PERIPHERAL POTENTIALS

DEFINING & LOCATING

1

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VOLUME 1

PERIPHERAL POTENTIALS
Defining and Locating

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ABSTRACT

Urbanization, effects of transportation network and globalization has led to a change in our landscape of unprecedented magnitude in the 20th and 21st century. The map of Denmark is changing rapidly and radically with the financial growth being focused around major Danish cities resulting in emigration from land to city. Peripheral Denmark has become synonym for the down-spiraling effect which outskirt areas in Denmark are going through. However, outskirt areas also possess unique qualities, such as vast landscapes, local communities and peripheral potentials which make land different from city. Ultimately Denmark is facing an enormous challenge concerning peripheral areas and their destiny. The arguments are many but the decisions are still to be made. Through analysis of numerous campaigns, strategies, empirical data, repports and subjective experiences the aim of Volume 1 is to locate a potential of peripheral Denmark.

Ultimately the goal of this master thesis is to shed light on peripheral Denmark and ignite a spark in a heated debate about the approval of 10 coastal projects, by creating an *'11th Coastal Project'*, which is our subjective suggestion of a design which enhances existing potentials to develop a specific peripheral area.

VOLUME 1

READING GUIDE

Volume 1 is divided into five main chapters: Motivation, Peripheral Denmark, The West Coast, Local Potentials and Critique. These chapters are key elements in the analytical and research-based foundation, which frames the themes in the thesis. Volume I aims to create a nuanced image of peripheral Denmark on both a national, regional and local scale in terms of nature, culture, problems and potentials. This image is created by studying and researching numerous statistics, surveys, politicies, strategies, campaigns and individual experiences.

Finally, chapter 5 concludes and reflects on the themes presented in earlier chapters before introducing Volume 2 which is a concrete and subjective suggestion on a strategical and architectural design.

Ill. 1

CHAPTER 1

MOTIVATION

The first chapter seeks to explain the motivation and discuss the subjects which created the foundation for writing this thesis. Furthermore the main themes are introduced and deliberated as an introduction to the following chapters. Finally, the methodology aims to explain the general process of the thesis from start to end.

THE GOAL

As a relatively new profession Urban Design lies in the cross field between architecture and city planning with elements of landscape architecture, urban sociology and city strategies. This rather complex field recognizes the need for an interdisciplinary interaction of the traditional professions in the search for answers to the continuous complex issues that the world faces due to urbanization (Urban Design Guide, 2011). Through a more holistic and practical approach, working in different scales, spanning across different professions urban design tries to respond to these large unresolved issues by combining the architects design competencies with engineering knowledge as well as insight to sociological conditions (Aalborg Universitet, 2016). Hence, urban design shall not hesitate in its ways of doing this - instead it should, when needed, be visionary, innovative and incite new ways of looking at the landscape and urban environments (Larice and Macdonald, 2007). Critics of urban design however believe it to be more of a vision than an actual profession arguing that urban design cannot stand on its own and thus escape its historical relation to architecture and planning (Cuthbert, 2007) .

As urban design students, the motivation going in to the thesis has therefore been to push ourselves within this cross field and showcase the need for urban design and its ways to identify and solve complex problems. The thesis is not limited by boundaries or scale. Instead it seeks to push and test these boundaries and thus it spans from a strategical national level all the way down to the details of architecture. The thesis seeks to demonstrate the theoretical, analytical and practical knowledge acquired throughout five years of education and should be a showcase of the skills and competencies that we as urban designers can offer.

THE 11. COASTAL PROJECT

III. 2

THE MATTER

In the fall of 2015 the Danish government granted exceptions to the planning law allowing projects to be built within the coastal protection zone which led to an interesting public debate with a lot of open questions about architecture in planning both in regards to nature and peripheral areas.

Since 1937 Denmark has had a tradition of keeping the country's coast free of buildings and open to the public in its original and natural state. Practically, the beach proximity zone spans 300 meters from the coast prohibiting any type of structure from being built. However, in 2014 the government agreed to grand selected municipalities and exemption from the law as part of a pilot scheme allowing 10 projects within the 300 meter zone to be established in order to boost coastal tourism and hereby create growth and development in parts of the country that are afflicted by vacating and lack of jobs. All coastal municipalities were invited to apply with projects that would give tourists *"a wider range of experiences by the coasts and nature in general"* (Evm, 2015). The projects were then selected by a group consisting of national ministries including representatives from Ministry of Business and Growth, Ministry of Environment, Ministry of City, Housing and Rural Districts as wells a the Ministry of Economy and Interior. The group evaluated the projects from the criteria that *"the projects will develop coastal and nature tourism, increase the number of foreign tourists, create establishments in coherence with existing tourist attractions and with architectural regards to the surrounding landscape"* (Mestertidende, 2015). The selected project's range from water parks and hotels to visitor's centers and accordingly to the government the projects require investments for 4 billion kroner (Mestertidende, 2015).

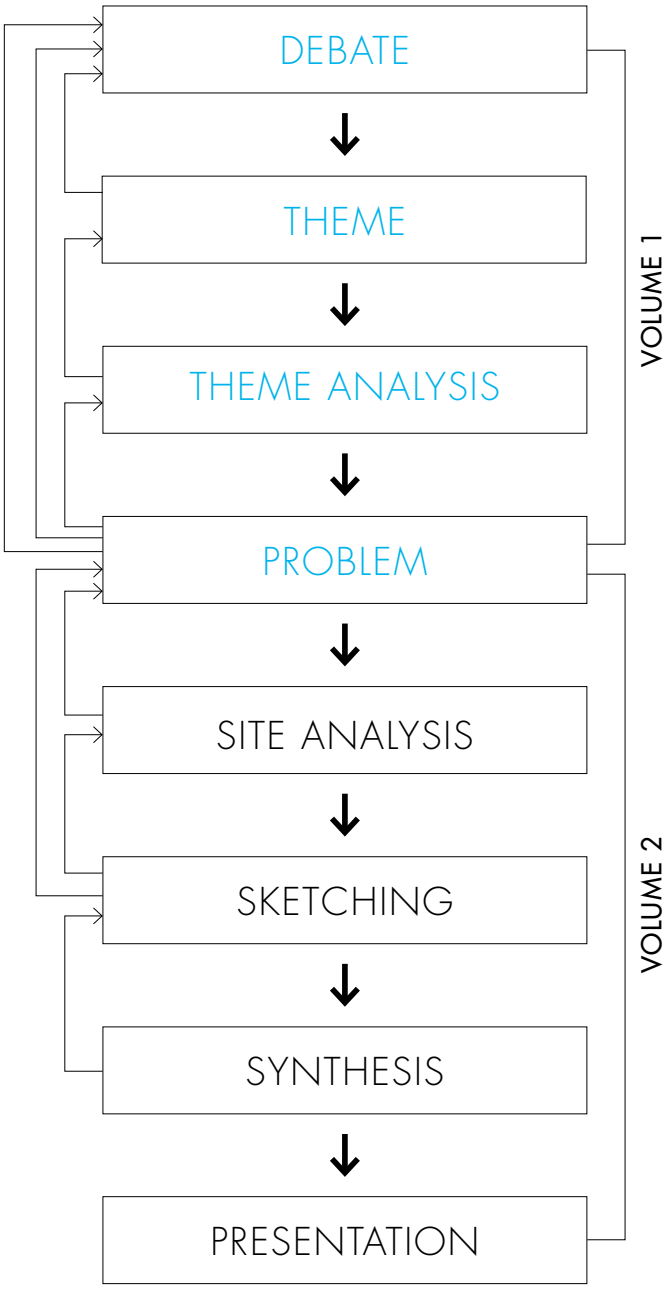
This sparked a debate with politicians on one side hoping to create growth in peripheral rural areas and critics on the other fearing that the law will become a slippery slope to more buildings along the coast ruining year's tradition of keeping the coast free. Interest groups such as The Danish Society for Nature Conservation and The Architects Union have expressed their worries that the pilot project can be *"the beginning of the end for Denmark's greatest tourist attraction"* (Danmarks Naturfredningsforening, 2015). They believe

that the politicians are blaming the tourist attraction itself, the coast, while instead they should work on trying to improve the already existing coastal towns and facilities that in many places are worn down (Politiken, 2016). Although several interest groups had strong opinions about the projects no state independent organizations were heard in the selection process (By og Land, 2015). However the local mayors of the selected municipalities as well as Danish Industry applauds the selected projects as something that will make the coast even more attractive for tourists and boost the economy in coastal municipalities – something they consider crucial in a time where people move away from peripheral areas (Information, 2015).

It is obvious that both sides of the argument believe that there is a lot at stake in the debate. Several interest groups are afraid that the exemption will lead to irreversible damage on the coastal landscape and politicians believe that if nothing is done to boost peripheral municipalities they will slowly die. In other words they are debating two complimentary sides of the same matter. The rational and quantifiable of the build environment on one side as opposed to the aesthetics of nature and the grown environment on the other. As brought forward by Stig L. Andersson we must instead embrace the concept of complementarity in all its form in order to create stronger and more complete architecture (Andersson, S. L., 2014). This leads to the question of what if we thought of a different way to develop site-specific tourist attractions rooted in local potentials designed with regards to the nature in its local context? What if these attractions from a rational perspective could blossom from existing local business' building on what already is rather than just employing workers at an isolated hotel? And what if these attractions from an aesthetic perspective invited people to experience the beautiful landscape found in peripheral Denmark through their senses? This thesis seeks to tap into the debate and create an 11th project - a project that is not bound by one opinion, but instead embraces both the rational and the aesthetic as complimentary elements.

THE METHOD

In order to investigate the subject and achieve the desired objectives we intend to work through the problem-based learning method taught at Aalborg University where problems are understood as the basis for learning which can be implemented in various ways (Knudstrup, 2005). As students of Architecture & Design we work through the integrated design process that consists of the following five phases: the problem phase, the analysis phase, the sketching phase, the synthesis phase and the presentation phase (Knudstrup, 2005). This model divides the design process into five phases and shows how these interact on various levels throughout the process. However, in this thesis we have taken the freedom to rearrange and add phases to make it suit this particular task as presented on ill. 3. While we may have initial questions and ideas of alternative ways to approach the dilemma, we must recognize that the debate was raised by external actors. Therefore we must understand the core of the debate from both sides and subsequently analyze relevant themes in connections hereof. This is done through thorough investigations of reports, statistics, surveys, policies, strategies and trips to peripheral areas to get a personal notion of the context of the debate. As a pilot project the process works as a funnel that narrows the issue from a national to a regional level to pursue a way of approaching the issue. This then leads to a concrete and site-specific potential that concludes Volume 1 and initiates Volume 2. The first one discussing how a national strategy can be narrowed down to a local municipal matter about utilizing a regions local potential. And the other being the answer to how a such potential can be unfolded on various scales. Hence the problem becomes the thesis backbone that connects the two reports.



Ill. 3: Thesis method developed from the original Integrated Design Process (Knudstrup, 2005)

THE THEORY

Urban Landscape

In a Danish context city and landscape used to be opposites separated by a clear border with dense urban area on one site and open agricultural landscape on the other. Urbanization, effects of transportation network and globalization has led to a change in our landscape of unprecedented magnitude in the 20th and 21st century. Both natural and cultural aspects of the landscape are currently receiving a lot of attention from researchers, planners and policy makers because of the general observation that *"the changes in landscapes become extremely devastating"* and that *"heritage values and resources become irreversibly lost"* (Antrop, 2004, pp. 9). But while the discussions about peripheral Denmark is relatively new this need to be understood in a bigger historic picture because it has evolved for hundreds of years.

The development of agriculture allowed humans to live in permanent settlements that created food surplus leading to the development of new labor and activities allowing specializations and stimulated trade (Pacione, 2000). Thus, humans gathered in larger settlements that were efficient structures to harbor a new form of living. So the cities did not just differ from the countryside in terms of population size but also in terms of the concentration of various activities, people and cultures in one place (Pacione, 2000). In the past cities were often walled off from the countryside but the development of new ideas and technologies were spread out to the trading world making accessibility and adequate specialization important factors of urban growth and decline (Antrop, 2004). However, the countryside was still the common up until the industrial revolution initiated what we call urbanization. In search of jobs and a better life people moved to the bigger cities and from the 1850's the development of new transportation forms increased people's ability to move around the country (Den Store Danske, 2016). Later, especially after World War II, cars increased mobility dramatically allowing cities to spread into suburbs that consequently changed the relations between the urban and the rural by blurring out its borders (Antrop, 2004). Hence, urbanization is to a large degree mobility based and If smaller villages in remote areas are not disclosed by roads these might be gradually abandoned as a result of not being located beneficially in relation to mobility (Vos and Klijn, 2000).

Before going into the discussion we must therefore be aware of the fact that the depopulation of rural is more than a Danish phenomenon. As of today 80% of people in northern Europe live in urban areas and that is expected to rise and stabilize around 90% (Habitat, 1996). Most of the thinking and planning about land use in peripheral rural areas is being done by people living in the city. Hence the rural countryside is being planned in the needs of the people living in urban areas rather than the 10-20% that actually lives there (Antrop, 2004). Research proves a general support to rural areas by the general public which should be a signal to local citizens, business' and politicians to cherish about the existing values because what happens in rural areas concerns all of Denmark (Realdania, 2012). Instead of redefining these areas to make them attractive we must try to understand and develop the rural areas with regards to its local resources hence making them unique to what is found in urban areas. The focus should not be on inventing new attractors but instead on enhancing the potentials of what already is by engaging with the people who live and work there already. Only then are we able to create communities and regions with local unique qualities that are attractive to live in. To the increasing amount of people living in the city nature has become a peaceful retreat that compensates from their urban reality (Braae, 2012). While an old village on top up of a hill in western Jutland might not have much in common with a bridge crossing Storebælt it is common for all the mentioned structures that they represent something very Danish and hence the landscape is part of what defines us as a country.

Nature vs Culture

Although parks of the renaissance, open green areas of modernism and the modern ideas of landscape urbanism has brought landscape into the city people living in urban areas still urge to protect the nature outside of the their city. However the blurred out border between rural and urban areas has led to a new and different understandings of nature. When discussing planning and environmental policy we must therefore be aware of all the different views and ideas of what defines nature (Fink, 2003). Hans Fink argues that we all look at nature differently through seven different conceptions:

The untouched
The wild
The rural
The green
The physical
The earthly
Everything

The six first conceptions looks at the manmade or something about the manmade as opposites of nature in different ways while the last looks as nature as being everything. These individual views clarify that there are many ways to define nature and that the individual's perception of nature often relates to his own experiences and lifestyle and thus cannot be defined objectively. The final conception suggests that nature is everything and in this sense nature is not a specific part of the planet that we must keep in its original state but everything surrounding us. Høyer argues that we should give up the old idea of the city and the open land and just call it *'the new nature'* (Høyer, 2003). He believes that the interventions in our landscape are so comprehensive that it is impossible to speak of originality because it no longer exists. Everywhere in our landscape communication lines, technical lines and buildings take up space and as it interacts with our landscape it shapes the *'new nature'*. As we do not all share the same conceptions about nature it is easy to understand that allowing buildings in otherwise protected areas cause strong and very different opinions from interest organizations, polticians and the general public.

Regardless of where we draw the line between culture and nature the great, vast and apparent untouched nature has from the beginning of the 20th century been giving aesthetic values that we all share. And while many people may argue that culture is supplanting nature culture is also what seems to be nature's rescue. Today we try to maintain nature's diversity by releasing animals in new areas, leaving more forests untouched or protecting landscape as national parks. Thus, humans rule the future of our landscape more than ever before. Some areas we leave to nature, others we use extensively for recreational purposes and some we use intensively for cultivation and buildings. But even the few areas with untouched nature are on our hands and have become culture products as we define their borders. They now serve as tourist attractions and excursion destinations which bring forth the difficult dilemma of how we make these areas accessible but yet still let them remain untouched (Stoltze, 2012). We do not have large and vast untouched areas as some of our neighboring countries and in a globalized world where culture and nature melts together it is important to identify the special and unique about a place. If not, architecture can often become an unsightly representative of culture in our landscape. Instead, the architecture should seek to *"...enhance a place's identity in a such ways that it creates order, legibility and poetry in relation to the small as well as the big scale"* (Braae, 2012, pp. 10).

Ill. 4

CHAPTER 2

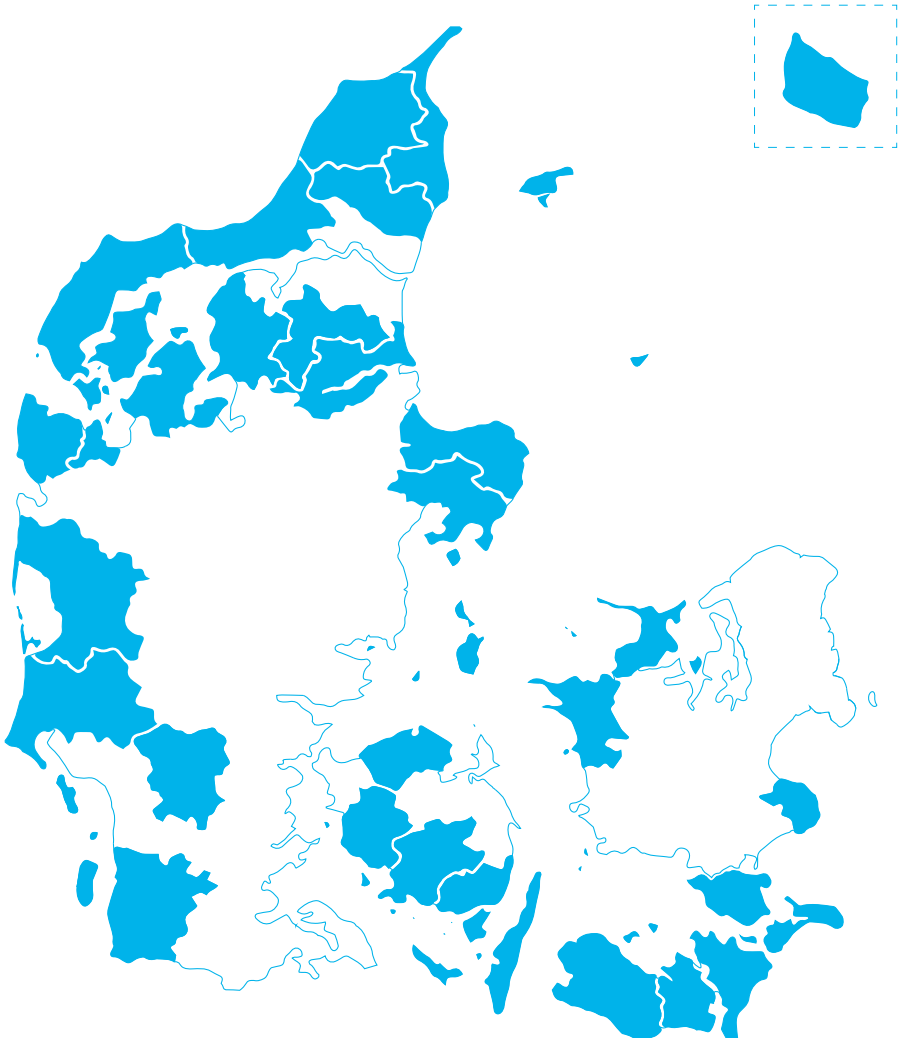
PERIPHERAL DENMARK

The following chapter aims to create a nuanced image of Peripheral Denmark on a national scale. Ultimately, the chapter frames peripheral Denmark in regards to tourism, strategies and campaigns which have been designed to emphasize the problems and potentials located in peripheral areas. Finally, a short conclusion summarizes the chapter's main points before continuing to chapter 2 The West Coast.

PERIPHERAL DENMARK

Ultimately, Denmark is facing an enormous challenge concerning peripheral areas and their destiny. The arguments are many but the decisions are still to be made. The map of Denmark is changing rapidly and radically. The financial growth is focused around major Danish cities where focus is on developing modern attractors such as urban areas, harbor baths and sustainable housing. Furthermore people are demanding a wide range of activities, social networks, cultural happenings, grocery stores and exclusive shops to satisfy the needs of their desired lifestyle (Realdania, 2007). This transformation and demand in combination with the majority of already existing jobs and new companies being located in and around metropolises results in the cities becoming magnets pulling people from land to city.

Peripheral Denmark has become synonym for the down-spiraling effect which outskirt areas in Denmark has been and still is going through. Peripheral areas are struggling to attract people - in fact most of these areas are experiencing a massive emigration from land to city. Empirical data reveals a change in education, age, income and location – all pointing towards a decline in most Danish peripheral areas (RealDania, 2012). However, outskirt areas also possess unique qualities which make land different from city, qualities which in centuries have been carefully taken care of by generations and still are a big part of what Danish culture and Denmark is.



Ill. 5: Peripheral Denmark defined by one or more of the below criteria (RealDania, 2011).

GEOGRAPHICAL DEFINITION

The 34 municipalities are defined by RealDania's demarcation as peripheral areas by full-filling one or more of the following three criteria (RealDania, 2011):

1. Areas outside Copenhagen and the Eastern Jutland, where 40% of the population lives outside larger cities and islands without a bridge connections.

2. Categorized as peripheral municipalities according to 14 geographical and socio-economic criteria such as urbanization, development in population and jobs etc.

3. Categorized as peripheral and transitional areas because of low business income and low population development, and therefore receiving financial support from EUs structural fund.

AN EMPIRICAL IMAGE OF PERIPHERAL DENMARK

These empirical data are based on analyzing quantitative material from questionnaires and surveys to create an objective image in numbers of the differences between land and city.

61

persons pr. km^2 in peripheral areas

A total of **5.700.000** people live in Denmark - **1.244.000** of them live in peripheral ares.

A **3.5%** population decrease is expected in peripheral areas during the next 13 years - corresponding to **43.000** people

A **10% decline** in people in the working age is expected during the 13 years - equal to **70.400** persons in peripheral areas

199

persons pr. km^2 in non-peripheral areas

There is **4.22 meter coast** pr. citizen in peripheral munipalities

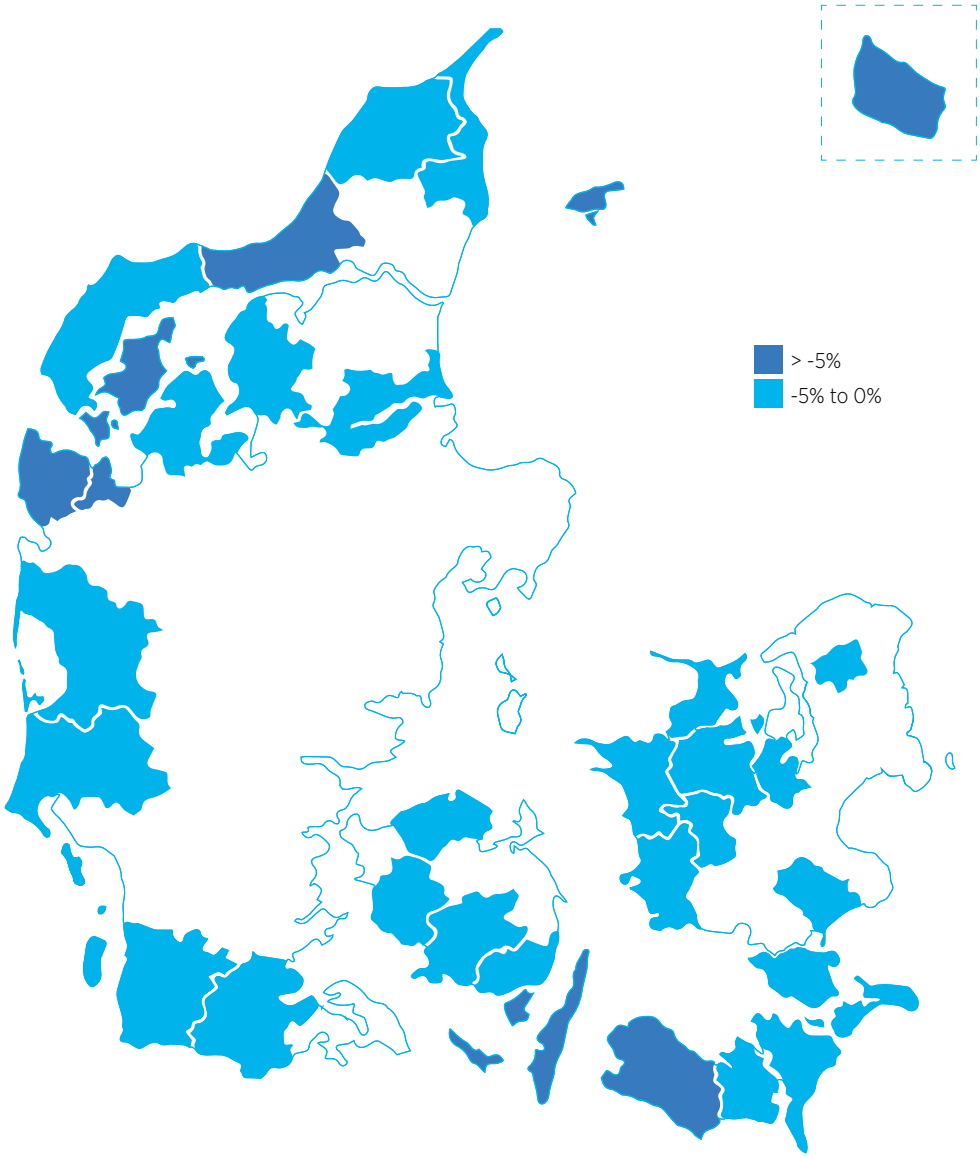
There is **0.79 meter coast** pr. citizen in non-peripheral munipalities

More than 20% of the Danish population live in peripheral areas because of its unique qualities. However, that number is decreasing rapidly and it is therefore essential to enhance and use existing potentials to turn a negative tendency to a positive development.

(Havelund, L. W. & Andersen, C., RealDania, 2012)

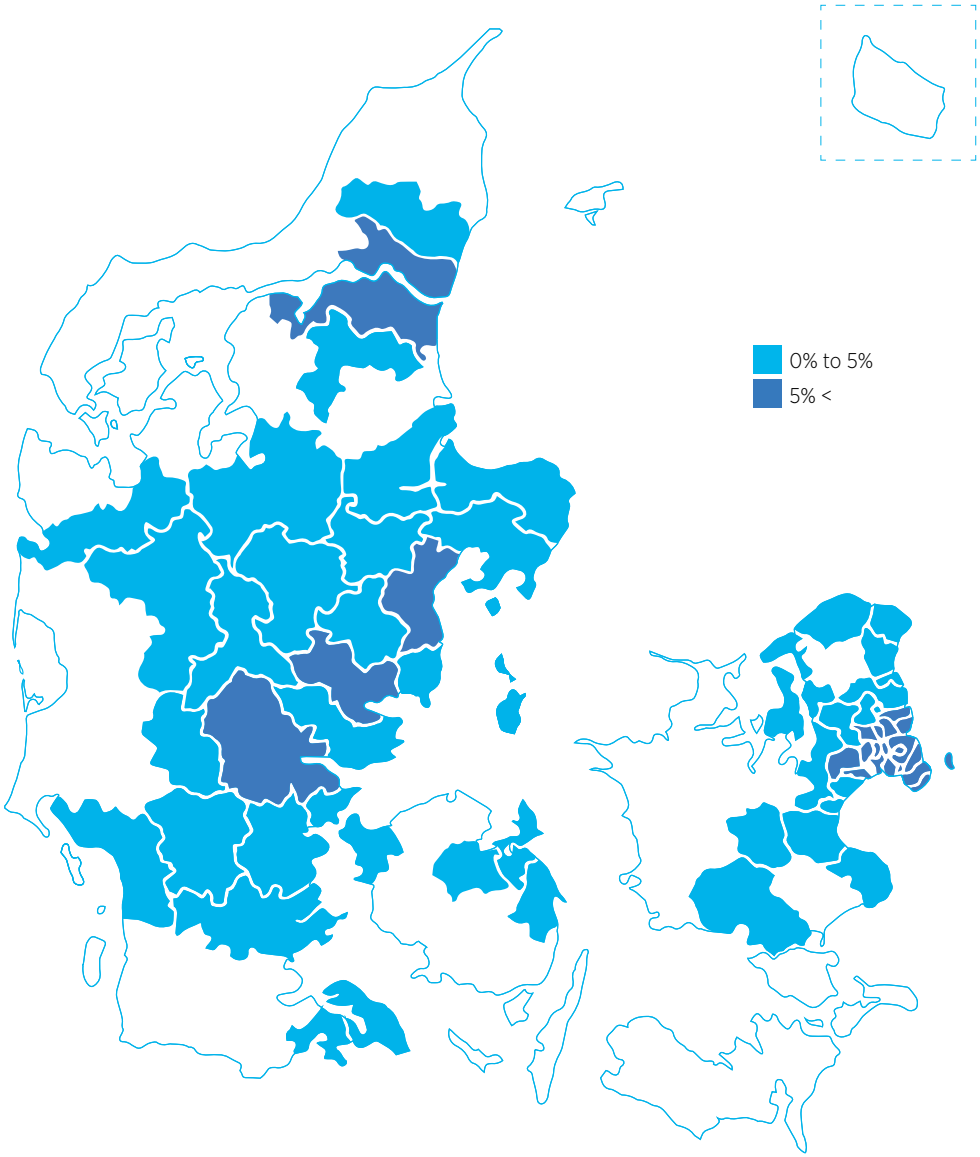
URBANIZATION FROM 2004 - 2014

The Danes are moving from land to city leaving the population of outskirt areas in a rapid decrease. The illustrations below show the relocation based on empirical data from 2004-2014.



Ill. 7: Danish areas experiencing a decrease in population (Realdania, 2014).

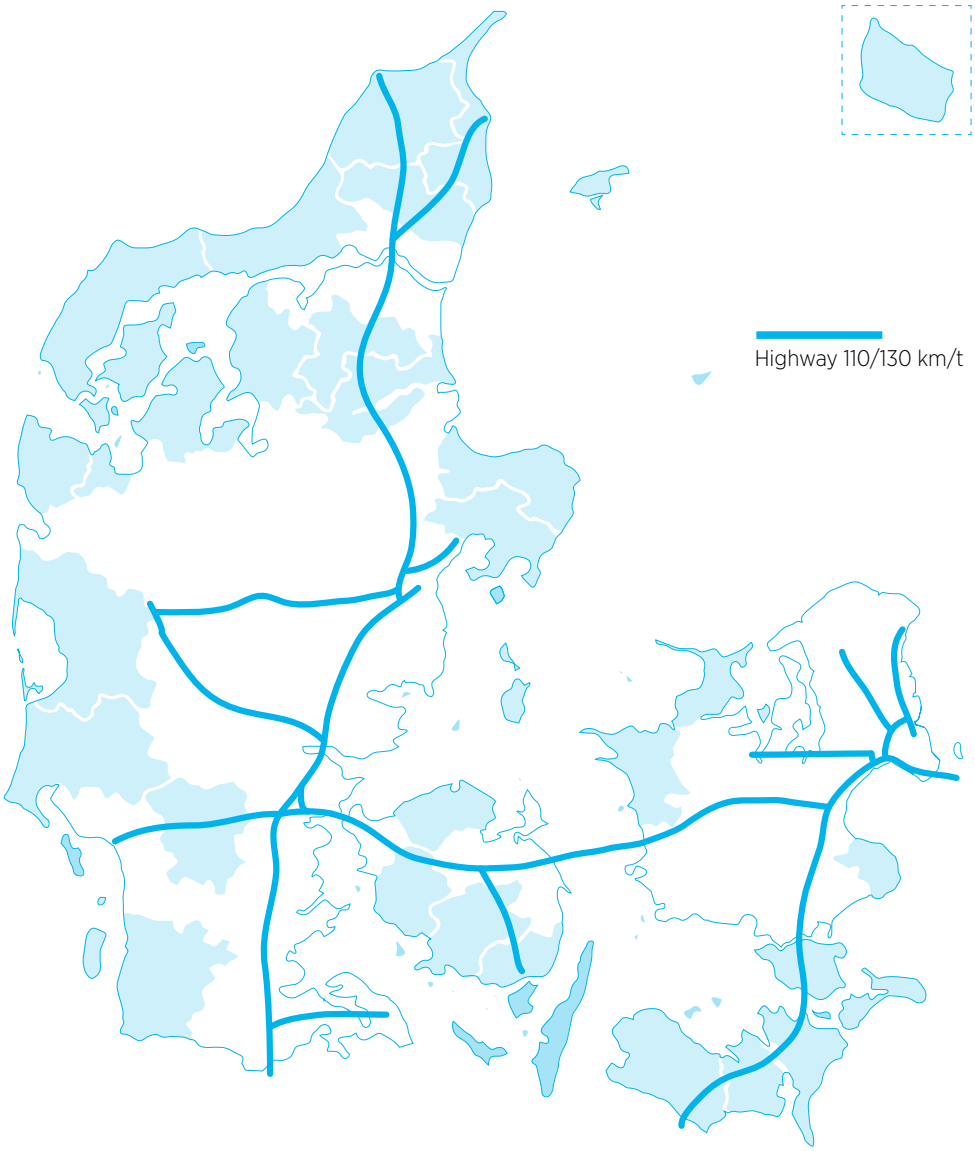
The major Danish cities are experiencing a great increase in population. Furthermore the smaller cities and areas surrounding these cities are increasing in population aswell.



Ill. 8: Danish areas experiencing an increase in population (Realdania, 2014).

MOBILITY

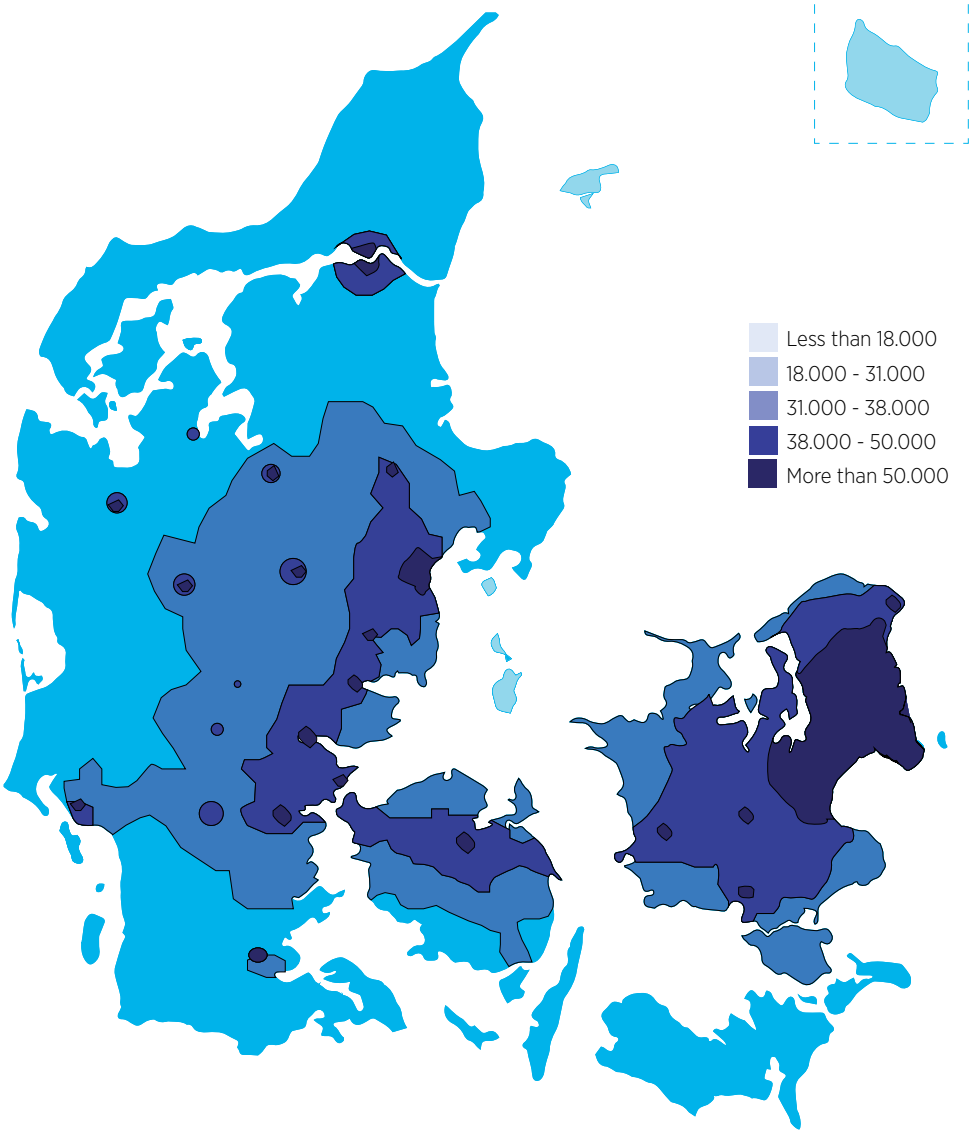
The Danish infrastructure has created an axis going from Copenhagen in the east to Hirtshals in the Northern part of Jutland. Accessibility and daily commute is a huge part of people's everyday life and is therefore an important factor for the growth around the Danish infrastructural highway network.



Ill. 9: The Danish highway infrastructure (Den Store Danske, 2015).

JOB DENSITY

As the previous illustrations showed the growth both financial and population wise is centered around the axis of the Danish infrastructure. The current job situation is no different where the majority of available Danish jobs are located in and around major cities or close to the infrastructural backbone.



Ill. 10: Job density (Byplan Lab, 2013).

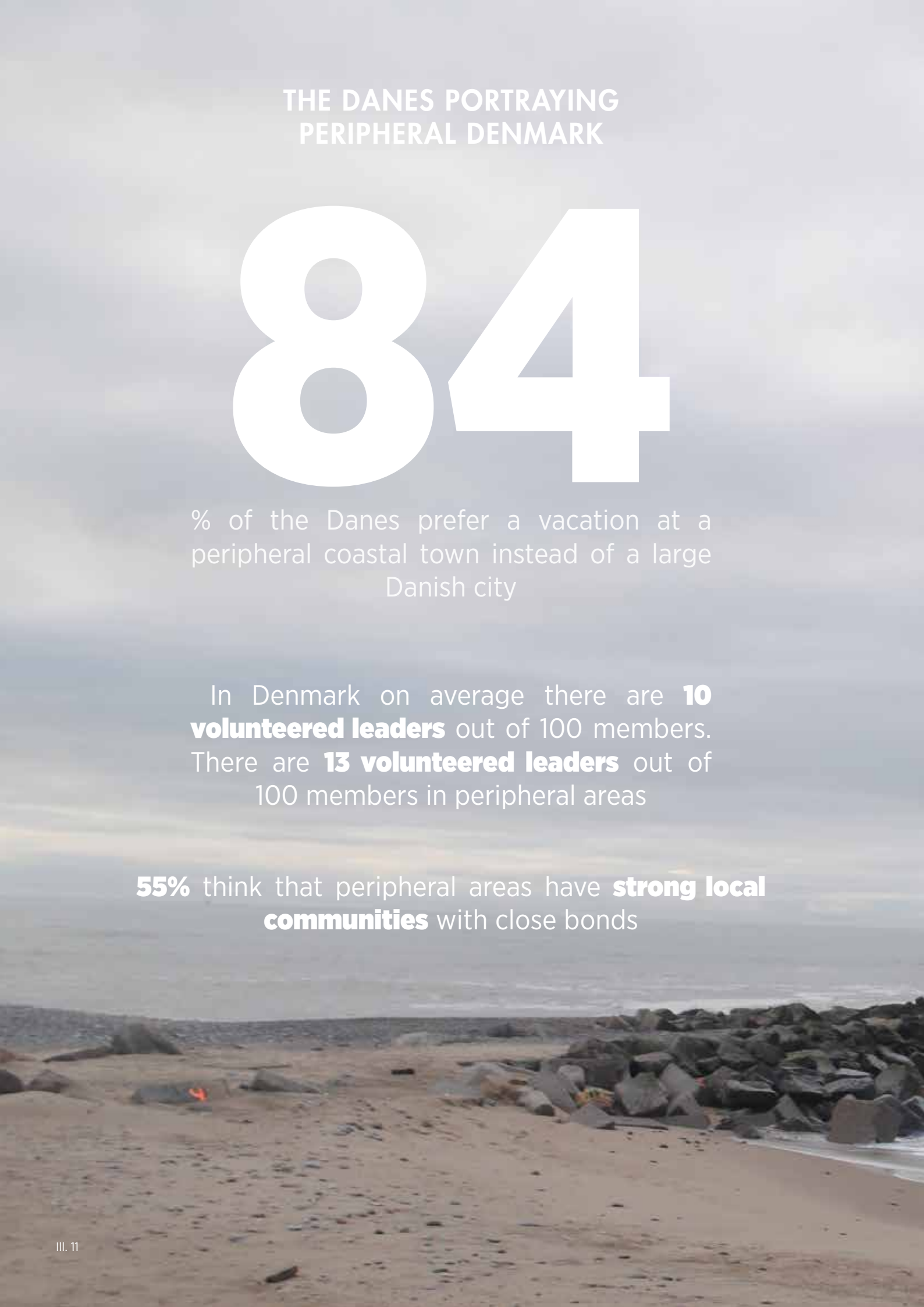
THE DANES PORTRAYING PERIPHERAL DENMARK

84

% of the Danes prefer a vacation at a peripheral coastal town instead of a large Danish city

In Denmark on average there are **10 volunteered leaders** out of 100 members. There are **13 volunteered leaders** out of 100 members in peripheral areas

55% think that peripheral areas have **strong local communities** with close bonds



87% see the unique coasts **as a great characteristic** of outskirt areas

72% of the Danes have had a minimum of one trip to peripheral areas during the past 12 months

A bit more than half of the Danes, 52%, think there is a **lack of activities using local potentials**

The Danes have very positive thoughts of peripheral areas. Furthermore they actively use and even prefer a coastal vacation over a city holiday if vacating in Denmark. Maintaing and strengthening local potentials and qualities is essential in order to maintain the differences between land and city.

(Havelund, L. W. & Andersen, C., RealDania, 2012)

TOURISM

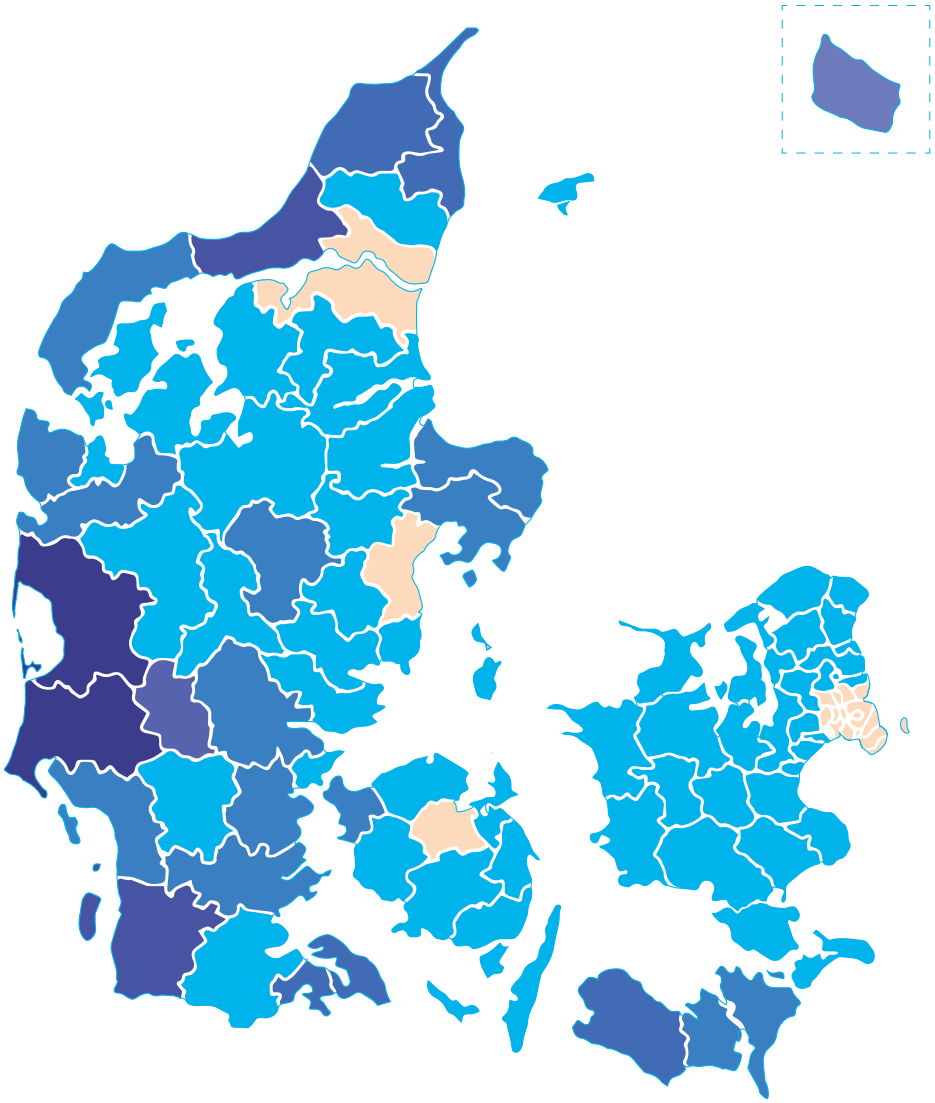
Tourism is a key factor when discussing peripheral Denmark due to its huge influence on the economics and everyday life of local communities based in outskirt areas. Several of these communities are built around tourism and they need tourism in order to survive. It is therefore essential to maintain the tourist's interest, attract new and seek to fulfill their demands (Østergaard, M., Z., 2015).
However, tourism is relatively seasonal and can result in communities hibernating in the off-seasons. It is therefore essential not to develop a city exclusively on tourism but also maintaining a high quality of life for the people living in the area permanently. Tourists carefully pick their destination from a number of factors which they personally find necessary to get the vacation they are looking for whether it is camping, holiday resorts or in luxury apartments (VisitDenmark, 2014). This means that peripheral cities or communities have to brand themselves on unique local qualities and potentials while simultaneously trying to offer the same activities as the competing cities.

The illustration on the right shows which areas have the highest number of overnighting tourists, spending at least one night in Denmark in 2013. As the illustration clearly indicates the vast majority of the tourists spending their holiday in Denmark is hosted by only a few municipalities. This is supported by several analyses done the Center for Coastal Tourism, which specifies that more than half of the 45 million total tourist overnights in Denmark is hosted by just 12 municipalities. This is primarily because of the many vacation houses that are rented to tourists through the various holidays, which create a densification of tourism in certain coastal areas in Denmark (Videnscenter for Kystturisme, 2012).
However, reports show that there is a significant difference between the municipalities which mostly host overnighting tourists, and the municipalities mainly hosting short time experiences (Videnscenter for Kystturisme, 2012). This tendency is additionally supported by questionnaires done by Visit Denmark that reveals a great demand of short time experiences, as many tourists seek to jump from activity to activity rather than spending several days at the same place (VisitDenmark, 2014). Furthermore the report from the Center for Coastal Tourism shows that by developing the combination between holiday, professions and city life contains great potential in order to create coherency between short time experience tourists and overnighting tourists (Videnscenter for Kystturisme, 2012).

In order to show the importance of tourism in Denmark, numerous statistics, questionnaires, surveys and reports have been analyzed and interpreted into numbers framing tourism in Denmark.

TOURISTS IN DENMARK 2013

Excluding the four largest Danish cities peripheral areas are hosting the majority of tourists staying for at least one night in Denmark. Tourists become a part of the everyday life during holiday seasons and the financial importance of tourism is indisputable.



Ill. 12: Tourists spending atleast one night in Denmark in 2013 (VisitDenmark, 2014).

THE INFLUENCE OF TOURISM IN DENMARK

These analysis have been done by researching surveys and questionnaires to create an image of the importance of tourism in Denmark on both a national and regional scale.

78% of tourists highlight the **nature and coast** as the main reason for chosing Denmark as holiday destination in 2014

120.000

jobs created by tourism in Denmark 2015

In 2010 tourism made 1,6% of the total outcome in Denmark. In the peripheral areas tourism made **2,5% of the total outcome**

72% of tourists are very satisfied with their holiday in coastal areas of Denmark

54% of tourists are very satisfied with their stay in Aalborg, Odense, Århus or Copenhagen

In 2014 tourism created a yearly turnover of approximately **82 billion kroner**

International tourists are more satisfied with their stay in peripheral areas compared to a city vacation, where one of the primary reasons to this is the unique nature in peripheral Denmark. Maintaining the interest of tourists is essential in order to keep peripheral areas alive, but it is crucial to keep the tourist's reasoning in mind when developing tourist attractions in peripheral Denmark.

(Vækstplan for dansk turisme, Regeringen, 2014)
(Turisternes tilfredshed med Danmark, VisitDenmark, 2015)

PAST, PRESENT AND FUTURE

In the past decades there have been various strategies and campaigns on a local, regional and national scale to slow down, prevent or turnaround the worrying tendencies in peripheral Denmark concerning emigration, development and negative growth. Strategies and campaigns initiated by small villages, local communities, municipalities or the Danish government have been done to save and prolong the existence of peripheral areas.

Numerous acts have been done trying to create a new and positive identity to outskirt rural areas: *'Vandkants Danmark', 'Forkants Danmark'* and *'Mulighedernes Danmark'* are some of the suggestions. However Peripheral Denmark and *'The Rotten Banana'* as a national media named it, have stuck and are still used whenever referring to the subject (Yderdanmark, 2012).

RealDania has in the past years taken action with numerous initiatives to shed light on the problems in peripheral areas and furthermore take these problems and deal with those using existing potentials to develop local communities, regional strategies and policies. Two of those strategies are *'Mulighedernes Land'* and *'Stedet Tæller'* which will be analyzed to understand the agenda and the goal with the initiatives from RealDania.

2016 The growth plan which approved 10 coastal projects in 2015 suggests 15 new coastal projects which however are rejected immediately.

2015 New growth plan 'Growth and Development in Denmark' which focus on on peripheral areas with more than 100 initiatives is published.
10 coastal projects are accepted by the Government and Naturstyrelsen.

2014 Various public and private competitions are held to find a new name to replace 'Udkantsdanmark' which has become synonym for decline.

2012 RealDania creates 'Stedet Tæller', which acts as a foundation for several other RealDania strategies to use local potentials to create growth.
Carsten Hansen introduces 'Forkantsdanmark' and 'Vandkantsdanmark'.

2011 Ministry for Rural Districts is organized and Carsten Hansen is elected.
'The Differentiated Planning Law' is designed to secure future possibilities of peripheral areas.
'Energy Strategy 2050' is created to develop a green and sustainable Denmark.

2010 'The Rural District Program' is invented.
150 million danish kroners are given to renovation of projects in peripheral areas.
The 'Peripheral Denmark' debate heats up with various articles such as 'Danmark Knækker' and 'Udkantsdanmark dør',

2007 Danish Government creates the new 'Landdistrict Program'.
The phenomenon 'The Rotten Banana' is born in a newspaper and describes the negative trends in peripheral areas.
'Mulighedernes Land' is a nation wide campaign lauched by RealDania

2006 OECD (Organization for Economic Co-operation and Development) launches 'The New Rural Paradigm: Policies and Governance'.
A new strategy for equal development of land and city is created named 'Det Nye Danmarkskort'.

2001 'Center for Research and Development in Rural areas' is created.

1999 The 'Coastal Protection Line' is expanded from 100 meters to 300 meters.

1937 The 'Coastal Protection Line' is created which prevents anything from being built from the water edge and 100 meters into land.

(Mulighedernes Land, pp. 17-20, RealDania, 2012)

REALDANIA

RealDania is a non-profitable enterprise but commonly known as a fund which was created in 2000. In 2006 the fund changed name to RealDania and created their slogan *"create life quality for everyone through the built environment"* and was at the end of 2012 involved in 628 ongoing projects in Denmark (Den Store Danske, 2016).
In 2007 RealDania started the campaign *'Mulighedernes Land'* which agenda was to collaborate with municipalities to design strategies that could show new ways of developing peripheral Denmark. It was never the primary focus of the campaign to create financial growth, but instead the emphasis was on keeping and enhancing existing potentials to strengthen the frames of boosting the local communities.
'Stedet Tæller' is a different campaign initiated by RealDania and derives from the previous campaign *'Mulighedernes Land'*, which found great value in using existing potentials in combination with strategical development to increase the life quality in peripheral areas (RealDania, 2012). *'Stedet Tæller'* does not have one certain definition of site-specific potentials as anything from unique nature, cultural heritage to local social networks and craftsmanship can be considered a potential. Whatever the potential might be they all need a strategy, an innovative idea and a committed local community to enhance the potentials to create sustainable development in peripheral areas (RealDania, 2012). Ultimately peripheral Denmark cannot be seen as one coherent area but consists of numerous unique areas which require different strategies and campaigns. The campaign is centered on four general themes which create the foundation of the campaign to present problems and potentials of a given theme in order to create awareness about the diverse potentials which peripheral areas possess:

1. The Coasts:
Denmark is one of the countries in Europe which has the most coast per citizen (Stedet Tæller, 2012). Furthermore numerous parts of the coast have been preserved in its unique and natural state. Surveys and questionnaires done by RealDania shows the coast is the biggest potential in peripheral areas according to Danes and tourists (Stedet Tæller, 2012). Campaigns and analysis demonstrates many hidden potentials in developing strategies and projects to mediate the coast using existing potentials.

2. The Nature:
The nature is an unlimited resource of unique and scenic views, experiences, interactions and activities. There are numerous potentials to be explored and enhanced in the nature such as sports, vast landscapes, huge cornfields, quietness, plant and animal life. Hidden potentials which if handled delicately and carefully can be made visible and available for human interaction to strengthen or create new connections between man and nature.

3. Local Commitment:
Local communities and associations is a strong quality in peripheral areas according to the Danes. The commitment and engagement in projects and strategies speeds up the process while also being a signal of will and effort to make things happen. Furthermore peripheral communities are known for the opportunity to pursue social ideas and dreams on a local scale.

4. Cultural Heritage:
A great potential lies within the local urban environment and its historical buildings such as the empty, unused agricultural and industrial buildings. These buildings can be the framework for new stories while simultaneously being an element telling the story of a community. While acting as a framework re-using the buildings will also be an indicator of a sustainable development strategy (Stedet Tæller, 2012).

The themes create the foundation of the campaign to present problems and potentials of a given theme in order to create awareness of the diverse potentials which peripheral areas possess. Ultimately peripheral Denmark cannot be seen as one coherent but consists of numerous unique areas which require different strategies and campaigns.

The main conclusion from the campaigns is primarily that it is possible to create positive development in local communities using nothing but existing potentials. Furthermore the campaigns show the most effect of projects where it has been possible to create several new initiatives which collaborate with regional strategies (Mulighedernes Land, 2012).

III. 14

CHAPTER REMARKS

As the analysis in the previous chapter revealed, the peripheral areas are scattered all over Denmark – each area with different problems and potentials but facing equal destiny according to empirical research: a down-spiraling effect resulting in emigration and the end of several local communities (Realdania, 2012). Furthermore the highway infrastructural network has created an axis connecting the major Danish cities creating financial, work-related and population growth around it. However the lack of accessibility to the peripheral areas is becoming a huge factor where people living in outskirt areas have to add hours of commute to their everyday routines as their jobs and activities are being moved to the cities.

Tourism in peripheral areas often ends up being a double edged sword. On one hand it is one of the main reasons many local communities in outskirt areas still exists because of the jobs created by tourism and the money which follows (Videnscenter for Kystturisme, 2014). But on the other hand tourism is also the reason that some cities are being developed with a narrow-minded idea of becoming a tourist-magnets ignoring context, regional strategies and common interests. If cities become epi-tourist-centers they risk losing what made tourists vacate there in the first place - their unique qualities and potentials such as the coasts, untouched nature and local craftsmanship. Qualities which were once a trademark now ends up in the shadows of common tourist attractions such as aqua parks or hundreds of holiday resorts which are offered numerous places in peripheral Denmark.

Many strategies and campaigns have been initiated to save peripheral areas. Some campaigns with the goal to develop and enhance existing potentials to increase life quality in local communities while other campaigns initiate strategies on a regional or national scale to increase both financial growth and tourism in certain peripheral areas. Resident or tourist, local or national strategy, radical changes have to be done sooner than later in order to keep the unique peripheral areas alive.

III. 15

CHAPTER 3

THE WEST COAST

The following chapter aims to localize and discuss problems and potentials of the west coast in Denmark. Taking departure in various visits to the west coast, the chapter combines subjective experiences and knowledge from previous analysis to locate, explore and explain the various cultures, nature, problems and potentials. Finally, a conclusion sums up the chapter narrowing the scope of the thesis to a specific region.

PERIPHERAL STORIES

Jobs, activities and emigration are centered on accessibility and the opportunity of getting from A to B with as little effort and time spent as possible. The fate is no different on the west coast of Denmark where the lack of accessibility is a major problem and the distance between cities and activities feels bigger than the actual physical distance because of speed regularities. A distance so big that many peripheral areas risk being developed from a desk in an office located in a major city – far away from the actual problematics.

However, even though the accessibility and infrastructural network is not as efficient as it is in and around the major cities in Denmark, there are numerous latent potentials and qualities in peripheral areas on the west coast. Unique potentials and qualities which are best experienced when being in them, feeling the elements on the body itself.
Therefore, in order to experience the coastal potentials and infrastructural problems several trips by car. Taking departure in these visits to the west coast of Jutland the following pages aim to stage, locate and discuss the problems, potentials, cultural heritage and local communities which are found on the Danish west coast. As the majority of the images are from the trips to the coast, the following discussion takes point of departure in our subjective experience of the west coast.

Ill. 16

HANSTHOLM III. 17

FJALTRING III. 18

VIGSØ III. 19

THORUP STRAND III. 20

SLETTE STRAND

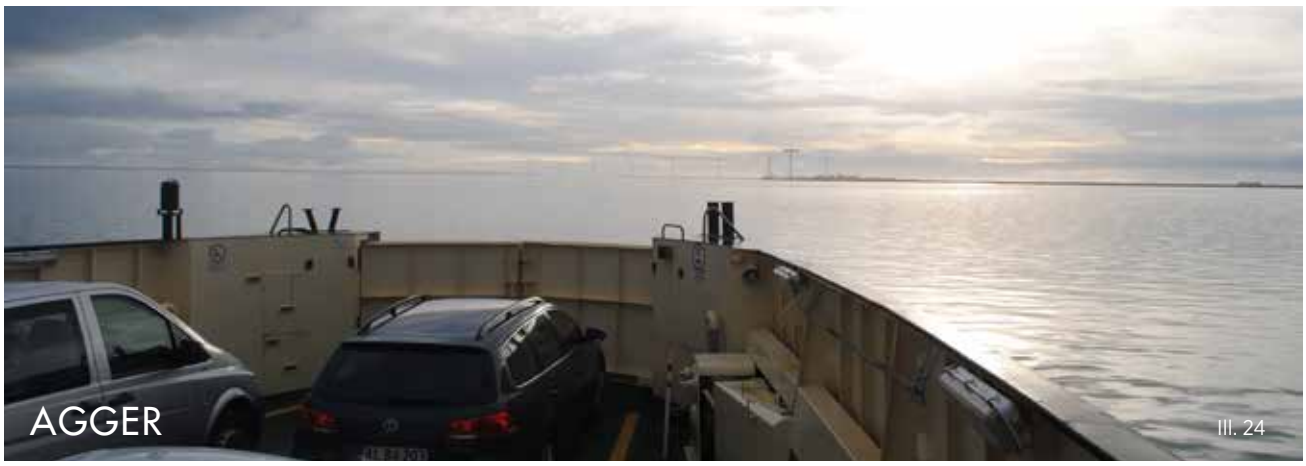
III. 21

BOVBJERG FYR

III. 22

VIGSØ

III. 23



AGGER

III. 24

FJERRITSLEV

III. 25

LØKKEN

III. 26

BULBJERG

Ill. 27

NATIONALPARK THY

Ill. 28

HENNE STRAND

Ill. 29

Ill. 30

LOCAL ATMOSPHERES

Travelling on the west coast from Blokhus to Esjberg spans out to be more than 400 kilometers. The visits revealed a great insight in the great variety of communities, nature and activities. One of the biggest cultural differences is the influence of tourism. The southern parts are mostly holiday resorts and private summer housing, whereas the middle part surrounded by Limfjorden consists of many small communities and local businesses centered on local industries such as fishing. The northern part is mostly known for seasonal peaks in Skagen, Løkken and Blokhus with tourist attractions such as *'Grenen'* and *'Råbjerg Mile'*.

Travelling on the coast becomes a story telling the unique stories of peripheral areas. Abandoned industrial and private buildings rises repeatedly in the vast landscapes acting as constant reminders of the local communities' history but also a representation of the present problems. As the images show there are numerous different atmospheres, communities, nature typologies and other unique stories waiting to be told at the Danish west coast. Fishermen working on the coast become living lexicons telling stories which cannot be read in books or repports. The coastal nature stages years of history through landscapes which all have unique atmospheres. Bovbjerg Fyr, originally built to help boats and ships navigate, has now become an elegant architectural installation connecting land and sea. All stories are experienced differently depending on the user.

What all areas on the coast have in common is a coherent need of strategical development of existing potentials. However, developing the local communities with a regional strategy that creates coherency across municipality borders has great value in order to improve the cooperation and future development between peripheral areas. The existing potentials and local communities have to be treated individually with the utter most respect and detail to maintain the uniqueness and tell the stories of the peripheral areas.

Ill. 31

CHAPTER 4

LOCAL POTENTIALS

This chapter seeks to investigate green energy as a potential to develop an 11th project in the Thy area on various levels. First, by examining existing strategies on both a national and regional level to get an understanding of the political willingness to develop the sector within ambitious timeframes. Secondly, the chapter investigates the technology that creates sustainable energy to get an idea of how these are placed in landscape and the impact they have on it before concluding on how green energy is seen, developed and rooted in the region.

THE CORNER OF JUTLAND

Previous empirical and theoretical research revealed that the western area of Jutland is an area with the fewest tourist of all peripheral areas on the west coast. The corner is relatively isolated from any larger Danish cities, having a two hour drive to Aalborg and two and a half hours to Århus. The lack of infrastructural connections and the absence of varied cultural and physical activities could be one of the bigger reasons for the fewer tourists and the decline in population. Despite the infrastructural challenges and the smaller range of activities the area possesses numerous qualities and potentials such as Nationalpark Thy, a tradition bound local fishing industry and the number one sustainable municipality in Denmark being able to facilitate itself 100% if all energy produced was to be used in the municipality itself (Thisted Kommune, 2014).

As sustainability is such an important element in the area's past, present and future a great potential is seen in combining existing national and regional strategies with communicating sustainable ressources and sustainability itself.

Ill. 32: The corner of Jutland

It is essential in this thesis to not only develop local potentials individually but also connect the potentials with both regional and national strategies to develop coherent municipality strategies instead of having each municipality only taking care of its own best interests.

GREEN ENERGY

In 2011 the Danish government released the ambitious plan *"Energy Strategy 2050"* which strives to make Denmark independent of fossil fuels by 2050 - the first of its kind in the world (Energirapport 2050, Regeringen). The strategy seeks to create growth and strengthen Denmark's position in the growing global market for sustainable energy solutions. The government wishes to make Denmark an attractive place for research, development, demonstration and test of energy technology both for Danish and foreign companies. It is not the goal just to create self-sufficient energy and transport systems, but instead Denmark should look to other European countries and export knowledge and products and hence create jobs in the sector (Energirapport 2050, Regeringen).

The municipality of Thisted is very aware of this and brands itself as being *"Denmark's leading climate municipality"* (Thisted Kommune, 2016). 20 years of experience with sustainable energy has given the municipality a head start and currently sustainable energy sources make up the municipality's entire energy use and 85% of its heat production saving the municipality 90.000 tons of CO2 a year (Dansk Arkitektur Center, 2016). Thisted's vision is not only to become completely CO2-neutral for the sake of the environment. They also believe that it can lead to jobs within the energy sector as well as earning international recognition that can help the area grow. In order to achieve these goals the municipality launched an ambitious strategy in 2014 to make the municipality free of fossil fuels by 2025. The strategy works through three principles.
First, it is important thatthe climate debate is not narrowed down to technical issues. Instead the municipality believes that all citizens and sectors of the society can contribute to optimize the resource consumption to improve the environment (Thisted Kommune, 2016). Secondly, the municipality emphasizes the willingness to put action behind their words so the strategy does not end as yet another *"binder full of hot air"* (Thisted Kommune, 2014). Finally, they want to create synergy between local businesses, knowledge- and educational institutions, citizens etc. for the purpose of supporting local society development towards a greener future. (Thisted Kommune, 2014). In order to achieve their goals the municipalities wish to work with 7 ambitious focus areas:

1. Green buildings – good and energy efficient buildings

2. Smart Energy Systems – energy supply structures

3. Green business adaption - competitiveness now and tomorrow

4. Mobility – Sustainable transportation

5. Green municipality – planning and tools

6. Resources and waste – materials for the future

7. The green Thy – communication and anchoring

The ambitious focus areas are all parts of a large scale coherent strategy that seeks to maintain the municipality of Thisted as the leading green region.

ENERGY IN THE LANDSCAPE

The previous text introduced strategies which focuses on a sustainable development in Denmark on both a national and regional scale. The following presents four of the main sustainable energy resources which have great potential in the region of Thisted. The texts briefly describe the technical aspects of the source while discussing the potential and how they are placed in the landscape.

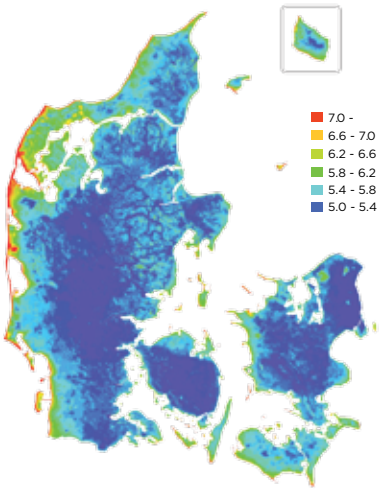
SUN

In order to use the light rays from the sun they need to be converted to a different kind of energy through either solar collectors or cells. Solar collectors that produce thermal energy are the most common in Denmark and often seen on roofs where they generate heat locally to the building they are placed on. As of today there is no real big solarplants in Denmark but as they technology evolves these can be expected in the future. As the sun shines during the day solar panels are suited for workplaces as they only produce energy while the sun is up (Greenmatch, 2016). A general obstacle for sun energy in Denmark is that we do not have the optimal climatic conditions and thus sun energy only contributes with a relatively small amount of Denmark's total green energy production (Greenmatch, 2016).

WIND

No country in the world has more energy generated by windmills than Denmark (Danmarks Tekniske Universitet, 2016). Today, 20% of the country's energy is generated by more than 5000 mills nationwide but it is the ambition to raise that share to 50% by 2020 (Danmarks Tekniske Universitet, 2016). As windmills are not allowed within 4 times their heights distance from dwellings because of their size and noise they are often seen in groups, often referred to as parks, in the countryside. The location away from buildings is also favorable from a technical perspective as buildings or irregularities in the landscape slows down the wind and drags energy out. Hence windmills are best placed on either the water or close to the coast (Byplan Lab, 2013). In Denmark the wind mostly blows from the west or southwest which makes the west coast and especially Thy suitable for windmills (Byplan Lab, 2013). The illustration below shows the best areas in Denmark to place windmills.

As a direct result of the Energirapport 2050 The National Testcenter for Windmills was established in Østerild in Thy. The location was selected from different technical criteria's regardless of the demonstrations against the project due to its placement in the middle of a plantation (Information, 2015). The government went on with the project and today Østerild is considered a success and even a permanent tourist attraction as people flock to the center to get a glimpse of the big mills.



Ill. 33: Areas in Denmark with the highest wind in 25 meters height (Byplan Lab, 2013).

Ill. 34

Ill. 35

Ill. 36

THERMAL- AND BIO ENERGY

Thermal energy is produced by pumping up warm water from the subsoil which is then used to heat up the district heating water at a plant before sending the cooled water back in the underground. Geothermal plants are expensive to establish but cheap in operation afterwards which means that there currently are only three plants in Denmark (Geotermi, 2016). The first plant dates back to 1988 and is located by the Thisted municipality's only Combined Heat and Power plant (CHP) just outside Thisted (Klimadebat, 2016).

Biomass includes all kinds of organic material that is made by plants photosynthesis including crops, residue from farming, products from forestry and bio degradable waste. These are used as fuel at CHP's where they generate electricity and thermal energy. This means that biomass does not need new facilities as it is being processed at CHP's that already exists and currently burns fossil fuels. Currently biomass makes up almost half of Denmark's green energy but since it is residue from farming and land management it is not sustainable to cultivate crops solely for energy purposes (Danmarks Naturfredningsforening, 2016).

Biogas is produced on the basis of organic residue from farming or industry and is expected to make up 5% of Denmarks total energy consumption if fully developed (Danmarks Naturfredningsforening, 2016). The gas is used to produce energy while the residue is used as fertilizer. Most biogas in Denmark is produced by pumping the organic waste into large oxygen tanks from where it deduces gas that can be used as fuel in a gas generator that produces electricity and district heat (Byplan Lab, 2013). Because of the smell and noise biogas plants needs to be placed away from households. However, they still need to be in close relation to good infrastructure near suppliers and finally they can be difficult to place in the landscape because of their size (Erhvervsstyrelsen, 2016).

Ill. 37

WAVE

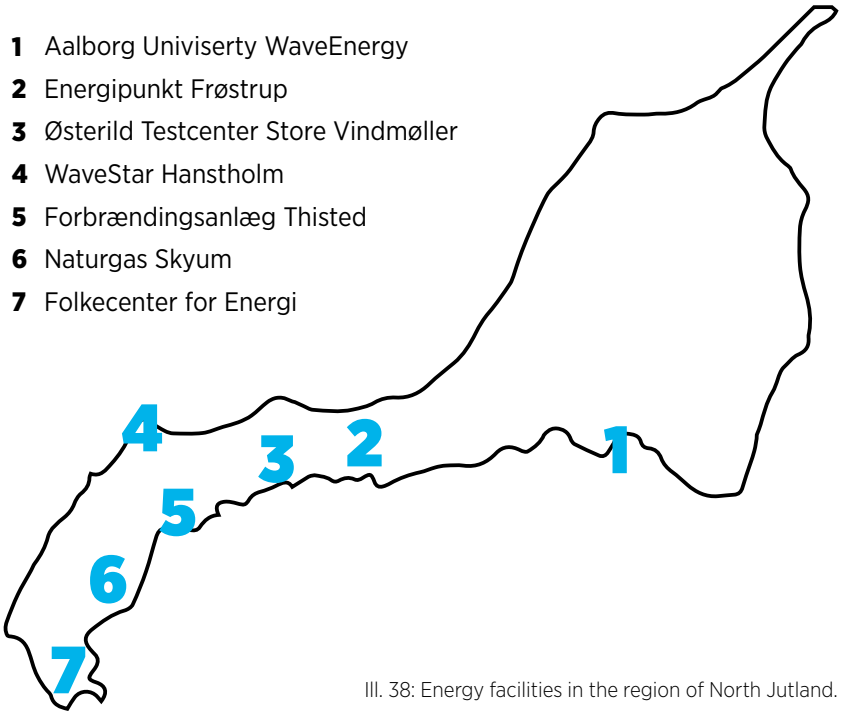
While other energy sources have come a long way research is still being put into new technologies. One of the most prominent is wave energy that is produced by a so-called wave machine that drags energy out of the waves. There is still a few issues with this relatively new technology but if research finds the answers to these obstacles experts estimate that 15 % of Denmarks's current energy could be generated by waves in the future. They also argue that the wave energy industry potentially can grow as big as the wind energy industry and create new jobs if Denmark is willing to invest in it (Byplan Lab, 2013).

In 2010 a knowledge and test center for wave energy was established by the Port of Hanstholm, Municipality of Thisted, Aalborg University, Business Forum of Thy and Region of Nordjylland. The Danish Wave Energy Center, is placed east of Hansholm for very specific reasons as it has better wave conditions and deeper water than any harbor in Denmark as well as being relatively close to Aalborg University who does a lot of research within the field (DANWEC, 2016). The private company Wave Star Energy currently has a full functioning wave machine in scale 1:2 and later this year they plan to launch their first full scale machine in France. (Wave Star Energy, 2016).

CONTEXTUAL RESOURCES

As mentioned in the earlier pages describing the various energy resources there are several, existing facilities in the region which focuses on sustainability. These facilities span from developing the techniques of producing energy to communicating a certain energy resource such as the WaveStar in Hanstholm which works with wave energy. These facilities are scattered all over the region having no actual connection to each other. The illustration below shows the surrounding facilities which have a connection to sustainable energy.

1 Aalborg Univiserty WaveEnergy
2 Energipunkt Frøstrup
3 Østerild Testcenter Store Vindmøller
4 WaveStar Hanstholm
5 Forbrændingsanlæg Thisted
6 Naturgas Skyum
7 Folkecenter for Energi



Ill. 38: Energy facilities in the region of North Jutland.

Not all facilities are open to the public and those who are require guided tours or pre-scheduled arrangements. Furthermore the majority of the facilities are exclusively focused on developing and researching the area which they have specialized in, and are therefore not emphasizing communicating results and research to educational purposes.

CHAPTER REMARKS

A national strategy states *"that the conversion to green energy does not undermine nature and environmental values. This means that infrastructure should be planned with regards to nature and Danish people's possibility to enjoy it"* (Energi Strategi 2050, Regeringen). But while structures such as windmills, biogas plants and wave machines may be placed away from protected nature and dwellings they are still visible throughout Thy's cultivated landscape where they act as physical reflections of the area's determination to become free of fossil fuels. While we through agriculture have made use of nature for centuries these structures represent a new kind of cultivation in our landscape where they have been placed for functional reasons. On a big scale they may remind us of global climate changes but on a smaller scale they represent a country and a region that is not subdued by the fact that they globally may be a small player. Instead sustainable energy is deeply rooted in the Thy area where the will to develop and research new technologies is immense. The municipality of Thisted is a frontrunner within the field when it comes to their energy consumption but also in terms of research and test facilities. Communicating their green profile to both the people living in the area and the surrounding world is considered key to make full use of the potential that can help the region grow.

Ill. 39

CHAPTER 5

CRITIQUE

The final chapter of Volume 1 aims to conclude on both theoretical and empirical analytical material. Furthermore it discusses and reflects upon the themes, problems, potentials and newfound knowledge which was presented in Volume 1. Finally, Volume 2 is introduced based on the themes, knowledge and potential from Volume 1.

CONCLUSION

The motivation for going in to this thesis and the interest for the debate regarding the 10 coastal projects, initiated a thorough analysis on different scales necessary to comprehend the core of the debate and the complexity of the issues that peripheral areas are facing. The debate created the foundation for this thesis but in order to fulfill the wish to bring something new to the debate it was important to detach from it, and instead understand the issues of peripheral Denmark from a broader perspective. First, by enlightening the issues through a theoretical and historical scope proving that urbanization has slowly unfolded throughout time and rapidly since the industrial revolution. It is something that is seen on an even bigger scale in developing countries across the globe but in a Danish context it has blurred the border between country and city. Thus giving us different understanding of nature making the discussion about coastal projects difficult. While it might be for different reasons it is clear that there is a shared concern about the future planning of our peripheral areas. A concern that does not accept urbanization and the impact that is has on our landscape and economy in peripheral areas as the inescapable future. People cherish about peripheral areas because we in Denmark care about each other and our landscape. And the peripheral coastal areas is indeed part of what defines us as a small nation of islands. However, we must come to terms with the reality that urbanizations have brought. Highways and knowledge centers in the bigger city has clustered jobs and growth to certain parts of the country. We must therefore pursue to evolve peripheral regions with regards to its natural conditions and the things that make it unique. Specific conditions that set the scene for the life of the people who live there and makes tourist visit although infrastructural conditions might not encourage it. This being specific logistics that make millions of starlings gather in beautiful formations in national park Vadehavet. Specific wind conditions that makes people paraglide from Bovbjerg or surf in Klitmøller. Or specific ocean conditions that makes the harbor of Hanstholm a central hub for industrial fishing. Thus the natural environment to a large degree creates the recreational and economic foundation for the people who lives there life's in coastal areas. Therefore we believe that coastal projects should be more ambitious than hotel rooms with ocean views or water parks for the benefit of a private investor and a relatively small group of

employees. This will only make municipalities compete for the same jobs and customers, instead the focus should be put into anchoring tourist destinations in local potentials that relates to the natural conditions and the people who live there. Thus instead of reinventing destinations solely for the purpose of tourists, the effort should be put into enhancing existing potentials and the livelihood of locals. And hereby distinguish regions and destinations from one another and make the projects catalyst for local businesses as well.

In the region of Thy local determination and beneficial natural conditions have made the area known as a frontrunner in the adaption to sustainable energy which is a sector that contains a lot of jobs and potential growth. The municipality of Thisted currently has some of the leading test facilities because of the beneficial wind and wave conditions found in the region. As of today the municipality is almost self-sufficient when it comes to energy. Energy which is produced by biogas plants, solar panels and windmills. Large structures that as a result hereof have become a part of the landscape found outside the regions protected nature. They have been placed for rational reasons but at the same time have become backdrops of our landscape as they are often placed away from public infrastructure on open fields or in the ocean. They are something that we only see in the distance justified by the needs for green energy. A need that in the future will continue to have an impact on our landscape.

But what if we activated these structures and developed an 11th coastal project that is more than just a tourist attraction? What if we developed a concept - an idea - that combines the rational and quantifiable of build energy structures with the aesthetics of the grown environment found in the Thy area? Thus a concept that does not separate the two as opposites but embraces them as complementary's that enhances each other and allow people to experience the landscape and sustainable energy structures in a new and sensory way? Hence establishing facilities for the need of the industry to grow and communicating green energy to the vast public inspiring them to live greener while at the same time experiencing the diversity of nature found in the region.

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ILLUSTRATIONS

Ill. 1:	https://realdania.dk/~/media/realdaniadk/filantropiske%20programmer/samlet%20projektliste/stedet%20t%C3%A6ller/l%C3%B8kken%20l%C3%A6mole/loekken-laemole-mette%20johnsen.jpg?mw=4000
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Ill. 4, 6, 11, 13, 15-19, 21, 22, 24-29, 31, 34, 39:	Own image
Ill. 14:	http://multimedia.pol.dk/archive/00855/RB_PLUS__Turister_s_855697a.jpg (kids at beach)
Ill. 20:	https://inspirock.s3.amazonaws.com/ds10/photos/Denmark/f/vig-so-bugt-feriecenter--418398841.jpg
Ill. 23:	http://fiskeritidende.dk/wp-content/uploads/2014/08/Thorup-strand-arkiv-kopi-620x330.jpg
Ill. 30:	http://www.sarahgreen.dk/wp-content/uploads/2015/08/the-road-to-agger-tange.jpg
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Ill. 37:	http://green.thisted.dk/wp-content/uploads/2013/03/DanWECheader.jpg

PERIPHERAL POTENTIALS

THE 11. COASTAL PROJECT

2

JEPPE KROGSTRUP JENSEN
VILLADS HANNIBAL HØJBERG

WHAT IF

III. 1


III. 2


III. 3


III. 4

COULD ALSO BE


Ill. 5


Ill. 2


Ill. 3


Ill. 4

VOLUME 2

PERIPHERAL POTENTIALS
The 11th Coastal Project

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ABSTRACT

As Volume 1 revealed peripheral areas are very delicate and must be treated with the most respect and carefulness when being developed, and a unique site therefore requires unique interpretation in order to create a unique design. This resulted in a project that communicates sustainability through nature to create synergy between rational and aesthetics – a project that emphasizes and stages context, environments, atmospheres, spatial expressions and interaction between human and nature.

Ultimately the goal of this master thesis is to shed light on peripheral Denmark and ignite a spark in a heated debate by designing a suggestion for an *11th Coastal Project* that interprets the critique from the 10 coastal projects and rethinks the idea of building at the Danish coast. Our coastal project does not seek to solve all peripheral problems, but rather become a subjective suggestion of a project, which emphasizes the possibilities of developing peripheral potentials into a specific design that can foster regional strategies without compromising the coastal culture and identity.

VOLUME 2

READING GUIDE

Volume 1 revealed a great potential in sustainability in the Western part of Jutland. This potential created the foundation for the design that is presented and discussed in Volume 2 through the following six chapters: Placement, The 11th Coastal Project, House of Energy, A Sensual Journey, Green Roads and Critique. The purpose of the initial two chapters is to present and analyze the site and the overall concept of the thesis. Hereafter follows three presentational chapters that present the building, the path and the regional strategy through different graphical material.

The final chapter briefly summarizes the themes from Volume 1 before concluding and reflecting on the material presented in Volume 2. Additionally this chapter reflects upon the relation between the final design and the initial debate of the 10 coastal projects presented in Volume 1.

SUMMARIZING VOLUME 1

Volume I started off by presenting the motivation for writing this thesis that ultimately proposes an alternative 11th coastal project. In order to do so volume 1 tries to comprehend the issues regarding peripheral Denmark from a broader perspective before proposing anchoring the development of future tourist attractions to existing growth potentials. Instead of creating jobs through tourist attractions it suggest letting tourist attractions grow from potentials already found in peripheral areas. As an example of a potential Volume 1 identifies sustainable energy in Thy-region as a such. As a region that through own eyes also contains an already unfolded potential, its nature. As Denmark's first national park and various other nature attractions it already draws tourist. However the parts of the landscape that is not protected by law is defined by sustainable energy structures. Hence we see a great potential in culminating the potential of sustainable energy in coherence with the nature. In order to unfold that Volume 2 first investigates the relation between the build and the grown environment and how these affect each other. Subsequently it suggest a site that allows the desired interaction between different landscapes and the various landscape before a final is concepted is presented in different scales.

THE METHOD

As the methodology in Volume 1 explained the Integrated Design Process taught at Aalborg University has been the foundation in this thesis both concerning analyzing and designing (Knudstrup, 2005). Where the method in Volume 1 focused on the initial steps of the master thesis framing the themes and locating local potentials, the methodology of Volume 2 was developed to understand, interpret, explore and develop site specific potentials and context into a concrete design.

The original Integrated Design Process starts with a general problem which in this case was presented and analyzed in the first volume, however it was necessary to analyze and interpret this general problem further in order to understand the problem in a local context. Due to the several visits to the site in the initial analysis phase it was a challenge to analyze the context objectively as the mind had already started the design process. Because of this existing knowledge the local analysis became an extended sketching phase where certain ideas revealed problems or potentials. Due to the complexity of the problem and the context it was necessary to constantly change between media and methods in order to achieve a coherent design which could be successful on both local and regional scale. As the design became more concrete small adjustments to one part of the design had influence on other parts, also referred to as the synthesis phase in the Integrated Design Process. During this face the detailing of the design was developed where relation to context, spatial expressions and materiality were key aspects of the process. Additionally to presentation material the final phase was used to optimize the design as minor problems or potentials occurred throughout this phase. Things which might not have been detailed fully or completely finished could be developed through the phase of creating the final material.

As described in Volume 1 urban design floats in between scales and professions creating coherency between detail and strategy. Throughout the design process it has been important to understand the various scales of the project spanning from regional strategy to design. It was therefore essential to present and discuss the final design in relation to the initial debate of the 10 coastal projects which has been the backbone of this master thesis.

AESTHETICS IN THE LANDSCAPE

Sven-Ingvar Andersson argues that we believe that buildings are beautifully placed in the landscape when we understand their relation. When we find that pre-industrialized structures such as churches, lighthouses and mills are beautifully placed in the landscape It is because we understand what we see (Andersson, S.I., 2002). While these buildings are very different from one another they are all easy recognizable structures placed in the landscape for functional reasons as a result of the landscape itself. This relation is enriching because the landscape and context combined with the building's function determines and justifies its placement from where it makes use of nature in the most efficient way (Lund, 2012). Although we might have a romantic idea about such buildings it is not because of nostalgia that we find them beautiful in the landscape (Andersson, S.I., 2002). They are placed for rational reasons but the power of aesthetics can only be achieved in combination with nature, the grown environment (Andersson, S.L., 2014).

By aesthetics Stig L. Andersson means the entire sensory apparatus of humans: *"All our senses and all our feelings; that what makes us feel, sense, wonder, discover, think, and reflect imagine and lead us towards new recognitions and new dialogues with each other"* (Andersson, S.L, 2014, pp. 9.). A large rational structure as a windmill on an open field in the windblown parts of western Jutland can have a certain aesthetic quality to it. That is not because the structure itself is beautiful but because we experience its relation to nature out in the open where we feel the wind blowing our hair, we smell a blossomed field of rapes and perhaps we reflect upon the need for sustainable energy resources.

Furthermore Sven-Ingvar Andersson talks about scenic significance as places where the landscape invites something to be build. Much like buildings functional location is explainable the landscape aesthetic placement must strive to be comprehensible. In order to do so S.I. Andersson argues that a building must have a precise relation to the landscape:

In the middle of
On top of
In the middle
At the edge of
In front of
Inside
In a recess

While there might be other variations they do not have the same clear impact as the one mentioned above. S.I. Andersson argues that whether or not a building lies beautifully in the landscape is a subjective matter. However, *"pre-Columbian temples, Italian villas, Norwegian stave churches and Japanese teahouses seem to be built from the same syntax"* (Andersson, S.I. 2002, pp. 10). We, as humans always seek the most comfortable position which counts for buildings as well because we identify ourselves with architecture in the landscape and places it in a wider context. This is why a building not only *"lies beautifully in the landscape but also can rest at the edge of the woods or rise from the seashore"* (Andersson, S.I. 2002, pp. 16). The build environment must therefore be understood in relation to its complementarity the grown environment. S.L. Andersson argues that they are both equally important because *"only by conjoining the two complementary elements, the built and the grown, can we achieve the full understanding of architecture and it's potential to create a better world"* (Andersson, S.L., 2014, pp. 17)

Theories can be used as a guiding principle but one must be aware that a manual to placing something in the landscape does not exist. In the hands of a poor architect the principles mentioned earlier could leave to a disaster. In the context of the landscape the architect cannot only rely on his conception of quality because the unique most be treated uniquely (Braae, 2012). *"In the worst cases the object domesticizes its context and is in the way of the landscape and ruins its unique qualities"* (Braae, 2012, p. 11). Instead it should enhance the special character of a place without becoming the center of attention.

> *"A concrete interpretation of a place's context must be what secures the necessary relation to the space that secures that anything is not placed anywhere. „*
>
> (Høyer, 2003, pp. 43).

Ill. 9

CHAPTER 1

PLACEMENT

The first chapter seeks to investigate the characteristics of the region before more importantly identifying a specific site that does not interefere with the national park or other existing landscape attractions and contains the desired potentials and location needed to develop the desired project. The initial sections describes the site and the reasons why it suits over project before creating and objective description identifying the context of the site. Hereafter the context is interpreted through own images and subjective experiences to present the atmospheres found at the site.

THE REGION OF THY

With water on both sides Thy's is historically very much defined by its close relation to the ocean. Coastal and fjord fishing has been the livelihood for lots of people through generations and continue to be so with the people working in relation to the harbor of Hanstholm that also hosts ferries. Another industry that thrives on the landscape is tourism as people visit the region to witness its unique and diverse landscape. The northern part is marked by flat coastal plains and dune plantations. The eastern stretch along the Limfjord has a quite fertile soil and with hills, villages, farms and open fields it looks like most of rural Denmark. Here the trees separating the open fields that characteristically bends towards the east as a result of the area's strong western winds. The winds impact in the landscape is also seen in the amount of windmills placed in the cultivated landscape. The west coast of the region is defined by its wide beaches and high dunes that protect a large vast heath with a unique and diverse flora and most of the west coast is today protected as national park (Den Store Danske, 2016). In Denmark the coast is protected by a 300 meter zone which does not allow buildings close to the coast however architectural structues are still visible along the coast. Lighthouses and bunkers are placed and some almost swallowed by the landscape leaving them as interesting structures in the otherwise vast coastal landscapes. While the national park protects the landscape beyond the 300 metres in the west holiday homes and hotels are found further in the country in the northern parts.


N
BULBJERG
HANSTHOLM
WAVESTAR
VIGSØ
SITE
FRØSTRUP
JORDVARME
FRØSTRUP
ØSTERILD
TESTCENTER
KLITMØLLER
FORBRÆNDINGSANLÆG
THISTED
NATIONALPARK THY
NATURGAS
SKYUM
FOLKECENTER
SDR. YDBYR
10 KM

III. 10

THE SITE

In order to find a site with a landscape that holds the potential to stage sustainable energy and vice versa three parameters were set up. First and foremost the site needed to be in close relation to sustainable energy facilities in order to stage these. Secondly, the site should preferable contain diverse nature representing the various landscape found in the region. However, it was important not to pick a site in the national park or in places where it may interfere with other already developed attractions. Finally it was important to find a location in relation to the water as this to a large degree is what defines the region and because it with its waves and strong winds today makes the region beneficial to wind and wave energy. Through thorough research and visits to the region the location was narrowed down to an area a few kilometers east of the village of Vigsø.

The sites is situated in close relation to farms that sends their waste products to biogas plants, only a few kilometers from the national windmill test center Østerild and relatively close to Hanstholm that is home to wave energy test facilities. It also has a very unique diversity in its landscape. Within a radius of only a few kilometres the area contains both beach, sand dune, dune plantations, heath and agriculture which as mentioned above is what defines the landscape of the entire region. As of today the areas has riding paths running through the landscape as well as a bike path running nearby that follows the entire west coast. There are a few preservations in the area which are advocated by The Danish Society for Nature Conservation to protect plant and animal life in the area through different regulations. The 300 meter coastal protection line serves to prevent anything being built within a 300 meter line from sea into land. Furthermore there are various regional restrictions and preservations which are to protect certain plants or animals which only reside in the region.

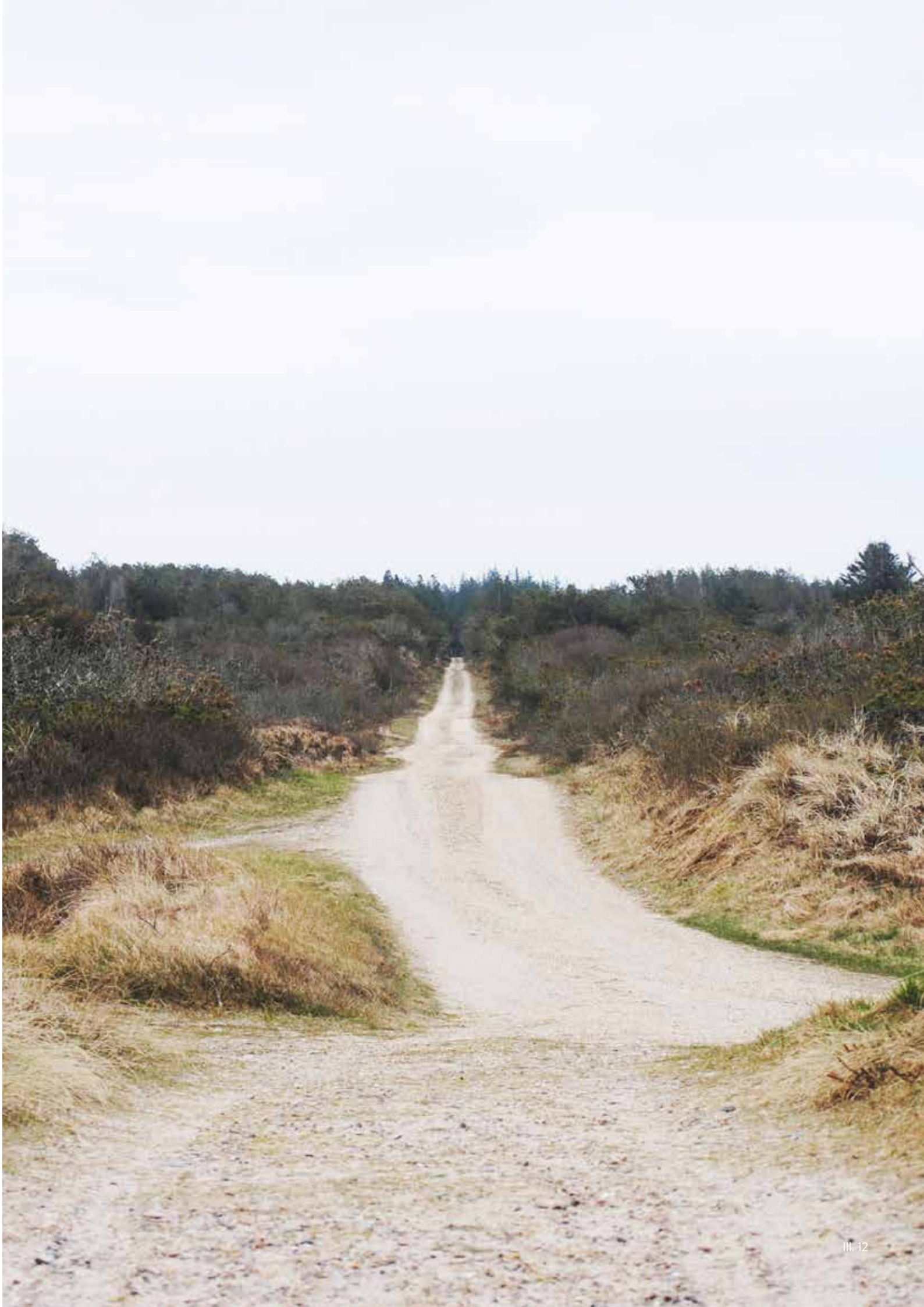

COASTAL PROTECTION ZONE
CONSERVATION AREA

ATMOSPHERES

The building site is located a few kilometers from the main road going parallel with the coast. The road goes through a classic Danish rural area consisting of small forests and fields before taking a turn onto a narrow winding road leading into a low and dense forest. Upon arrival to the parking spot at the end of the road is clear that the areas consists of various landscapes with different atmospheres activating different senses.

The heath brings forth the idea of being in untouched nature which is rare in Denmark. The vast hilly landscape invites to be udforsket with its low vegetation allowing one to move freely in the topography. On the contrary the dense forest of the dune plantation gives a different atmosphere. The dense trees does not allow long sightlines does not allow long sightlines and the tree tops create a roof that only allows sunlight through its leaves. The agricultural fields on the other hand allows long sightlines and open sky with caddles grassing. The sight and smell of animals are indicators of humans cultural impact on the landscape when seen in contrast from the heath. The dunes of the resembles the heath with its low but different vegetation and the dunes act as a wall the invites to run to the top of to get a glimpse of ocean. Finally the wide beach allows one to see to the horizon and se the curvature of the bay as well of smelling the salt water .

Altogether the various nature typologies create unique pockets with its own characteristic and sensitive and intimate atmospheres.



Ill. 12

Ill. 13

Ill. 14

Ill. 15

Ill. 16

Ill. 17

Ill. 18

Ill. 19

CHAPTER 2

THE 11. COASTAL PROJECT

The following chapter aims to explain the main design concept of the thesis which was founded on the potentials from Volume 1 and the previous chapter. The chapter explains the general concept, the user groups and the different scales of the concept.

WHAT IF

Ill. 20


Ill. 21


Ill. 22


Ill. 23

COULD ALSO BE

Ill. 24

Ill. 25

Ill. 26

Ill. 27

THE CONCEPT

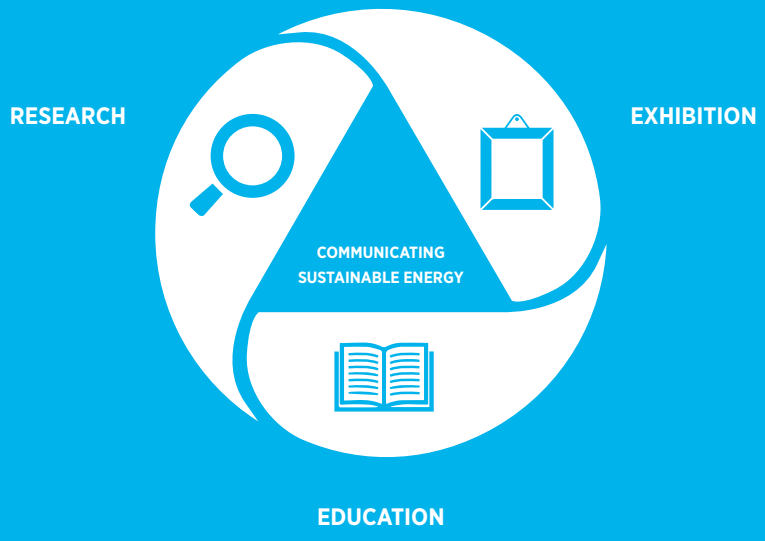
Through a thorough a theoretical and analytical scope as well as that of own eyes Volume 1 created the foundation and developed the idea to work with sustainable energy as an anchored tourist attraction. At the same time it holds a visionary and ambitious idea to do this in interplay with nature. By laying down a theoretical framework of how the build environment relates to the grown and how rational and aesthetics should be seen as complimentary that enhances one another. With regards hereof a specific site was located to serve the needs of this idea. To make the most of sustainable energy we must understand it as more than just an attraction serving the needs of the tourist. In order to benefit fully and create the desired synergy effect we must include the needs of the business man either visiting or locals working within the energy sector looking for specific facilities to export their knowledge to others. Furthermore the attraction should also strive to benefit locals and give them amenity values in relation to the local industry and nature. Hence three specific but broad user groups are established.

The tourist travels to the area in his freetime most likely for recreational purposes as part of his sparetime. He will most likely have chosen Thy because of the areas unique nature. Perhaps he is a passionate surfer visiting cold Hawaii or perhaps he is there to hike in the National Park with his family. He is open to experience new things and the local culture and most likely to spend more than a few nights in the area.

The business man unlike the tourist have not chosen to visit the Thy areas because of its cultural heritage or nature. He is there solely for business purposes in relation to his job in the energy sector. Perhaps he is there to gather testresults at the wavemachine in Hanstholm or perhaps he is there to a conference discussing the results of recent windmill research and Østerild testcenter. He is not likely to spend more time in the area than his job requires and not necessarily keen to experience things other than job related matters.

Finally the regular Thy **citizen** lives his daily life in the area. He might not care much about green energy but is likely to use the landscape for recreational purposes in his spare time. He might not be aware but as he lives in the area the electrical power that comes of his socket in his home is made from sustainable energy resources.

In order to make the most of the potential we must to create projects that relate to all user groups and strive to give them an extra experience from what they expected. An extra experience that must come by activating what all users have in common: the sensory apparatus. Thus the concept must lead to concrete designs that invites the users to interact with nature letting the business man feel the splash from the waves that generates the electricity he is investing in or letting the tourist feel the wind that powers his iphone. Hence, raise an awareness of the relation between sustainable energy and nature and make the complex technology easier to comprehend for the general public and thus inspire them to live a greener daily life. And ultimately let all users understand the resources that nature contains both in terms of rational green energy and aesthetic sensory experiences.
The different usergroups have different motivation for experiencing nature or use green energy and thus the 11th coastal project pursue to engage with them and their senses through three different scopes: Education, research and exhibition.

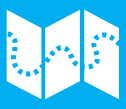


Ill. 28: Concept diagram

We believe that a business man can learn and benefit just as much by teaching a school class as the student does from hearing it. Hence synergy effects should not just be seen in the way that user groups interact with physical structures but also how the user groups interact with each other.

So how does one encourage these interactions? Rather than just being a single concrete design the concept must be unfolded in different scales that relates to each other but also works as independent projects that together brand sustainable energy as a notion rather than something experienced by paying entry fees at a museum. Hence making sustainable energy a part of the regions on the same level and in coherence with the qualities found in the regions landscape. Thus an 11th project is not unfolded as a single attraction but as a threefolded concept spanning across different scales:

THE HOUSE: On the smallest scale the House of Energy provides the indoor physical facilities needed to communicate sustainable energy. This includes meeting and conference rooms for business oriented purposes, exhibition rooms showcasing the latest research to the public and educational facilities and labs to arrange events for school classes, scouts or other groups



THE PATH: From the building a path winds its way through the context allowing users to make their way through the different landscapes while experiencing sustainable energy resources on your own body. Furthermore the path connects with other walking, riding and biking path encouraging people to explore further on their own.

THE STRATEGY: Finally a regional strategy seeks to connect the house and the path with other tourist attractions of the region through a coherent network defined by charging stations that also works at reststops, lookouts, path that stages attractions, nature and green energy and encourage people to witness them up close. Futhermore it guarantees the public the infrastructural needs for sustainable mobility.

Previously a theoretical framework was laid down to get an idea of how the build and grown environment best interact with one another. However it must be emphasized that three different branches of the 11th coastal problem contain individual designstasks that cannot be narrowed down to a specific manual as each site requires a unique approach.

The following pages present our interpretation of how the idea can be executed with concrete designs and visions for the various scales. Each scale is presented differently from the idea that the smaller the scale the further amount of details is needed to fully understand it. However the theoretical, analytical and conceptual notions presented should imbue all three scales equally.

CHAPTER 2.1

HOUSE OF ENERGY

House of Energy is the site-specific design that in coherency with the path through nature and the regional strategy enhances existing potentials to develop a peripheral area in the region of Thy. House of Energy does not seek to dominate the landscape or interfere with the context but rather become a carefully placed and designed architectural element based on unique local potentials that creates exclusive atmospheres and environments for education and exhibition. These atmopsheres and environments enhance the connection between nature and human and frame distinctive interactions amongst businessmen, students, families, locals, international tourists and other visitors of the building.

"Only by conjoining the two complementary elements, the built and the grown, can we achieve the full understanding of architecture and it's potential to create a better world

(Stig L. Andersson, 2014)

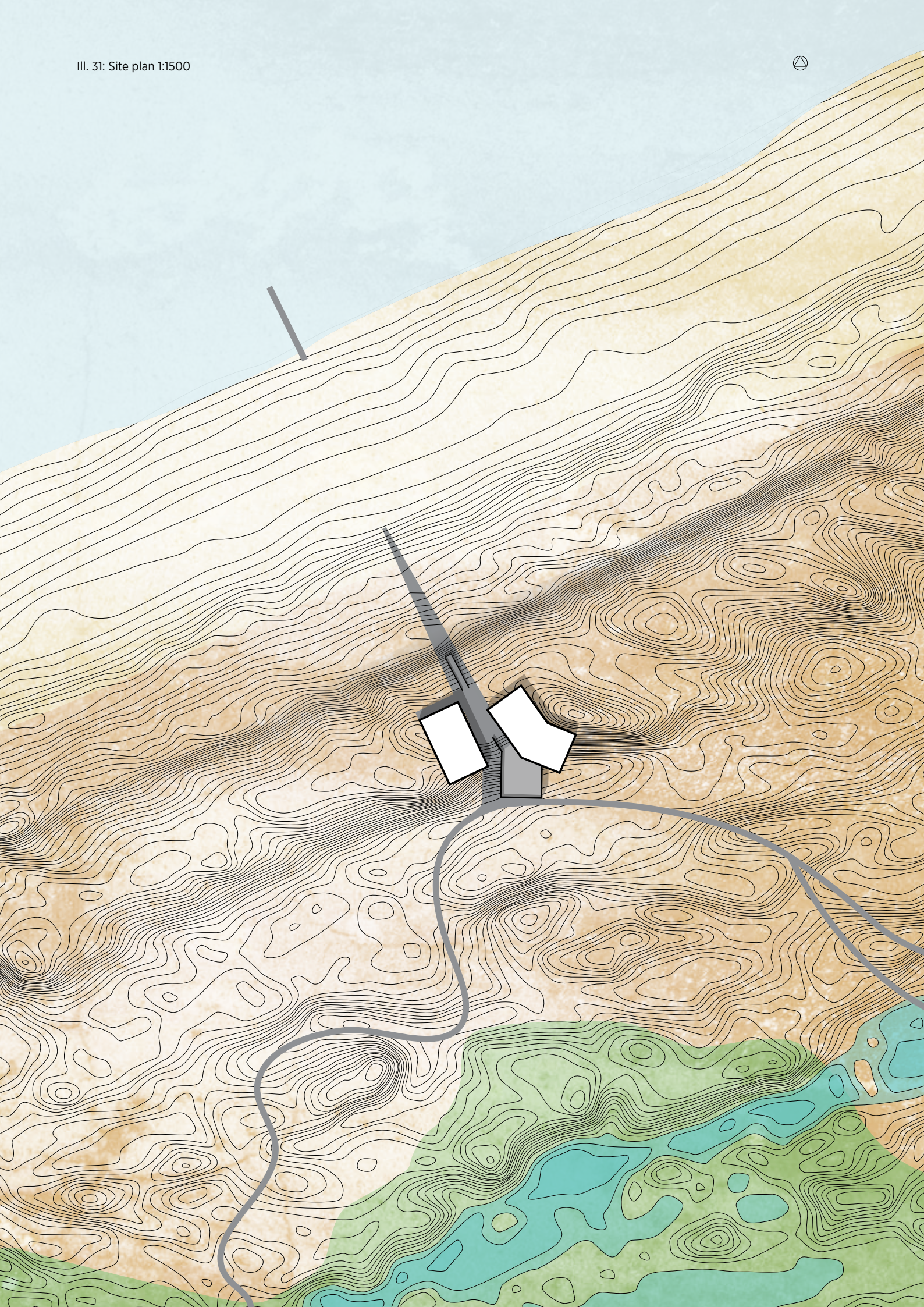
Ill. 30

HOUSE OF ENERGY

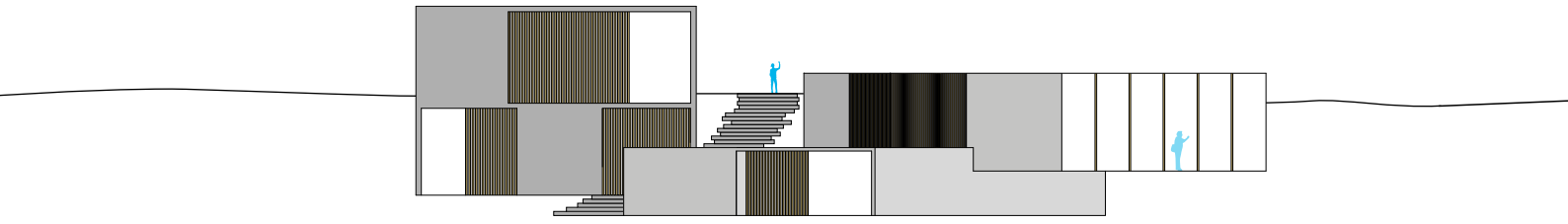
The building is carefully placed in the complex landscape creating and staging unique relations between architecture and the grown. More specifically the building is placed on the hill that runs parallel to the sea and creates the visual connection between land and water. The building is located in the center of numerous unique nature typologies spanning from marsh landscapes, moor areas and dense forest to the coast and sea. Cautiously the building rises from these nature typologies and creates an image of nature slowly integrating the built into the grown. Just as the coast has been doing with the bunkers through decades, creating unique historical and cultural elements that have become an indisputable part of the regions identity. Greatly inspired by the exterior expression of the bunker the concrete façades of the building are designed with long and narrow openings which emphasize the mysterious atmosphere around the building, where hints of different materiality is exposed and glimpse of silhouettes moving behind the wooden panels and windows reveal activity inside the building.

As the building volumes are all placed cautiously in the specific topography to foster the strongest contextual relations, the visual experiences are completely different depending on what side the building is approached from. Arriving from the coastal side two volumes arise from the hill, one only slightly visible and the other further up on the hill becoming a point of guidance similar to the old lighthouses along the coastal line. A slim element emerges from the hill creating a sublime space in the open where the vast sea and the horizon frame unique experiences.

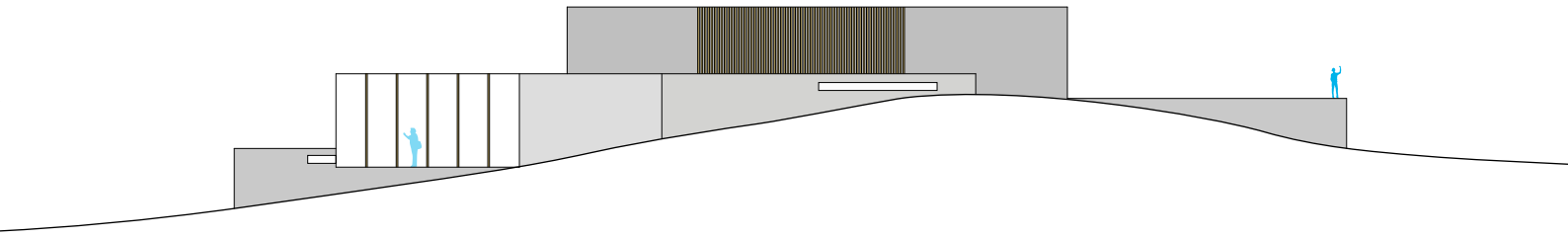
Ill. 31: Site plan 1:1500



Arriving from the land side reveals a total of three building volumes, two of them being physically connected and the third laying on the side a few meters apart, arousing a certain wonder of this particular placement. The three volumes are angled towards the three different directions of the path guiding people onto their journey through nature. The space between the volumes becomes the specific point whici offers a panoramic view of the connection between land and sea. The raw, concrete facades stand in clear contrast to the warm, organic and sharp wooden panels covering parts of the large window areas. These elements are not only in great contrast but they additionally emphasize the feeling of the calm space between the volumes that is a mix of landscape, path and roof garden which create overview of the complex landscape. Moreover the varied exterior expressions stage the difference between anticipating a space and experiencing it, as the three volumes requires thorough examination and exploration in order to fully understand the coherency and expression of them.



Ill. 32: Southern facade 1:400



Ill. 33: Eastern facade 1:400

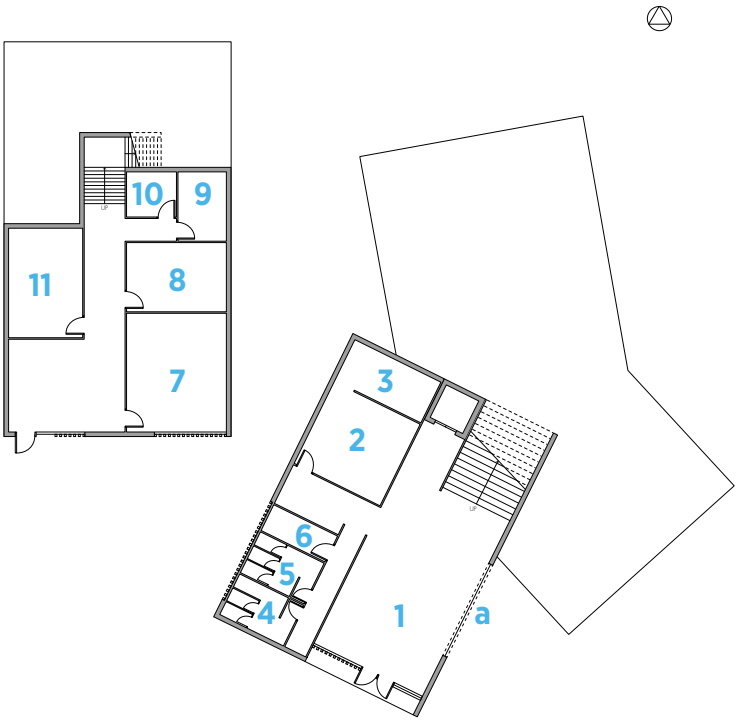
EDUCATION & EXHIBITION

Studying the interior plans of the three volumes reveal a program that is centered on the concept of creating environments that educate and exhibit. Inspired by the Utzon Center in Aalborg where the interior program is split into boxes containing only one function each, and the flow circled around an outdoor atrium, the functions of House of Energy are partly separated to create hierarchy and legibility between them. However, instead of a flow sending people in and out of different rooms the flow inside House of Energy goes through the various spaces giving insight in the different environments and creating interaction between users and functions.

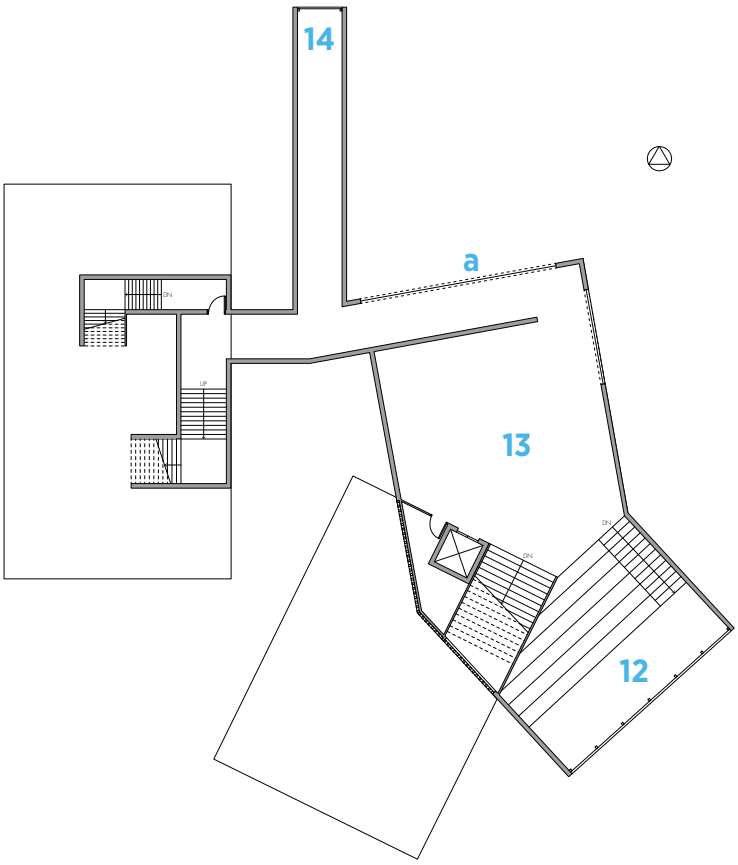
In order to create spaces that host numerous activities, users and interactions the interior programs vary in size and shape depending on the function. However all programs are placed along the main flow going through the building thus guiding people through open educational spaces, exhibition rooms and rooms with a view. By keeping the interior program simple and placing it in large open rooms there is great flexibility inside the building. Thus giving the opportunity to easily change exhibitions, host university workshops or stage lectures and public readings.

Most importantly the interior programs and rooms must be easy readable by anyone visiting whether it be kindergartens on field trip or international businessmen visiting Denmark to study sustainability.

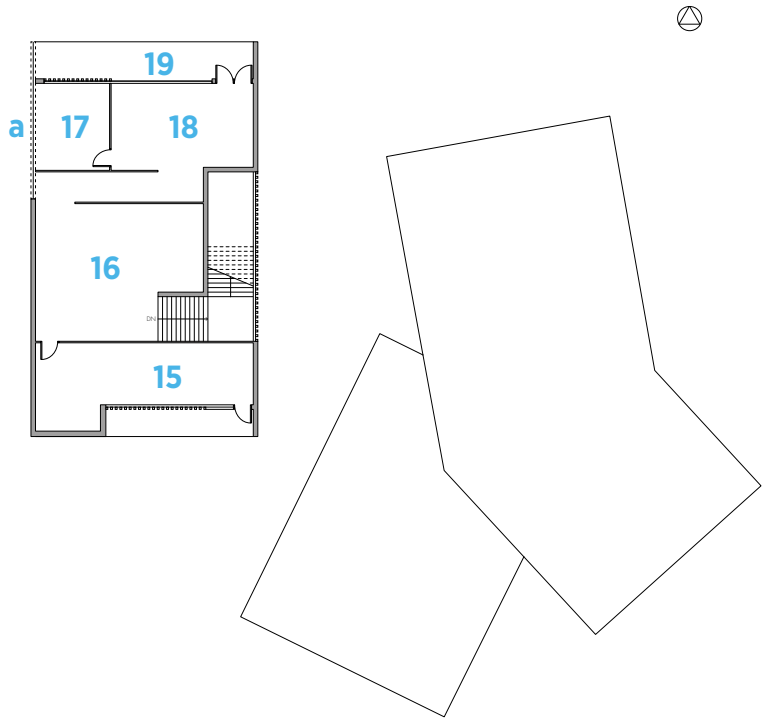
Users	Function	Size m^2
Visitors	Foyér/entrance	130
	Auditorium	125
	Exhibition areas	395
	Learning labs/ conference room	59
	Balcony	60
	Public toilets	52
	Café/lunch	65
Emplo-yees	Closed labs	31
	Offices	52
	Print/technical	10
	Reception	38
	Storage	18
	Break room	35
	Kitchen	34
	Private toilet	15
TOTAL		1119



Ill. 34: Ground floor 1:500



Ill. 35: First floor 1:500



Ill. 36: Second floor 1:500

a Small window opening
1 Foyér/entrace
2 Reception
3 Storage
4 Male toilets
5 Female toilets
6 Handicap toilet
7 Offices
8 Closed labs
9 Private toilets
10 Print, storage & technical room
11 Private break room
12 Auditorium
13 Flexible exhibition area
14 Room with a view
15 Conference or open lab
16 Flexible exhibition area
17 Kitchen
18 Café & lunch area
19 Balcony

SPATIAL EXPRESSIONS

The interior rooms vary between open spaces and narrow paths creating opposites that enhance and evoke the senses and feelings once in the given space. The play between light and shadow guides the users through the different programs of the building while simultaneously creating ever changing artistic stories throughout the building. The large rooms are kept as simple as possible in order to facilitate diverse activities such as lectures, readings, teaching, workshops and changing exhibitions. The simple interior emphasizes and stages the unique views of the complex landscape surrounding the building.

Going through the bunker inspired tunnel, the user is guided towards the room with a view of the coast and the sea through the quadratic frame. Hereafter the tunnel guides the user up into the third building volume. The exterior seperated building volume guides the user out into the space between the volumes and thus explaining the reasoning of placing the building volumes as they are.

Ill. 37


GRØN ENERGI I DIN HVERDAG
Det er særligt den menneske skabte drivhuseffekt, der skaber ubalance i klimaet, hvilket skyldes en øget udledning af drivhusgasser. Den vigtigste af disse gasser er CO2, som har en negativ effekt på det globale klima, og den primære kilde til CO2 er udvikling af energi fra råstoffer som kul, olie og naturgas, som i sidste ende bruges, når du tænder for stikkontakten. Heldigvis kan vi alle gøre noget aktivt for at mindske CO2-udledningen, uden at det behøver ændre meget i din hverdag. Og hvis vi alle gør bare lidt, kan vi ved fælles hjælp gøre meget for at skabe et mere bæredygtigt klima. Det vil ikke blot stabilisere de klimaændringer, som vi lige nu er vidner til, men også have en positiv indflydelse på menneskers helbred, leveviikår og energisikkerhed – i dag og for fremtidige

Ill. 38

Ill. 39

HOUSE OF ENERGY

Inspired by historical elements, similar facilities and an understanding of not placing anything anywhere, House of Energy rises cautiously from the pin-pointed site and interacts with the complex landscape and its unique nature. Using carefully chosen materials the building offers diverse visual and spatial expressions and develops diverse dialogues between the built and the grown. The Interpretation of the context in combination with enhancing existing potentials, has created a building that seeks to educate and exhibit unique qualities by creating exclusive environments and spaces that host numerous activities and interactions between humans and nature. Framed by the building the nature is developed to be more than scenic views – it becomes the teacher in a learning environment. House of Energy is not the solution to all peripheral problems but it is one important part of the overall concept that takes people through the unique nature on a human, local and regional scale.

Ill. 40

CHAPTER 2.2

A SENSUAL JOURNEY

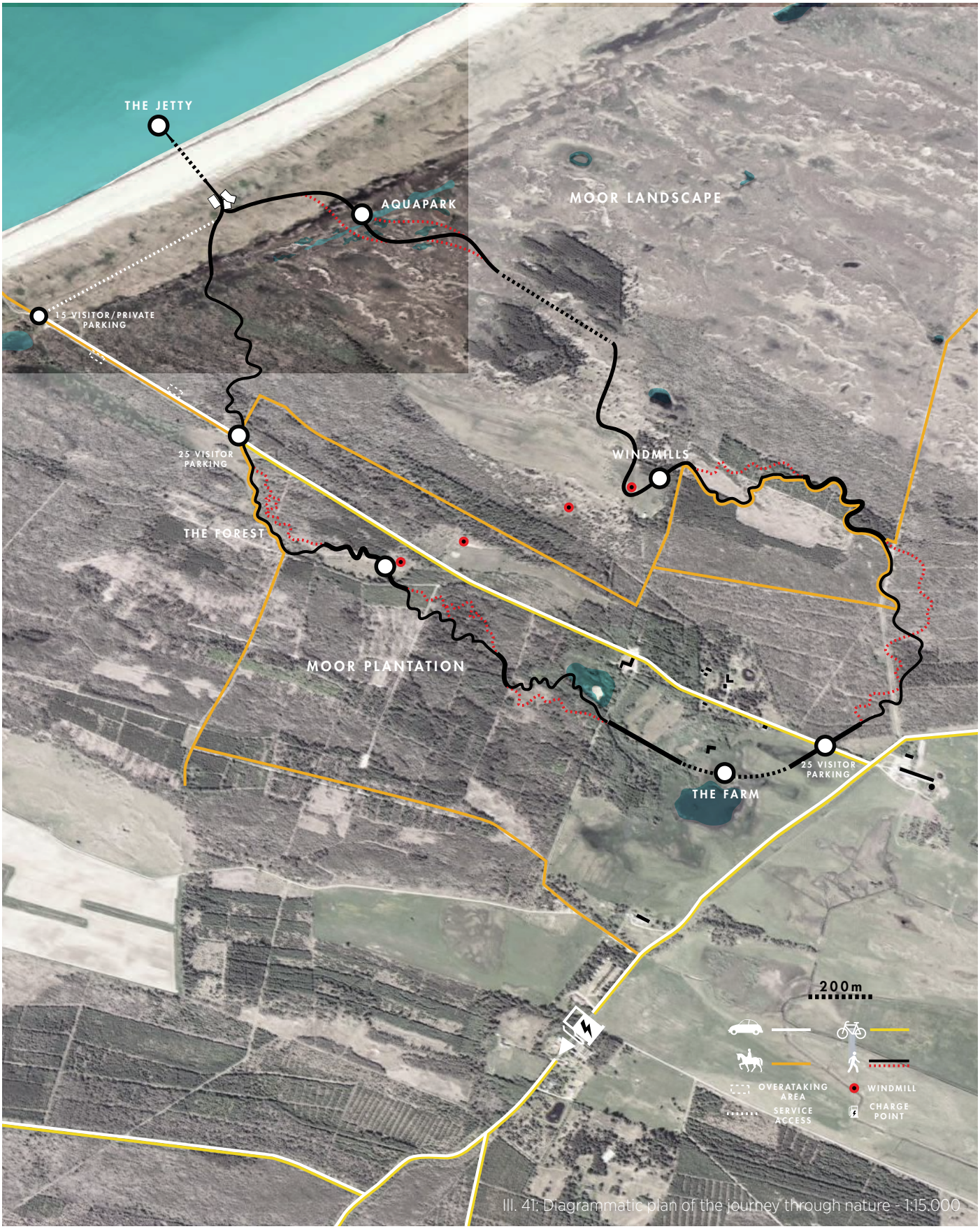
The carefully pin-pointed site was not only chosen to create the foundation for House of Energy. Numerous facilities producing sustainable energy are located nearby and these in combination with the many different nature typologies create an environment that represents the unique worlds of the region in a complex and densified landscape. All the basic elements are already there, but in order to invite for human interaction and stage the nature to become more than scenic views and places where green energy is produced the area needs activation.

A SENSUAL JOURNEY

The area consists of dense, clustered, vast and mixed nature spanning from marsh landscapes, moor areas and dense forest to the coast and sublime sea. However, many of these areas are unexplored and lie as unopened treasures full of knowledge, experiences and activities. By carefully implementing simple and delicately placed architectural elements that stages the nature without interfering, the landscape is developed into environments framing learning, interaction and play for kids, adults, businessmen and students.

The components which produce sustainable energy are often seen as abstract installations in the common Danish landscape which have no actual relation or connection to the people passing by except from the general knowledge of what they produce and why they are placed there. The placement is purely rational as the intention undisputedly is to produce as much green energy as possible. However, the path takes the incalculable scale of these rational machines and creates human scale environments which offer activities, knowledge and interactions while maintaining the large scale experiences throughout the journey.

The path goes through the complex landscape and takes the users on a unique journey where the different nature typologies, green energy and their potentials are staged and presented. Through the foundation of one circular path the nature and sustainability is framed accordingly to the context in order to create diverse environments that invites to interaction. Combining the rational aspect of sustainability with the complex landscape and simple architectural elements develops environments that bring people to the foot of a windmill, into the cattle stable, through water and in the splash of a wave. By implementing simple architectural elements instead of mono-functional activities people get the opportunity of creating their own personal journey and a unique opportunity of seeing, sensing and experiencing the power and potential of nature in its rational and aesthetic form.



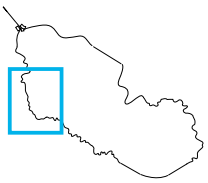
Ill. 41: Diagrammatic plan of the journey through nature - 1:15.000

Bente11

301 Likes

Vi bliver aldrig for gamle! #gyngeskoven #sombarnigen

Ill. 42



THE FOREST

Starting at the House of Energy the path goes through the vast moor landscape and into the dense forest with trees so close that the feeling of going into the unknown is evoked. Standing on the border between moor and forest emphasizes the contrast of the completely different landscapes and gives insight in two of the many different 'worlds' which are separated by nothing more than an invisible border. The path leads into the forest and consists of wooden planks carefully placed in the greenery of the forest floor to create dialogues between the path and the wild. As a wooden snake the path curves through the forest around trees, over small hills and over dense thicket. Once deeply inside the forest the path splits into several trails and tracks with different identities and agendas. The expression of the paths changes and the wooden materials vary in size, shape and direction in order to become either camouflaged or visible on the forest floor. Invisible for the eye at the disunity of the paths is the fact that the different trails all meet again after a few hundred meters. However, the user must now take a decision of which trail to follow and thus creating diverse experiences depending on what road is chosen. One is the shortest, another contains playful obstacles and a third offers simple for resting and relaxing. Common for all of them is that they stage the opportunity of interaction and thus creating a stronger connection between human and nature.

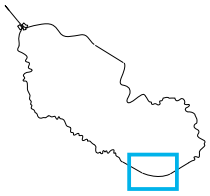
This part of the path takes people on a journey through an untouched forest which offers unique embodied experiences such as the feeling of the moss between their toes, to see the sunrays shining through the slender tree silhouettes or hear the birds singing in the treetops.

Lars_Skov28

131 Likes

På tur med børnehaven #goddagbondemand #klapenko

Ill. 43



THE FARM EXPERIENCE

Exiting the dense forest the path enters the green fields – a Danish trademark. Large areas with a few trees here and there combined with the multi colored cattle scattered on the green canvas that creates an image of complete calmness and the iconic windmills rising in the background as symbols of a sustainable future.

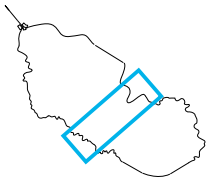
Entering the field, the path changes from a slender wooden path to a vaguely broader gravel track that crosses the field and heads for the farm on the opposite side. The farm rises at the edge of the field with the stable, siloes and sounds being the identity of the area. As the path approaches the farm numerous activities happening on a farm are revealed: A tractor is plowing the field with birds intensely circling around it for food, the cattle are being fed in the stable and the dog is playing with its owner in the yard.
The path merges with the field creating an outdoor classroom for families, kindergartens and schools. Fieldtrips become trips to an actual field where the farm hosts unique interactions between human, nature and animals. Visitors get the opportunity to gain knowledge about animals and nature by petting a cow, seeing how animal waste can be turned into green energy, harvesting corn and turning it into food. Additionally the farmer gets the opportunity to communicate something very Danish to visitors through everything that makes a farm.

Colese11

65 Likes

Frederik ser op til sin højdeskræk #tøsedreng #150meterned

Ill. 44



WINDMILLS

Leaving the farm through the stable the now wooden path enters the forest. However this part of the firest is not as dense and tall as the previous one, as it mainly consists of green thicket and trees scattered here and there. The area gradually evolves into a hilly landscape which occasionally takes the user above sea level giving glimpse of the surrounding context and the coastal line in the horizon.

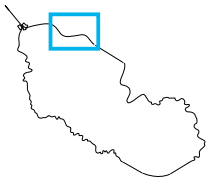
As the path leaves the thicket the large windmills no longer appear as small objects in the background but are now gigantic elements dominating the yellow moor landscape spanning widely across the scenery. The path snakes through the swaying landscape, which constantly hides and exposes parts of the journey towards the windmills. Once at the foot of the windmill an iconic and unfathomable sized object rises hundreds of meters into the sky. The four windmills are lined perfectly behind each other, hence drawing a sharp line through the various nature typologies. Instead of only being producers of green energy, the windmills now become elements that can be touched, heard and entered. In combination with the surrounding moor landscape the mills create an environment that invites businessmen, students, families and other visitors to learn, interact and play around the abstract objects that produce green energy.

HanstholmSkole

51 Likes

Sjoveste biologi time ever! #HanstholmSkole #Haletudser

Ill. 45



AN OUTDOOR AQUAPARK

The vast moor landscape gradually fades into numerous marsh environments with various ponds and creeks that infiltrates the areas between the hills. The path has changed from a wooden surface into a light and simple concrete path that follows the topography of the landscape. Similar to the path going through the dense forest, the path now splits into several trails to take the user through the various atmospheres and environments in the complex landscape. One path leads to a lookout post framing a unique panoramic view of the many nature typologies, the coastal line and the sea disappearing in the horizon. Another path follows the outline of the ponds in order to let people interact with the hundreds of different biotopes living in the marsh landscape, and a third emerges into the water pond inviting the user into a unique situation of walking in water and letting the fingers slide through the water surface creating a sensual connection between human and nature.

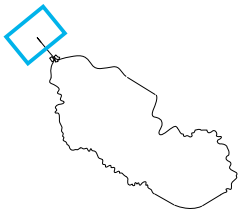
Going towards the building the paths running through, next to and on the water merges into one path as the landscape slowly changes from marsh too moor.

MajaMajaDK

213 Likes

Sekunder inden bølgen haha #fladafgrin #såkanilæredet

Ill. 46



THE SUBLIME SEA

As the path leaves the marsh landscape the three building volumes from the same hill that acts as the visual barrier for visual connection between landscape and sea. Upon reaching the top of the hill, standing between the building volumes, the sea emerges from the horizon and dominates the panoramic view of the coastal line following the border of Jutland. The interior tunnel of the building creates a slim and elegang theater with the sea acting as the main stage. As an extension of the interior tunnel the final part of the journey appears at the foot of the beach.

The physically element of the path is momentarily broken up before reaching the rectangular concrete element in order to respect the beach and the coastal line connecting land and sea. The jetty is adjusted with several cuts breaking the strict rectangular shape in order to create diverse experiences depending on the weather and time. As the water rises and falls the sea slowly makes it way up the concrete stairs emphasizing the winding path towards the edge of the bridge. Standing on the very edge of the jetty the sea becomes the sublime element on the journey where waves are smashing against the edge and water splashes onto the bridge. This sensual experience – being in the sublime, feeling the power and potential of the nature on the body, is the very essence of the tailored journey through the very unique nature of the site.

SENSING NATURE

The carefully pin-pointed site was not only chosen to create the foundation for House of Energy, but also chosen because of the unique landscape that surrounds the building site and. Additionally numerous facilities producing sustainable energy are located nearby which create an area focused on sustainability. These facilities in combination with the many different nature typologies create an environment that represents the unique worlds of the region – worlds that are activated and presented through a carefully tailored journey which invites for delicate human interaction. A journey that through embodied and sensual experiences reveals great insight in the dense forest, the yellow moor landscape, the moist marsh environments and the sublime sea.

By connecting already existing bike and horse tracks to the journey a coherent connection is made to the surrounding activities in the region. Similar to the building becoming a part of the journey, the journey becomes a part of the regional strategy that through sustainable hot spots connects areas across municipal and regional borders.

Ill. 47

CHAPTER 2.3

GREEN ROADS

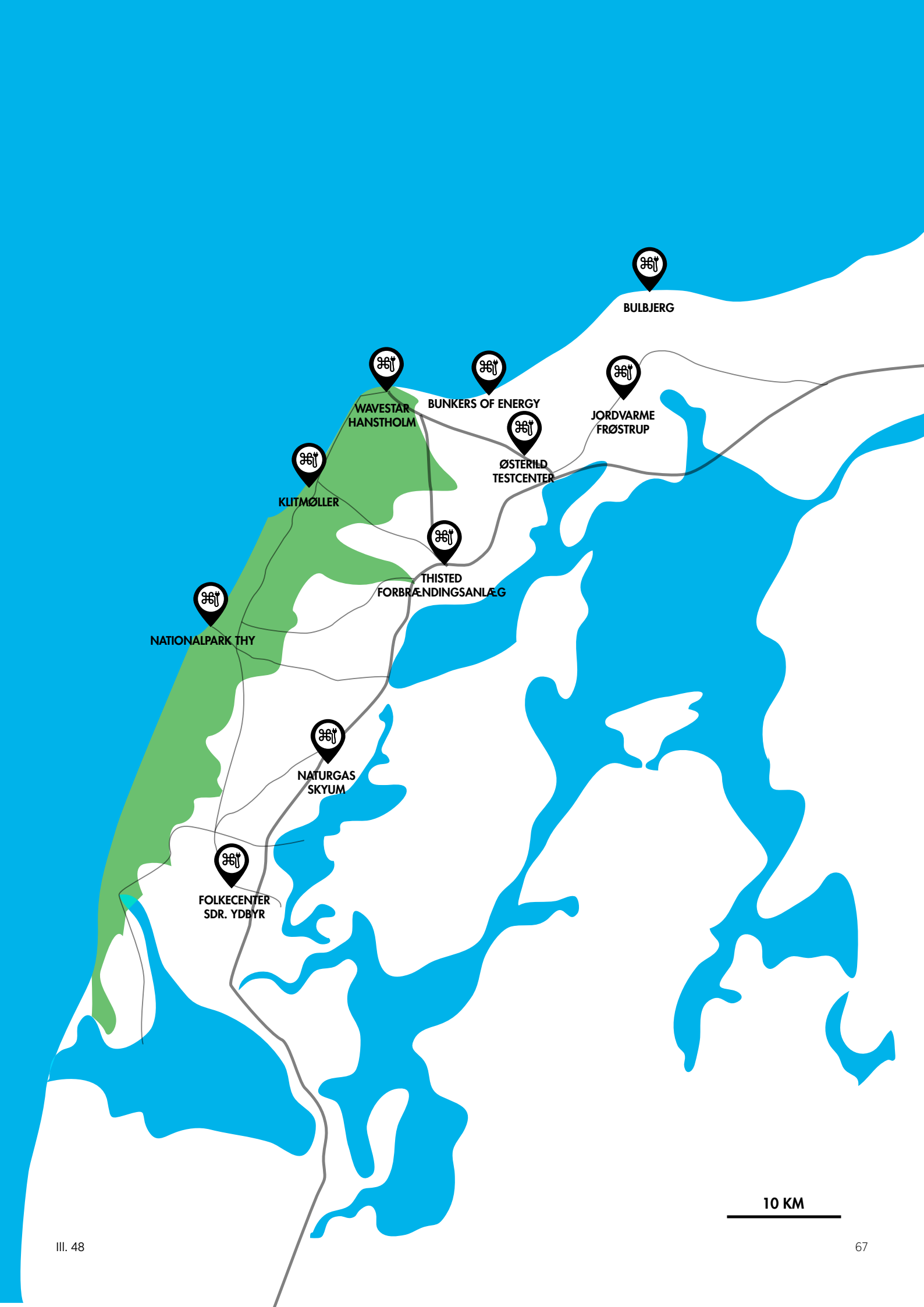
The last chapter presents the regional strategy which have been designed to incorporate House of Energy and the sensual journey into a strategy that enhances the opportunities of the region, while inviting to cooperation across regional and municipality borders.

GREEN ROADS

As revealed in Volume 1 one of the main problems of peripheral Denmark is the bad infrastructural network. There is a general need of emphasized focus on mobility issues in outskirt areas and this regional strategy was therefore developed to give the region the opportunity of enhancing its brand as *"Denmark's leading climate municipality"* (Thisted Kommune, 2016). Developing numerous hot spots where it is not only possible to re-charge, but also to rent electrical cars and bikes create the foundation for easy and sustainable means of transportation.
In order to maintain the title as *"Denmark's leading climate municipality"* the region must keep up with the rapid sustainable development happening on a national and global scale.

Similar to the designs on the local scale the strategy stages nature and combines scenic views with simple interventions to create exclusive opportunities to charge your electric car or bike. The connection between the three designs across scale is essential as it becomes the coherent foundation tying the project together. Essentially the building and the journey become one of the many unique hot spots of the region where it is possible to freely charge your car or your bike while enjoying the scenic view, getting a sensual experience through re-charging in nature or the possibility of recharging your car directly from a windmill. Also inspired by Norwegian tourist routes where simple architectural elements are used to create unique scenic views of the Norwegian nature (Visit Norway, 2016), the designed regional strategy uses a wide range of already existing unique areas, landmarks, activities and so forth to create numerous 'green hot spots' throughout the region. However, the interventions must be extremely simple and delicate in order to respect and frame the nature rather than dominate and interfere with landscape as it not the intention to facilitate gas stations and car washes.

Even though the municipality has special emphasis on being the number one sustainable region it is necessary to open up for dialogue and strategies across municipal and regional borders. The designed regional strategy can be implemented in any Danish region as the only requirements are local landmarks, nature etc. and simple interventions or even just an electric charger. Having the option to a sustainable regional strategy to a national strategy goes hand in hand with the aim of the Government to have Denmark completely free of fossil fuels by 2050 (The Danish Government, 2011).


BULBJERG
WAVESTAR HANSTHOLM
BUNKERS OF ENERGY
JORDVARME FRØSTRUP
ØSTERILD TESTCENTER
KLITMØLLER
THISTED FORBRÆNDINGSANLÆG
NATIONALPARK THY
NATURGAS SKYUM
FOLKECENTER SDR. YDBYR
10 KM

III. 48

Ill. 49

CHAPTER 3

CRITIQUE

The final chapter of the thesis aims to conclude and reflect on the general theme of the thesis in relation to our 11th coastal project. Furthermore it discusses and reflects the different theories presented throughout the thesis and their influence on the concept and the final design.

CONCLUSION

To conclude, this thesis has evolved from an interest in a debate on a national level to a three folded regional concept that seeks new ways of developing potentials in relation to both tourism, local business' and the people living there. Thus it challenges the definition of a tourist attraction. By combining the build with the grown environment it creates new ways of experiencing a destination blurring out the borders between the public landscape and the build attraction. As a whole the concept does not have an entry fee nor an exit as it spans through different scales making it more than just a concept. It is a story that narrates the regions connections to nature and its sympathetic ambition to be a frontrunner in the development of sustainable living. In that sense it does not just stage the close context of a design but it also stages the entire region and strengthens its brand as 'the country's leading climate municipality'. It does not dictate if and how a user should experience it. Instead it strives to make him activate his senses by himself and thus stimulate his curiosity which perhaps makes him understand, wonder or reflect upon nature and its ability to generate electricity. Ultimately, hoping to inspire him to gain interest in both nature and green energy. Although

the concept evolves around sustainable energy it does not try to compete with the regions other attractions but strives to create synergy effects between destinations lifting the region as a whole. Instead it creates a network that connects them and thus encourage visitors and locals to go and discover the region further. In fact it does not just encourage it but it creates an infrastructural network that increases the user's ability to navigate between destinations and thus increasing mobility within the region.

Imagine if the 10 other projects had the same ambitions about narrating stories on a bigger scale giving each region the chance to come forth with what they believe is their most unique and distinct potential. This would give a for more interesting map than one where private hotels and waterparks fight for the same customers. Instead the regions would vary and enhance one another inviting people to visit different attractions and landscapes rooted in different local cultures and potentials throughout peripheral Denmark.

REFLECTION

Going in to the thesis we had a very clear idea of what we wanted to achieve from a craftsman perspective in order to unfold our skillsets as urban designers on an ongoing debate. This obviously brings forth the question of whether or not achieved what we wanted.

We began to investigate with open minds but the issue quickly turned out to be more complex than perhaps first anticipated. The amount of material, research and reports on the topic was difficult to comprehend at first as their where so many medias expressing different opinions regarding tourism in peripheral areas. It made it difficult to define the design task for ourselves. However we still believe that the initial research we did before designing affected our view on things in a positive way. Eventually we were to able detach from the great amount of literature, sort it subjectively and set our own agenda. Looking back we feel that we have gone our own way with this project and in our way of narrowing and down the potential leading to the final design. Whether or not the proposed design and idea is better than original 10 projects is not up to us to decide. However we do believe that we have rethought the idea of the traditional development of a tourist attraction in peripheral areas bringing a new contribution to the debate which was our initial goal.

In terms of scale we wanted to challenge ourselves as much as we possible could by pushing the boundaries both in terms of analysis and design. This turned out to be an interesting issue

that constantly made us shift between the different scales in order to create a coherent proposal. While this is a part of our DNA as urban designers none of us had done to such degree prior to this project. Throughout the process we were very much aware that we would not be able to detail each level equally. However we do feel that we have come to a good compromise of different detailing levels. That being said we are very much aware that the realization of our proposed design requires supervision from architects, landscape architects, planners and etc.

In the motivation we presented critical viewpoints of the profession such as the one brought forward by Cuthbert who believes urban design to be more of a vision than an actual profession arguing that urban design cannot stand on its own and thus escape its historical relation to architecture and planning (Cuthbert, 2007) . As urban designers we consider our ability to comprehend sociological matters and different scales as a valuable skill that makes us stand on our own enlightening issues from a different perspective than the before mentioned professions. However we do agree with Cuthbert that we as urban designers cannot escape our relations with architects and planners but who says we should? To us this project proves that in a modern time of urbanization design professions can no longer stand alone but instead they should submerge and rely on each other's skillsets to create better designs for the future.

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ILLUSTRATIONS

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Ill. 7, 26:	http://blogs.ft.com/photo-diary/files/2014/07/tide.jpg
Ill. 8, 27:	Image from: http://elizabethdiazauthor.com/wp-content/uploads/2015/03/Dollar-photoclub_69509809.jpg
Ill. 10, 11, 28, 29-46, 48:	Own illustration