

program

MUSEUM OF GEOPARK ODSHERRED

a transformation of radiohus skamlebæk

FINAL THESIS

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PROLOGUE

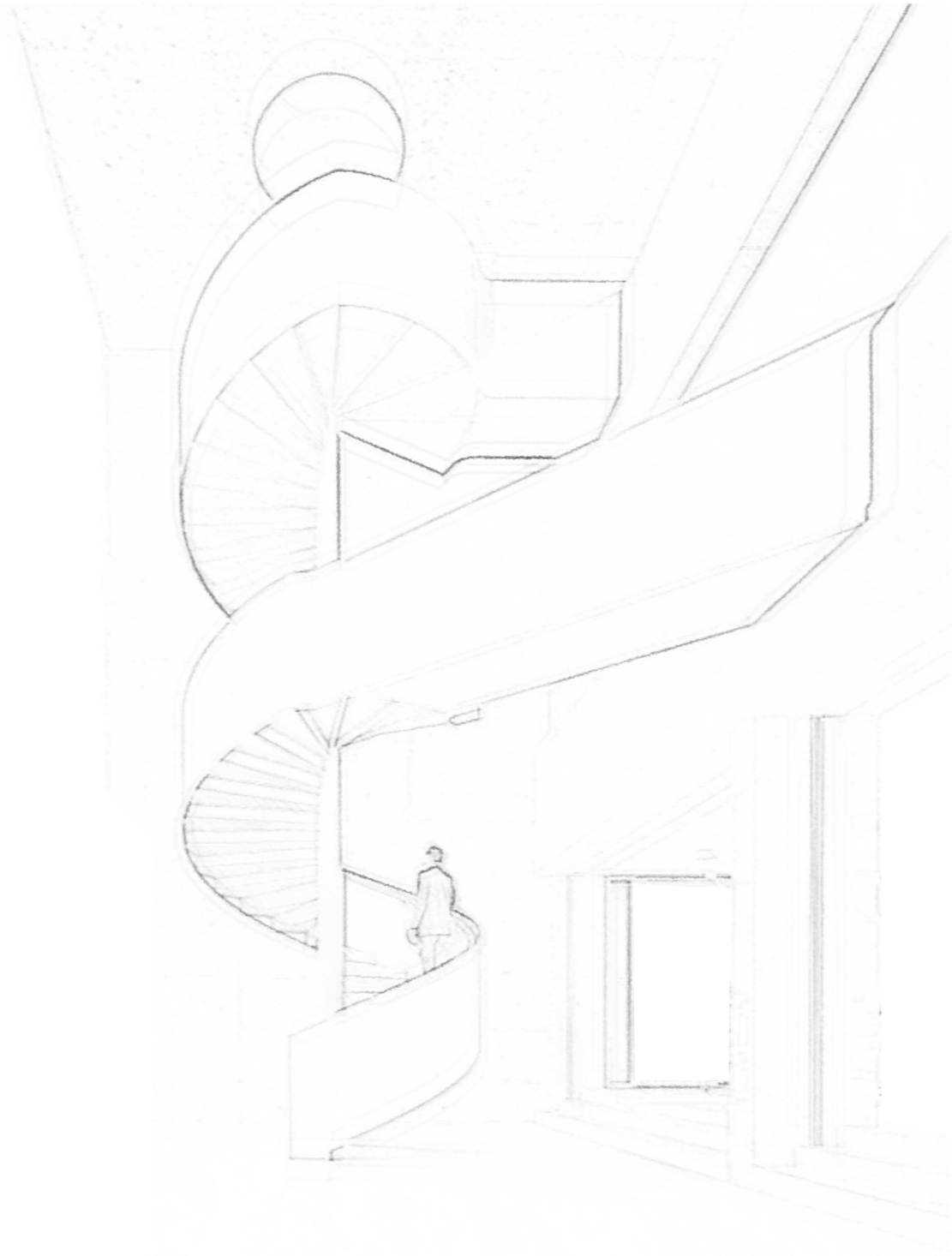
Several years of hard work led to Geopark Odsherred in 2014 gaining a place in the prestigious, global company among the world's other geoparks under the wings of UNESCO. A geopark is a geographical area where the geological design of the landscape is completely unique and has a decisive impact on life in the area. The inclusion of Geopark Odsherred is primarily due to a completely unique ice age landscape, whose geological conditions have a decisive cultural-historical significance for, for example, the art life in Odsherred and not least for the area's food production.

UNESCO is an organization under the UN, and the highest purpose of the geoparks on the planet is to contribute to peace. The geoparks are therefore places where the special geology forms the basis for cultural, social and economic development. In this way, the geoparks are not intended as protected areas - like the World Heritage Convention - but as engines for the sustainable development of the world's rural areas.

This UNESCO recognition became a great opportunity for the municipality of Odsherred to communicate and utilize the many qualities of the iconic landscapes and cultural history the area has to offer. And from the 2019-2024 official strategy of Geopark Odsherred, it reads, that the overall ambition is to increase the accessibility and "staging" of the unique landscape with a focus on bringing the unique to the limelight.

The mission, based on the preservation and dissemination of the special landscape, is to form a framework for sustainable development, where growth, identity and environment/climate are seen as interconnected. The role of the Geopark Odsherred is therefore, to facilitate and make platforms available to the local population and attract tourism. This mission, goes hand in hand with UN World Goal no. 15, where the focus is on halting the loss of the earth's biological diversity and conserving forests and other ecosystems. In order to have a chance of succeeding in reversing the negative development of the earth's biodiversity, it will be crucial to make biodiversity and nature an integral part of people's thinking and of the political, economic and planning processes.

It will require a great deal of dissemination to increase the focus on biodiversity and ecosystems. And this is precisely the motivation of this thesis; to investigate whether a future Museum of Geopark Odsherred could accommodate and create a foundation for such dissemination. A Museum of Geopark Odsherred could potentially function as the place from where to convey an understanding of the surrounding nature as a whole. Cultural history, geology and biological process could come together in an understanding of their intertwined evolution and the relation to our past and present time. This could potentially both add to the preservation through sustainable tourism and also raise public awareness of the earth's biodiversity.



first concept sketch of the stair as a spatial addition

INTENTION

In collaboration with Geopark Odsherred, the intention in my final thesis, is to investigate how, based on UN World Goal No. 15, a Museum of Geopark Odsherred, both could serve as a foundation for disseminating Odsherreds unique ice age landscape, whose geological conditions have a crucial cultural-historical significance and at the same time focus on the loss of the earth's biological diversity and the potential in conserving forests and other ecosystems.

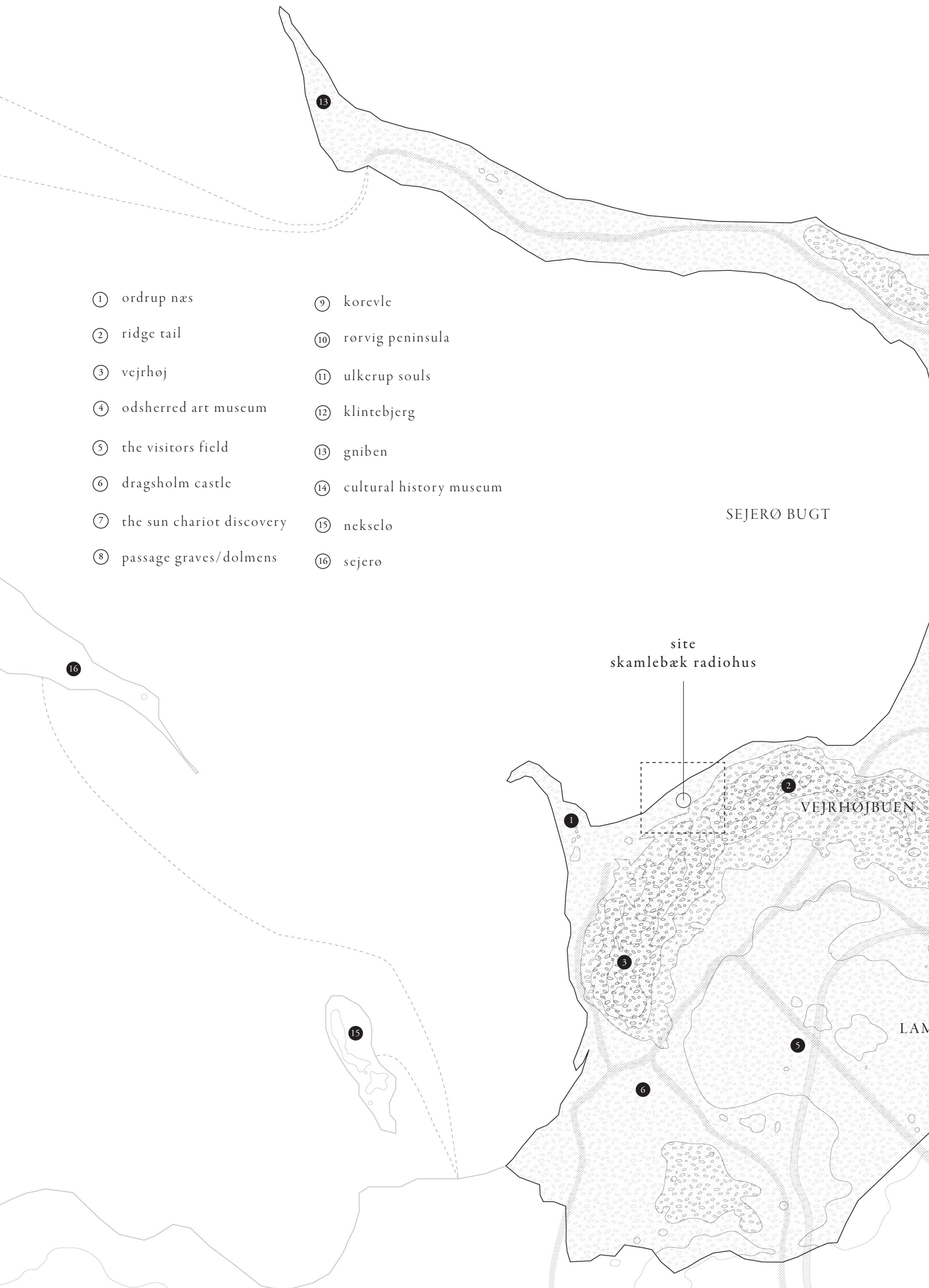
But how can a sustainable foundation be secured for such a dissemination museum - and where should such a museum be located in order to communicate a local, place-bound story about Odsherreds unique landscape?

In my own curiosity and study of the area, I came across Skamlebæk Radiohus - a disused, former radio station, that has been empty since 2009, without function and without a future plan. Geopark Odsherred has recently pointed to Skamlebæk Radiohus as a possible future location for a former Museum of Geopark Odsherred. For several reasons, this building has a great local significance, as it, since its founding in 1930, has served as a landmark for Odsherred Municipality. Not only due to the building's long and interesting history, but also due to the location on the Skamlebæksetten itself, which is a unique example of landscape formation during the recent ice age, and contains enormous geological values and great biodiversity.

A transformation of Skamlebæk Radiohus could give life to the historic building and convey the landscape worthy of preservation, by creating a foundation for the Museum of Geopark Odsherred. Overall, this project wants to transform this building, by making a great effort to preserve the building's chosen tectonic expression, but at the same time reformulate the interior organization and thereby add a contemporary spatial layer, that could create a clear flow and hierarchy between the public and immersive spaces. Skamlebæk Radiohus is built on a high basement and is therefore lifted over the landscape. Since the surrounding landscape is the main attraction for such a museum, it is necessary to work on how the building and the landscape can be more closely intertwined. An addition of a contemporary layer that can connect and unite these into parallel stories.

One way this intention can be met may be by taking a closer look at *the stair* as a possible added spatial element. How can a staircase help to organize and create flow in the building? And at the same time connect the preserved landscape with the historical building? And can *the stair* itself act as a furniture/object that organically, can intertwine and shape the place-based narrative of the Museum of Geopark Odsherred? With that in mind, my intention for this project is, instead of demolishing, to find a balance between analyse, re-frame and re-create. I believe a balance between the existing layer and a added layer could harmonize with the given surroundings and strengthen the areas narrative and own vision.

- | | |
|-----------------------------|---------------------------|
| ① ordrup næs | ⑨ korevle |
| ② ridge tail | ⑩ rørvig peninsula |
| ③ vejrhøj | ⑪ ulkerup souls |
| ④ odsherred art museum | ⑫ klintebjerg |
| ⑤ the visitors field | ⑬ gniben |
| ⑥ dragsholm castle | ⑭ cultural history museum |
| ⑦ the sun chariot discovery | ⑮ nekselo |
| ⑧ passage graves/dolmens | ⑯ sejerø |



SEJERØ BUGT

site
skamlebæk radiohus

VEJRHOJBUEN

LAM



KATTEGAT

10

12

8

14

HØJBYBUEN

NYKØBING BUGT

9

7

VIGBUEN

11

ISEFJORD

SIDINGE FJORD

IMEFJORDEN

4







SITE / HISTORICAL APPROACH

Odsherred Municipality is located in north-western Zealand. The largely rural municipality covers an area of 355 km² and has close to 33,000 inhabitants, whereas Nykøbing Sjælland is the biggest town with about 5,100 inhabitants. In the summer period over 100,000 guests stay in Odsherred, most of them in one of Odsherred's more than 26,000 summerhouses.

Although it is only a one-hour drive to Copenhagen, Odsherred Municipality is a so-called peripheral area in Denmark. The population is ageing, unemployment rates are high and especially young people move away. But Odsherred also has a strong place-based potential in the form of a unique ice age landscape, rich cultural and natural heritage, and active local communities. These place-based resources form the basis for the municipality's biggest development project, the Geopark Odsherred.

A Geopark can be defined as *“a single, unified geographical area where sites and landscapes of international geological significance are managed with a holistic concept of protection, education and sustainable development”*

The most dominant landscape feature is the presence of three very distinct end moraines called the Odsherred Arches; Vejrhøjbuken, Vigbuken and Højbybuken, which were formed during the last ice age. The formations in Odsherred are a textbook example of a landscape created by the ice. Together with the glacial depressions and meltwater plains, they represent a classical geomorphological example of a glacial landform, only equalled by a very few other places in Europe.

The charming scenery of Odsherred has been the basis of the natural and cultural processes going on for at least 25000 years. Since the termination of the last glacial period, humans have been making their mark on Odsherred and the landscape has attracted people from far and wide since the early 18th century. This unique geological landscape highlights the ancient processes of glacial formations and further, age-old human settlements are traceable back to the Stone Age with visible artefacts scattered throughout the area.

In September 2014, the area of the entire Odsherred Municipality was officially recognized as a UNESCO Geopark and became a member of the European and the Global Geoparks Networks (EGN/GGN). At the beginning of 2015, the Geopark became independent and the Geopark Odsherred Foundation was established.

The UNESCO designation has helped Odsherred Municipality to create a unified narrative of what makes Odsherred a unique area - and further how the region can develop and contribute to ideas for action and activities in the future. And most importantly, it has created pride and sustainability in the local area.



This UNESCO recognition became a great opportunity for the municipality of Odsherred to communicate and utilize the many qualities of the iconic landscapes and cultural history the area has to offer.

The cultural history, arts, and the local produce, are all closely intertwined with the landscape and geology, thereby becoming the four topics of Odsherred Geopark. As a part of the strong and widespread community involvement in Odsherred Geopark, local stakeholders, business, the tourism agency, the national nature agency and associations help to support the socioeconomic development. Odsherred Geopark wishes to catalyse this, through partnership agreements and promotion of local products.

Unfortunately, the Geopark is still unknown to many of the residents in Odsherred and visitors are unclear of what and where the Geopark actually is. From the official strategy of Geopark Odsherred, it reads, that the overall ambition is to increase the accessibility and "staging" of the unique landscape with a focus on bringing the unique to the limelight.

Further the strategy reads, that the mission of Geopark Odsherred is, based on the preservation and dissemination of the special landscape, to form a framework and platform for sustainable development, where growth, identity and environment/climate are seen as interconnected. The role of the Geopark Odsherred is to facilitate and make platforms available to the local population and attract tourism.

As it is now, the Geopark Odsherred communicates its qualities through its official website, and attractions - such as the ridge trail (a hike that offers impressive views and spots where you can delve into the unique geology of the hilly landscape), the staging of the sun chariot discovery site and the passage graves (a burial chamber built 5000 years ago during the Neolithic), are spread throughout the municipality.

From the start, Geopark Odsherred has had a clear focus on making the Geopark physical and concrete. The physical concretization is - combined with the area's core narrative - what creates a holistic narrative, identification and fascination.

In continuation of this focus, the proposal of a museum Geopark Odsherred, and thereby a transformation of Skamlebæk Radiohus, becomes relevant. As Odsherreds Municipality wants to increase the accessibility and further stage the unique landscape, a future museum could serve as the official arrival and gathering of Geopark Odsherred. A exhibition space, a meeting place, a platform for landscape and geology communication and a site-specific and place-based local attraction. The development opportunities are great when based on something local, unique, original and authentic - and a museum could reinvent, frame and communicate local stories.



SEJERØ BUGT

BEACH

MELTWATER
STREAM MOUTH

MELTWATER TRAIL

ACCESS TO
SUMMERHOUSES

ROW H

SUMMERHOUSES

KAD



FOOTPATH

SUMMERHOUSES

BUTTERFLY
HABITAT

HEATHLAND

ACCESS TO
SUMMERHOUSES

SKAMLEBÆK
RADIO STATION

HOUSES

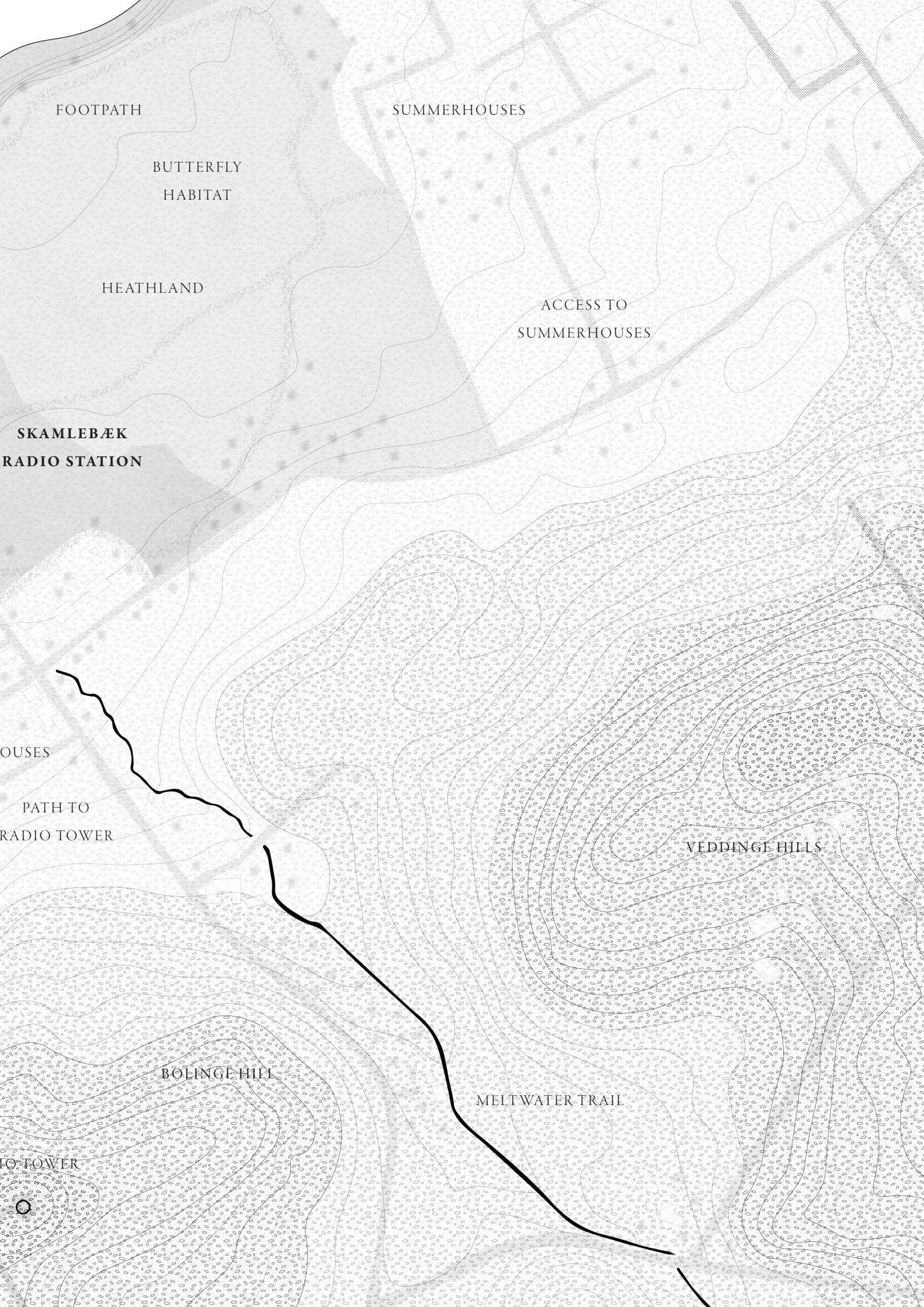
PATH TO
RADIO TOWER

VEDDINGE HILLS

BØLINGE HILL

MELTWATER TRAIL

TO TOWER





01.02.2021 / Skamlebæk Radiohus

Waking on the narrow road between Bolinge Hill and Veddinge Hill, I can slowly begin to notice Skamlebækstletten. Not only by sight does this view become clearer - I also feel the fresh, cold air and its accompanying wind strokes on my skin. It is cold, a white sky. The road leads me past the tall radio tower, which on the left side, at the top of Bolinge Hill, rises and reaches out towards the clouds. The further I move along the narrow road, the more the flat plain opens in front of me. It is quiet here. And the conifer trees around the cadastre form a clear frame of the site - they follow the meandering route of the meltwater trail, towards Sejerø Bugten - and so do I.

At the end of the road, at the bottom of the hills, an open, flat landscape unfolds. With a view of the sea, and in the middle of the plain, a building rises, Skamlebæk Radiohus. The sun casts shadows on the building's yellow bricks and eye-catching rectangular painted windows, framing the building beautifully. The high basement windows, closely follow the same pattern. The building unfolds sharply, accurately and horizontally in the landscape, where smaller bushes and tall grasses unfolds along the building's facade. Traces of use can be seen in several places on the bricks of the facade, which indicates the long life of the building and its repairs over time. At the back of the building, facing the sea, a vertical lookout tower rises, with distinctive small, square windows at the top - from here follows a smaller outdoor space where the landscape can be studied from the height. In front of the lookout tower, rises two smaller, low buildings - also with a facade in yellow brick. It seems as if all the lines and directions of the surrounding landscape points towards the body of the building. From where I stand, I notice how the soft, organic lines of the landscape frame the building. Along the meltwater trail, small paths and footprints in the tall grass will lead me closer to the sea on the horizon. But I'll stay here for now.

In my curiosity, I follow the building, back to its entrance, with a few steps up, i walk through the front door. Here opens a high-ceilinged, large space in front of me. The light from the attic windows casts shadows on the used, but beautiful wooden floor. From where I stand is a direct, long view to the other end of the building - where a white, concrete staircase shows me the way up to the lookout tower. On both the right and left sides of the stair formation, windows throw light and cast shadows into the room. I move curiously on, through the blue-painted doors. The large, bright space opens up even more, and on either side of me, an even larger space unfolds. The atmosphere is light and open, as the many views of the landscape and the sea make the room feel larger and more complex than it really is. A high, open basement, lifts me over the landscape. I'm not part of the landscape from here - I am above it. I can study the nature-made landscape, from inside this man-made building, that tells a story of a long life. Two separate, poetic narratives unfolds.



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From 1930 to 2010, Skamlebæk has played a significant role in Danish society. Locally, as one of the large workplaces in the municipality of Odsherred and a significant part of the landscape next to Sejerøbugten. Nationally as Denmark's outbound connection to Danish ships in overseas shipping and to the Faroe Islands and Greenland. Internationally as an outbound connection to a large number of countries. Skamlebæk Radio Tower can be seen over large parts of Odsherred, both the permanent residents and the increasing number of holiday guests. But the station itself did not invite visitors - all the borders were patched up with large red signs 'no entry'.

Skamlebæk Radiohus was built in 1930 by local craftsmen and workers, when Lyngby Radio had too many transmitters in operation and it became necessary to 'move to the countryside'. The radio station functioned for many years as a center for operation and maintenance of the transmitters, until its closure in 2009. What most closely resembles a control tower at the transmitting station is the space from which all the wires went from the transmitters inside the tower, to the respective masts, that also are removed from the area today.

The area where the station is located has been inhabited since the Stone Age. Archaeological findings in the 1960s and 70s showed signs of a dense settlement more than 3,000 years ago, in the early Bronze Age. The beach area where Skamlebæk Radiohus is located today proves the visible remains of the meltwater plain, which continues far along the bottom of Sejerø Bugt. From Bolinge Bakke, where the tall, green radio tower stands, there is a magnificent view. It is also a view that has a special geological value, because from here you can clearly see several different landscape forms that the ice has created.

Formed by erosive meltwater. A striking gap intersects the huge end moraine, Vejrhøj Arch, with a drop of 82 m from the top of Disbjerg to the sea. During the latest Ice Age 17-18.000 years ago, the glacier stood to the east and meltwater periodically gushed across the end moraine to the west. Occasionally, the water pushed against the earth mound. The meltwater trail in Skamlebæk below Disbjerg is the remains of this process, flowing into Sejerø Bay below the former radio station.

Skamlebæksletten is a unique example of landscape formation during the recent ice age and contains enormous geological values and great biodiversity, and is therefore today protected. However, the station building itself is not protected and ATP, which owns the building, has not yet presented a plan for what the building could be used for in the future. The building is thus empty and without function, only remains and traces of use, tells a story about what life once unfolded. Over the years, there have been various proposals for the use of the building and the area, and currently Geopark Odsherred is now talking about a transformation of Skamlebæk Radiohus into a future Geopark Museum.







APPROACH

At Spatial Design, the interest is in developing situated interiors. That is, interiors that are considered a part of a larger context, e.g. a site, a place, a culture. In addition, the focus on interior leads to an investigation into the interrelations between human beings, spaces and architectural details at close range. We see the detail as a material and spatial resolution of a broader strategy for change underpinned by the three core perspectives: a historical perspective, an anthropological perspective and a perspective related to tectonics and materials. The interior cannot be conceived of through a simple opposition to the exterior; it is rather to be explored as a destabilized and heterogeneous construction with complex relationships with exteriors.

With the above mentioned in mind, the approach of the thesis, is to investigate and perform a thorough site analysis of the unique landscape surrounding Skamlebæk Radiohus and as well the building itself, both from a historical, anthropological and the tectonic/material perspective.

The idea is to support the unique qualities of the area and the buildings history, with my design intervention, by studying how an added spatial element, both can organize and create interior flow, whilst also connect and intertwine the preserved landscape with the historical Skamlebæk Radiohus.

Anthropological studies and historical research of the area, both of the surrounding landscape and the building itself - is a tool, that will make it possible for me to explore what is already there, in order to effectively question, how an architectural intervention - on the basis on the existing - could take form. With this approach, I will ensure a transformation strategy for a Museum of Geopark Odsherred, which intent is to increase the accessibility and "staging" of the unique landscape with a focus on bringing the unique to the limelight and create a foundation for nature and biodiversity dissemination

An analysis of Skamlebæk Radiohus current state and structure will allow me to create a physical frame for my intervention within the strategy area. I will strip down existing elements and analyze the potential for a transformation - what spatial elements will need a render, what spatial elements will need a possible intervention?

With this approach I have a solid ground for thoroughly develop my proposal, where I will look further into how *a stair* as a spatial addition, with its materiality, tectonics and even dimensions, possibly could add to a holistic narrative of the Museum of Geopark Odsherred.

Being able to mentally switch fluidly between scales, between the reading of a landscape and the mastery of a buildings design and all its parts, is one of the most important aspects of design processes, it seems to me.



2.5.07

METHOD

The starting point is studying the properties of the materials, the history of the landscape and the existing building structure, with that I can uncover a number of significant architectural character traits and thus ensure that the building's conservation qualities are not destroyed. The intention is that the existing material characteristics, historical traces and the experiential qualities of the space should contribute to a holistic narrative of Geopark Odsherred, and help define a nuanced, site-specific and present intervention.

An architectural transformation is about intervening in an existing physical situation. Based on the valuation that will be made in the first phase of the project - where the context will be analyzed historically and anthropologically - the specific, architectural intervention will be developed in the second phase, which will follow the method:

subtraction - reconstruction - repair - transformation - addition

At one end of the scale, the architectural intervention is to remove material, while reconstruction is about re-establishing something that has been there before. In the middle of the scale it is about repairing the existing, transformation is a change of the existing and at the outer end of the scale the intervention consists of building a completely new structure/adding a spatial element in an existing architectural context.

The aim of using this method is to create a new architectural spatial layer, by studying the existing structure and narrative of the building. The project must unfold, so that its final architectural expression looks as it does, not in spite of, but by virtue of what was already there. Based on the above studies, the third phase will focus on the detail, and thereby take an even closer look at the added spatial element, its dimensions and tectonics and material.

Models and materials will be a big part of developing my proposal. I will use models as a method to further determine my choices, by studies of shape, atmosphere, materials and tectonics. It will allow me to reflect on my choices and how to work with the already existing frame at the site. The models will work as a primary explanatory element in my final presentation.

contextual - spatial - detail

Overall, I will work on the project on three levels. At first phase, the contextual layer in scale 1:500, a thorough research of the existing context will be conducted and analyzed. In second phase, the spatial layer in scale 1:100, an architectural intervention will be designed on the basis on the transformation method. In third phase, the detailed layer in scale 1:10, will present a detailed study of the elements characteristics.



DELIVERABLES / PRESENTATION PLAN

Provisional list of submission material

Phase 1 / 1:500 Context

Site research / Photographs, sketches

Historical and anthropological research / Personal interviews

Mapping drawings / Diagrams

Material research / Existing findings

Situation plan

Situation model

Phase 2 / 1:100 Building scale

Plans, elevations, sections / Existing

Axonometric drawing / Transformation

Design strategy drawing / Transformation

Plans, elevations, sections / Intervention

Physical model / Intervention

Visualizations / Perspective views

Phase 3 / 1:10 Detail scale

Detail drawings

Detail model

Axonometric drawing / Intervention

Material experiments / Intervention

Visualizations / Perspective views

Supporting documents

Process booklet / Drawings, photographs

Logbook booklet / Anthropological and historical reflections

Program booklet / Written

Iconographic collection / References

Material archive / Samples and representation



COURSE OF STUDY / CV

Education

Master program

2019 - 2021:

Spatial Design, w/ Professor Peter Thule Kristensen

Supervisor: Tom Mose Petersen

Bachelor program

2016-2019:

Architecture and design, Whole and Part, w/ Lector Jørgen Hauberg

Supervisors: Tom Mose Petersen, Louise Grøndlund, Mette Hubschmann, Kim Lenschow

2013 - 2016:

Copenhagen Business School, Intercultural Market Communications

Courses

2016:

Københavns Kunsthøjskole, w/ Gry Holmskov

2012:

University of the Arts London, Central Saint Martins

Work

2021 - :

Architect, Tokonoma, w/ Linda Korndal

2019:

Intern, Norm Architects

2013 - 2016:

Communications and design, Paustian A/S, w/ Irene Houstrup

SCHEDULE



crit 1

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