# DIPLOMA PROGRAM AND INTRODUCTION

JIM HODDEVIK

## REMEMBRANCE

EXCAVATED SEQUENCES OF ROCK, FOREST, DAYLIGHT AND WATER.







A CREMATORIUM WITH RELIGIOUS NEUTRAL CEREMONY SPACES PARTLY HIDDEN UNDERGROUND IN BERGEN.

Architecture is often perceived as visible forms with a facade.

Underground structures differ from other topologies of architecture simply because they can only be perceived and understood as forms and spatial objects from the inside.

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### PROJECT DESCRIPTION

### WHAT

I started out with an idea of implementing my preliminary motivation and fascination in design of a religious neutral ceremony space for funerals.

Reflections around a meeting with the funeral and burial authority in Bergen and other investigations made me aware of the entire process from death to funeral and eventually to burial.

In addition to the ceremony space I also implement other related and secondary programs into the project such as a crematorium, mortuary, temporary storage space for urns, graveyard area, viewing rooms, a space to witness cremation, workspace for employees etc.

On one side this composed program requires a rational and machinery like infrastructure of turning dead bodies into ashes. The opposite side is to provide spaces where dependents with intimacy and dignity can take a final goodbye.

### WHY

Society is becoming more secular and diverse in ways of celebrating life's final passage of rite, especially from a non-religious life stance point of view.

When asked only half of the Norwegian population claims belonging to any kind of religious belief. This opens a discussion on the current offers of ceremony spaces for funerals in Bergen which is mainly Christian churches and chapels.

Could ceremonial spaces be perceived in a broader context beyond religious beliefs without completely losing the notion of being something sacral?

The sensual world of rituals and its meaning in our culture should not be underestimated. Spiritual and sacral spaces is usually related to a specific religion, but its emotional impact on the mind and experience affect us all.

### WHERE

There is today one crematorium in Bergen Municipality. It is placed in an area facing a planned redevelopment from an industrial zone into a residential one in the future. The building and technical solutions regarding cremations is also soon outdated and to small.

The site is located 5km west of the city centre of Bergen. The project is placed where a forest trail area meets a freeway interchange junction. This allows for both a rationally access in terms of getting there by car or public transport, and on the other hand an interesting option of approaching the site by foot or bicycle from a well-connected forest trail and recreational area.

Thoughts and mind accumulate while walking, quiet comes with each step. Various existing paths and trails in the forest area leads to various landforms such as the river, waterfalls, ruins, mountain tops and clearings in the forest inviting the visitor to pause for a while and use the context both before, after and during the processing of losing a loved one. A place of quiet and wonder.

### PROJECT DESCRIPTION

### HOW

The rock is first subtracted as blocks, as in stone quarry operation before ceilings and different light wells are added as concrete constructions to re-conceal the interior spaces. The rock and soil are treated as resources to be reassembled elsewhere on the site.

The project is sculptured into the rock integrating the eternalness of stone and immaterial components of light, water and sound casting its sparkle and echoes on the masses of stone. An appreciation to the value of natural elements that will create a richer expression and a common impression of nature and mother earth itself as a mediator in addressing the notion of sacredness across beliefs and non-beliefs.

From the point of arrival, walled corridors of large stone blocks guide visitors through a sequence of forest before descending into a courtyard from where the ceremony rooms can be reached as they reveal themselves as inviting entrances carved out from the rock walls embedding the sunken courtyard surrounded by trees.

Most of the volumes cannot be perceived from the outside as they are hidden and carved into the terrain. Only fragments of the construction become visible. The elements rising above ground to bring daylight into the interior spaces designed to facilitate and strengthen intimate experiences.

The graveyard area is arranged as hillside terraces with a path along stone restraining walls constructed by the masses taken out to construct the interior spaces in the project.

The funeral and burial related activities in Norway is set to working hours on weekdays. Funeral hours are from 10.00-15.00. After working hours and on weekends other users will be active users on the site and the nearby area, making it just as much recreational park area as it is a place for saying goodbye.

A variety of spatial compositions, the rawness of materials, and appearance of water is meant to allow a sensory experience beyond what you can see. Narrow corridors and short passages of low ceiling hight are followed by open courtyards filled up with light to raise awareness of the different conditions of spaces.

Perceiving the final farewell is a direct and physical experience. Within the interior space's openings are providing light and gaze upon light of sky, treetop canopies or water mirrors reflecting them all.



Model investigations of the cremation furnace room.

In the ground, but open towards sky, and fragments of the forest.

### REFLECTIONS

The personal motivation, fascination and starting point for this project was the relationship between exterior form and interior experince of architecture. The hidden and unexpected encounters of spatial objects that can only be experinced from the inside.

Through essay writing I investigated ancient use of natural caves, artificially constructed subterranean spaces, and other underground spaces that humans have sought encounters with.

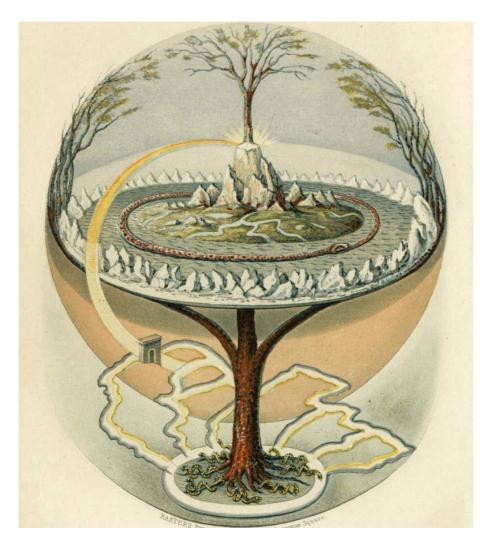
These spaces are captivating with an ability to draw you in. For a long time, underground spaces have been considered to have supernatural powers and being portals to the underworld, places for both the living and the dead.

Instead of making spaces for the sake of spaces without a purpose to ground it to, I decided follow this fascination of the otherworldly power of the underground into designing a crematorium with ceremony spaces. The concept of an underworld is found in almost every civilization and may be as old as humanity itself.

### A notion of the sacred in a secular society

As society becomes more secular, ways of doing funerals from a non-religious point of view is increasing. Still we should not underestimate the sensual world of rituals and its significant meaning in our culture even isolated from religion. This project intends to use the surrounding nature and natural elements on the site to create a common mediator and notion of the sacred, both beyond and across beleifs.

Sequences of everlasting and monumental rock, combined with sequences of calm forest scenery, daylight and water.



Yggdrasil, a modern attempt to reconstruct the Norse world tree which connects the heavens, the world, and the underworld. The concept of an underworld is found in almost every civilization and "may be as old as humanity itself"

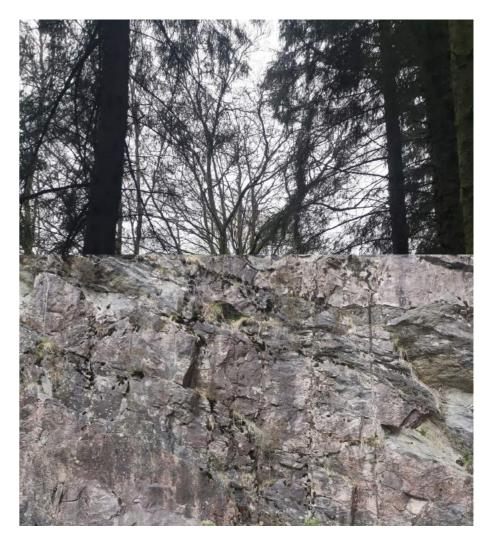


Image collage from site area showing the intention of using natural elements.

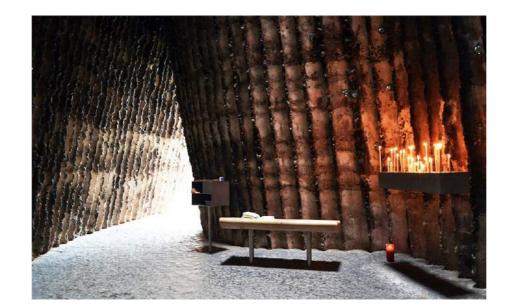
This site was chosen in favour of other potential sites due to the forest scenery. From the interior spaces wich are located underground embedded in the rock as interior expression, I wish to give fragmented veiws up towards the sky and the treetops. The rawness of an everlasting rock wall, and the trees gently swaying in the wind.

"This shuttle between multiple, almost contradictory worlds has kept these buildings alive for us in ways that buildings made within the more straightforward realm of architecture have not."

- Mary-Ann Ray.

"Seven Partly Underground Rooms and Buildings for water, ice and midgets."

# PRELIMINARY PERSPECTIVE:



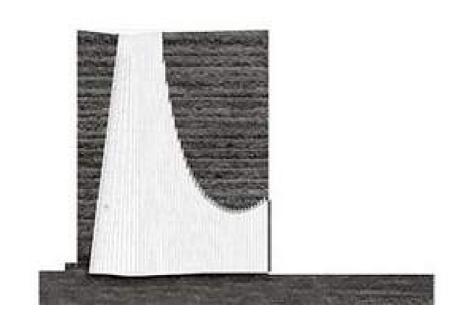


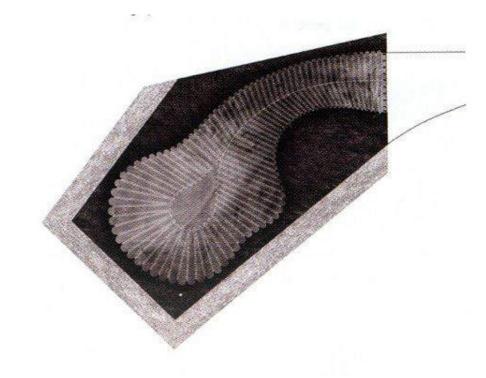
Architecture is often perceived as visible forms and aesthetic elements to please the eye. I believe space should also appeal to senses of humans beyond what meets the eye. By focusing on the experience of the space from within, rather than the form or function of the building, could architecture impact people in profound and meaningful ways?

I wish to challenge the general perception of architecture being external visible forms, and rather make it internal spaces which not necessarily have a visible form or a facade at all. An understanding of architecture as space to be inside and experience, and not manly something to look upon from the outside.

As an example subterranean structures with their absence of a facade or revealing volumes is places only possible to interact with from the inside.

Other introvert spaces such as Bruder Claus chapel decives you with a different exterior expression than the interior experince. The partly or complete loss of orientation from the surface above places you in placeless spatial environment that is somewhere, and could be anywhere.





Bruder Claus Chapel, Peter Zumthor.

# EXCERPTS FROM ESSAY:

### RITUAL CAVE USE

In her book Sacred Darkness (2012) Holly Moyes and her group of fellow researchers seeks to understand the phenomenon of darkness in relation to ritual use of caves worldwide. The archaeological evidence and the ethnographic studies show that humans never actually lived inside caves, they only inhabited the threshold of the entrances of the caves.

They manly functioned as places for sacred rituals, ceremonial and liminal use as they had the transitional effect of guiding humans from daylight to twilight and further into darkness creating a psychological distance from everyday life.



Image from cave in Belize, Central-Amerika.

# EXCERPTS FROM ESSAY:

URBAN EXPLORATION

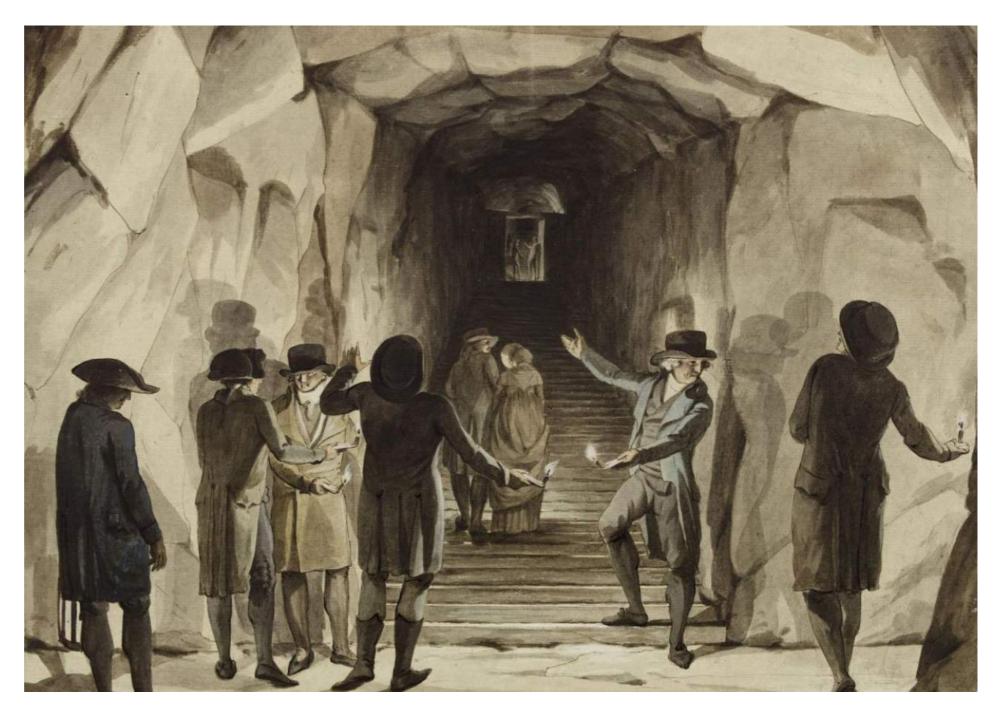


Illustration of the catacombs in Paris. (www.catacombes.paris.fr)

# EXCERPTS FROM ESSAY:

### A TRAVELER'S POINT OF VEIW

In a her book in the Pamphlet Architecture series, Seven Partly Underground Rooms and Buildings for water, ice and midgets (1997) author Mary-Ann Ray investigates unusual spaces in Italy not manly intended for human interaction ranging from a maze-like series of rooms and stairs for midgets, to a half-buried sphere that serves as a place for ice storage.

These spaces are impractical and illegible compared to traditional architectural design, still they were constructed upon very pragmatic intentions. Ray reconstructs and poetically describes theese spaces through drawings, collaged photographs, and insightful text.

She expresses that these spaces can only be truly understood through experience and with all senses and a mind in motion. In the absence of an exterior facade or revealing volume these places can only be mapped and understood as spatial objects from the inside.



The well of St Patrick in Orvoeto.

Dropping into the ground, a circular repetetive system not allowing occupation in the center.

# EARLY INVESTIGATIONS:

# CONSTRUCTION METHODS

Different operations of subtracting mass deepending on ground conditions.

#### SUBTRACTION - ADDITION - CONCEALMENT



EARTH CASTING









UCCA dune art museum, by Open Architecture.

Burried in the sand dunes with openings towards the ocean and the sky. A introvert expeerince of darker corridors and "womb" like exhibtion spaces illuminated by daylight through openings in the cealing.

Diagram of stages in construction of Junya Ishigami's Resturant in Yamaguchi.

Additon and subtraction to create unique architectural spaces

#### STONE QUARRY OPERATIONS



From stone quarry in Larvik, Norway.

Subtraction of stone masses creating new unfimiliar typologies



From a stone quarry in western Norway

# ELABORATION OF TOPIC

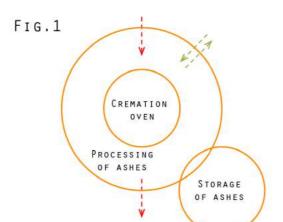
### WHAT IS A CREMATORIUM?

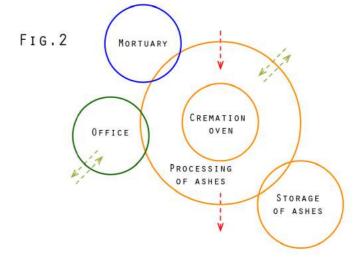
On one side this composed program requires a rational and machinery like infrastructure of turning dead bodies into ashes.

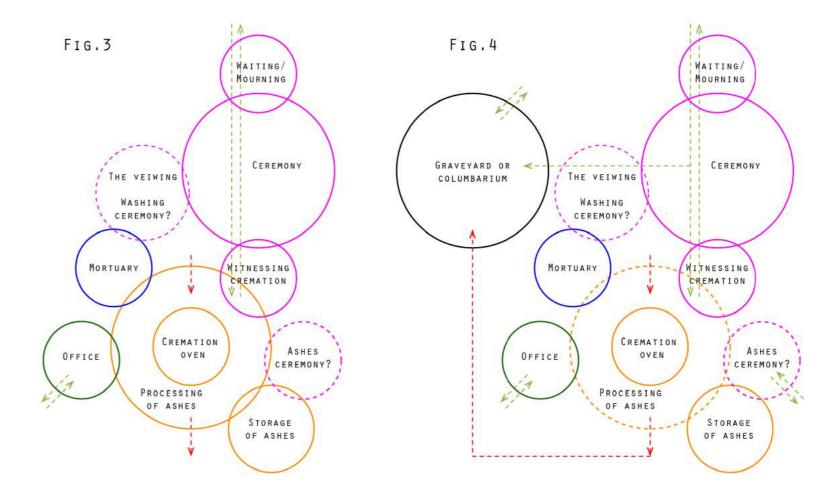
### WHAT IS A CREMATORIUM?

PROGRAM DIVERSITY FROM SINGLE FUNCTION TO SEVERAL FUNERAL RELATED FUNCTIONS.









### GLOSSARY

**BURIAL:** Placing of the body or remains of the deceased in a grave or a tomb in the ground, usually in a cemetery.

**COLUMBARIUM:** A Latin word, meaning "dovecote". An indoor "cemetery" that enables people to visit throughout the year, protected from the elements. In Norway urn can be kept temporary up to 180 days in a columbarium within a crematorium facility before its collected and buried. Columbarium as permanent solution is not legal in Norway.

**CREMATION:** The reduction of remains into small bone fragments through intense heat. The body is generally placed in a cremation container. Cremation, which takes about two hours, takes place at temperatures of 900° C. The remains of bones are then processed to ash and ashes are then put into a sealed urn.

**CREMATORIUM:** Building in which the cremation of bodies takes place

**FUNERAL**: A ceremony to render homage to the deceased. Funerals may or may not be religious events.

**FUNERAL MONUMENT OR MARKER:** Commonly referred to as headstones, they are usually made of metal or stone and include information such as the person's name, date of birth and death, symbols and a tribute. They are called monuments when they stand upright.

**GRAVE:** An excavation in the earth for the purpose of burying the deceased.

**HEARSE:** A vehicle built to carry a casket from the funeral to the cemetery.

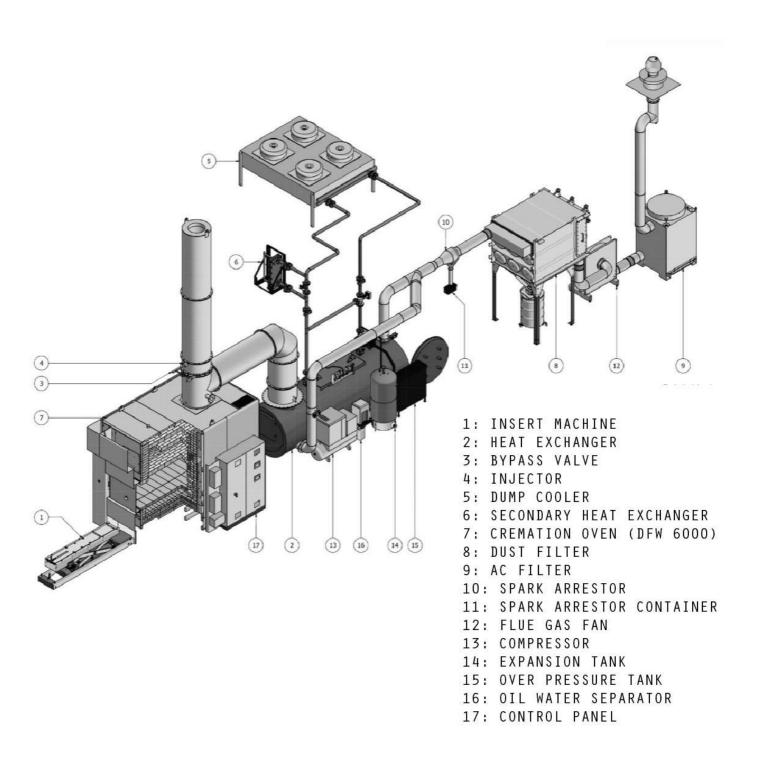
**INTERMENT OF ASHES (in an urn):** Burial of an urn in a cemetery. The urn may not be kept as private possession in Norway or permanently inured in a columbarium.

**INURNMENT:** Interment of an urn inside a niche in a columbarium. Small objects, photographs, and even children's drawings are also often kept in the niche.

**URN:** A container in which the cremated remains are placed.

**VIEWING/VISITATION:** An event that enables survivors and friends to see the body of the deceased in private, usually in a room in the funeral home, the hospital or a crematorium.

### CREMATION FURNACE



## MEETING POINTS

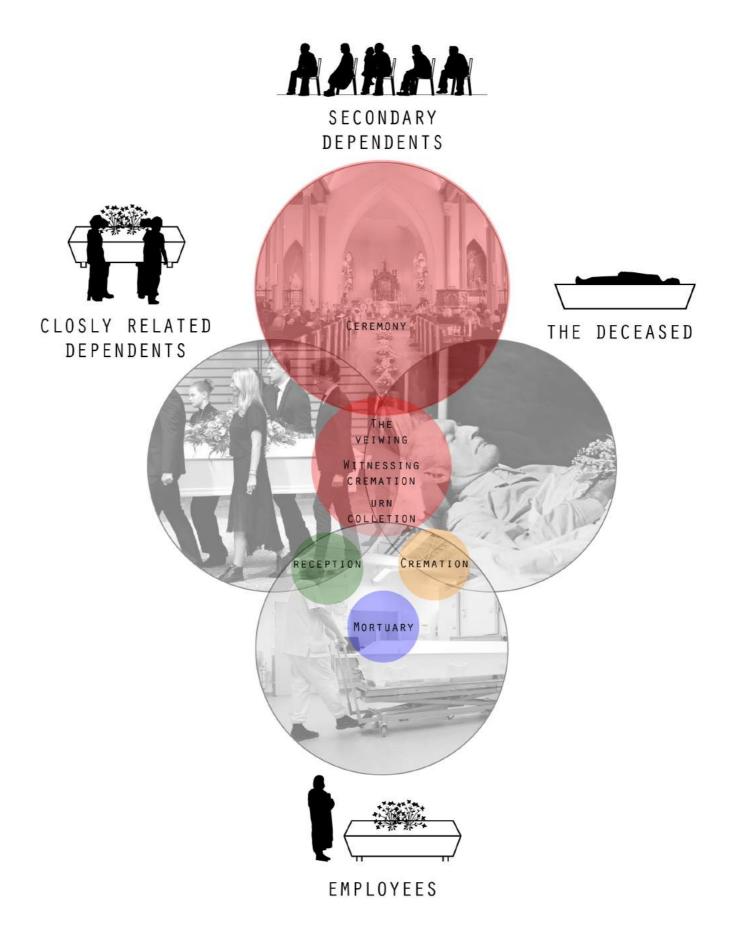
### INTERACTIONS IN THE PROCESS

### INTERACTIONS

On the other side the project should provide spaces where dependents can meet with the coffin or urn of the deceased. This should be spaces of intimacy and dignity to take a final goodbye.

Red circles shows the imoprtant interactions from a dependents point of veiw.

Spaces for employees should also be considered important as they have to deal with death on a daily basis.



# THE STAGES OF GOODBYE

### SCENARIO #1

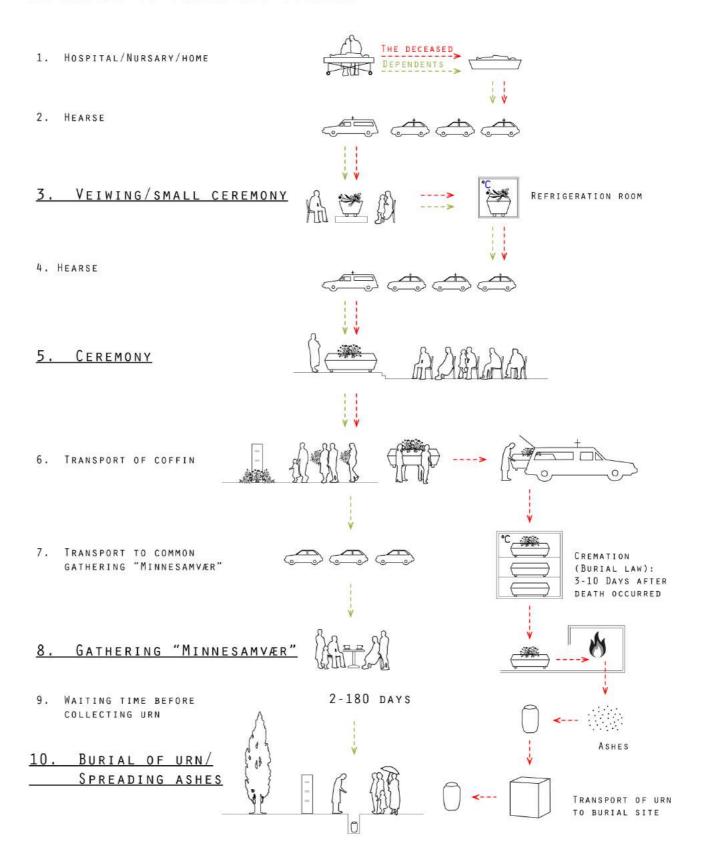
Process and protocols from death to funeral, cremation and burial seperated by transport stages.

The burial law in Norway says that cremation or traditional burial must be done within 3- 10 days after death has occured.

With this scenario in mind its likely that dependents will visit the crematorium facility several times for the different stages in the process.

The funeral ceremony is not the only act of relevance for the dependents. Veiwing of the deceased, washing of the body, witnessing the cremation, visiting the urn, and collecting the urn is also emotional acts of importants.

# SCENARIO WHERE FACILITIES IS SEPARATED BY TRANSPORT STAGES.



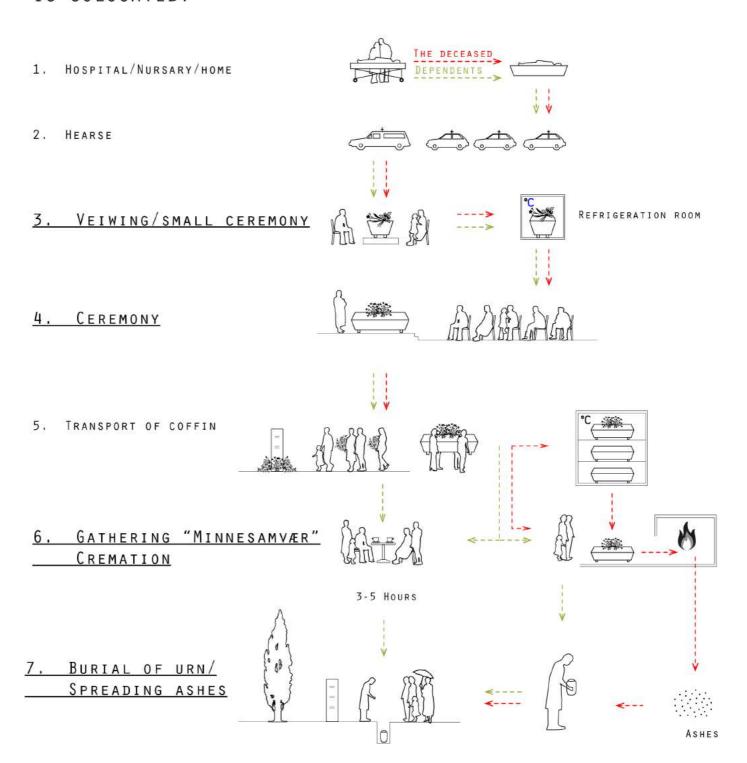
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### SCENARIO #2

If the facilities is colocated its possible to arrange for the funeral ceremony, cremation and burial to take place on the same day.

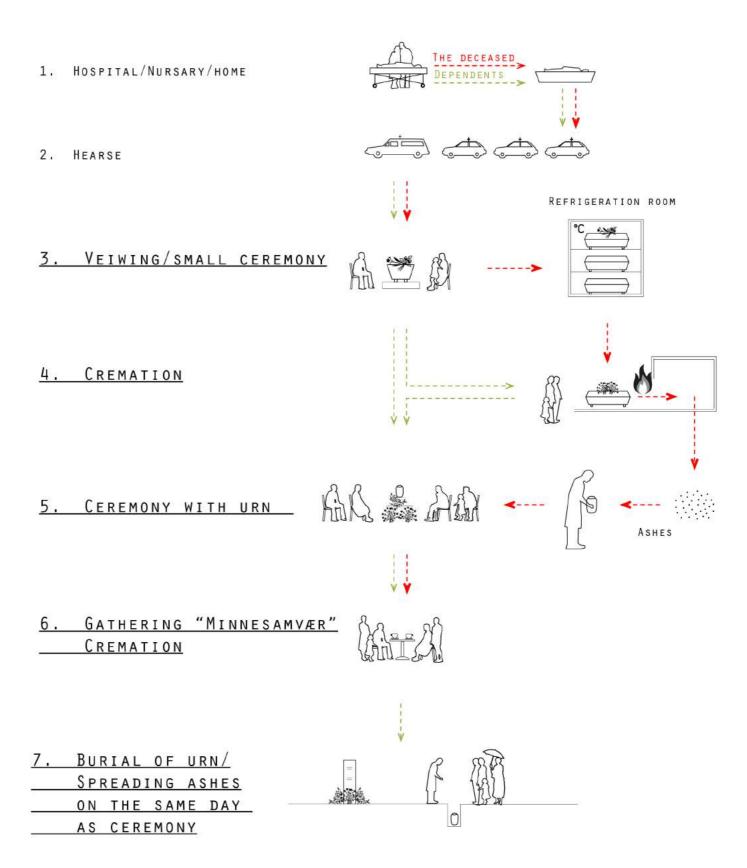
# SCENARIO WHERE FACILITIES IS COLOCATED.



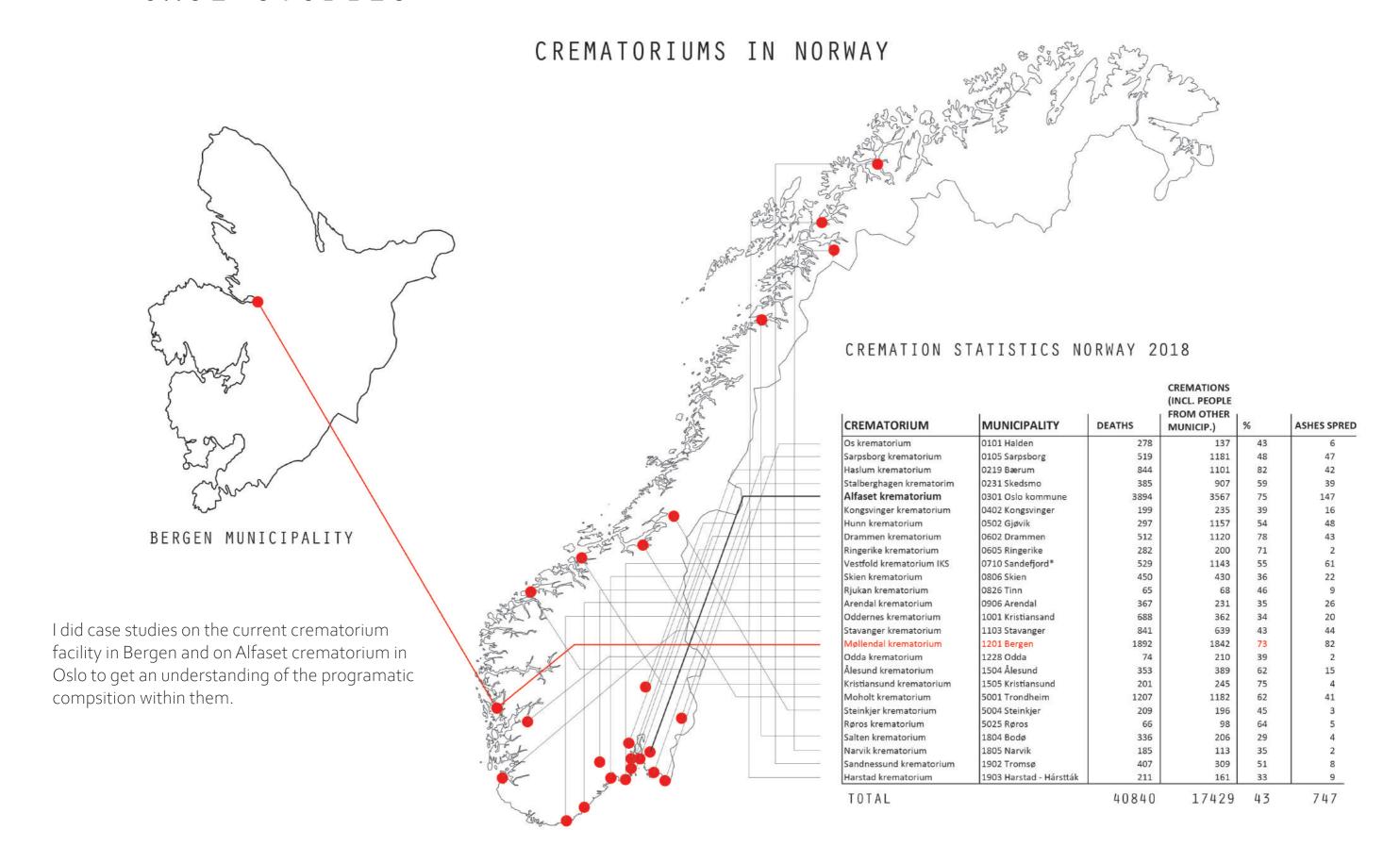
### SCENARIO #3

It is also an option to do the cremation before the funeral ceremony act. Some may not even wish for a traditonal funeral ceremony act, and would prefer a small intimate act with only the closly related dependents.

# SCENARIO WHERE CREMATION IS DONE BEFORE THE CEREMONY



## CASE STUDIES



# Case study #1 Møllendal Chapel and Crematorium, BERGEN.

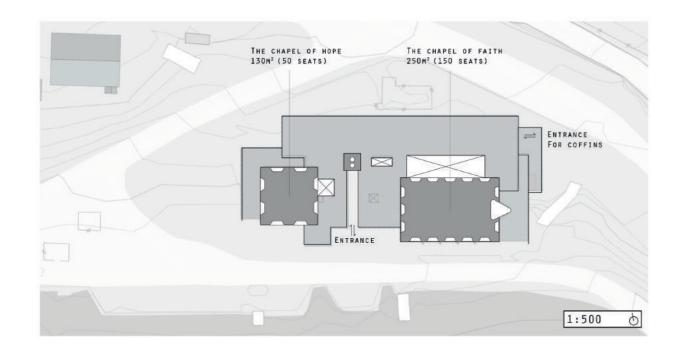
YEAR: 1971 SIZE: 1700m<sup>2</sup>

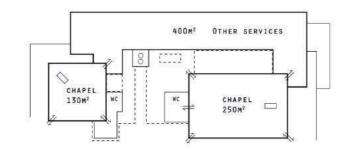
CREMATIONS

LAST YEAR: 1924



CASE STUDY #1
MØLLENDAL CHAPEL AND CREMATORIUM





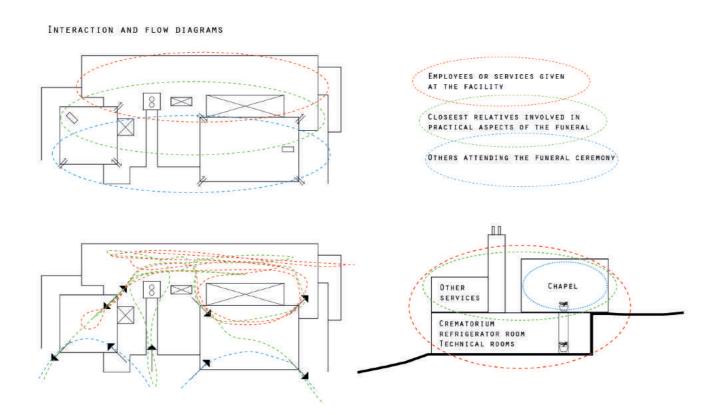


#### OTHER SERVICES

- OFFICE SPACES AND MEETING ROOM
- RECEPTIO
- . HEN STORAGE AND HON DECERTION ADEA
- STORAGE FOR FURNITURE AND EQUIPMENT
- ROOMS FOR MUSICIANS AND OTHER CO ACTORS

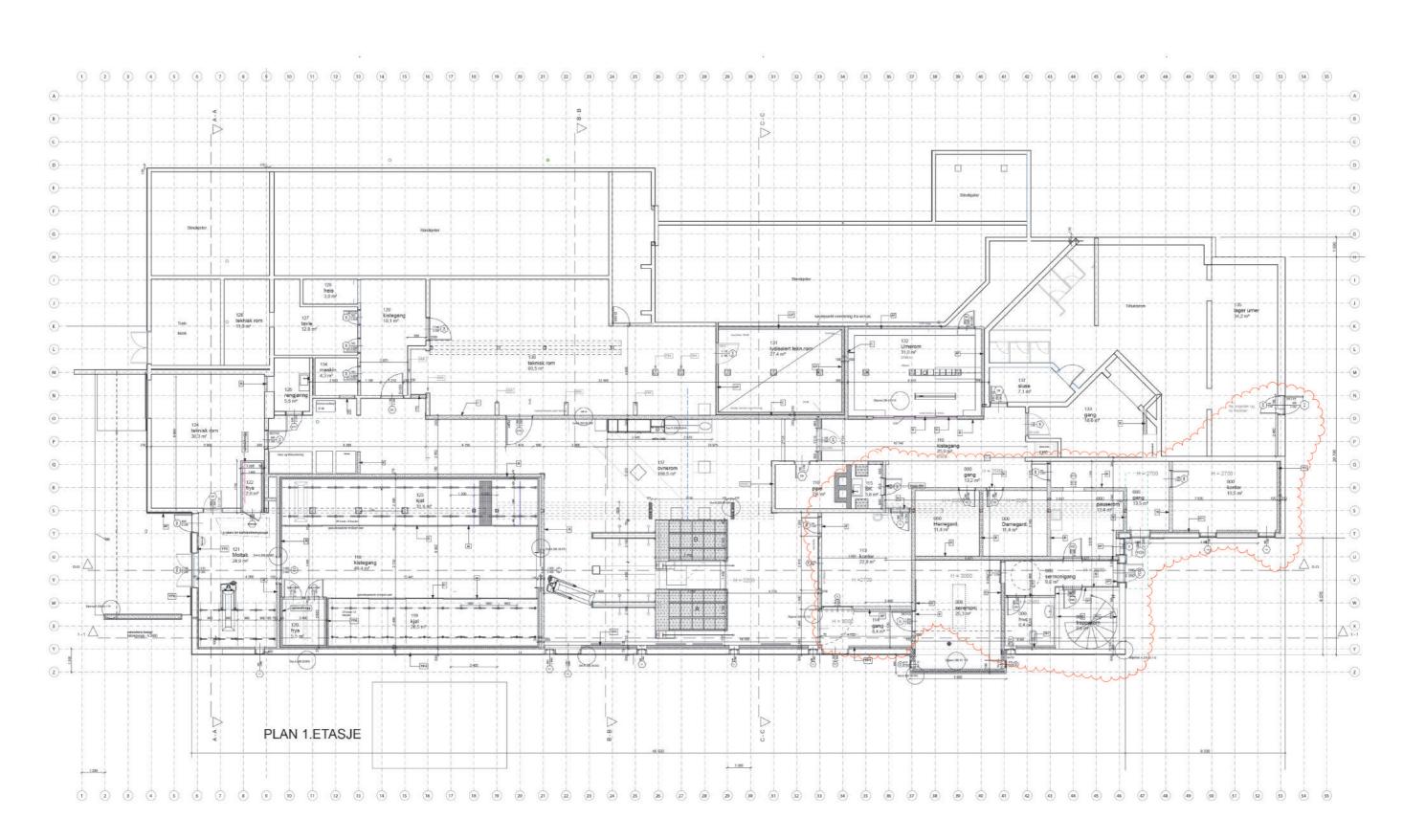
#### CREMATORIUM

- COMMITAL/RECEPTION AREA FOR COFFINS
- REFRIGERATOR ROOM(MORTUARY)
- TECHNICAL ROOMS (COOLING AND VENTIALTION)
- OVEN ROOM
- CONTROL ROOM
- ROOM FOR PROCESSING OF ASHES AND REMAINS
- COMMUNICATION CORRIDORS





CASE STUDY #1
Møllendal Chapel and Crematorium



## CASE STUDY #2 ALFASET, OSLO.

YEAR: 2009 SIZE: 2300

CREMATIONS

LAST YEAR: 4165



### CASESTUDY #2: ALFASET, OSLO.



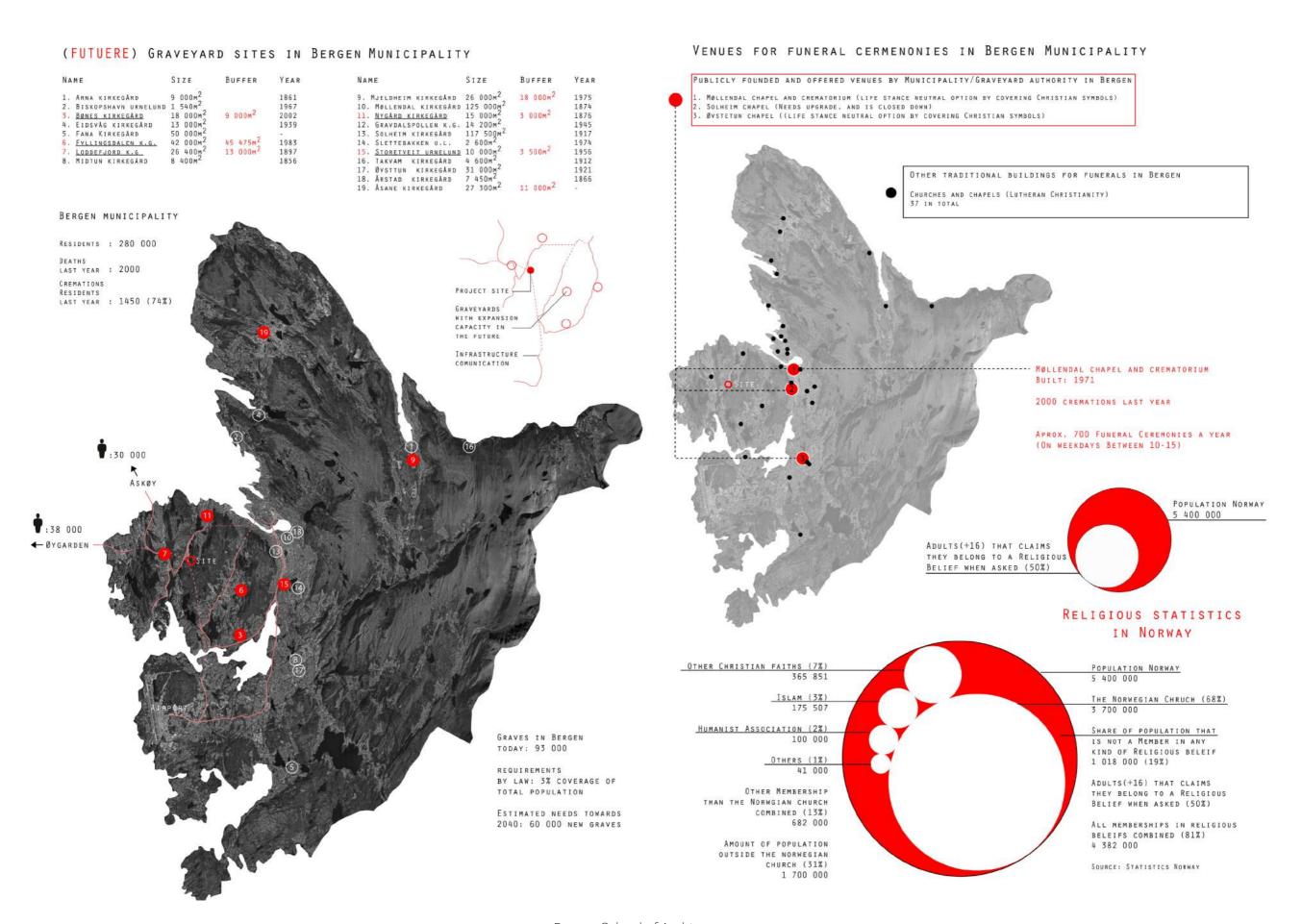
### CASESTUDY #2: ALFASET, OSLO.



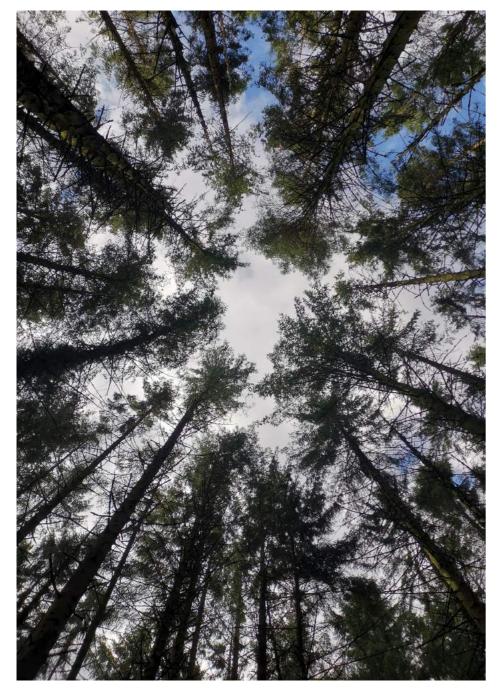
The cremation furnace room at Alfaset crematorium is open towards the surroundings allowing employees and dependent to connect to the outside, instead of hiding it away in a technical basement floor as in Møllendal crematorium.



### GRAVEYARDS, FUNERAL VENUES AND RELIGIOUS STATISTICS IN BERGEN

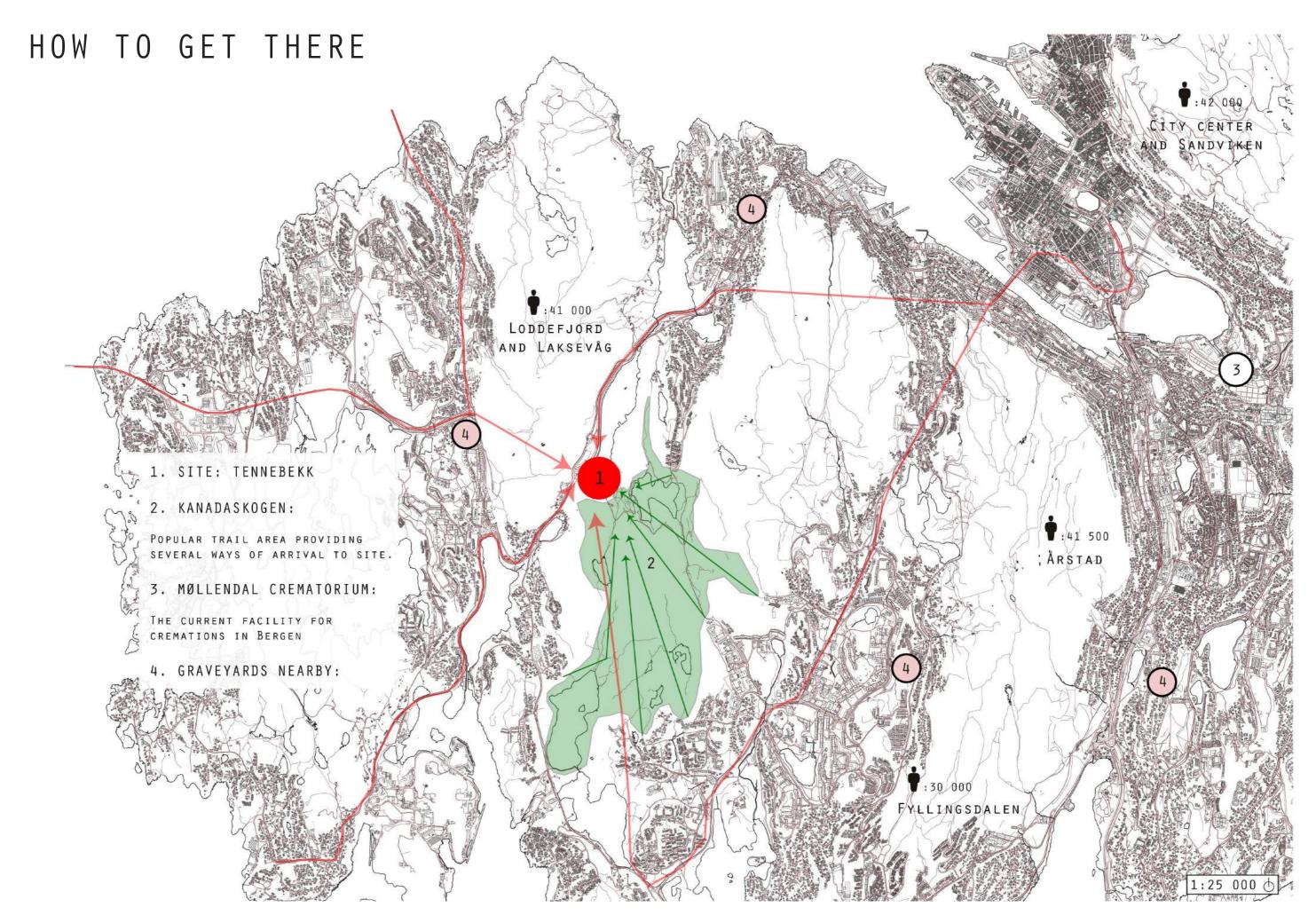


# THE SITE INVESTIGATIONS

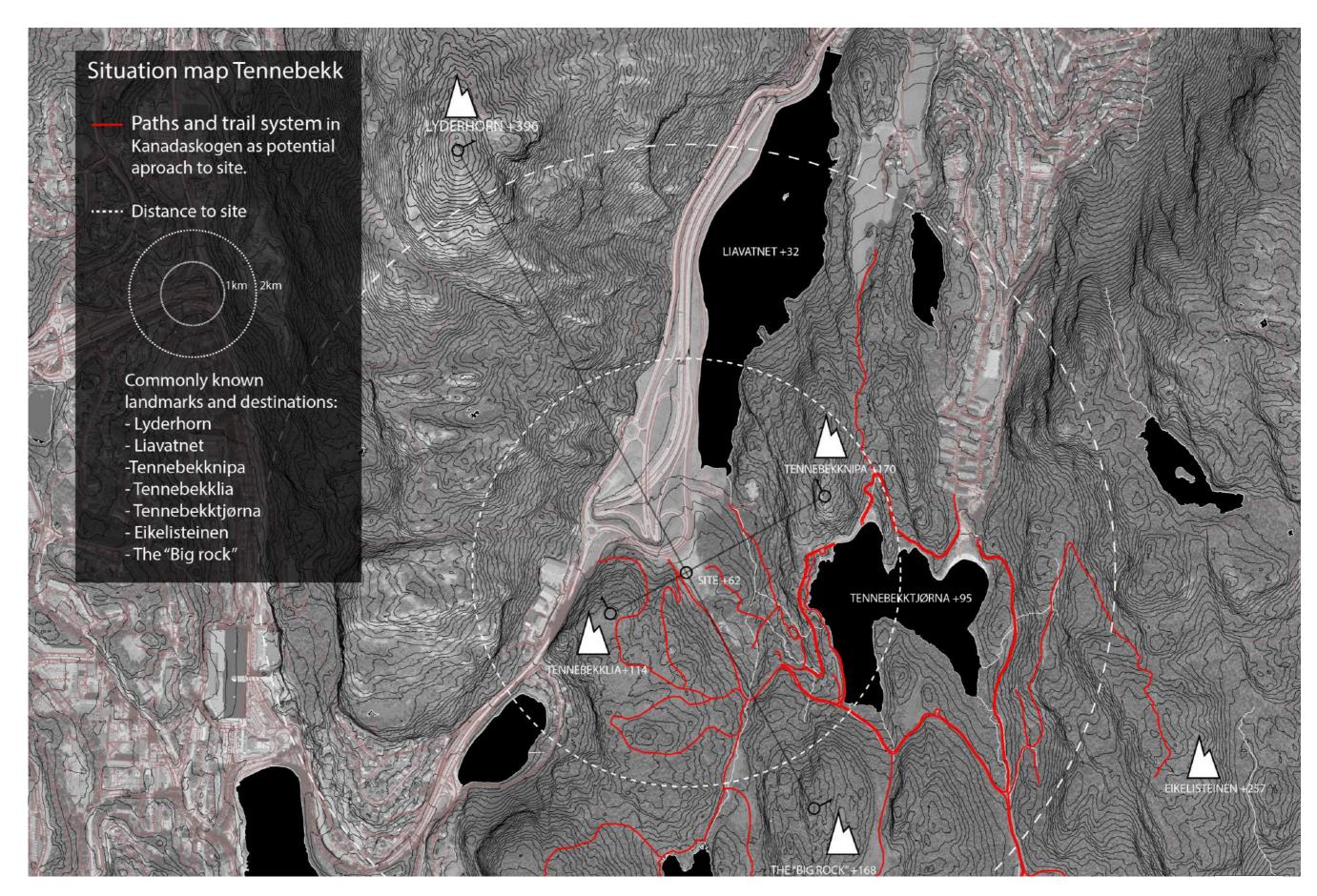




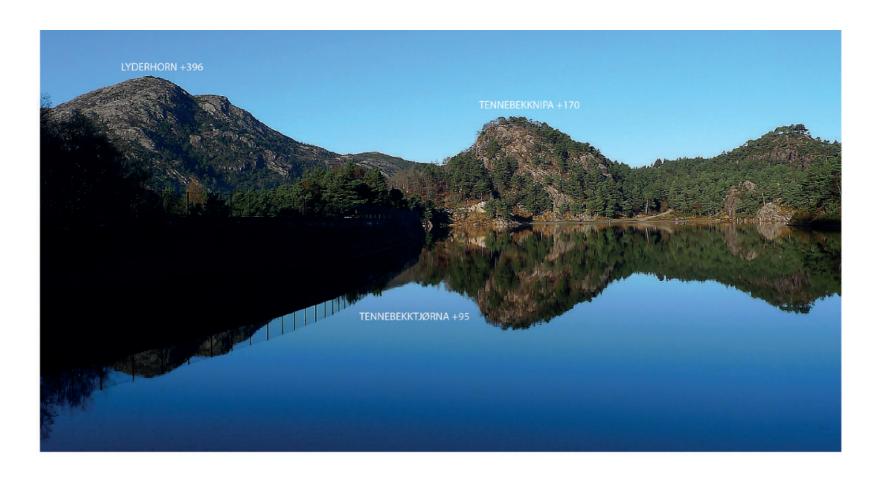
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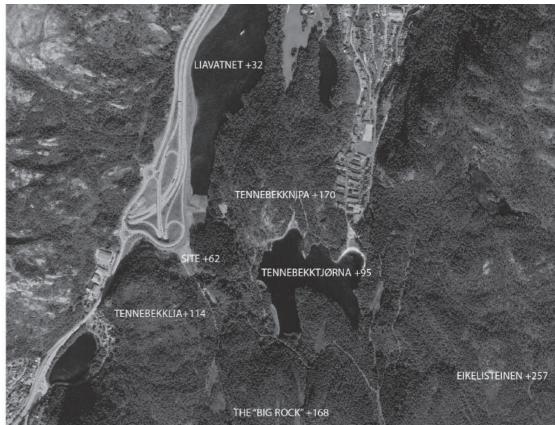


## VAINS OF THE FOREST



## SCENERY IN THE NEARBY FOREST AREA



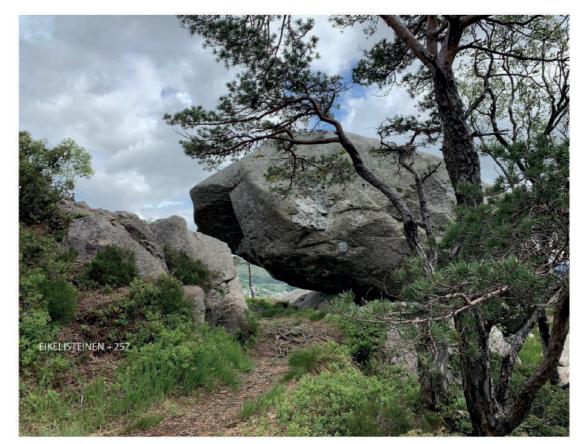












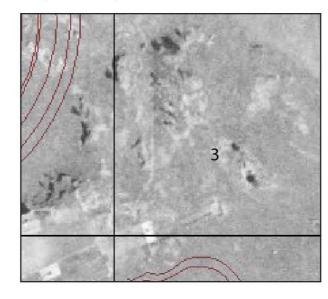
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## A BRIEF HISTORY

### HISTORY AND DEVELOPMENT

Until the occupation under second world war Tennebekk used to be open cultivated farmland. During the war the area was used as prison camps for mainly Russian prisoners. They were executed here in 1944.

- 1: Gathering of beech trees that still exist today. A memorial stone is places here for the prisoners who were executed here.
- 2: Farm buildings. transformed and used as prison camps under the war. Remains of their stone foundation can still be seen today.
- 3: Site area for project Here you can see exposed bedrock

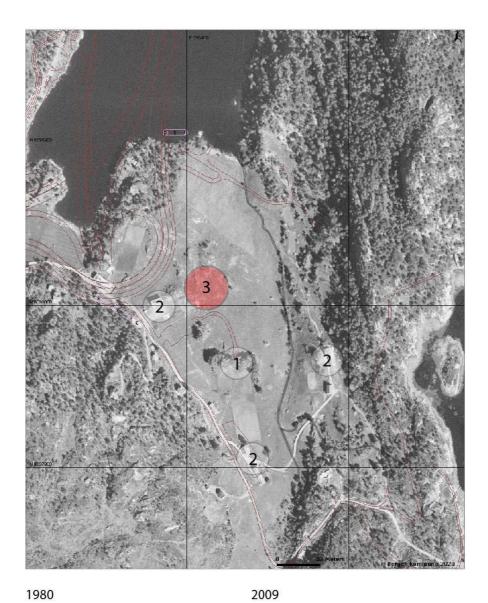


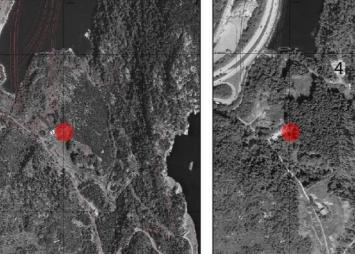
In the years after the war as part of a national strategy, spruce tree seeds were planted in the area. The River running through the valley is now hidden by dense spruce forest.

The results of recent road cunstruction projects and the increasing of forest volume is showed in Aerial photographys from 1951 up until 2016.

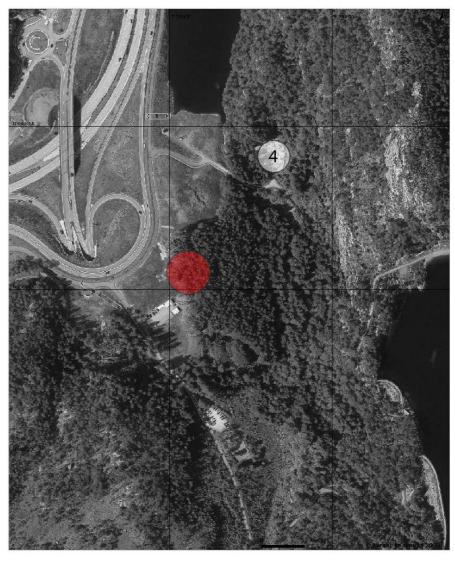
4: Storage area for manufactured stones in varouis size. Probably established for use under the roadwork constructions

### **TENNEBEKK 1951**

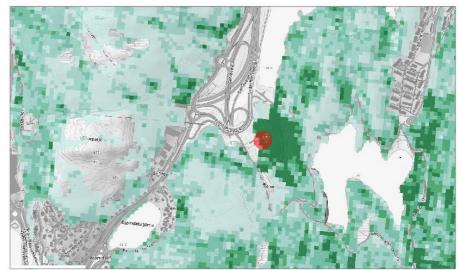




### **TENNEBEKK 2016**

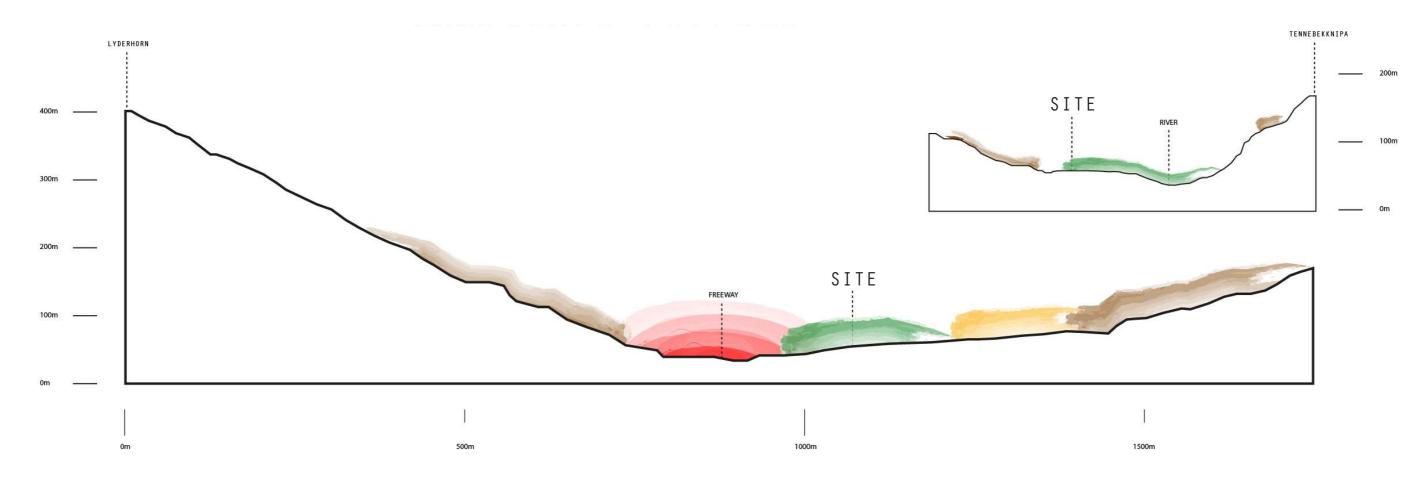


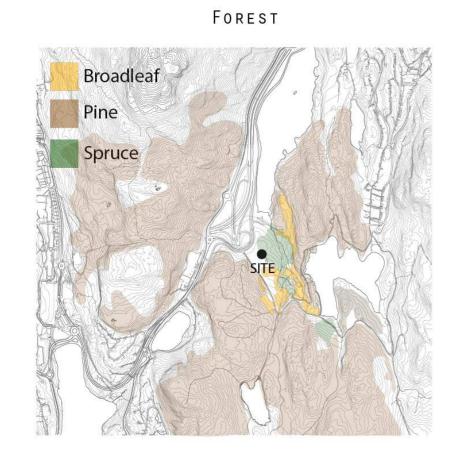
FOREST VOLUME TODAY

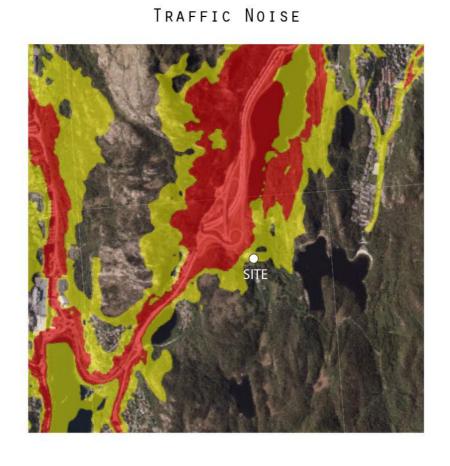


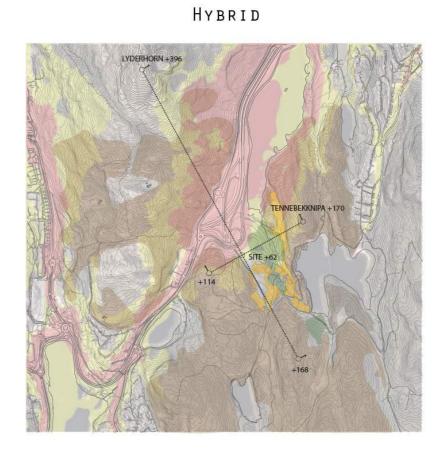
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## LANDSCAPE PROFILE AND SOUNDS



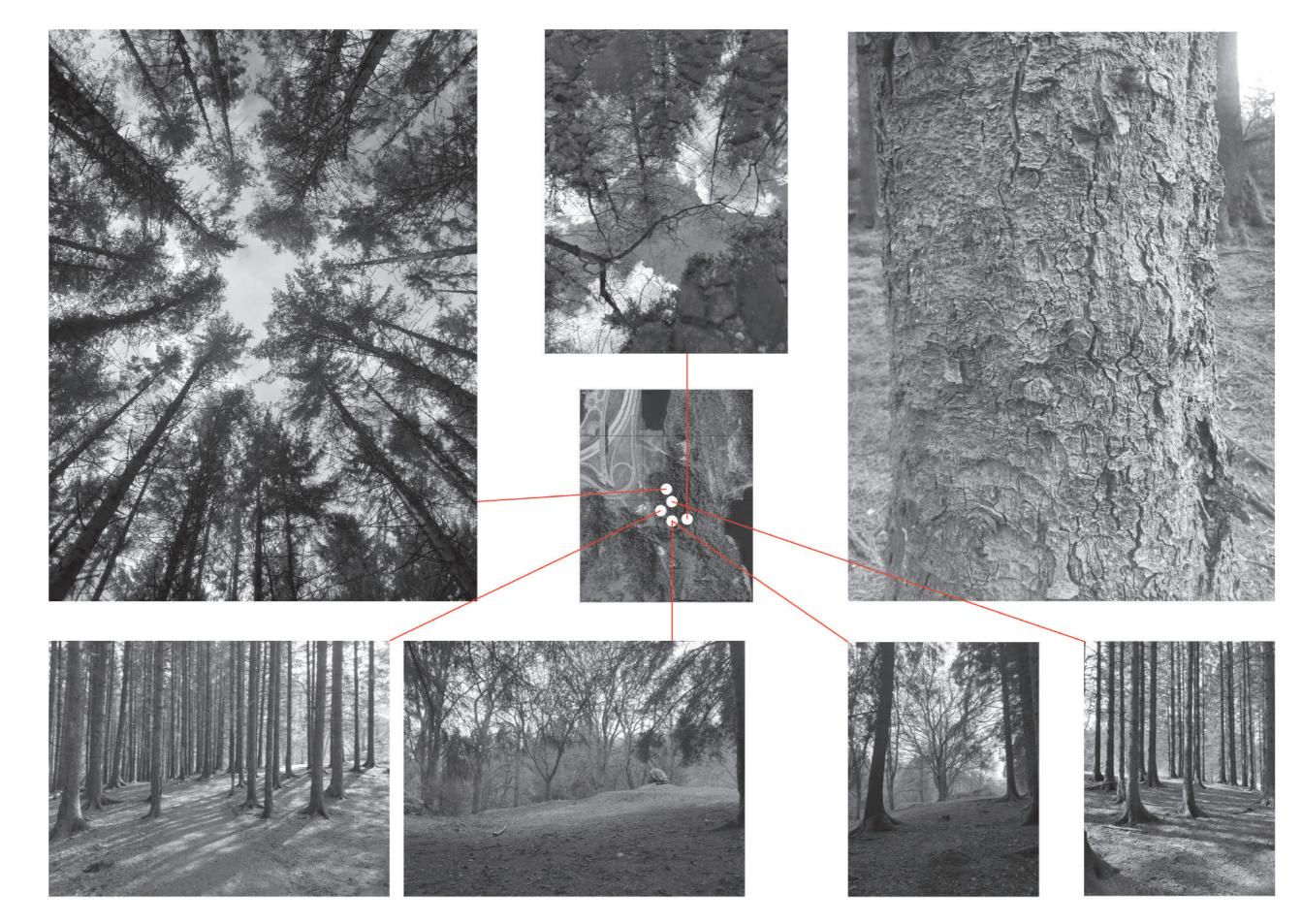






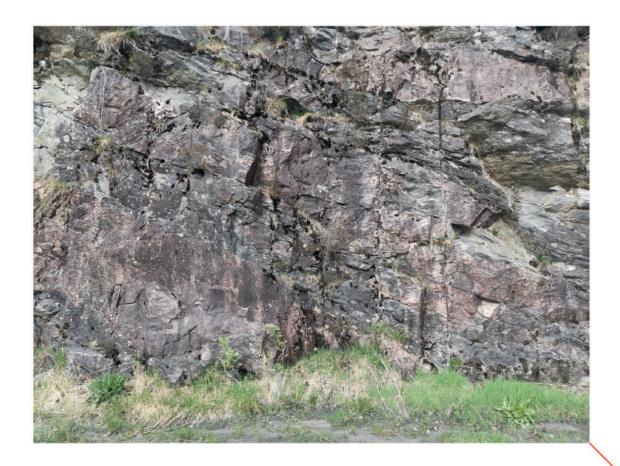
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# THE CALM OF THE FOREST



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## THE RAWNESS AND ETERNALNESS OF ROCK















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# ZONES OF FOREST AND GROUND CONDITIONS







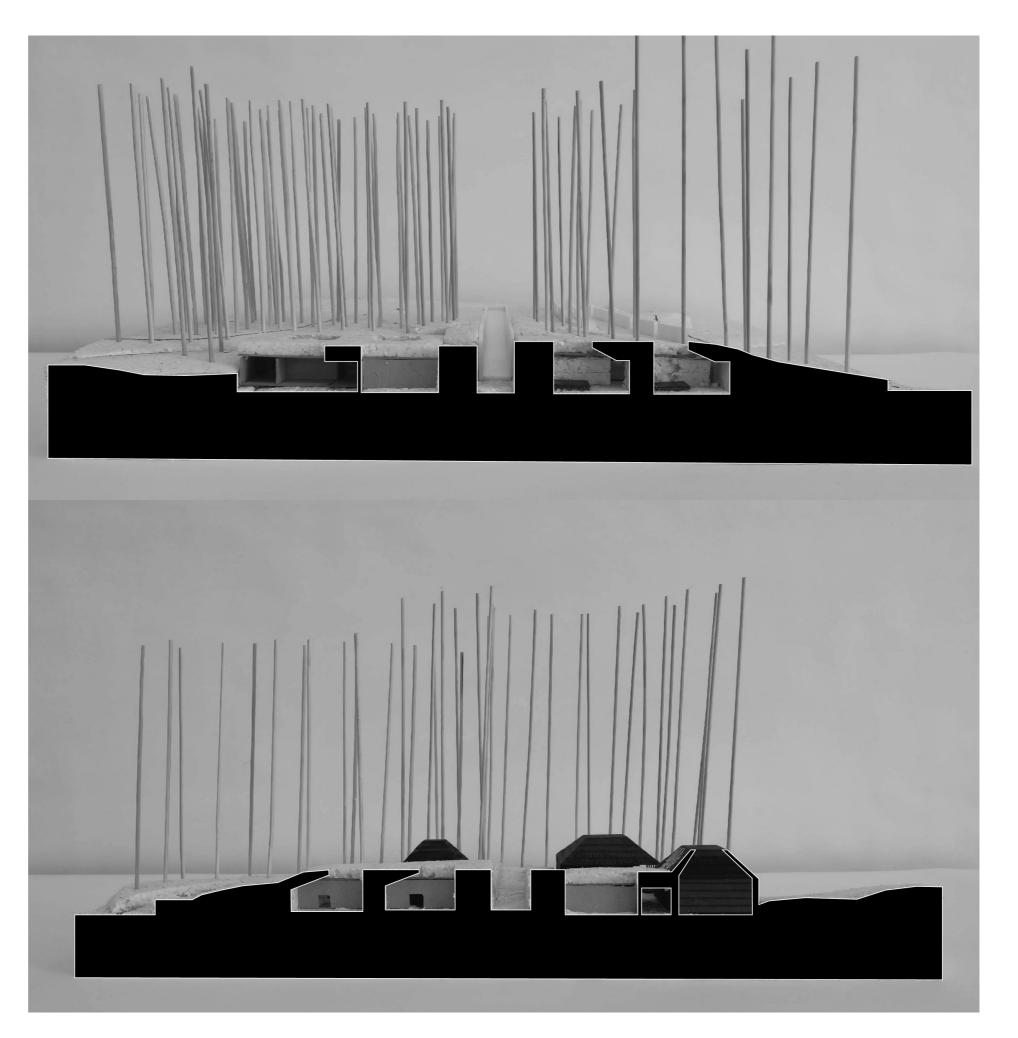
# SELECTED HIGHLIGHTS FROM THE PROCESS



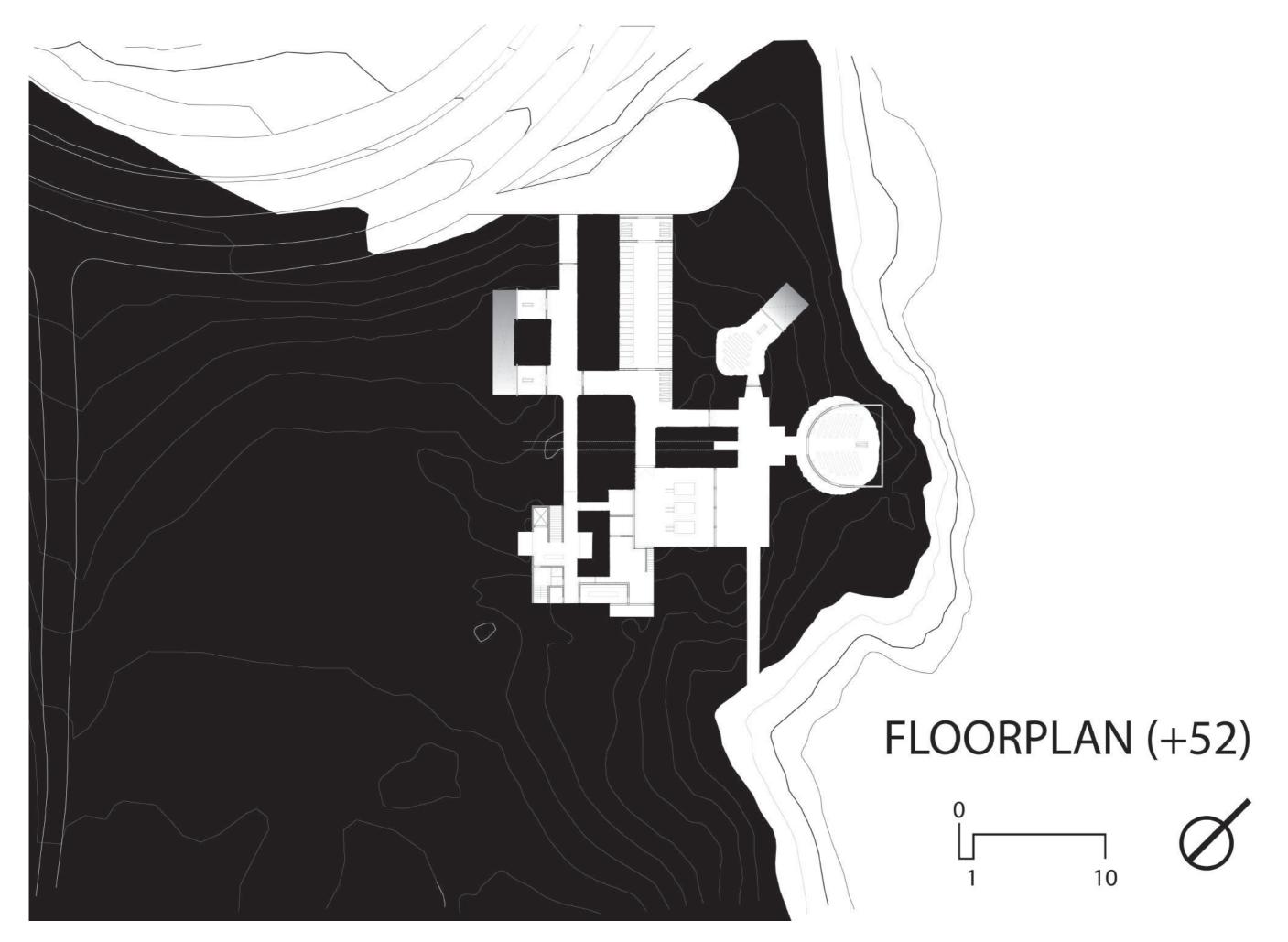
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# SELECTED HIGHLIGHTS FROM THE PROCESS

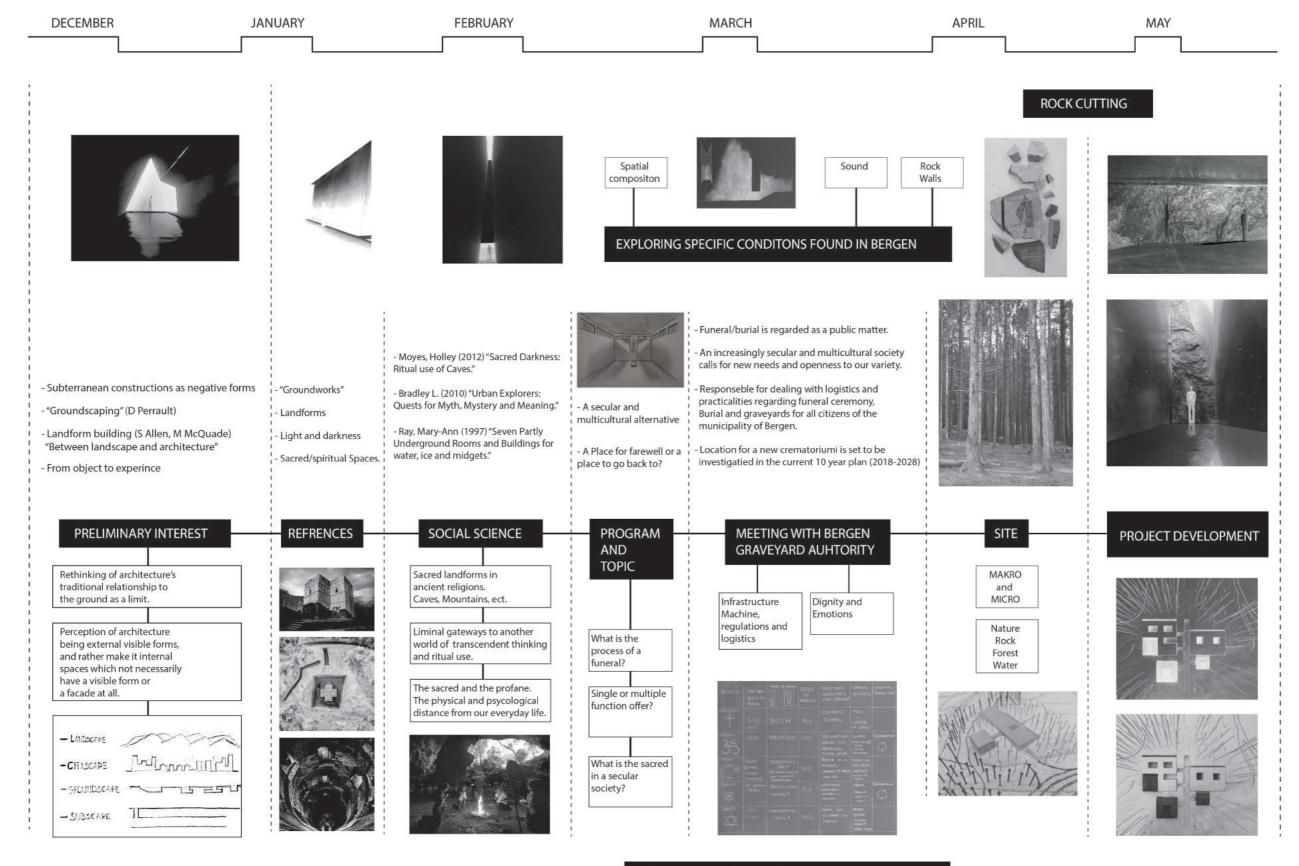
WORKING MODEL TO NEGOTIATE THE PROJECT



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## TIMELINE OF WORK AND FRAGMENTS OF INVESTIGATIONS



**ANALYSIS AND CASE STUDIES** 

### PORTOFILIO EXCERPTS

#### ORCHID ISLAND MASTER COURSE

Title: Play, Share, Care

Year: 20

Place: Orchid Island, Taiwan Teachers: Marco Casagrande

The course focused on the local knowledge of the Yami People / Tao, inhabiting 7 villages on the Orchid Island, Taiwan. The Yami is a Polynesian tribe located solely on the Orchid Island, where they moved from the Philippines Batanes Archipelago approx. 800 years ago. Currently there are around 2500 Yamis on the island. The Yami People are now facing the challenges of development and effects of external world in forms of cultural colonization, pollution and loss of local knowledge. The aim of the course was to develop a sustainable and feasible architectural and community building solutions for the Yamis in general and especially for the Ivalino village as the case-study. My individual project suggests a housing compound of five buildings placed on the border to the old traditonal village in Ivalino.

- 1- Local nersary for the elderly.
- 2- Public bath house with showers and toilets.
- 3- Outdoor kitchen with fireplace.
- 4- Elevated platform for shade and playing.
- 5- Outdoor cinema/ amfi stage for performance.

Some of the elderly still lives in traditional houses without water and toilet facilities. Children have no spaces where they could unfold and play safely. The compound will be a place for all generations to gather, share knowledge and be social. Play, share and care.

#### INFRASTRUCTURE SPACE MASTER COURSE

Title: Negative Space
Year: 2019
Place: Bergen, Norway

Teachers: Christof Mayer, Tom Chamberlain, Nancy Couling

WE crave to explore, and appreciate the feeling of discovering something untouched and empty. The unplanned and the mysterious. Seeing a door that leads us into something secret triggers us. The research and exploration focuses on «tilfluktsrom» or fallout/bomb shelters and abondoned train tunnels. The civil defense shelters that are scattered around the city are mostly not in any use. Today the ownership lays between the hands of the civil defense and the municipality, but their future is uncertain. The large amount of square meters are often closed off and forgotten as a layer of history that should be opened up as a resource for a larger scale.

My project proposal is for a former underground bunker in Nordnesparken. I propose to make a new entrance/exit to connect the park with the waterside, along with a program for new functions such as changing rooms, lockers and a sauna to gain public access and use. Some parts of the former bunker is left empty and unused to address the mystical aspect of underground voids. Materials, light and a range of specific spatial and atmospheric qualities creates a special experince.

#### COMPLEX CONTEXT MASTER COURSE

Title: The Spiral Year: 2019

Place: Bergen, Norway

Teachers: Andre Fontes, Tom Chamberlain, Hedvig Skjerdingstad

The spiral is a circular walk along the common named Holbergsalmenningen. It can be aproched from various perspectives. Making the almenningen accessible is one of the key points in the prosject as the aim of the course is to question if cities are friendly towards an ageing population. The spiral ramp eases the slope of the hill and creates a experince of bold rock, concrete and light.

The result is a axis linked by program that strecthes from the waterfront, through a reused existing tunnel and finally circules along a spiral slope up to the top of the hill and back into daylight where it connects with an existing art center.

Holbergsallmenningen was constructed by King's orders in 1686. The area is named after the author Ludvig Holberg. The 40m wide allmenning stopped the city fire of 1702. Today the steep construction has surpassed its function. How does the allmenning of today look

like? How can we transform this site to a universal design?

The "spiral" in the allmenning creates a connection from the waterside to the hilltop. It opens acces in both a geograpical, cultural and pragmatic way.

## CV

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### Education

08.2008-06.2011

08.2014- Bergen Arkitekthøgskole (BAS)
08.2013-06.2014 Sonans Bergen, engineering pre course
08.2011-06.2012 Høgskulen i Sogn og Fjordane, sports studies

Stryn vidaregåande, sport studies

Work Experience	
08.2014-06.2019	Bertoni Norway AS, shop assistent
04.2018-10.2018	Calmar eiendom AS, property managment
06.2013-08.2014	Bertoni Norway AS, assistent shopmanager
06.2007-08.2014	Chatlet Sport AS, shop assistent
Other Experience	
08.2012-06.2013	Military service, Norwegian Special Operation Forces