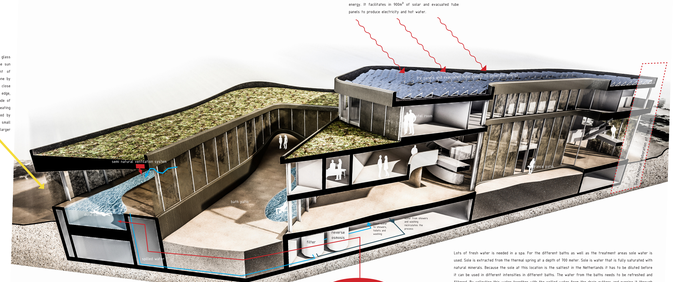
floor plan second floor

scale 1:200

The basic wellness program is constructed around an infinity loop. This track connects the consecutive wellness facilities and defines the overall experience. The top floor is designated for the hotel and the mezzanine floor is inserted in between, connecting the various parts of the program.

Sketch model of the 'landscape' floor, the fluent line connecting several functions.

Free shaped interior elements facilitate in basic functions like hotels and changing rooms. The interior elements are shaped to be more than just walls. The surface is provided with low temperature heating and parts of the element function as furniture.

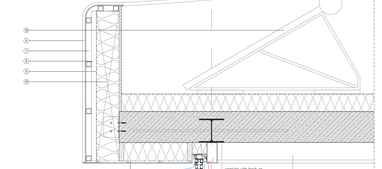


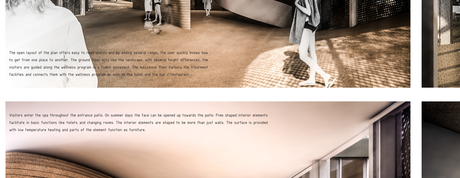
pitchess

The executed corners of the design form an archway towards the patio and become the signature of the design. The ceiling of the archway is finished with an iridescent roofing tight to reflecting differently from every corner. It is a reference to the inside of a shell.

facade materials

The facade of the design is designed as an interior dune landscape, therefore the look and feel of the finish must express the same. Dune sand is very close grained and highly suitable to be processed in flooring. Because of the pools and the sloped floor, the material must have a naturally surface. I experimented with using dune sand combined with epoxy resin. Putting an extra quantity of sand on the epoxy resulted in a sand floor finish which is naturally and suitable to fill any curve. The ceiling gets the same material as the floor.





recreation along the shore line
recreational bicycling path running through the dunes