




Sunrise Sanctuary

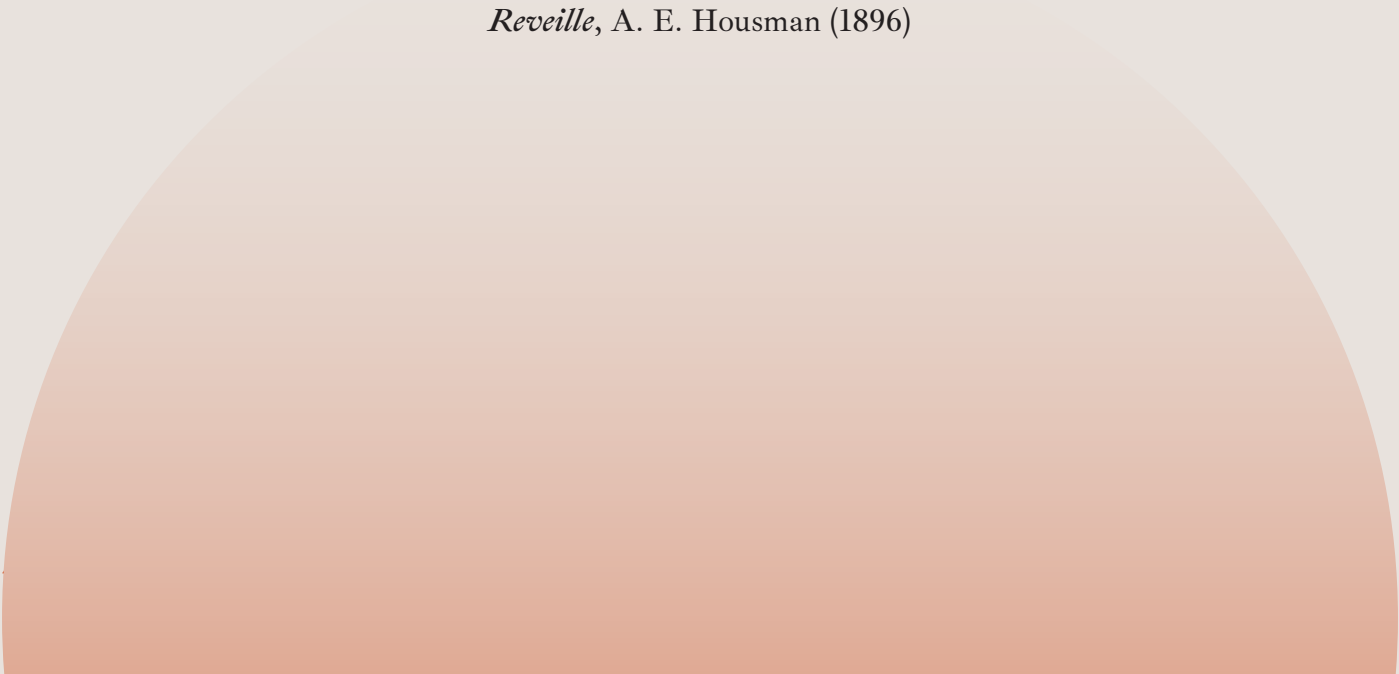
AN ODE TO THE SUN





Wake: the silver dusk returning
Up the beach of darkness brims,
And the ship of sunrise burning
Strands upon the eastern rims.

Reveille, A. E. Housman (1896)



ABSTRACT

The thesis project sets out to create a bridge between city life and nature, locating itself on an artificial mound facing the Øresund in Kastrup Strandpark, south of Copenhagen. The programme develops from the genius loci of the site chosen, as well as a personal motive. The sanctuary consists of several individual stations connected by a passage in the landscape: an entrance piece, a shelter space, an enclosed meditation room, a theatre and a balcony for the observation and experience of the sunrise. It is a programme that would never be outdated, as the sun and the sea will always be there in the foreseeable length of our time, thus the forms and materials of the intervention are intended to have a quality of timelessness, and as long-lasting as possible.

Since the proposal is dedicated to the sun, the design process takes into account the directions of the sunrise at different times of the year, and the weather condition of the site. The sanctuary can be experienced all day spontaneously as well, with ever-changing light and shadow compositions. Although the sanctuary itself is silent, it aims at raising awareness of the inclusive care for mental well-being, the appreciation and protection of nature, and the latent understanding of our position on the planet.





INTRODUCTION

Personal Motive

Having been living in cities all my life, I have always loved to immerse myself in nature. During this time of the unusual pandemic lockdown, I have found tranquillity when I have more free time and I would go to the seashore in Copenhagen. Since last spring I have developed a habit of going to see the sunrise on the sea on clear days, when the Nordic sun comes up the horizon majestically late in the day. Often I go to Kastrup Strandpark or the southern part of Amager Strandpark, which are facing southeast in the direction of the winter sunrise.

When the first rays of light break free from the clouds – there is usually a strip of thin clouds low over the skyline of the Øresund – I feel a sense of beginning of many great things. The light subtly changes from the gentle red tone to bright golden beams that are so hard for one to stare at in a short period of time. For me it is always fascinating to capture with bare eyes the movement of celestial objects, as it renders nature a cognitive and reachable realm of life.

At the northernmost part of Kastrup Strandpark there are several mounds, on top of which one can gain a vast view for the sunrise over the sea. However, during winter mornings it can be rather cold and windy on the windward sides of the mounds and by the water. Therefore, I set out to think of creating a welcoming space for sunrise lovers like myself.



Fig 2. Aerial view of Amager Strandpark and Kastrup Strandpark

Context

Kastrup Strandpark is a waterfront park on the east coast of Amager. It is situated between the larger Amager Strandpark to the north and the National Aquarium Denmark to the south. The park was established on reclaimed land in connection with the construction of the new Kastrup Marina, led by Friis & Moltke in collaboration with the landscape architect Erik Mygind (Tårnby Kommune, 2020).

The Kastrup Sea Bath was built in 2004-05 to a design by White Architects. It consists of the main building on the water, a new beach and a service building. Inclusivity was an obvious part of the concept of the sea bath, and it was clearly designed as an untraditional framework for outdoor sporting activities. The pier gradually rises above the sea level and ends in a five metre diving platform. Ramps, and other special features allow less mobile visitors full access and the 870 square metres of wooden deck are at the visitors' disposal. The Kastrup Sea Bath is free of admission and open to the public at all times. In 2009 it received a bronze medal from the Olympics committee in the swimming venues category (Tårnby Kommune, 2021).

Skulptur 1993 is a piece of sculpture by the Swedish artist Claes Hake, who is famous for his large-scale sculptures in stone. The two stone pieces in the form of broken reels are powerful, raw, and precise expressing stillness, timelessness and calls to mind ancient sacred sites. It is an amazing feature of the area and is another existing element that can be worked with.

At the northernmost part (circled in red) is currently an open grassland with three moulds, an exercise area with equipments, several stone benches and bicycle parking racks. There are two existing round buildings which are the service building with showers and a kiosk covered in the same material language with the sea bath. This area is not a protected site, unlike the rest of the park, according to Fredningsnævnet i Danmark (2015).

The strandpark is a definite attraction during summer time when bathing, bonfire and grilling are welcomed in the nice summer weather with long daytime. However, according to observations, in the long and dim Danish winter, the strandpark is less frequented where there are scarcely winter bathers, dog walkers and exercisers that would visit the park starting late in the morning. Therefore, there is a need for enriching activities in this area of the strandpark during winter under such conditions.



Fig 3. Kastrup Sea Bath



Fig 4. Service building



Fig 5. Kiosk

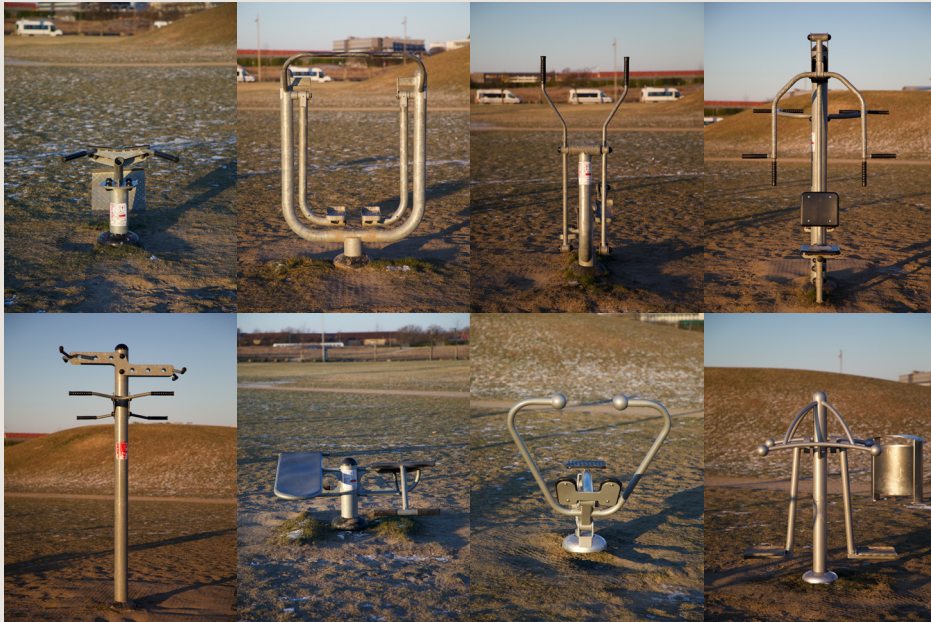


Fig 6. Exercise equipments
















Fig 7. Bench

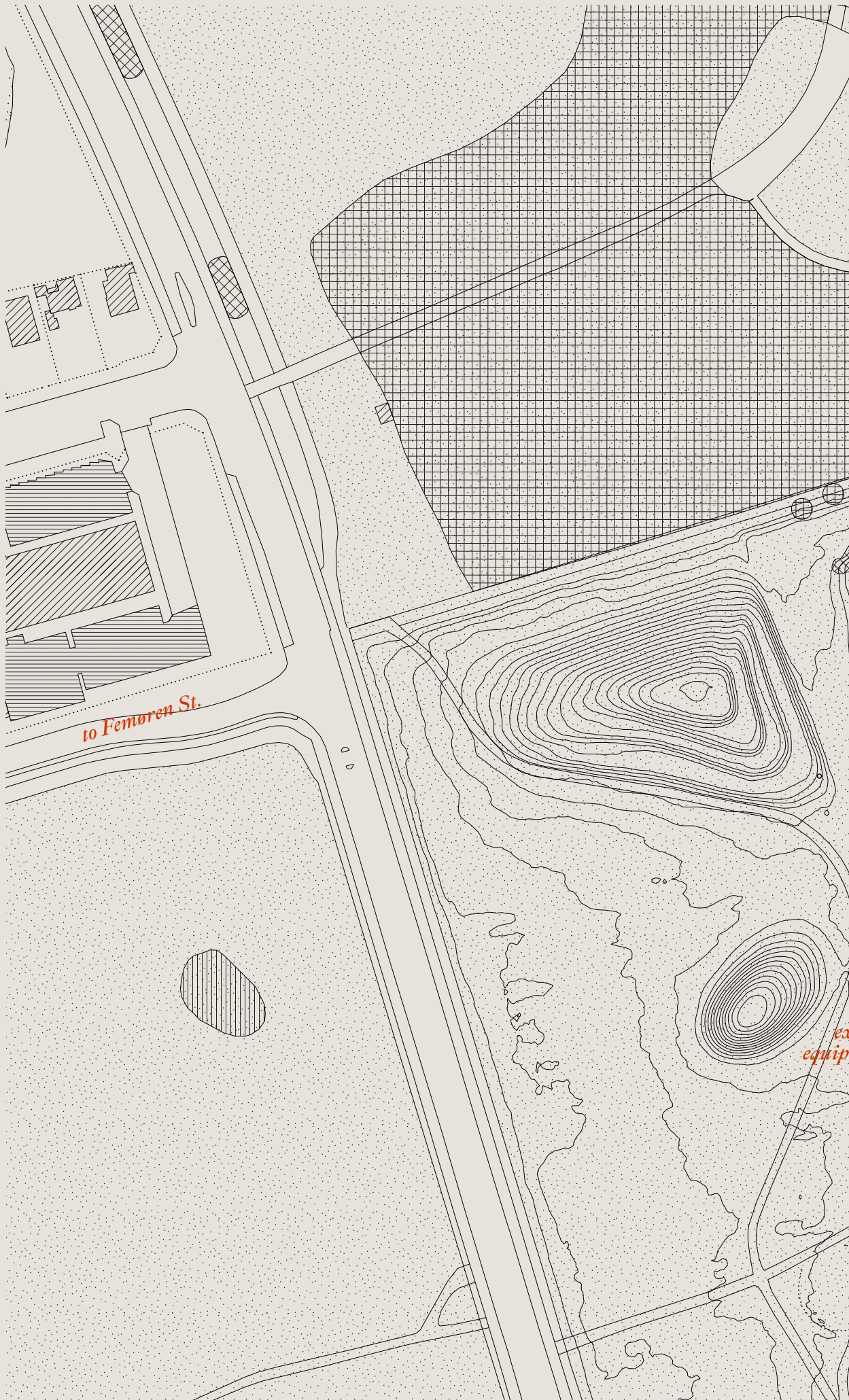


Fig 8. Skulptur 1993

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Contextual Map

-  Harbour
-  Parking
-  Building
-  Sea Bath
-  Platform
-  Shrub
-  Tree
-  Grass
-  Sand
-  Sea
-  Secondary Mound
-  Road
-  Hedge





UN Sustainable Development Goals

The project works with the UN SDGs 3, 7 and 11, as it hopes to promote mental and physical well-being (target 3.4) through interaction with nature, undertaking a sustainable and energy-free architectural language. More specifically, the project aims at consuming zero extra energy using the thermal mass of the building material itself in maintenance (target 7.1), creating a public space in nature for raising awareness of preserving natural heritage as well (target 11.4&11.7; United Nations, 2020).



Thesis Statement

The Sunrise Sanctuary aims at evoking engagement with nature, especially the sun, through architectural language. In the form of an ode to the sun, the project would enrich winter activities in the chosen area of the strandpark and serve as a bridge between city life and the presence of nature.

METHODS

Theoretical Grounding

The project works intensively with the concept of genius loci of the site.

Genius loci has its origin in the Roman language, where according to ancient Roman beliefs every being has its genius, a guardian spirit. It is said that it gives life to people and places, thus the genius defines the essence of a thing, or rather the “will” of a thing (Norberg-Schulz, 1980, p.18). To associate it with architecture poetically, for instance, it can be expressed as Louis Kahn once asks, “what does this building want to be?” (Lobell, 1979, p.66). Norberg-Schulz (1980, p.18) suggested that it is of “great existential importance” that a being “comes to terms with the genius of the locality where his life takes place”, both physically and psychically, so as to form “good” experience. To put it differently, the definite characters of a place constitute the experience of being there. It is worth mentioning that the concept of existentialism is from Martin Heidegger’s philosophical view, where Heidegger (1975) argues that dwelling, or being, means identification of the environment and creating meaningful experience.

Regarding the situation in architecture to date, it is widely claimed that site-specificity offers a piece of architecture an identity that is a means of resisting the growing global homogenisation and commercialisation (Augé, 1995; Moravánszky, 2018). It informs the formal relationship between architecture and its natural or built environment, which should be, yet is sometimes not regarded as, a decisive tool.

Located between the Øresund and the residential area in Kastrup, above the ground and under the sky, the experience of seeing the sunrise at the mounds of Kastrup Strandpark is unique. Sun rises at different times and from changing positions in relation to the sea bath throughout the year, therefore it is reasonable to take the monumentality of the natural environment into consideration when forming the intervention. The sanctuary should be adaptable to the rotation of the seasons and focus on the narration of the experience.

Sun and Wind

The wind rose diagram is provisional, however, although the weather station is located nearby the strandpark it is positioned more inland, where the wind blowing from the strait is less prominent. The experience on site is that the area receives significant east wind, especially during winter mornings, as shown in the following pages. Because of the topography, the difference of the reception of wind blowing from offshore varies dramatically. The windward side receives strong wind from the sea throughout the windy winter days, while the leeward side receives almost none as experienced.

Fig 16. Sun path diagram

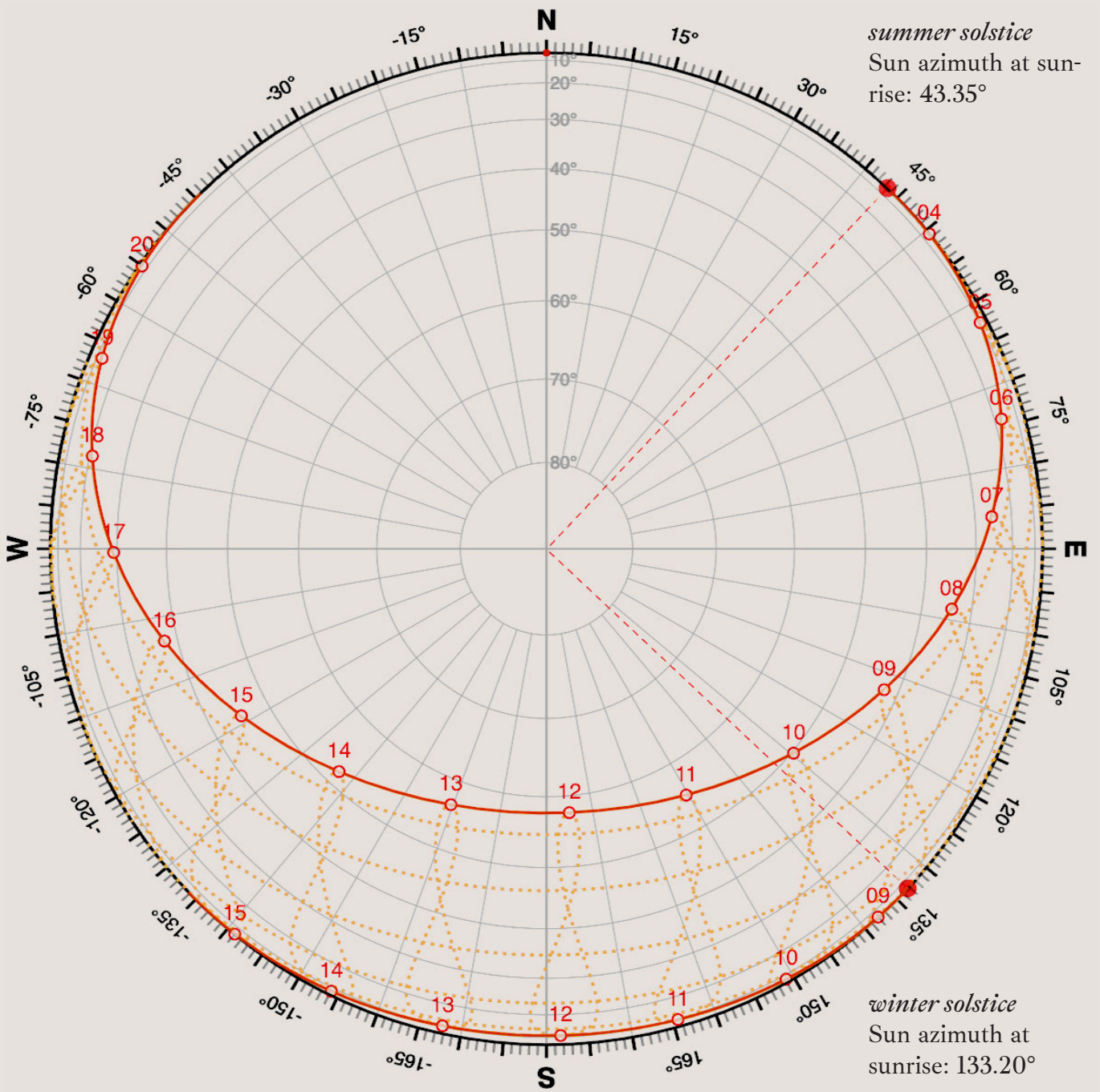


Fig 17. Shadow study of the site

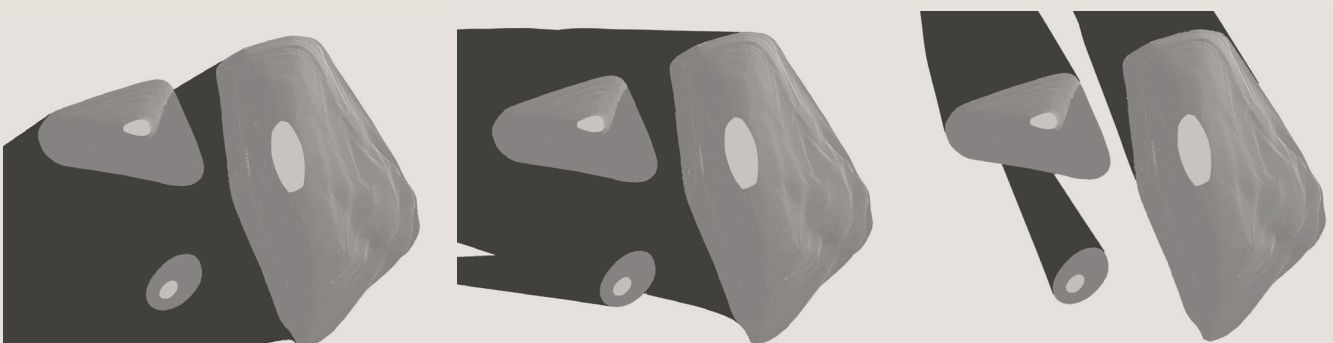
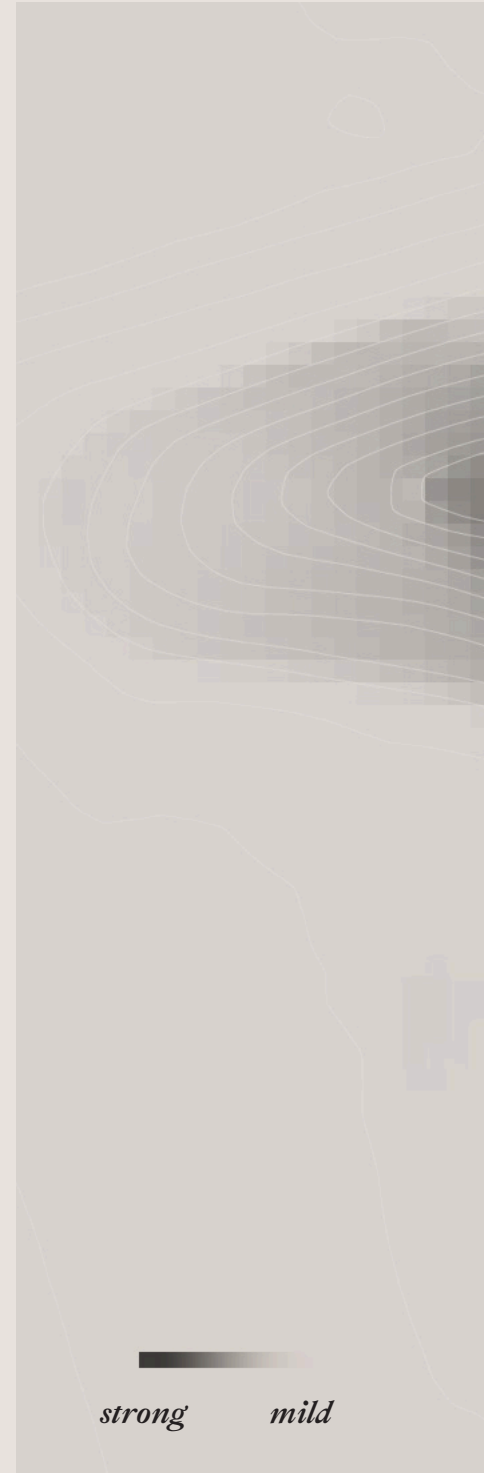
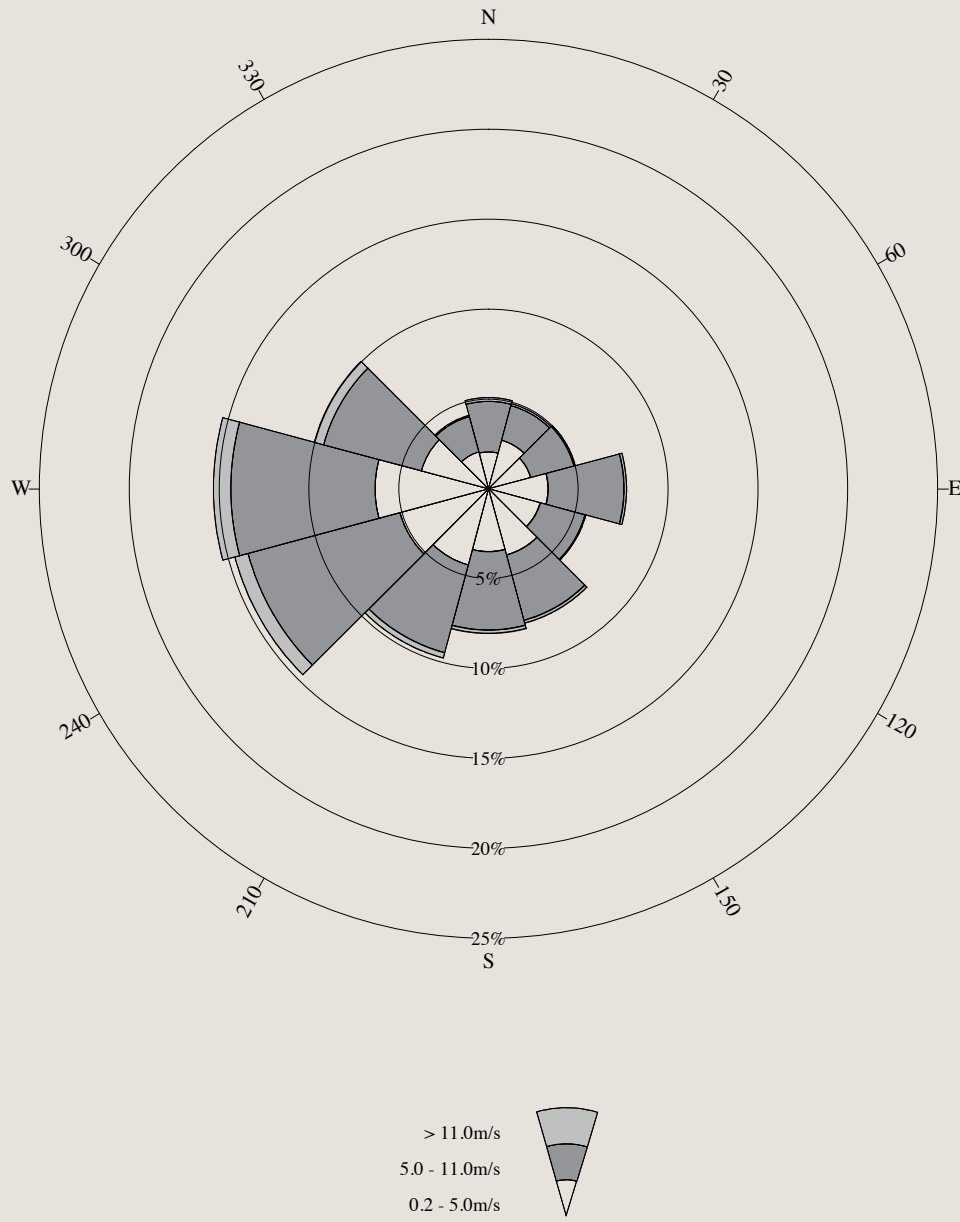
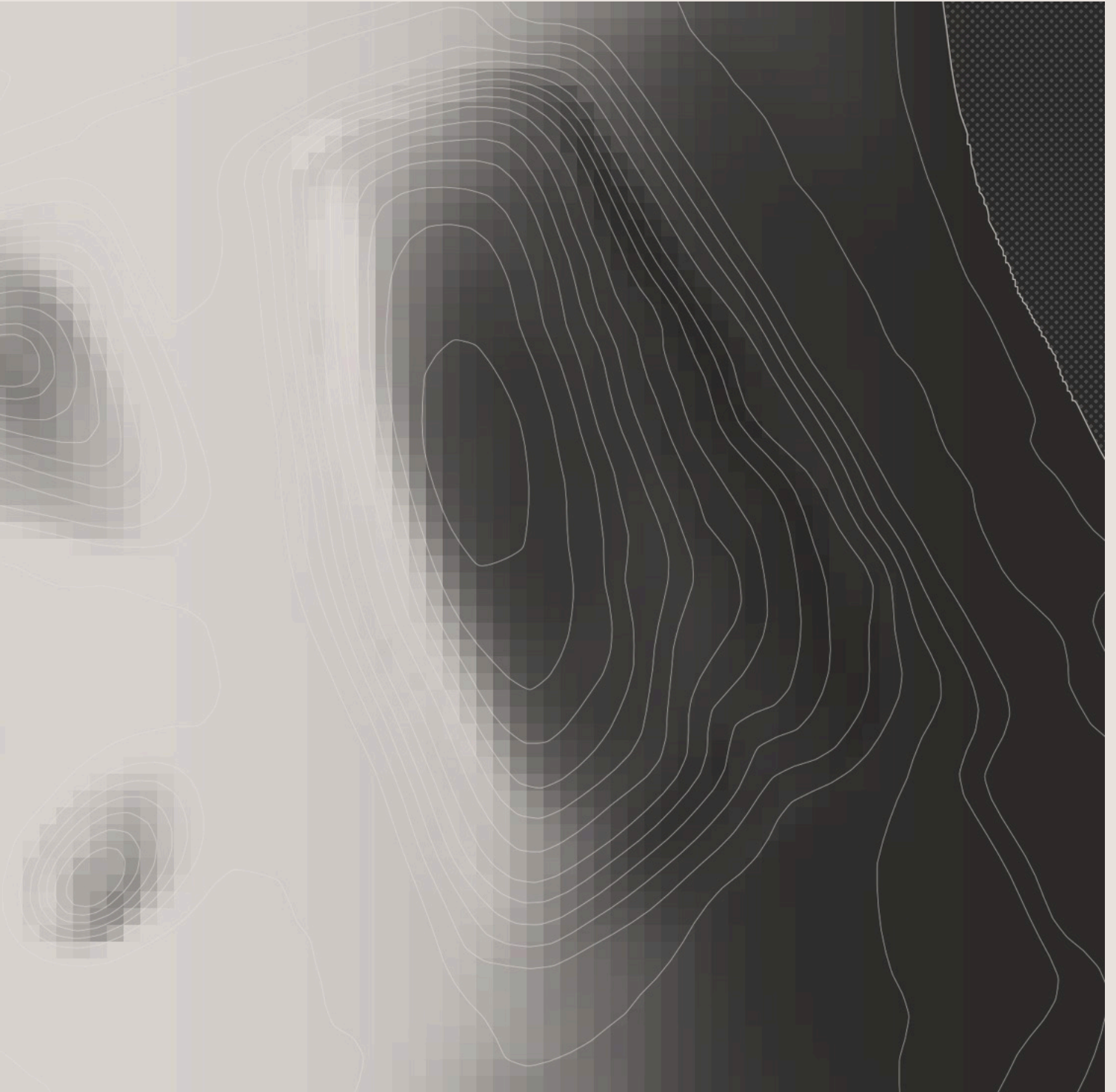


Fig 18. Windrose diagram





Anthropological Study

During the visits to the site in February 2021, when the sunrise was at around 7:30AM, it is observed that there were around 10 people that stayed in the area to watch the sunrise each time. Although it is not clear if they came to the site for this specific purpose, they mainly stayed on the deck of the sea bath for around 20 mins. After the sun had come up, it is observed that more people visited the site, among which joggers and dog walkers are the majority. However, they tend to pass by the site without staying. Around 30 mins to 1 hour after the sun had completely risen, which is after 9:00AM, there was gradually an increase in the number of visitors to the site, when families and exercise groups would have activities on the mound, and by the exercising equipments.

According to observations, during winter times the benches on the site are rarely used, due to their cold surfaces and the wind condition on the mounds. Therefore comfort should be a predominant aspect to take into account when designing for the experience of watching the sunrise on the site.



Fig 19. People using the exercising equipments



Fig 20. People walking dogs and people on the deck

Design Methodology

“Seeing the light constantly moving ... makes us aware that we live in nature and that we cannot live alone.”

Tadao Ando

The design strategy of the different stations of the sunrise sanctuary is based on the directions and orientations of the sunrise at various times of the year. Some stations are coded with specific dates and hence would have specific framing strategies for the dates. The sanctuary engages with light and shadow effects actively which would constitute the atmospheric experience.

In contrast with the existing Kastrup Sea Bath in wood and with the open landscape, the sanctuary is considered to be massive and monumental. Hence the geometry of the sanctuary is decided to be simple and archaic, whereas the material choice is to anchor it firmly to the ground.

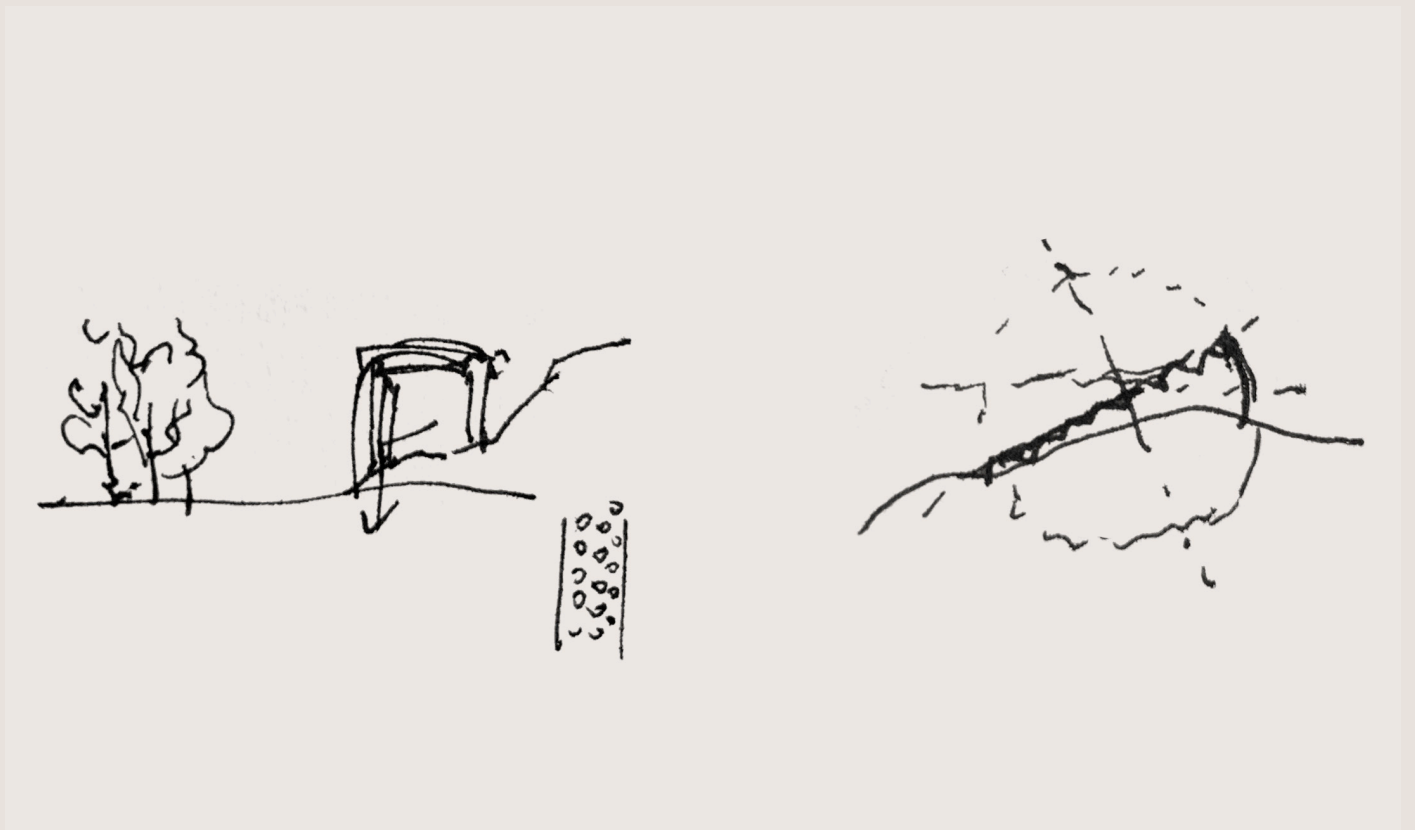


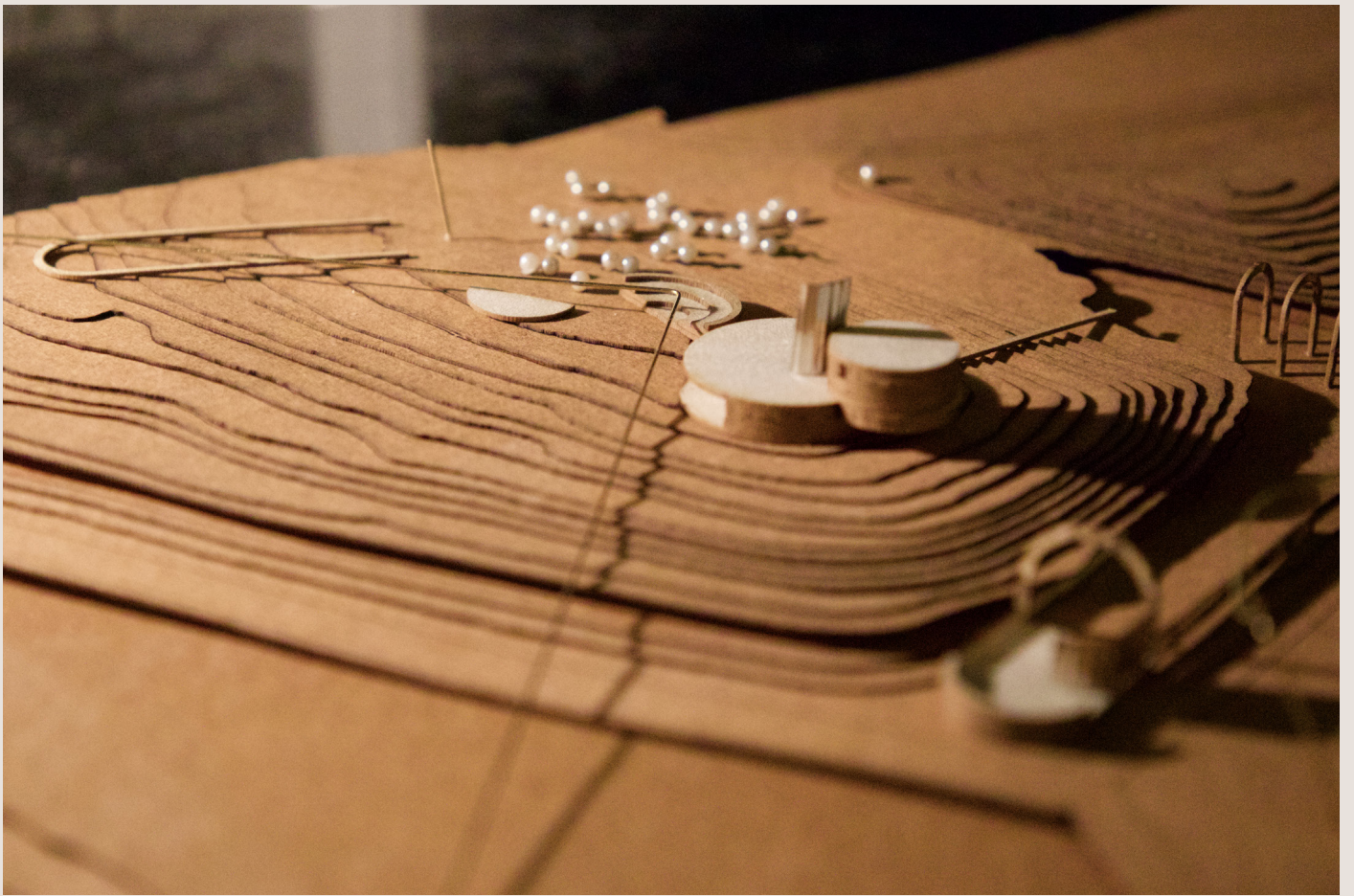
Fig 21. Sketches

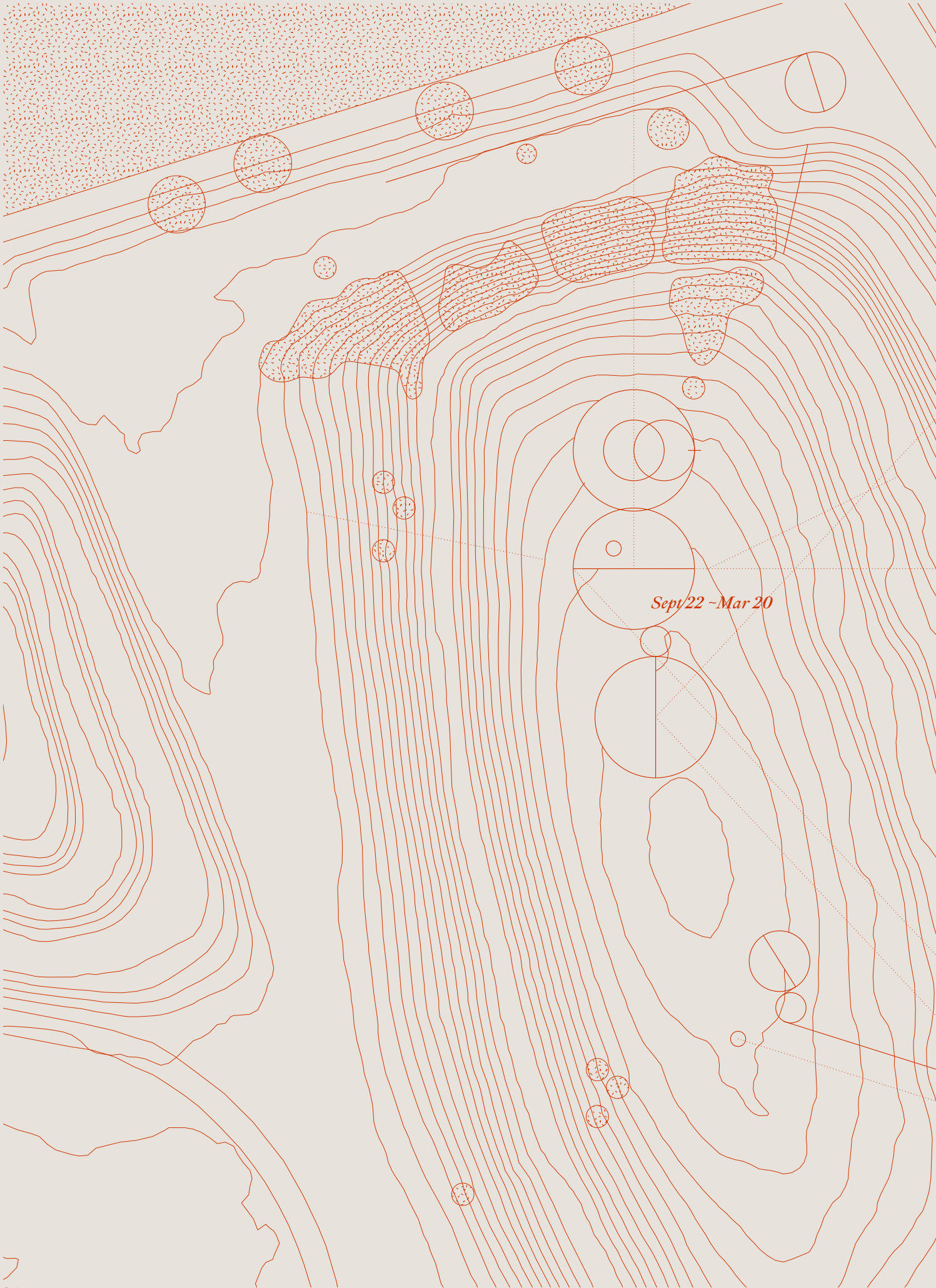
PROCESS

The design narrative of the intervention is principally a passage in the landscape, framing views of the sunrise at different times of the year thus complimenting the experience of watching the sunrise at the chosen site. The “journey” therefore is composed by a series of stations on the landscape, forming a time-based sequential experience, although it is not the only way to visit the sanctuary and spontaneous activities in the intervention is encouraged. The sanctuary is designed to be inclusive, as it is open to all and is adaptable to circumstances. It is wheelchair-friendly and pram-friendly as in the sanctuary there are ramps connecting the different floor levels, and there is no boundaries outside of the sanctuary in the open landscape. It will be an ideal gathering space for groups as well, since there are long circular benches at the different stations of the sanctuary.

At the start of the design process the material choice was envisioned to be natural stone and wood. Mimicking and paying tribute to the ancient ways of building, it would make sense to have the sanctuary completely in stone and wood considering its timeless programme. However, considering the cost and carbon footprint of quarrying and transporting large amount of stone, along with the effort in labour of building entirely in stone, has led to the result of the sanctuary adopting a concrete structure. Concrete is relatively durable and easy to shape into circular forms on site. Its surfaces can be treated and painted, and in this case white is a preferable colour option, since it receives light best. Natural stone cladding is introduced to give some part of the sanctuary a more natural and tactile appearance, where visitors interact with the built environment more. The stone is envisioned to have a warm beige tone that integrates well into the site, with polished surfaces which is more resistant to the weather.

The design process started with the studies of the sunrise angles and placing the passage on the landscape, where sketches and sketch models were used to study the different relationships. At the beginning of the process simple geometries, such as circles and semicircles were used, to have the resemblance of the sun, which were later featured as well in the finalisation. In the sketch site model volumes and moments are placed on the landscape to form a coherent narrative. An entrance piece, a relatively enclosed space, a space in the form of an ancient theatre, and a balcony were planned at the early stages. The sanctuary gradually developed into five main stations, all of which connected together with metal railings and a unified formal language.

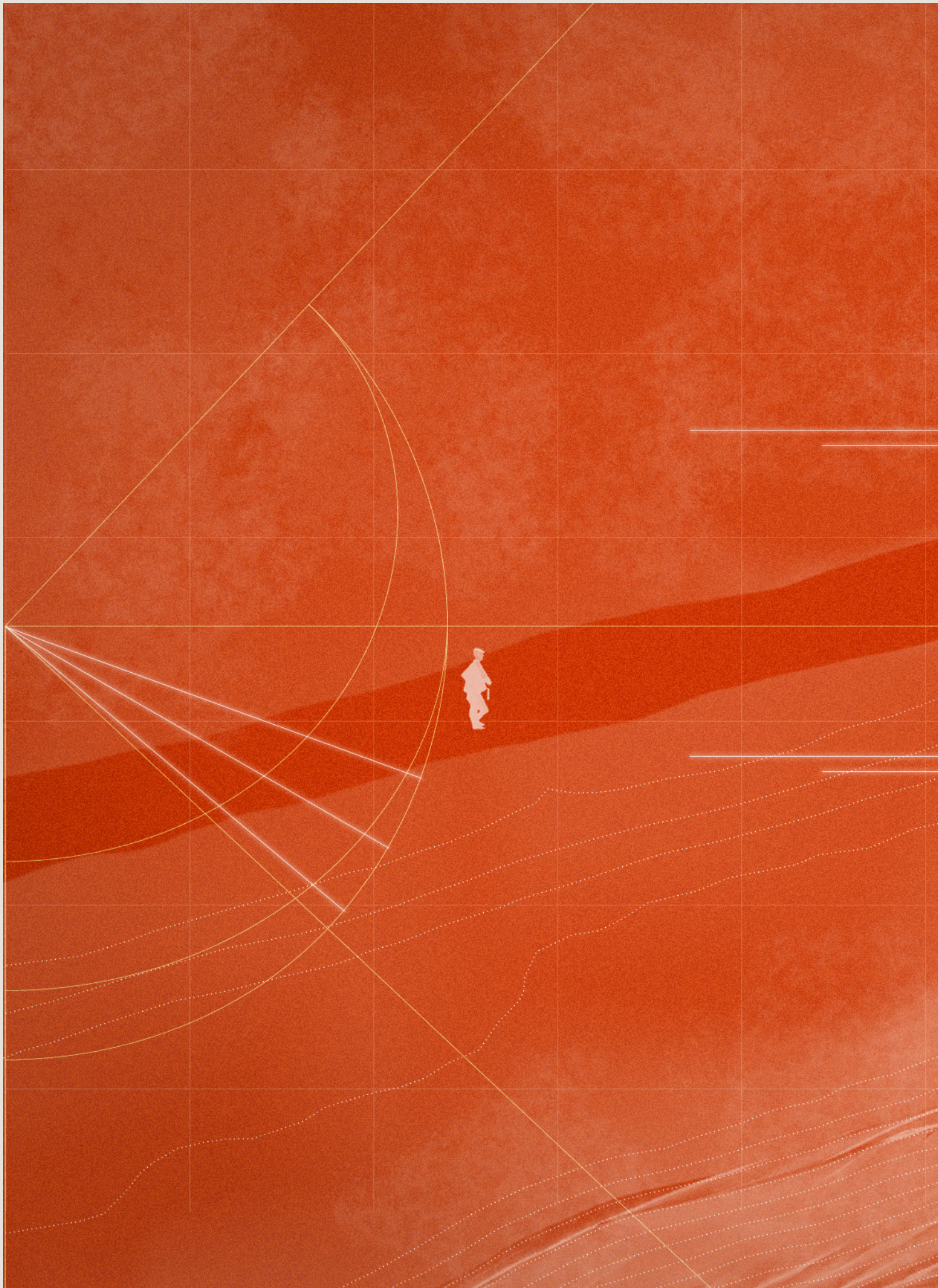


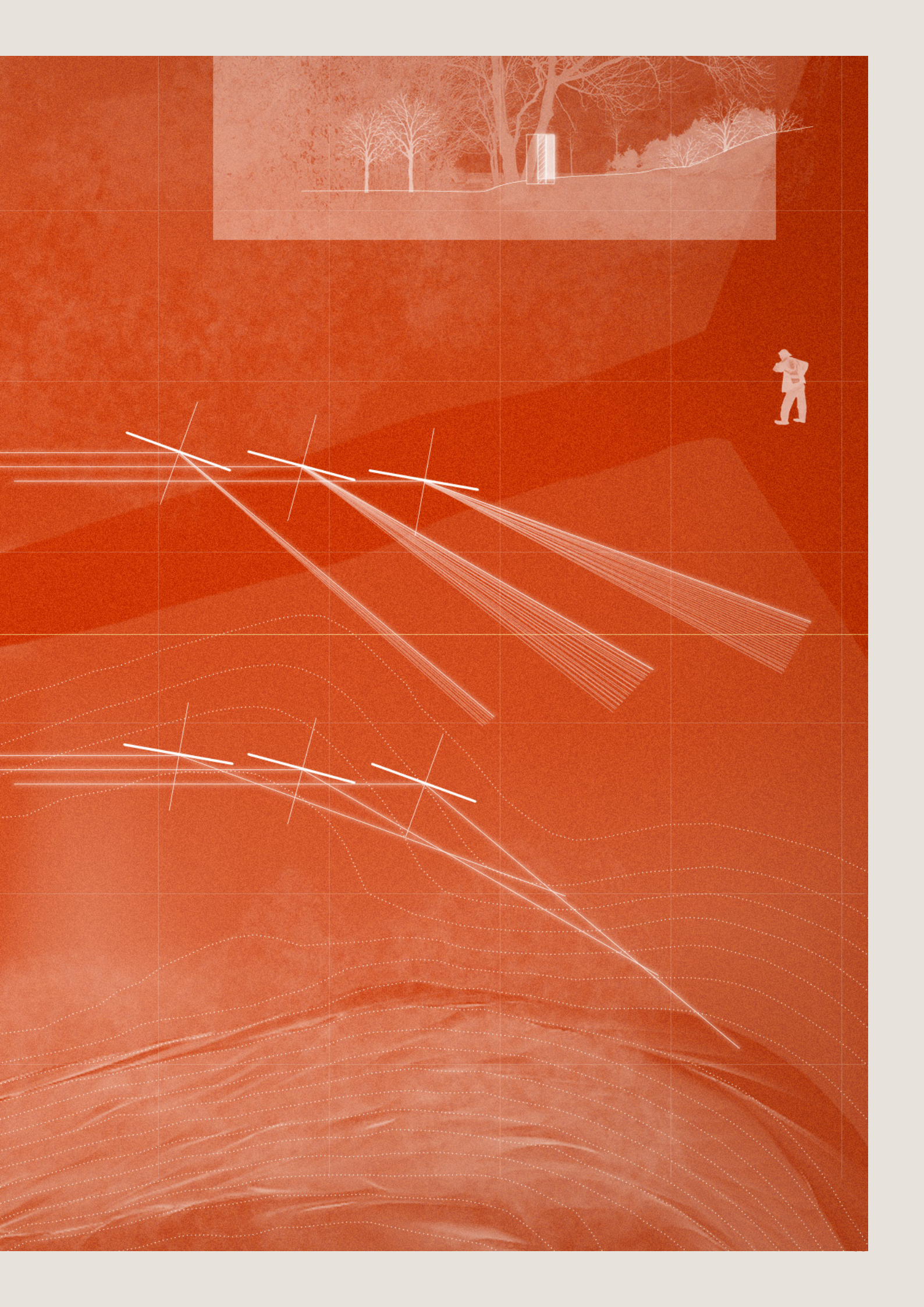


Sept/22 ~ Mar 20



*~Feb 20 ~07:30AM,
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CONCLUSION AND REFLECTIONS

The thesis project takes inspiration from the spirit of the place of Kastrup Strandpark, and draws references in history and cultures regarding the sun and the sun's relationship to architecture. It is also inspired by personal stories and experiences. Therefore it is a project that deals with aesthetics and meanings, and hopefully will be an advocate in bridging city life and nature.

This report has examined the complete research and design process, at the time of finishing the project. It has listed the determining factors, such as the sun directions and the natural conditions of the site. It has navigated through the analysis of the genius loci of the site choice, and the reasoning of the decisions and basis of the design method. The report has described the final design and visualisation of the different stations constituting the sunrise sanctuary.

The project is deeply connected with my previous theoretical writing assignment, where I discussed the importance of genius loci reasoned by Norberg-Schultz (1980) in modern day architecture, examining in parallel the idea of sitedness coined by Krauss (2000) when investigating the land art movement. Situating programmes and designs can be challenging, however in a relatively natural environment (where social and political factors are minimised to achieve a more aesthetic and poetic try-out), this project is a practice in putting the findings from the theoretical assignment into the design process. It can be said that although this project focuses mainly on architecture itself, there is undeniable influences from land art that is visible in this project.

Working on the project and the report, I have intentionally avoided using first person account for the large part to be more objective and academic in the narration, although the project is rooted in my personal experience. In view of the fact that it is a project which should be inclusive and if it is realised on site, it ought to be completed by many more stories.

