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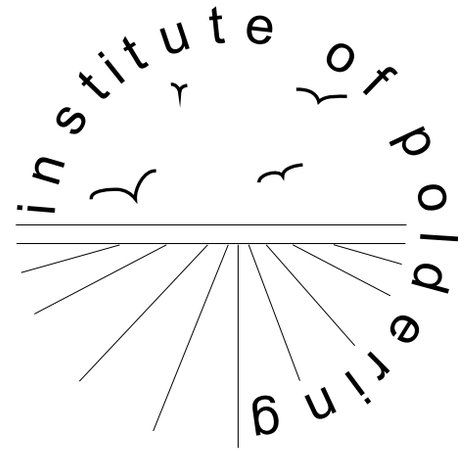

MEADOW UNDER CONSTRUCTION

Landscape Architecture TU Delft

#000 - W - 03

Institute of Poldering
www.iopm.nl

This is the result of the elective course AR0048 'Landscape Architecture ON site - being part of Oerol', an elective course of the MSc2 - Chair of Landscape Architecture at the TU Delft.

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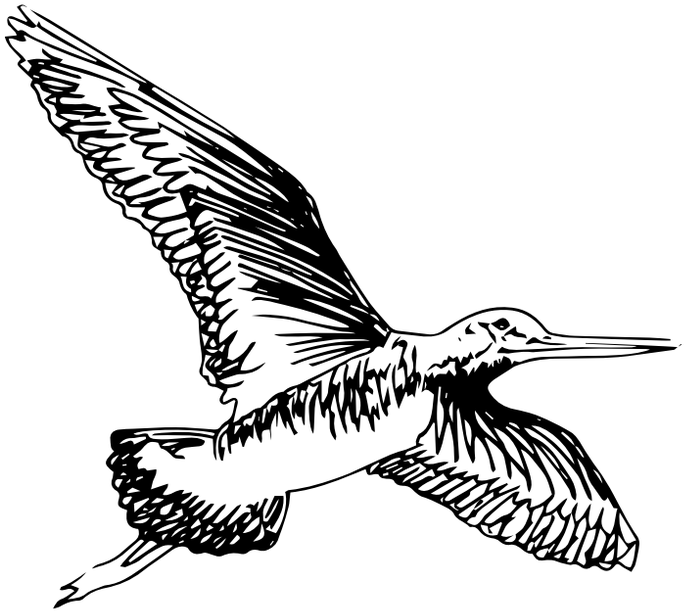
INSTITUTE OF POLDERING

Meadow Under Construction



FOREWORD

When Oerol festival organization in the autumn 2014 invited the chair of Landscape Architecture to participate in 'Polderpracht Terschelling', we immediately saw the opportunity to look at the matter in question from a landscape architectonic perspective, because the landscape is the playing field where nature and culture meet. PolderPracht Terschelling is a project that aims to create a bird paradise on the island.This touches upon the main themes for the project: the wish of Birdlife Netherlands to increase the support for meadow birds in polders, the demands of farmers who make a living of dairy farming and the fact of climate change, resulting in radical changes for both nature and humans on the island. This also indicates in a nutshell the complexity of the assignment; there is an array of interests that need to be dealt with.

The Institute of Poldering is indebted to many people who helped us setting the scene, expanding our knowledge and ordering thoughts. First of all the artistic direction of Oerol, Joop Mulder, Kees Lesuis and producer Gerjan Schreuder, for their invitation to us to participate for the 6th consecutive year in Oerol and for their trust in our ability to create a project for the expedition programme of the festival.

Of course this would not have been possible without the staff and all the volunteers of Oerol who supported us in the preparation and during the festival.

We also would like to thank Gerrit Gerritsen, Kees de Pater, René Faber and Anne-Lieke Struijk of Bird Life Netherlands for their support in providing information on the subject and their guidance during the execution of the project.

During the fieldwork excursion at the start of the project alderman Hendrik van der Wielen of the municipality gave us a tour around the island with passionate stories about the landscape of Terschelling. He also provided helpful information during the research and design phases of the project.

Other people who filled in gaps in our knowledge were Mark Voorendt of the faculty CiTG of TU Delft, Albert Oost from Deltares introducing geomorphology of the Wadden area, artist Erick de Lyon discussing early ideas with students, and Maartje Keijzer, freelance dramatist currently working with Gajes theatre group, who gave an inspiring workshop and introduction to theatre.

Many farmers told us passionately and elaborately about the way they operate their businesses. We would like to mention Egbert Zorgdrager, Gerard Cupido and Neeke van Zwol here for their warm welcome and insightful guided tours through their premises. We also want to thank cheese maker Jan-Willem Zeilstra for patiently explaining how the milk is processed into the renowned Terschellinger cheese.

We are also grateful to farmers of the lands adjacent to our site for their understanding and patience during the festival. And last but not least our colleagues of the chair of Landscape Architecture who gave us plenty of room to carry out the project.

'A meadow under construction' and similar projects would not be possible without external financial support. Oerol, Delft Infrastructure and Mobility Initiative and Foundation NH BOS generously provided resources for travel, accommodation and project materials, a special word of gratitude to them. Indirectly we are also indebted to Nationale Postcode Loterij, who supports 'Polderpracht Terschelling'.

This booklet contains the result and summary of the project, giving an overview of the different phases in a mostly linear way, including some side-tracks now and then. We have moved along a tremendously inspiring path with a group who worked very hard on the content, and also did a colossal job on working in a group professionally and with esteem for each other's' ideas. We'll part a bit sad that it is over but enriched with knowledge and proud of both the process and the results.

Frits van Loon & Michiel Pouderoijen
Delft, July 2015

#100

INTRODUCTION

OEROL 2015

What is Oerol?

The Oerol Festival is a culture and theatre festival on the island of Terschelling in the Netherlands. Every year in June, the island in the Wadden Sea is a natural stage for theatre, dance, street theatre, art, and music for ten days. All the different landscapes including the beach, forests, dunes, even farms and polders function as inspiration for performance. Shows are also being held in boathouses and former army bunkers. Literally every space can become a stage during Oerol.

Through the Oerol website we found out that Oerol actually means 'overall' or 'everywhere' in the Terschellinger dialect. The word refers to an old Terschellinger tradition. In early spring the cattle was allowed to roam freely over the island, to find food on whichever green space they could find. The atmosphere of Oerol had, to us, exactly such a pastoral style. Combined with the fact that Oerol covers the whole island, the name makes perfect sense.

Since 1982 Oerol has been growing and evolving. In recent years the shows are created or adapted specifically for the exceptional locations where there are performed. From theatre spectacle to mime to musical shows: they are all especially designed and placed to fit the site. Every year, hundreds of artists with endless creativity and curiosity are attracted to the island, creating this freestyle, creative and with-infinite-possibilities festival. Or, as the Oerol website states:

"The Oerol festival – a fascination born from the passion of one man, and since then transmitted to tens of thousands."

oerol.nl/engels/what-is-oerol/, July 1st, 2015

Sense of Place

'Sense of Place' is a concept aiming at combining cultural and natural elements of the island in over the course of several years. It is based on the fact that Oerol is a location theatre festival. In the early years, human intervention only took temporary shape, in the form of shows, visual projects, and musical performances in the countryside of Terschelling. This was without strong connections to the magical landscapes on the island.

Now Oerol is increasing the sense of place of the local natural environment. This is done by developing artistic projects and integrating these projects in the countryside to create long-term dialogues, rather than simply displaying something in the landscape for ten days.

The layered approach of Sense of Place makes it possible for the festival to become a continuous source of inspiration. With Sense of Place theatre makers and artists are inspired and motivated to relate their show, performance, or installation to the place that they make it for, even when this takes many years of preparation.

Sense of place makes the festival a laboratory for large rural projects. As the organization mentions:

"... this needs space and context. The unique backdrop of the Green Beach and the Noordvaarder as breeding ground for the Wadden Sea is perfectly suited to experiment with showing, and testing, the different phases. 2014 is the first laboratory year in which steps are taken beyond the festival. Wadland, a co-production by Oerol and SLeM at the Noordsvaarder, is a perfect example."

oerol.nl/engels/sense-of-place-2/, July 1st, 2015

'De Passage' allows visitors to 'sit-in' and ponder the new compositions displayed all over the island. Frans van der Horst e.a.

Being part of the Polderpracht Expedition

The Polderpracht Expedition is a special part of the Expedition route on Oerol 2015. To attract the public's attention to the present situation of the meadow birds, Bird Life Netherlands cooperated with Oerol to create three projects in the polder of Terschelling. This included us, students from Delft University of Technology, alongside two groups of artists. We were asked to tell the stories of the meadow birds and the farmers, who both use the Terschellinger polder.

Each team had a specific focus, related to their expertise. This resulted in three very different expedition projects with the same background story. 'De Weide Wereld' was created by the Waterlanders: Eric Langendoen (designer / artist), Erik Woltmeijer (composer / musician), and Remco Hermit (visual artist / musician). 'Vlucht' was created by Pé Okx (artist and composer) and his support team. We created the project 'Birds-I-View', which we later renamed 'Meadow Under Construction'.

Despite of the different focus points, the three Polderpracht projects did have similarities. All three projects reflect on the environment, on the nature, and on the cultural history of the polder. We all want to protect the meadow birds. We want to raise awareness. Soil, wind, water, animals, plants, and people together form the landscape. In different ways all three projects aim at letting visitors see agriculture and bird protection in a sustainable way, searching for the essence and significance of this from a birds perspective, and making this perceptible.

This bench with a polder view is one of the experiences from 'De Weide Wereld' by De Waterlanders.

Meadow Under Construction

With our project we evaluate the human impact on nature, but also interdependencies between humans and nature. We see the landscape of the island as a large construction site, where man in the course of centuries has modified nature through various interventions, creating a constructed landscape, with positive and negative consequences. Meadow birds are attracted to the agricultural grassland habitat in the polder made by man, and now that they are there, we have a responsibility for them. Do we continue with profit maximization in agriculture at the expense of meadow birds, or do we protect them at the expense of our profit? Do we prevent the polder from getting lost for agriculture by sea level rise and salinization, also causing grassland birds to disappear? And in what way?

With all these questions and thinking, we built this project "A meadow under construction". The target is to raise awareness within our visitors, about the impact of their day-to-day choices on the surrounding landscape. Both project and target were developed through four processes: research by design, research by building, rebuild by design, and process by design. These processes helped us find answers on the questions we have about meadow birds, the impact of human behaviour on the landscape in general and the polder and meadow birds in particular, and possible futures for the landscape of Terschelling.

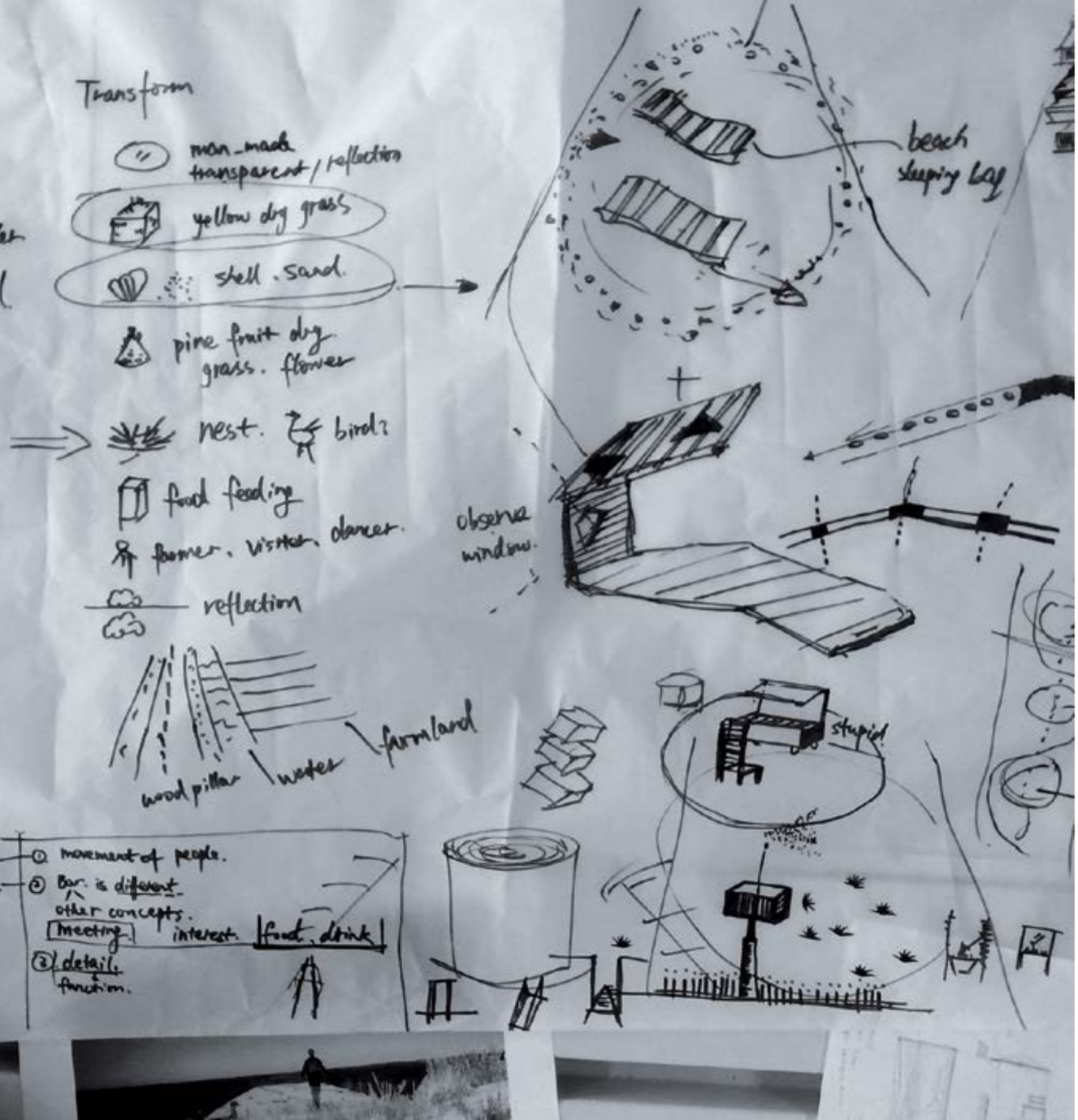
SOURCES:

oerol.nl/engels/what-is-oerol/, July 1st, 2015

oerol.nl/engels/sense-of-place-2/, July 1st, 2015

polderprachtterschelling.nl, July 1st, 2015

In 'Vlucht' by Pé Ox the visitor is taken on an audio tour towards West-Africa, following the migration route of the black-tailed godwit.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man_made transparent / reflection
yellow dry grass
shell . sand.
pine fruit dry grass. flower
nest. bird?
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flower. visitor. dancer.
reflection
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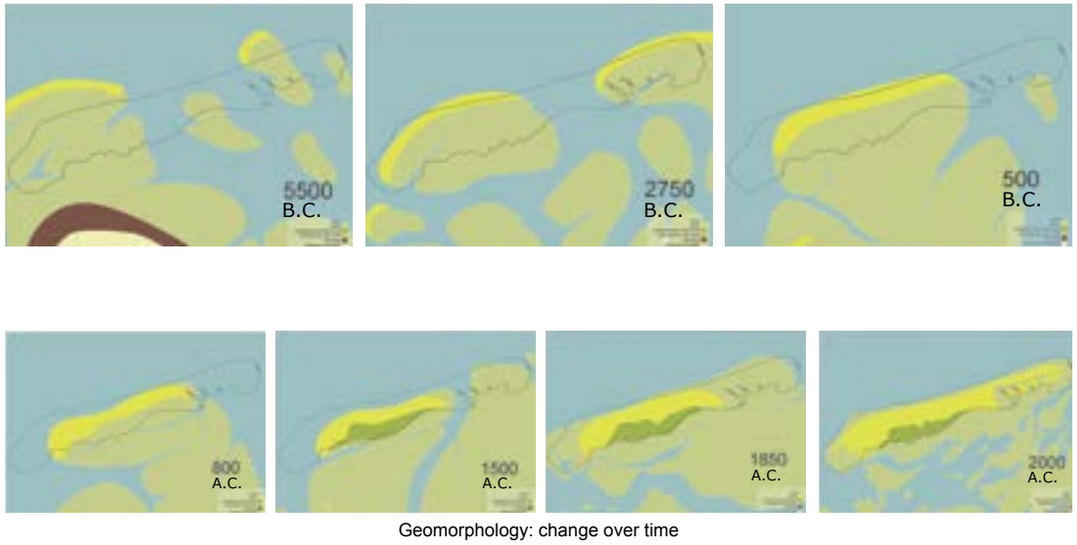
stupid
① movement of people.
② Bar is different other concepts.
meeting interest food. drink
③ detail. function.

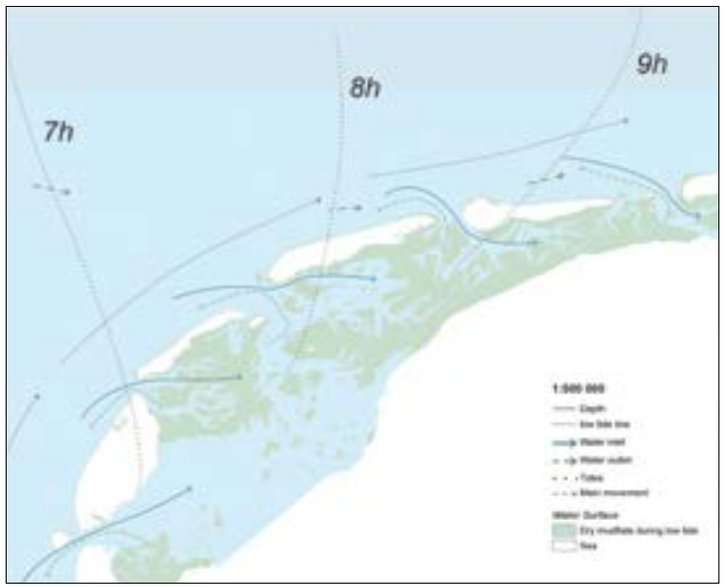
LANDSCAPE ANALYSIS

Human occupation on the Wadden islands has always been a struggle against the elements. Because the islands are formed mostly from sand deposited over millennia by the rising North Sea and the rivers IJssel, Eems, Wesel and Elbe, the shape of the islands was not fixed. The western wind blew the sand from the beaches and dunes towards the east. At the same time tidal forces and the flow of rivers have had an impact on the movement of the islands. In the last decades however, because of the closing off of the IJsselmeer (the outlet of the river IJssel), these patterns of sedimentation have changed. A possible future scenario is the silting up of parts of the Wadden Sea.

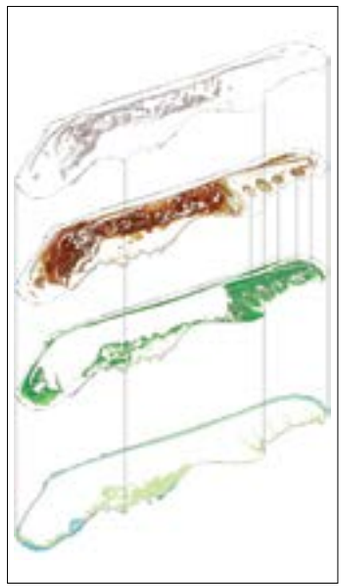
During the early Middle Ages lower parts of the islands were prone to flooding. As a result the first settlements (mainly farms operated by monks) were constructed on overgrown higher ground and on artificial mounds (terps). During the High and Late Middle Ages, several dikes were constructed to the south of the villages. In the following centuries these dikes proved insufficient to keep the whole area dry. Some settlements had to be abandoned, and in 1602 the Strieperdijk was constructed as a more solid defence barrier. After the flood of 1825 an even stronger sea dike was constructed.



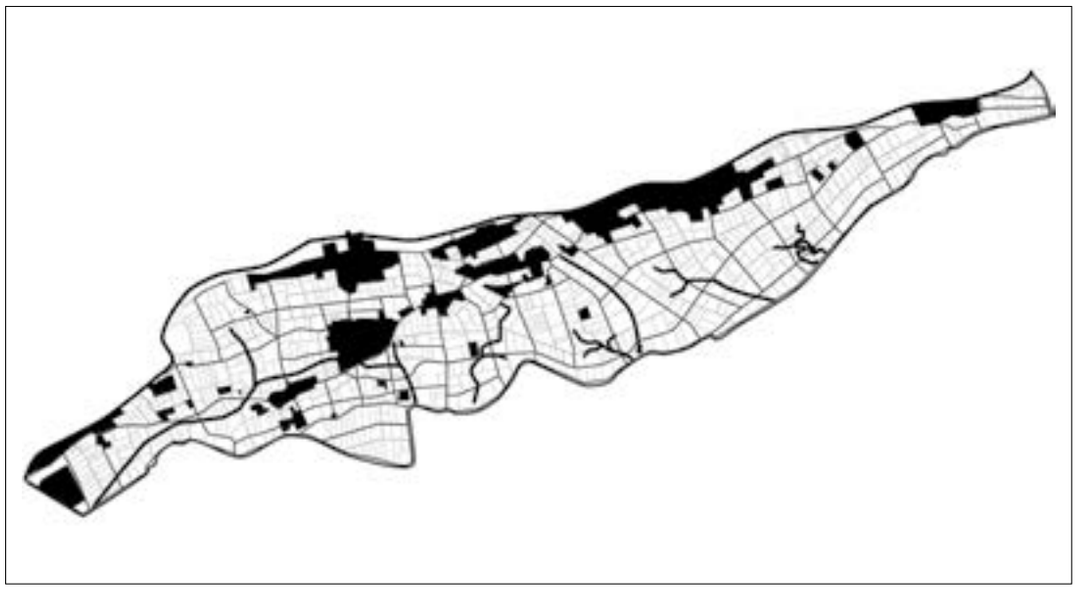
Geomorphology: change over time



Hydrology



Geomorphology: heights



Spatiality and social landscape

BIRD ANALYSIS

Meadow birds have had a special relation with farmers, probably since agriculture started thousands of years ago. Migratory birds are attracted to the same river deltas and shorelines as humans for their fertile soils and the availability of food. On the island of Terschelling they assemble in large flocks in the polder, near the sea dike. The attractiveness of meadows for birds stems from human intervention. The construction of dikes allowed birds to breed and forage in large numbers in these meadows. But the connection between humans and birds goes beyond that.

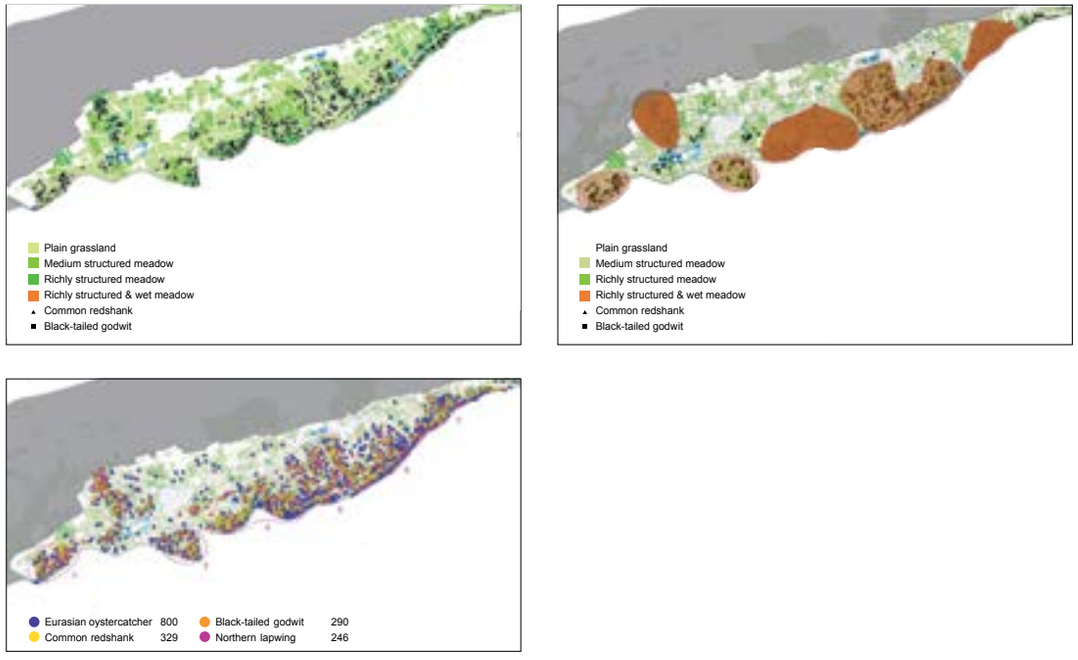
Nowadays, when certain species arrive, farmers offer a suitable living environment to birds by raising the water levels in some polders. The higher water level forces insects and worms closer to the surface, making it possible for long-beaked birds to forage. The high water level is recognizable to the birds by the large amount of flowers in the fields. Many meadow birds can perceive UV light in addition to the spectrum visible to humans. To them, the grass looks rather dull. Flowers, berries and insects however shine more brightly because of their ultraviolet reflection.

In the same period, from March to July, the farmers stop mowing their grass. Taller grass offers protection from birds of prey for the nests of meadow birds. Chicks also use the tall grass of the meadow as protection, and the flowers to catch insects. The decision to stop mowing the southernmost polders during spring has decreased the amount of suitable grass produced to feed the dairy cows on the island. Therefore the choice of some farmers not to weed, and to use local grass varieties, has led to an increased demand for English ryegrass imports from the Dutch mainland. Without financial assistance from the government and bird protection agencies, many farmers would not be able to offer meadow birds protection on their land. The ones that do are proud of their contribution.

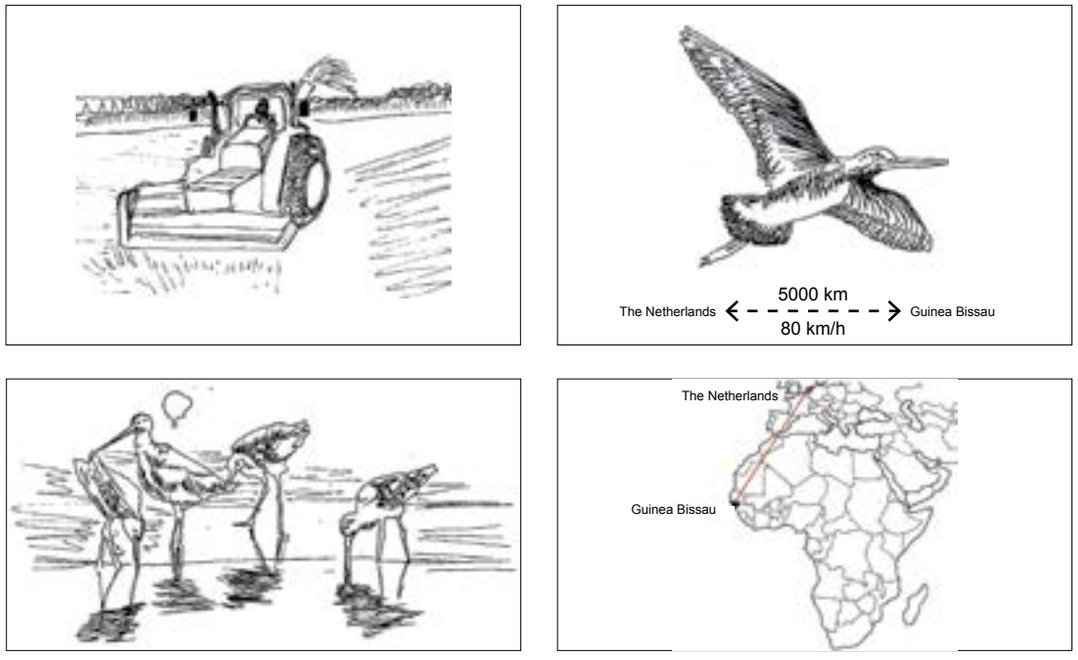
When farmers spot bird nests in their meadows they place wooden sticks near or over it. In this way they make sure that they do not crush them by foot or farm equipment. Thus it remains possible to spread manure on fields that are already partly occupied by birds. A tradition that only stopped in 2014 was the collecting of eggs of the northern lapwing (kieviet). Since then we have come to realize that the Northern lapwing, too, needs protection to prevent extinction.

2014 was a bad year for the black-tailed godwit (grutto) and other meadow birds in the Netherlands. According to bird counts, the number of breeding pairs has decreased significantly over the years. Climate change and intensive agricultural practices have impact on the routes birds take, or if they choose to leave during winter at all. If migratory birds settle in northern Europe their numbers could decrease sharply during a single cold winter. For the moment, most meadow birds are still tempted by the warm fertile lands of West-Africa and the Mediterranean coast. Traditional agricultural techniques are rapidly being replaced with intensive farming techniques at this end of the route. The migrations can only continue if birds are taken into account across the continents.

On the island there are a number of duck decoys used to attract birds like ducks and geese. Unlike the duck decoys on the Dutch mainland, dogs were not used to catch the birds on Terschelling. Instead a funnel-structure and tame ducks were used to lure birds into captivity.



When you cross reference the bird species with the type of meadows on Terschelling, the preferred habitat becomes clear.



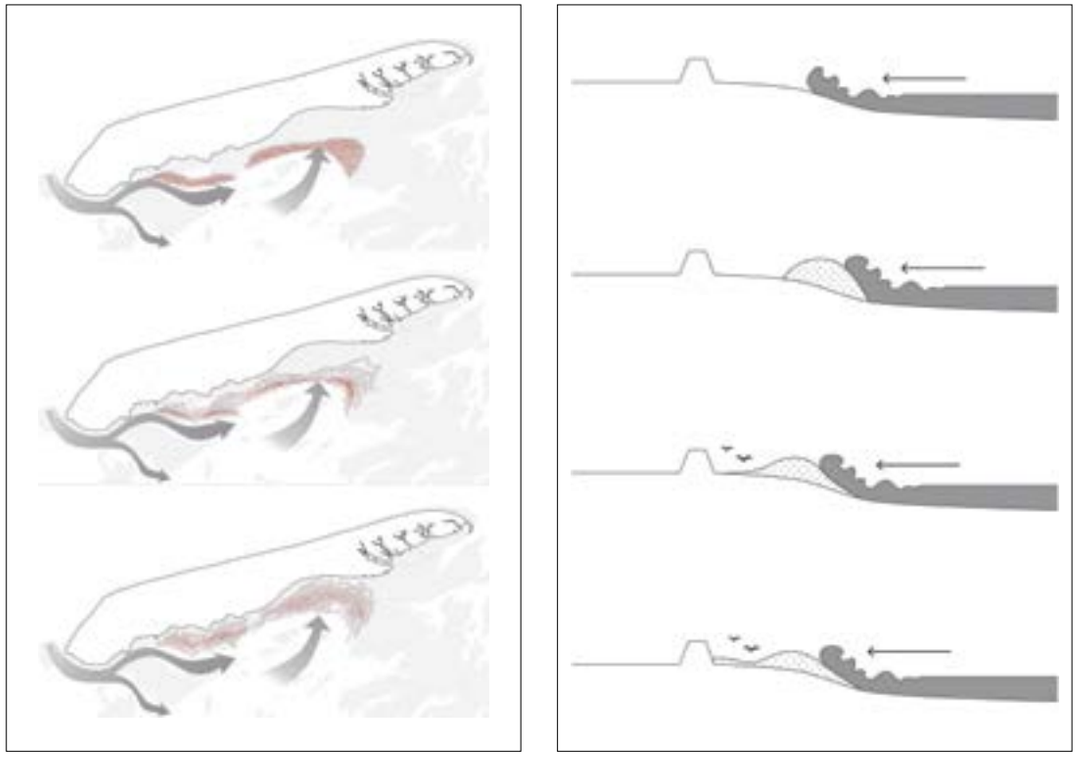
Black-tailed godwits hatch in Dutch meadows, then they travel to Guinea Bissau to spend winter in the rice fields.

LANDSCAPE DESIGNS

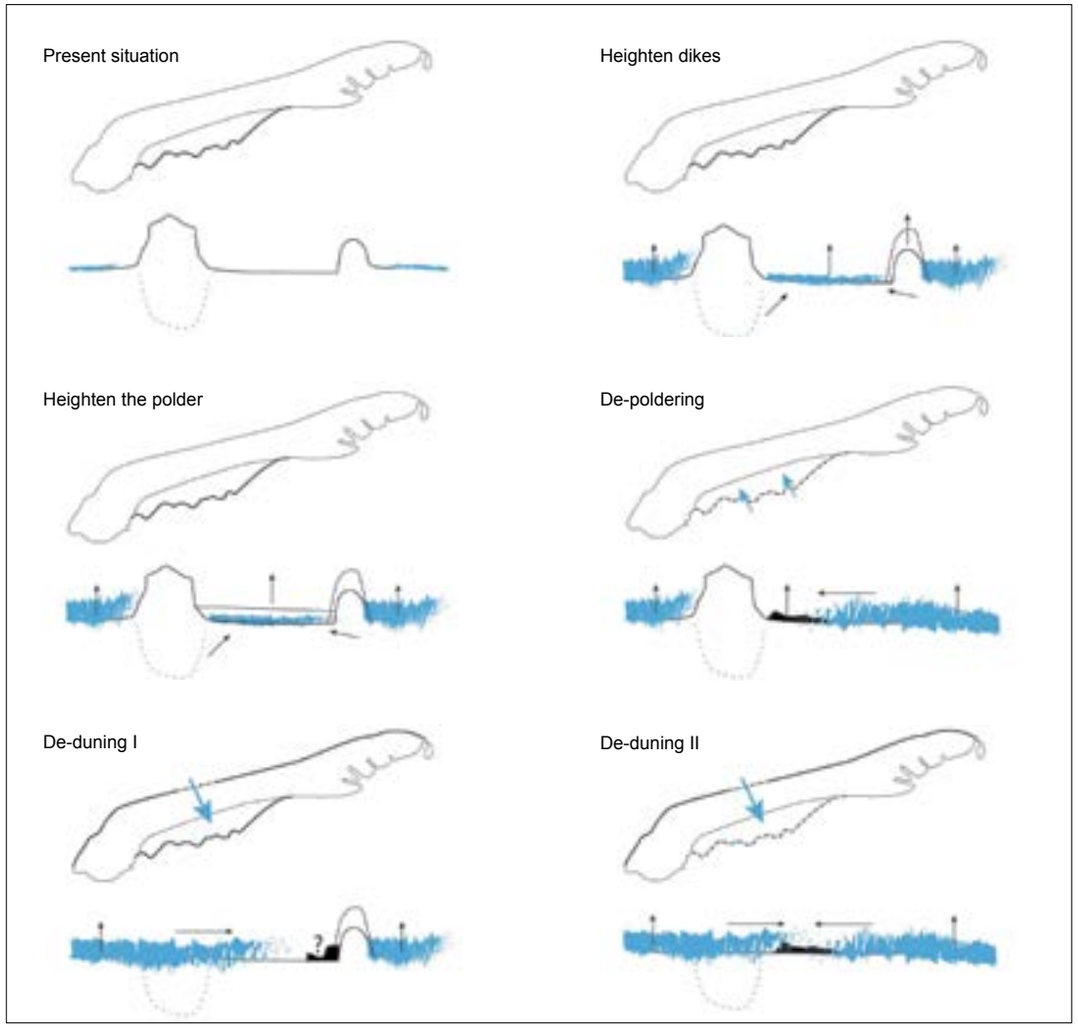
To keep the polder dry at all times, precious fresh water has to be pumped into the sea. There are already some places where the soil is turning saline, due to the depth of the fields in the polder along the sea dyke in relation to the seawater level. Rising seawater levels could mean that without some kind of interference, the polder will eventually become too salty for dairy farming and in the end even flood.

This can be prevented by several interventions. One of them is to speed up sedimentation. This is done by wooden poles placed at certain locations just outside the island. Thus new land is created for marine birds outside of the current island, and the salt water pressure is diminished. The harbour of the island is kept at depth by an artificial current that is induced by a small breakwater to the southeast of the harbour. During high tide, water flows over the breakwater. During low tide it can only leave through a narrow gully at the harbour entrance, leaving sediment.

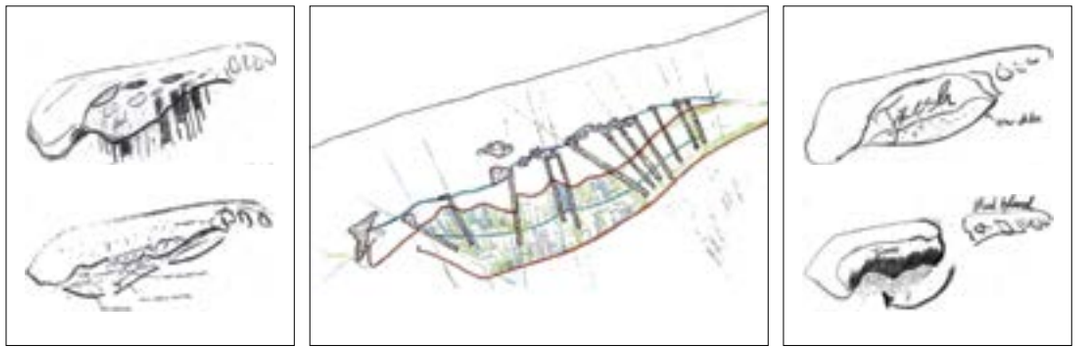
A controversial solution to maintain the polder for farmers as well as birds could be to use a similar construction in uninhabited sections. By letting the seawater into such a chamber at high tide, new sediment accumulates in the polders that are currently below seawater level. In some decades the problem of salt-water pressure on the agricultural lands could be resolved.



The workings of a ‘sand engine’: using the sea to heighten the polder



Possibilities solutions for the polder



To the extreme: breaching the dike and using the entering sea to create new landscape

PROJECT DESIGNS

In subgroups we allowed ourselves to discover a range of ideas for the Oerol project. We focussed on different aspects in order to get a good grip on the possibilities. Halfway through the design process we presented possible projects to each other. 'The Scaffold', which should show the artificiality of the landscape by making a scaffold in the polder. 'The T-shirt', in which people would collect their own landscape by stamps on their t-shirt. 'The Puzzle', which would create awareness of the influence of human being on the landscape. 'The Time-Machine', which occurs in the shape of a bar where visitors would experience the future landscape.

Some elements occured in all project ideas. The main idea behind all project proposals was the goal: to raise awereness of the man made landscape and our influence on this process. We all embraced the idea of giving something to the visitors, a present, in return for their presence in our project. Another aspect that intrigued us all was the idea of making the visitor experience the position of a bird: a birds-eye view.

STATEMENT

After we undertook a couple of workshops and worked on several project ideas, we realized that our research should lead towards a common framework. A framework which would structure our thoughts and would make it possible for 16 people to end up with 1 single project. We started by clarifying the goal of our project: to raise awareness and encourage further discussion, by giving the visitor a memorable experience.

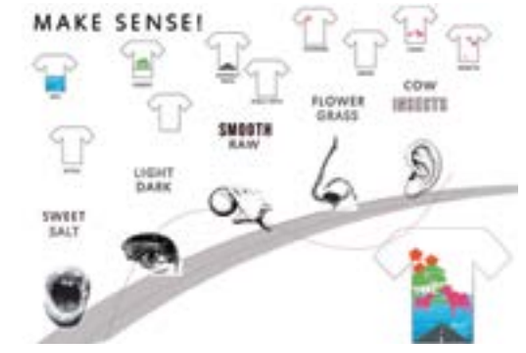
Also, it was important to us to include 'fun' as an element of the experience for participants. But raise awareness of what? We wanted to tell a story of the continuous interaction between nature and culture, between the ongoing process of the domesticating of nature. This has been the center of our discussions through the entire project: the adaptation of humans and nature to changing circumstances. The bird could enter the discussion as a storytelling tool, using the bird as a metaphor for nature. Finally, we aimed to give something physical to the visitors that they could take with them. The presented project ideas are all derived from this statement.

THE SCAFFOLDING

The island, designed as a huge construction site, expresses the effort that humans have put into preserving the island. The meadow birds were attracted by the artificiality of this created landscape. Now that we have attracted them, they have nested in our construction site, in our scaffoldings, and we have to deal with them. So the question that is posed to the visitors of this construction site is how to deal with this new, artificial layer. There are two choices: act in order to gain your own profit or choose for (bird) preservation. Based on their answer, the visitors influence the way the construction is build. This project idea was used as the primary basis for the final project design.

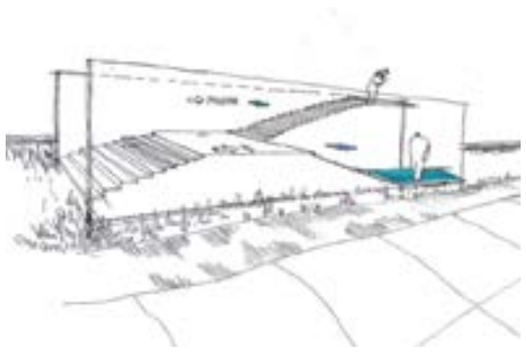
THE T-SHIRT

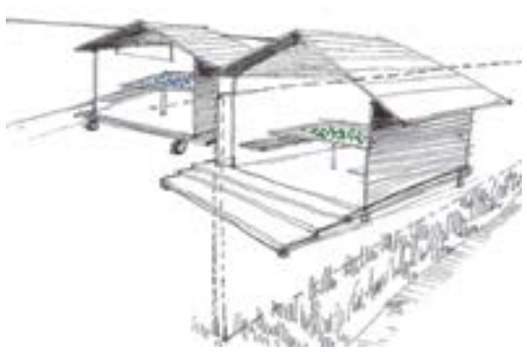
Within this Oerol project proposal 'MAKE SENSE', people's decision making processes are explored by means of experiments making use of different senses, creating a 'sense of place' among visitors. A white t-shirt has a central role in achieving this. Visitors that enter the site will receive a blank t-shirt. Subsequently the visitor will be confronted with different dilemmas, where he will only be able to make a choice using his different senses (for example sweet/salty, hot/cold). Based on the choices one has made the visitor gets a stamp on his white t-shirt. In the end all these choices, and different stamps, together create a personal landscape. That specific landscape can be valued 'bird' or 'cow' friendly, which will be expressed by a final bird or cow stamp on the t-shirt. In this way it is possible to show and make people aware of the impact of their choices on their environment. This valuation element became part of the final project.



THE PUZZLE

The idea behind this project is the statement 'We are our choices'. Visitors collect data about the island through playing games. Every game represents a moment of choice. After completing the data collection, visitors are confronted with the effects of their choices on the future landscape of Terschelling. A 'complative path' offers visitors the possibility to leave their thoughts on their choices in the landscape. The installation aims to raise awareness about our ability to change the landscape and by doing so, affect the meadow birds. The final project includes this element, alongside the collection of data from visitors.





THE TIME MACHINE

Enclosed parts of the path create diverse experimental spaces, which contrast with the open meadow space. By recreating the distinguished landscape environment within the area around the 1 km path, the design illustrates the change of the polder area from past time to present and even to the future. At the same time, it offers the chance for humans to communicate with and learn from nature. Physical models of possible installations were created to show which experiences we could create on the location.

#300 RESEARCH BY BUILDING

OEROL PROJECT

The dunes at the north side of Terschelling remained free to accumulate over centuries, and to move in a dynamic way. To stop the dunes from encroaching on the villages in the polder to the southeast, the sand was fixated. Early in the 20th century pine trees were planted in a thin layer of peat, imported from the mainland. The trees are spread wide apart, because their roots are superficial. During a storm many topple. The artificial stabilization of the dunes could possibly lead to an unstable slope on the polder side. Lately, to the northwest of the polder trees have been removed to let the dunes move more naturally again.

This kind of human-nature interactions evokes an interesting discussion about nature and the human role in these dynamic processes. We are forcefully holding on to a certain state of nature, but what is smart to do when this state is gradually changing over time?

Project concept

Our project tries to evaluate this human impact on nature. We see the landscape of the island as a large construction site, where man over the course of centuries has modified nature through various interventions, creating a constructed landscape, with positive and negative consequences. Meadow birds are attracted to the agricultural grassland habitat in the polder made by man, and now that they are there, we have a responsibility for them. It is up to us to decide whether we continue with profit maximization in agriculture at the expense of meadow birds, or protect them at the expense of our profit. A question regarding the future is linked to this; do we prevent the polder from getting unusable for agriculture by sea level rise and salinization, also causing grassland birds to disappear, and in what way?

With these ingredients we created a dynamic structure, that deformes and moves under the influence of the choices visitors made, and where during participation in the transformation process they got aware of their choices and the consequences.

Project performance

The project operated from June 13th until June 21st every day from 11:00 to 17:00 o'clock at the Hoorner Kooiweg, south of the village Hoorn. During these days the construction moved over 450 meters from the crossing with the Kunneweg to the crossing with the Butterpollepad. The visitors made this movement possible. Together we rebuilt the construction every day to reach one of the meadow birds and include them in our polder. Hand-made birds nests in the construction represented the amount of birds species we reached in time. Unfortunately we were unable to save the scholekster, but every other day we managed to save a specific meadow bird species. Signs on our location indicated the species of the day, including a fun fact about the bird in question.

Friday, June 12th

Black-tailed godwit (grutto): Did you know that the black-tailed godwit is also called 'king of the meadow'?

Saturday, June 13th

Eurasian oystercatcher (scholekster): Did you know that oystercatchers often face the same direction, so they can flee easily?

Sunday, June 14th

Pied avocet (kluut): Did you know the pied avocet uses his beak like a scythe, to catch food from the water?

Monday, June 15th

Northern lapwing (kievit): Did you know that the nest of the lapwing is a bearly visible bowl in the grass?

Tuesday, June 16th

Common snipe (watersnip): Did you know that the snipe sounds like a goat when making nosedives? His tail feathers create this sound.

Wednesday, June 17th

Eurasian skylark (veldleeuwerik): Did you know that a singing skylark can be heard up to a distance of a hundred meters?

Thursday, June 18th

Northern shoveler (slobeend): Did you know the beak of the shoveler is really handy for slobbering duckweed and small insects?

Friday, June 19th

Western yellow wagtail (gele kwikstaart): Did you know that the wagtail often moves his tail up and down furiously: 'wagging'?

Saturday, June 20th

Common redshank (tureluur): Did you know that the sound of the redshank is very recognizable: 'tjululuu!' ?

Sunday, June 21st

All meadowbirds: Do you recognize them all?

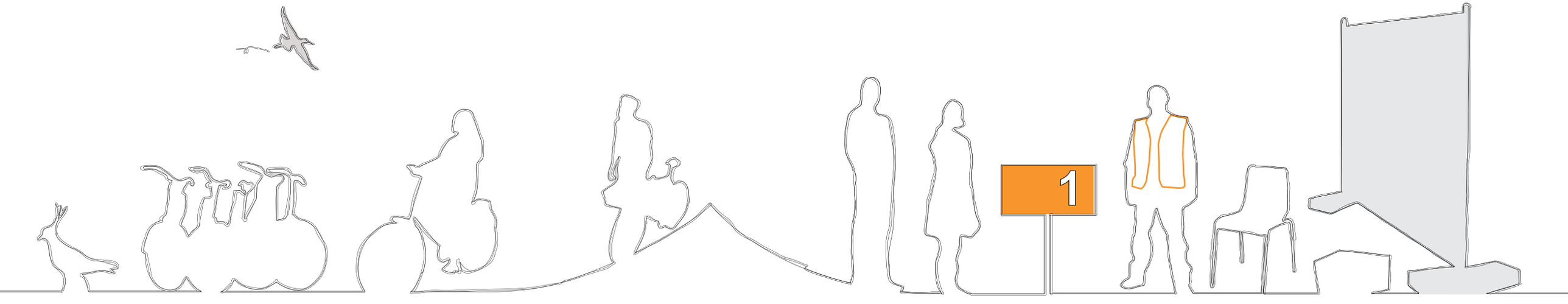
ARRIVAL

1. WELCOME

Questionnaire

1. How did you commute to Harlingen for Oerol?
   A. Public transport B. Private car C. Bicycle
2. What kind of milk did you buy last week?
   A. Organic milk B. Normal milk C. I do not drink milk
3. How much time do you spend in the shower on average?
   A. Around 5 min. B. Around 10 min. C. More than 15 min.
4. How often do you eat meat?
   A. Seldom or never B. 1-3 times a week C. More than 3 times a week
5. Where did you spend your holiday last year?
   A. In my own country B. Within Europe C. Other continents

"Hello, welcome to our project! You can park your bike over there. We are doing research on the influence of our daily behavior on our surroundings. Could you please fill in the questionnaire to help us? When you're done, you can enter the construction site."



2. MEADOW UNDER CONSTRUCTION

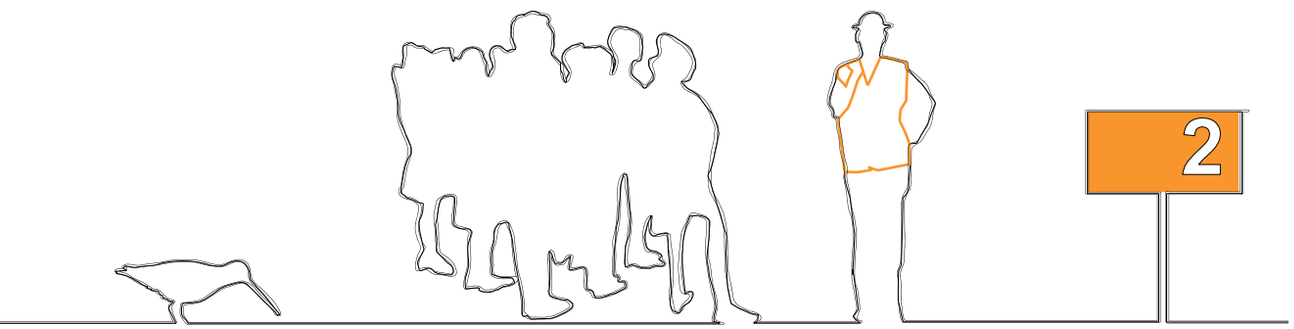
Contract
The following building regulations apply to the construction site 'Meadow under construction', at the Hoorner Kooiweg at Terschelling. Entering and participating in the activities on our site is at your own risk. After signing the contract, it is not possible to deviate from the terms of the contract.

PRECEPT
- Assist with constructing the installation
- Follow the instructions of the supervisors
- Pay attention to bird's nests in the grassland
- Wear your safety clothing

PROHIBITION
- Enter the pastures
- Fall into the ditches
- Disturb the birds by loud noises

The undersigned declares to agree to the terms and conditions: .....

"Thank you for filling in the questionnaire! Welcome to our construction site! There are nestling birds in these meadows, please take care to not disturb them. As you may have seen in the news, the population of meadow birds is decreasing drastically! In order to save them we have to rebuild the polder step by step. Today it is common redshank-day and we are trying to double the amount of common redshank in the polder! Look at our site over there, we are busy building, and we need your help! Would you like to help? ... Please read the contract for your own safety. Once you have signed the contract, you will receive your first stamp from me. … You can report to the administration now."



3. ADMINISTRATION

Questionnaire evaluation
Each answer on the questionnaire represents a bird lover, a neutral person or a profit chaser. Each of these answers has a certain value; respectively 0, 1 or 2. The sum of these values represents whether the person that filled in the questionnaire is a bird lover or profit chaser on a scale from 0 to 10. A bird stamp illustrates a total of less than or equal to 5. A cow stamp illustrates a total of more than 5.

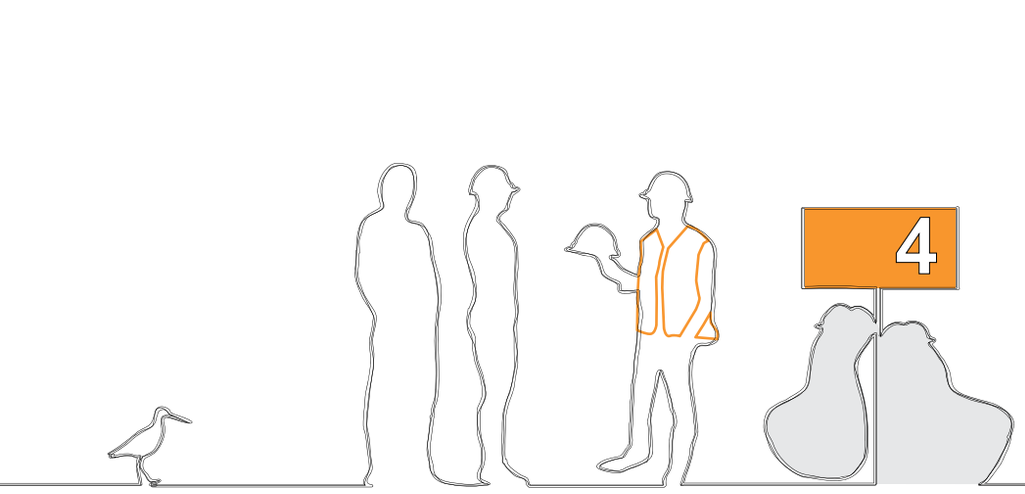
The hourly average would set the necessary height for the next hour. This height connected to a change of sea level in our construction through the influence of our visitors on our artificial landscape, related to the New Amsterdam Waterlevel [NAP]:

< 4,5 average = 0,5 M above NAP
5,0 average = 1,0 M above NAP
5,5 average = 1,5 M above NAP
> 6,0 average = 1,5 M above NAP

"Hello, great that you want to help us! We would like to receive your questionnaire. Thank you for your answers! We will evaluate your choices now. … Well, you will receive a bird as your second stamp. The other option would have been a cow. … Your answers will influence how fast our construction moves. How this works exactly will be explained later on. You can go to our dress-up manager to get ready for constructing!"

4. DRESSING POINT

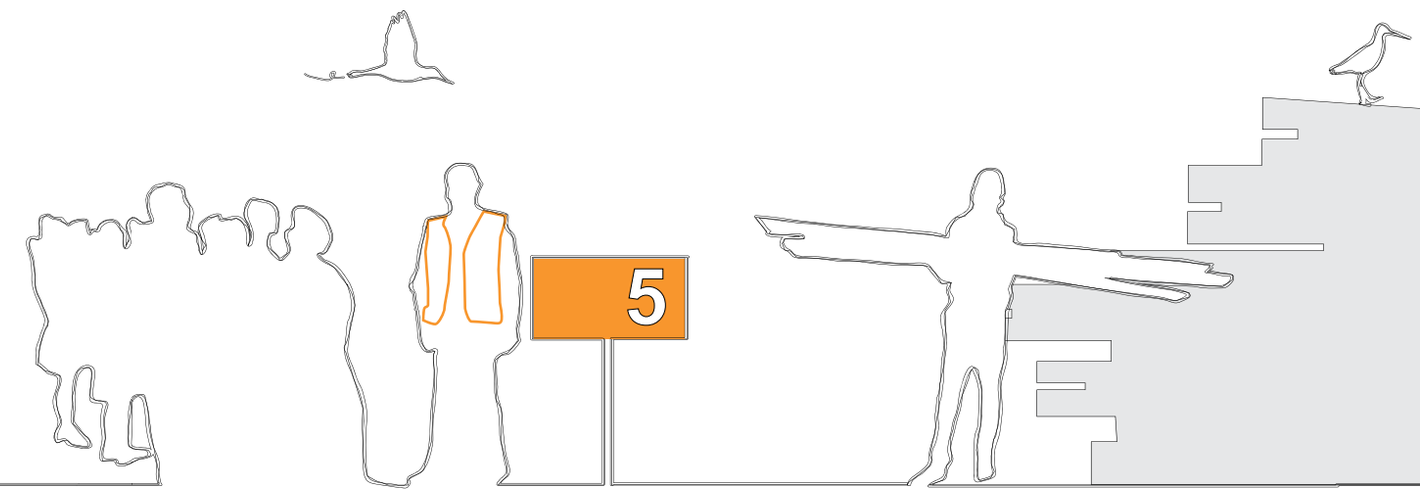
"Hello! Please put on a helmet and gloves for your own safety. You can adjust your helmet to the correct size. When you are dressed well, I will give you the third stamp. … Ok, you are ready to join the construction now! At point 5 the construction manager will give you further building instructions."



#300 - W - 38

5. DEMOLITION POINT

"Hello, we are trying to reach the common redshank today! In a moment, when you are building at the front of this construction, you can see what distance we still have to cover to reach it. Although we have to move forward to get there, we also have to reach the height of two meters above NAP this hour. As said before, the answers of the questionnaires are used to decide how we have to build our polder. Every hour we calculate an average input. The more cow stamps have been given, the higher we have to build. The more bird stamps have been given, the lower we can build, and so the faster we will arrive at the common redshank. When we reach the height of the hour, we receive a green plank representing the polder grass. When we do not reach the height of the hour, we receive a blue plank representing the rising water. … Please take a plank from the backside of the structure, at the end of the structure. When you take out a plank on which a birds nest is resting, you should save it and find a new spot for it! These are the nests of the birds we already reached during the previous days. … Before you are going to the front to place your plank, you can personalize your plank. Please report at the creative point."



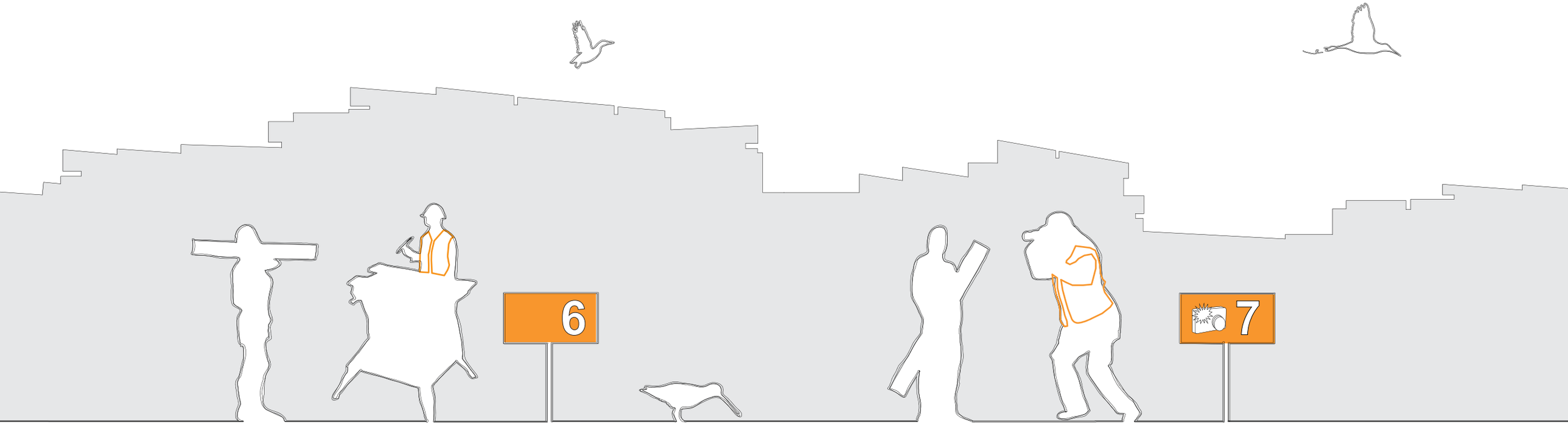
#300 - W - 39

6. CREATIVE POINT

"Hello! You can customize your plank here. You can leave a message if you like, about this landscape, the polder, the birds, the cows, or just something nice! Be inspired by everything that is already written down. Please give me your contract, so I can fill in your plank number and give you the next stamp. … With this number you can go to our website and check out the photo of you and your plank, which we will take in a minute. There you can also see who else carried this plank during Oerol! You have to be a bit patient though; we first have to process all the pictures! At this website you can find more information about our project and us as well. For example we are making a 3d model of our project, to show how this construction by the help of all visitors will continue to move from the beginning of this road to the end during Oerol! We will also post our time lapse there to show this. Probably you might find yourself there too! … When you are ready, you can go to the photographer."

7. PHOTOGRAPH POINT

"Hello! For our data collection and our polder poetry, we would like to take a picture of you and your plank. If you want to be anonymous, you can hold the plank in front of your face to censure yourself! Make sure your message and plank number are visible. Ok, say 'cheese!'. Great. You can go to the construction manager at the front of the installation. There you will place your plank."

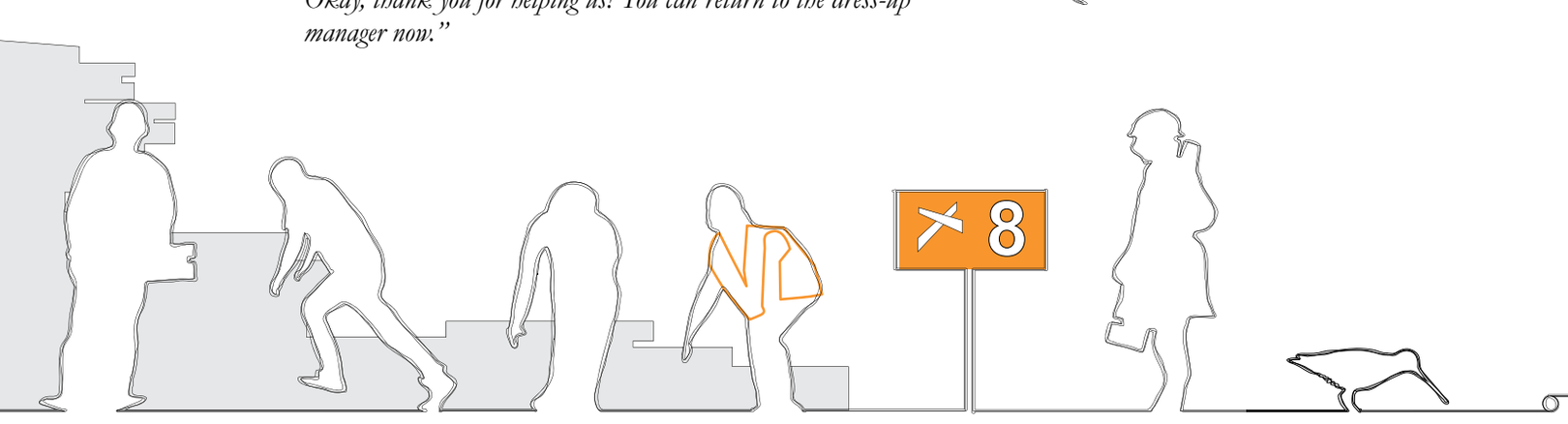


8. CONSTRUCTION POINT

3D model
The movement of the structure was an important requirement of our project. Visitors influenced the appearance of the structure in two ways: the questionnaire and the (re-) placement of a plank. For this reason the appearance of the structure was unpredictable. Design drawings could only display a selection of possible outcomes. To document the actual built structure on site, we decided to create a digital 3D model. With this model we would be able to reproduce the structure that was created during Oerol.

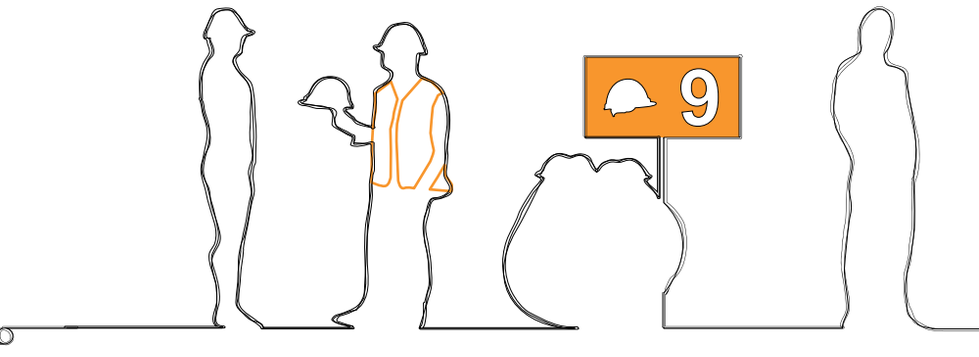
In order to do this we developed a method to document all plank connections. All planks and holes were numbered. On site their connections were shouted out loud and written down. This became an integral part of our performance at our installation.

"Hello, great that you are helping us! It is hard work today. We have to build at two meter above NAP again this hour, and as you can see we still have to move quite far to reach the common redshank (over there). On the NAP altimeter you can see that we still have to build a bit higher to reach the two meter, so please take a look where you could place your plank best to help us. Over there we could maybe use some stability, does it fit there? The holes of the plank have to fit in the holes of the other planks. Yes great, it fits! Ok, plank number 263, direction north, hole number 4, connected to plank number 562, hole number 2! Oh and you saved a nest, please give it a nice new spot! … Please give me your contract, so I can give you a special stamp only one persone a day gets this stamp as a reward. Okay, thank you for helping us! You can return to the dress-up manager now."



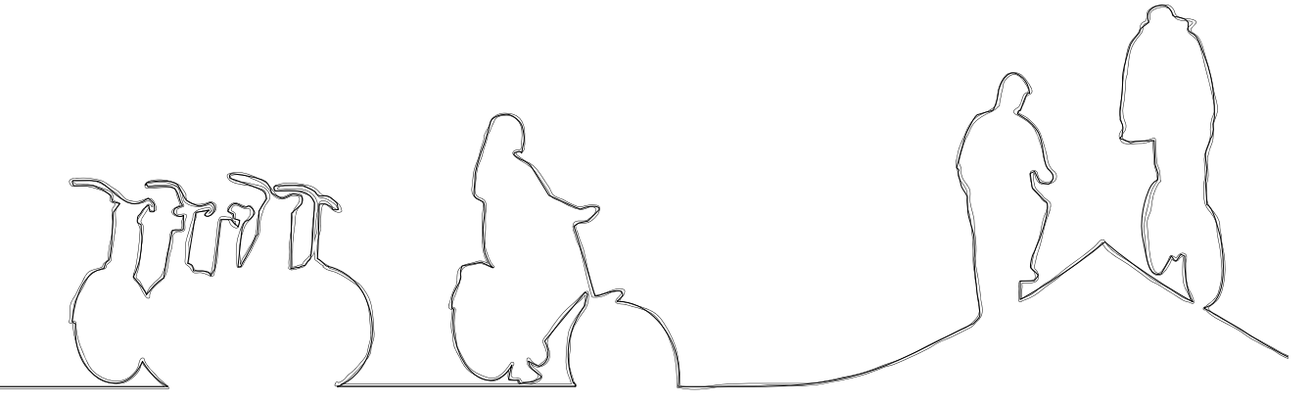
9. UNDRESSING POINT

" Thank you for your help! We would like to have the helmets and gloves back. You completed all tasks. Now your Terschelling landscape is complete: with trees, birds or cows, water, the polder, dunes and even a birds nest! Remember that you can go to our website www.iopm.nl to check out your plank and picture, and find more information about our project and us. Thank you again for your help!"



DEPARTURE & GOING HOME

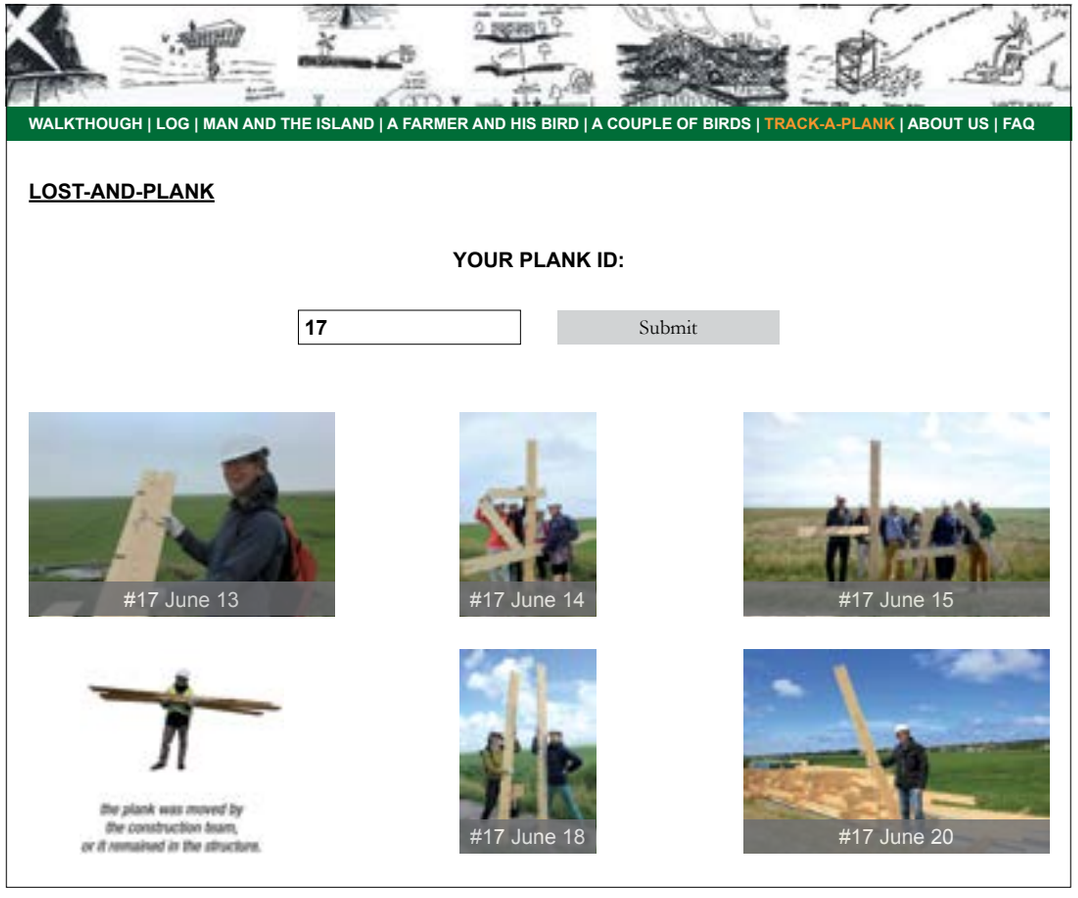
"Well, fortunately I have my contract, so I won't forget my plank number!"



WEBSITE

Dear island chaser, welcome to the "INSTITUTE OF POLDERING"!
A meadow under construction - with a birds-I-view-

We were a group of (low) tech performers at the Oerol festival 2015. Our project tries to evaluate human impact on nature, but also interdependencies (between humans and nature). We see the landscape of the island as a large construction site, where man in the course of centuries has modified nature through various interventions, creating a constructed landscape, with positive and negative consequences. With these ingredients we created a dynamic structure, which deformed and moved under the influence of the choices visitors made. During participation in the transformation process our visitors became aware of their choices and the consequences on the landscape.



PROJECT ELEMENT: PLANK

Terms of condition

The structure is build up by planks with each a certain amount of holes. There were a number of conditions to fulfill in order to have a well-functioning structure. The planks should function both as a structural component as well as a component that is easy for people to build with.

Early in our process we decided an elementary way of building was desirable. Visual appearance, clarity and practical considerations were the decisive factors. The accumulation of the elements would give a clear sculpture that was meant to be visible in the landscape.

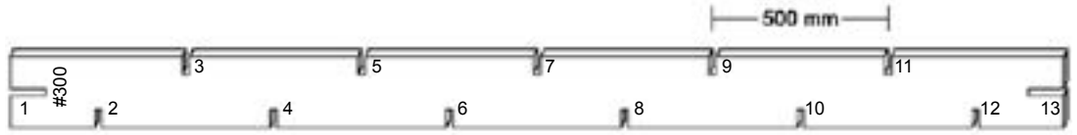
Driven by our own fascinations and profession, visual attractiveness was one of the leading requirements in the early stages of the design process. Preferably the whole construction should be an open structure that refers back to the idea of a scaffold. The scaffold represents the supportive elements in the landscape. It turned out to be very complex to have both a firm, stable and open structure. Later on in the process the representation of the landscape by the structure itself was decided. Still the whole structure should be visible in the polder landscape. In the polder landscape the horizontal line is dominant over the vertical direction. The flat open field gave the opportunity to build a structure that was visible in the vertical direction to make the project visible. So it turned out to be a model of the artificial landscape in the middle of the landscape.

Another important requirement was the aim of the plank to be a structural element. There was a desire to build both far and high. So the planks should be strong enough to carry weight, and the whole construction ought to be stable and firm. Therefore the material and the connection were important elements that required research. Research has been done on various materials; branches, bales of hay, bamboo sticks, wooden boards, wooden surfaces, pallets, wooden sticks, cardboard. The wood turned out to meet the structural requirements we had set best.

The weather conditions also played an important role in choosing the material and way of building. The weather at Terschelling is unpredictable so we had to take into account all weather conditions. Particularly, the wind and the rain were leading factors that could have a significant impact. The material should be heavy and stable enough to stand the wind in the polder. And its way of constructing should not be destroyed by a rain shower. The type of wood, which turned out to meet these requirements best, was pinewood. The pinewood was relatively heavy, and the water repellent characteristics were most useful in the project. Also the shape of the elements was to a certain degree guided by the wind restrictions. The surface area should be as small as possible to minimize the wind it should catch. The wind should also be easily blown under, over or through the structure in order to prevent a collapse of the whole structure.

Because we as well as the visitors are constructing on site, the wooden elements should be easy to handle for each type of visitor. The elements should be suitable for young and old, strong and weak, an element for each and everyone. These requirements guided us to design planks with different sizes and weights. These different planks had to be prepared before the opening of our installation on Oerol.

There was also a financial constraint in what



we wanted and were able to make. We were dealing with a fixed budget of 3000 euros for the structure.

The material we finally chose for the planks was pinewood. This is an affordable and nice type of wood, which is wind and water proof, and has a certain degree of preciseness as a building element.

Editing the wood

Since we decided upon the wood as the working material we had to think about the connections. We wanted to have a connection which was as clear as possible. We came up with the solution to make a connection through holes in the wood, which would fit in each other like a puzzle. The rough plank size was 20 mm thick, 200 mm high and 3000 mm long.

We designed a pattern of holes in the planks.The holes were used to create the necessary stable connections between the planks. A requirement for these connections was robustness: the planks would each be replaced at least 10 times. We also wanted visitors to be able to look through the structure, making it difficult to find the correct height for both stability and aesthetic quality.

The profile of the holes became 50 mm deep and 20 mm wide. The holes are positioned every 500 mm with an offset above and below the shelf. Thus uniform elements were created, with plenty of options for each visitor to place the plank in the desired way. We considered sawing the planks ourselves, but we fortunately found an affordable option to have the 3 meter planks sawed in advance, including milling the holes. On location, we still had to saw the 3 meter planks into smaller planks.

We calculated the amount of wood needed to create a structure of 3 meters high, 3 meters wide and 10 meters long. This size was needed to make the structure visible in the landscape. In order to meet the requirement of suitable elements for different visitors we decided to cut part of the planks in smaller sizes. This would also meet the aim to make a dynamic structure. In the end we used 460 3-meter planks, that we cut in a total amount of 840 planks.

During the Oerol festival we also filled the structure with colored planks. We started out with 10 'black-tailed godwit orange' planks. We arranged these planks in a node to see how these planks would spread around in the structure during the 9 days we were operable.

Other colors were dealing with our hour goals. If we managed to reach the hour goal of a certain height, we painted a plank green, referring to the creation of enough new meadows. If we did not manage to reach the height in that hour, we painted a plank in the structure blue, referring to the rise of the sea level.

Counting the planks

In order to create the 3D-model after the Oerol project we needed to document the movement of each plank. Therefore we numbered each plank and each hole.

On location the moved plank would be documented as 'plank number', 'direction', 'hole number'. Then the plank that it connected to would be noted as 'plank number, hole number'. For example: plank 300, direction South, hole 8, connects to plank 187, hole 4.

PROJECT ELEMENT: NEST

Making the nests
Our installation was a representation of the constructed landscape, modified by our visitors and by us in order to create a landscape more suitable for meadow birds. Since we made the landscape in such a way that meadow birds came to the polder, we carry a certain responsibility for them. Therefore we created nests for the birds: places for birds to occupy their own piece of landscape, a sign of a new and healthy environment. A constraint for our construction therefore was the demand for the possiblity to place those nests in the installation.

To symbolize the birds nests in our structure we had to research quite a bit. Birds are fairly good constructors, and even sustainable. We made our own nests from fresh weeping willow branches, a representation of the natural materials that birds use too. It is quite easy to make your own birds nest!

Ingredients
Fresh willow branches, these should be as long as possible. It is also better to work with fresh cuttings right away. The branches are still flexible, making it easier to bend and manipulate the material. If the nest is dried properly, it will also become more stable.

Preparation
1. Select twigs with an equal length to form the ribs of the nest.
2. Lay three or four of twigs side by side on the ground (or on any flat surface), alternating their thick (butt) ends with the tapering tips. Then lay an equal number of stems across the first bunch.The two stacks of twigs should now intersect at right angles in the center.
3. Tie the branches of the ribs together with a wire or cloth the branches and start weaving.
4. Now choose your first "weaver" branch and work it between your fingers until it is nice and pliable. When the twig will flex easily without breaking, you are ready to start putting the base of the nest together. Bend the weaver at a point about one-third its length, and loop it around one of the four bundles of ribs. The two halves of the weaver will cross as you move both its ends toward the next bundle of twigs. Weave around the center (always in a clockwise direction) by alternating the two halves of your vine. One end will cross over the bundle of ribs while the other tip passes under that same bunch, and vice versa for the next bundle.
5. Continue the same procedure until you have the required base for your nest.
6. Grab and bend the core of the nest high and continue weaving vertically to create the surrounding of the nest.
7. When you reach the required height, release the core branches and weave them around the nest to create a thick and strong finishing.
8. The nest is ready for the birds!


Voel je
zo vrij
als een
vogel

FACTS & FIGURES

June 12th 2015 : Black-tailed godwit (grutto) day

Day goal	Reached	Replaced wood	310
Average temperature	21 °C	Building heights (m)	-
Sun	Whole day	Visitors	-
Rain	0 mm	Contract violations	5, our own group
Wind	5 m/s		walking without helmets
Bird stamps	-		
Cow stamps	-		

"It doesn't fit! 800 more saw cuts? No problem!" Since the project wasn't opened to the public yet, we made some test runs to optimize the experience for the visitors. To allow them to build more creatively, each plank had to be shortened 1-2 centimetres. After an effective round of sawing we were ready to start constructing our installation. This was also the moment of truth for all of our preparations: would everything work? Would the project be clear for our visitors? And, more importantly: would our visitors like the project? After some fine-tuning we gained confidence in the possibilities of our project. This feeling was supported by achieving the first of our daily goals; making space for the black-tailed godwit in our installation.

June 13th 2015 : Eurasian oystercatcher (scholekster) day

Day goal	Not reached	Replaced wood	495
Average temperature	15 °C	Building heights (m)	1,5 - 1,5 - 1,5 - 1,5 - 2 -
Sun	No		1,5
Rain	0,25 mm	Visitors	293
Wind	12 m/s	Contract violations	-
Bird stamps	128		
Cow stamps	165		

"They are back!" When we arrived early in the morning we found out the black-tailed godwits had returned to the meadows next to our project location. Apparently they move further afield during the day, but are not disturbed in such a way that they feel the need to resettle. At night, they move back to their 'homes' close to the cycle path in the middle of the polder, where we are constructing our installation. The black-tailed godwits appreciated our structure so much, that they use it as their new favourite watch tower! However, our visitors were less enthusiastic about joining our construction team. We were confronted by strong winds and heavy downpour in our polder. This made it quite difficult to reach our goal of the day; saving the Eurasian oystercatcher. The sad reality is that we weren't able to do so. However, this gave us the determination to work even harder the next day, in order to make sure that the next birds would be able to make their nest in our construction.

June 14th 2015 : Pied avocet (kluut) day

Day goal	Reached	Replaced wood	577
Average temperature	13 °C	Building heights (m)	1,5 - 0,5 - 1,5 - 1,5 - 1,5 - 1,5
Sun	Whole day, some clouds	Visitors	428
Rain	0 mm	Contract violations	1, a visitor refused to
Wind	5 m/s		wear a helmet
Bird stamps	236		
Cow stamps	192		

"Can you give me a marker?" Even though Terschelling is the only (Dutch) wadden island where Frisian is not one of the main languages, the elderly visitor avidly wrote the Frisian names of the birds on the bilingual (Dutch & English) boards we had put up along the cycling path. Lesson of the day: The pied avocet is called a klút in Frisian, the Eurasian oystercatcher strânljip, and the black-tailed godwit the skries. This helped us to understand many personal messages left by visitors on their planks; "Skries op'e hikke, hoe lang nog?"

For a day with 600 visitors we still had trouble reaching our goal, perhaps due to the extremely bad weather; it dribbled all day long. It was really nice to see that people were willing to work hard and with dedication, especially the last hours, in order to make place for the nest of the pied avocet. And in the end we did it!

June 15th 2015 : Northern lapwing (kievit) day

Day goal	Reached	Replaced wood	493
Average temperature	14 °C	Building heights (m)	1,5 - 1,5 - 1,5 - 1,5 - 1 - 1,5
Sun	Sunny for 3 hours	Visitors	431
Rain	0 mm	Contract violations	-
Wind	4 m/s		
Bird stamps	243		
Cow stamps	188		

Secretly, the northern lapwing in the fields next to our site were keeping an eye on our progress, as the outcome of the day would determine if they would get an extra nest by nightfall. The good weather and large ammount of visitors were very helpfull in achieving our goal. At the end of the day we were happy to welcome the northern lapwings nest in our construction.

Lesson of the day: accidents are waiting to happen, even in good weather. A good reminder of the importance of wearing a helmet!

June 16th 2015 : Common snipe (watersnip) day

Day goal	Reached	Replaced wood	493
Average temperature	14 °C	Building heights (m)	1,5 - 1,5 - 1,5 - 1,5 - 1 - 1,5
Sun	Sunny for 3 hours	Visitors	431
Rain	0 mm	Contract violations	-
Wind	4 m/s		
Bird stamps	243		
Cow stamps	188		

"I have a cow on my contract, but I really like the black-tailed godwit. Why did I get a cow?" A reaction we hear often at our construction site. Whether you receive a cow or a black-tailed godwit stamp on your contract depends on how you fill in your questionnaire outside of our gate. The questions connect to your daily life choices, but also to the meadow birds on Terschelling. Your choices have an effect on these birds, and on the climate around us. The type of milk you drink and how far you travel each year is of course a small selection of your behaviour, but these questions already illustrate how much effect a single person can have on the landscape.

"Cool, I really contributed something to saving the meadow bird of today, the watersnip!" By adding a plank at front of the construction this visitor brought us closer to our daily goal: to save the common snipe that lives in the Terschellinger polder. Sadly we did not manage to save the Eurasian oystercatcher on Saturday, an altogether sad reality. Therefore we ask you to come tomorrow too,to make sure that the Eurasian skylark does get a new home in our landscape installation!

"206, 5, West, 32, 6!" "What do these numbers mean?" We were shouting our data to administrate every plank. The mysterious data-lists that we use while building will give us the possibility to create a 3D-model of the whole structure. This allows us to document the progress of the model each day, and, in the end, see how the complete image changed during the ten days of Oerol. So make sure to check our website again after Oerol has ended, to see where your plank ended up!

June 20th 2015 : Eurasian skylark (veldleeuwerik) day

Day goal	Reached	Replaced wood	501
Average temperature	16 °C	Building heights (m)	2 - 1,5 - 1,5 - 1,5 - 1,5 - 1
Sun	Clouded, sometimes sun	Visitors	328
Rain	3 mm	Contract violations	-
Wind	10 m/s		
Bird stamps	163		
Cow stamps	165		

Western wind from the head of the island brought sea air to our location today. In our effort to save the bird of the day, the Eurasian skylark, we had to, again, move planks to the front of our installation. Not an easy task with the wind under your wings! Even adding stamp to our visitors' contracts was difficult today, as one attentive visitor remarked: "The birds flew away because of the wind!"

"Wow, you're all very enthousiastic!" That's something we hear often. And it's true. We are working with passion on our project, because we really like to share our message with the visitors. And, of course, we want to save a meadow bird each day. That we didn't make it to our goal on Saturday (Eurasian oystercatcher day) made us even more determined to save the other birds. Today it looked almost impossible, with the weather and the high amount of 'cow' results. But, despite all setbacks, we made it! The Eurasian skylark can now also build his nest in our polder installation. Will you help us tomorrow too?

June 18th 2015 : Northern shoveler (slobeend) day

Day goal	Reached	Replaced wood	412
Average temperature	14 °C	Building heights (m)	1 - 1 - 1,5 - 2 - 1,5 - 1,5
Sun	Sunny for 4 hours	Visitors	283
Rain	0 mm	Contract violations	1, a visitor fell into the ditch while placing a plank
Wind	8 m/s		
Bird stamps	138		
Cow stamps	145		

"What are those dogs doing there?" This morning we had quite a scare when a few farmers unleashed their dogs in the meadows around our location. Later we learned that they did this to chase away the birds from the field, before they started mowing. Bird Life Netherlands, who dropped by on our location, assured us that the birds were doing fine. When they saw a common redshank flying by with its chick they were relieved that they got away safely.

Inspite of our morning scare we worked hard again to reach our goal. As people noticed (and us too), the construction had moved quite a distance already. It is truly gratifying to see that everyone, even by just moving a single plank, contributes to the moving of the over-all structure. Every day we are amazed to see what our visitors manage to achieve and learn, and in return, how much we learn from our visitors. With good faith we look forward to achieving our final goal on the last day of the Oerol festival.










June 19th 2015 : Western yellow wagtail (gele kwikstaart) day

Day goal	Reached	Replaced wood	437
Average temperature	13 °C	Building heights (m)	2 - 2 - 1,5 - 2 - 1,5 -1,5
Sun	Bright sun, some clouds	Visitors	230
Rain	0,05 mm	Contract violations	-
Wind	7 m/s		
Bird stamps	106		
Cow stamps	124		

"No, not that cheese! I want to become a bird!" By accident we overheard this conversation in the supermarket. It was realy nice to hear how our project affects peoples mindsets, especially since we were primarily aiming to 'just' address some issues. This lady took our message to another level by really adjusting her own behaviour.

We also notice a change in out own attitude towards our project. Before we came to Oerol we conducted a thorough landscape analysis and we found many problems that can or will occur in the landscape of the Terschellinger polder. Naturally this made us a bit weary of the future; will the polder survive? Every day our visitors have so many good ideas and willingness to help build our construction or even change their own daily routines. The messages on our planks are positive and insightfull. The emotional data from the 'Feels Like' project tell us that most visitors are 'hopefull' after visiting our installation. And saving a bird (almost) every day only adds to this hope inspiring experience.

The northern shoveler can now also build a nest in our construction. Just two more days, to make space for the tureluur and complete our mission of reaching the next crossing in our location. We are hopefull that we'll make it!

June 20th 2015 : Common redshank (tureluur) day

Day goal	Reached	Replaced wood	506
Average temperature	14 °C	Building heights (m)	2 - 2 - 2 - 1,5 - 1 - 1,5
Sun	Clouded, sometimes sun	Visitors	266
Rain	0 mm	Contract violations	-
Wind	4 m/s		
Bird stamps	124		
Cow stamps	142		

As we enter our site early in the morning, a common redshank is sitting on a pole next to the path watching our moves carefully. As like he knows his faith depends on us. Because today is 'common redshank day', we want to save the common redshank. Either as a result of the weather, or because the Oerol festival is reaching it's end, today it feels like the meadow birds have taken back their territory. We hear their songs singing over the polder, and see them gathering together in the meadow filled with buttercups.

Will we reach the goal we set for today? As time passes by more visitors enter the construction site, and as it seems, regarding the questionnaire today, that today's visitors are not afraid to show their preference for non-biological milk and cheese. Since our visitors receive cow stamp after cow stamp, the construction is reaching higher and higher but does not make any meters. Time for a change; in the hour before 4 o'clock some bird-friendly visitors pass by and we can finally make some progress. In the last hour a push towards our goal of the day is made, and just before calling it a day we reach the common redshank: saved by the visitors!

June 13th 2015 : Ultimate goal, 'all' meadowbirds!

Day goal	Reached	Replaced wood	607
Average temperature	16 °C	Building heights (m)	2 - 1 - 1 - 2 - 2 - 2
Sun	Clouded, sometimes sun	Visitors	97
Rain	0,25 mm	Contract violations	-
Wind	6 m/s		
Bird stamps	39		
Cow stamps	58		

Finally, the last day of the Oerol festival has come. Today, on the longest day of the year, we will see if we reach our goal for the project and whether Oerol visitors will still pass by the expedition. In the first hour only eight planks are moved through visitors passing by our site. We are afraid; if this is going to last, we will never reach the goal of saving all meadow birds and our Oerol project could fail! But suddenly around noon our project welcomes visitor after visitor whom all seem to be well disposed towards the meadow birds.

After completing our whole installation visitors received a stamp from Bird-I-View in their Polderpracht booklet. With this stamp visitors gained a discount on the organic cheese of Engbert Zorgdrager, owner of part of the meadows surrounding our project. The owner of Lokaal, a shop in West-Terschelling told us that 174,5 kilogram of the organic cheese has been sold that day. So our project raises awareness amongst the visitors of Oerol, or at least lets them taste the difference that organic farming makes.

At the end of the day, when the sunbeams are long and the air is warm we add the final plank, plank #167 to the structure. As a result we reach our goals of today and save all meadow birds. Finally we reached our goals set for the Oerol festival and took revenge for the Eurasian oystercatcher.

FREQUENTLY ASKED QUESTIONS

“Why do I have to build higher? I had a bird!”
Our construction responds to the needs of population (the visitors). The landscape is shaped by their demand: if there is high consumerism, mass production is required, leaving less space for the meadow birds. This high production also raises the sea level, which in turn demands a higher investment in new sea barriers, offshore or saline agriculture, and bold choices in landscape design. Our individual impact in the (agricultural) landscape is only marginal. Because the combined lifestyle choices of the population greatly impact the landscape, an hourly average was taken of the visitors by a questionnaire.

“What are those long sticks?”
The long blue sticks are rulers, used to measure how high the structure has to become to remain dry and productive. The first half meter is missing, because the bike path in the polder is about 0.5 meter above sea level. Every hour we set a height goal. If we achieve this goal, we place a green plank in the structure. If we fail to achieve it, we place a blue plank.

“What is better, a cow or a black-tailed godwit?”
Both are necessary. Without the grutto, the Netherlands would lose a unique migratory bird; a piece of (agri)cultural heritage. For bird lovers (of whom in the Netherlands there are many), meadows, lakes and islands offer a place of solitude, a connection with nature and mental health. They also bring many tourists to places like Terschelling. Without cows on the island, meat, dairy and grains would have to be shipped in from the mainland. There needs to be a balance.

“What can we really do for the meadow birds?”
While on the islands, you can support local farmers that offer birds protection. By participating in our project, you got 10% discount on Terschellinger cheese. If you buy these kinds of products in coastal areas where migratory birds reside, like in the Netherlands, or while on vacation, for instance in Scandinavia or Africa, you directly support bird protection.

“Why does the structure move?”
The forces of nature continuously move the island. Wind blows the sand towards the east, while the tides play with the low-lying sand of the coastal plains. The islands in their natural form were not suitable for human settlement and agriculture. It was only by fixing the island in some way, for instance by an endikement, that it became suitable for intensive farming.

In recent decades a realisation has come that natural forces need to be given more space to maintain the Dutch coastline. The movement of the structure represents this dynamic relation between man and nature; like the rest of the coastline of the Netherlands, human interaction has shaped it and kept it in place. For the polder of Terschelling specifically, higher seawater levels will mean that in some decades salt water pressure under the sea dike will be so high that the soil will turn saline. Either a solution will have to be found in a different type of agriculture, or the landscape of the polders in the Wadden sea has to be re-evaluated.

“What do I actually contribute?”
This is a difficult question. Our project was mainly about raising awareness. Fortunately, many people are already aware about some of the subjects addressed. Besides building on awareness, you have contributed to a research and education project. The construction team learned a lot by interacting with the visitors, making a 3d model based on your plank movements, building a website and writing blogs. By sharing your experiences or (gained) knowledge, you can contribute further to the protection of meadow birds.

“Why do you shout those numbers?”
We are digitally rebuilding the structure, so that we can make visible how it changed throughout the whole of the Oerol festival. As a visitor or construction worker, we can only view snapshots. In order to make the model, we need the orientation and location of each plank, and how it is connected to the rest of the structure.


vogels en
koeien samen!
dat
kunnen wij
bouwen!

3D MODEL

Our visitors designed the structure by choosing to place their plank on a specific spot. These documented connections were recorded in Google Spreadsheets, during the evenings on the festival terrain of Oerol. With this task, our performance continued during the evening hours.

We wrote scripts for Grasshopper and Rhino ourselves, to translate the rough data into a 3D model of the built construction. The 3D model is in essence the 'rebuilding' of the design of our visitors and a reflection of the behavior of our visitors. The height of the construction shows the hourly goals and thus the general attitude of our visitors towards the environment on each moment during the performance.

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REBUILDING BY DESIGNING

A game for a live graph
Our structure was not just building with the help of individual visitors, it was also designing with them as a group. Every hour, the questionnaires were filled in by our visitors upon entering our construction site and were used as input for the desired construction height. The design of the project was restricted by the plank elements, the possible connections between them and the generated data by our visitors. All these elements were responsible for the changes in our structure. A game with a questionnaire, a contract, and stamps to be collected (along with a little bit of acting) made it attractive for visitors to participate in our construction project. The data collected from the questionnaires was used to determine the height of the construction per hour. The purpose of these data was not to define a scientific research. Instead, the data created the effect relevant to our field of study: the influence of people on their environment and subsequently a dynamic structure. With these findings our project covers basic conceptions of time and architecture. It can be considered as a metaphor of the landscape which changes over time by human intervention. The landscape of the island had always been shaped by conscious and unconscious decisions of humans. Through this lense, both the island of Terschelling and our structure are temporal displays of people's preferences. The island of Terschelling is now different than it was, and will continue to evolve. The current state is merely a point in the bigger picture of the history of the Wadden islands. Similarly our project is a live graph and just a part of our over-all process. Based on the construction from Oerol we studied on mapping temporal changes. For this reason a 3D-model was created to document the live graph of our project.

Stacking time for project documentation
The kinetic behaviour of the structure can be seen as an abstract translation of the data generated by the audience. It captures the human influence over the landscape of Terschelling as it relates to the lifestyle choices of the inhabitants and tourists. The 3D-model shows the movement of the structure through time and the changes in its form are indicated by the differing opinions of our visitors. The landscape of Terschelling and our structure are both subject to the principle of stacked time. A great variety of historical layers can be observed on Terschelling. Even the smallest height difference can be an indication of a historical relict. Two explicit examples are the abandoned villages that were situated in the same rhythm as the dunes on the Boschplaat, and the way the old creek beds in the polder colour the grass differently depending on their subtle elevation and water level.

In this landscape our project was a temporal manifestation of the landscape itself. The goal was to show the relation between mankind and the agricultural landscape. Philosopher Alois Riegl once talked about keeping memories connected to buildings. He said:

"In its oldest sense a monument is a work of art erected by man for a specific purpose of keeping particular deeds or destinies alive and present in the consciousness of future generations." (Riegl, 1928, p. 69)

Our structure has already been taken apart.

The temporal component of our project effectively makes it something we can commonly refer to as a monument. The project has been documented to stretch its time frame of existence. This offers the opportunity for our structure to become a historical monument. For this reason, the 3D-model could be even more important in our process than the actual structure itself.
Often people call things 'historical' if they are no longer, but once were. From this drives that something that once was, can never be again (Riegl, 1928, p. 70). These are basic constraints in the modern era of development. The historical perspective, the consideration of what has been, is part of the development. Historical monuments are carefully selected, since not every moment can be represented in time and space (Riegl, 1928, p. 71). Time runs fast. There is no need of filming all ten days of the festival just to replay it again and again. Instead, what is crucial in the project is to make the documentation more dense. Thus the duration of the project is accumulated into a single image.

Landscaped architecture or architecture with a landscape approach
Nowadays we assign value to a monument by virtue of its original purpose, rather than to the work itself. In the case of monuments that are made on purpose, this value is dictated to us by others (the former creators), while we unintentional define the value of them ourselves (Riegl, 1928, p. 72). Therefore we strive to maintain the image or the state of a building in its most original sense. The conflict within this attitude is the fact that buildings suffer from degradation by the elements. We tend to maintain the buildings as much as we can. Buildings have the tendency to follow a lifecycle towards death until we intervene by upgrading, revamping or restoring them to the original state. Riegl wrote:

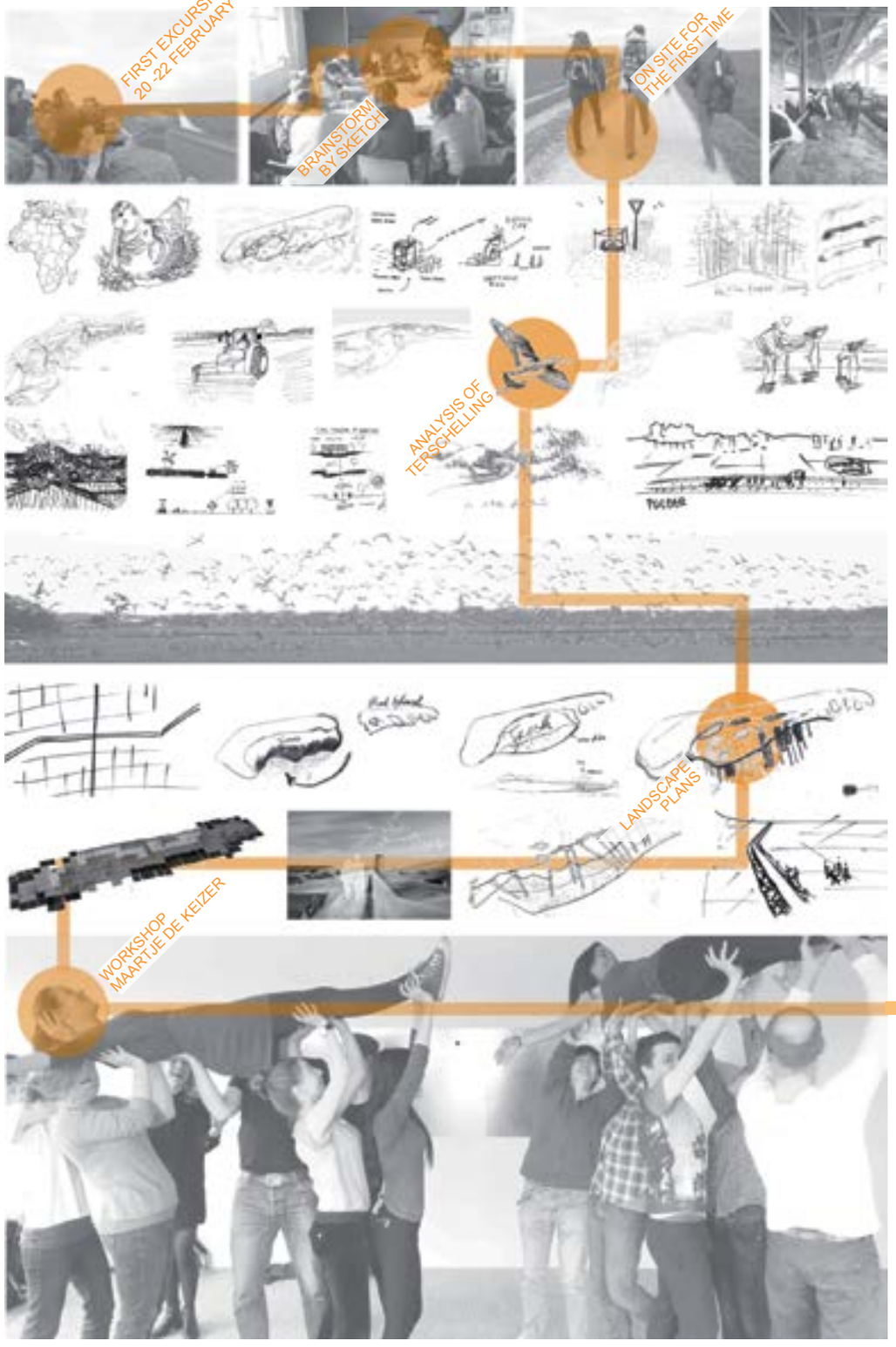
"From the hand of man we expect complete works as symbols of necessary and lawful production; from nature working over time, on the other hand, we expect the dissolution of completeness as a symbol of an equally necessary and lawful decay."
(Riegl, 1928, p. 73)

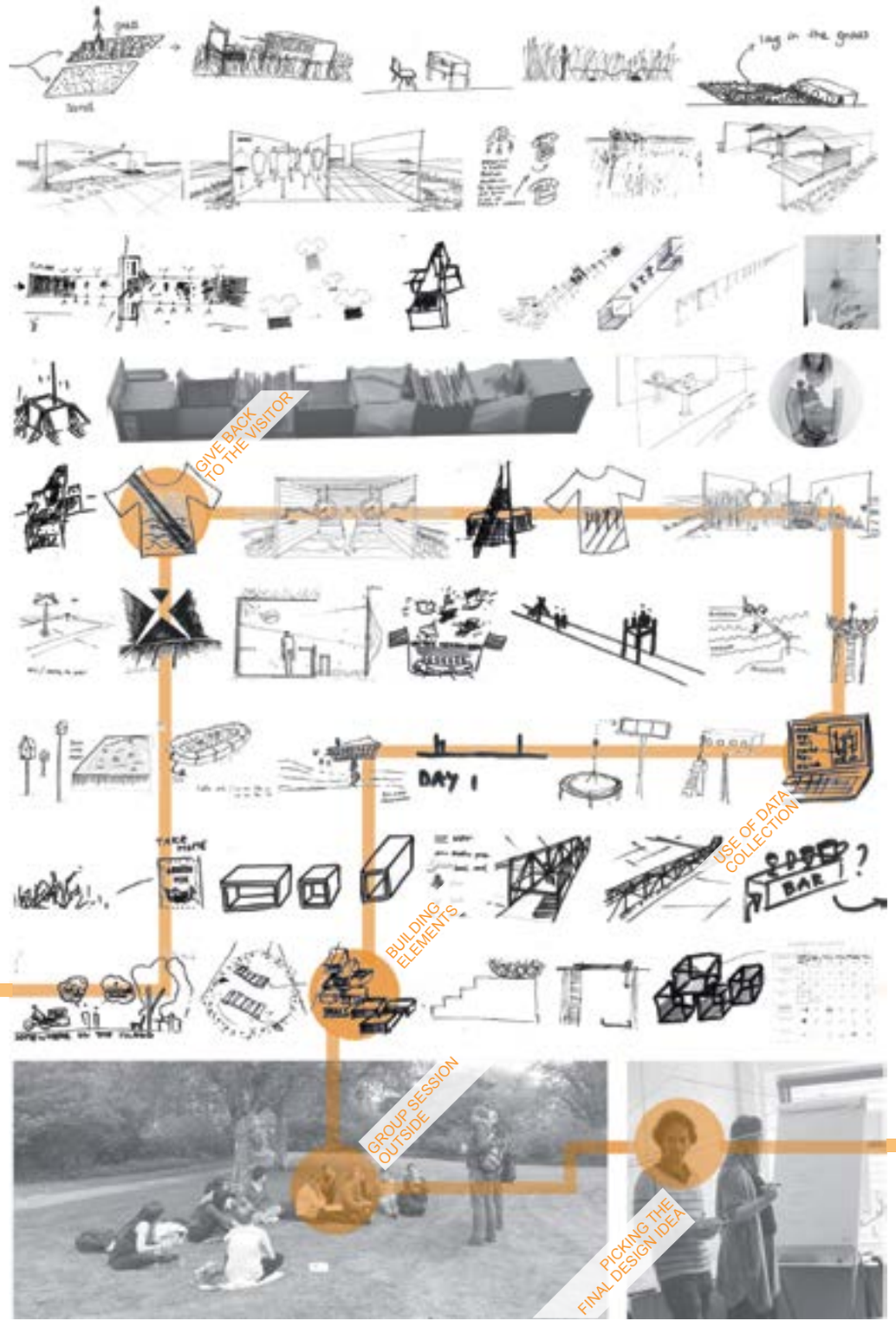
Architecture displays a single design made within a specific historical background. The period of decay or death of buildings starts right after their completion. Due to this characteristic, landscape architecture differs from architecture. The time and its readability are part of a landscape. A landscape is not a total design. The landscape architect intervenes in an existing landscape which is shaped through time and decides to show or hide the relics of multiple interventions. Landscape display a momentum of the degradation of successive interventions by natural and man-made processes. For that reason, landscape is dynamic and unique. The 'preservation' of a landscape thoroughly challenging. Within our landscape project, we faced similar issues. The preservation of our project is therefore succeeded by the 3D-model, rather than the focus on the materiality of the structure that was resented during Oerol Festival.

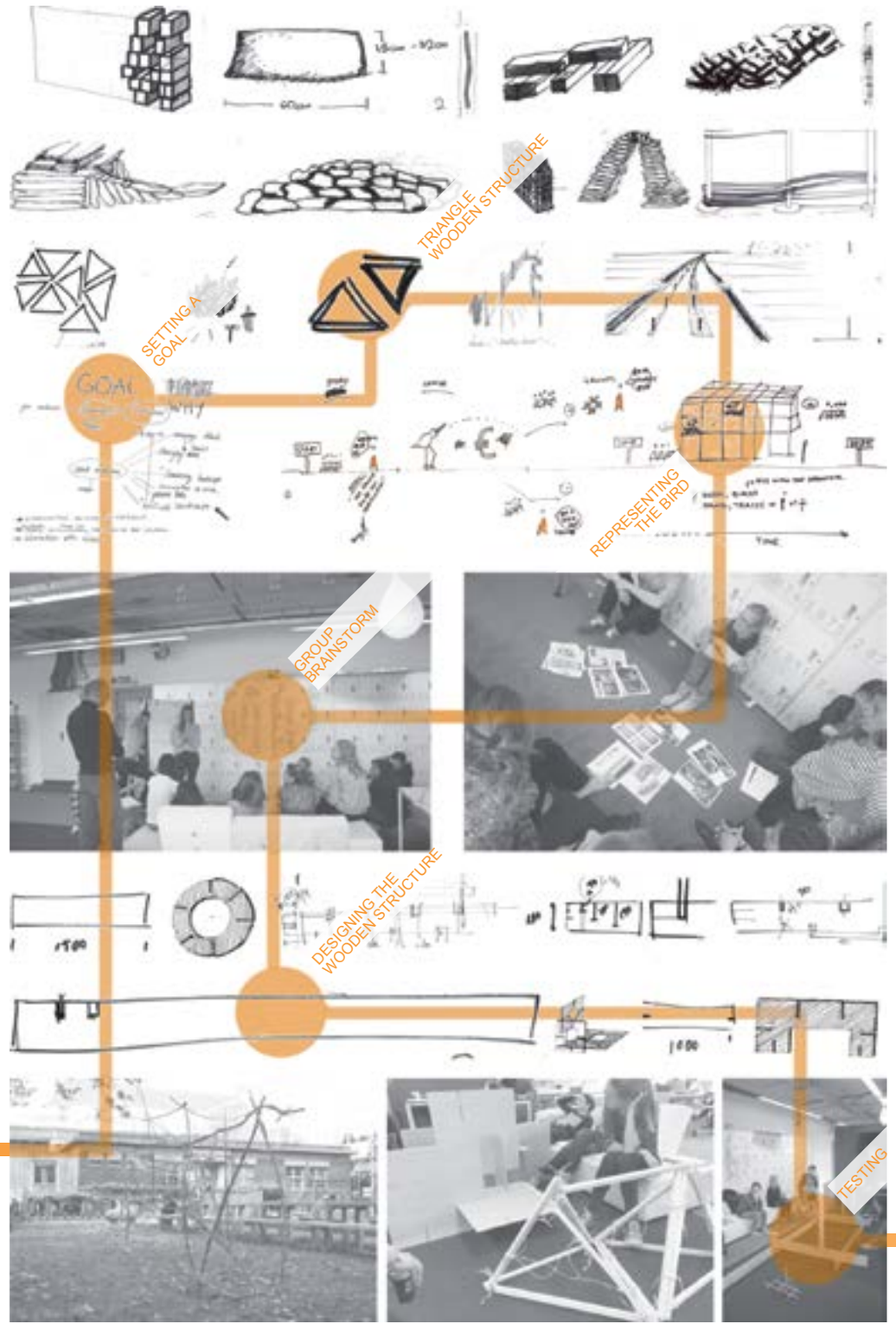
SOURCES: Riegl, A. (1928). *The Modern Cult of Monuments: Its Essence and Its Developments.*

#500

PROCESS BY DESIGN


FIRST EXCURSION
20 -22 FEBRUARY
BRAINSTORM
BY SKETCH
ON SITE FOR
THE FIRST TIME
ANALYSIS OF
TERSCHELLING
LANDSCAPE
PLANS
WORKSHOP
MAARTJE DE KEIZER


GIVE BACK
TO THE VISITOR
DAY 1
USE OF DATA
COLLECTION
BUILDING
ELEMENTS
GROUP SESSION
OUTSIDE
PICKING THE
FINAL DESIGN IDEA

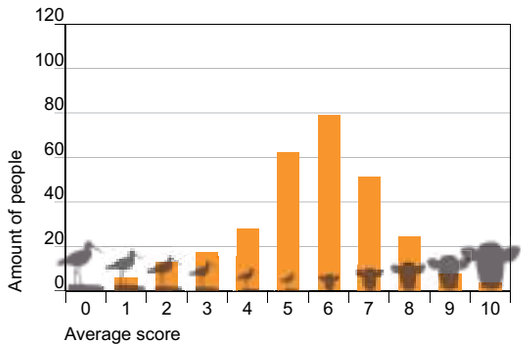

SETTING A GOAL
TRIANGLE WOODEN STRUCTURE
REPRESENTING THE BIRD
GROUP BRAINSTORM
DESIGNING THE WOODEN STRUCTURE
TESTING


LAYOUT FOR THE PROJECT
LOGO DESIGN
MAKING SIGNS FOR THE LOCATION
STAMPS FOR THE CONTRACTS
ON OUR WAY TO TERSCHELLING
FOOD DURING THE OEROL FESTIVAL
THE END

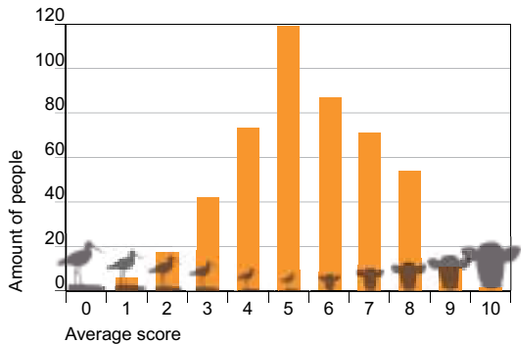
#600 FINDINGS

PROCESSING THE QUESTIONNAIRES: RESULTS PER DAY

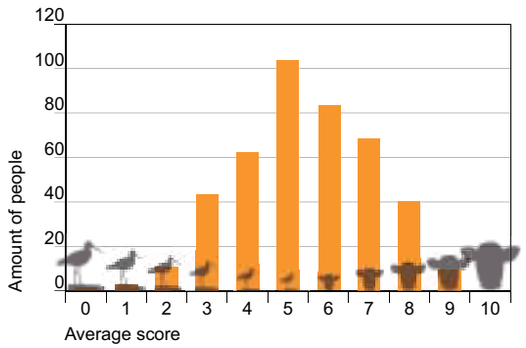
June 13



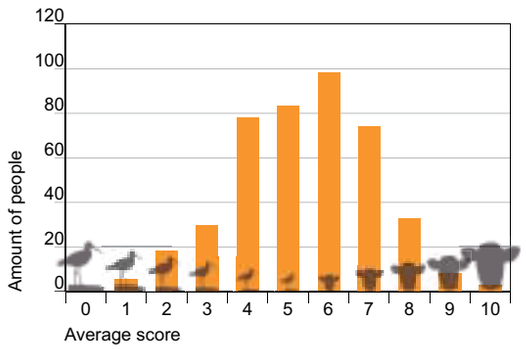
June 14



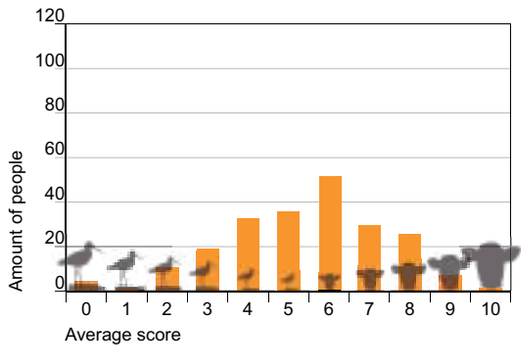
June 15



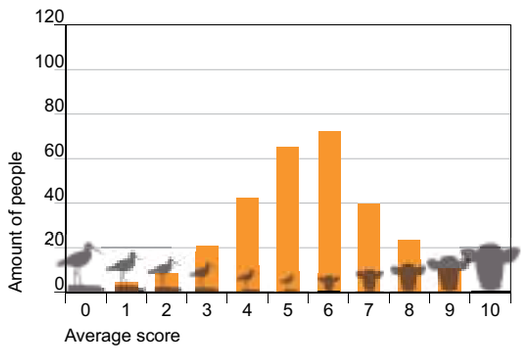
June 16



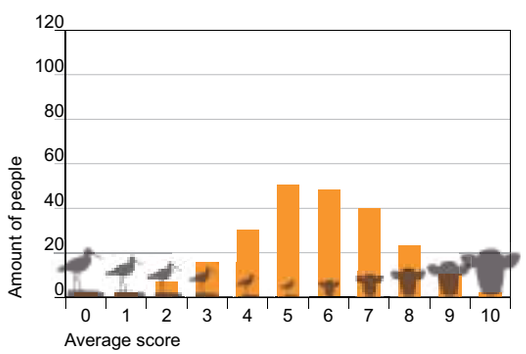
June 17



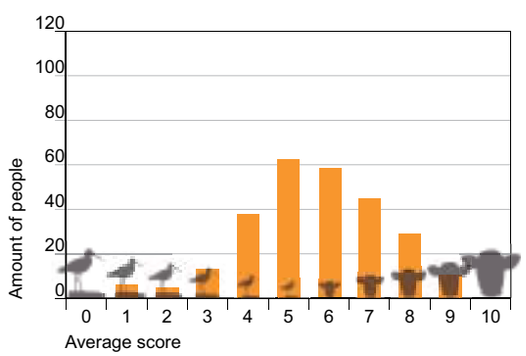
June 18



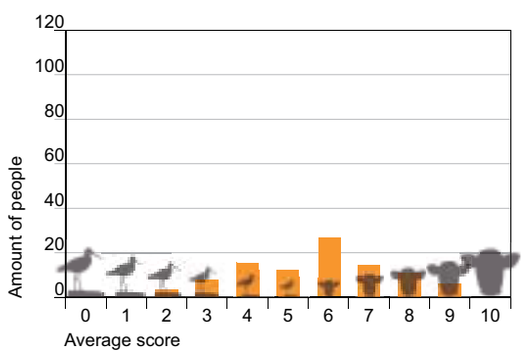
June 19



June 20



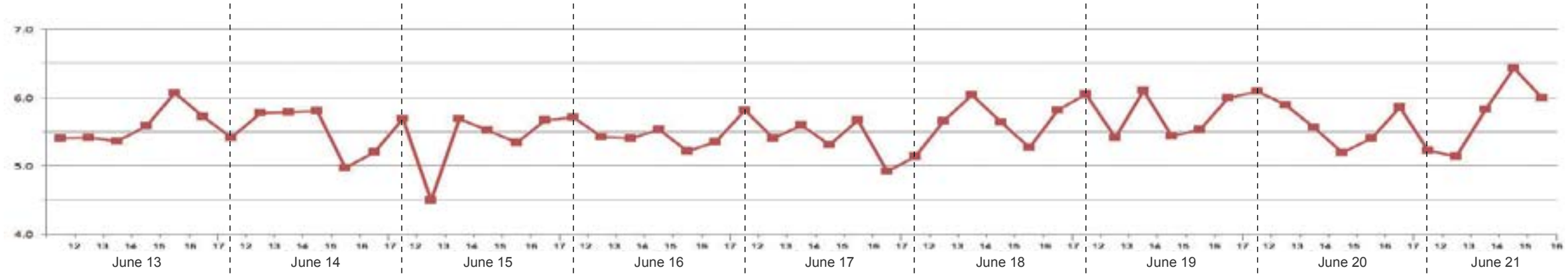
June 21



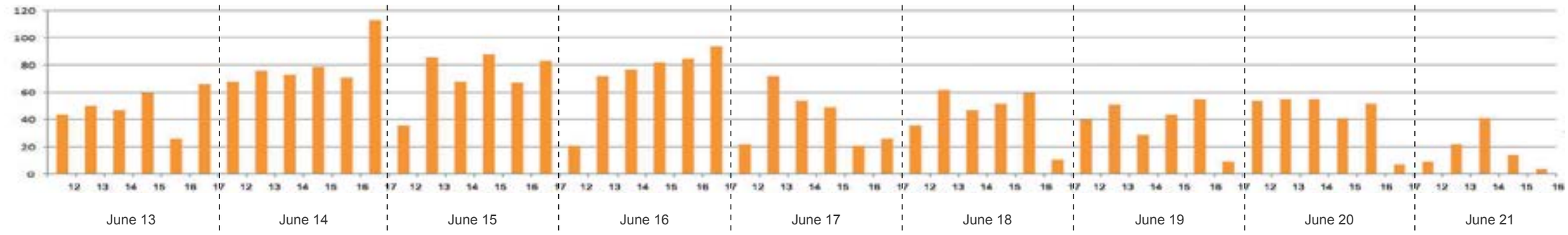
"Meadow under construction" was a project that aimed to raise awareness among the visitors of Oerol. The influence of human society on the landscape was exaggerated in 'the landscape as construction site', showing the visitors that we have created our own landscape and that we still heavily influence it. The amount of visitors who took part in our questionnaire was somewhat disappointing. We hoped for an average amount of 600 questionnaires per day, but that turned out to be around 350 a day. There are several elements which could have influenced this number: the entrance of our project site was quite far away from the main road and a bit invisible (we only had one entrance on a bicycle track of 500 meter, and the other side of the track was closed); our project would lead visitors through many steps, taking up to a half an hour of their time; and finally, not all visitors filled in the questionnaire.

The outcome was suprising to us. Visitors have been fairely honest in their responses, even though some of the questions were obvious and therefore answers could have been manipulated easily by them. It is interesting to note that many visitors are in the middle range in terms of awareness of their effect on their environment. Just a few visitors are completely unaware, or very aware. Usually visitors have high scores on specific aspects and low scores on the others, or average scores on all aspects. These tendencies result in "average" awareness levels on our 0 - 10 scale.

QUESTIONNAIRE AVERAGE PER HOUR

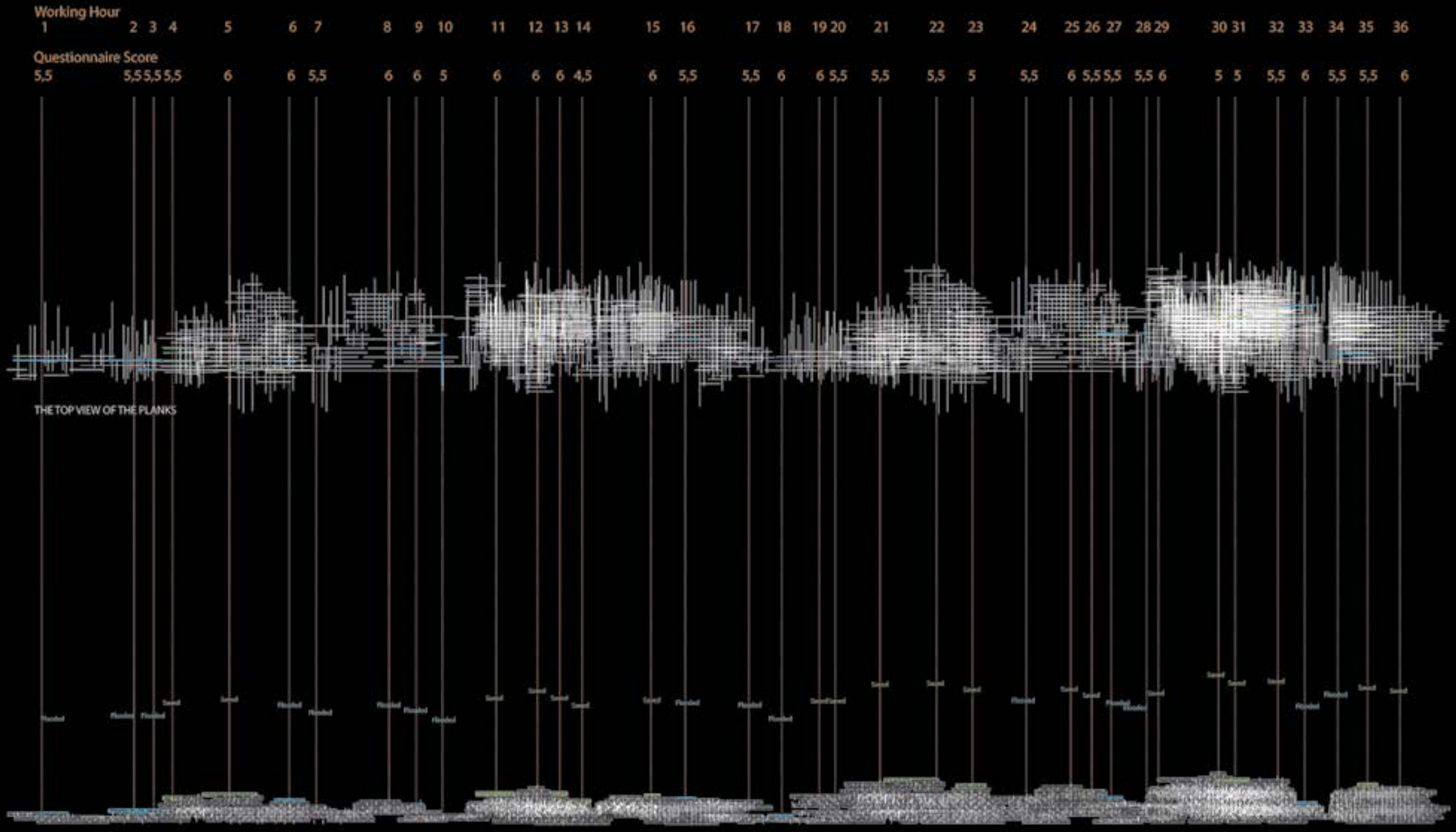


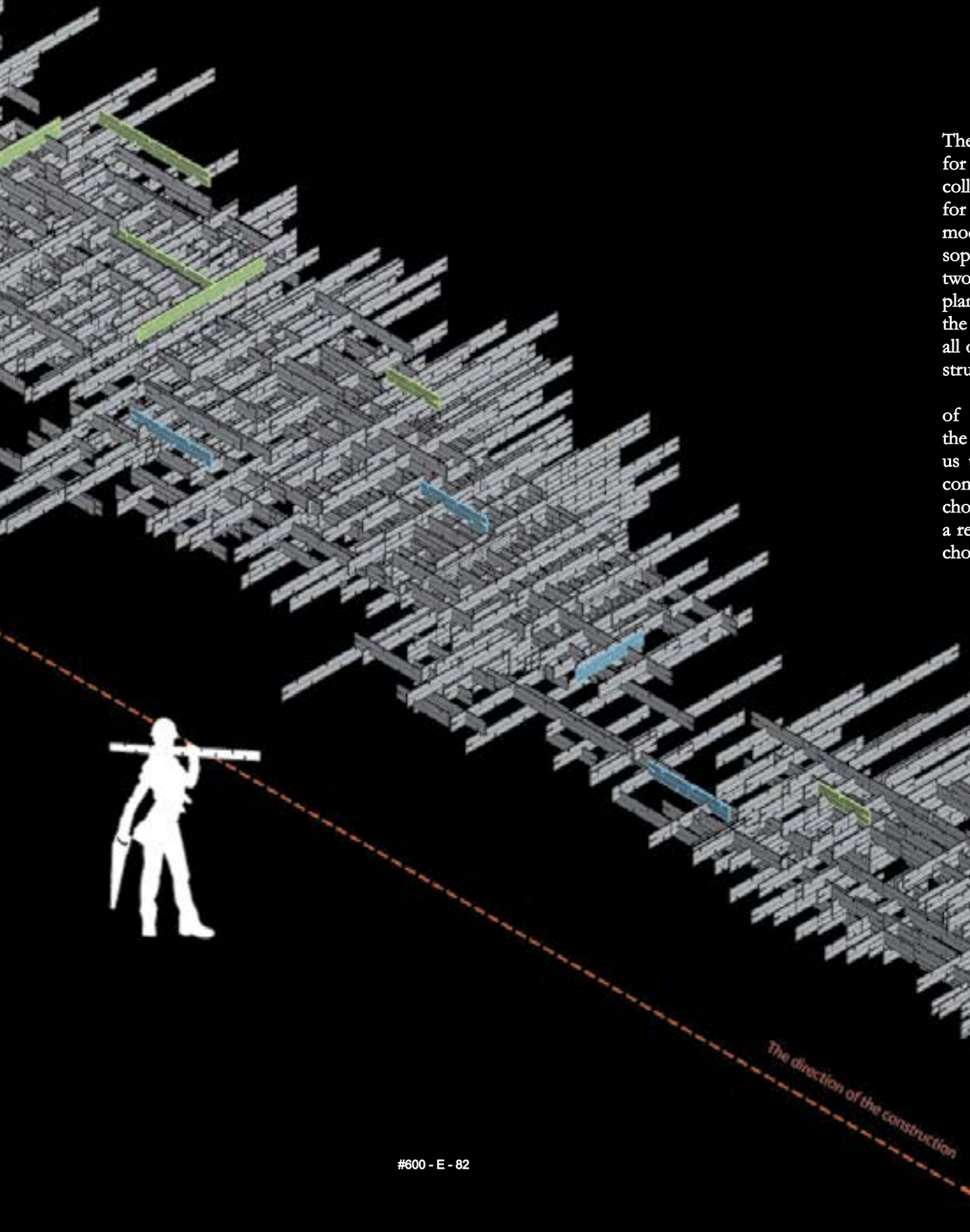
AMOUNT OF VISITORS PER HOUR



A reaction on the outcome of the questionnaires which was heard frequently: "I am a cow, but I wanted to save the birds!" These reactions are also visible in the writings on the planks. We often heard that price, time and comfort heavily determine choices in daily life. The full extent of the effect of these daily choices is unclear to most people.

Although we did not spread a rose-colored story, people still reacted positively to our message. An Oerol mood board was situated at the end of our project, part of an other Oerol expedition project. On this sign people could indicate their over-all emotion regarding the project: happy, curious, in love, surprised, thankful, relieved, but above all people chose "hopeful". Most visitors liked the project and became more aware of the fact that the type of milk one buys in the supermarket has an effect on what the landscape looks like. This befits our original project goal: communicate the realization that, if we can shape the landscape for our own needs, we can also furnish it for the needs of the meadow birds.


Working Hour
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36
Questionnaire Score
5,5 5,5 5,5 5,5 6 6 5,5 6 6 5 6 6 6 4,5 6 5,5 5,5 6 6 5,5 5,5 5,5 5 5,5 6 5,5 5,5 5,5 6 5 5 5,5 6 5,5 5,5 6
THE TOP VIEW OF THE PLANKS
THE FRONT VIEW OF THE PLANKS

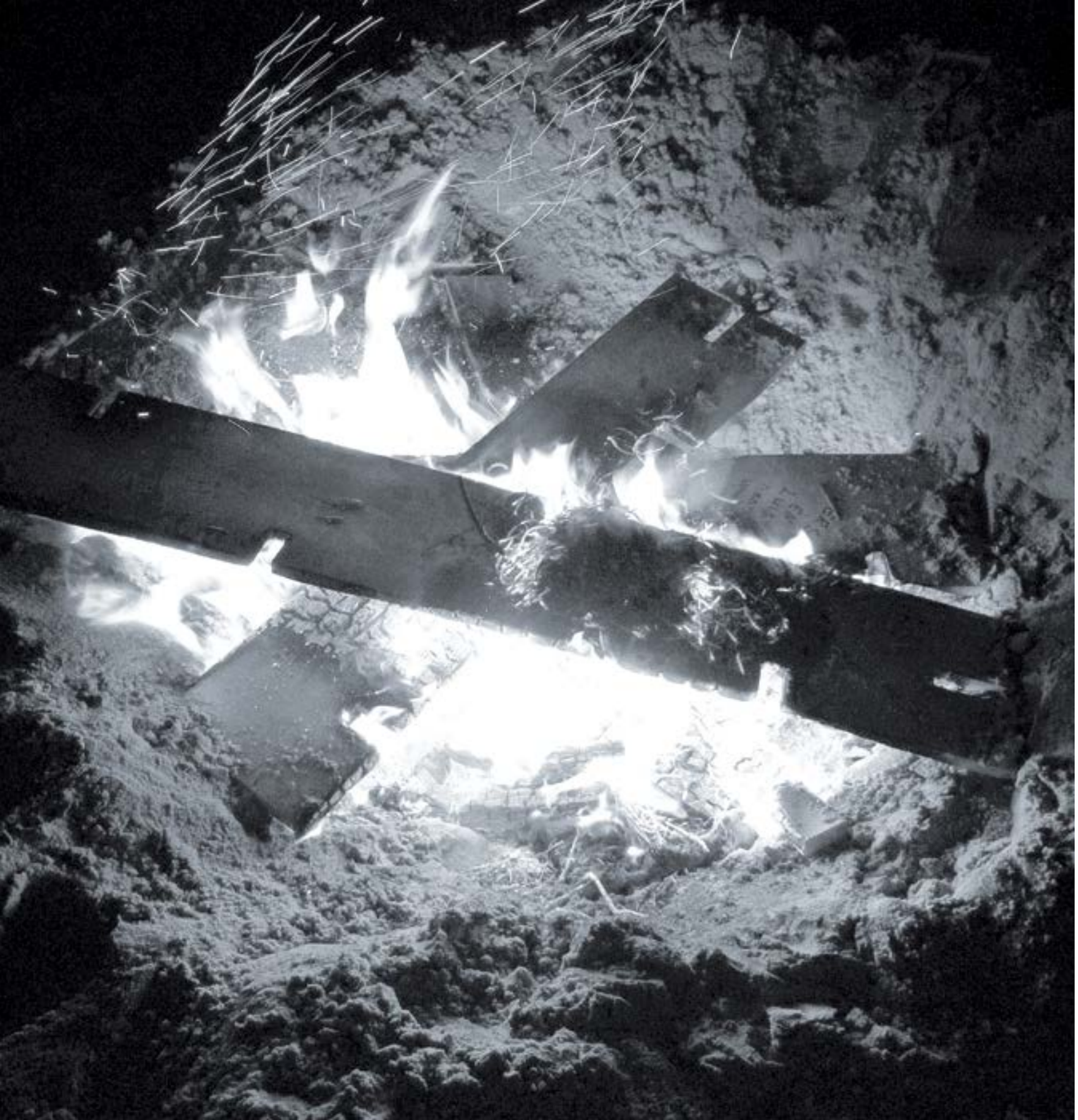


The on-site building project was the basis for data collection for the 3D model. The collected data was used to serve as input for the scripts in Grasshopper and 3D modelling program Rhino. This script is a sophisticated description of points on which two planks meet. A basic definition of the plank element, together with the orientation, the direction, the length of the plank and all other existing points compose the whole structure.

The structure itself is a reflection of the effect of our visitors behavior on the landscape. The questionnaires gave us the input for the target heights of the construction. The visitors themselves chose a plank to replace. The 3D model is a representation of the over-all result of all choices made.

At least, this would be the ideal situation. An important remark is the fact that the 3D model is a way of rebuilding the temporal physical structure on site. Therefore the 3D model might appear more accurate than it could be. Reasons for inaccuracy come from the nature of our installation. It is, after all, a man made structure, built by more than 3.000 people, and the data was collected manually. The presented 3D model therefore is a close resemblance of the original project on site, not an exact replica.

The graph shows the image that was generated from the script. As mentioned, errors may occur, but the principle of the influence of the questionnaires on the height of the structure becomes clear.



#700 APPENDIX

THE BUILDING TEAM

THE BUILDING TEAM

EVA ALBERINI

MSc Architecture Greece

For me the project has been a learning process of exploring the Terschelling landscape by defining our position towards it. The structure itself has been a representation of the ongoing appropriation of nature by Man. Our structure is adding another layer of manmade composition in the meadow alongside the polder, the dikes and further on the dunes and the forests. We, as university students together with the Oerol visitors, by our everyday choices affect the natural landscape and the structure itself has been an expression of that: an ongoing moving structure, that has been an learning process for each one of us!

LOTTE DIJKSTRA

MSc Landscape Architecture The Netherlands

During a workshop with Maartje Keijzer we did an exercise where you had to gain the attention from the audience. Here I learned my most valuable lesson: it is not always about being busy and making a lot of noise. Sometimes standing still will do the trick. This realization can be applied to many facets of everyday life: the project, a working process, even planning a break once in a while. With this addition to my toolbox, my own perspective has truly changed.

STEVEN HAGEN

MSc Architecture The Netherlands

The most fun part of this process was that every member had a contribution on a different moment of the process depending on its character. Everyone's qualities are used, for that I think we made a balanced project. I learned a lot from the group design process that made this Oerol project happen.

MAAIKE DE JONG

MSc Urbanism The Netherlands

What fascinates me in the last 2 months was the desire of people to be of value and to contribute to processes we as humans are in. 'The birds' in our Oerol project wanted to have a bigger effect on the landscape in order to save it from our materialistic way of cultivating the land. In the project group we all wanted to be of value for the project. We all wanted to support the construction of our own project and process; we all wanted to contribute to a valuable project. From the beginning on we were 'under construction'!

IHSAN KILIÇOĞLU

MSc Urbanism The Netherlands

This was the first time I experienced such an intensive teamwork during my studies, and it was a realy nice experience. What will remain in my memory are also the many positive reactions from the visitors. The interactions with locals was both educational and amusing, as their responses showed they were knowledgeable about the subject, while their arguments were sometimes very emotive. It shows our project reached it's goal of engaging the public in the debate on our agricultural heritage and the future landscape of the meadows in the Terschelling polder.

ANTONIA KOUKOUVELOU

MSc Landscape Architecture Greece

Oerol project was a nice experience for trying new things, investigating and meeting wonderful people. The bonding in our group and the cooperation with each other was excellent. We all improved and made a successful project that gave an impact on our personal everyday habits and choices. The reflections from the visitors and our tutors were remarkable and that made us proud of our work and effort. I would like to thank each one of the participants in this project for providing and succeeding such a nice project.

MILOU MEKEL

MSc Urbanism The Netherlands

Designing, creating and interactively presenting the Oerol exhibition was a very enjoyable experience. It was very interesting to see how the group developed over time and how the decisions were made regarding the project. Apart from observing and experiencing new things as to working with people in a large group, I learnt a lot about interacting with visitors. This project taught me how to make the visitors apprehend and realize the significance of knowledge they probably already know.

KIM SCHOTTING

MSc Urbanism The Netherlands

Looking back at the whole process of our group for this Oerol project. I can conclude that I am very proud on what we have reached with all of us. Working with a varied group has taught me a lot. Like to respect everyone's personality and find a place for everyone in the group that suits that person. That is what made us a strong group: lots of people with different strengths and interests. Being part of this project and with that the group enriched my way of thinking and way of working for future projects.

SHAN SHAO

MSc Landscape Architecture China

I learned “what team-work looks like”. As a small member in a 16 people team, at the beginning, I felt headaches when everyone was discussing. But within the project progress, I started to realize we had to go through this process. Maybe it will lead to a positive result or surprising ideas, and it did. During the on-site construction, I really enjoyed every day together with the other team members. Nothing felt hard under the cooperation, because everyone was enthusiastic. This was the most perfect team-work I have ever experienced. Everyone is a leader, leading each other and ourselves!

XIAOLU SUN

MSc Landscape Architecture China

Working in such an international team first gave me chances to learn many different ways of thinking in discussions. Then the most important lesson for me was that to increase the efficiency of working in a team, you need to do something “useless” like arranging schedules, or making scripts for plans, instead of just going for the design ideas with rough plans. Also, for practical projects, thinking the whole process through into details again and again really helps a lot.

OLINA TERZI

MSc Architecture Greece

Within a festival that celebrates “sense of place” we aimed to question the very nature of this place. Setting up an engaging participatory process we managed to manifest a social survey spatially. Our most important achievement, in my view, was raising awareness of the impact of collective choice and that of human intervention on what we come to call “nature”.

WENDEL DE WAAL

MSc Architecture The Netherlands

After completing this project I would like to reflect that Oerol gave me more empathy. During the Oerol project I learned to communicate with people from different backgrounds, from cowboys to birdwatchers, now I can understand them all. Well, without further withdrawal, being part of Oerol sense of place 2015, made sense to me.

IRIS VAN DER WAL

MSc Architecture The Netherlands

Making an installation and having visitors participating in the building process, is what I liked most about this project. The direct feedback - luckily predominantly positive - is normally not part of a project at our faculty, since we are usually working on models and drawings of the real object, not on the object itself. I also learnt a lot from the collaboration within our international and multidisciplinary group. In order to keep everyone satisfied, it takes a lot of time and concessions as well. Nevertheless we managed to make something that encompasses the ideas of many different students, but that looks and works as a unity at the same time.

BOYA ZHANG

MSc Landscape Architecture China

For me, Oerol is more than a design studio. Through intensive group work, I became more skilled in discussion. Through building, I knew there were always unexpected troubles during realization. However, I’ve also learned that where there is a trouble, there is a solution. Through experiencing the whole Oerol, I gained new insights about art. I really appreciate that I was able to join such a fantastic project and work with great people.

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IMAGES

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p.48-55 Images of birds taken from Polderpracht Terschelling, polderprachtterschelling.nl/weidevogels.

p.84-87 Pictures created with the use of U Face - Unique Face Maker.

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