

table of contents

essay	<i>pg 3 - 11</i>
diagram I	<i>pg 12</i>
diagram II	<i>pg 13</i>
diagram III	<i>pg 14</i>
diagram IV	<i>pg 15</i>
case introduction	<i>pg 16</i>
case perspective	<i>pg 17</i>
case elevation(s)	<i>pg 18</i>
case top view & section	<i>pg 19</i>

“Under” which translates to “below” or “wonder” in Norwegian”, is a restaurant located in Lindesnes, Norway, and was designed and completed between 2016 and 2019¹. The building has become popular for being, “Europe’s first underwater restaurant”². Under, designed by international renowned architecture firm Snøhetta, is sited at the southernmost point of the Norwegian coastline³. Sitting at the junction of two rivers, this site receives aggressive weather conditions, adopting storms from both the north, and south⁴. Under’s building form is partially submerged in the ocean, resulting in a larger ecosystem on site. Part of the building inhabits a rocky shoreline, while the other imposes itself amongst various marine species. The bodies of water surrounding the site contain both briny and brackish consistencies, resulting in a larger biodiversity⁵. The site chosen for Under was previously surrounded by villages which have since merged and Lindesnes became a tourist destination. Many shops, hotels and restaurants surround Under and tourist visit to experience the dramatic weather, views and marine life⁶. The implementation of a unique building and five star restaurant created another tourist attraction for the municipality of Lindesnes. The building’s existence in this place at this time speaks to the action architecture can take to incorporate and positively impact the environment and its ecosystems.

Snøhetta was first established in 1989 in Oslo above the Doverhallen bar hall, between a group of architects with the same set of views and ideals. Today Snøhetta is spread over 32 nations and has 240 employees of mixed professions. These range from architects, landscape architects, artists, interior architects, graphic designers, and product designers all the way to geologists, urban planners, and engineers⁷. This allows Snøhetta to have a team that benefits from a wide range of knowledge and cultural expertise. Snøhetta’s projects include, space, environment sustainability, and social sustainability.

¹ “Under’ – Europe’s First Underwater Restaurant,” Snøhetta, accessed March 14, 2020, <https://snohetta.com/projects/428-under-europes-first-underwater-restaurant>).

² “Under’ – Europe’s First Underwater Restaurant,” Snøhetta, accessed March 14, 2020, <https://snohetta.com/projects/428-under-europes-first-underwater-restaurant>).

³ “Under’ – Europe’s First Underwater Restaurant,” Snøhetta, accessed March 14, 2020, <https://snohetta.com/projects/428-under-europes-first-underwater-restaurant>).

⁴ “Under’ – Europe’s First Underwater Restaurant,” Snøhetta, accessed March 14, 2020, <https://snohetta.com/projects/428-under-europes-first-underwater-restaurant>).

⁵ “Under’ – Europe’s First Underwater Restaurant,” Snøhetta, accessed March 14, 2020, <https://snohetta.com/projects/428-under-europes-first-underwater-restaurant>).

⁶ “Lindesnes Fyr (Spangereid) - All You Need to Know BEFORE You Go - Updated 2020 (Spangereid, Norway),” Tripadvisor, accessed March 14, 2020, https://www.tripadvisor.ca/Attraction_Review-g1949763-d1774007-Reviews-Lindesnes_Fyr-Spangereid_Lindesnes_Municipality_Vest_Agder_Southern_Norway.html).

⁷ Snøhetta: Collective Intuition. London: Phaidon Press Limited, 2019.p.11

The project of space is evident in the early stages and throughout the firm's designs. The Snøhetta family begins their design process by using only words, as they do not want to limit the design by creating a visual representation. This enables them to discover and agree on a more refined concept. In this first stage they create narratives by identifying who will use the spaces and the connection individuals might have to the spaces. Space and how the space will be experienced by the occupants is incredibly important to Snøhetta, they create and implement specific rules regarding space to help guide them. Once these guidelines are developed they then expand upon the types of experiences they want to create within each space. Often these experiences become journeys in which the occupant crosses thresholds in order to reach a destination⁸. Snøhetta also designs spaces to have a wide variety of uses, which allows the space to adopt different programs as time progresses. The co-founder Craig Dykers states "we are trying to promote the sensibility in our spaces that you feel you are part of a wider society and that your understanding of the world is changing. You're being challenged at times and other times you're being let go to do whatever you feel you want to do"⁹.

Another project of the firm is environmental sustainability. The environment is incredibly important to Snøhetta, so much so that the firm developed the saying "form follows the environment".¹⁰ Snøhetta believes that they "must allow landscape to exist in its own right, with form and meaning derived from its own qualities and conditions rather than those of architecture"¹¹. They believe that incorporating the environment into their designs is an ethical architectural practice¹². Throughout the design stages, they visit the site and consider its geology, its climatic conditions, its history of habitation, as well as its sociological and psychological parameters¹³. While designing, they think about the habitat, in the sense of biotic and

⁸ Snøhetta: Collective Intuition. London: Phaidon Press Limited, 2019.p.11

⁹ "We Chat to Snøhetta about Designing Banknotes, Studio Rituals and the Problems with Civic Commissions." It's Nice That. Accessed February 20, 2020. <https://www.itsnicethat.com/features/snohetta-interview>.

¹⁰ Snøhetta: Collective Intuition. London: Phaidon Press Limited, 2019.p.11

¹¹ Snøhetta: Collective Intuition. London: Phaidon Press Limited, 2019.p.11

¹² Snøhetta: Collective Intuition. London: Phaidon Press Limited, 2019.p.11

¹³ Snøhetta: Collective Intuition. London: Phaidon Press Limited, 2019.p.11

abiotic systems and how they rely on each other¹⁴. In terms of designing with habitat in mind, they design not only for our species but other species swell.

Social sustainability is also considered during each stage of the project. Snøhetta ensures that they present a great deal of care and research when designing, so as to know how the social atmosphere will be affected by the project. They accomplish this by analyzing existing designs and how people use those spaces, as well as arranging workshops and charrettes in which the clients and the potential users of the project can come forth bringing new ideas to the table.

Snøhetta is not only focused on the social sustainability between the people who will use their projects but also within their studio space and their employees. They have a saying that, "Singular in the plural"¹⁵. This saying is said to reinforce the importance of what one individual brings to the table, and how it influences designs¹⁶. Snøhetta's studio space is open, encouraging all of its team members to work together. Within Snøhetta's studio, hierarchy is forgotten, and all of the different professions merge. The studio also contains a lunch room with a communal kitchen to further grow and develop the Snøhetta community, because they believe that the social interactions are necessary for a healthy and happy work environment. There are also tables within Snøhetta's studio that allow colleagues to have meetings spontaneously and inclusively as anyone from the Snøhetta family can come and join. With the studio arranged in this way it better enables the act of transpositioning. Transpositioning is the switching of professions in order provide each other with a new and different point of view, all while developing a better understanding of their own profession¹⁷. The bonds between employees is further strengthened by the climb the firm takes every year at the Snøhetta mountain in Norway, where the firm is named after. The

¹⁴ Snøhetta: Collective Intuition. London: Phaidon Press Limited, 2019.p.11

¹⁵ "Process." Snøhetta. Accessed March 15, 2020. <https://snøhetta.com/process>.

¹⁶ "Process." Snøhetta. Accessed March 15, 2020. <https://snøhetta.com/process>.

¹⁷ "Process." Snøhetta. Accessed March 15, 2020. <https://snøhetta.com/process>.

staff meet at this mountain to climb it as part of pilgrimage and a team building exercise. They use the climb as a time to talk about goals as well as what they are currently trying to achieve.

The three projects of Snøhetta are evident in the design of Under. Environmental sustainability is clear with the site chosen for Under. Snøhetta put a great deal of thought and research into determining how Under would interact with its habitat. Under sits on an angle, with its bottom half completely submerged, resting on the seabed five meters below. The building was intended to become one with the marine species currently living on the site. Further reinforcing Snøhetta's project of environmental suitability, by not only creating and thinking about a habitat for humans but the existing species as well. Snøhetta wrapped the building in a rigid concrete shell, that could benefit the marine species by acting as an artificial reef¹⁸. The concrete shell must also act as protection from the intensity of the weather and crashing waves, therefore the shell measures half a meter in thickness.

Snøhetta's project of space as well as social sustainability is developed inside the restaurant. Where spaces are designed for people to gather and to experience the atmospheric contrast between the harsh weather, crashing waves, and warm serenity. This change in atmosphere is possibly the only instance where one fully understands or witnesses a boundary. This threshold however, does not signify the transition from land to sea, but rather land to land. The transition between land and sea happens within the building and can go unnoticed, further justifying Snøhetta's deliberate attempt to confuse or eliminate boundaries, "In this building, you may find yourself under water, over the seabed, between land and sea. This will offer you new perspectives and ways of seeing the world, both beyond and beneath the waterline"¹⁹. The foyer of the building is clad with oak and carries a warmth throughout the remainder of the building²⁰. Every surface within the building represents a concept, "As a metaphor for the journey of

¹⁸ "Under' — Europe's First Underwater Restaurant," Snøhetta, accessed March 14, 2020, <https://snohetta.com/projects/428-under-europes-first-underwater-restaurant/>).

¹⁹ "Under' — Europe's First Underwater Restaurant," Snøhetta, accessed March 14, 2020, <https://snohetta.com/projects/428-under-europes-first-underwater-restaurant/>).

²⁰ "Under' — Europe's First Underwater Restaurant," Snøhetta, accessed March 14, 2020, <https://snohetta.com/projects/428-under-europes-first-underwater-restaurant/>).

descending from land to sea, textile-clad ceiling panels reference the colours of a sunset dropping into the ocean”²¹. The “panoramic eye of the building”, is the 11 meter wide and 3.4 meter tall window that is located at end face of the rectangular building, fully submerged²². The window, acts as “a visual gateway to the sea and connects the guests to the wildlife outside”²³. Connecting visitors with the underwater ecosystems surrounding, allows Snøhetta to reiterate the importance of being one with nature and understanding a person’s impact in space, “Under proposes unexpected combinations of pronouns and prepositions, and challenges what determines a person's physical placement in their environment”²⁴. Similar to Frank Lloyd Wright’s design tendencies, Snøhetta designed, along with the building, the furniture that would inhabit the space. Working collaboratively with a local carpentry workshop Hamran, all tables and chairs are handmade from locally sourced solid Norwegian oak²⁵. The furniture itself builds upon the concept of the building. That is, “to build solid structures for the future without compromising the natural beauty that lies inherent in the raw materials”²⁶. Each piece is a continuous shape, creating a metaphor for the way in which branches of a tree grow from the stem²⁷.

The geometries of the building suggest an ease in transition between rock and sea. The angle was determined in response to the building’s intent to become an artificial reef, and gives visitors the “impression of sliding into the sea”²⁸. The rectangular mass suggests a distancing from the concept of the building being an extension of the landscape. However, the attention in façade detail and system

²¹ “Under’ – Europe’s First Underwater Restaurant,” Snøhetta, accessed March 14, 2020, <https://snohetta.com/projects/428-under-europes-first-underwater-restaurant/>.

²² “Under’ – Europe’s First Underwater Restaurant,” Snøhetta, accessed March 14, 2020, <https://snohetta.com/projects/428-under-europes-first-underwater-restaurant/>.

²³ “Under’ – Europe’s First Underwater Restaurant,” Snøhetta, accessed March 14, 2020, <https://snohetta.com/projects/428-under-europes-first-underwater-restaurant/>.

²⁴ “Under’ – Europe’s First Underwater Restaurant,” Snøhetta, accessed March 14, 2020, <https://snohetta.com/projects/428-under-europes-first-underwater-restaurant/>.

²⁵ “Under Collection,” HAMRAN, accessed March 14, 2020, <https://hamran.no/en/prosjekter/under-collection/>.

²⁶ “Under’ – Europe’s First Underwater Restaurant,” Snøhetta, accessed March 14, 2020, <https://snohetta.com/projects/428-under-europes-first-underwater-restaurant/>.

²⁷ “Under Collection,” HAMRAN, accessed March 14, 2020, <https://hamran.no/en/prosjekter/under-collection/>.

²⁸ Jennifer Pattison Tuohy, “Under by Snøhetta,” Dwell, March 26, 2019, <https://www.dwell.com/article/under-snohetta-ae0ede00>.

integration proves that the geometries, yet linear, will in fact become organic as the building becomes a greater member of the existing ecosystems.

In the attempt to draw more from the project, “The restaurant will welcome interdisciplinary research teams studying marine biology and fish behaviour, through cameras and other measurement tools that are installed on and outside the facade of the restaurant”²⁹. This unique architectural gesture has created the opportunity to learn more about the living site it exists in. Snøhetta has developed a way to use a building as a research tool in addition to the primary intended function, maximizing the efficiency of Under’s contribution to society and further incorporating their project of social sustainability.

Twenty meters from site, Under was built on a barge and when found structurally sound, was lowered to the foundation on the seabed³⁰. The buoyancy of the structure aided in the smooth and slow transition from land to sea. The shell of the building was then bolted to the pre-installed foundation below seal level. HVAC, plumbing and electrical systems were all installed below sea level³¹. The ways in which Under was constructed feeds back into the concept of questioning boundaries. By constructing the building on a barge, it is clear that the entire process is being influenced by the idea of land and sea as a whole, seen without boundary. From the very beginning Under has been perceived as more than a building, but an extension of the landscape, and all processes have adopted the same philosophy.

Snøhetta has realized that in order to produce successful and evolutionary work, the work environment must also be successful and evolutionary. They have accomplished this through a firm that is compiled of a wide range of professions, where they are encouraged to use the working methods of

²⁹ “‘Under’ – Europe’s First Underwater Restaurant,” Snøhetta, accessed March 14, 2020, <https://snohetta.com/projects/428-under-europes-first-underwater-restaurant>).

³⁰ Aldo Amoretti, “Construction of Europe’s First Underwater Restaurant Starts above Water,” *New Atlas*, May 31, 2018, <https://newatlas.com/snohetta-under-construction/54833/>).

³¹ Jesus Diaz, “Snøhetta Is Building a Restaurant beneath the North Sea,” *Fast Company* (Fast Company, July 9, 2018), <https://www.fastcompany.com/90174282/aldo-amoretti-photographs-underwater-restaurant-by-snohetta>).

transpositioning and collaboration. Snøhetta continues to improve the work of their firm by constantly implementing their projects of space, environmental sustainability, and social sustainability as guidelines. Their progressive work environment, and portfolio shines through the success of Under, and its multifunctional program. Under's program of restaurant and a research facility also creates a unique journey, enhancing the social sustainability of the village Lindesnes, and providing a habitat for the local species.

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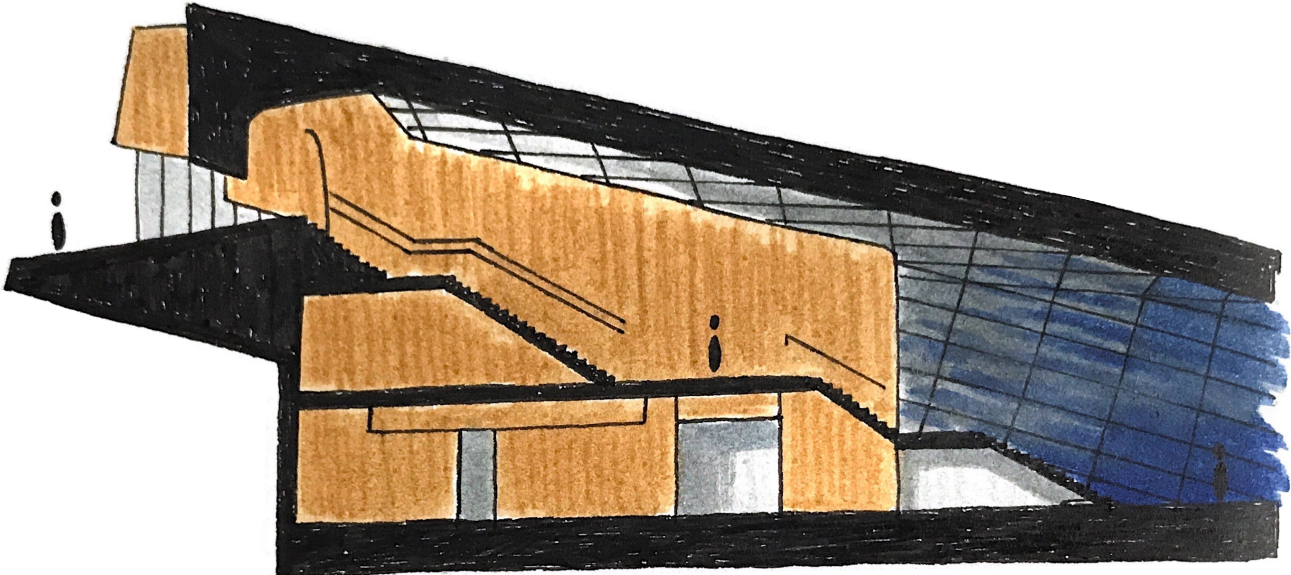
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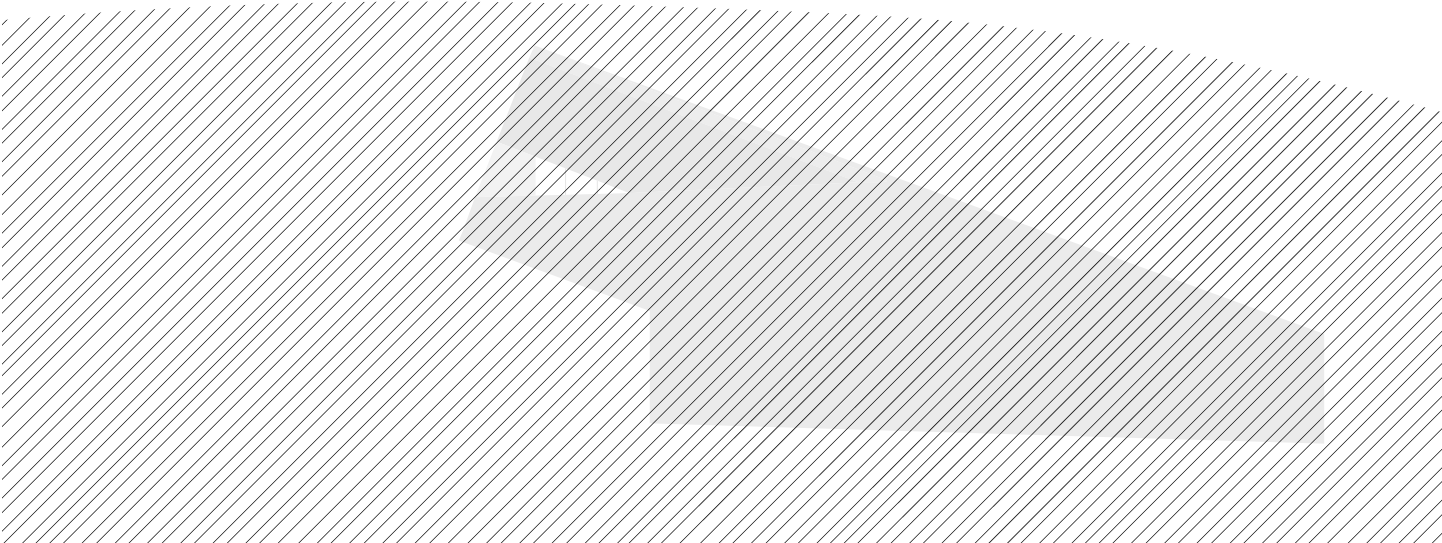
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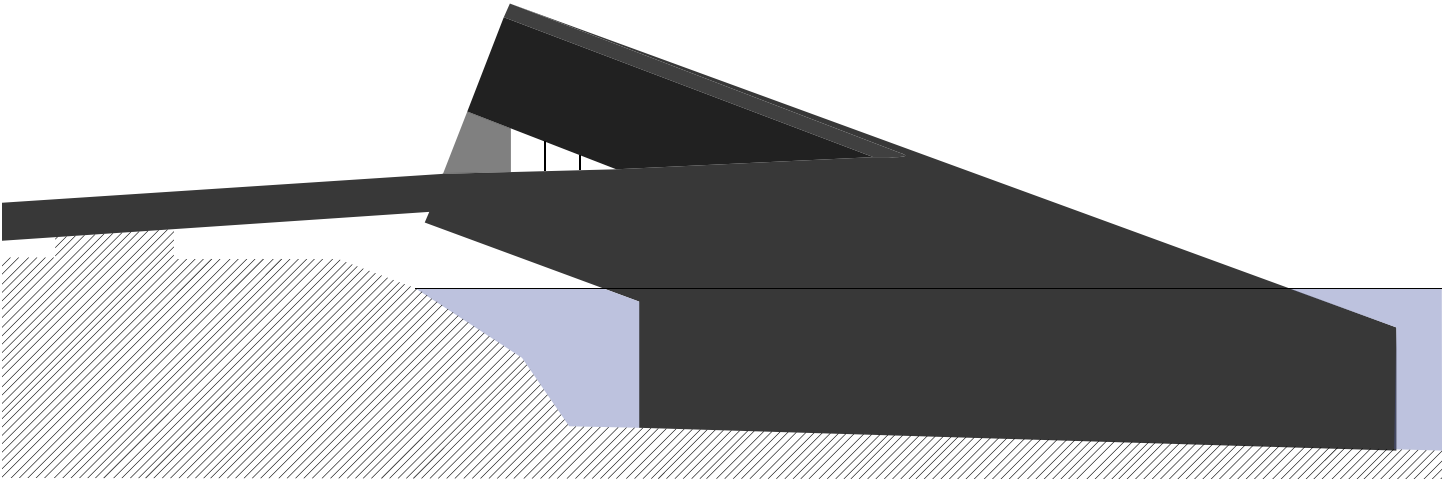
buildings warm - cold
atmospheric qualities



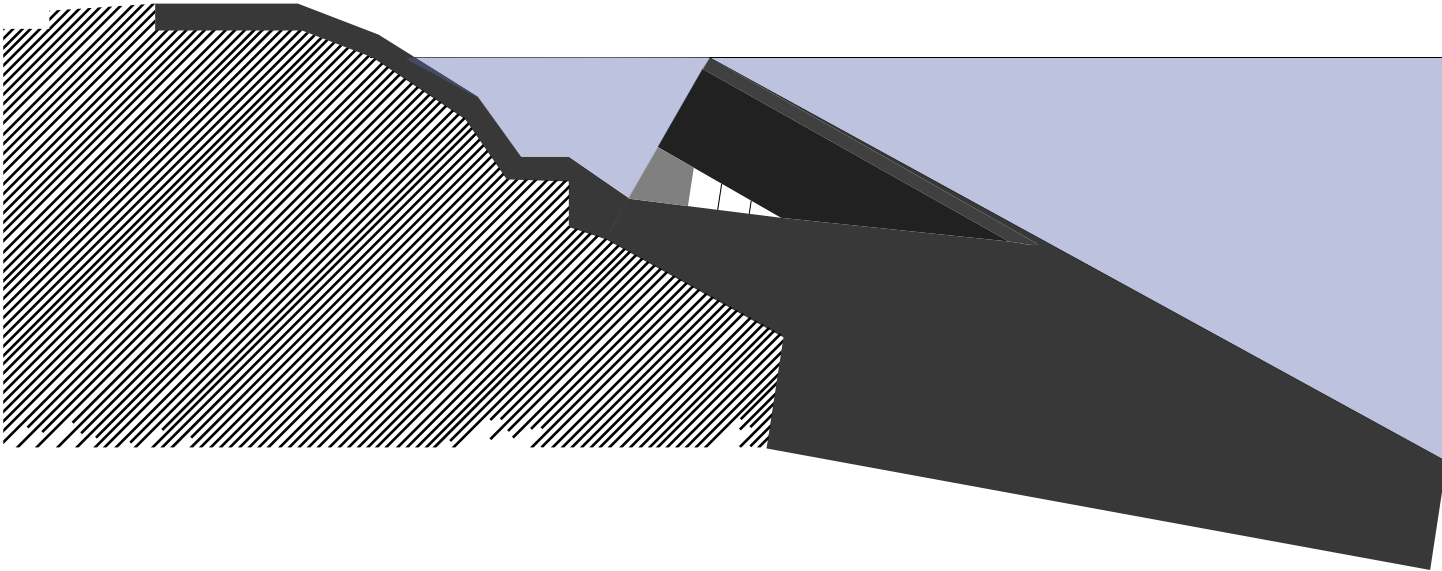
building integrated
within the landscape



building emerging
itself within the
waters



building submerged
within the oceanic
wildlife



under case



The design of our case came from the concept of descending and "sliding into the sea".

The form of the case is made of concrete to resemble under's outer shell with a slight angle on the top to reflect how under is sliding into the sea.

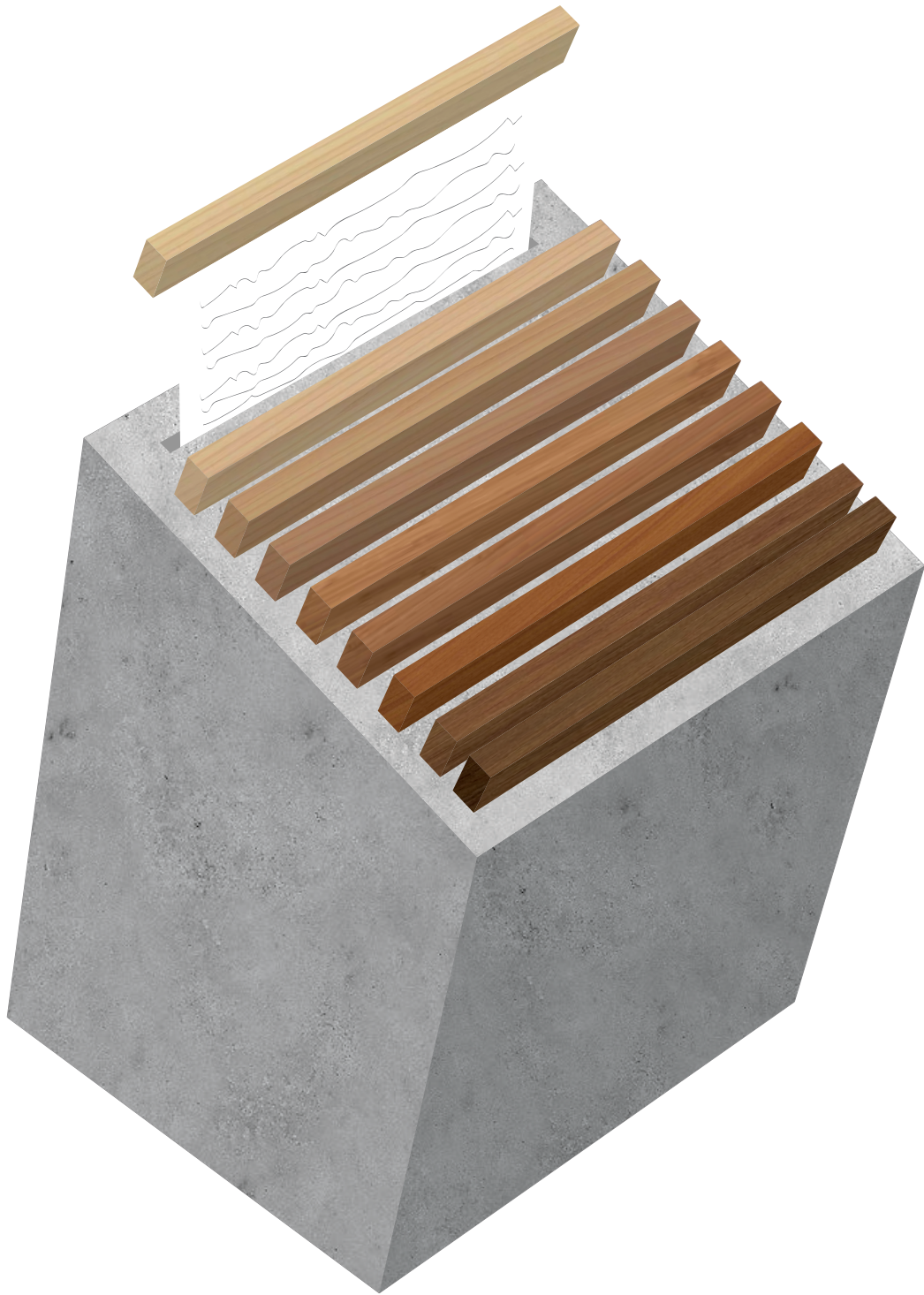
How we integrated the essay into the case was by taking all nine pages, individually, and inserted them into the concrete like how fish insert themselves into reefs to lay their eggs. At the bottom of the case water is integrated to reflect snohetta's concept of boundaries and to show how systems can be integrated with each other while not disrupting each other and/or damaging one another.

While inserting the paper we realized that there needed to be an anchor for them to stop them from reaching the bottom and/or 'sinking' like how under is anchored onto the land; this then encouraged us to go back to snohetta's material palette in under and to question the idea of boundaries, once again.

By using wood as the anchor for our essay, we had the opportunity to use different types of wood, to again, resemble the idea of descending; as your descending it is getting deeper and deeper which is why we started out with light woods such as ash and at the end of our essay it is a dark wood such as black walnut.

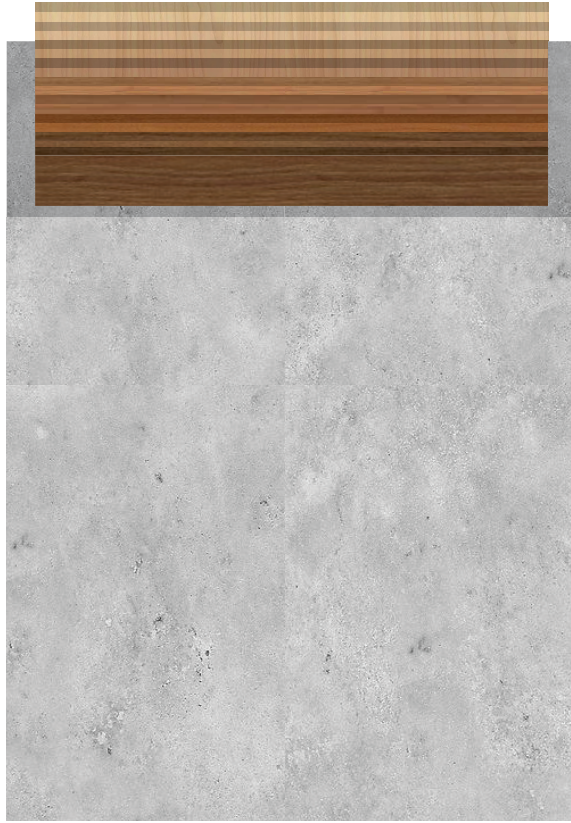
The overall concept of our design was mainly to reflect the two-key-concepts behind under which were descending into the sea and the idea of boundaries.





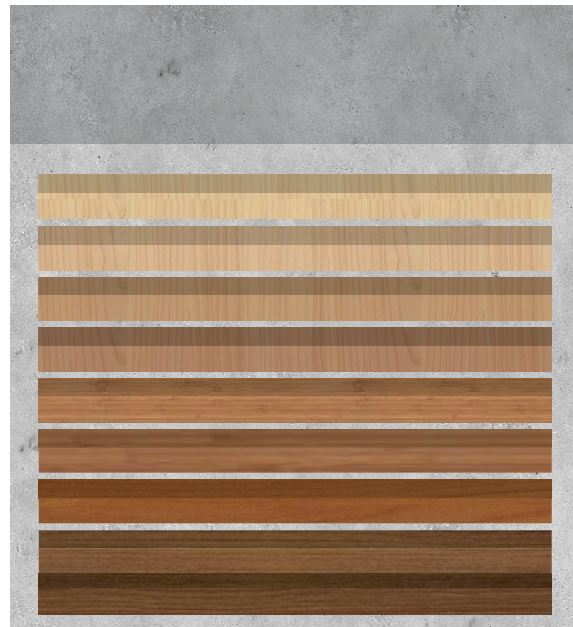
perspective

front elevation

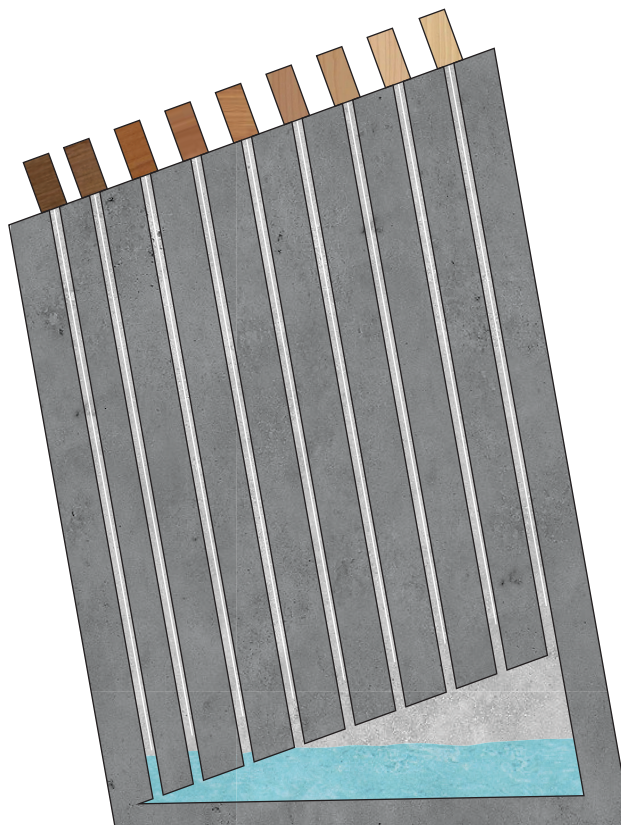


side elevation

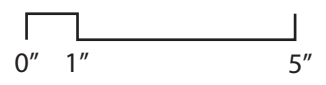




top view



section



thank you