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Mors Landscape Futures

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MORS LANDSCAPE FUTURES
LANDSKABSFREMTIDER PÅ MORS

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TRANSFORMATION STUDIO 2019

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MORS
MORS.DK

Hvad hvis vi skabte et grønt rekreativt landskabsnetværk på toppen af Nordmors? Hvad hvis vådområderne ved Jølby Nor blev genskabt som en ny slags landsbyfælled? Og hvordan kan landskabsarkitektur kuratere havvandsstigninger for at bevare de rige indbyrdes forbundne levesteder for mennesker og mange arter ved Rotholme? Her er fem bud på strategisk landskabsudvikling udarbejdet af landskabsarkitektstuderende ved Københavns Universitet. Fra februar til april 2019 undersøgte 15 studerende fra ti lande muligheder for at udvikle landskabet på øen Mors. I dialog med kommunale planlæggere, lokale eksperter og ildsjæle har de udviklet fem projekter som søger at udfolde *Landskabsfremtider på Mors*.

God læselyst!

What if we created a green nature and recreational network at the tip of North Mors? What if the wetlands of Jølby Nor were restored to be a new kind of commons connecting the local villages? How can landscape design curate sea level rise to preserve the rich, entangled habitats of people and multiple species at Rotholme? This volume presents strategic design work by landscape architecture students at the University of Copenhagen. From February to April 2019, 15 students from ten countries explored possibilities for landscape development on the island of Mors. In dialogue with municipal planners, lo-cal experts and local enthusiasts they developed five projects that strive to unfold *Mors Landscape Futures*.

Enjoy!

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PROJEKTERNE
THE PROJECTS

OM TRANSFORMATION STUDIO

Byudvikling arbejder i stigende grad med transformation af eksisterende byggede miljøer og landskaber igennem strategiske projekter. Spørgsmål om hvordan man kan aktivere eksisterende resurser, kvaliteter og potentialer stimulerer nye tilgange til landskabsarkitektur: landskabsarkitekter interesserer sig mere og mere for hvad fysiske tiltag kan *gøre*, frem for hvordan de burde *se ud*. De udvikler byrums- og landskabsprojekter som interventioner – dvs. som en aktiv del i en dynamisk udvikling snarere end et færdigt resultat og som midler til udvikling snarere end et mål i sig selv. Ideen er at styre udviklingen i en ønsket retning ved hjælp af målrettede fysiske og programmatiske indgreb. Samtidig kræver komplekse byudviklingsprocesser samarbejde mellem mange aktører og at forblive åbent overfor nye interesser og erkendelser i en langvarig proces med uvisse resultater.

Den strategiske projektudvikling kræver mere end formgivning i forhold til et på forhånd defineret program for et på forhånd afgrænset område. Strategisk projektudvikling inkluderer formuleringen af et designproblem og afgrænsningen af et projektområde med udgangspunkt i en analyse af tilstedeværende resurser, udfordringer og potentialer. Stedsanalysen bliver derfor det første og måske vigtigste skridt i en designproces. Dette kræver mere forskningsorienterede designmetoder uden dog at give slip på kreativiteten. Fordi enhver lokal situation er unik, socialt omstridt og konstant i forandring, findes der ingen objektiv måde at afgøre hvad der vil være den rigtige intervention. Men ved at arbejde skiftevist med analyse og projektudvikling i en sammenhængende kreativ proces, kan landskabsarkitekter udforske og sandsynliggøre lokale udviklingsmuligheder. Det er hvad vi gør i Transformation Studio.

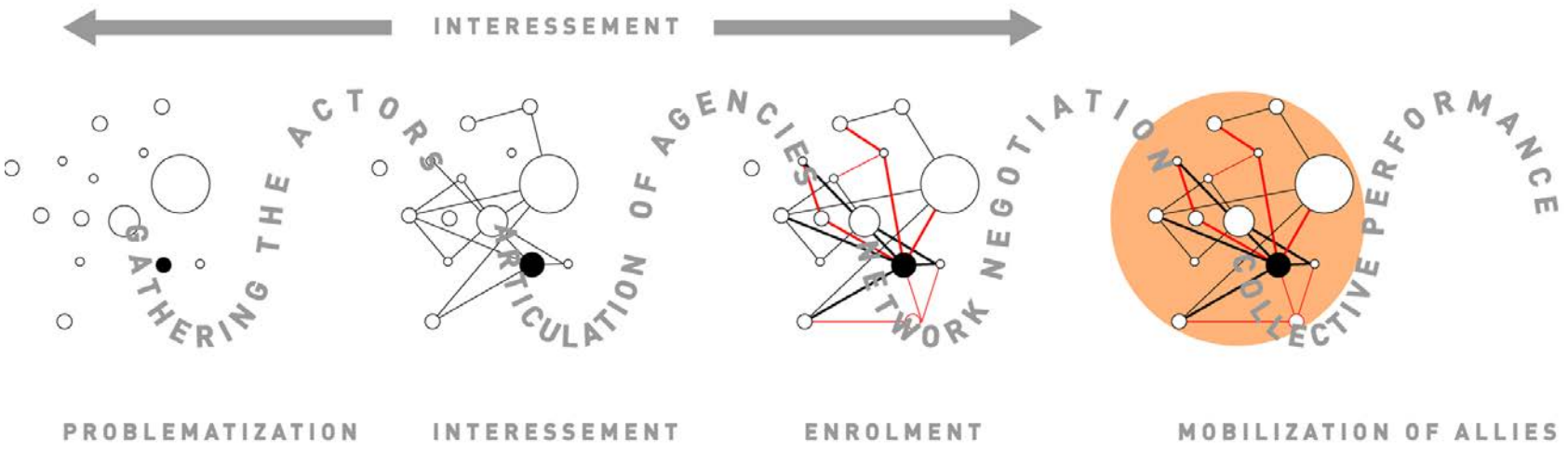
Gennem intensivt feltarbejde i et større studieområde udforsker vi aktuelle udfordringer og potentialer. På dette grundlag formulerer vi strategiske visioner of identificerer relevante områder for fysiske og programmatiske interventioner. Endelig udvikler vi strategiske projekter for udvalgte steder.

ABOUT TRANSFORMATION STUDIO

Spatial planning increasingly focuses on the transformation of existing built environments and land-scapes through strategic projects. Questions about how to activate existing resources, qualities and potential for strategic purposes stimulate new ways of design thinking; Landscape architects are more and more interested in what a design *does* rather than how it *looks*. They are increasingly conceiving open space projects as interventions – as an active part of dynamic development rather than fixed results and as means rather than ends. The overall idea is to steer spatial development in a desired direction through strategic physical and programmatic interventions. At the same time, complex urban develop-ment processes require collaborating with many actors and remaining open to new interests and insights.

Strategic design requires more than giving shape to an a priori defined program on an a priori delimited site. It includes the formulation of a design problem and the delimitation of areas for design interven-tion based on an evaluation of present resources, challenges and potential. Site analysis thus becomes the first and maybe the most important step in the design process. This requires more research-oriented design methods without, however, slipping creativity. Because each local situation is unique, socially contested and constantly changing in relation to many factors at multiple scales, there are no correct solutions, and no objective way of deciding what would be a good intervention. But when conducted as an integrated creative process, site analysis and design can explore and make local develop-ment possibilities probable. This is what we do in the Transformation Studio.

Through intensive field work in a larger study area, we investigate current challenges and development potential. On this basis, we formulate strategic development visions and identify relevant sites for design intervention. Finally, we develop strategic design interventions for selected sites.



STRATEGISK DESIGN SOM OVERSÆTTELSE

Inspireret af Aktør-Netværk Teori forstår vi strategisk projektudvikling som en oversættelsesproces. *Oversættelse*, også kaldet en ANT-analyse, er en metode til at beskrive hvordan komplekse koblinger mellem mennesker, ting og ideer bliver bygget op for et bestemt formål[1]. Dette kunne for eksempel være en strategisk vision for landskabsudvikling. Netop fordi ANT også ser ting som forandringsagenter er den et godt udgangspunkt for at strukturere en strategisk designproces i landskabet fra stedsanalyse til projektudvikling.

En oversættelsesproces har fire afgørende momenter som forbinder projektudvikling med opbygningen af de aktør-netværker som er nødvendige for at realisere projektet[2]. Fra formuleringen af den første vision for et givent område samt identificering af de aktører som er berørt af de formulerede mål, over afprøvningen af forskellige udviklingsmuligheder ved hjælp af kort og diagrammer, til udviklingen af et konkret projekt og endelig det øjeblik, hvor det realiserede projekt udfolder sin virkning på stedet. Inden for ANT taler man om problematisering, *tiltrækning, indrullering* og *mobilisering af allierede*[3]. I praksis er disse faser ikke klart adskilte og særligt tiltrækningsfasen, der bygger bro mellem den oprindelige problemformulering og de endelige projekter, kræver konstant at skifte mellem analyse og design.

Diagrammet ovenfor viser hvordan et projekt (den sorte prik) udvikler sig fra den første vision til det realiserede projekt ved at samle på menneskelige og ikke-menneskelige aktører (de sorte cirkler) indtil et samvirkende aktør-netværk er bygget op.

STRATEGIC DESIGN AS TRANSLATION

Inspired by Actor-Network Theory (ANT) we understand strategic design as a translation process. *Translation*, also called an ANT-account, is a method to describe how complex networks of people, ideas and things are constructed for a certain purpose[1]. This could, for example, be a strategic vision for landscape development. Precisely because ANT equally perceives things as agents of change, we find this method helpful for structuring a strategic landscape design process from site analysis to project development.

A translation process has four decisive moments which link project development to the construction of actor-networks that are necessary to realise the project[2]. From the formulation of a preliminary vision and the identification of a set of actors who are concerned with the formulated goals, over testing of different development possibilities through maps and diagrams, to the development of a concrete project, and finally the moment where the implemented project unfolds its effect. ANT calls these moments: *problematization, interessement, enrolment,* and *mobilization of allies*[3]. The different moments are not clearly separated, and especially interessement activities, which link problem formulation, analysis and project development, require shifting continuously between analysis and design mode.

The diagram above shows how a project (the black dot) develops from the first vision to the realised project by assembling human and non-human actors (the black circles) until a constraining actor-network has been built.

LANDSKABSFREMTIDER PÅ MORS

Mors er en ø i Limfjorden, det lavvandede sund, der adskiller øen Vendsyssel-Thy fra resten af Jylland. Øen har et areal på 367 km2 og en kystlinje på 151 km. Morsø Kommune indeholder også den mindre ø Agerø og har 20.665 indbyggere hvoraf 9.000 bor i hovedbyen Nykøbing Mors. Mors er forbundet til fastlandet ved Sallingsundbroen og til Thy ved Vilsundbroen. Derudover er der også færgeforbindelser til Thy fra sydvestmors og fra den nordlige del af øen.

Mors er et af de yderområder i Danmark, som er plaget af befolkningsnedgang, faldende boligpriser, tomme bygninger og vanskeligheder med at tiltrække yngre folk med en længere uddannelse. Men Mors har også stedbundne ressourcer og potentialer. Geologisk er Mors unik – øen er kendt for dets aflejringer af moler der danner et spektakulært landskab i den nordlige del af øen. Beliggenheden i Limfjorden skaber mange muligheder fra skaldyrbrug til vandsportsaktiviteter. Og mange lokalsamfund, foreninger og interesseorganisationer engagerer sig i den lokale udvikling. Disse potentialer udgør grundlaget for vores arbejde i Transformation Studio: Opgaven på Mors var at udvikle landskabsprojekter, som udfolder eksisterende stedbundne resurser og på denne måde stimulerer naturudvikling, bosætning og erhvervsudvikling og bidrager til god livskvalitet.

To udviklingstemaer

I løbet af de sidste par år har Morsø Kommune arbejdet intensivt med udviklingen af langsigtede udviklingsstrategier, planer og projekter, altid i tæt samarbejde med lokalsamfund og interessenter. De eksisterende initiativer peger på to udviklingstemaer som de studerende har udforsket:

1 | Veje til multifunktionelle landskaber

Mors er måske det mest intensivt dyrkede område i Danmark. Store områder er derfor ret utilgængelige industrielle landbrugslandskaber og store mængder kvælstof bliver udledt i Limfjorden. I disse år bliver flere tørlagte og opdyrkede vådområder genoprettet for at holde kvælstof tilbage og forbedre vandkvaliteten

MORS LANDSCAPE FUTURES

Mors is an island in the Limfjord, the shallow sound separating the island of Vendsyssel-Thy from the rest of Jutland. The island has an area of 367 km2 and a coastline of 151 km. Morsø municipality also includes the smaller island of Agerø and has 20,665 inhabitant, of which 9,000 live in the main town, Nykøbing Mors. Mors is connected to the mainland by the Sallingsund Bridge and to Thy by the Vilsund Bridge and ferry links to Thy from southwest Mors and from the north of the island.

Mors is one of the peripheral areas in Denmark that is challenged by population decline, a fall in house prices, vacant buildings and difficulties to attract young people with a higher education. But Mors also has distinct place-based resources and potentials. Deposits of diatomite, locally known as ‘moler’ (mo-clay) form a geologically unique landscape in the north of the island. The location in the Limfjord provides many opportunities from shellfish farming to watersport activities. Also, many local communities, associations and interest organisations are engaged in local development. These potentials form the basis for the work in the Transformation Studio: The students’ task was to develop landscape projects that unfold existing place-based resources to stimulate positive development of nature, settlements and business and contribute to quality of life.

Two development themes

Over the last years, Morsø Municipality has worked intensively with the development of long-term development strategies, plans and projects in close collaboration with local communities and stakeholders. The existing initiatives point to two development themes which the students have explored:

1 | Towards multifunctional landscapes

Mors is perhaps the most intensively cultivated area in Denmark. Large areas are practically inaccessible industrial agricultural landscapes and large quantities of nitrogen are discharged into the Limfjord. To retain the nitrogen and improve the water quality in the fjord, reclaimed wetlands are currently being restored,

i fjorden. Dette åbner nye muligheder for naturudviklingen, for rekreativ brug af landskabet of for at skabe nye forbindelser mellem landsbyerne omkring Jølby Nor.

Moler er et sjældent materiale som kan bruges til mange ting: som filtreringshjælpemiddel, mild slibemiddel, mekanisk insekticid, absorberende til væsker, mattering til belægninger, forstærkende fyldstof i plast og gummi, blokering i plastikfilm, porøs støtte til kemikalier katalysatorer, kattegrus, igangsætter i blodkoagulationsundersøgelser, stabiliserende komponent af dynamit og som termisk isolator. Moler bliver stadigvæk gravet på Mors, mens udtømte molergrav bliver omdannet til rekreative landskaber. I løbet af de sidste par år har projektet Fremtidens Landskaber på Nordmors udviklet en strategisk landskabsplan og strategiske projekter for dette geologisk unikke landskab, herunder nye besøgssteder, bedre tilgængelighed, og anerkendelsen af Hanklit som UNESCO verdensarv (sammen med Knude Klint på øen Fur). Hvordan kan landskabsprojekter fremme multifunktionelle landskaber udover landbrug og råstofudvinding og stimulere nye opfattelser af landskabet som fælles rum for mennesker og ikke-menneskelige væsener?

2 | Øen i Limfjorden

Mors beliggenhed i Limfjorden giver øen mange udviklingsmuligheder. Da der kun er få naturområder i Mors stærkt opdyrkede indland, er kystområderne og Limfjorden vigtige natur- og rekreative områder for beboere og besøgende. Lokale ildsjæle arbejder med udviklingen af et søsportscenter med aktiviteter på tværs af sundet. Dyrkning af muslinger og østers er en voksende forretnings- og turistattraktion; der er skaldyrfestival hvert år i Nykøbing, og det Danske Skaldyrcenter er et nationalt forsknings- og formidlingscenter med et stort udviklingspotentiale. Der er stort potentiale i at udvikle Mors lokale identitet og brand som 'øen i Limfjorden' og for at udvikle fjorden til et forbindende regionalt vandrum. Hvordan kan landskabsprojekter udvikle de eksisterende stedbundne ressourcer og nye initiativer i og omkring Limfjorden? Og hvordan kan landskabsprojekter styrke oplevelsen af Mors som øen i Limfjorden?

including the Jølby inlet, which opens up new possibilities for nature development, recreational uses and new landscape connections between the surrounding villages.

Mo-clay is a rare material which can be used for many things: as a filtration aid, mild abrasive in metal polishes and toothpaste, mechanical insecticide, absorbent for liquids, matting agent for coatings, reinforcing filler in plastics and rubber, anti-block in plastic films, porous support for chemical catalysts, cat litter, activator in blood clotting studies, a stabilizing component of dynamite, and a thermal insulator. Mo-clay is still actively quarried on Mors, while closed quarries are being redeveloped into recreational landscapes. The project Future Landscapes on North Mors has developed a strategic landscape plan and strategic projects for this geologically unique landscape, including new visitor hotspots, better recreational access, and recognition of Hanklit as UNESCO World Heritage Site (together with Knude Klint on the island of Fur). How can landscape projects promote multifunctional landscapes beyond agriculture and mining and stimulate new perceptions of the landscape as a common space for humans and nonhumans?

2 | The island in the Limfjord

Mors' location in the Limfjord provides many development opportunities. The coastal areas and the Limfjord are vital nature and recreational areas for residents and visitors. Local enthusiasts in Nykøbing are working with the development of a seasports centre with activities across the sound. Shellfish farming is a growing business and tourism attraction; a shellfish festival takes place in Nykøbing every year and the Danish Shellfish Center is a national research and communication centre with potential for further development. There is great potential to develop Mors' local identity and brand as an "island in the Limfjord" and to develop the Limfjord into a connecting regional water space. How can landscape projects develop existing place-based resources and initiatives in and around the Limfjord? And how can landscape projects strengthen the experience of Mors as an island in the Limfjord?


HEIDI-ANN


TOWARDS
LANDSCAPES

HVORDAN VI HAR ARBEJDET

Med afsæt i de to udviklingstemaer 1) Veje til multifunktionelle landskaber og 2) Øen i Limfjorden har de studerende udforsket muligheder for nye strategiske landskabsprojekter. Aktuelle lokale initiativer og projekter, lokal viden om stedbundne ressourcer og potentialer, og – ikke mindst – samtaler med folk som allerede engagerer sig i landskabsudvikling på Mors blev til inspiration for nye projektideer.

En uge med intensivt feltarbejde skabte basis for projektudviklingen. På vores første dag blev vi vist rundt på Mors af den kommunale planlæggere Dorthe Hedensted Lund. Vi besøgte Hanklit og Ejerslev Havn, gik en tur rundt om Nykøbing Havn og hørte om erfaringerne med Landsbyen de 7 sogne i Hvidbjerg. De næste to dage udførte de studerende tematiske transects[4]: I små grupper undersøgte de en rute forbi steder med betydning for ét af de to udviklingstemaer, hhv. langs Limfjordkysten, forbi mo-lergrave eller omkring det kommende vådområde ved Jølby Nor. De bevægede sig rundt i bil og til fods, gjorde iagttagelser og førte samtaler om stedet på stedet.

Formålet med feltarbejdet var at udvikle første ideer og at identificere katalytiske situationer for nye landskabsprojekter, dvs. situationer hvor fysiske tiltag ville kunne stimulere naturudvikling, bosætning eller erhvervsudvikling og bidrage til god livskvalitet. Med det in mente skulle de studerende rette op-mærksomheden mod tegn for forandringer i landskabet, for eksempel i form af fysiske forandringer, nye aktiviteter og anvendelser og ideer og ønsker om forandringer.

Hver gruppe lavede to til tre arrangerede interviews med folk, som engagerer sig i landskabsudvikling på Mors. Derudover lavede hver gruppe flere spontane interviews med folk, de mødte 'på vej' i deres transects. Mens de arrangerede interviews gav rig information om stedbundne ressourcer og potentialer og igangværende projekter, bidrog de spontane interviews med indsigt i forskellige menneskers daglige ruter og rutiner og de steder, der betyder noget særligt for dem.

Observationer langs ruten fokuserede på tre typer situationer i alle skalaer: 1) Inside/outside, dvs. rumlige overgange fra et sted eller landskab til et andet; 2) front/back, dvs. aktiviteter som forgår 'bag scenen'; og 3) above/below; dvs. hvordan infrastruktur- og servicenetværker, som ofte er usynlige 'nedenunder' en situation, påvirker de synlige aktiviteter 'på overfladen', for eksempel er et busstoppested del af et større eller mindre transportsystem som forbinder et sted til andre steder.

Med udgangspunkt i deres feltarbejde lavede de studerende fælles evalueringskort for hvert tema, de identificerede katalytiske situationer og formulerede første udviklingsvisioner og projektideer, som vi derefter diskuterede med de kommunale planlæggere. De sidste to dage i felten brugte de studerende på mere målrettede stedsundersøgelser med afsæt i deres første projektideer.

HOW WE WORKED

Based on the two development themes; 1) Towards multifunctional landscapes, and 2) The island in the Limfjord the students explored opportunities for new strategic landscape projects. Emerging local initiatives, local knowledge about place-based resources and potential, and – not least – talking to people who already are engaged in landscape development on Mors inspired the students to develop new pro-ject ideas.

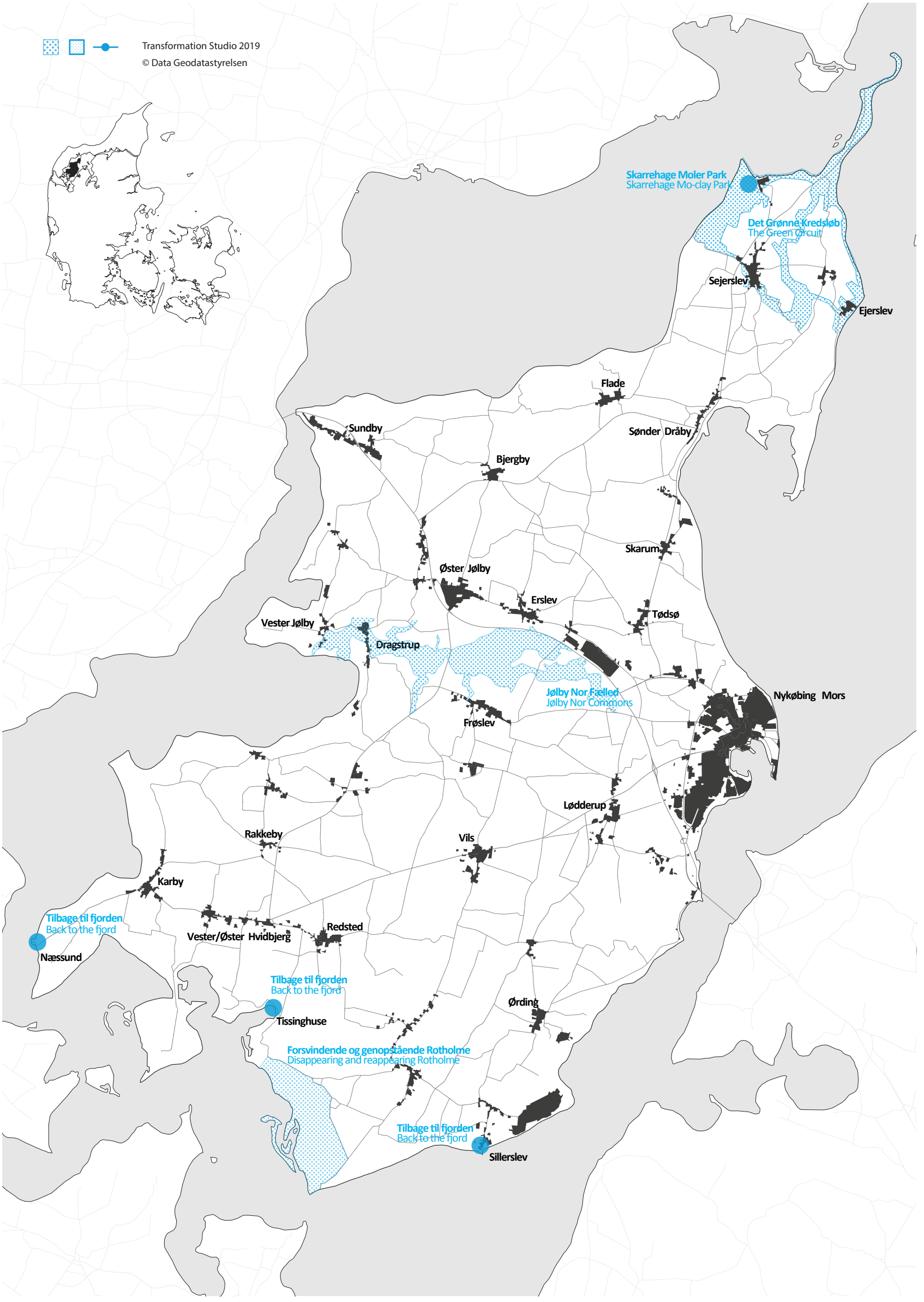
A week of intensive field work formed the basis for project development. On the first day, we were giv-en a guided tour of Mors by municipal planner Dorthe Hedensted Lund. We visited Hanklit and Ejerslev harbour, took a walk around Nykøbing harbour, and learned about the 'village of 7 parishes' in Hvidbjerg. The next two days the students conducted thematic transects[4]; in small groups they investigated a route past locations that resonated with one of the two development themes; along the Limfjord coast, past mo-clay quarries, or around the future wetlands at Jølby Nor. They moved around by car and on foot, made observations and had onsite conversations about the landscape.

The aim of the fieldwork was to generate first ideas and to identify catalytic situations for new landscape projects, that is, situations where physical interventions are likely to stimulate positive develop-ment of nature, settlements or businesses and to improve quality of life. With that in mind, students should draw attention to signs of change in the landscape, for example in the form of physical changes, new activities and uses and ideas and desires for change.

Each group did two to three arranged interviews with people engaged in recent or forthcoming pro-jects. In addition, each group did several spontaneous interviews with people they met 'on the road'. While the arranged interviews provided rich information about place-based resources and potentials and ongoing projects, the spontaneous interviews contributed with insight into different people's daily routes and routines and the places that mean something special to them.

Observations along the route focused on three types of situation on all scales; 1) Inside/outside, i.e. spatial transitions from one place or landscape to another; 2) front/back, i.e. usages and activities that occur 'behind the scenes'; and 3) above/below; i.e. how infrastructural networks and services, which are often invisible 'below' a situation, affect usages and activities 'above', e.g. a bus stop is part of a larger transportation network which creates connections to other places.

Based on their fieldwork the students made common evaluation maps for each theme, identified catalytic situations and formulated first development visions and project ideas, which we then discussed with the municipal planners. The last two days of fieldwork were spent with focused site evaluation based on the students' first project ideas.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Skarrehage Mo-clay Park
Det Grønne Kredsløb
The Green Circuit
Sejerslev
Ejerslev
Flade
Sundby
Sønder Dråby
Bjergby
Skarum
Øster Jølby
Erslev
Tødsø
Vester Jølby
Dragstrup
Jølby Nor Fælled
Jølby Nor Commons
Nykøbing Mors
Frøslev
Løddrup
Rakkeby
Vils
Karby
Tilbage til fjorden
Back to the fjord
Vester/Øster Hvidbjerg
Redsted
Næssund
Tilbage til fjorden
Back to the fjord
Ørding
Tissinghuse
Forsvindende og genopstående Rotholme
Disappearing and reappearing Rotholme
Tilbage til fjorden
Back to the fjord
Sillerslev

Tilbage ved tegnebordene i København udviklede de studerende deres indsigter fra feltarbejdet til mere specifikke udviklingsvisioner, afgrænsede projektområder og definerede konkrete tiltag. De sidste fire uger blev brugt på at udarbejde et strategisk landskabsprojekt med ugentligt feedback fra gæstekritikere.

Flere studerende holdt kontakt med lokale aktører, som de havde talt med på Mors. Andre tog kontakt til nye lokale aktører eller undervejs. På den måde blev de studerende ved med at indarbejde ny input i deres projekter helt frem til afleveringen.

FEM STRATEGISKE PROJEKTER

De fem projekter, der kom ud af kurset, spænder bredt. Fra et nyt natur- og rekreativt netværk på Nordmors og en Molerpark ved Skarrehage, til udviklingen af de nye vådområder ved Jølby Nor som en ny slags landsbyfælled, et marinanetværk på Sydmors og en eksperimentel vision for hvordan vi kan omgås havvandsstigninger i et særligt kystlandskab ved Rotholme.

Mens de givne udviklingstemaer er genkendelige i alle projekter, frembringer de alle nye originale ideer og indsigter – de foreslår nye programmer, bringer nye steder i spil eller anbefaler nye samarbejdsnet-værker. Først og fremmest skaber projekterne nye billeder af mulige fremtidige landskaber, som vi håber, kan være til inspiration for alle de lokale aktører som kommer til at arbejde med udviklingen af landskabet på Mors.

[1] LATOUR, B., 2005. Reassembling the Social: An Introduction to Actor-Network-Theory. Oxford: Oxford University Press.

[2] TIETJEN, A., 2018. Found in Translation: Working with Actor-Network-Theory in Design Education. *Nordic Journal of Architectural Research, Issue 1:2018,* p. 11-34.

[3] CALLON, M., 1986. Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St. Brieuc Bay. In: LAW, J. (ed.), *Power, Action and Belief: A New Sociology of Knowledge?*, pp. 196-233.

[4] Vi har fulgt metoden beskrevet af BAZAR URBAIN, CONTREPOINT and CHRONOS, Z., 2013. Amiens 2030: Le quotidien en projet. Bazar urbain éditions.

Back at the drawing boards in Copenhagen, the students developed their fieldwork findings into more specified design visions, delimited sites for intervention, and defined concrete interventions. Through the last four weeks the students elaborated a strategic landscape project guided by regular feedback from guest critics.

Several students stayed in touch with local actors they had interviewed on Mors. Others contacted new local actors and experts in the process. In this way, the students kept introducing new insights into their projects until the final hand-in.

FIVE STRATEGIC PROJECTS

The five projects that have emerged from the course include ideas for a new nature and recreation network in North Mors, a Mo-Clay park in Skarrehage, the restoration of the wetlands of Jølby Nor as a new kind of commons, a harbor network in Southmors, and a vision for dealing with sea level rise in the rare coastal landscape of Rotholme.

While the given development themes are recognizable in all projects, they all create new original ideas and insights – they propose new programs, suggest new locations or recommend new collaboration networks. First and foremost, the projects create new images of possible future landscapes, which we hope can inspire all the local actors who will be working on the development of Mors' landscape.

[1] LATOUR, B., 2005. Reassembling the Social: An Introduction to Actor-Network-Theory. Oxford: Oxford University Press.

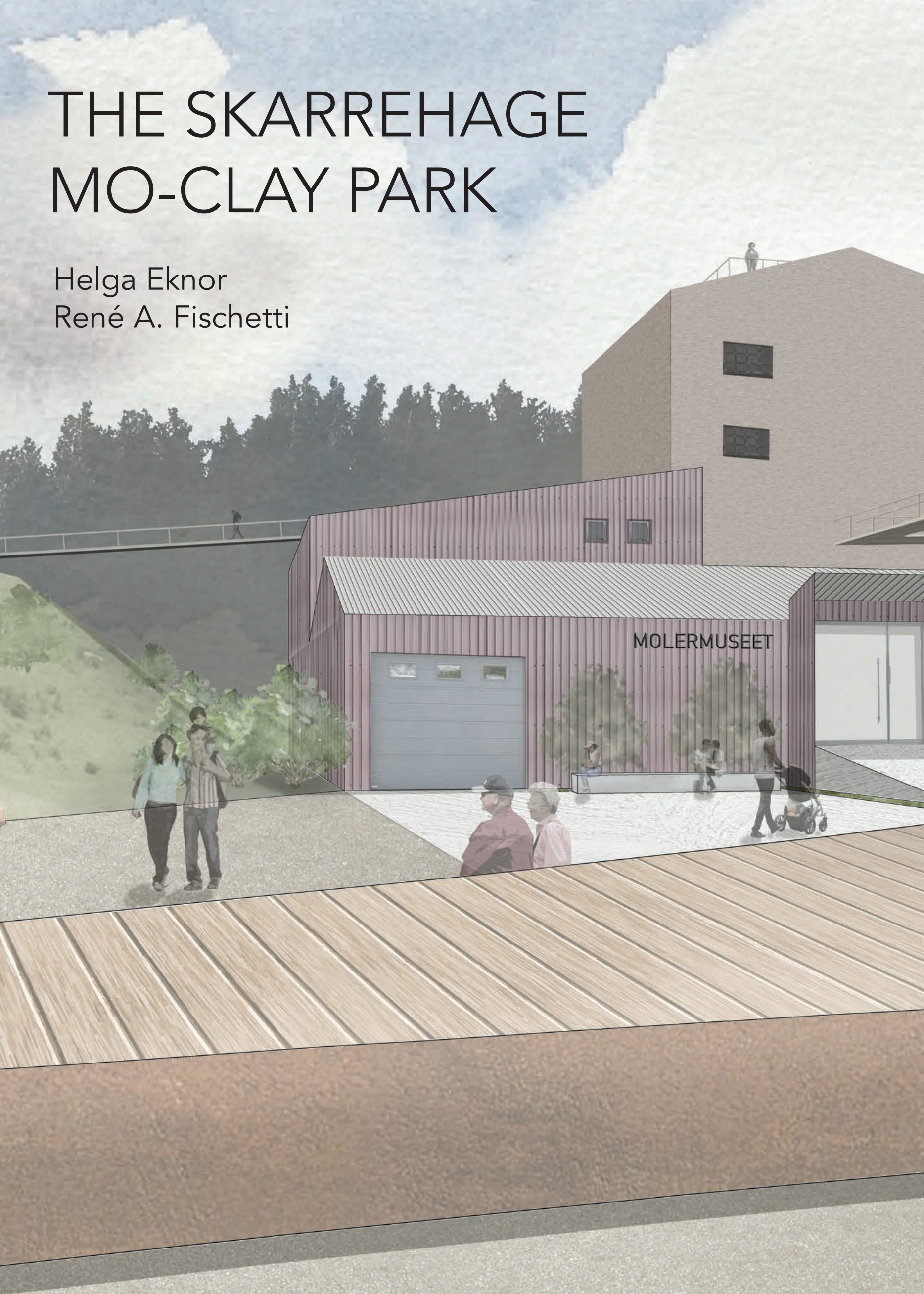
[2] TIETJEN, A., 2018. Found in Translation: Working with Actor-Network-Theory in Design Education. *Nordic Journal of Architectural Research, Issue 1:2018,* p. 11-34.

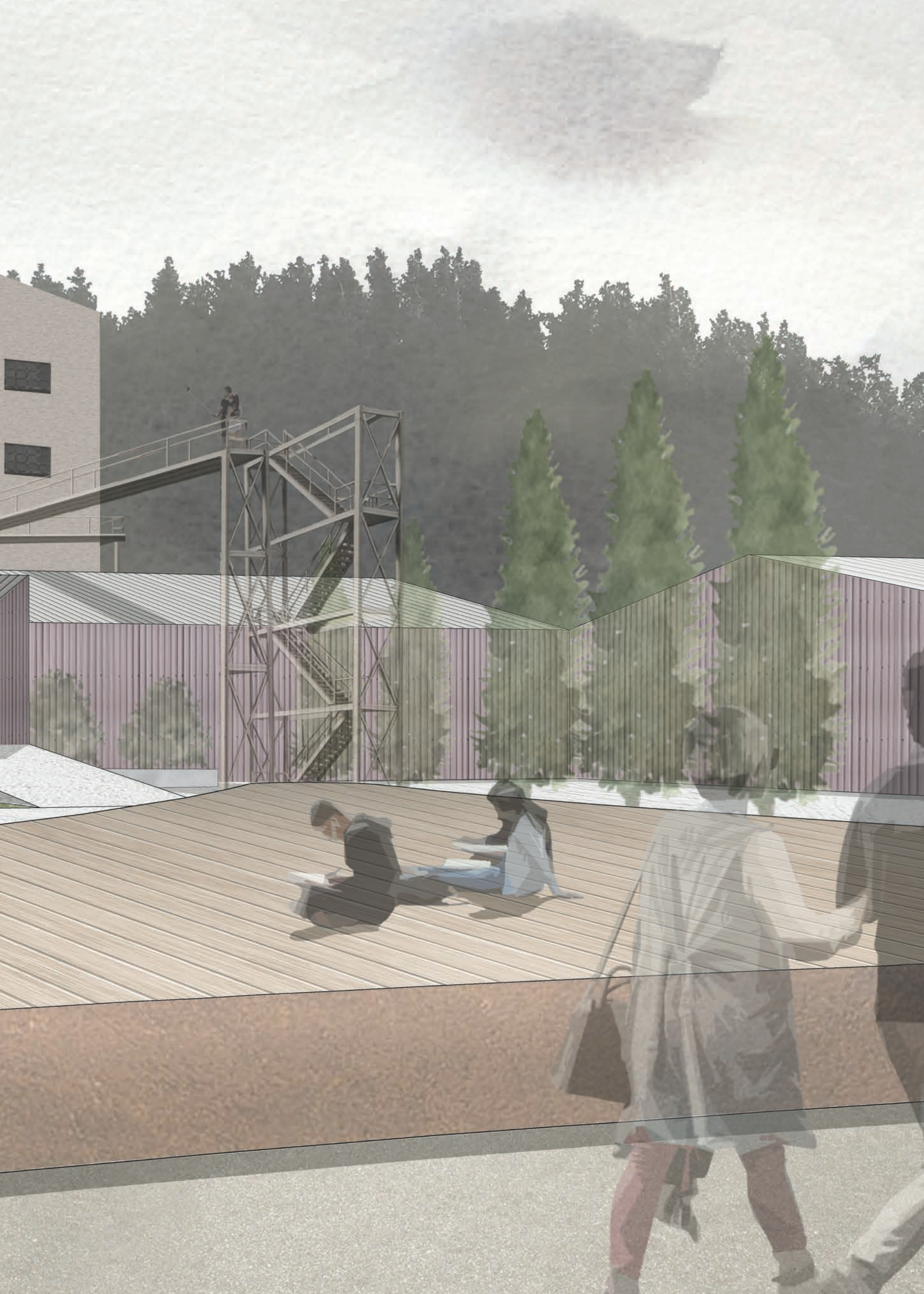
[3] CALLON, M., 1986. Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St. Brieuc Bay. In: LAW, J. (ed.), Power, Action and Belief: A New Sociology of Knowledge?, pp. 196-233.

[4] We followed the method described by BAZAR URBAIN, CONTREPOINT and CHRONOS, Z., 2013. Amiens 2030: Le quotidien en projet. Bazar urbain éditions.

THE SKARREHAGE MO-CLAY PARK

Helga Eknor
René A. Fischetti





SKARREHAGE MOLERPARK

Dette projektforslag går ud på at forvandle Nordmors' unikke molerlandskab til en Geopark og etablere et besøgscenter og park i Skarrehage. Forslaget til en Geopark kommer som et alternativ til den nuværende ansøgning fra Fossilmuseet og Morsø Kommune om at komme på UNESCOs Verdensarvsliste. En ansøgning der udelukkende fokusere på ét element, nemlig fossilerne fundet i selve moleret. En Geopark vil derimod vil have en holistisk tilgang der udover fossilerne og vil fokusere på talrige andre værdier såsom; molergravene, de dramatiske ar i landskabet der eksponere de særlige profiler af foldninger skabt af istidens gletsjere og de unikke materielle egenskaber af det sjældne og skrøbelige diatoméjord.

Landskabet på Nordmors er et dramatisk landskab med kuperet terræn langs fjorden. Et kuperet terræn skabt af nogle helt særlige geologiske forhold under istiden med et helt særligt geologisk materiale der kan dateres 55 millioner år tilbage i tiden. Det er unikt pga. moleret der har indkapslet biologisk og geologisk historie helt tilbage fra den Eocæne periode. De mange fossilfund af flora og fauna og daterbare askelag har været med til at udfolde verdenshistorien med udvidet detaljerigdom. Udgravningen af moleret til kommercielle interesser startede på Mors i 1903. I begyndelsen var de primære afsætningsvarer mursten og isolationsmateriale, men i dag bliver moleret brugt til adskillige formål, lige fra kemikaliefremstilling, væskeabsorbant, stabiliseringsmateriale i dynamit og ikke mindst kattegrus.

Projektforslaget har som hensigt at flytte alle funktioner, inventar og magasiner fra det nuværende Fossil- og molermuseum til en bygning i relativ nærhed der tidligere fungerede som molerfabrik på Mors. Ved at flytte rammerne til dette historiske sted vil man som besøgende kunne opleve den samlede geologiske og kulturelle historie vedrørende moleret på Nordmors. Udover at fungere som museum vil der også oprettes en café og en udstillingshal, der også har funktion som et forsamlingshus. Udstillingshallen vil tilmed kunne udlejes til f.eks. lokale forsamlinger, bryllupper eller konfirmationer. Til at modtage de besøgende vil der foran museet etableres et nyt samtidig torv. En vertikal forbindelse fra molergraven til det nye museum vil blive genintroduceret som gangbroer og i samspil med en boardwalk beliggende nord for torvet vil en gammel forbindelse mellem molergrav og fjord blive genskabt med museet som knudepunkt.

Via gangbroerne påhæftet museet vil de besøgende kunne tilgå molergraven syd for museet og ramme et omhyggeligt planlagt stisystem med tilhørende moler-platforme som vil guide en igennem området. Molergraven har tre hovedkaraktere; Et terrasseret fossilgravningsområde i den nordligste del tættest på museet, en beplantet rekreativt parkområde i midten og i syd finder man et dramatisk landskab med stejle skråninger og smukke blottede molersprofiler. To af de føromtalte platforme vil blive placeret på den yderste kant af den sydlygste grav for at fremhæve de beundringsværdige historiske lag i moleret.

Skarrehage Molerpark vil berige oplevelsen af molerets historie ved at skabe multifunktionelle landskab hvor formidling, rekreation og udfoldelse sammenkobles.

THE SKARREHAGE MO-CLAY PARK

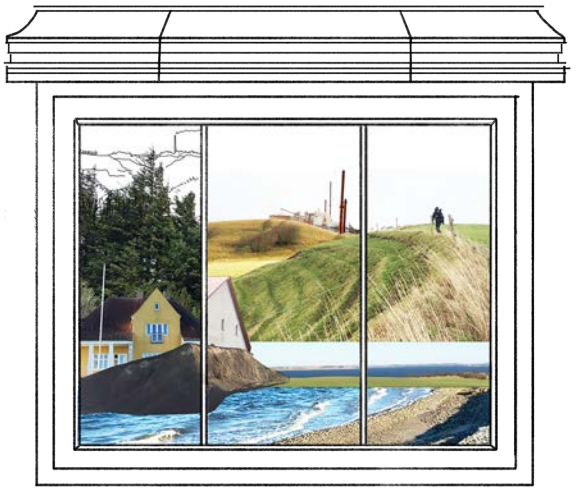
This project proposes to turn the geologically unique Mo-clay landscape of North Mors into a large scale Geopark and to establish a Visitor Centre and park in Skarrehage. The proposal of a Geopark is an alternative to the current application made by the Fossil Museum and Morsø Municipality to reach a UNESCO World Heritage site that will focus only on the fossils found in the Mo-clay. The Geopark on another hand will have a holistic focus from where it will be possible to include the multi-facetted assets; The fossils, the quarries, the exposed layers of time in the dramatic cuts in the landscape, and the unique material capabilities of this rare and fragile diatomic soil.

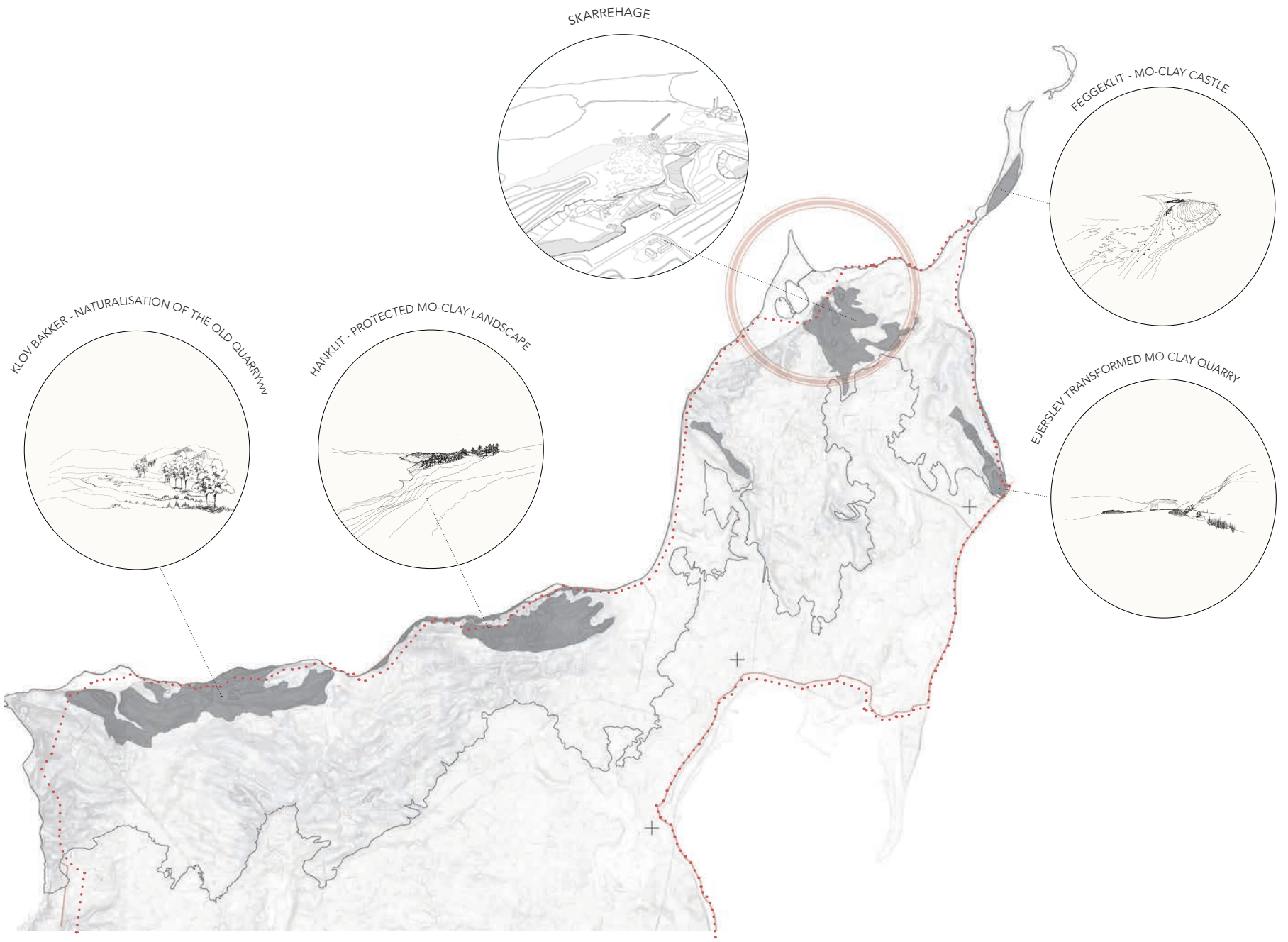
The landscape of North Mors is a place of land elevations and fjord that holds great dramatic beauty shaped by unique geological conditions 55 million years ago. It is unique due to its Mo-clay reserve, which has encapsulated the biological and geological history of the Eocene period. The findings of various fossils of flora and fauna and different layers of volcanic ash have ultimately helped to understand the world's history in greater details. The excavation of Mo-clay for industrial purposes began on Mors in 1903. Bricks and insulation material was the primary commodity in the beginning. Today Mo-clay is being used in a great variety of products from advanced industrial chemicals, absorbent of liquids, a stabilizing component in dynamite and cat litter.

A new Mo-clay Museum will be located in the old Mo-clay factory, by moving all the functions and matériel from the existing Fossil and Mo-clay Museum the new Mo-clay Museum will be able to give the visitors the entire geological and cultural experience of the Mo-clay on Northern Mors. The museum also includes a café and an Exhibition Hall that functions as a community center. The Exhibition Hall will be possible to rent for e.g. local gatherings, weddings and confirmations. In front of the museum, a new contemporary square welcomes visitors to the museum. Vertical accessibility from the quarry to the museum has been reintroduced as footbridges and together with a wooden boardwalk running north of the square a connection between quarry and fjord is reestablished with the museum as the junction.

From the footbridges attached to the museum the visitors can access the quarry south of the museum through a carefully laid out path system and Mo-clay platforms that guides you through the area. The quarry will have three main characters: A cascaded fossil digging site in the north closest to the new museum, a vegetated park for recreation in the center and in the south a dramatic experience of steep slopes and beautiful Mo-clay profiles. Two viewing platforms have been placed on the very edge of the southern quarry to highlight the admirable layered history of the Mo-clay.

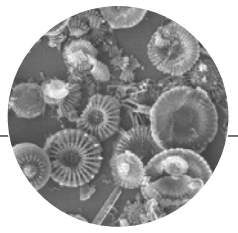
The Skarrehage Mo-clay Park enriches the experience of the Mo-clay history by creating a multifunctional landscape where education, recreation and leisure comes together.



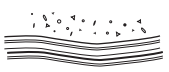


MO-CLAY TIMELINE

EOCENE
55 000 BC



The Mo-clay is a rare sediment composed of diatoms, a mix of specific type of algae and ash layers that has settle on the seabed.



ICE AGE
27 000 BC

The Mo-clay and its ash layers were moved and folded by the great glaciers creating the dramatic landscape on the island.

INDUSTRIALIZATION
1900

Excavation of the mo-clay for industrial purposes in the north of Mors began. This human intervention left scars in the landscape

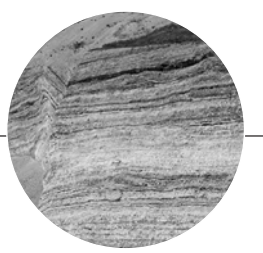
1983

Selected excavation areas have now been reserved for recreational purposes, leaving other parts for industries.

1988

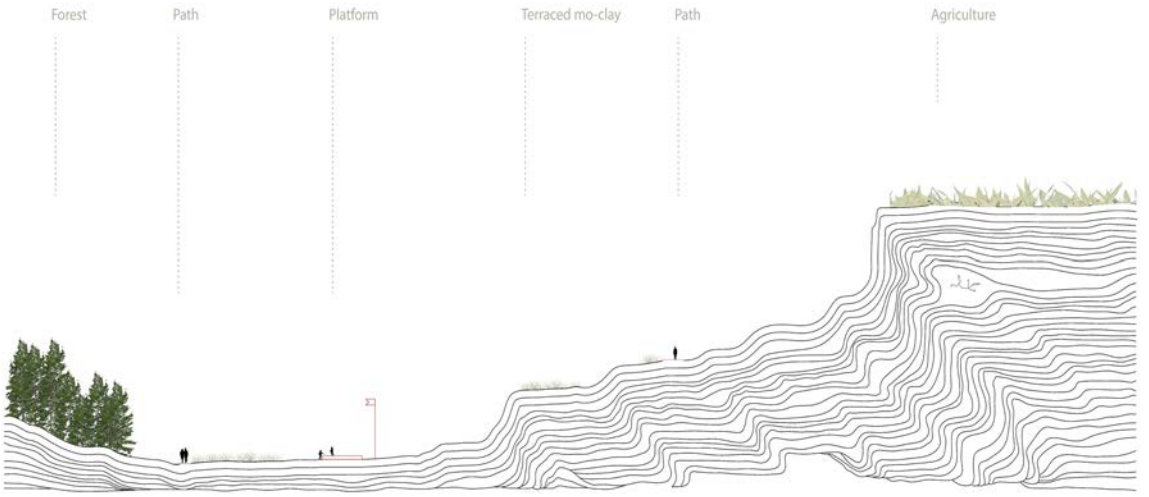
The fossil and mo-clay museum opens in Skarrehaage for educational purposes.

2010

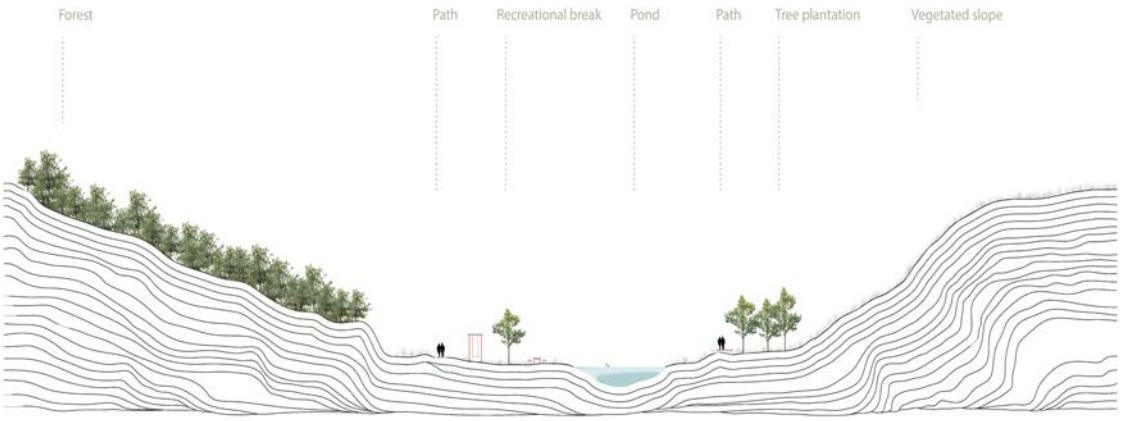


First attempt to make the mo-clay landscape part of the World Heritage site list for its outstanding universal value from the point of view of science, conservation and natural beauty.

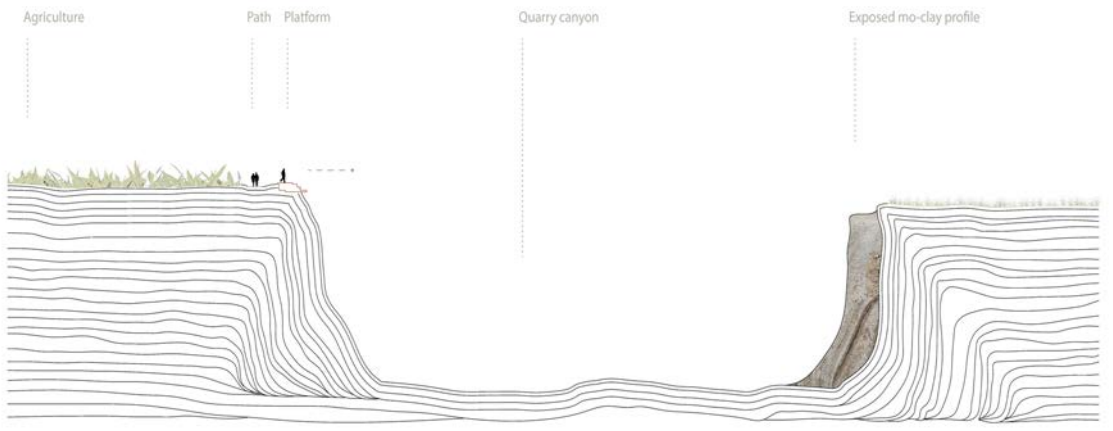
A. THE FOSSIL DIGGING SITE



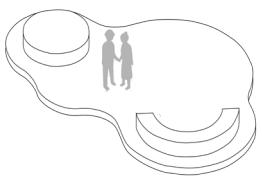
B. THE PARK



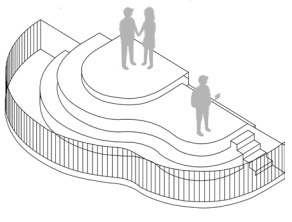
C. THE VIEW



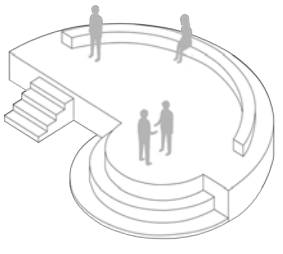
1. THE HUDDLE



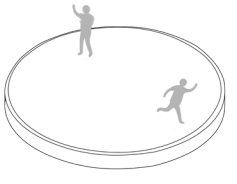
2. THE LEDGE



3. THE SCENE

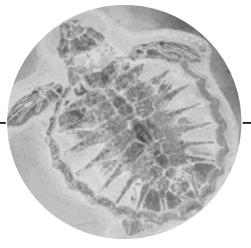


4. THE DIATOME



TIMELINE CONTINUED

2016



Alternative

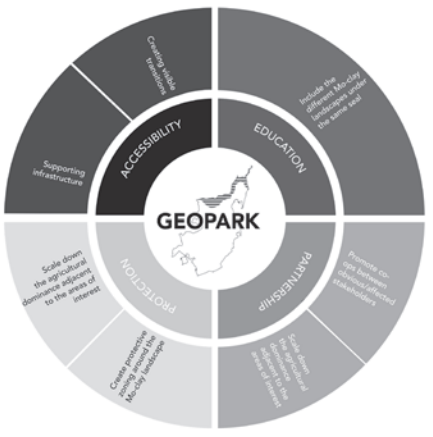
Future

Second attempt to be part of the World Heritage site list. This time the municipality is mainly focusing on the fossils to lift up the application and be part of the World Nature Heritage.

This project proposition is to unify the north of Mors island with the creation of a Geopark and promote the protection and new use of its unique geological landscape heritage in a sustainable way.

Location

Creating coherent protective zoning that unifies the landscape and preserve the natural and cultural values



The concept of the Geopark will promote the development towards a multifunctional landscape.

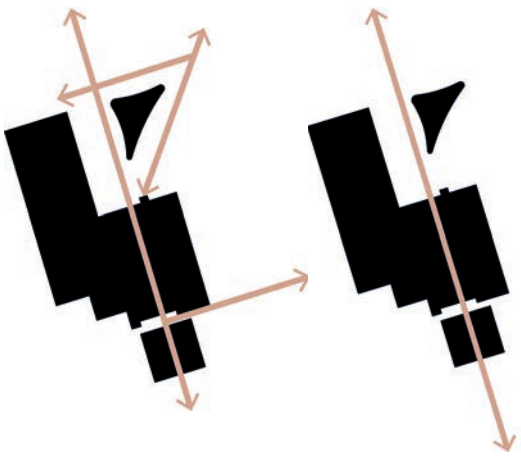

THE LIMFJORD
PIER
ACTIVE MO-CLAY FACTORY
FEGGEKLIT ▶
THE DRYING BARN
P
FOREST
WETLAND
THE MO-CLAY MUSEUM
MAIN QUARRY ENTRANCE
FOSSIL DIGGING SITE
A
4.
INACTIVE QUARRY
FOREST
HANKLIT
B
QUAARY PARK
EASTERN QUARRY ENTRANCE
AGRICULTURE
GRASSLAND
WESTERN QUARRY ENTRANCE ▶
THE QUARRY INN
1.
3.
INACTIVE QUARRY
AGRICULTURE
2.
C

THE MO-CLAY MUSEUM

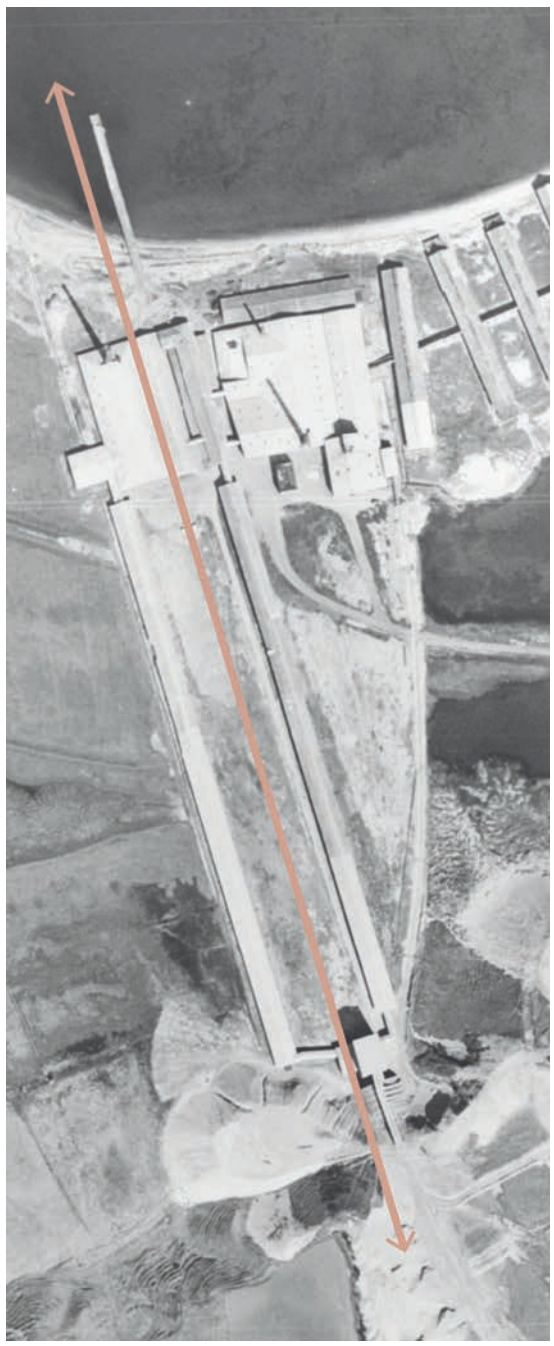
The Mo-clay Museum represents the center of Geopark North Mors. By moving all the functions and matériel from the existing Fossil Museum the new Mo-clay Museum will be able to give the visitors the entire geological and cultural experience of the Mo-clay on Northern Mors. Besides functioning as an institution of knowledge and education the museum opens up for the public by including a café and an Exhibition Hall that also functions as a community center. The Exhibition Hall will be possible to rent for local, political and educational gatherings but also for private events such as weddings and confirmations.

In the center, a multifunctional structure called The Diatom functions as a navigational device, meeting place and an experimental canvas and planting site for artists and scientists. The Diatoms shape is inspired by one of the many types of 55 million years old diatoms found in the Mo-clay thus adding another experiential dimension of the Mo-Clay story.

With inspiration taken from the existing industrial relic that was once a part of the factory's vertical Mo-clay transporting system, new footbridges will connect the fossil digging site and the spruce forest with the entry points surrounding the building with staircases. A viewpoint on top of the building will give the visitor an overview of the greater part of Skarrehage wetlands to the west, the fjord, the peninsula of Thyholm and the active factory in the north and the fossil digging site south-east. As an extension to the existing industrial relic, a set of steel tracks in the white concrete will connect to a boardwalk in the direction of the fjord. To furtherly strengthen this axis, groups of Pillar Oak, are placed in linear parallel with a displacement between each group. The area of the boardwalk was once an open space flanked by two active drying barns. This spatiality we propose to reintroduce. Today the area is completely overgrown and inaccessible both in term of movement and view. Only one of the drying barns remains and stands as a reminder of the industrial past. The drying barn is open all the way through and inside one finds a seemingly endless handcrafted wooden structure that frames Skarrehage wetland to the east beautifully. The boardwalk consists of hardwood and functions as an alternative route to the fjord crossing a wetland terrain. By only clearing up the overgrown area but leaving a parallel strip 40 meters west of the drying barn the morphology of the past is recreated enhancing the view from the factory site and especially the café by framing the connection to the fjord leaving the sky open.

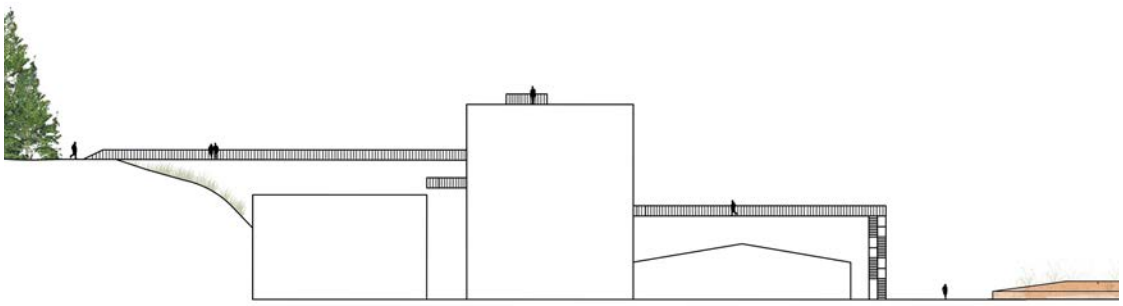


MOVEMENT



CONNECTING AXIS

AERIAL PHOTO, 1954



SECTION C-C

SECTION A-A

SECTION B-B

THE GREEN CIRCUIT

CRACKS IN THE PRODUCTION LANDSCAPE

ALEXANDROS MEMETZIDIS
ESZTER NAGY
EMILIE SANDVEN

DET GRØNNE KREDSLØB
SPRÆKKER I PRODUKTIONSLANDSKABE

To forskellige industrier præger i dag det meste af landskabet på på Mors. Næsten 90% af jorden er opdyrket for at imødekomme den intensive svineproduktion på øen. Samtidig har udvinding af moler på den nordlige del af øen også sat sine tydelige spor i landskabet. Som en konsekvens af disse to markante industrier er landskabet generelt svært tilgængeligt og der er efterladt begrænset plads til naturen. På den nordlige tip af Mors viser der sig imidlertid nogle naturlige ”sprækker” i produktionslandskabet – forladte moler miner, den genskabte Hundsø og et planlagt skovbælte har potentiale til at udvikle sig til et mere multifunktionelt landskab til gavn for mennesker og natur. Vi foreslår at forbinde og udbygge disse eksisterende ”sprækker” til et sammenhængende landskabsnetværk: Det Grønne Kredsløb.

Vi fandt ud af at de lokale og besøgendes foretrukne rekreative aktivitet er at tage lange vandreture og nyde landskabet. De eksisterende vandrestier er dog spredt rundt omkring langs kysten og dårligt tilgængelig fra byerne.

Det Grønne Kredsløb vil wforbinde eksisterende stier inde i landet med byerne og med stierne langs kysten. Den vil også forbinde eksisterende større naturområder med hinanden via små grønne elementer af infrastuktur, som fx forlængede læhegn, genåbnede åer og striber af opdyrket land. Vi har valgt fire interventionsområder, der fortæller forskellige historier om landskabet: Skarrehage skiftet, molergravet, Feggeklit og Hundsø. Vores formål er at fremhæve de allerede eksisterende kvaliteter ved disse specielle landskaber med små fysiske interventioner.

Skarrehage skiftet markerer med en markant højde forskel det geologiske skifte mellem vådområderne og moler landskabet. For at synliggøre skiftet i landskabet designede vi en bænk lavet af komprimeret moler, som står lige på kanten af molerlandskabet. Vores intervention ved molergravet er baseret på to formål: Etablere en klar forbindelse mellem gravet og fossilmuseet, samt forbedre stiernes tilstand i gravet. For at opnå dette designer vi udsigtsplatformer, til at tiltrække besøgendes opmærksomhed, og til at lede dem i rigtig retning og vi skaber en sti som fører langs kanten af stenbruddet. Den naturskønne Feggeklit er et naturligt vartegn på det nordlige Mors, men jorden er opdyrket helt op til toppen, hvilket umuliggør rekreationel udnyttelse.Vi foreslår at lave en vandresti, der skal lede ned til den sydlige del af Feggeklit, og til et nyt udsigtspunkt, hvorfra man kan vandre videre langs kanten af klinten. Vores sidste intervention er lavet for at fremhæve den smukke Hundsø. Ved at konstruere en flydende bro ude i søen, inviterer vi folk til at få en mere intim oplevelse og forbindelse til søen, og giver dem hermed en mere alsidig oplevelse.

Det Grønne Kredsløb vil samle de smukkeste landskaber i det nordligste Mors til ét mere let navigerbart og sammenhængende netværk, til glæde for både mennesker og ikke-menneskelige væsener.

THE GREEN CIRCUIT
CRACKS IN THE PRODUCTION LANDSCAPE

Today two kinds of industries occupy most of the land of Mors resulting in a landscape shaped mostly by production. Almost 90% of the land is farmed in order to assist the massive pig production on the island reducing the natural environment to a minimum. In the north, for a century the excavation and industrial manufacturing of the diatomic sediment, the mo-clay has moreover left its marks on the landscape. As a consequence, there is little room left for nature and the landscape is largely inaccessible for recreational uses. But towards the northern tip of Mors there are some “cracks” appearing in the production landscape – abandoned mo-clay pits, the restored Hundsø lake and a planned forest band - which have the potential to develop a more multifunctional landscape for the benefit of people and nature. We propose to connect and expand these existing “cracks” into a cohesive landscape network: the Green Circuit.

We found out the thing locals and visitors enjoy the most for recreation is taking long walks and enjoying the scenery, however, the already existing pathways are scattered around the coast without easy access from the villages.

The Green Circuit will connect existing inland and coastal pathways and thereby link existing recreational destinations to each other and to the local villages. It will also link together the existing larger natural areas by smaller green infrastructure elements, such as extended windbreaks, opened up streams and strips of pasture. We chose four intervention areas that tell different stories of the landscape: the Skarrehagen edge, the mo-clay quarry, Feggeklit and Hundsø Lake. Our goal is to highlight the already existing features of these special landscapes situations with small physical interventions.

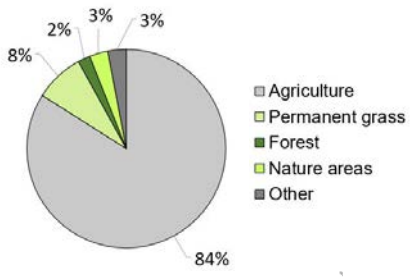
The Skarrehagen edge marks the geological shift between the wetland and the mo-clay landscape by a noticeable elevation change. To strengthen this feature we designed a bench made out of compressed clay that reflects upon the rise of the mo clay. Our intervention in the mo-clay quarry area is based on two goals: establishing a clear spatial connection between the quarry and the fossil museum and enhancing the quality of the paths within the quarry. To achieve this, we use viewing benches as focal points to attract the attention of visitors and lead them in certain directions and we create a walkway around the edge of the quarry sheltered with vegetation. The scenic mo-clay cliff of Feggeklit is a natural landmark in northern Mors, however, it is farmed all the way to the top leaving no access for recreational purposes. We propose a pathway leading up to the southern tip of Feggeklit to a staged viewpoint from where people can walk further on the edge of the cliff. Our last intervention was made to bring out the hidden beauty of Hundsø. By creating a boardwalk into the restored lake we invite people to have a more intimate connection with water and diversifying their experiences throughout their walk.

The Green Circuit will offer an opportunity for northern Mors to gather its most interesting pieces of landscape into one easily navigable nature network used by people and other species for enjoyment and shelter.

SITE ANALYSIS

Project area,
Northern Mors

Current land use practices



Intensively farmed land

Mo-clay production sites

CRACKS IN THE PRODUCTION LANDSCAPE


Coastline


Wetland


Ejerslev lagoon


Channeled stream


Pathway in the quarry


Skarrehage plantation


Feggeklit


Hundsø restored lake


Skarrehage mo-clay edge


Mo-clay quarry

MULTIFUNCTIONAL LANDSCAPES

In this project we refer to certain areas that offer another layer of landscape value besides mere production as “cracks” in the landscape. We would like to make them more ascessable by integrating them into a cohesive landscape network.

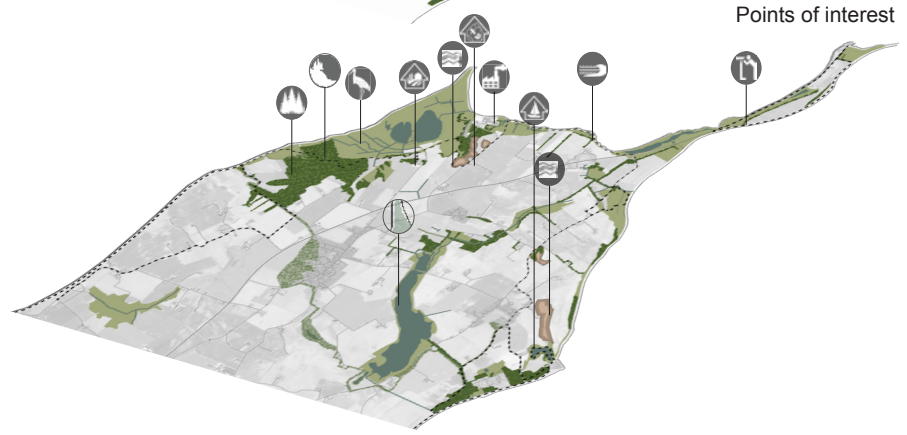
Existing road network and paths

Existing water network

Existing and planned
green infrastructure

Forest band planned
by the municipality

Points of interest



Before 1842

- Hundsø lake
- Extensive grassland and wetland areas

1980

- Skarrehagen plantation
- Hundsø channeled into canals
- Active mo-clay quarries

2019

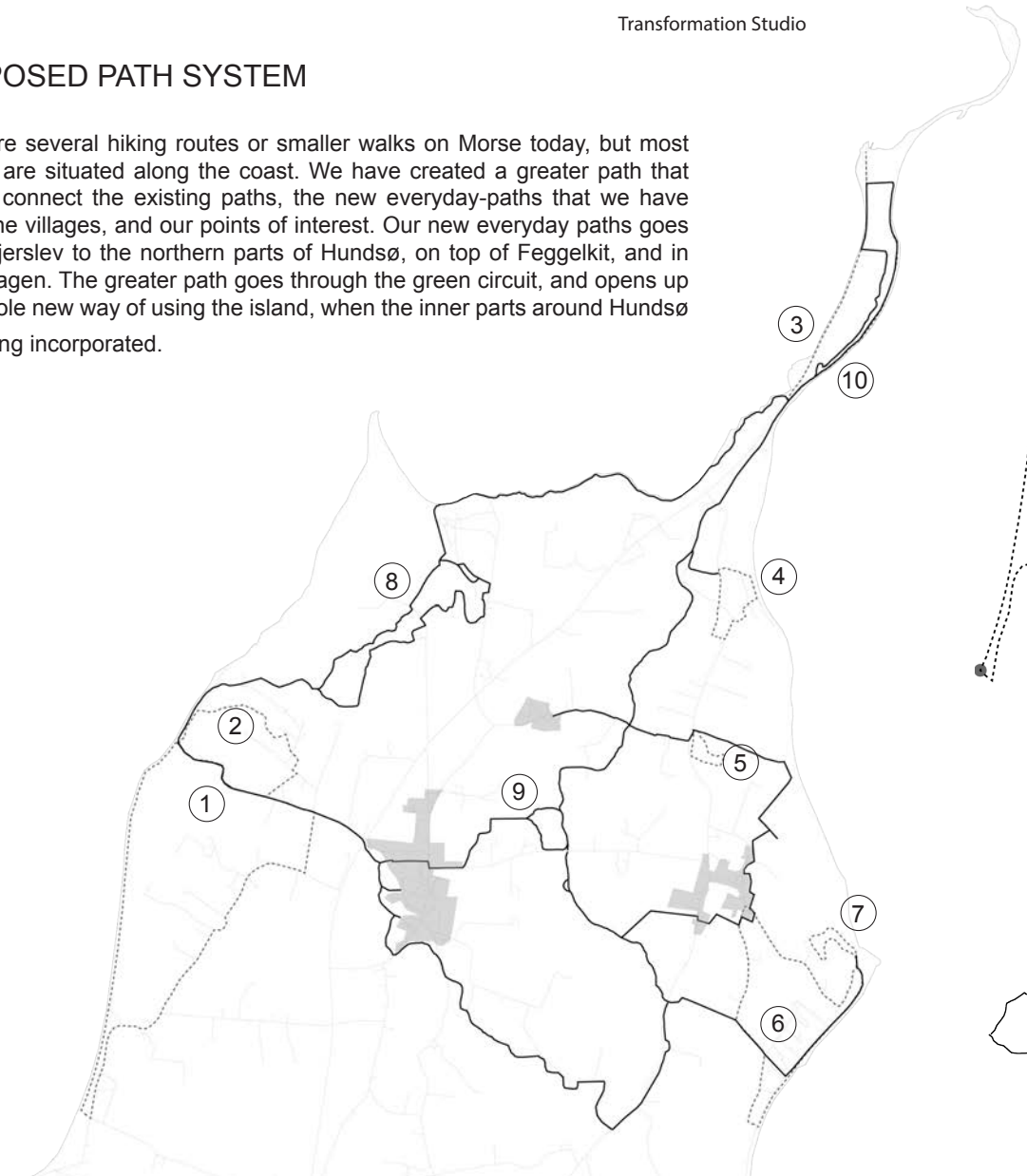
- Former quarry turns into a recreational lagoon
- Some quarries are taken back by nature
- Hundsø is restored for water cleansing purposes

Future

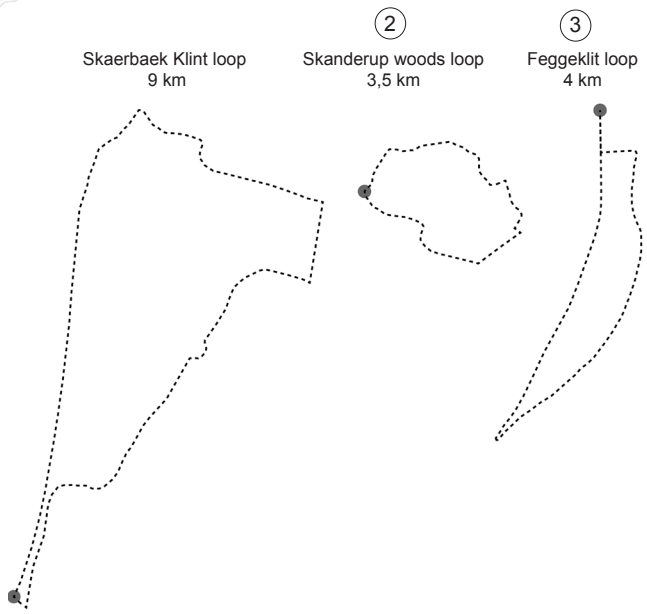
- The municipality`s forest belt is established
- The Green Circuit is established

PROPOSED PATH SYSTEM

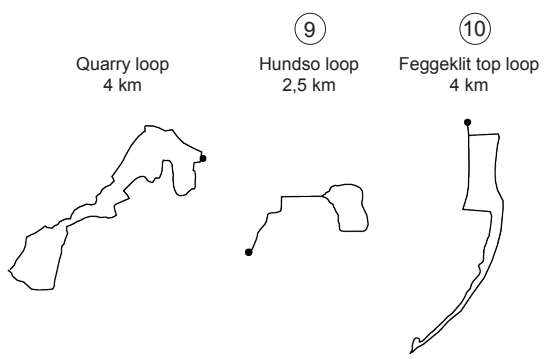
There are several hiking routes or smaller walks on Morse today, but most of them are situated along the coast. We have created a greater path that aims to connect the existing paths, the new everyday-paths that we have made, the villages, and our points of interest. Our new everyday paths goes from Sejerslev to the northern parts of Hundsø, on top of Feggelkit, and in Skarrehagen. The greater path goes through the green circuit, and opens up for a whole new way of using the island, when the inner parts around Hundsø are beeing incorporated.



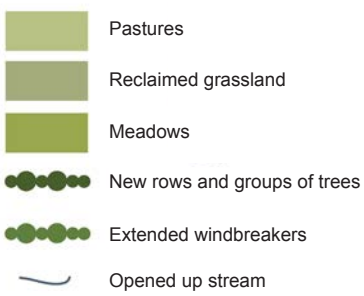
EXISTING HIKING PATHS

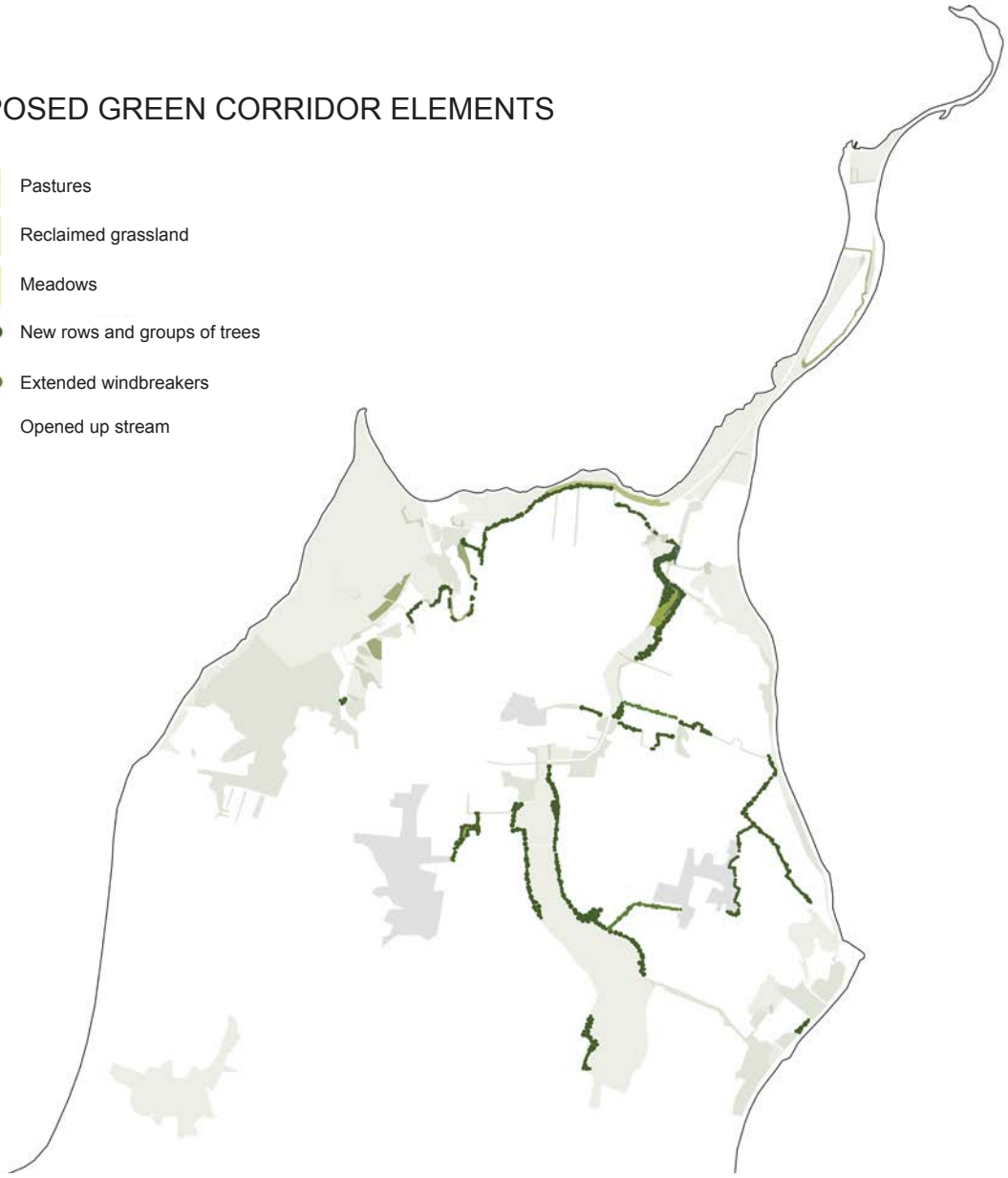


NEW EVERYDAY PATHS



PROPOSED GREEN CORRIDOR ELEMENTS





SURVEY

4 Hulhoj loop 1,5 km

5 Haarhoj loop 1,3 km

6 Ejerslev Lyng loop 5 km

7 Blue lagoon loop 1,2 km

Frequency of trespassing for recreational purposes according to landowners

THE GREEN CIRCUIT

In the making of this green circuit, we have tried to create a better connection between the existing cracks in the landscape, and the potential ones. We have chosen four points of interest, or destinations, that each represents different features of the landscape. Three of them represents different moclay landscapes: The edge at Skarrehagen, the Moclay quarry and Feggeklitt, while the last one, Hundsø, represents another side to the agricultural production – a landscape that has a great potential of serving as a highly multifunctional landscape.

MASTERPLAN 1:30000

SKARREHAGE MO-CLAY EDGE

To highlight the geological shift between the wetland and mo-clay landscape in Skarrehagen we designed a sitting element made out of clay, that represent the edge.

A-A SECTION
1:750

QUARRY VIEWPOINTS

We designed two viewpoints on opposite sides of the quarry with a spatial connection to the fossil museum. The benches act as elements that channels visitors in the right direction.

USED MATERIALS

Compressed clay

Concrete top

Gravel

B-B SECTION
1:750

We based our design on the already existing pathways inside and around the quarry. On the southern part, we encourage people to walk on the marked pathway on the quarry edge. We also invite them into the digging site and subtly channel them to continue their tour towards the factory or the agricultural museum.

FEGGEKLIT VIEWPOINT

The scenic mo-clay cliff of Feggeklit is a natural landmark in northern Mors, however, it is farmed all the way to the top leaving no access for people. We propose a visible viewpoint on the southern tip of the cliff made from corten steel, as well as a pathway along the edge of Feggeklit.

C-C SECTION
1:750

Path leading up to the viewpoint

Path along the edge of Feggeklit

HUNDSØ BOARDWALK

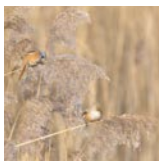
With this intervention our goal is to bring out the potential of the restored lake, Hundsø. We are introducing a whole new way of using the inner part of island, when the area around the lake is being incorporated into the Green Circuit. By creating a boardwalk into the lake we enable people to have a more intimate connection with water and diversify their experiences throughout their walk.

The vegetation we have added along the lake will hold back phosphorus and nitrogen runoffs from the agricultural land. It will also be an important part of the wildlife corridor and contribute to enhance biodiversity on the island. The trees we have chosen, such as Mountain Ash and Willows, will be great hideouts for birds and larger animals, and also an important food source for bees and insects in the spring.

PROPOSED VEGETATION TO HOLD BACK NUTRIENTS:

Pussy Willow
Salix caprea

Aspen
Populus termula

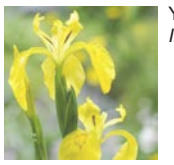


Common Reed
Phragmites australis

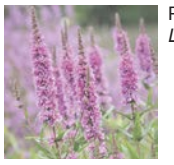
Bluejoint
Calamagrostis canadensis

Mountain Ash
Sorbus aucuparia

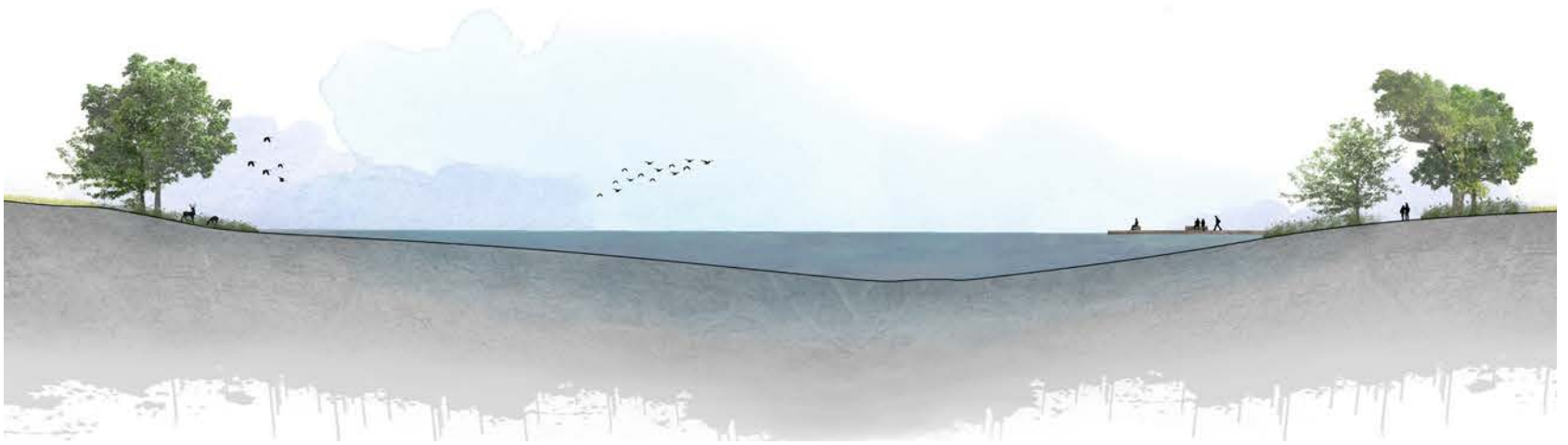
Black Alder
Alnus glutinosa



Yellow Iris
Iris pseudocorus



Purple Loosestrife
Lythrum salicaria



D-D SECTION
1:750

JØLBY NOR COMMONS

Restoring a shared wetland

Alex Bunea
Miltiadis Chatzistamoulos
Anna von Bülow

JØLBY NOR FÆLLED - GENSKABELSE AF ET FÆLLES VÅDOMRÅDE

Øen Mors er kendt under navnet "svineøen". Over 90% af øen er dækket af landbrug, primært brugt til svineavl og foderproduktion. De enorme mængder næringsstoffer fra landbruget ledes ud i naturen og har skabt store problemer med forurening af grundvandet og Limfjorden. Det har tillige haft en stor indvirkning indlands i landskabet på Mors, hvor monotone og utilgængelige marker er altdominerende, hvilket også præger Jølby Nor midt på øen. Her skal den største genopretning af et vådområde finde sted, et område som strækker sig fra Dragstrup og Vester Jølby i vest til Erslev og Frøslev i øst med Lyngbro Bæk forløbende gennem hele området. Det samlede areal dækker 313 hektar. Genopretningen er en del af Vandområdeplanerne, med det ene formål at tilbageholde næringsstoffer og dermed reducere forureningen. De fem landsbyer beliggende op til det kommende vådområde er alle ramt af udkantsområdernes tilbagegang og har brug for en saltvandsindsprøjtning for at få vendt udviklingen.

Jølby Nor Common ser genetableringen som en mulighed for at gøre området mere attraktivt, at genskabe det der historisk set var et vigtigt fælles areal med fordele for både natur og mennesker. Gennem særlige og historiske landskabskarakteristika stræber projektet mod at åbne landsbyerne op til vådområdet og dermed til hinanden. Ved at arbejde med forskellige naturtyper fremmes biodiversiteten. Det forstærker oplevelsen gennem landskabet, hvor der samtidig skabes rum til fritidsaktiviteter og rekreative formål. Der laves stier fra landsbyerne ud i vådområdet, hvilket giver mulighed for at nyde en kortere eller længere tur. Den gamle forbindelse mellem Frøslev og Erslev vækkes til live med en bro tværs igennem vådområdet, hvilket skaber en naturlig forbindelse mellem de to byer.

Arbejdet med differentierede naturtyper i Jølby Nor vil skabe plads til en lang række af forskellige planter og dyr. Bestemte områder er udvalgt til græsning for at holde beplantningen nede. Syd for Øster Jølby rejser den gamle stenalderen kystlinje sig, og højdedraget har skabt en fantastisk udsigtsplatform. Kanten af Frøslev med kirken knejsende øverst åbner op til det scenariske landskab. Disse karakteristika vil blive forstærket med det åbne græssede land og inviterende opholdsmuligheder.

Andre dele af vådområdet vil blive overladt til naturlig succession, hvilket skaber flere habitattyper. Der foretages skovrejsning for at fortætte eksisterende skov, for at skærme mod trafik, og skabe en inviterende åbning mellem vådområdet og Erslev.

Arbejdet med forskellige atmosfærer bidrager til oplevelsen gennem landskabet. Nogle af de gamle pumpehuse omdannes til fugleobservationstårne. Hermed bevares fortællingen om et af de største udtørringsprojekter i dansk historie og transformationen tilfører nye funktioner til området. Det fælles landskab bringer folk tættere på hinanden fysisk og mentalt og kan danne grundlaget for fremtidige samarbejder og fællesskaber. Således bliver Jølby Nor attraktivt for nuværende og fremtidige borgere og et værdifuldt sted for hele Mors.

JØLBY NOR COMMONS - RESTORING A SHARED WETLAND

Mors is known as "the pig island" with more than 90% of the island used for farming dominated by pig breeding and crops for pigs. The large amounts of nutrients from farming has caused heavy pollution problems on the ground water and the water quality of the Limfjord. It has also had a huge impact on the landscape of the inland, where monotonous, inaccessible farm fields are dominant everywhere.

This also applies for Jølby Nor in the center of Mors. Here the largest wetland restoration project on the island is about to take place covering an area of 313 hectares from Dragstrup and Vester Jølby in the west to Erslev and Frøslev east with Lyngbro Creek running through the entire area. The restoration is part of the Danish Water Management Plan, where the only goal is to hold back the extensive amounts of nutrients to reduce the water pollution. The five villages located on the edge of the future wetland are all struggling with rural decline and are in need of changes to turn the development around.

The Jølby Nor Common project sees the restoration as a possibility to introduce additional values, recreating a shared wetland with benefits for both nature and people. Through distinct and historic landscape characteristics the project aims to open the villages up to the wetland and to each other. By enhancing biodiversity and using different types of nature, the wetland provides a diverse experience through the landscape with inviting spaces for leisure activities and recreational purposes.It provides paths from the villages to the wetland with the possibility to enjoy short or long walks. A bridge crossing the wetland revives the old connection between Erslev and Frøslev, giving the opportunity for easy access between the villages.

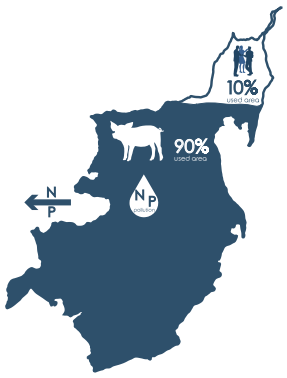
Jølby Nor will be home for a variety of plants and species. Selected areas will be used for grazing in order to keep the vegetation low. The old coastline from the stone age provides a beautiful view from the highest point south of Øster Jølby. The boarder of Frøslev with the church right on the edge opens up to wide scenery of the wetland. These landscape characteristics will be emphasized by the open grazing land and inviting sitting areas.

Other parts around the wetland will be let to natural succession, providing different habitats. Afforestation is used to condense the existing one, to shield from the nearby traffic and attract people with an opening towards the wetland and Frøslev.

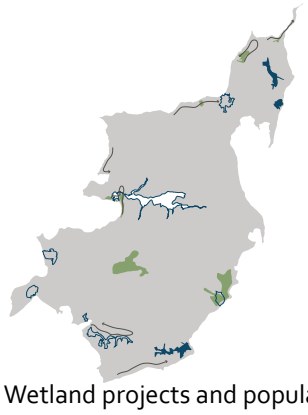
The combination of different atmospheres adds to the adventure going through the landscape. Old pumps are turned into birdwatch towers, telling the story of one of the largest drainage projects in the history of Denmark, and at the same time adding new use to the area.

By bringing people closer to each other physically and mentally through a shared landscape the wetland can become a foundation for future collaborations and activities. Thus, Jølby Nor becomes attractive for current and future residents and adds attraction value for all of Mors.

ANALYSIS

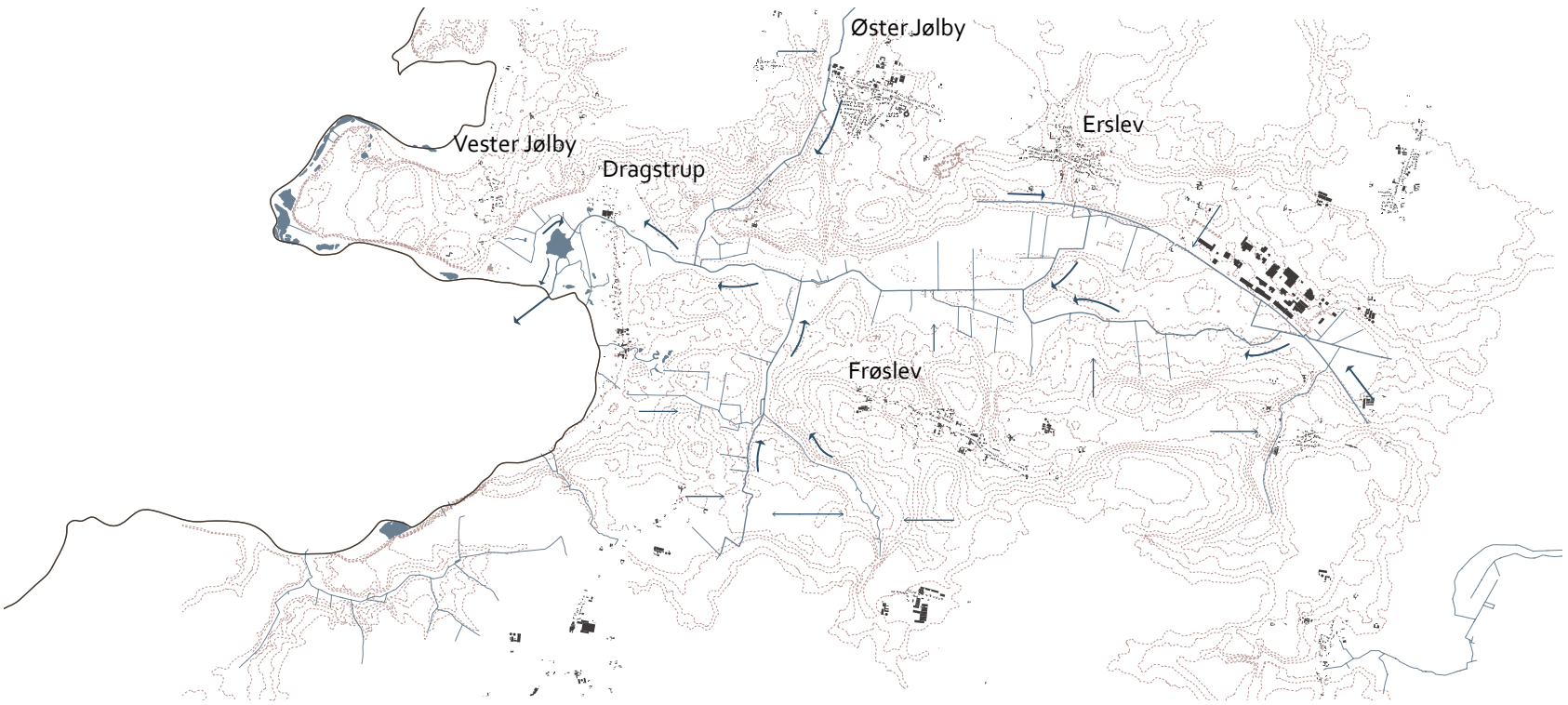


Land use on Mors



Wetland projects and popular areas on Mors

Jølby Nor wetland project



Description

Old coast line meets the wetland as viewed from Øster Jølby

Entering the wetlands from Erslev

View from Dragstrup to the lake area with wild birdlife and different nature types

View opening up towards wetlands from Frøslev

THE JØLBY NOR COMMONS

Vester Jølby

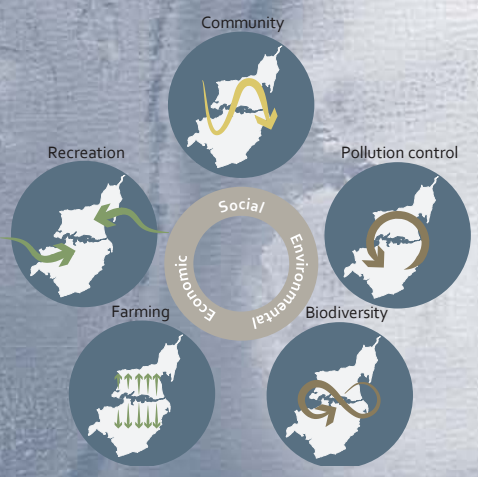
Dragstrup

Dragstrup Church

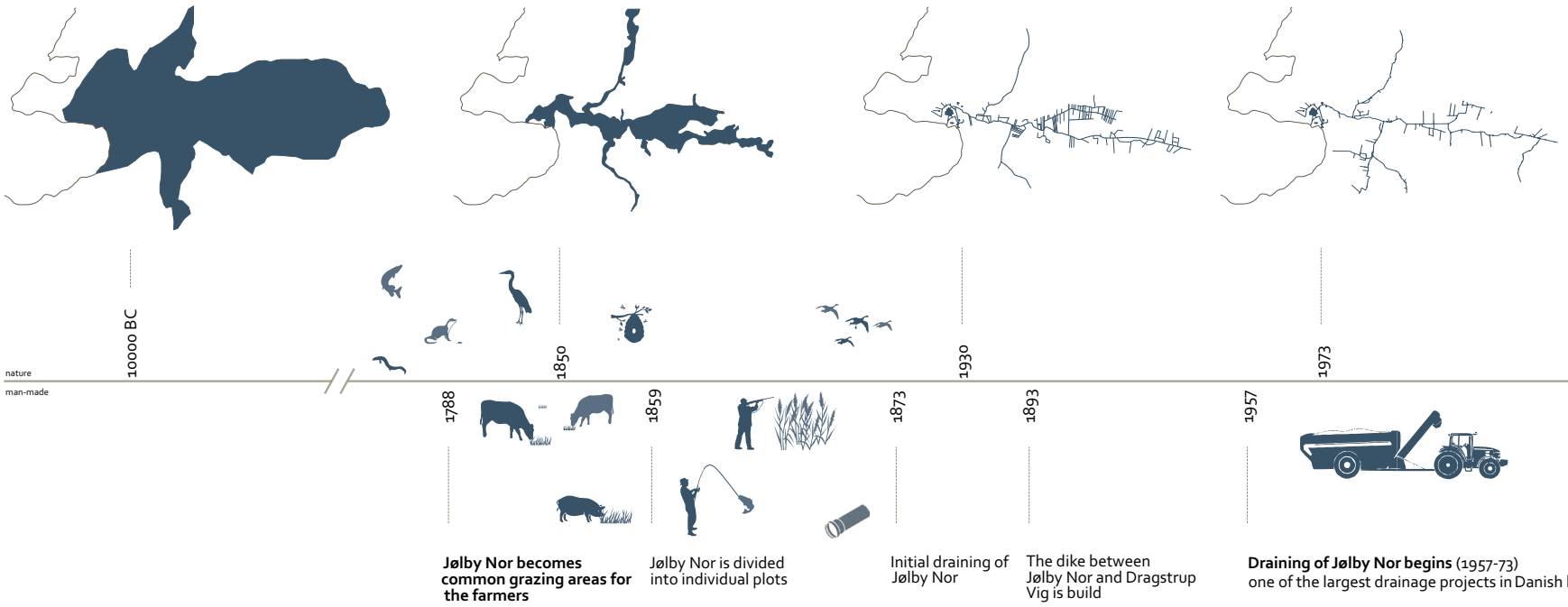
Parking

Art Gallery

Vision Goals



Timeline of Jølby Nor area



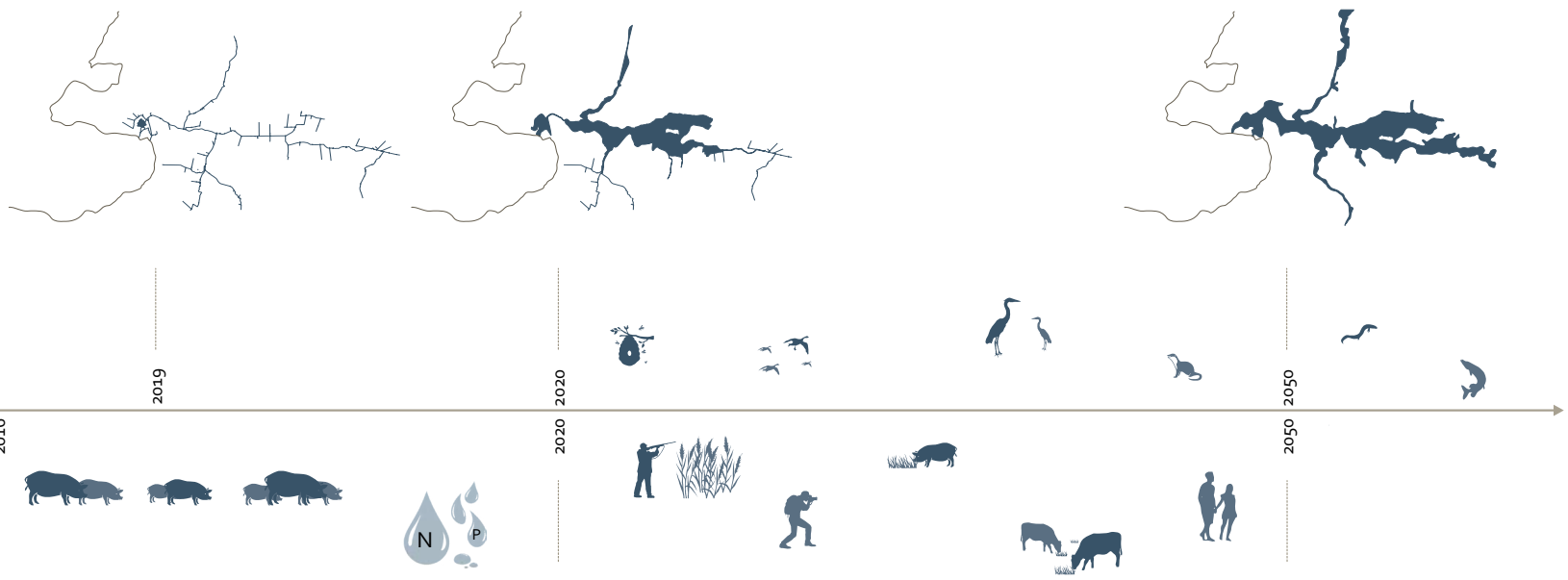
Erslev

Parking

Frøslev

Main roads
Connections
Wetland year round
Wetland shallow water
Reedbed vegetation
Grazed vegetation
Natural succession vegetation
Forest
Buildings

0 500 m

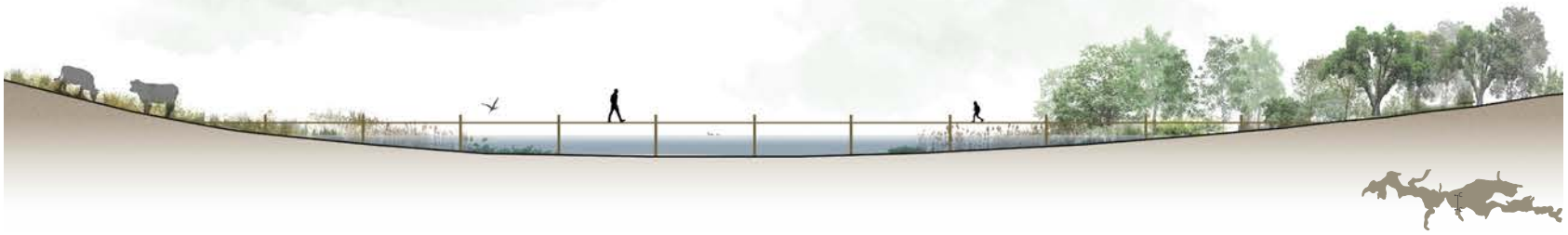


Jølby Nor is appointed
to be a part of the Water Management Plan

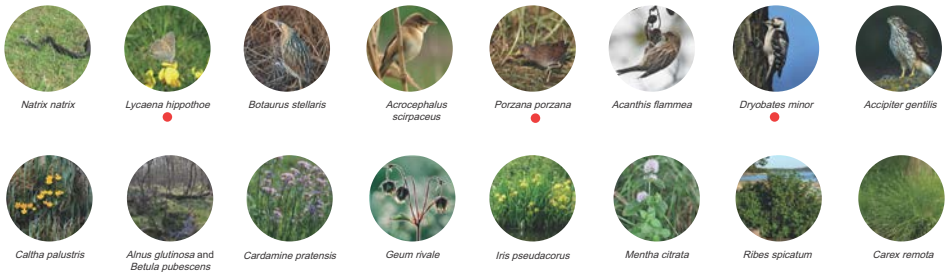
Restoring the wetland of Jølby Nor and the common grazing areas

Restoring the natural sustainable ecosyste

The path from the south to the north crosses the wetland with a bridge that reactivates the old connection between Froslev and Erslev. By using the path one can experience the the two main types of landscape that will be dominant in the wetland. On the south side of the bridge the visitor can observe the low vegetation of the grazed land. Moving on to the other side however, the landscape changes into natural succession with higher vegetation that gradually evolves to a forest.



NATURAL SUCCESSION



The natural succession of the wetland will contain different types of nature. The reedbeds are already in the area where the drainage has not been maintained and will spread out a lot more.

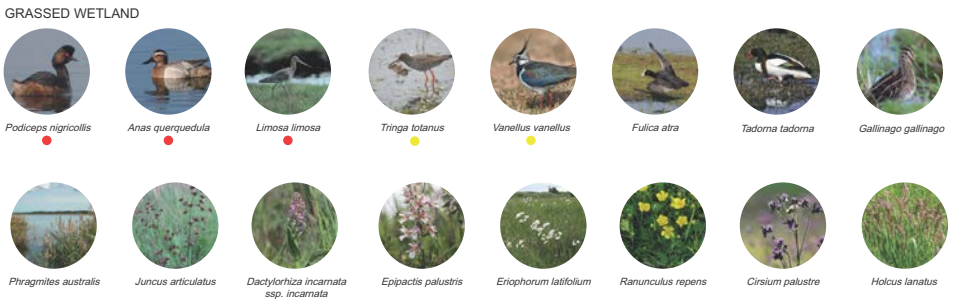
The swamp is dominated by alnus trees and use to be widely spread out in the area, but disappeared because of the drainage. It will take many years before the swamp is fully developed, but the presence of alnus trees in the area and the conditions becoming suitable for the swamp will probably enhance the development of the swamp.

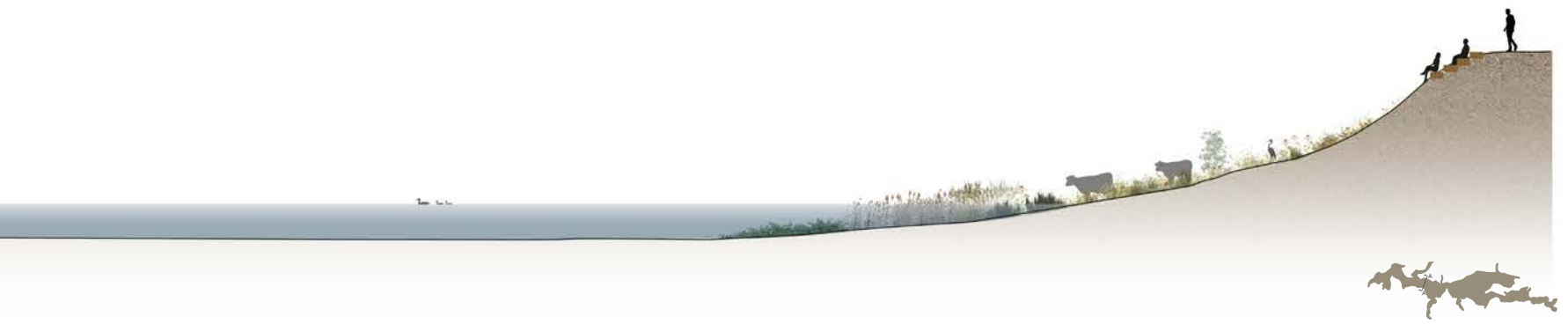
Every village orientates differently in relation to the wetland, therefore, the design adjust to these special positions in order for the visitors to experience it in the best possible way.

Walking from Erslev towards south the visitor meets a forest planted along the main road. The forest isolates the Jolby Nor from unwanted noise and aesthetics but simultaneously opens up as an inviting passage to the wetland.

The grazing of the wetland will provide an increase of different plant species accustomed to the wet and the dry grazing land . The reedbeds will be in the area, but will have more competetion because of the grazing.

As long as the nutrient levels are very high, the grazing land will be dominated by plant species that thrives well in these conditions, especially in the beginning. After a while the composition of the species will change and species that are shortlived and spread easily will increase their dominance.





DISAPPEARING AND REAPPEARING ROTHOLME

Mediating the rising sea levels in Southern Mors

Malthe Mørck Clausen
Natasha Georgali
Philip Patzner

Forsvindende og genopstående Rotholme

I den sydlige del af Mors ligger Rotholme, der er et af få naturområder langs kysten på den intensivt dyrkede landbrugs-ø. Rotholmes tilblivelse har været undervejs siden Litorinahavet, ca. 8000 år før nu, og udgør i dag en landskabsformation bestående af en udvidet kystlinje med forskellige overgange fra vand til land. Fra landbrugsarealer, placeret en smule højere i terrænet, til vådområder, hvor vand filtres sammen med land, og videre mod mindre øer beliggende i en lagune, hvor land filtres sammen med vand, for til slut at ende i Limfjorden. Rotholme består desuden af et betydeligt flerartet habitat, der samtidig relateres til forskellige menneskelige aktiviteter i området. Muslinger og østers lever i Limfjorden, adskillige fuglearter yngler på de mindre øer i lagunen, kvæget græsser i vådområdet, vildtet og andre smådyr lever i lundene og på markerne, hvor afgrøderne også dyrkes. Rotholme er også et sted for vandring, østersindsamling og forskellige vandaktiviteter som en del af lokalbefolkningens forhold til fjorden. Men i den antropocæne tid, hvor havvandet stiger, vil denne unikke kystnatur, samt habitat for talrige arter, forsvinde under havets overflade – hvis ikke vi gør noget. Hvordan håndterer vi denne udfordring omkring klimaforandringerne og de stigende vandstande, der truer den omkring 7.000 kilometer lange kystlinje i Danmark? Skal vi bare lade det stå hen? Baseret på Cand. Arch og ph.d, Rasmus Hjortshøj's "State of the Art"-strategier, foreslår vi at anvende 3 strategier, at transformere-, flytte-, og forlade Rotholme over tid, for at skabe opmærksomhed vedrørende de omtalte landskabsændringer, samt at bevare de nuværende habitater og menneskelige aktiviteter. Ved "at transformere" nytænker vi dele af Rotholme i fremtiden med henblik på de eksisterende aktiviteter og habitater. Ved "at flytte" arrangerer vi nuværende vitale kvaliteter således de bliver bevaret i fremtiden. Og ved "at forlade" iscenesætter vi Rotholmes forsvinden, således det skaber opmærksomhed.

For at opnå dette, implementerer vi fem interventioner på forskellige tidspunkter; i dag, om 10 år og om 50 år. Når man ankommer til Rotholme fra hovedadgangsvejen, Serupsvej, møder man den første intervention – The Viewpoint, der bliver implementeret i dag. Denne giver et overblik over det dynamiske Rotholme, hvor landskabet vil ændre sig over tid. Efterfølgende møder man The Vanishing Path – en træpromenade, der fører én mod et nyt fugleudkigspunkt, og samtidig iscenesætter de stigende vandstande idét det omkringlæggende landskab vil forsvinde over tid og efterlade promenaden som en monument i Limfjorden. Næste intervention, Emerging Islets, der også bliver implementeret i dag, accelerere en proces, hvor der akkumuleres sand bestemte steder, for at skabe nye øer, som bevarer de forskellige fuglearters habitat. New Wetland vil indramme et nyt vådområde 50 år fra nu, og til slut vil interventionen The Embedded Passage, som etableres om 10 år, forbinde hovedkysten og lokalbefolkningen til Limfjorden, samt fungere som et objekt, der skaber opmærksomhed på de stigende vandstande ved gradvist at blive opslugt af havet.

Disappearing and Reappearing Rotholme

In the southern part of the intensively cultivated island of Moras, Rotholme is one of the few natural areas along the coast. Created about 8000 years ago during the Litorina Sea period it constitutes a landscape formation with an expanded coastline and diverse transitions from land to water – from agricultural fields on a slightly higher plateau, to wetlands (where water blends into the land), to the islets and lagoons of Rotholme (where land blends into the water), and finally, the Limfjord. Rotholme constitutes a significant multi-species habitat, related also to various human practices in the area. Mussels and oysters are living in the fjord, birds nest and breed on the small islets, cattle graze at the wetland, small animals and wild game are living in the groves, and crops for pig farming are cultivated at the fields. Rotholme is, also, a place for hiking and gathering, oyster picking, canoeing and swimming as part of the locals' relationship with the fjord.

However, in the time of Anthroposcene, with rising sea levels this unique coastal multi-species landscape will disappear and be entirely swallowed by the sea in 100 years time – if we do nothing. How can we deal with this challenge given the fact that climate change and rising sea levels threaten the entire 7,000 kilometers of coastline in Denmark? Should we just let it go? Based on the state of the art strategies formulated by Cand. Arch and PhD-Fellow, Rasmus Hjortshøj, in our project we propose a differentiated strategy of, transforming, relocating and abandoning Rotholme's coastal landscapes over time, to create awareness for the long term landscape changes and to preserve existing habitats and practices. By "transforming" we reimagine parts of Rotholme in the future, referring to existing practices and habitats. By "relocating", we rearrange vital qualities that need to be preserved to mitigate the risks in their current configuration. And by "abandoning", we stage the act of Rotholme's landscapes vanishing into the sea.

In order to achieve this, we implement five interventions in different moments in time; today, ten-, and fifty years into the future, according to the landscape changes caused by the rising sea levels. Arriving to Rotholme from Serupsvej, the main access road, you meet the first intervention – The Viewpoint, which will be implemented today and will give the overview of the ever-changing Rotholme. It will be followed by The Vanishing Path – a boardwalk that leads up to a bird watching tower, staging the rising water level since the landscape surrounding it will vanish over time, leaving the boardwalk as a monument in the Limfjord. Implemented also in the present, the Emerging Islets will accelerate the process of accumulating sand to transform new islets in order to preserve the bird habitat. The New Wetland will be framed further to the inland in 50 years from today and, finally, in the southern part of Rotholme, in 10 years from now, The Embedded Passage will connect the main coast and locals to the Fjord, acting as another climate watch by being gradually submerged into the sea.

Prologue

An island in the Limfjord

Mors is an island located in the centre of the Limfjord, in Northern Jutland. Back in the days, people had a strong relationship with the Limfjord, since it was used by local fishermen as a resource. However, over the years people have turned to agriculture, making Mors well-known for its pig production.

Cultivated land

Over 90% of the land of Mors is used for agricultural purposes, since crops are cultivated for pig farming. Even though the percentage of the cultivated land remained about the same over time, in the past ca. 90% of the inhabitants used to be farmers, while today the number of farmers is only 22%.

Nature along the coast

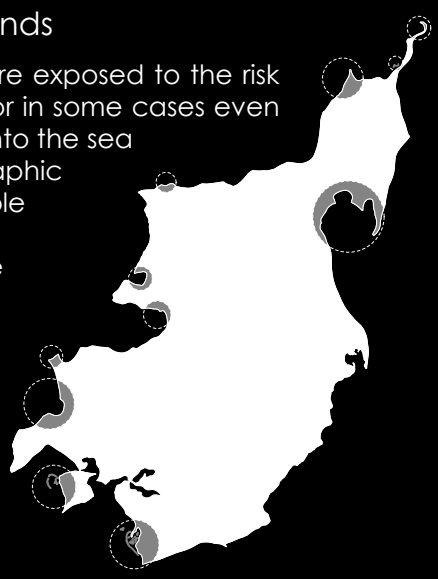
The island is left with less than 10% of nature areas mainly located along the coast forming an expanded coastline. These areas may vary in topography with softer or sharper transitions from land to sea, but all of them assist the biodiversity by enhancing the flora and fauna of the island.

The sea level as a threat

However, due to climate change the sea level is constantly rising, posing a threat to the flatter coastal areas. According to estimations about the west coast of Denmark, it is expected that there will be a general rise of about 1m in the next 100 years, with another 30cm added on top during extreme storms.

11 vulnerable wetlands

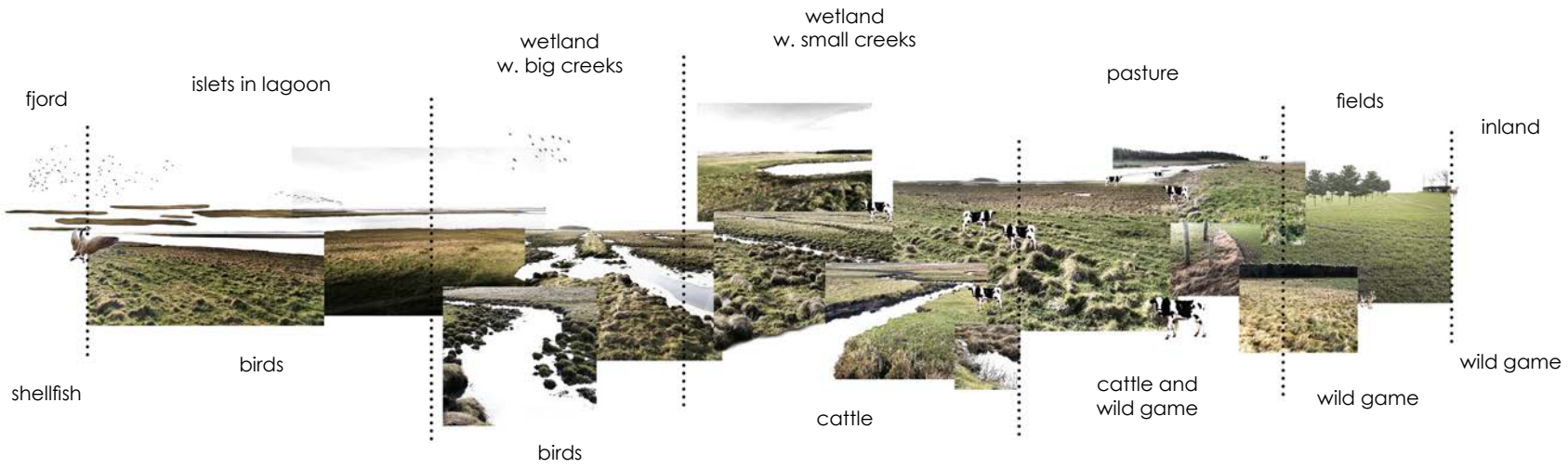
On Mors 11 locations are exposed to the risk of temporary flooding or in some cases even complete submersion into the sea due to their flat topographic relief. These 11 vulnerable areas are comprised of wetlands,which provide valuable habitats for many species, increasing the biodiversity of Mors.



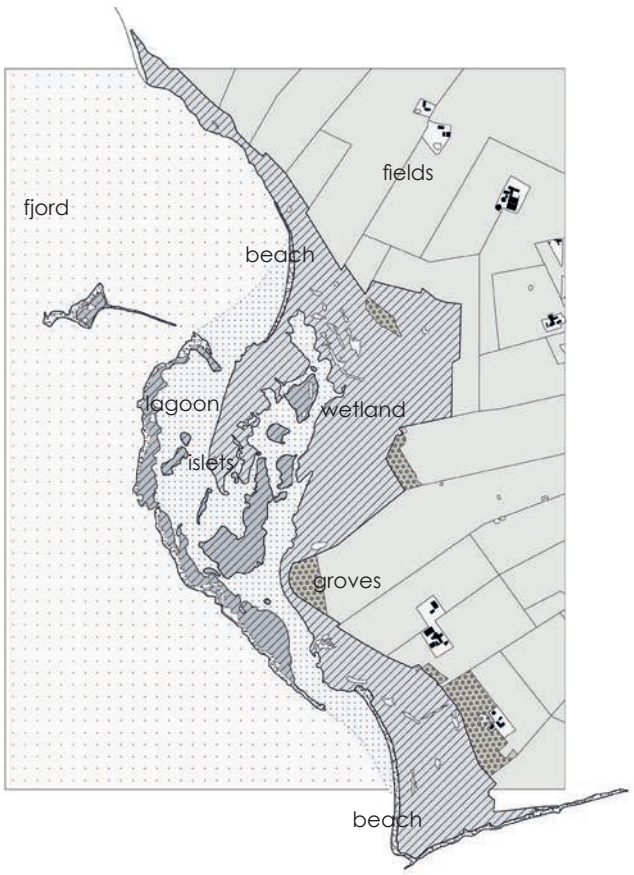
Rotholme as a focus point

One of these vulnerable wetlands is Rotholme, located in southern Mors. Rotholme will be our focus point in this project, since it is composed by unique geology characteristics, constituting a significant multi-species habitat related to various human practices.

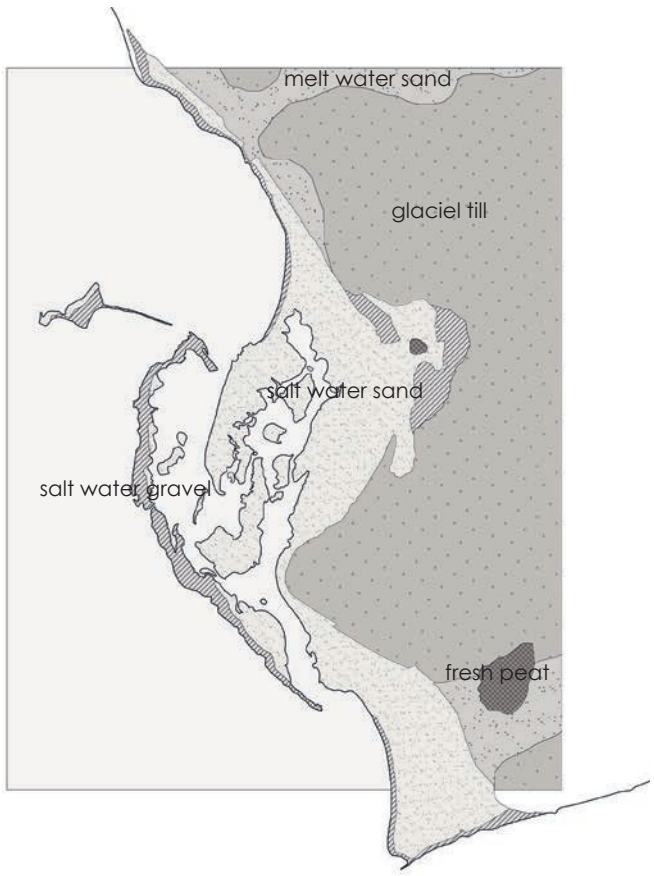
Multi-species landscape



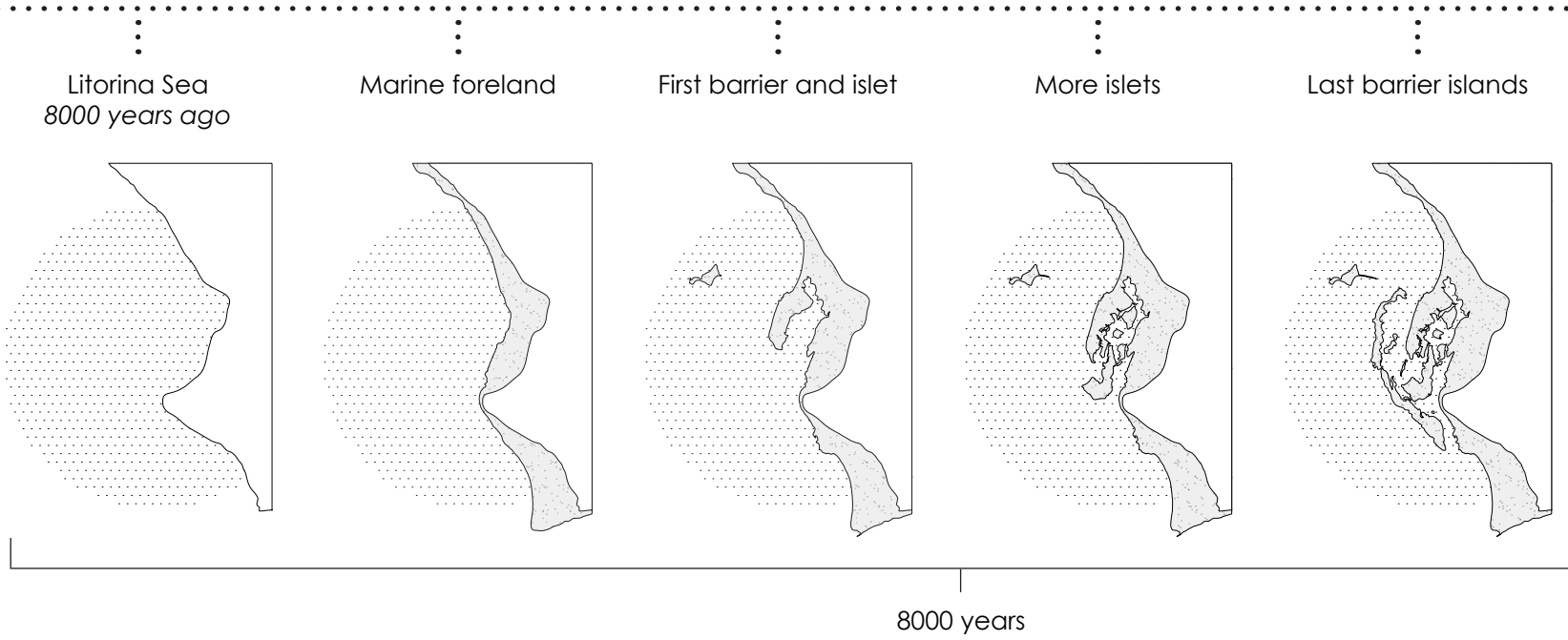
Landscape typology



Soil typology



Formation of Rotholme



Key species

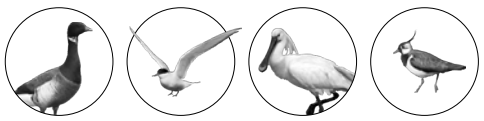
Shellfish

Pacific Oyster
Magallana gigas

"Limfjord" Oyster
Ostrea edulis

Blue Mussel
Mytilus edulis

Birds



Brent Goose
Branta bernicla

Arctic Tern
Sterna paradisaea

Eurasian Spoonbill
Platalea leucorodia

Northern Lapwing
Vanellus vanellus

Cattle

Belted Galloway

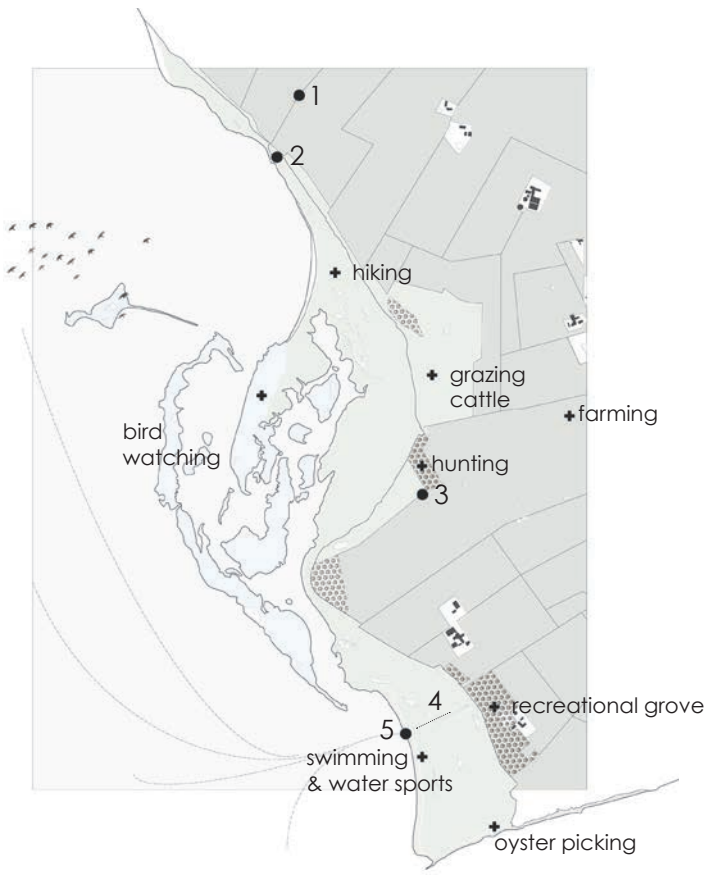
Wild game

Roe Deer
Capreolus capreolus

European Hare
Lepus europaeus

Red Deer
Cervus elaphus

Existing practices



1 unofficial viewpoint

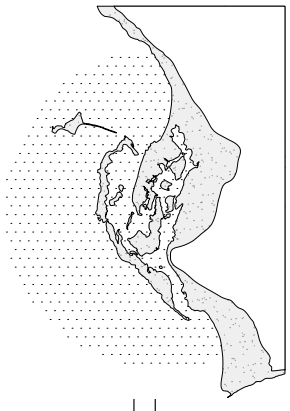
2 huts

3 hunter's stand

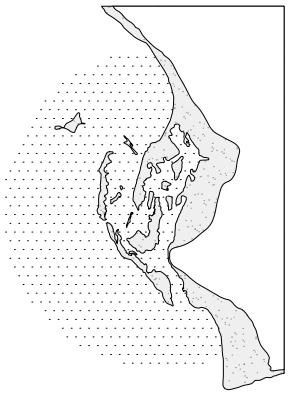
4 existing passage

5 everyday life monument

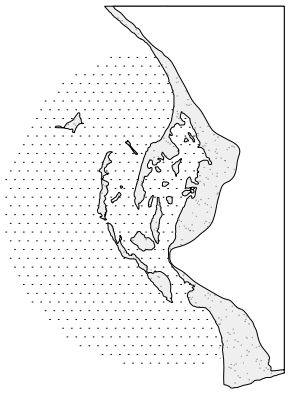
Rotholme *today*



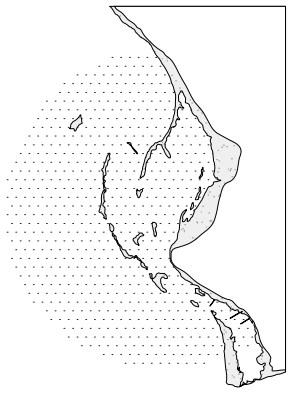
In 10 years



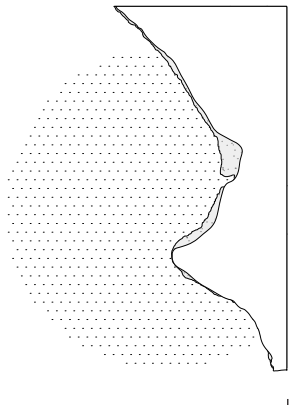
In 20 years



In 50 years



In 100 years



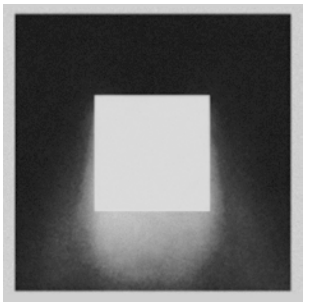
100 years

State of the art - strategies

"Landscapes perceived as natural are often constructs of humankind and what clearly is human-made is always rooted in a natural context; erasing the dichotomy between cultural and natural territories."

Based on the state of the art strategies regarding coastal adaptation formulated by Cand. Arch, PhD-Fellow and founder of COAST, *Rasmus Hjortshøj:*

Shield

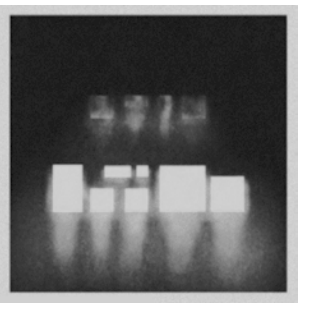


"…to protect it if it serves the needs of everyone around it..."

Transform

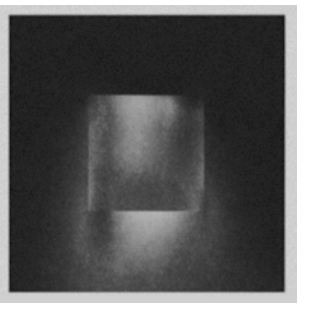
"…to adapt in accordance to the challenge posed and turn a moving threat into an asset..."

Relocate



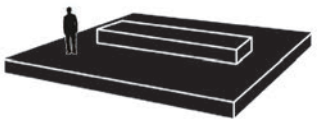
"…to move structures and programs in order to maintain their efficiency and open up for alternative usage of the current configuration…"

Abandon



"…abandonment not seen as a failure by giving up, but as a way of reusing functions and infrastructure…"

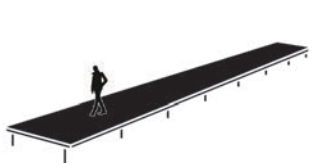
5 interventions



The Viewpoint

A viewpoint platform in the very spot of the current unofficial viewpoint, just when entering the Rotholme from Serupsvej, the main access road from the northern side. This static intervention placed on a higher level will give people the dynamic overview of changing Rotholme. Implemented Today

The Viewpoint stages for the people the process of Rotholme's disappearing and reappearing landscapes, as some will be swallowed by the sea, while others will emerge from it over time.

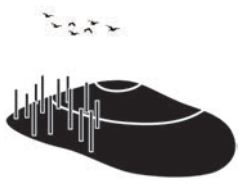


The Vanishing Path

Following The Viewpoint and accessible by the beach, a boardwalk path leads to a bird watching tower located in the heart of Rotholme and the bird habitat. Implemented Today

With the rising sea level The Vanishing Path will constitute a habitat for mussels and oysters as they will grow on its submerging structure, while in the long term future sediments and sand will accumulate there and it will eventually rise again from the sea in a different shape.

The Vanishing Path stages the rising water level since parts of it will be flooded during extreme weather conditions or even submerged over the years, making it inaccessible from the coast, when the beach is gone.



Emerging Islets

On the outmost islets, the barrier of Rotholme, a grid of poles and rocks will be placed along the seaward side, on the lower elevations, just above the sea level. This intervention will accelerate the sediment accumulation around the poles and thus act as catalyst for the land emersion from the sea. Implemented Today

By implementing this intervention the islets will eventually reappear in new formations shaped by the natural processes, and the bird habitat will be maintained in the long term.

Along the Emerging Islets, a big part of the existing islets will be swallowed by the sea and become a part of the underwater landscape.

The Embedded Passage

The Embedded Passage as a continuance of an existing path will connect the mainland and the locals to the unofficial canoe stop and to the fjord. Implemented in 10 years

When the sea level rises and the Embedded Passage submerges, its hard surface will provide a habitat for oysters and shellfish.

The Embedded Passage will act as a climate watch by being gradually submerged into the water, and eventually becoming inaccessible.

The New Wetland

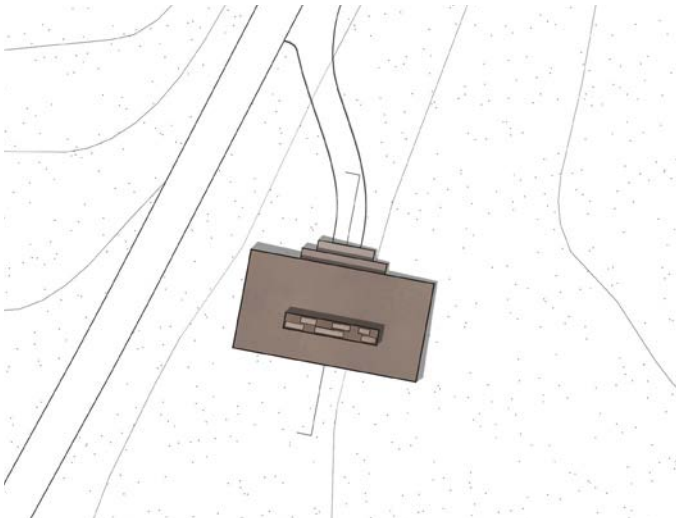
A retaining wall is placed along the existing topography of Rotholme's eastern part to frame the future wetland. Implemented in 50 years

It is expected that the current wetland will move eastward as a natural outcome of the rising sea level taking into consideration its topography. The New Wetland will be framed further to the inland, until it eventually becomes part of the coastline of Mors.

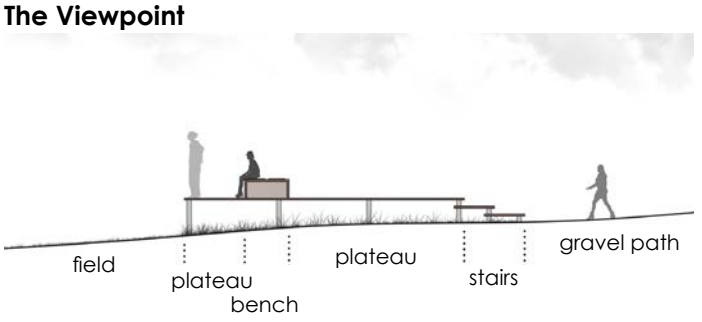
Today

Starting today the first three interventions are implemented: The Viewpoint, The Vaninishing Path and the Emerging Islets. The Viewpoint serves as a starting point into the area of Rotholme. From its elevated location you can relate to other interventions and observe the landscape changes in the coming centuries. The Vanishing Path guides people to the heart of Rotholme and lets them appreciate the landscape an its rich bird life while it is still there. The Emerging Islets are also implemented at this stage to ensure a continuously existing bird habitat, by taking advantage of sediment accumulation, the intervention may already initiate the formation of new land today.

Zoom Plan 1:500:
The Viewpoint



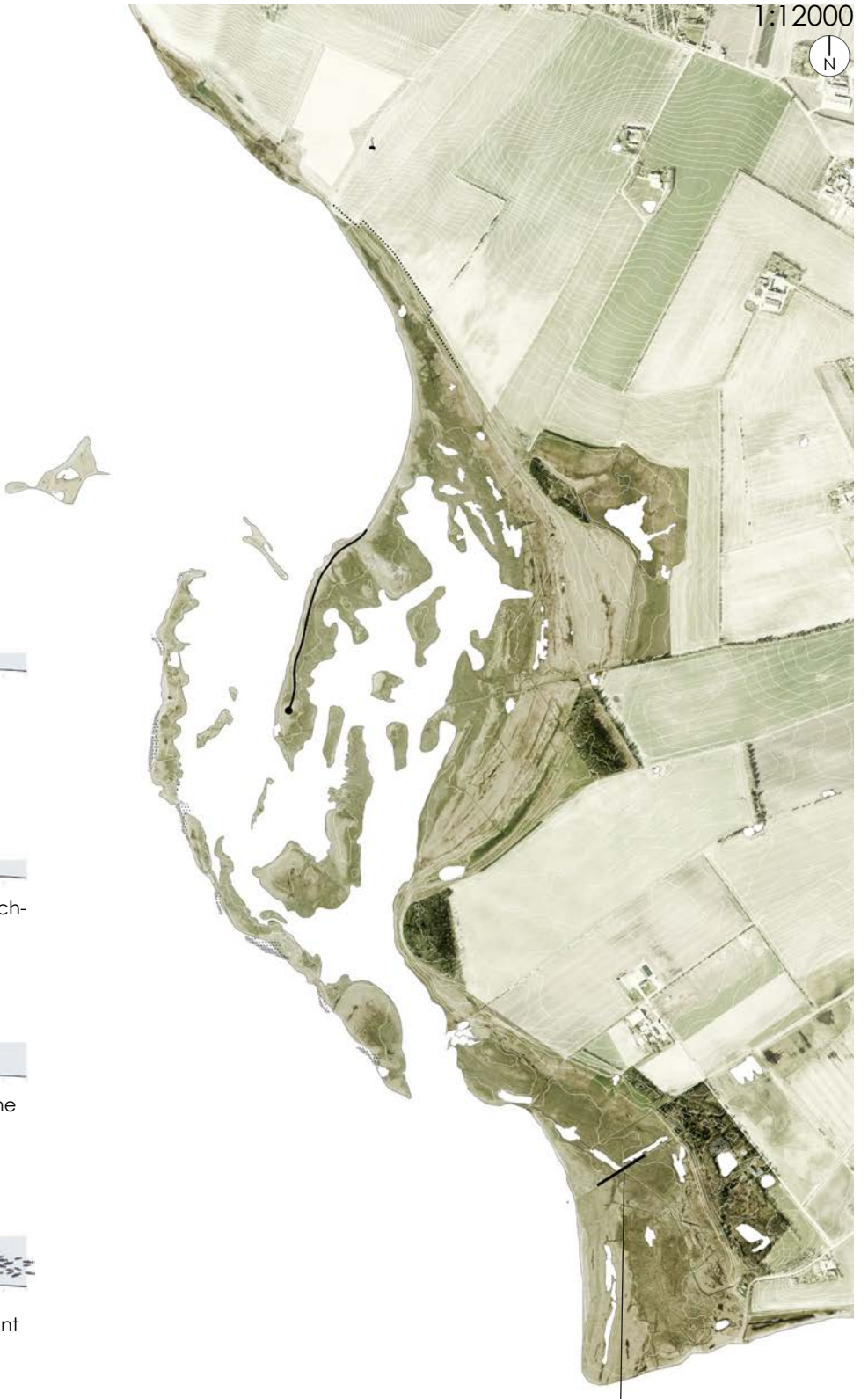
Section 1:200:
The Viewpoint



Rotholme seen from *The Viewpoint today*

In 10 years

In the time period from now until ten years ahead, all islets will begin to shrink. All over Rotholme, parts of the wetland will be submerged and the beaches close to Serupsvej and to Hester Odde will recede. Starting from today, The Viewpoint and The Vanishing Path will have been implemented, as well as the Emerging Islets intervention. Additionally, in ten years The Embedded Passage will be in place as well.



Diagrammatic section:
The Vanishing Path

today (before implementation)
the area is functioning as a bird habitat for various species

today (after implementation)
the path will be functioning as a boardwalk leading to the bird watching tower

in 50 years
the water will rise and decrease the land, creating awareness of the issue

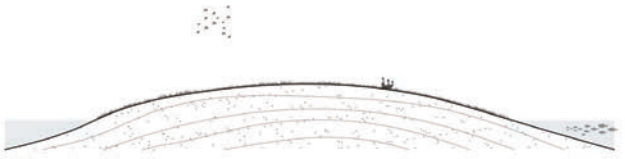
in 100 years
the path will be inaccessible from the land, standing as a monument in the sea

The Embedded Passage when implemented in 10 years

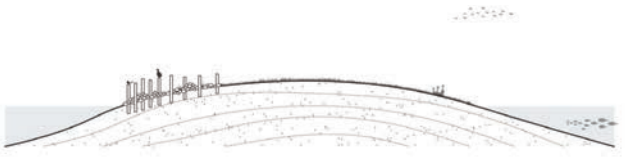
In 20 years

In the time period from 10 to 20 years ahead, the islets and the wetland will continue to shrink, while some of the islets will already have been lost. The land where the Emerging Islets will happen is covered by the sea only showing the poles standing out of the water. The habitat for birds and grazing cattle will start to decrease, giving more space to water life.

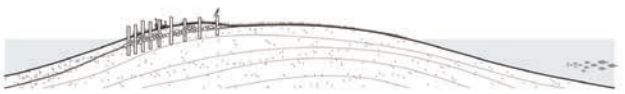
Diagrammatic section:
Emerging Islets



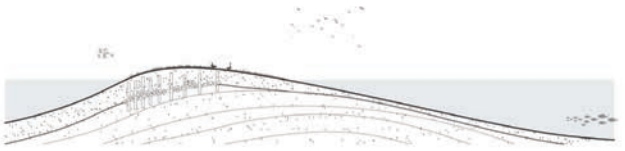
today (before implementation)
the islets are functioning as a bird habitat for various species



today (after implementation)
poles and stones are implemented along the western part of the islet in order to accelerate accumulation of sediments



in 50 years
the accumulation has started and the land will rise emerge from the sea, while the sea level rises



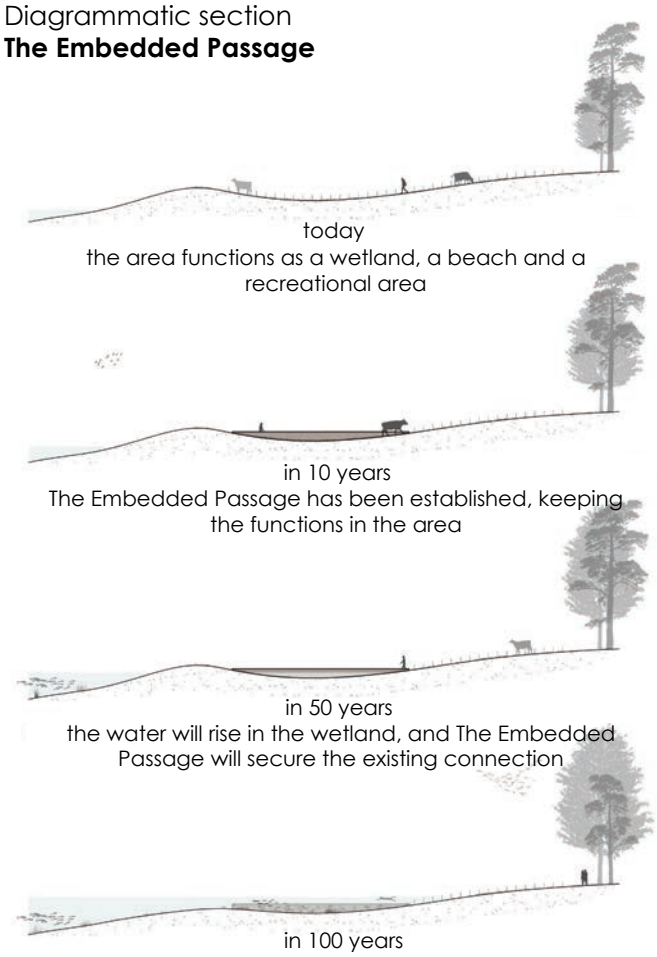
in 100 years
the water will have submerged the pre-existing land, while an islet will rise over the poles, preserving the bird habitat

Rotholme seen from *The Viewpoint in 20 years*

In 50 years

In the time period from 20 to 50 years ahead, many islets will have vanished excluding the inner and outer barrier, which will continue to shrink. The accumulation in the Emerging Islets will start with the land rising from the sea. The water will rise around The Vanishing Path and The Embedded Passage, while the New Wetland will be framed. Meanwhile the existing wetland will decrease significantly. By then, groves will be planted along the New Wetland's eastern edge, since the existing groves will begin to perish, due to the rising water table.

Diagrammatic section
The Embedded Passage



today
the area functions as a wetland, a beach and a recreational area

in 10 years
The Embedded Passage has been established, keeping the functions in the area

in 50 years
the water will rise in the wetland, and The Embedded Passage will secure the existing connection

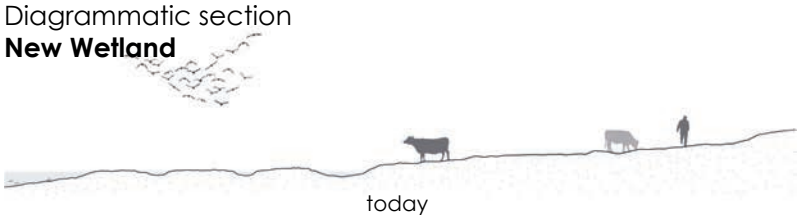
in 100 years
The Embedded Passage will be submerged into the Fjord, constituting a new habitat for shellfish

The Embedded Passage in 50 years

In 100 years

In the time period from 50 to 100 years ahead, almost the whole of Rotholme will be swallowed by the sea except for the Emerging Islets, which will remain a bird habitat. They will take shape, accumulated sediment covering the poles. The New Wetland will naturally move towards the inland, working as a habitat for the grazing cattle. The land around The Vanishing Path will be submerged into water making it inaccessible from the land, while The Embedded Path will be completely covered by water, creating a habitat for shellfish and oysters. The new groves will by now have matured into a prime wild game habitat.

Diagrammatic section
New Wetland



today
the area functions as a wetland and pasture for grazing cattle

in 50 years
the wetland will draw backwards due to rising sea level

in 100 years
the pre-existing wetland will be sumberged into water and relocated further to the inland framed by a retaining wall

in 200 years
the New Wetland will eventually be submerged into the water, with the retaining wall as the future coastline of Mors

The Vanishing Path, seen from the water, in 100 years

BACK TO THE FJORD

MARINA NETWORK ON SOUTH MORS

Anton Juel Lund
Vita Rehberger
Juelun Wei


Mette

Tilbage til Fjorden: Havnenetværk på Sydmors

Danmark er et ørige bestående af mere end 1.400 øer og en kystlinje på mere end 7.200 km. Fra alle steder er havet inden for en times kørsel (60 km). Havet har derfor altid haft stor betydning i dansk udvikling - økonomisk, rekreativt og mentalt. Mors er en ø i Limfjorden med ca. 151 km kystlinje. Historisk set har landbrug og fiskeri på Mors været lige vigtige for øboerne. Havne blev udbygget for at bedrive nødvendige aktiviteter: fiskeri for at overleve og færgeforbindelser over fjorden. På grund af den massive industrielle udvikling af erhvervsfiskeriet samt den dominerende jordbrugsudnyttelse faldt antallet af professionelle fiskere. Udviklingen af infrastruktur tillod folk at rejse til og fra øen over broer på bekostning af færgeforbindelserne. I dag er der meget få mennesker tilbage på Mors, som ernærer sig som erhvervsfiskere, og de fleste mennesker har mistet kontakten til vandrelaterede aktiviteter ved fjorden.

Hvordan kan det svindende forhold mellem menneske og hav genoprettes?

Dette projekt fokuserer på at styrke forholdet mellem folk og fjord. At gøre fjorden mere relevant i hverdagen for lokalbefolkningen og de besøgende. Det intenst opdyrkede landskab på Mors gør fjorden til det største rekreative landskab, en uudnyttet attraktion. Havnene på Mors er de mest direkte forbindelser til fjorden, og forstås i dette projekt som det stærkeste medie til at genskabe forholdet til fjorden. Initiativerne og interessen for at komme i tættere kontakt med naturen og udøve udendørsaktiviteter ved havet er bedst til stede i den nordlige del af Mors og særligt nær Nykøbing. Skaldyrsfestivalen, Limfjordsparken og Cold Hawaii Inland er blandt de spirende tiltag. De tre havne på Sydmors - Sillerslev, Thissinghuse og Næssund er tilbageladt, og i mellemtiden står denne region over for det største befolkningsfald på øen.

Kan de rigtige forbedringer af havnene gøre det bedre og mere attraktivt at bo på Sydmors?

De tre havne i syd ligger inden for kort afstand til hinanden og rummer varierede vandrum af bugter og sund, fauna og flora. Projektet vil forbedre de aktuelle stedspecifikke situationer og understøtte både nødvendige, valgfrie samt sociale aktiviteter. Etableringen af udlejningsfaciliteter på tværs af de tre havne samt markeringer af bemærkelsesværdige oplevelser langs kysten vil fremhæve og stimulere kajaksejlads og anden søsport. Ved at etablere et tværgående netværk for akvakultur, der skal kombinere produktion, uddannelse, miljøforbedringer, rekreativ udfoldelse og styrkelse af lokalsamfundet, vil Sydmors tiltrække nye aktøre og forpagtere.

På Sillerslev havn er området på ny organiseret til at håndtere de forskellige interesser hos industrifiskere, strandgæster og lystsejlads. Kystbeskyttelsen i vest konstrueres som et generøst strandlandskab, der tilbyder flere rekreative muligheder. I Thissinghuse og Næssund vil små indgreb forbedre havnenes nuværende egenskaber. Thissinghuse havn har en unik naturkvalitet. Her møder det salte fjordvand det ferske vand fra vådområdet. Træplatforme vil forbedre muligheden for at komme ind i vådområdet fra fjorden. Dertil vil bådhuset, udkigspunkter og trædæk forbedre brugen og iscenesætte naturoplevelsen. På transithavnen, Næssund, vil en pavillon på tippen understrege og synliggøre fælleskabet på havnen. Tiltagene vil understrege vandet som samlingsrum for lokalsamfundet.

Back to the Fjord: Marina Network on South Mors

Denmark is an archipelago of more than 1.400 islands and has a coastline of more than 7.200 km. From all locations the sea is within the reach of an hour drive (60 km). Therefore, the sea has had great importance in Danish evolution – economically, recreationally, and mentally. Mors is an island located in the Limfjord with approximately 151km of coastline. Historically, farming and fishing on Mors were equally important to the people, and initially harbours on Mors were built for necessary activities: fishing for living and ferry connections across the fjord. Due to heavy industrial upscaling of fishing, and the dominant scene of farmland on Mors, the number of professional fishermen declined. The development of road infrastructure allowed people to travel in and out of the island across the bridge at the expense of going by ferries. Today very few people are professional fishermen and most people have lost touch with water-related activities.

How can this lost relationship be re-established between people and water?

This project focuses on strengthening the relationship between the people and the fjord. To make the fjord more relevant to everyday life of the local population and visitors. The intensely farmed landscape on Mors makes the fjord the main recreational landscape, a highly underused attraction. The harbours on Mors are the most direct access point to the water, and are in this project perceived as the most direct way to redevelop the relationship to the fjord. The initiatives and interest to get in contact with nature and do outdoor activities on Mors are present in the northern part and near Nykøbing Mors. Shellfish festival, The Limfjord Park, and Cold Hawaii Inland are among the aspiring initiatives. The three harbours in the south, Sillerslev, Tissinghus, and Næssund are left behind. Meanwhile the southern region is facing a massive decline in population.

Can improvement of the marinas make it more attractive to live on South Mors?

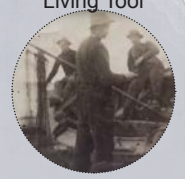
The three harbours in the south are within short distance of each other and hold varied waterways of bays and sounds, fauna and flora. The project will improve current site-specific situations in order to facilitate better experience for both necessary users and recreational ones. Establishment of renting facilities at all three harbours and markings of notable points along the coastline will stage and stimulate kayaking and other sailing opportunities. By instituting a network of aquaculture program, that combines production, education, environmental benefits, recreation and strengthening of local communities, South Mors aspires to attract new users and managers. At Sillerslev harbour the space is reorganized and defined to mediate the diverse interests of business fishermen, beach goers, and recreational marina users. The coastal protection is constructed as a generous beach landscape that creates more recreational opportunities. At Thissinghuse and Næssund small interventions will enhance current characteristics of the harbours. Thissinghuse marina has a special natural quality around, where the salty fjord water meets the fresh wetland water. Wooden platform will optimize the possibility to enter the wetland from the fjord. At last, boathouse, viewpoints and wooden deck will improve usage and enhance the experience of the nature scenery. For the transit harbour, Næssund, interventions will emphasize it as the community harbour, functioning as a gathering space near the water for nearby communities.

Mors in Danish context

Amtoft harbour
Amtoft ferry harbour
ferry service 1968
FEGGESUND
FEGGE SOUND
Thisted harbour
Synopal harbour
Søbadet
Sejerslev 7 km
Ejerslev 1.5 km
ferry service until 1912
EJERSLEV
SUNDBY ferry service until 1930s
bridge 1939
Vilsund harbour
Sundby
VIL SOUND
NYKØBING
ferry service until 1873
Fur harbour
Glyngøre harbour
NEES SOUND
Karby 4 km
ferry service 1585 ~
NÆSSUND
Redsted 3 km
TISSINGHUS
Doverodde harbour
SMK
Sallingsund bridge 1978
SALLING SOUND
Sillerslev 1.5 km
Sønderby
ferry service until 1960
SILLERSLEV
ferry service until 1960
Jegindø harbour

harbours on Mors
other harbours
Cold Hawaii project sites
beach
shelter
shelfish center
view point
Coastal route
team 5 route, discovering the harbour
main sailing route
cliffs
access to/from the harbour
nature areas along the coast
fishing activities
existing ferry connection
past ferry connection
activities in the harbour

Fishing As Living Tool



Ferry Connection

Industrialization of Fishing

Traffic Infrastructure Development

Alternative Ways of Approaching the Fjord

Harbours Changing Functions

South Mors Left Behind?

Sillerslev

Thissinghus

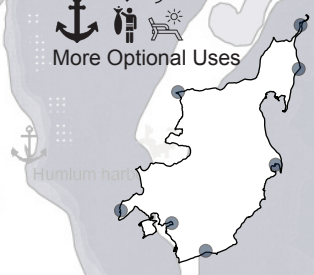
Næssund

Past Harbours and Ferry Connections on Mors

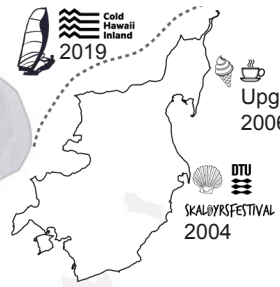
Necessary Uses

Present Harbours and Ferry Connections on Mors

More Optional Uses



Current Initiatives of Re-building Rrelationships with the Fjord



Three Harbours in Southern Mors

Narrative diagram

SILLERSLEV HARBOUR

Sillerslev harbour is the second biggest harbour of the island and besides Nykøbing, the only one with active fishing activities. It's a home base of currently around a dozen fishermen, who are also one of the most active actors in the harbour, keeping it alive even in the coldest months. They claim a good half of the place as they require space for necessary fisherman businesses. The other part is occupied as a recreational marina, providing space for docking around 80 boats, when filling its full capacities. In local circles, the harbour is mainly known for its stunning beach, which is stretching on the side of the fisherman harbour. The site is located under a cliff and is visually disconnected from a small settlement on top of it.

THISSINGHUSE HARBOUR

Tissinghus is a small marina, located in Glomstrup Vig. What makes the area interesting is the proximity of two different ecosystems, the marine one and the wetlands. Tissinghus marina is situated just on the boarder, next to the dam, which has been established in the 1960s. First origins of the harbour connect to a local merchant's house which helped to develop the place into industrial port for purposes of timber trading. Nowadays, it's a recreational harbour, providing space for around 35 boats. Farmers shop still has an active presence with everyday activities around the area. Commercial facilities, like toilets, shelter and small waterslide are located in area itself.

NÆSSUND HARBOUR

Næssund harbour is known for its ferry connection over the Nees Sund to Gennerup on Thy side. There are 2 active ferry lines on Mors island, Feggeklit in the north and Nessund in the south, it's where the distance is the shortest to cross. The ferry is operated by local community and based on voluntary activities. The harbour is located under a cliff, making the entry point different from the accessibility point of view. Small boats can temporary dock on short extended piers. The area is surrounded with beaches on both side, giving opportunities for oyster picking and other recreational activities. Closest village is Karby, 4km to the north and it's possible to reach it on coastal route.


Fence divison of beach / harbour


Marina and the Købmandsgård

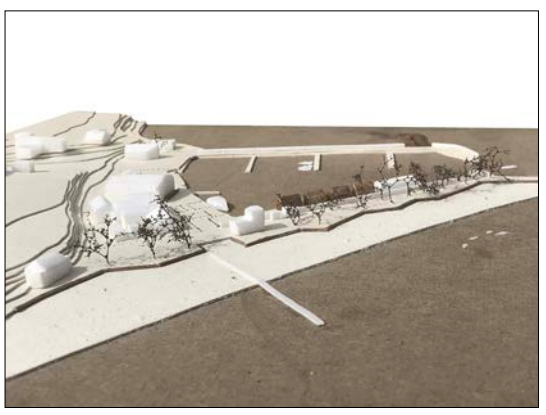

Underused pier

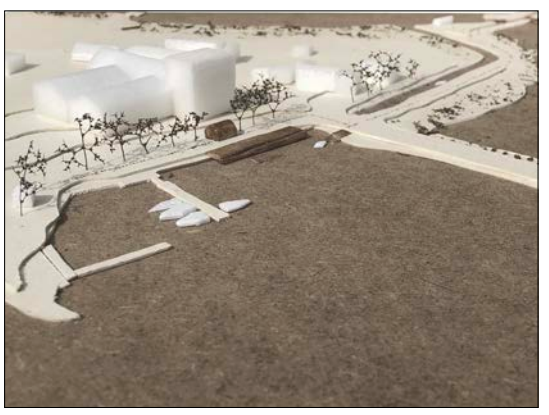

Undefined space


Tissinghus wetlands


Næssund harbour

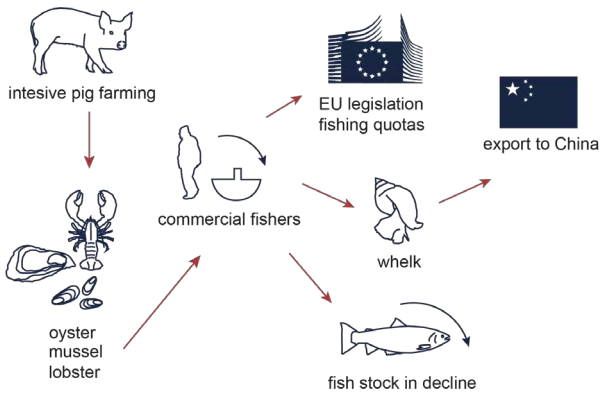
Intervention models



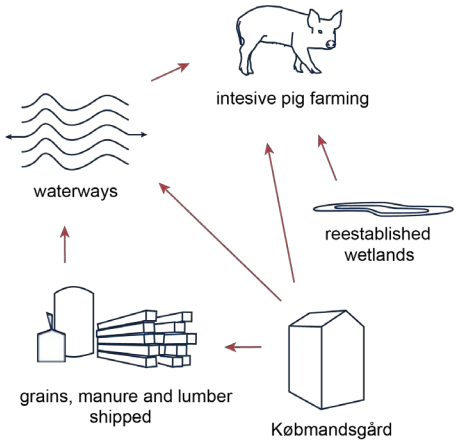


ACTOR NETWORK DIAGRAM

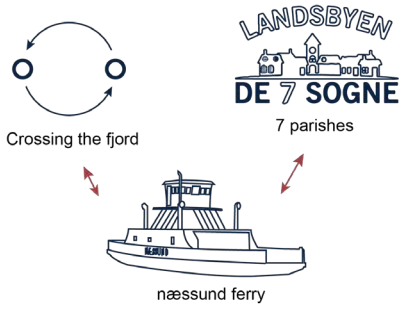
Sillerslev Harbour - specific actors



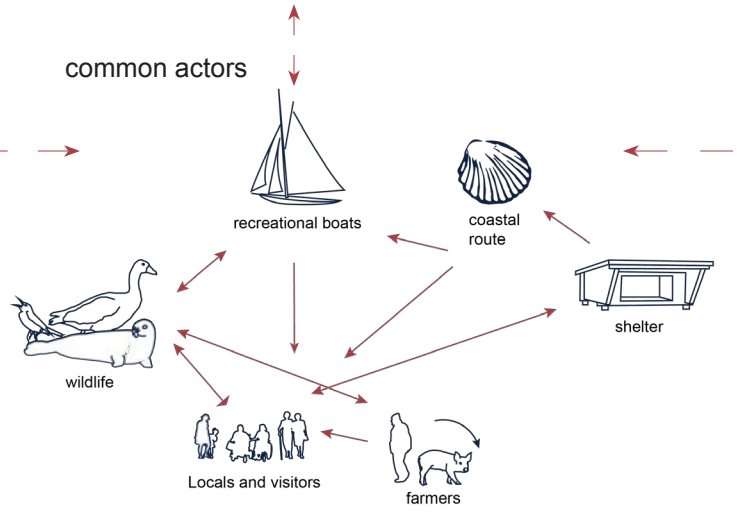
Tissinghus Harbour - specific actors



Næssund Harbour - specific actors



common actors



Sillerslev

shelter
sailing club
cafe Os2
fisherman workshop
multifunctional open space
multifunctional public building
fisherman workshops
shared space
parking
community house
recreational marina
fisherman houses
aquaculture islands
elevated edge

Harbour development

1900s — *Growth of fishermen population on Mors*

1940s — *About 50-60 fishermen and their families lived in Sillerslev*

1959 — *After years of discussion on constructing a harbour, the western pier was built*

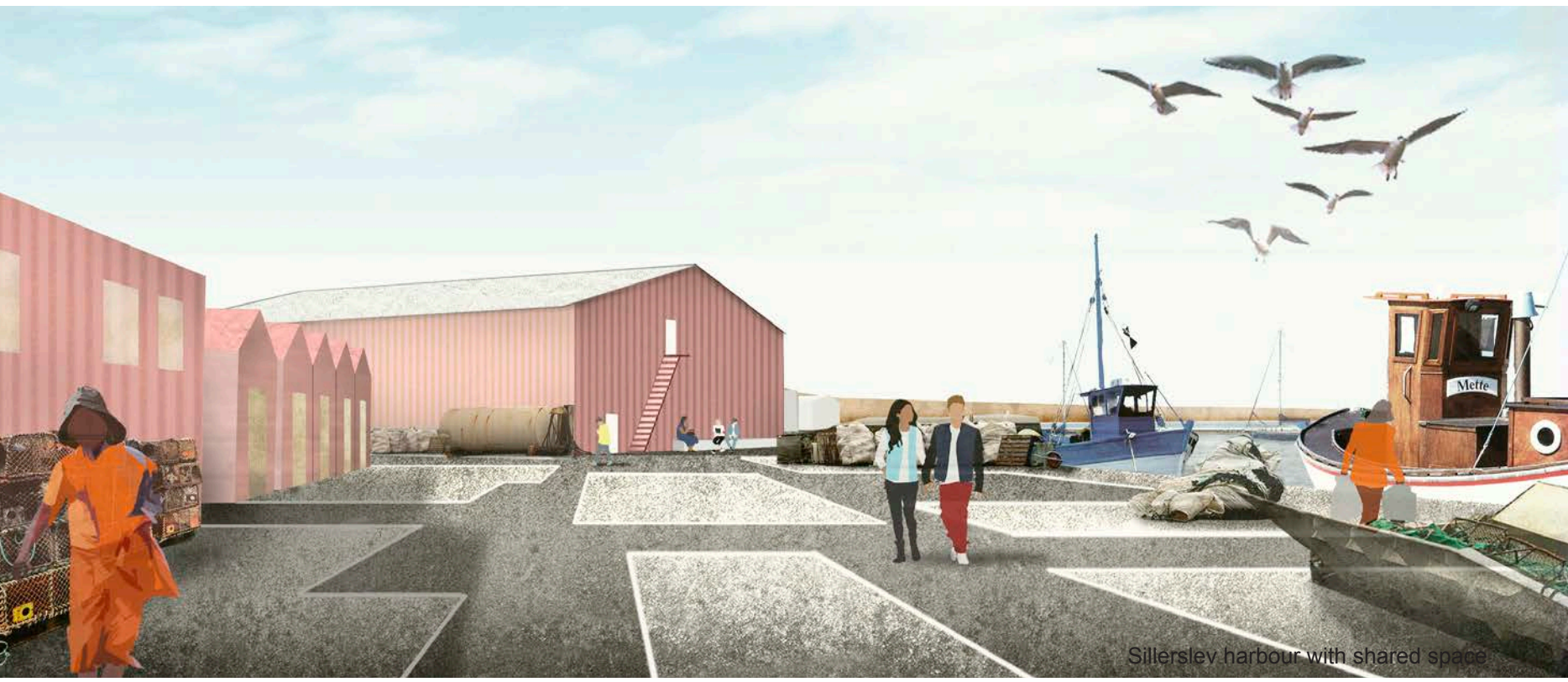
1972 — *The rest of Sillerslev harbour was built*

1972 - — *Fishing activities in the fjord was once in crisis, but there're still a dozen fishing fleets in Sillerslev*

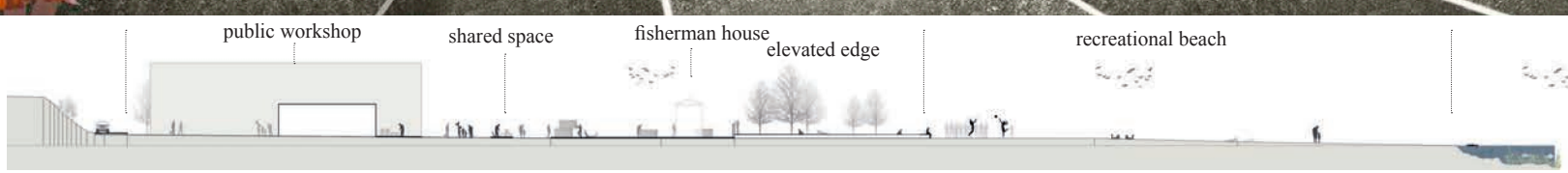
2016 - — *Ongoing discussion about new expansion plan for the harbour*

FUTURE — *A harbour with shared space and event for recreational users and fishermen*

Harbour plan, 1:1500



Sillerslev harbour with shared space



Section BB`, 1:1000

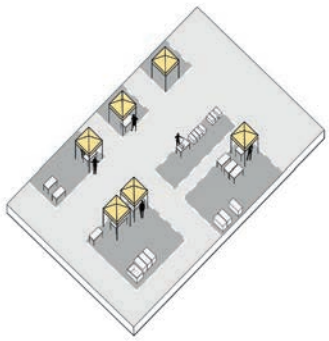
The current situation at Sillerslev harbour requires reorganization of space and activities. Therefore, site specific strategy mediates the diverse interests of business fisherman, beach goers, and recreational marina users. Current fisherman houses will be redeveloped into more organized spatial coherence, providing space for activities which require space, but aren't necessary directly connected to the water. Transformation of open area leading towards the water, which is currently occupied by fisherman only, will accommodate principles of shared space. Changes in the pavement will lead and help fisherman organize their possessions in a way that they still allow visitors to enjoy their way to the beach or to the recreational part of the harbour. Space will give opportunities for events like market days and festivals, some of them already taking place in Sillerslev. The largest workshop building will be open for a public, allowing to have a space and equipment for whatever you may need.

Extension in recreational part of the island is planned, accommodating aquaculture islands. They will attract different profiles, e.g. researchers from DTU Shellfish center, who can have a small research station in the south. Floating islands also act as an open classroom and that way serving as a hand on educational experience, teaching students about how our actions impact marine ecosystems. Aquaculture is also a great provider of various ecosystem services, like cleaning the water.

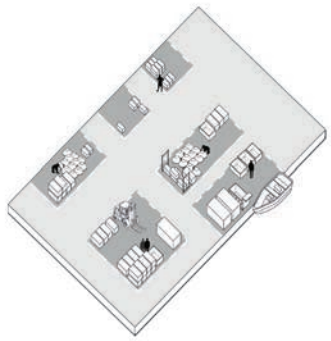
Division between beach area and fisherman harbour will be provided with elevated edge. It also serves as coastal protection (from erosion and flooding) and multifunctional green zone with typical beach vegetation (e.g. Pinus mugo). Required beach facilities will be provided attached to a community house. Traffic will be eliminated from the main harbour areas, except for necessary activities.

FLEXIBLE SHARED SPACE

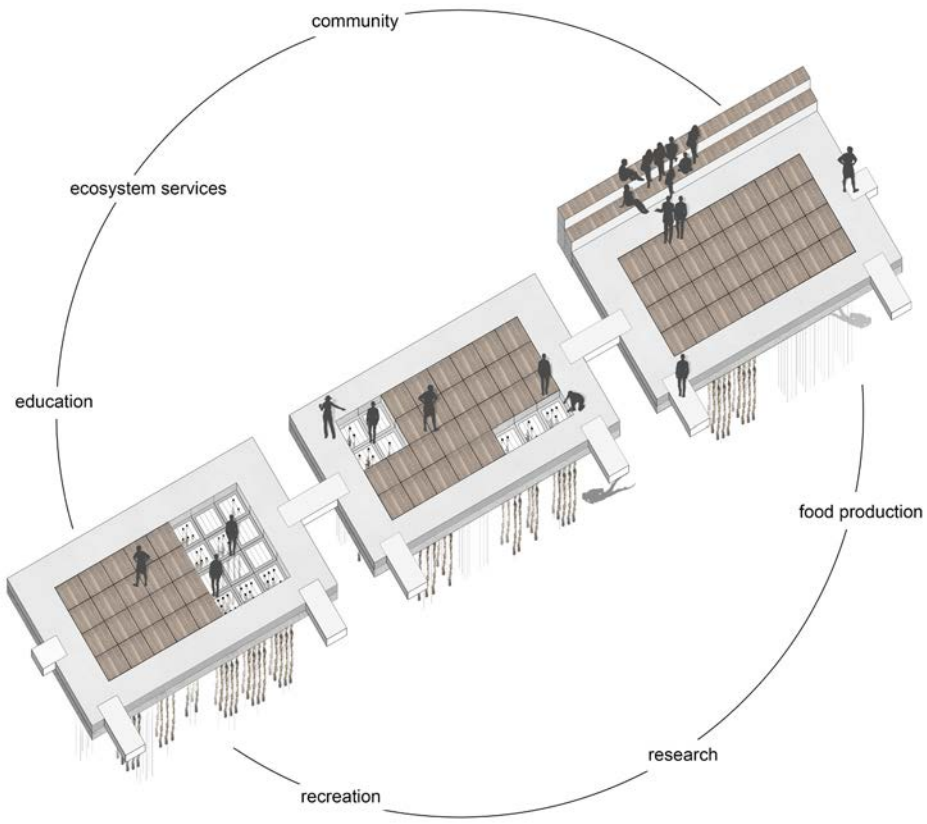
MARKET DAY



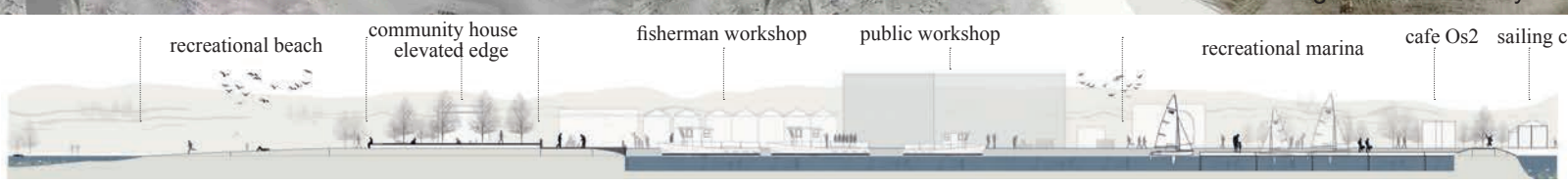
FISHING - HIGH SEASON



AQUACULTURE ISLANDS



Sillerslev beach with elevated edge and community house



Section AA`, 1:1000

Thissinghuse

harbour facilities

eel fishing spots

Købmandsgård

boat house/kayak storage

staircase

kayak crossing

wetland

fishing spots

wetland

bird watching

Harbour development

1858 — The merchant's house was established and became a meeting point for the society

1860s — The harbour was used as an industrial port for the local grain/feed business and timber trade.

1930s — The grocery store and timber trader co-owned a parcel boat

1975 - — Marina in decay

2011 — Renovation of the jetty

Now — It's only used as a marina, the previous landing sites for barges is no longer in use

FUTURE — Recreational marina linking various activities in both the fjord and the wetland

Harbour plan, 1:1500

EXPERIENCING TISSINGHUS THROUGH ACTIVITIES

connecting ecosystems

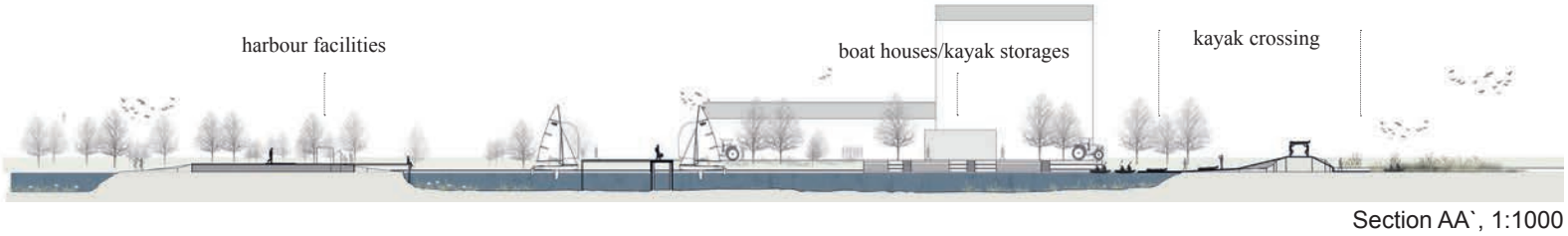
watersports in the marina

fishing in the marina

kayaking in the wetlands

bird watching

Tissinghus boat house with staircase to the water



Section AA`, 1:1000

Næssund

local landmark

oyster picking beach

gazing meadows

recreational beach

staircase

boat houses/kayak storages

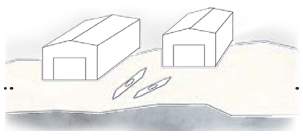
recreational beach

Harbour development

past	1980	2015	2016	2019 -	FUTURE
The ferry route has been operated by several different public and private owners	The current ferry started to operate	The ferry route closed in February	The ferry route was reopened and operated by the locals	A new master plan for Næssund ferry marina is on the way	A local gathering point for nearby parishes

Harbour plan, 1:1500

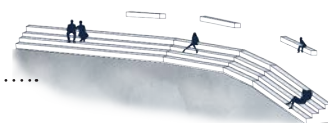
EMPHASIZING COMMUNITY HARBOUR



boat houses/kayak storages

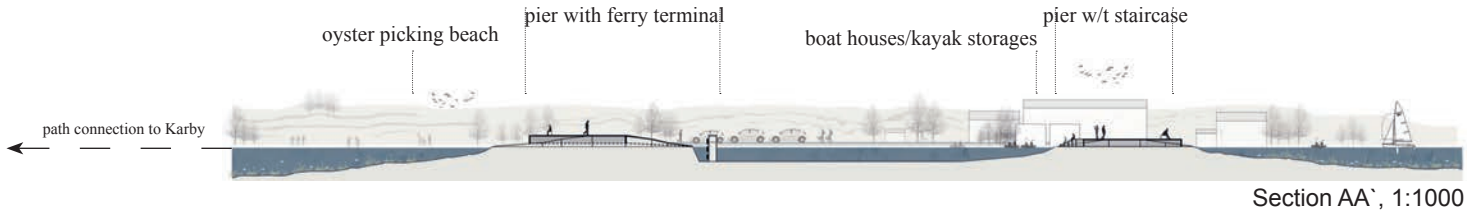
local landmark

community ferry



staircase - access to the water

Gathering space for the local communities



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