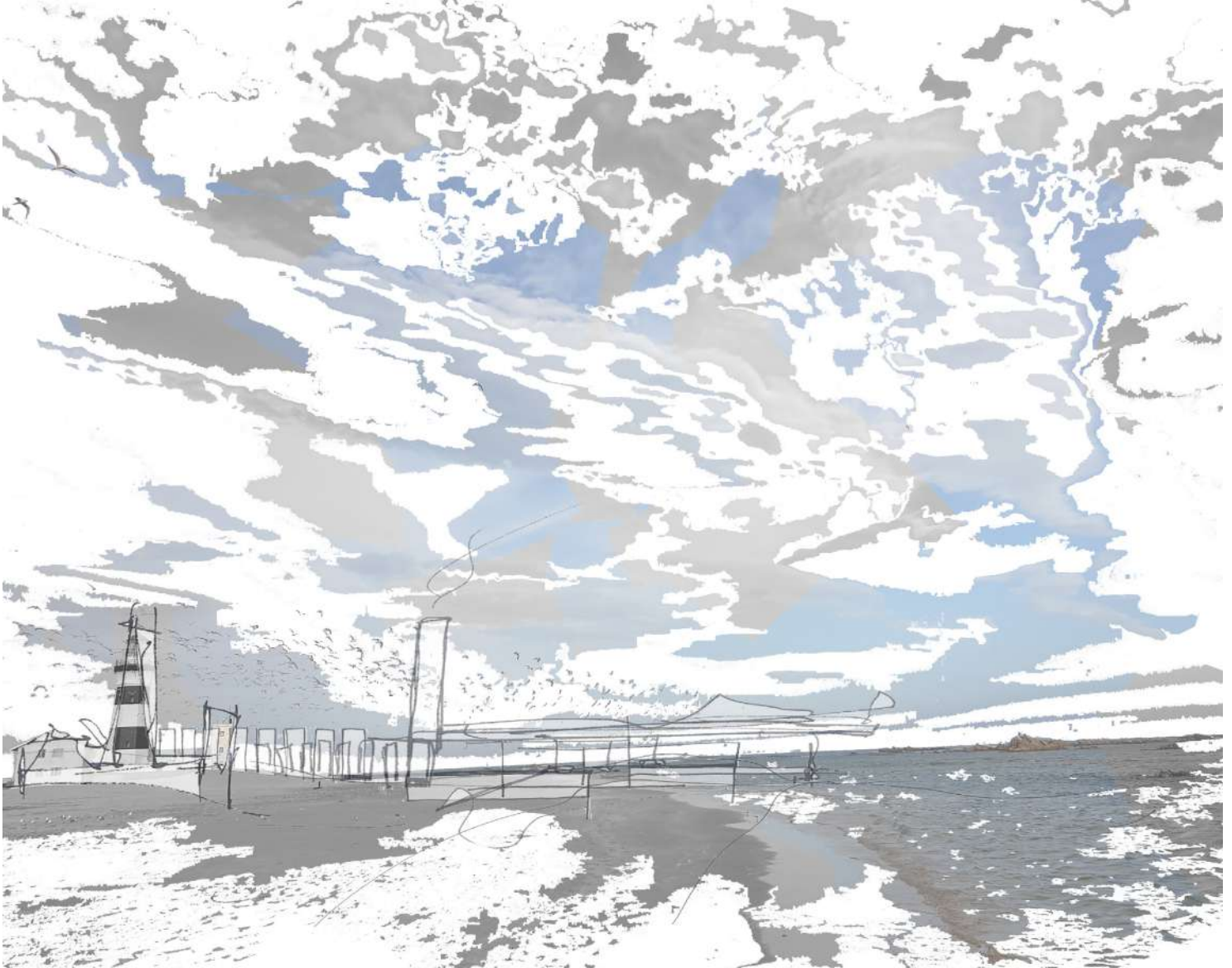


DECEASED SENTIENT



AN ETERNAL REEFS MEMORIAL CENTRE AT THE CAPE RECIFE
LIGHTHOUSE AND NATURE RESERVE PORT ELIZABETH.

RELINQUISHING A LIFE TO THE OCEAN,
BONDING A SOUL IN PERPETUITY.

DENNIS HOFT
M.Arch Prof.
DESIGN DISSERTATION

This dissertation is submitted in partial fulfilment of the requirements for the degree M.Arch.Prof.
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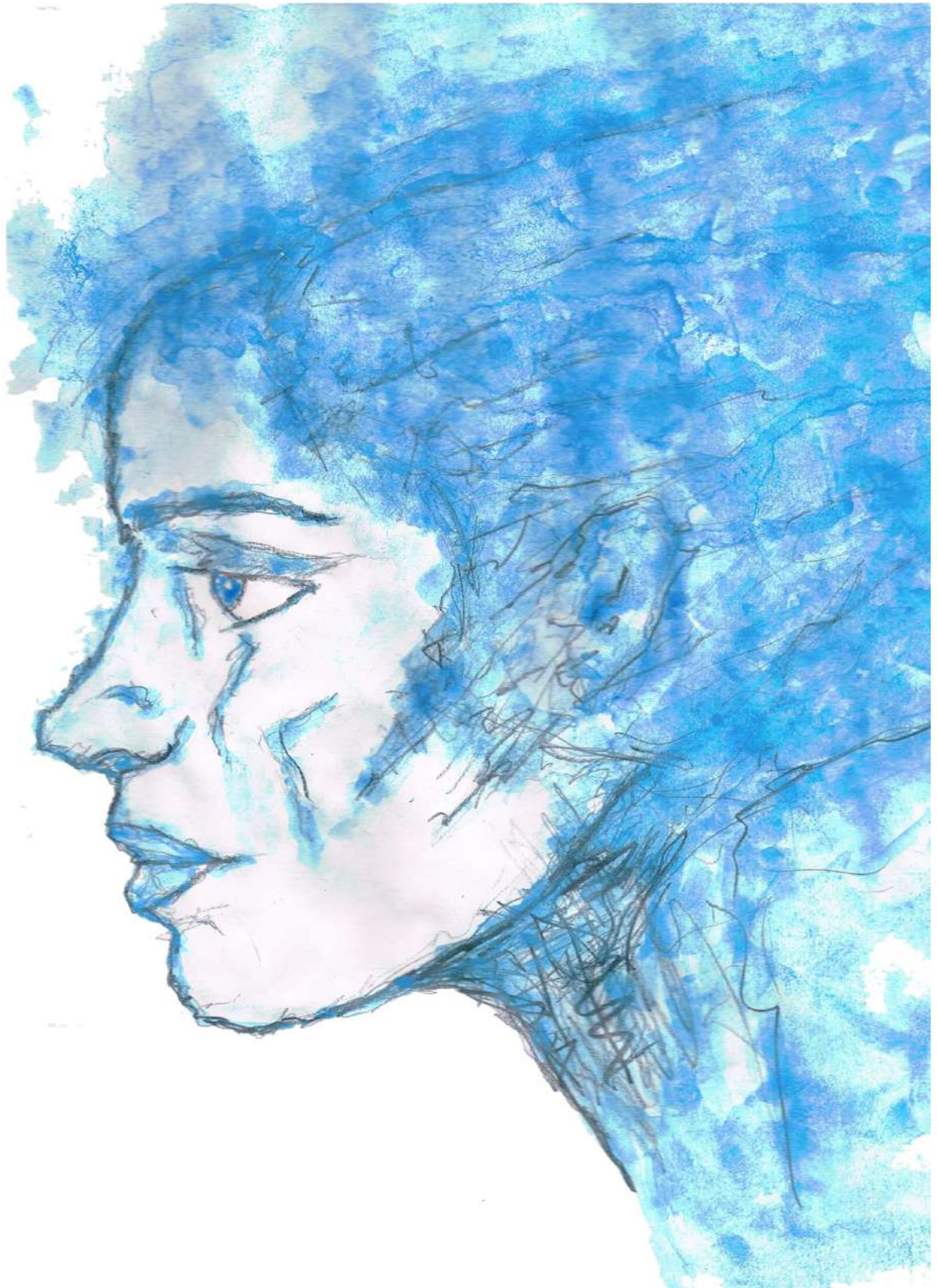
29 October 2020

Supervisors

Prof Jan Smit, Petria Smit, Jan Nel, Hein Raubenheimer

DECLARATION OF ORIGINAL AUTHORSHIP

The work contained in this dissertation has not been previously submitted to meet the requirements for a qualification at this or any other institution of higher education. To the best of my knowledge, this dissertation contains no material previously published or written by any other person except where due reference is made.



Decaying.
Sketch: Author. Pencil and watercolour on paper. 2020

ABSTRACT

Life and Death. An endless cycle we see devoured, held, controlled by time. Always similar but never the same, yet the means in which we memorialise never changed. Traditional burial has always held the most dignity in civilisation, although Greek and Buddhist cultures has always upheld cremation. The evolution of burial has but remained variables of a gist in all beliefs and cultures where the origins and legitimacy are subject for a different debate. But is there a thread, or substance of the same origin, something that we as modern man can reconnect to in order to have a neutral goal for this life and the next one. Is mother earth our only salvation for this life and the afterlife? Do we only have these lands and waters for all eternity?

We can predict very little, but learn a lot from the past. For destruction and discovery has led to this world, so what to do but reconstruct this haven as a heaven for all living beings.

For our planet to be the sole haven, for what seems eternity, in order to preserve all life for only this life we have, evidently, must become human nature. Preserving nature has to be in our nature.

NEW LIFE FROM A LIFE LOST. RETURNING TO THE EARTH WHAT WAS
TAKEN AND GIVING TO THE OCEAN WHAT WAS LOST.

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Cape Recife lighthouse.
Photograph: Author. 2020

INTRODUCTION

In South Africa rites to memorialisation deem many different forms, from the procedures and modes of burial to the events pertaining each. Common traditions of some South African religions have seen fair change in their ways due to factors such as rising funeral costs, shortage of burial space, and environmental concerns for the land use with a growing population. It has led to some rethinking their current methods of burial or memorialisation of the deceased (Compare the coffin, 2020: Online). Although most remain faithful to traditional methods, it has become possible now to expand the view of the general public in light of environmental concerns and the derelict state of graveyards across the country. By focusing on a new rite of memorialisation appropriate to a place, its people and committed to the well being of its environment, may prove as a successful typology for sustainable memorialisation and the future of both the living and the dead of our land.

The site located in Port Elizabeth at the Cape Recife Lighthouse and nature reserve, displays an array of tactile engagements where the almost desolate appearance of pure white dunes mirage into fields of beaches and rocky fingers stretches out into the dynamic sea. The ever-changing tide shifts the threshold of land and sea in a structured yet fickle manner where diverse life moves with it in accord for their own intent and of course survival.

One may even call this the dance of nature. Water and Earth swaying from here to there, whilst the Air tumbles above and dips down to the Earth, on occasion re-energised by the heat of the Fiery sun. In this we find vast ensembles of creation catalysed by the being and movement of the elements in their own play. It can almost be said that all life is dependent on these interactions between the four elements, and through the ages humans have witnessed and interpreted this in many different ways. This furthered the search towards an understanding as to how these interactions manifested themselves in the orders created that enabled life to exist on planet Earth.

To try and understand this place, the earth, the universe, a god, the gods, heaven, hell or any conception of the afterlife, we undeniably must first come to a consensus that we as humans in our psyche have to manifest this sense of belief whether in religion, spirituality, science, etc. But it lies in this manifestation that humans differ, which is our nature. So how is it possible to blind oneself by looking into the sun if it is but to gaze right back into one's soul. We cannot truly perceive a godly presence from the outside, it must come within, and it lies therein that the psyche becomes of importance for this study. All the uncertainties in the mysteries of life and death only manifests when one sees the light through a crystal pyramid, an array of colours and but one source (Jung, 1968).

Meaning that though the earthly manner of things has moulded into a series of events, sparking diverse cultures and beliefs, a babel, if you would, that was created by man (the mundane) and deployed by god (a cosmological manifestation), but all concerned with the search of a higher power or being. So, from a universal search it sprouted to multiple variations or deviations and passed through many lands and times.

But we are not here to analyse the origins of religions, beliefs or cultures. It is still a personal journey, but one of a more intimate understanding; we as human beings all must die.

We as temporary beings have to establish a sense of humaneness through this where not only the spiritual senses are enhanced by means of a neutral “spirit” but also an mutual objective is reached in order to promote the environment and future livelihood. The growth of human populations left its mark on traditional memorialisation and burial where we now see the need to rethink land use and especially land being used by literally nobody (alive that is). South African graveyards lie derelict even though more space is required each day leading to more derelict space in the future.

It becomes essential now, establishing this new rite of memorialising, that will be of place and time, where life is generated by deceased life and the well being of man on Earth is an inheritance.



Beacon.

Painting: Author. Acrylic on concrete tile. 2020

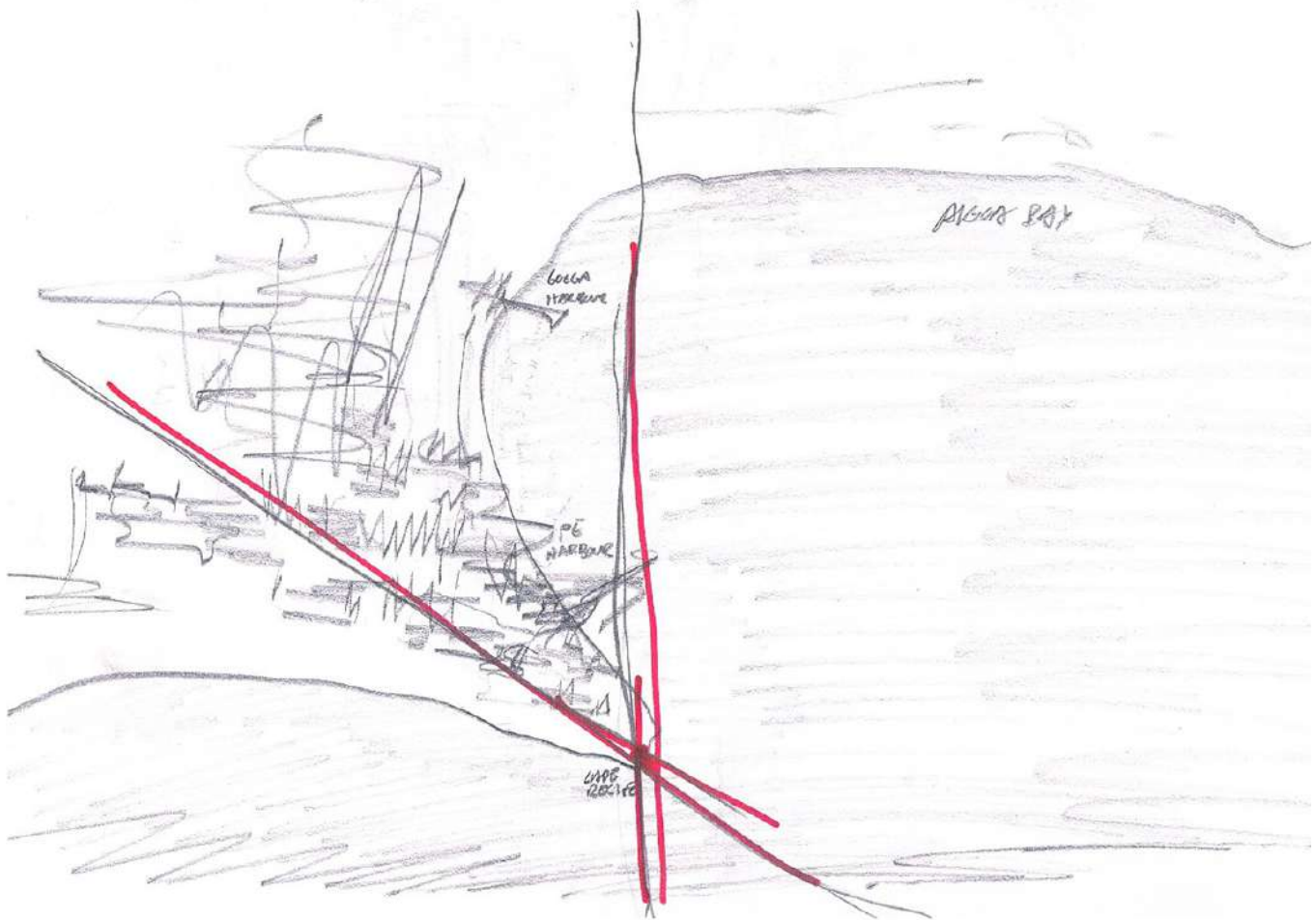
SITE & PROPOSAL

In the rich environment of Algoa Bay there are threats to the marine ecosystem by means of overfishing, coral and abalone poaching, and harbour wastewater, etc. The area of Algoa Bay to Cape St Francis has been proclaimed a Marine Protected Area in 2019, and aids in maintaining the balance of the eco system also with the help of coastal nature reserves such as, the Cape Recife, Sardinia Bay, Sylvic, Maitland, Gamtoos River Mouth, and Seal Point nature reserves.

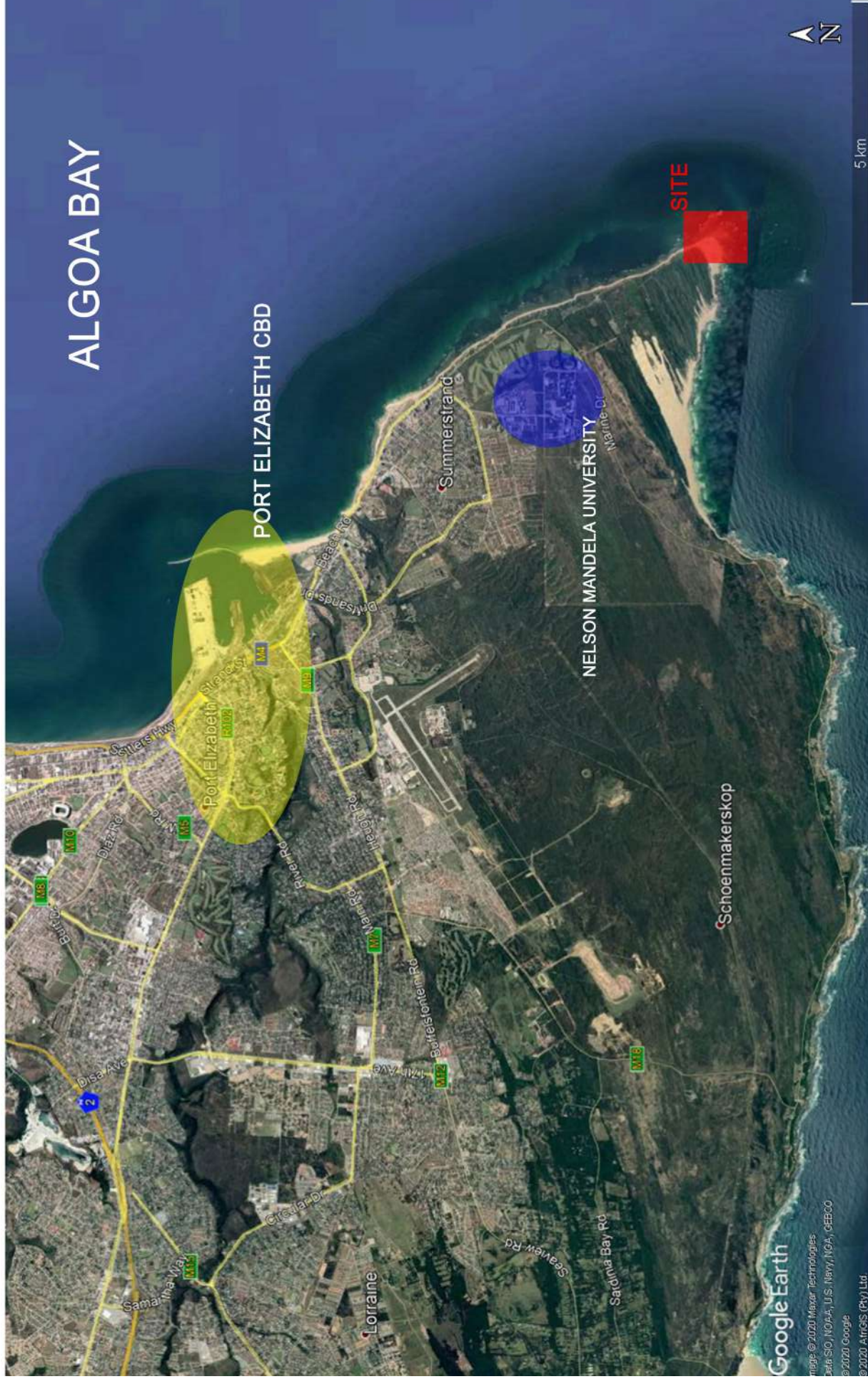
The Cape Recife Nature Reserve marks the most eastern edge of the Marine Protected Area and offers a diverse landscape where the elements are in favour of new life and promotes the opportunity to re-enliven the ruinous lighthouse complex (built in 1850) on site. This then legitimises the concept of the living embarking on a journey of the dead, where a memorial yard could become a new haven for marine life to flourish, and juxtapose the program as a procession through which one can perceive the elements of creation with the overtone of our inevitable demise brought to a subtle light.

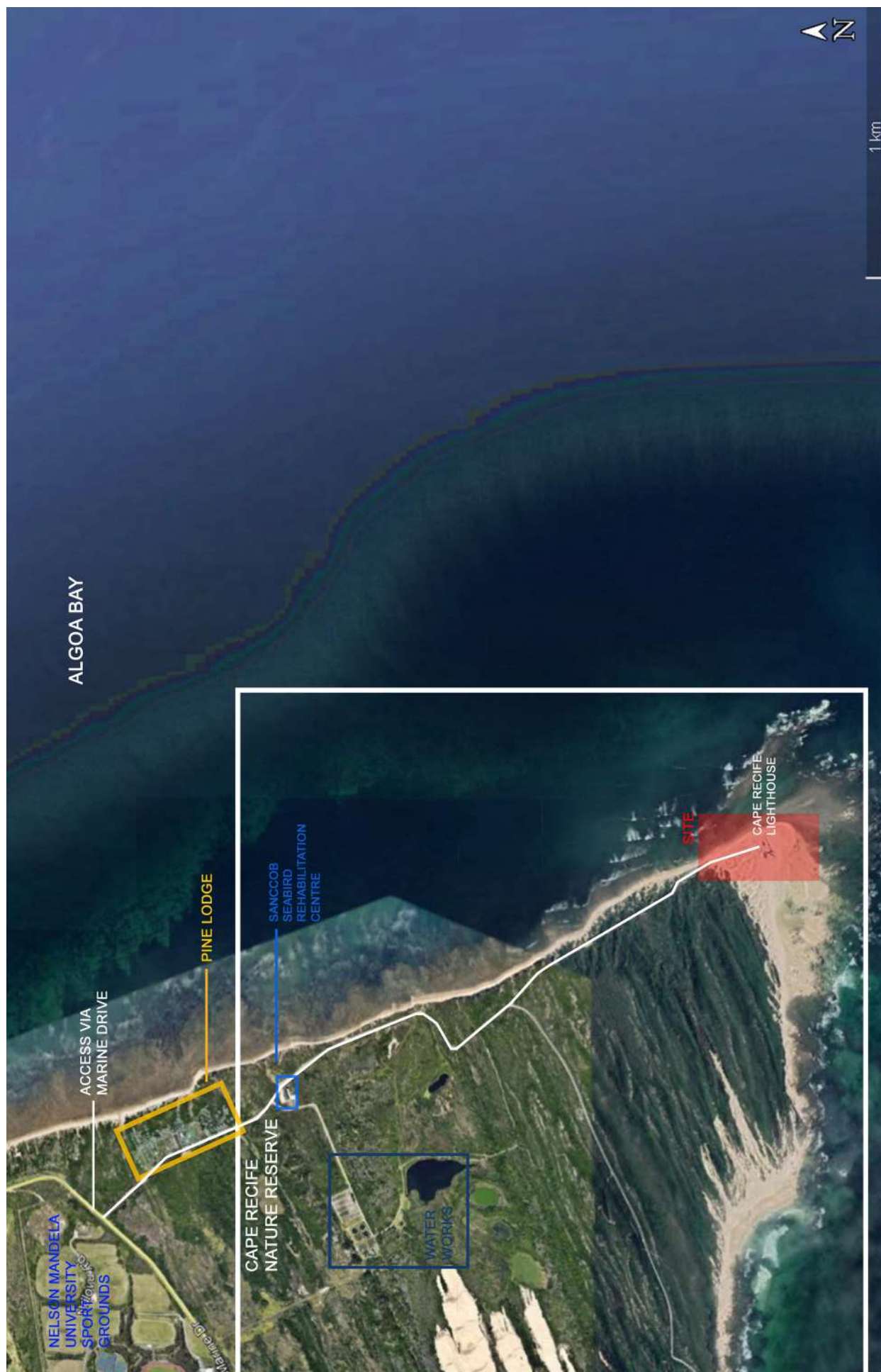
The program proposed entails the establishment of an Eternal Reefs Crematorium and Memorial Centre in this place where marine life can be promoted and rejuvenated by the introduction of these man-made reefs. This involves the process of cremation and further processions by earth/concrete, shaping or moulding a gravestone/reef in a dome like form, and then submersion into the sea (EternalReefs, 2020: Online). Herein lies the revelation of the four elements of nature: water, earth, air and fire. Unmistakably found as embodied entities on site, and seen as beings moving, living, changing, also housing bounties of life in almost contrasting circumstances.

The approach to the site offers a 270 degree engagement with the ocean where one may solely perceive its vastness due to the site being at the very tip of Algoa Bay. It is also the starting point of the Thunderbolt reef which stretches about two and a half kilometers to the south-west and houses an array of marine life, hard and soft corals as well as a breeding haven for the Kingklip species in the deep gullies of the reef between 15 and 30 meters deep (SA Venues, 2020: Online). Although this is a marine protected area, human threats still pertain and is not enforced at all times. Thus the state of the reef is still threatened as corals and marine animals suffer due to human greed. By having this facility on site it will aid in enforcing the well being of the reserve and reef as it will essentially promote the growth of the reef by means of human decay.



Algoa Bay.
Sketch: Author. Pencil and pen on paper. 2020





Location map.
Image: Author. Multimedia. 2020

The function essentially portraying/ processing/ housing death and at the same time giving new grounds for marine life and marine enthusiasts as a balance to the death of those who can now protect and aid this life in another life of their own. The conundrum of *life from death* is carried through, as it is with nature to complete different circles in life. The relevance lies in protecting nature by those who encourage its wellbeing in the sense of an alternative means to burial. It also questions the concept of a graveyard, by now in itself holding and preserving life by the essence and remains of those who have passed.

Port Elizabeth is home to many marine activities such as scuba diving, snorkeling, surfing, wind-surfing and fishing, which establishes a close connection to the ocean and its resources. What better means to be “buried” in the ocean if one’s enthusiasm for its well being matches the gains it gave us in life. Thus a person that lives their life for and with the ocean and its gifts, will in death give new possible havens (with one’s own body) for the marine life that lives at the mercy of man. This means the destruction of a body by cremation(fire and air) will rejuvenate the ocean by moulding of ashes(earth) with concrete(earth) and water. A cycle portrayed by the elements of nature and in essence re-enlivening nature.

Another layer of the “real mysticism” found in death is portrayed through the site where the tide is responsible for the altering the landscape in order so life can come in with the tide to feed, breed, etc. This then states, to conform with the tide is to survive, and enables life to occur and continue in an eternal cycle: life creating life. So when the tide creeps back to depths of the sea it reveals a completely different landscape that seems almost desolate but can now be retaken by the land beings to forage for their survival.

With the annual movement of the tide it is possible to see patterns of life and death and how each element of nature plays a role to sustain this balance. We can then also begin to perceive the psychological impact this has on us as human beings regarding the mystery that is life and death and maybe come to an realisation, in this place, that would ease our fickle mind to the realness of an inevitable demise shared by all that breathes.

Throughout history the elements were perceived as essential to life as it is, with emphasis on the balance of the elements in harmony, that would wholly form the proportional perfections of the universe enabling life to exist on earth. Many cultures and beliefs attributed through their mythologies the questions that sparked the evolution of modern science and psychology bringing us to sophisticated and scientific discoveries about existence and our place in the universe (Strathern, 2000).

Our current beliefs and cultures are diverse in the need for traditions and rituals to be maintained, thus for this particular paper the investigation of appropriate connections to rituals of death via cremation along with cultural interpretations of the four elements of nature will encompass the design development with references to the site and its own processions of the elements that uphold this environment. In pursuing the appropriation of diverse beliefs in Port Elizabeth, the structure will pertain a non-denominational character where the soul connection to land and sea will establish a spiritual and physical journey for the living and dead, dually embarking on bettering our connections with the deceased and lessening the land use of graveyards, whilst promoting the well being of our reefs.

IN LOW TIDE THE ENTIRE STRUCTURE
AND GRAVESTONES WILL BE EXPOSED
TO THE EARTH, AS WILL THE WATER
RETRACT ITSELF, TO ONLY ONCE MORE
CLAIM ALL AS IT COVERS MORE LAND
WITH LIFE. BUT THE DEAD ARE NOW
AGAIN SEEN. THEY BASK IN THE
SUNLIGHT, STILL GIVING SHELTER TO
THE INFANTS OF THE REEFS, BUT NOT
IN PURPOSEFULL GLORY.

WHEN THE WATER FULLY CREPT BACK
TO WHERE ITS CASUAL STRETCH MARKS
ALWAYS SHOW, ONE CAN NO LONGER
PERCEIVE THE MEMORIAL YARDS AS
WE LAND CRAWLERS SIMPLY DO. NOW
ITS ADAPTING TO THE LIFE SOURCE,
ONLY TO BREATHE A LITTLE DIFFERENT
BUT STILL IN TOUCH WITH YOUR
ANCHORING FOOTPRINT. A MISTY MIRAGE
SEEN FROM AFAR, IS THE ATTEMPT AT A
COSMIC REALIGNING OF ONE SELF TO THE
ESSENCE OF OUR EXISTENCE, AND THE
FATES AWAITING REVELATION.



Concept of mirage on the tide.
Image: Author. Multimedia. 2020



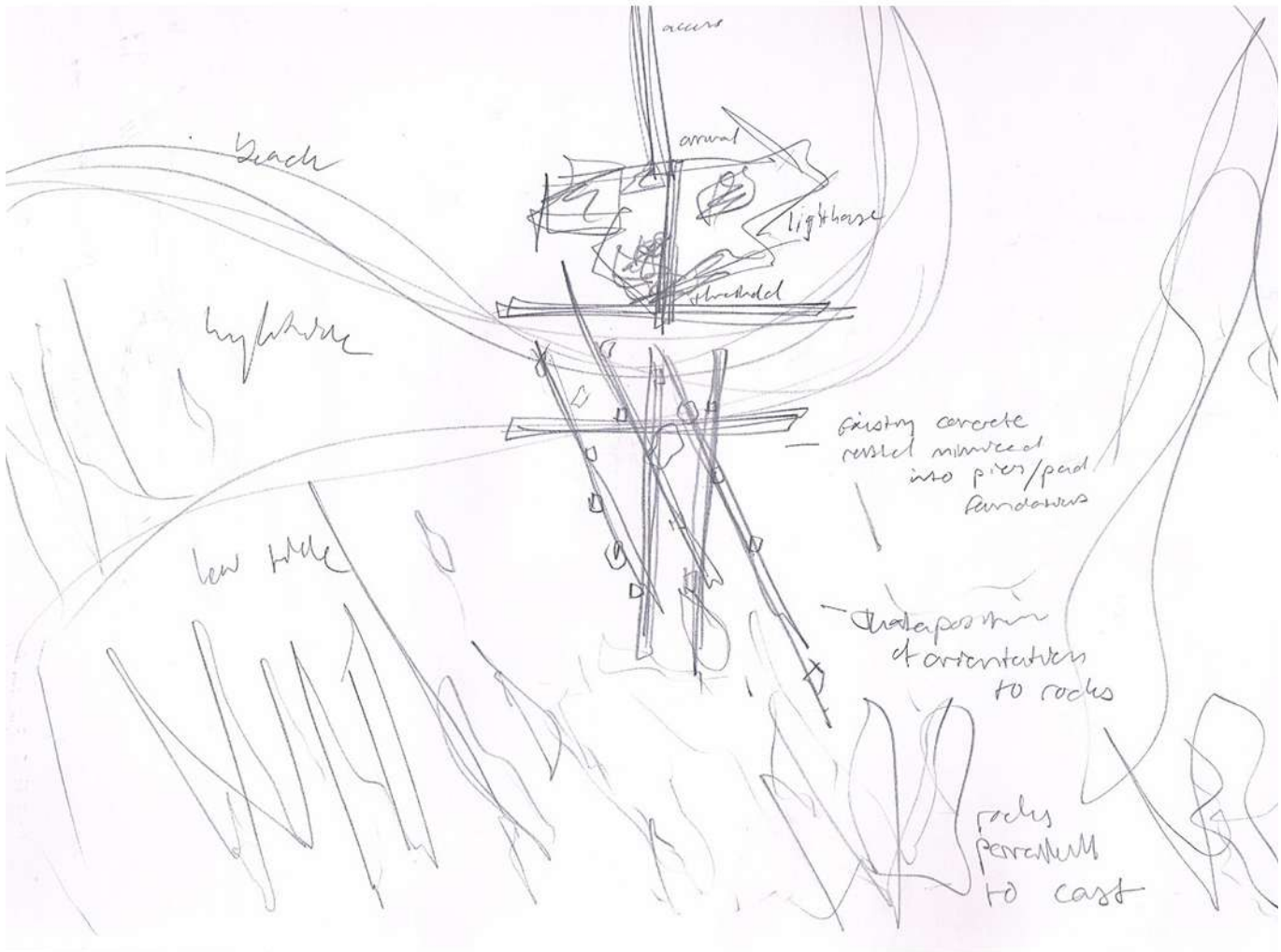
Tide, lighthouse, initial measurements, plan.
Sketch: Author. Pencil on paper. 2020



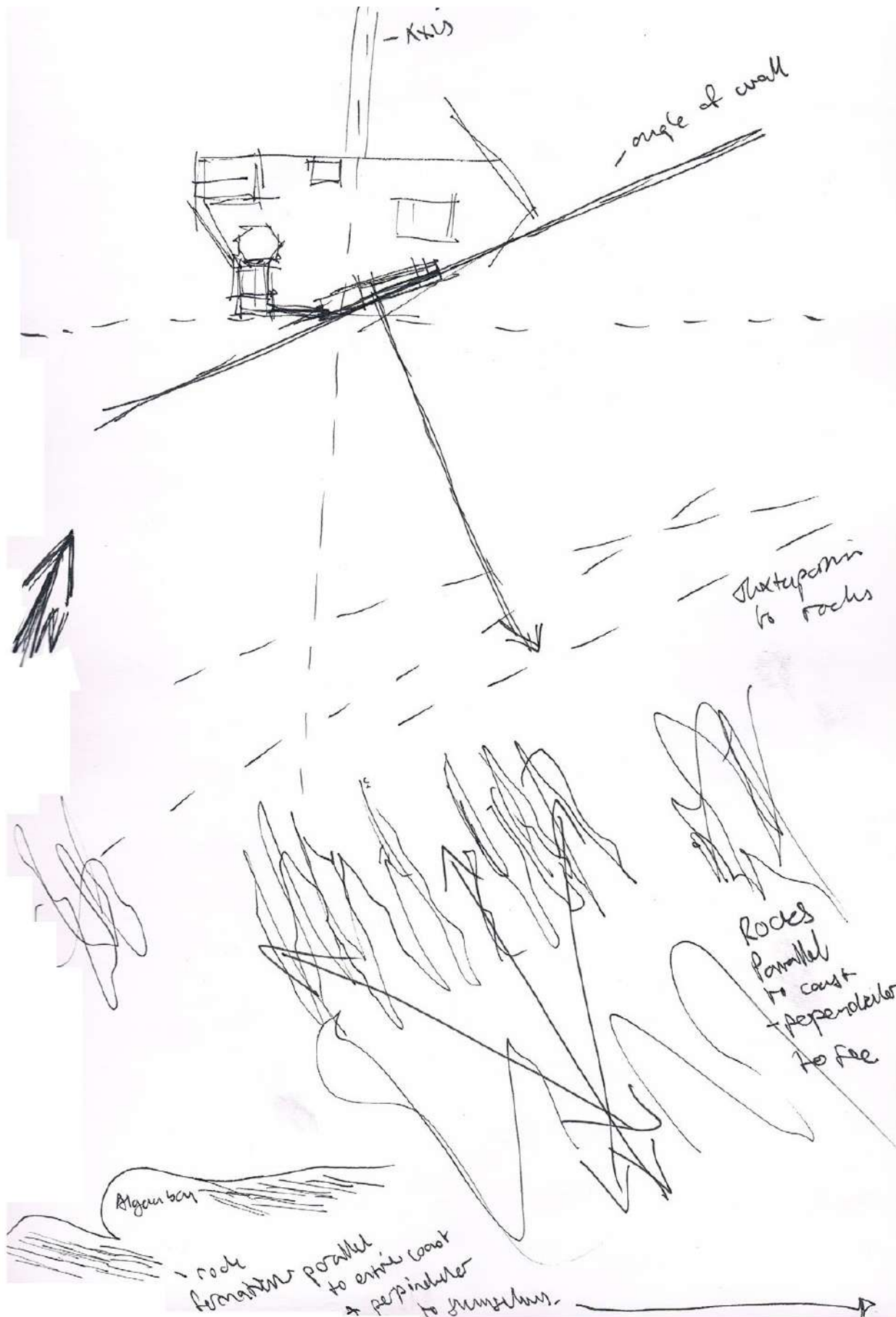
Orientation of rocks to existing.
Map: Author. Multimedia. 2020



Relation of tide to lighthouse.
Map: Author. Multimedia. 2020



Orientation of rocks to existing.
Sketch: Author. Pencil on paper. 2020



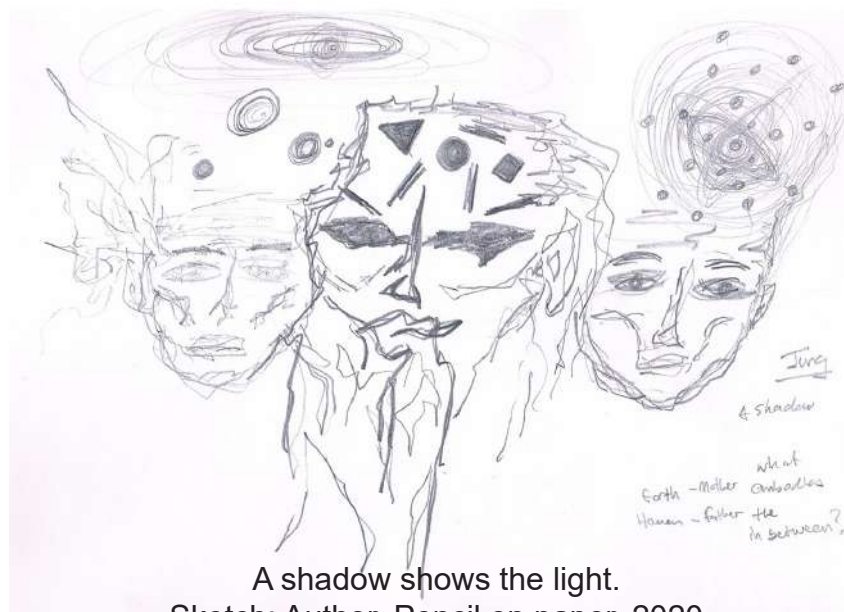
Orientation of rocks to existing.
Sketch: Author. Pen on paper. 2020

INTENT OF THESIS

The liminal characteristic of site provides for a procession to be established and create a flow of transfer from land to sea, and from death to life. A journey from land burial, as the norm, to the new mode of memorialisation is established and articulated by the characteristics of the four elements together with an narrative undertone of the quest for this greater understanding towards our being and the nature thereof. Paired with the uncertainties of events in life, some fragments begin helping us understand the greater whole as we never know the who, what, when, where and whys of every single event or moment, we are nothing else but uncertain beings.

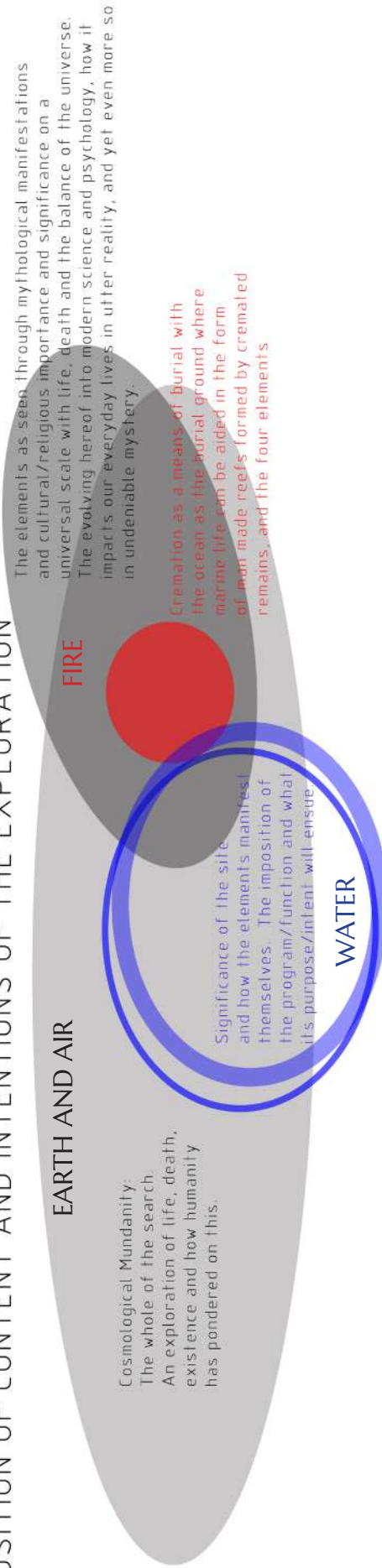
Specifically, we do not know when life will end in this world, whether there is a life after this one, or if life in its own entity is but all that we humans possess. So, this involves the element of the unexpected, or shadow side that is the unknown entity in oneself to be revelatory as moments of enlightenment brought forth as these thresholds to cross (Jung, 1968). Moulded by the sense that spirituality is a diverse entity with the same mutual cause in all human psyche, but must be an internal manifestation in order to lessen the search for a better understanding towards existence. Thus, put in rather stark terms, the purpose of this project is to create a space of non-denominational character where people are free to adhere to their own needs of memorialising and united under the same purpose of bettering our environment for future generations and in small specks keeping mother earth from an untimely demise.

The elements on site and as integrated with the program on a metaphysical stance firstly will contribute on a spiritual level, the senses of the elements in sections of each element celebrated as a threshold to the final resting place. The four natural elements as architectural building elements experienced through phenomenological engagement on site, breaching the thresholds into the building will create a more spiritual space connected to the site and lighthouse. In the light of decay leading to life, the lighthouse remains in its state of ruin which in time will the new structure as it will become a time piece of our decay as humans on earth. The expansion into the different mythologies and their influence on modern science and psychology will lead us to the conclusions drawn today and how we may newly interpret this as a neutral understanding to our psyches manner of dealing with the concept of existence (Jung, 1968).



A shadow shows the light.
Sketch: Author. Pencil on paper. 2020

COMPOSITION OF CONTENT AND INTENTIONS OF THE EXPLORATION

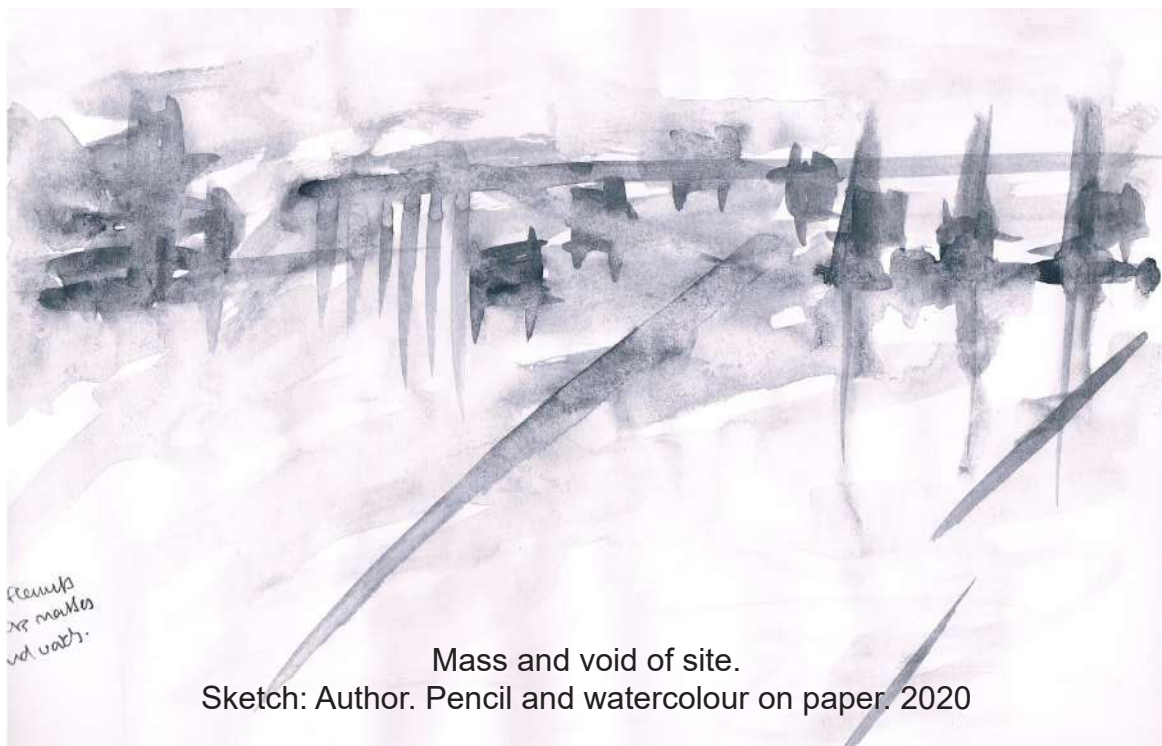


THE NATURAL ELEMENTS AND SPIRITUALITY

The influence or rather the manifestation of the elements through many cultures along with the evolution of scientific thought and rational observations shaped a clear narrative as to how mankind dealt with the mysticism of the universe and earth (existence) itself over vast eras and all lands. The importance of relation to nature is an ancient consensus in our societies where sustainability is part of economic well being as well as moral and political standards that apply today. Pre-Socratic philosophers deemed the four elements of nature as unifying man-kinds relation to nature and its essence, where the physical phenomenon can be experienced through all senses and is therefore directly related to architecture, the alchemic operation that turns concepts into material (Mateo, 2014: 6).

According to Mateo, without the four elements as building blocks for concepts to alchemy and science we would have developed into activities abstracted from pure mathematics on which technology is based, and would have developed into civilisations and societies disconnected from nature. Thus on a primitive level this activity would be modeling the earth into shelter, covering it for protection from the sky and air, and rain and snow, with a hearth for heat and energy at its center point (Mateo, 2014: 6-7). This is the essence of living in nature by nature, with the development of place and space in relation to the environment, with its needs at heart to shape human thought and appreciation of nature and its abstractions.

At an initial stage of a project being developed we see the relation with the all the elements of nature as the origin of the project and it therefore starts referring us to archetypes such as, pure protection in the bunker or the cave (earth), polar to this the fragile tent of the nomad (air). In the Romantic tradition, the ruin, and the expressive value of the unfinished. It is reminiscent of what has been undone and is yet still to be done (Mateo, 2014: 6). It is the possibility of rebirth, but to our own polar demise. It involves the four elements of nature accompanied by the affiliation of what was in our built history. This can translate to the ruin as death being revived by the four elements of nature and so creating a new order to extend the existing “death” to “new life”.



By looking at cultures and beliefs with close relations to nature and the influences gathered from the physical manifestations of its power on earth and the universe as a whole, one can begin to perceive the story of how we came to different realisations or an array of genesis-es. It is evident that we are fickle beings influenced by many different aspects in life, but this, our spiritual psyche whether a religious, spiritual or scientific quest is bonded to a search for better understanding existence as a whole entity or arteries to the same heart (Krentzman, 2019: Online).

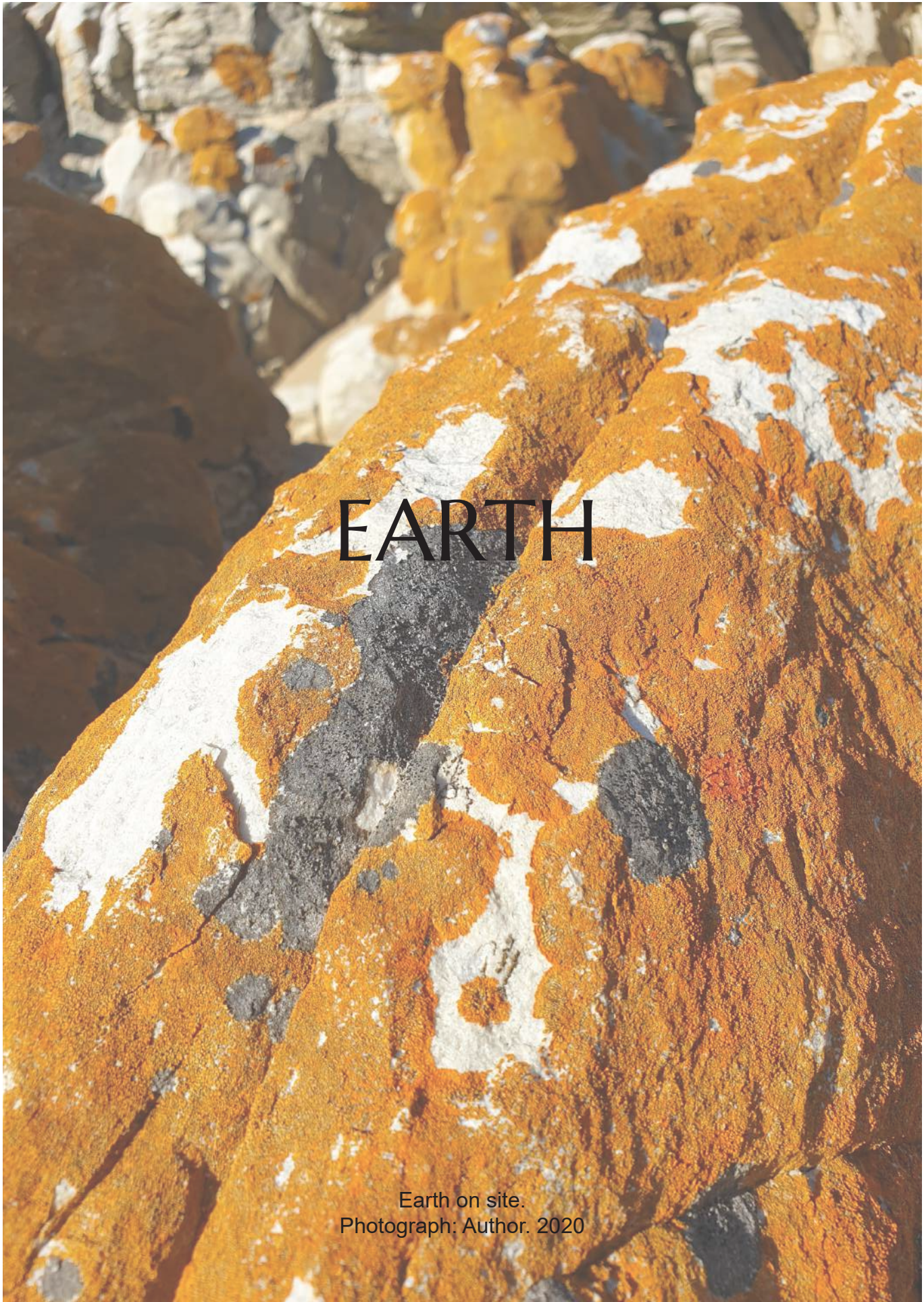
With diverse elements giving meaning to the natural elements it becomes a paradox of what nature's intention is in relation to our human intentions, in a life so much shorter than the life of natural elements wholly. When nature can be utilised as space and place making for humans in a manner of inter-connective nodes it will enable nature to have its way with humans at its disposal to better life for all. By means of placing human remembrance in close relation to the balance and well being of nature it can well ensure a sense of affiliation enabling future generations to have not only fond memories of past loved ones but also commemorate the essence of our being which is being a part of a natural process as old as time.

On site pure abstraction of the elements relate to physical qualities that can be present in a space, the heat and light of the sun paired with cremation and materials charred, the ocean changing thresholds with the tide and cooling qualities, the grounding protection of the earth and the ephemeral dissipation of air. To strip down a spiritual journey to the raw and primitive elements reflected in space may prove as a sole reminder of our limited existence and the journey all life must take in order for new life to become.



Elemental chaos.

Sketch: Author. Pencil and watercolour on paper. 2020



Earth on site.
Photograph: Author. 2020

According to the Greek myth regarding the composition of the world, following the birth of all the deities and the events playing toward Zeus punishing the Titan Atlas to hold the world upon his shoulders, the emergence of man was but one small event in the chaos that ensued. It was significant enough as it required the embodiment of Earth, Gaea, and Water, Oceanus, to be moulded by Prometheus, and the gift he brought to man was fire, the entity that brought the day (a part of the god Helios, personification of the sun). Zeus himself consented the creation of man and as the lord of Air would then flow throughout the world filling each and all with his essence enabling life (Greekmythology.com, 2020). Here all four the elements where present to shape life on Earth as we know it, although the elements had life or presence on their own, together the harmonies of a composition enabling life. Gaia, the earth herself was always though fertile and sheltering, providing opportunities for enclosure.



Dancing with nature.
Sketch: Author. Pencil on paper. 2020

Earth is the element of stability, fertility, materiality, potential, and stillness. It is an element of beginnings and endings, of death and rebirth, for as life comes from the ground so it also decomposes back into the earth (Beyer, 2020: Online). It is the basis of all other elements and the foundation of all life. Earth not only grounds one, but acts as the spine for civilisation and the literal foundation on which we build. We take for granted the fact that it is there to use and stabilize our structures, but always claim more without proper homage to its value and integrity (Beyer, 2020: Online).

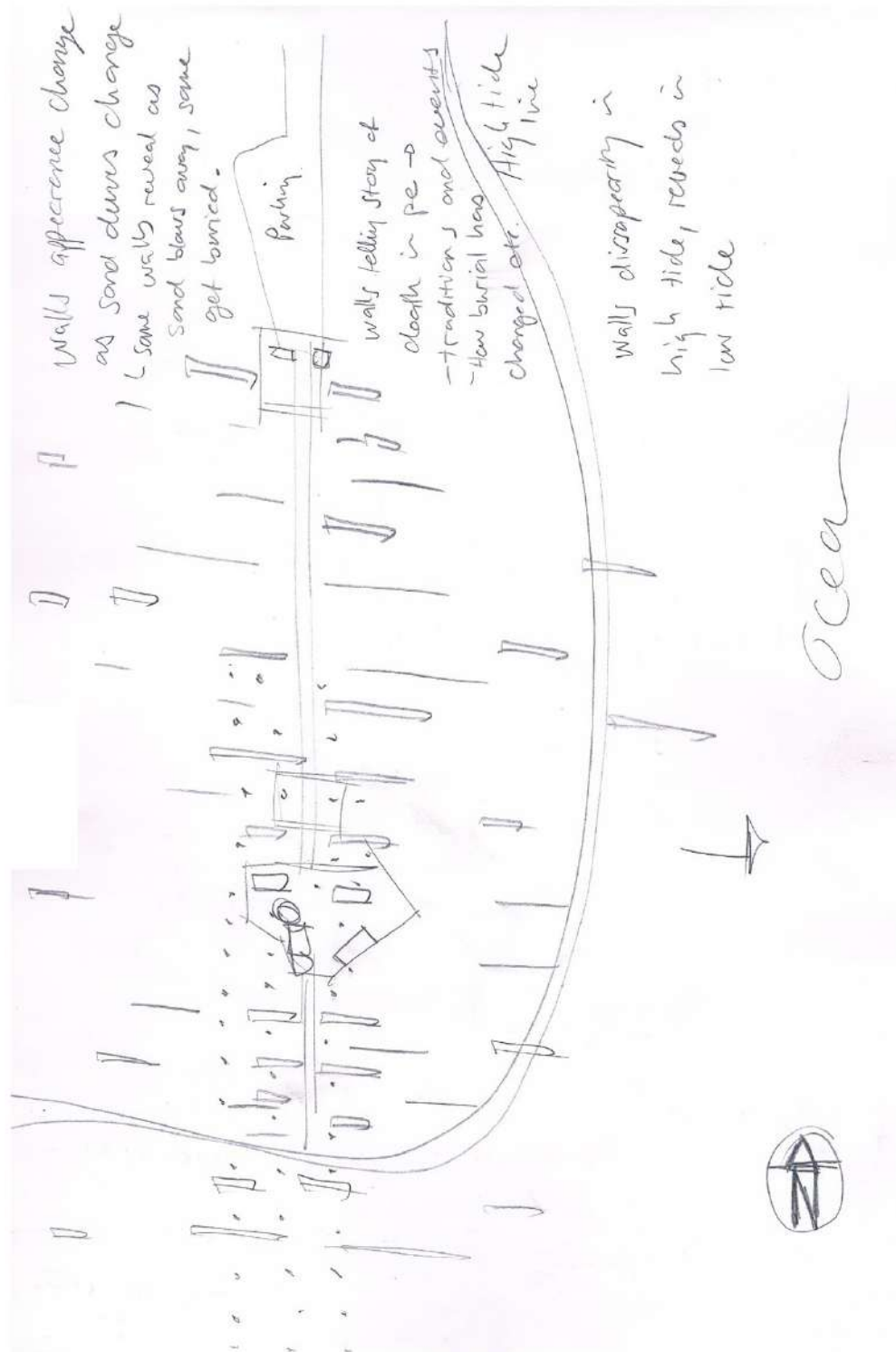
On site, the beach and rocky outcrops from the sea serves as the grounding element for the project, setting up the threshold to the high tide and orientated parallel to the coast. The constant shifting of the white dunes along with the tide offers for a diverse order to set up an approach to the building where boundaries are blurred and earthly orientated as with the existing lighthouse.

There is a tactility to burial in the earth that cannot be denied, it is very symbolic and literal as to giving and returning back to the earth itself. But mankind has elaborated much on this as funerals became extravagant expenditures which is not kind to the earth at all, both in the sense of land being taken and left to ruin, and burying materials that take ages to decompose. The modern standard for burial and a funeral has come at great cost for the earth, we see graveyards all over Port Elizabeth as pockets of suffering green space that does not welcome the living or memorialise the deceased.



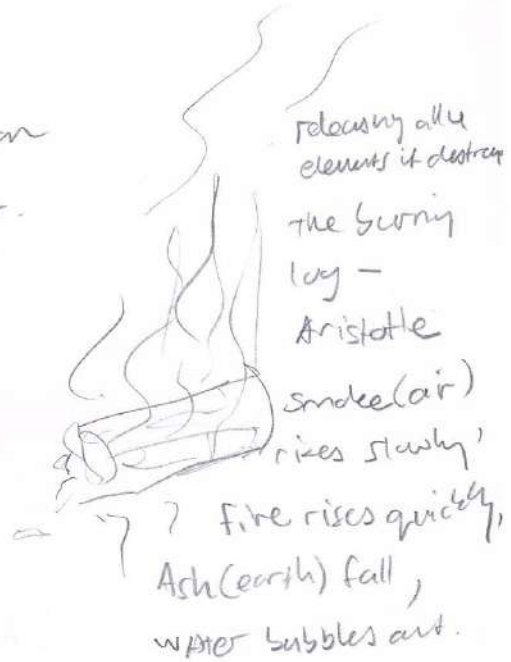
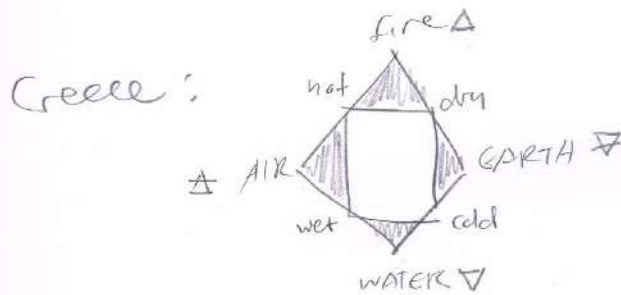
St Mary's Cemetery in its current ruined state, Port Elizabeth, Inhabited since 1820 settlers.
Image: (D. McClelland, 2016: Online)

A means of extending this journey from land to sea can be found in the field of walls fragmenting from the order established by the lighthouse and appearing or disappearing as the dunes and tides shift. Some of these walls will pay homage to the old methods of burial as the progression from the parking area will start with the existing walls and become columbarium walls at certain places up until the lighthouse complex from where the new order of burial will take place into the sea. It is thus a story taking one from land burial and conventional storage of ashes to a new method of memorialisation with the ocean as the cemetery.



Field of walls fragmented from lighthouse order.
Sketch: Author. Pencil on paper. 2020

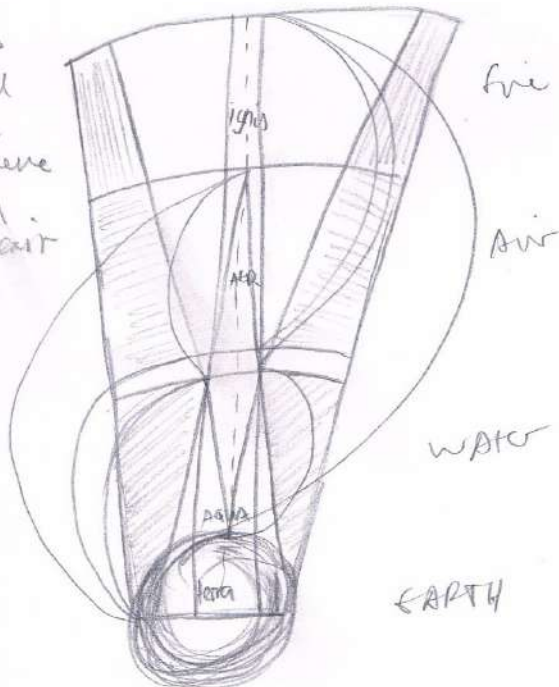
WATER - cohesion
 EARTH - Solidity - inertia
 AIR - Expansion - vibration
 FIRE - HEAT - Energy content.



DE MUSICA MUNDANA

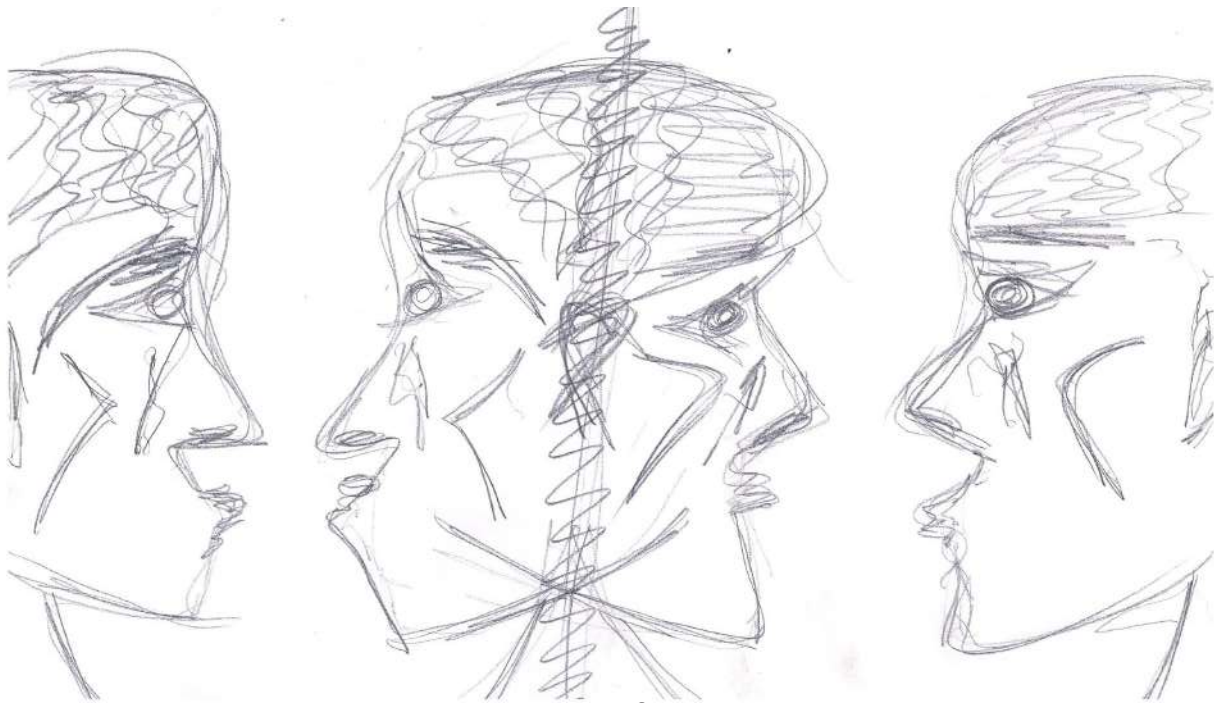
- Elemental spheres
 - Robert Fludd, 1617 in a segment of the
 Macrocosm

music of
 the cosmos
 'Proportional
 Perfection
 of the universe
 enabling
 life to exist
 on earth

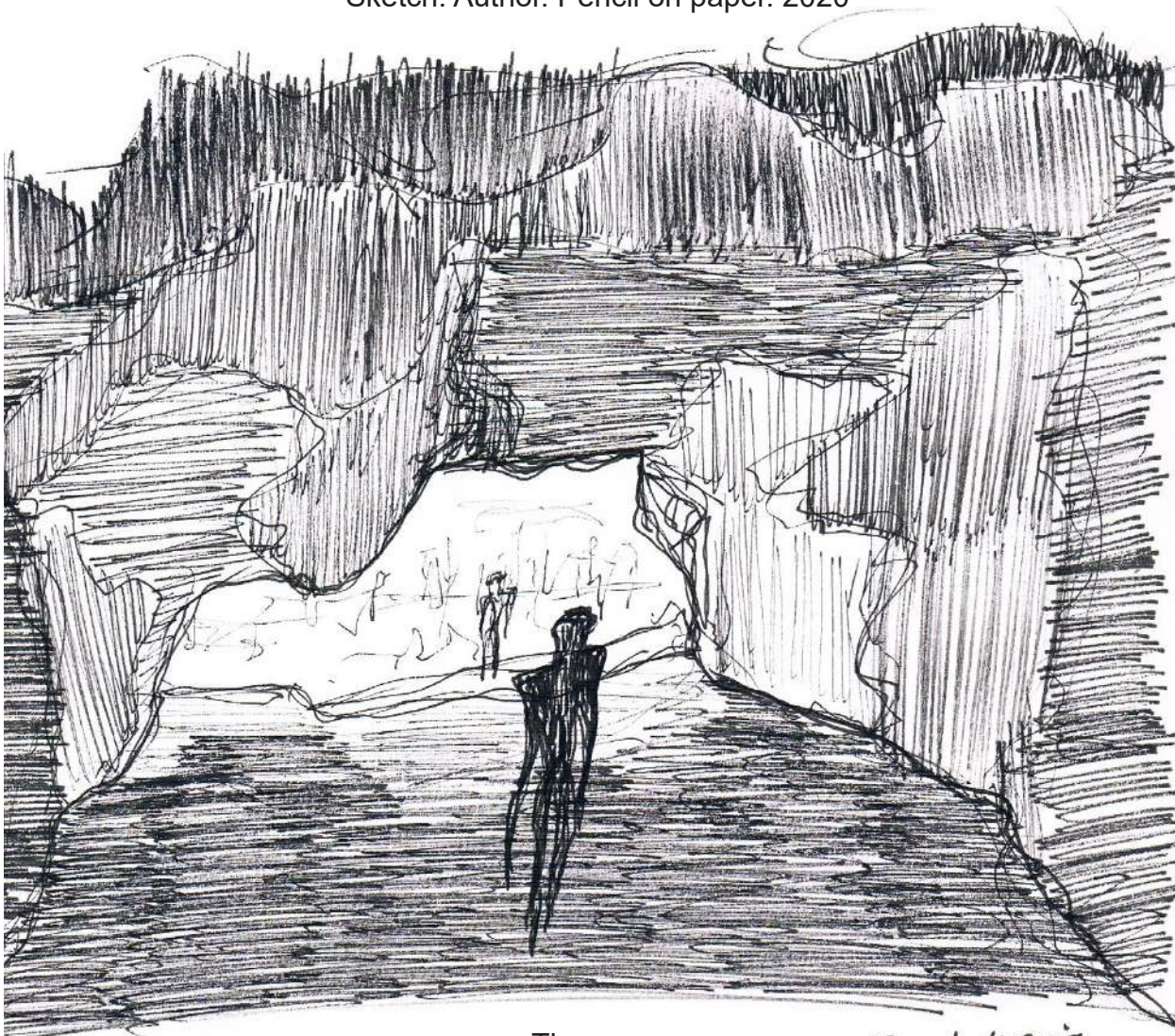


By the essence derived
 from these elements and
 what they physically
 represent. the final
 logic originates to
 the combining of these
 elements and their
 properties that then
 spark to life.

Aristotle's burning log and music of the cosmos.
 Sketch: Author. Pencil on paper. 2020



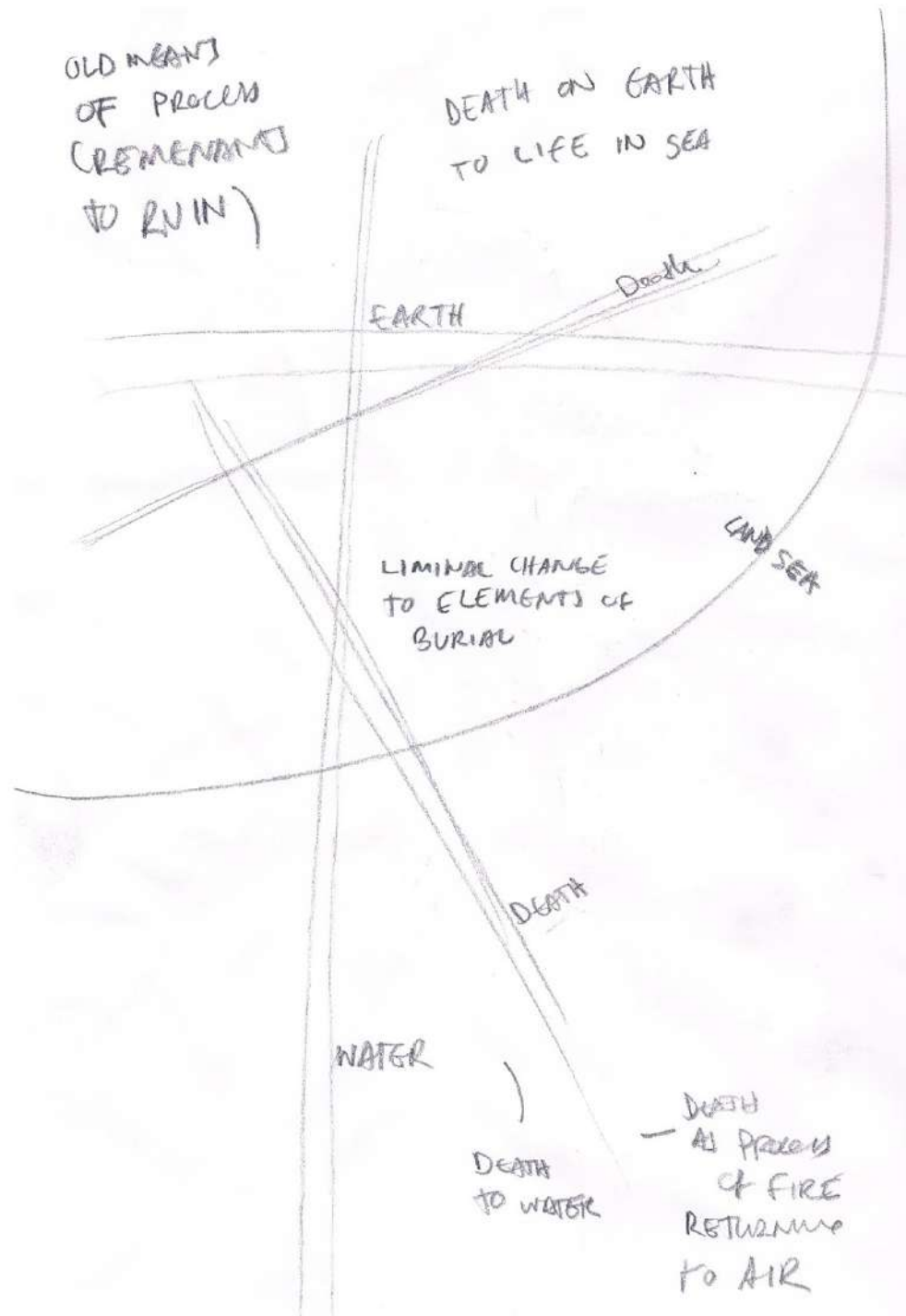
Man staring from man.
Sketch: Author. Pencil on paper. 2020



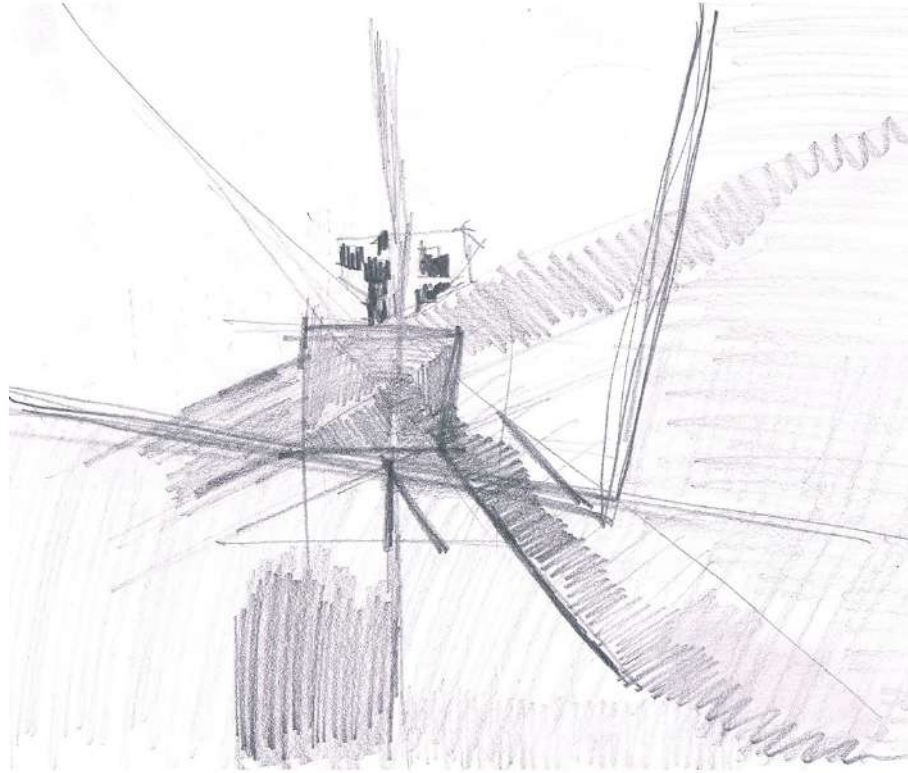
The cave.
Sketch: Author. Pen on paper. 2020

*Life of despair
light of promise*

In Buddhism anything that we can touch has the element of earth. Our body, flesh, bones, hair, the ground, buildings and even water. We as humans are mostly reliant upon what we can see and touch, and these are most concerned with this earth element, specifically because of how it relates to the body. The relation and manifestation of the body is of investigation when it comes to actual realisation of being part of the cosmos in a physical manner. It then only means that our bodies are nothing more than an assortment of components that are found throughout the composition of the universe (Khema, 2018).



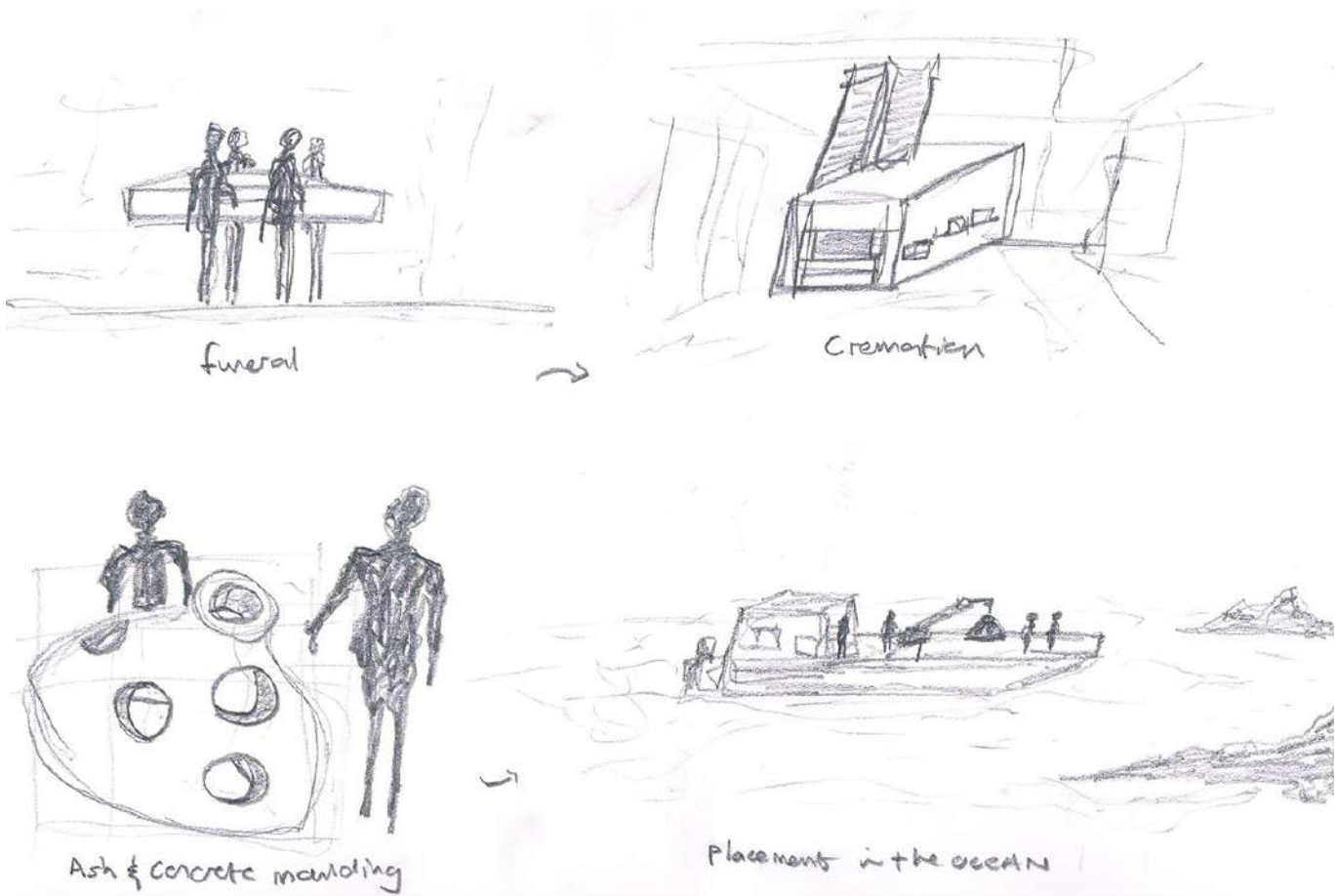
The order of death and the elements.
Sketch: Author. Pencil on paper. 2020



Massing on site.
Sketch: Author. Pencil on paper. 2020

When it comes to the materiality of earth as a building element, there is a vast amount of ways to interpret and implement it as a structure. But with the criteria of working by the ocean and with the brutality of water tides, the sole contender to earth the project would be concrete. Concrete one can argue is an permanent manifestation of earth itself, as it is sourced from the earth and moulded with the formless quality of water to physically enclose and support as naturally as a cave in the mountains. The form of this natural yet plasticized enclosure is the only debatable quality when it comes to concrete being of the Earth. Ashcrete, a mixture of fly ash and cement, have 25 percent less carbon dioxide emissions, and is thus more suitable for use in the ocean. It is also possible to alter the appearance of concrete by incorporating it with the physical site, for instance aggregate sourced from pebbles washed far onto the beach and sand excavated will mimic the appearance of the beach physically erected.

Earth is the anchor for trees as well, and their sourced form (timber planks) makes it possible to mould concrete. Thus, one can mould earth by the product of the earth, and once more use the “ruined” timber as enclosure scarred by its primary use but speaking of its passed life whilst rotting to newer appearances. The bounties of the Earth utilized efficiently will pertain a more sustainable project and endure the livelihood of generations and memories of users that speak of a sustained being for all living creatures.



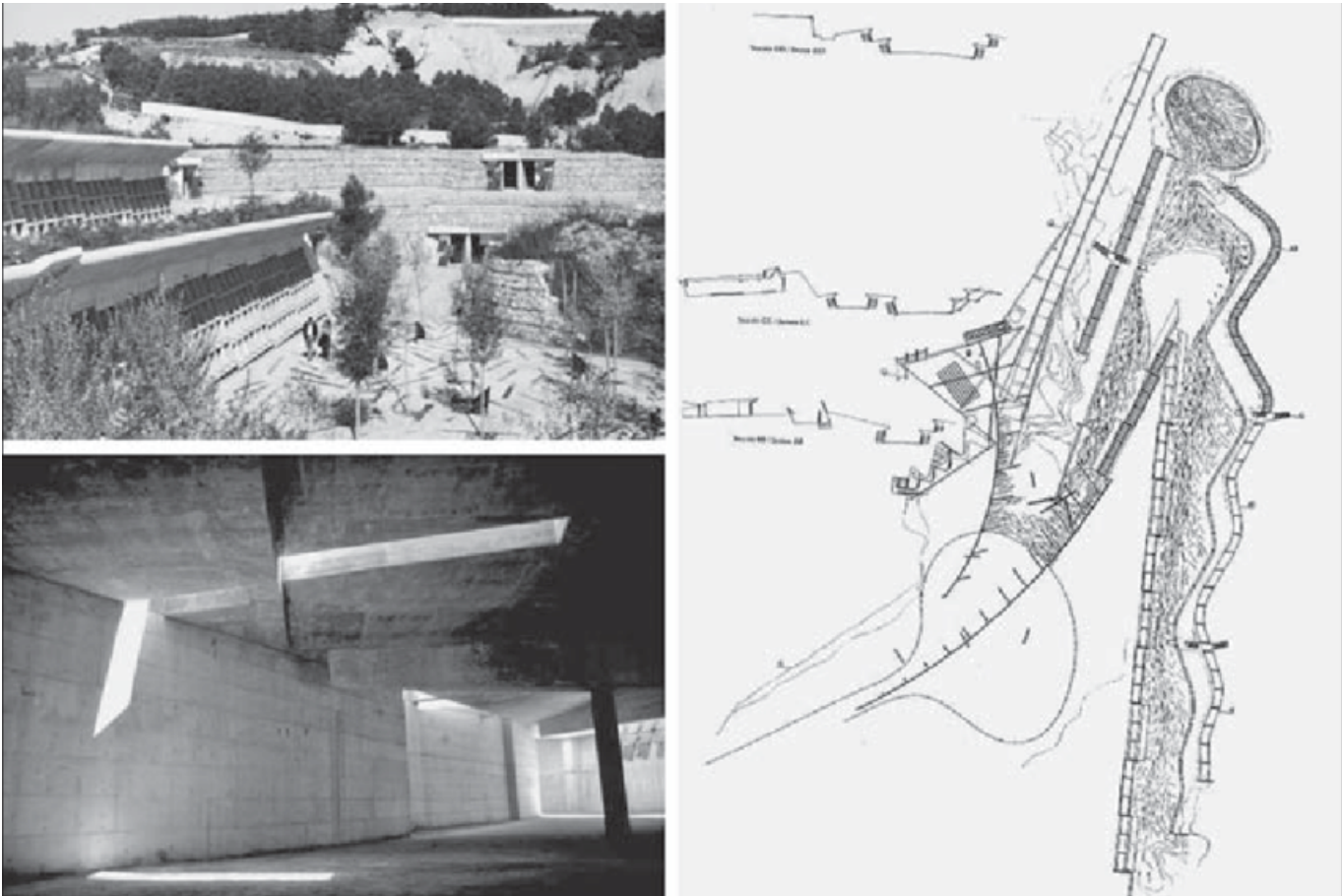
The new rite of memorialisation.
Sketch: Author. Pencil on paper. 2020



Tide and structure.
Model: Author. Concrete, balsa wood, steel mesh. 2020

PRECEDENT STUDY

IGUALADA CEMETERY - IGUALADA, SPAIN - ENRIC MIRALLES & CARME PINÓS - 1994

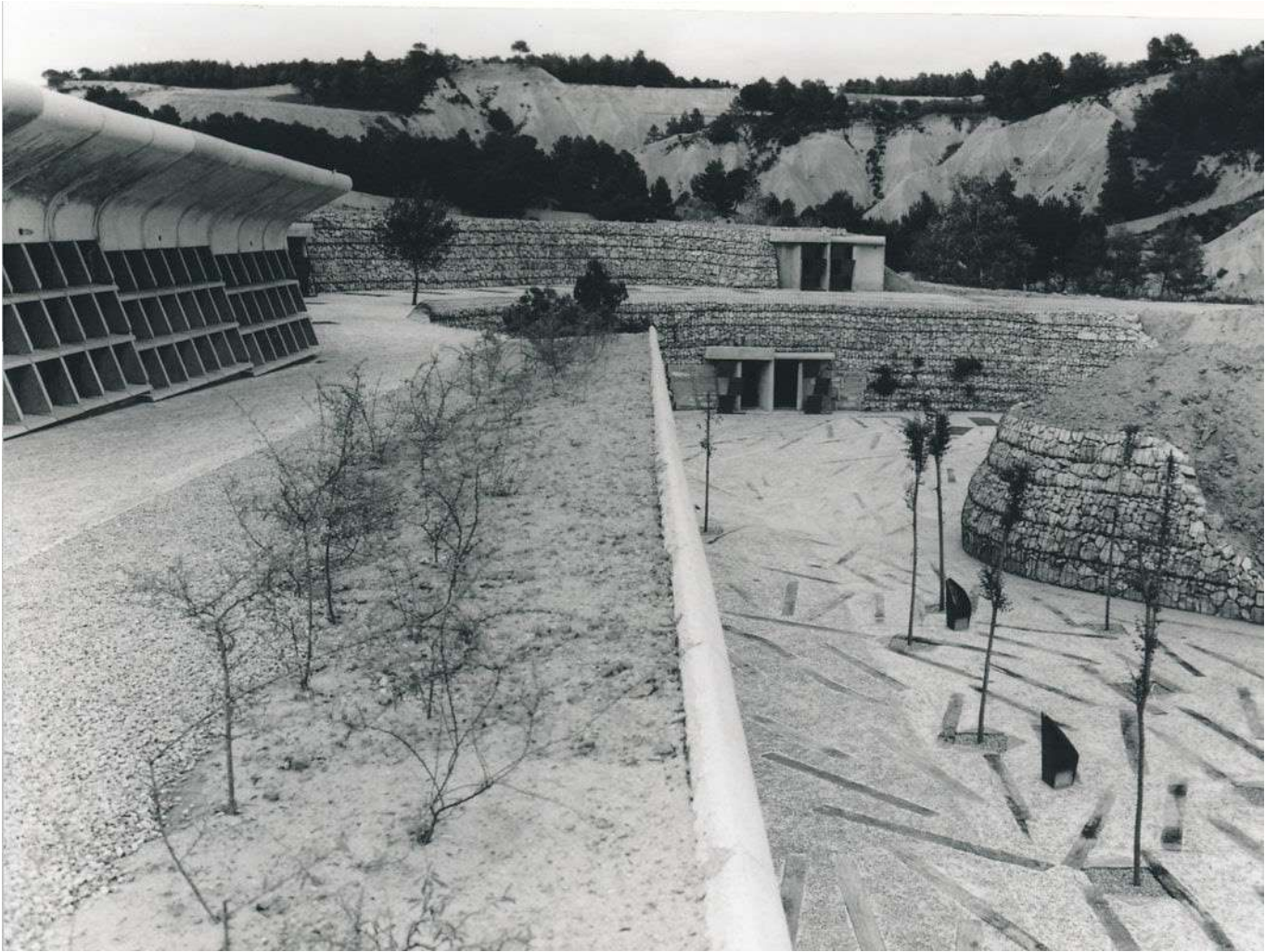


Igualada Cemetery, Spain.
Image: (I. Milnar, 2014: Online)

Enric Miralles and Carme Pinós set out to create a new typology of burial where not only the dead are considered but also those that are left behind. After 10 years of construction, the Igualada Cemetery, outside Barcelona, Catalonia, Spain, was completed in 1994 as a place of remembrance and self reflection breaking away from urban harshness to a serene space embedded in the earth. In 2016 the completion of the Igualada crematorium, by Carme Pinós on the same site, made the project even more successful and attractive as a haven for memorialisation.

The Igualada Cemetery opposes vernacular burial and questions what contributes to a cemetery. Miralles and Pinos created a concept that clearly leads visitors through a journey that brings one to embracing and accepting the cycle of life and existence as a link between the past, present, and the future.

The architects said it is to be a “city of the dead” where in spirit the dead and the living are brought closer together. The Igualada Cemetery is as much a place for loved ones to be memorialised and laid to rest, as it is a place the living for to come and reflect and break away from the busy city, whilst having strong connections to the earth as a enclosing entity and an embracing element that holds one secure as a loved one would and in the presence of those laid to rest in the earth already.



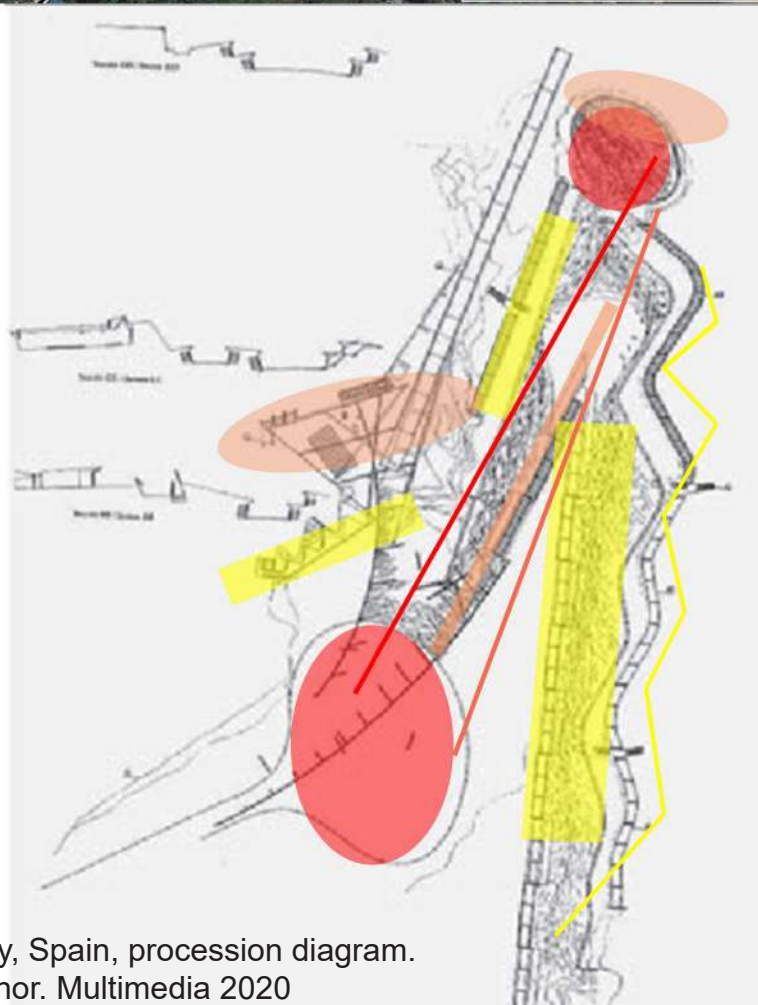
Igualada Cemetery, Spain.
Image: (I. Milnar, 2014: Online)

Embedded in the Catalanian hills as an earthwork it blends into the landscape as if it were a natural piece of the land that only seems to be sheared open at certain places. The cemetery was designed as a terraced landscape that unfolds into the surrounding landscape and micro-environment as one continuous and fluid progression.

Creating this journey of life and death was emphasised by the main burial plot starting at the lowest level and winding up via ramps next to gabion walls and along the columbarium walls for ashes. More mausoleum like vaults are found under ground and lit by slits in the earth that reconnects to the sky. Also, found on the second level is a chapel and monastery that remain unfinished, but its inconclusiveness render its appearance and function to void of definition and detail. Thus, the lack of detailing compliments the overall sensations of the project, where the spaces are open and for interpretation and retain the experiences of an almost solitude serenity.



- GATHERING AND ARRIVAL
- ▭ NICHE WALLS
- ▭ EARTH WALLS
- UNDERGROUND TOMBS
- CREMATORIUM
- RETAINING WALL
- VEHICLE ROUTE
- PEDESTRIAN ROUTE



Igualada Cemetery, Spain, procession diagram.
Map: Author. Multimedia 2020

IGUALADA CEMETERY

SECTION



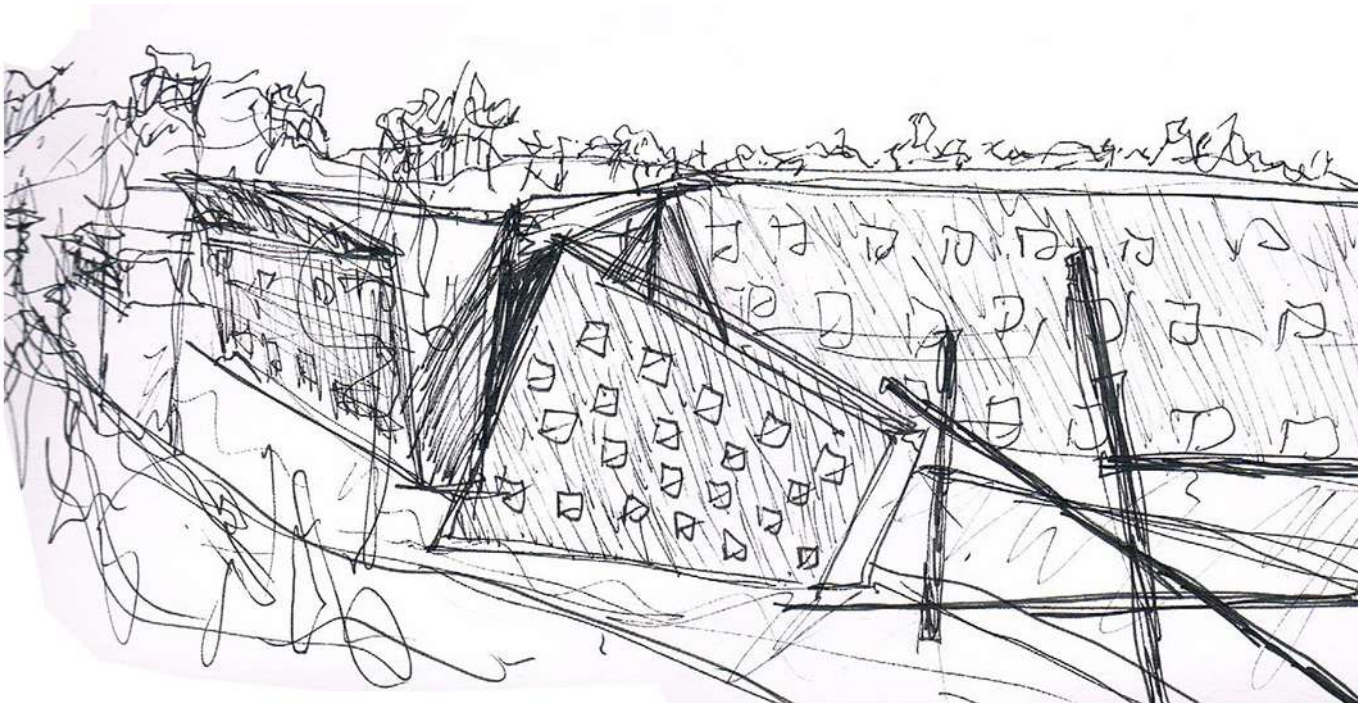
Note play of spaces
carved into landscape, also
mimicking the macro landscape
in a formalistic manner
though staying true
to the site itself in
finding spaces there first.

- Procession carved from
landscape using gabion
walls & concrete to overlay
hold land in place in
order to create terraces/mausoleum
the burial ground beneath
the earth in the natural
slope.

Igualada Cemetery, Spain, section.
Sketch: Author. Pen on paper. 2020

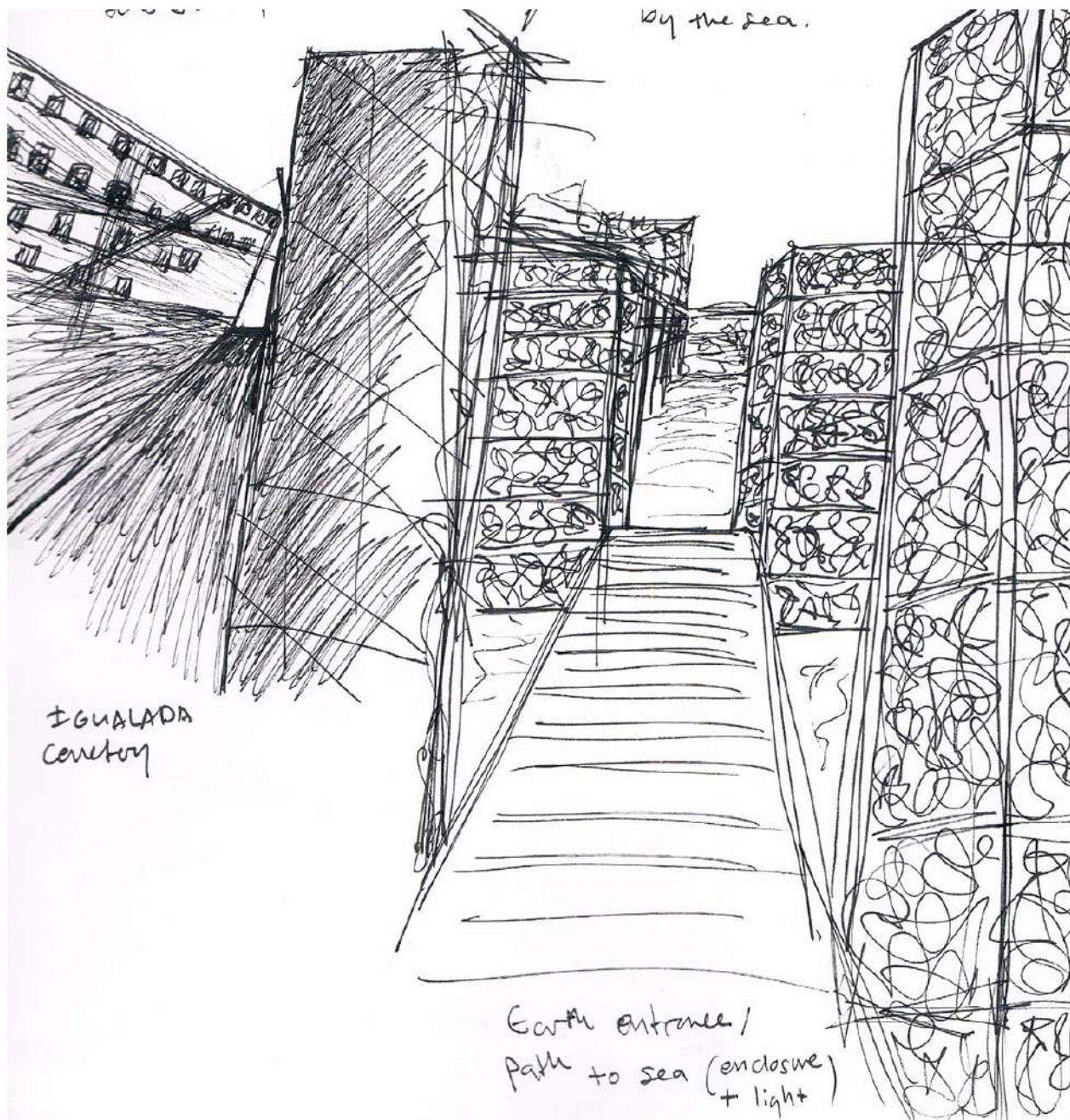


Igualada Cemetery, Spain.
Image: (I. Milnar, 2014: Online)



Igualada Cemetery, Spain.
Sketch: Author. Pen on paper. 2020

The materials of the Igualada cemetery aim to seamlessly tie the project back into the landscape. Miralles employed the earth-like materials of concrete, stone, rusted steel and wood into the project. Gabion walls, the sense of worn aging concrete, and the timber railroad ties embedded in the cobble stone paving, evokes the hard and rough landscape of the surrounding hills. The earthy characteristics of materials used emphasises the feeling that the burial ground has been on the site for ages. As one enters the site, one is confronted by a composition of rusted steel poles that pose as the gates to the cemetery hearkening back to older times in Catalonia. From the main entrance, the processional winding pathway leads one along the “river of life” that descends into the main burial area. The pathway is lined with concrete loculus walls, that mimics mausoleum burial plots, and wraps around the depressed space as a transitioning space between each terrace level.

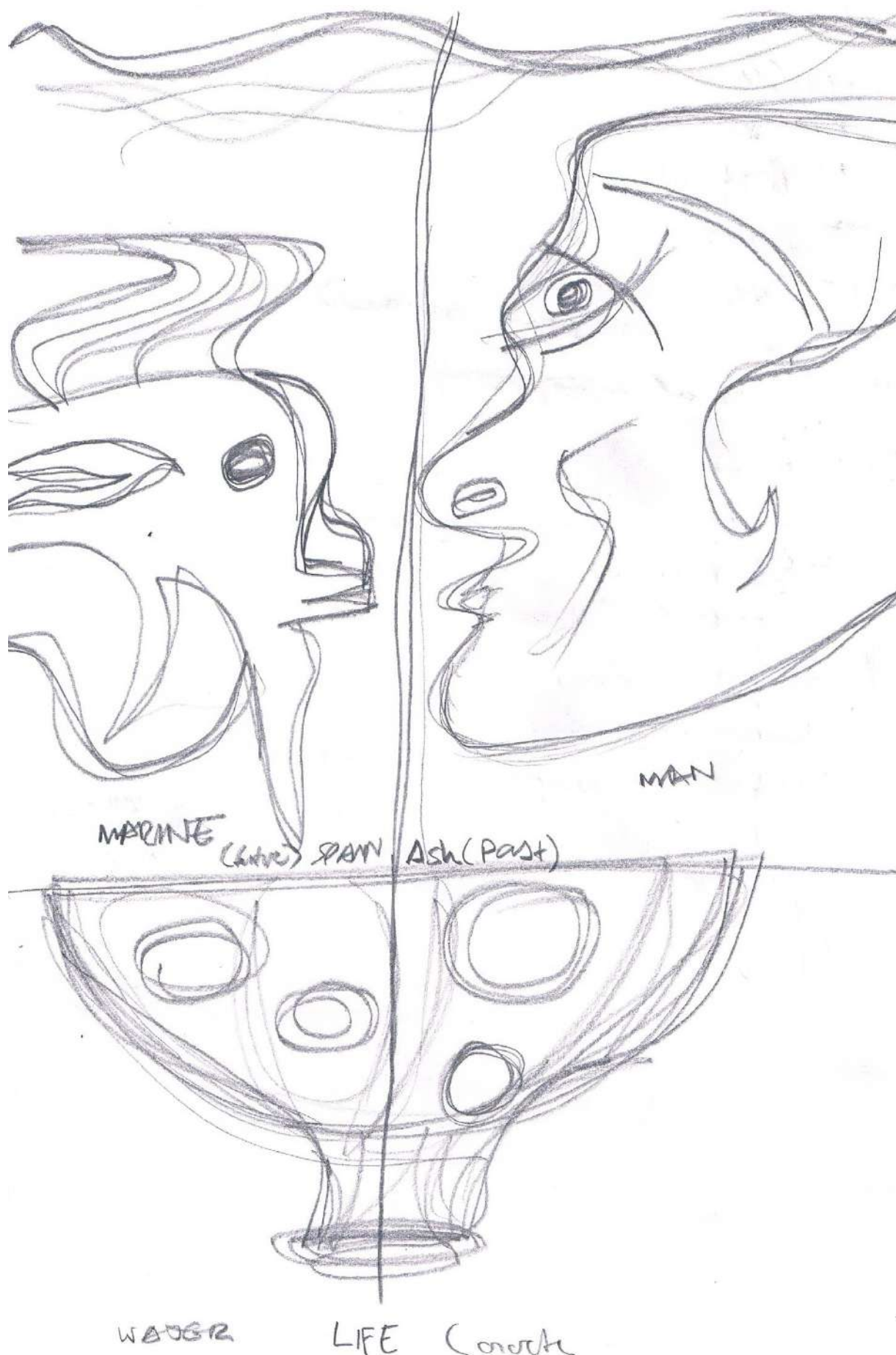


Igualada Cemetery, Spain, interpreted on site.
Sketch: Author. Pen on paper. 2020

A photograph of a body of water with a rocky coastline in the background. The water is a deep greenish-blue with small, choppy waves. The sky is a pale, overcast grey. The word "WATER" is centered in the middle of the image in a large, dark, serif font.

WATER

Water on site.
Photograph: Author. 2020



Water, the element of emotion and the unconscious, as opposed to the conscious intellectualism of air, relates to fickle and spontaneous movement, a feminine tactility of sensitivity. Water as well as earth, have a physical existence that one can interact with phenomenologically and is considered as a lesser material but superior to earth because it possesses more motion and activity (Beyer, 2020: Online). Thus meaning that it can be moulded to form and also give form.

Water gives form by corrosion and its movement with the tide gives form to new thresholds changing every six hours. It can therefore be employed to create different qualities of spaces in relation to their position to the ocean and the severity of corrosion of materials at different places on site reflecting their stance with the prominent sea. So the relation with the other elements as built form becomes a time piece showing the power of water along with the decaying qualities of earth as concrete and timber. Fire at the opposite spectrum of destruction will emit its own characteristics in the spaces above water promoting a feeling of dual opposition between the elements in order to place emphasis on each.



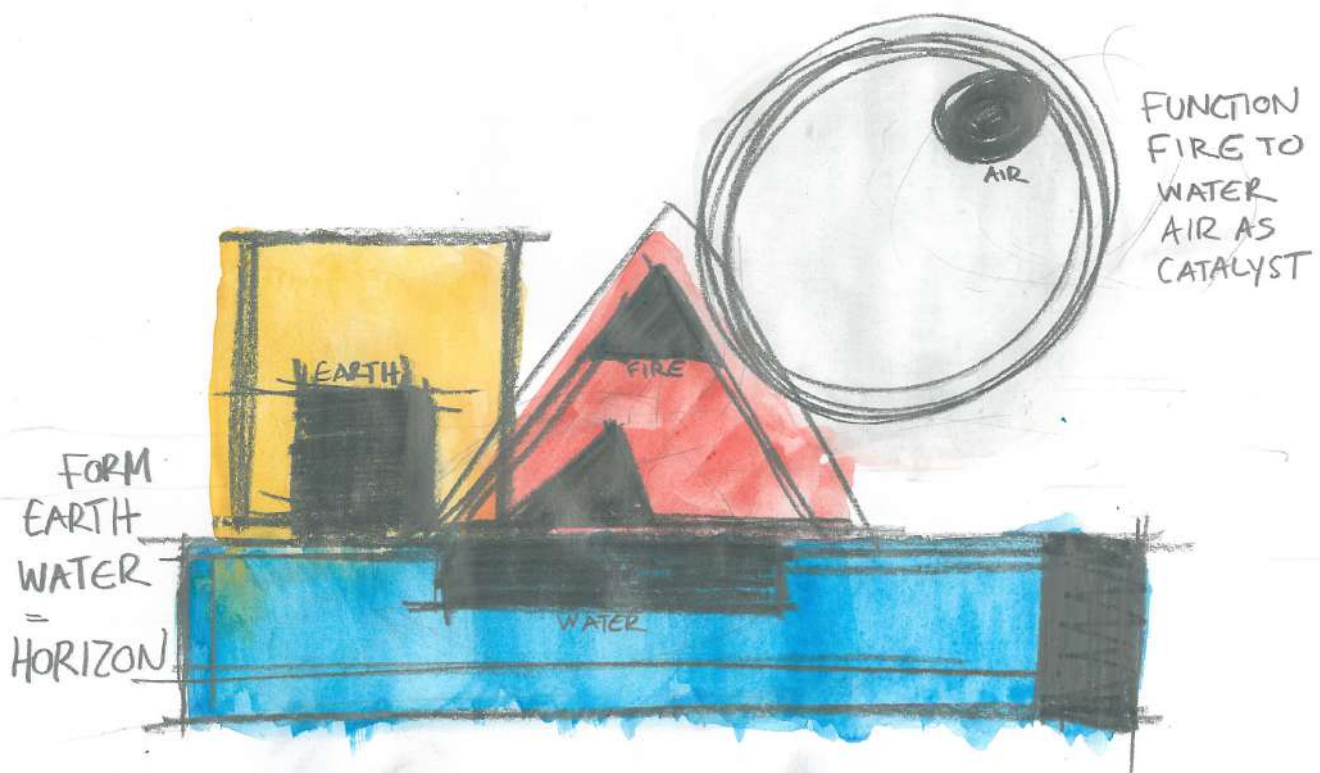
The elements dancing on site.
Sketch: Author. Pencil and watercolour on paper. 2020

The entire journey from land to sea will thus be seen as a whole only once the process of laying the reef stone in the ocean has been completed and all the elements were perceived as an integral part of rejuvenating the reef whilst placing remembrance at the core of this function.

Greek culture generally saw the elements relating with each other to the four sensible qualities where fire is hot and dry, air is hot and wet, water is cold and wet, earth is cold and dry. This is seen as the natural reactions that causes further life and the grounds for maintaining cosmic balance. Aristotle claimed the four elements are present in all living things, with addition of the fifth, Aether, as the heavenly body and the mystery that is obtaining life (Greekmythology.com, 2020).

According to Khema, the element of water implies not only pure water as a liquid but also blood, urine, sweat, tears, etc. It is also the binding element as it makes matter cling together by means of certain processes. If for instance one adds water to flour, the bonded product will be dough. Adult human bodies have a composition of about 60 percent water that is found in all bodily fluids, as one could imagine water is thus the binding element of the body, keeping together cells and holding the structure of our composition in balance with the other elements is (Khema, 2018).

There is a striking resemblance between our physical reality and the metaphysical properties of the elements that can be applied to many aspects in architecture where for instance the spatial qualities are emitted from the physical element that in either structure and mode of enclosure or the tactile surroundings being incorporated into the physical attributes of the building. For instance a permeable box floating above water and bonded or anchored by earth can compliment air as a integrating entity of openness and privatised still by its position to land dwellers but opening up serenity as a norm.



The elements as form and function.
Sketch: Author. Pencil and watercolour on paper. 2020

By touching an object in nature or even by just sitting in your chair, all the elements engage with each other but in such a manner that one can feel the influence of each interaction where the heat from the sun is present in the earth, and the solidity of the earth is steadying the energy from the sun. Air moves by the tensions of hot and cold, water vapours into air because of heat, soon the air shifts the water to other destinations in the form of clouds. Recognize that you share the same experience with each element and with everything you encounter from the wet morning dew, dry, crackly leaves, birds soaring through the sky and clouds drifting above (Khema, 2018). In this lies the aim of the physical project, as only then will we encompass the greater meaning of existence and share it more dynamically with the environment in need of rejuvenation. A building that is to embrace the thresholds of the environment and set the tone for re-integration to man made ruins on site, as well as this new ritual of reviving nature.

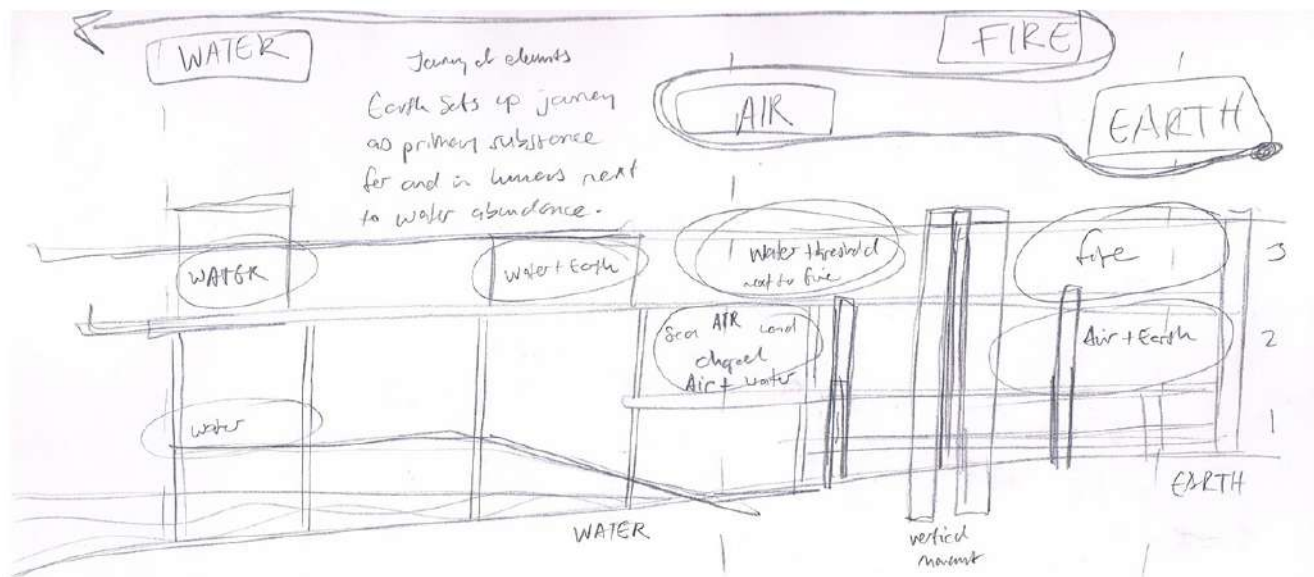
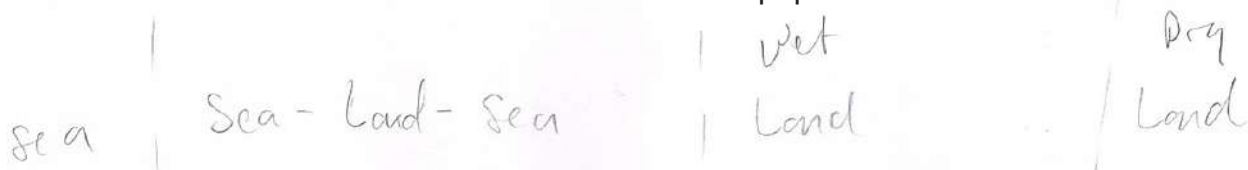
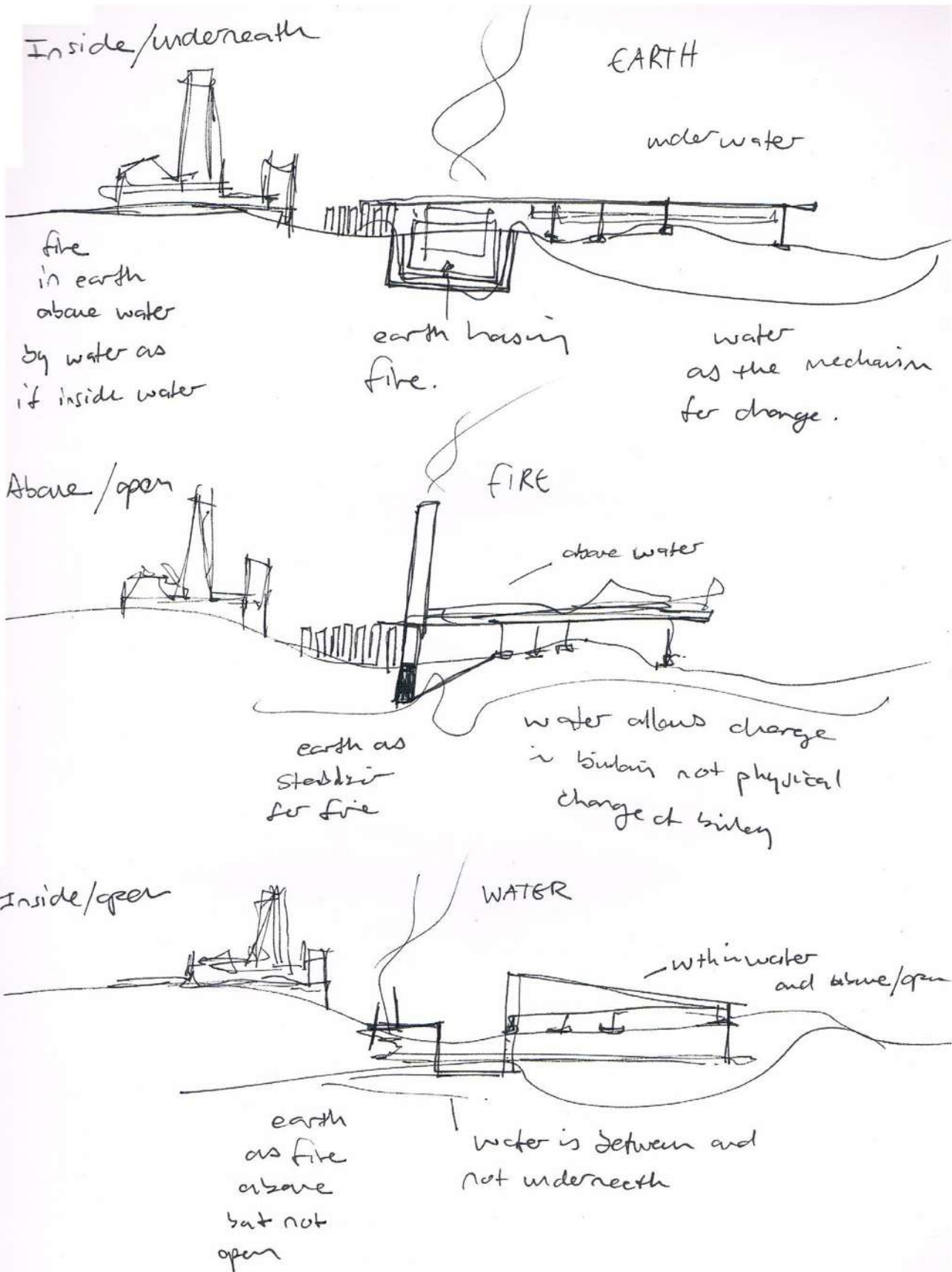


Diagram of the elements in spaces showing thresholds of sea.

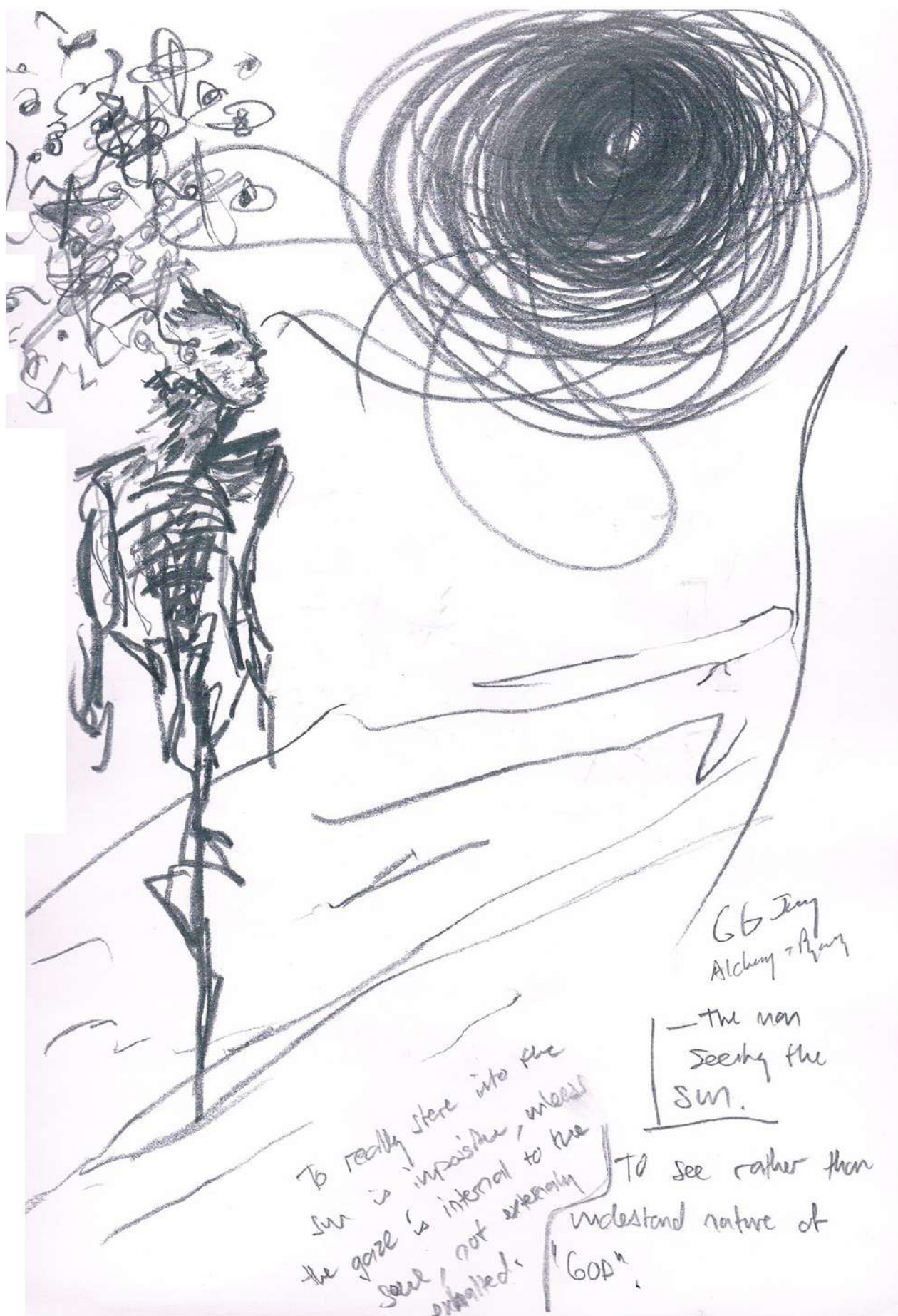
Sketch: Author. Pencil on paper. 2020



The psychological manifestation of the elements can be described as personality types that influence our every day perception of life in accord with how we as humans react to them phenomenologically and in sequence with human interactions participated in nature. It also deems that our psyche is networked via all living beings and each individual affiliation of life is what drives our perceptions and leads to spiritual legitimisation (Jung, 1968). Jung states that water is the most fickle of the elements and its character can be reflected verbatim in human behavior in its most raw form. Although Jung himself does not draw direct rationales from the four elements to the personality types, they can relate on a mythical level where perceptual functions (such as gathering information) relate to fire (intuition; non-rational, insightful, imaginative and lured by possibilities) and earth (sensation; rational, objective, practical and has perception of concrete reality). Judgment functions (decisions made with information) relate to air (thinking; rational, objective, logical connections and orientated to thought which cannot adapt to situations not understood intellectually) and water (feeling; non rational, subjective, based on sense of values and deems a situation pleasant or unpleasant by orientating to a feeling of impressions) (Jung, 1968).



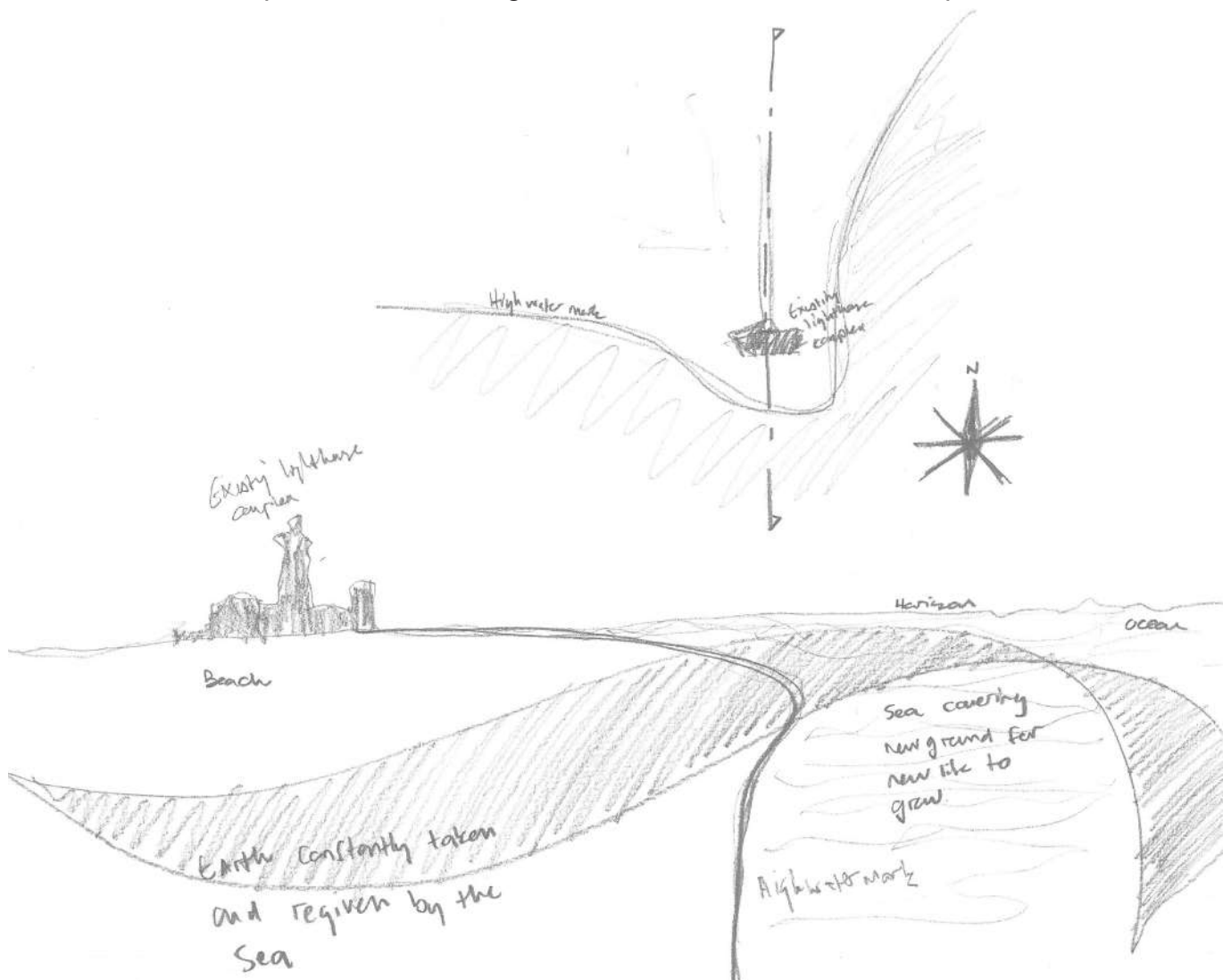
The elements manifested on site physically.
 Sketch: Author. Pen on paper. 2020



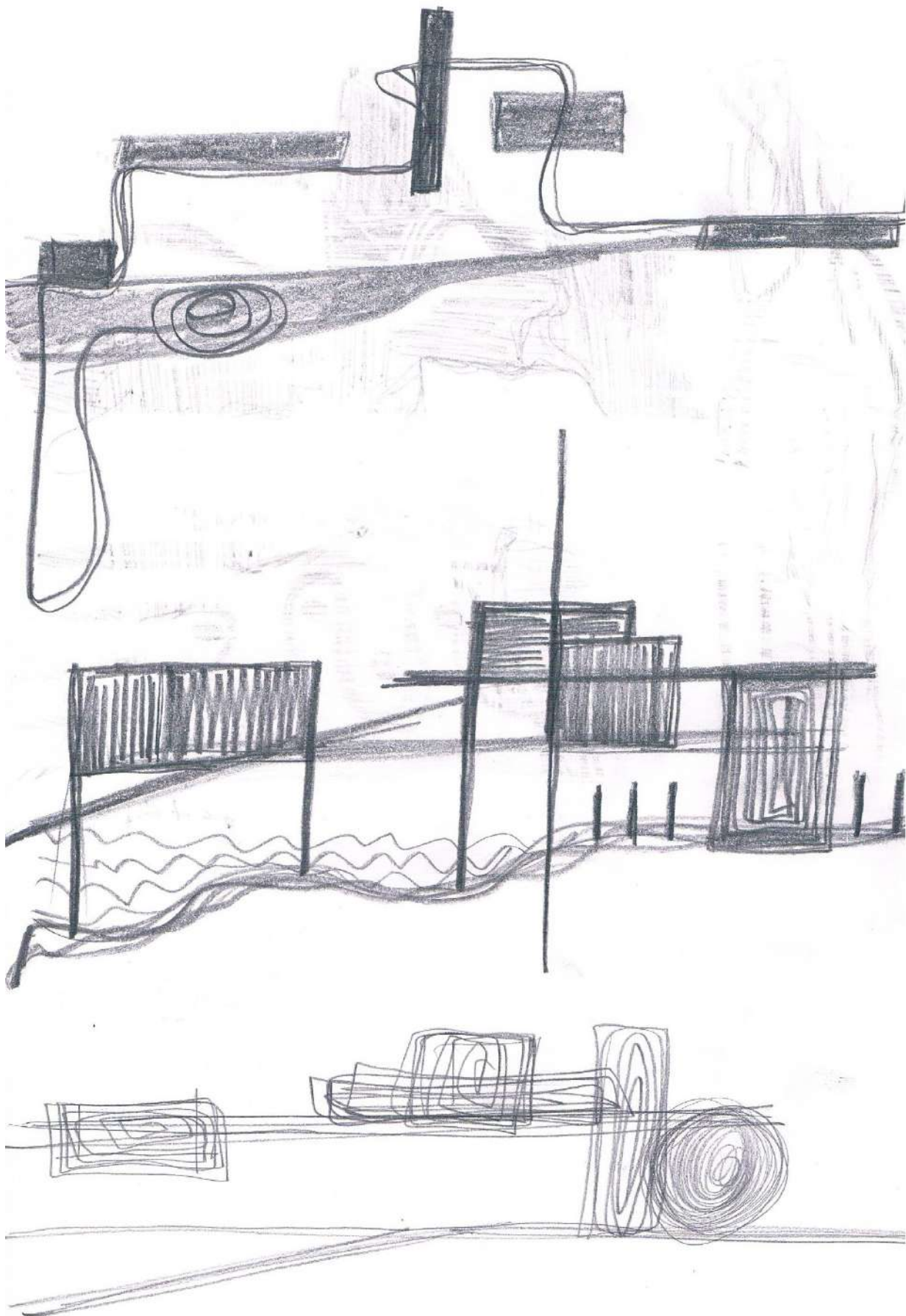
Seeing into the sun.
Sketch: Author. Pencil on paper. 2020

Aristotle on generation and corruption identified the four classical temperaments of the mind; choleric (fire), melancholic (earth), sanguine (air) and phlegmatic (water) and merging the elements as characteristics to these types. He also placed fire in opposition to earth and air in opposition to water, by means that they signify traits in certain personalities that are not similar, but complementary. Thus, the manifestation of the elements was brought forth not only as physical embodiments but also began to outline the metaphysical, personality or human type (Marks, 1998). This will regard the diversity of attitudes people may evoke on space and the elements as source for these spaces where the only purpose is to better life for humans in all lives to live. Thus there must be an array of personal explorations one must go on to better understand the influence death has on daily being and the possibility of doing so with the bare existence of nature stripped to its cores seems as the most likely means to a revelation.

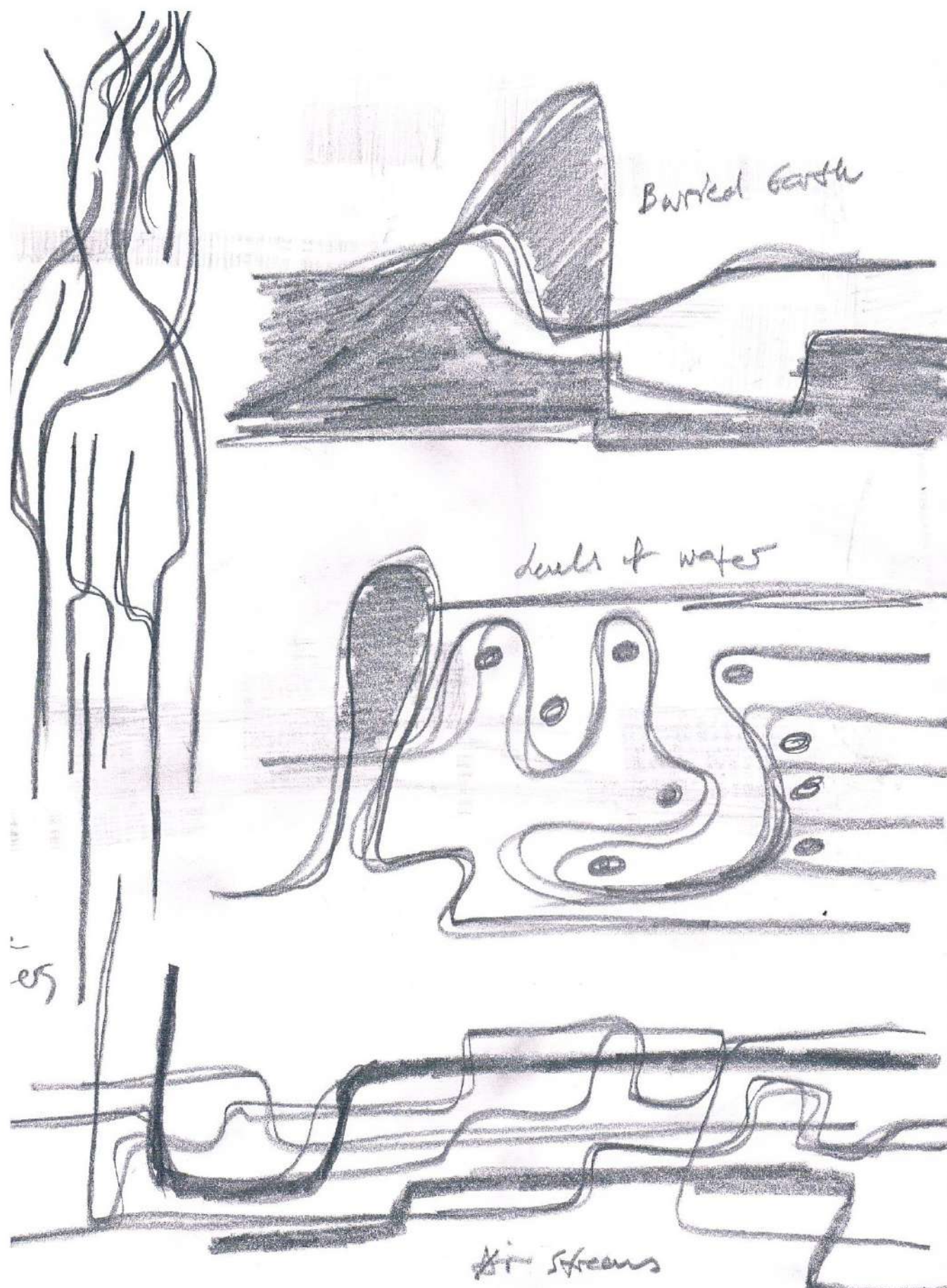
By identifying these types in the architectural fabric one can use the elements on site in their natural form to communicate psychological and phenomenological interaction with the visitor. In realising and embracing this new rite in memorialising both the elements of creation and man, in a place where their interaction creates opportunities for cosmic beings to erupt and aid new life. So our love for mankind has to split the thresholds of what is traditional burial/memorialising and use this elemental neutral ground to evolve into beings of nature again and ensure the footprint left will reminisce of past lives and the lighthouse become a beacon for its past.



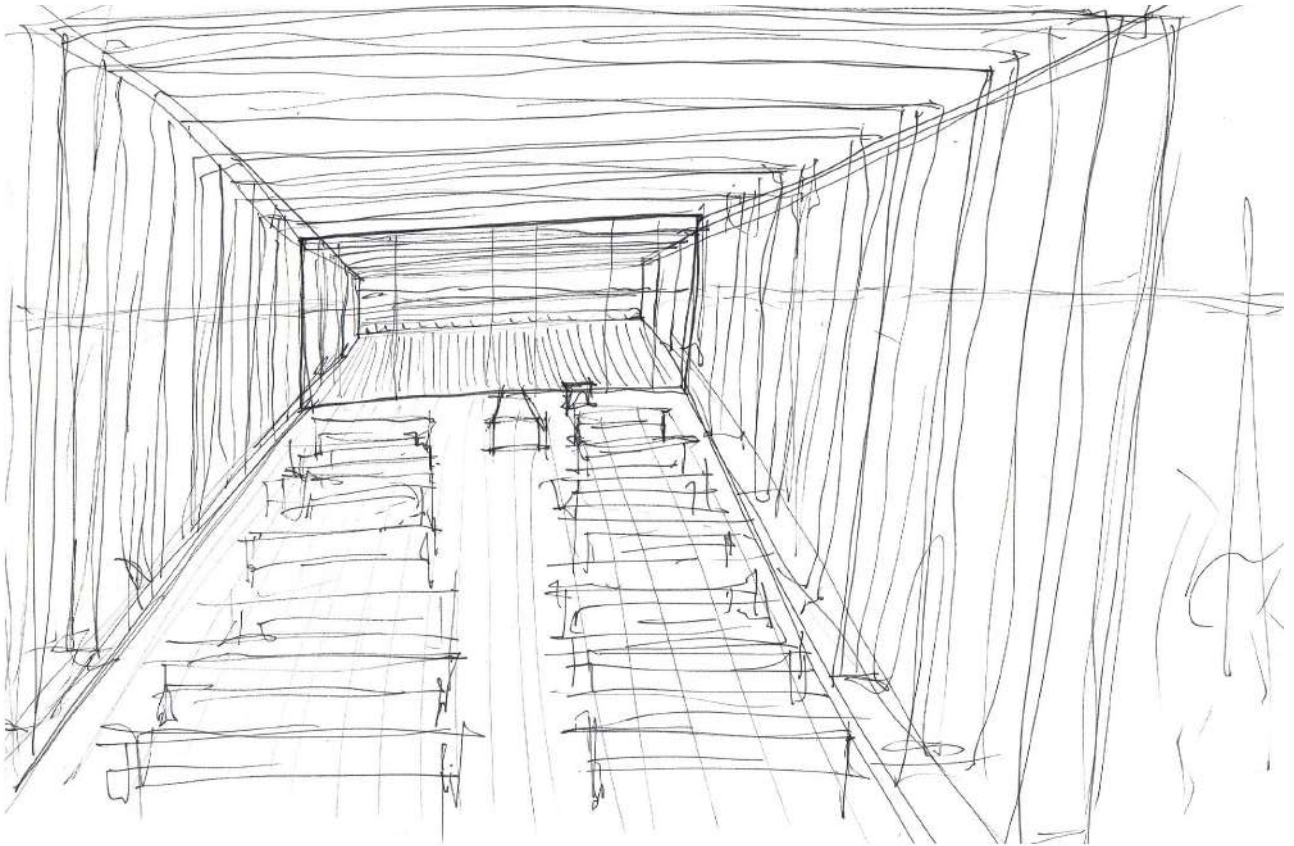
Land and sea merges.
Sketch: Author. Pencil on paper. 2020



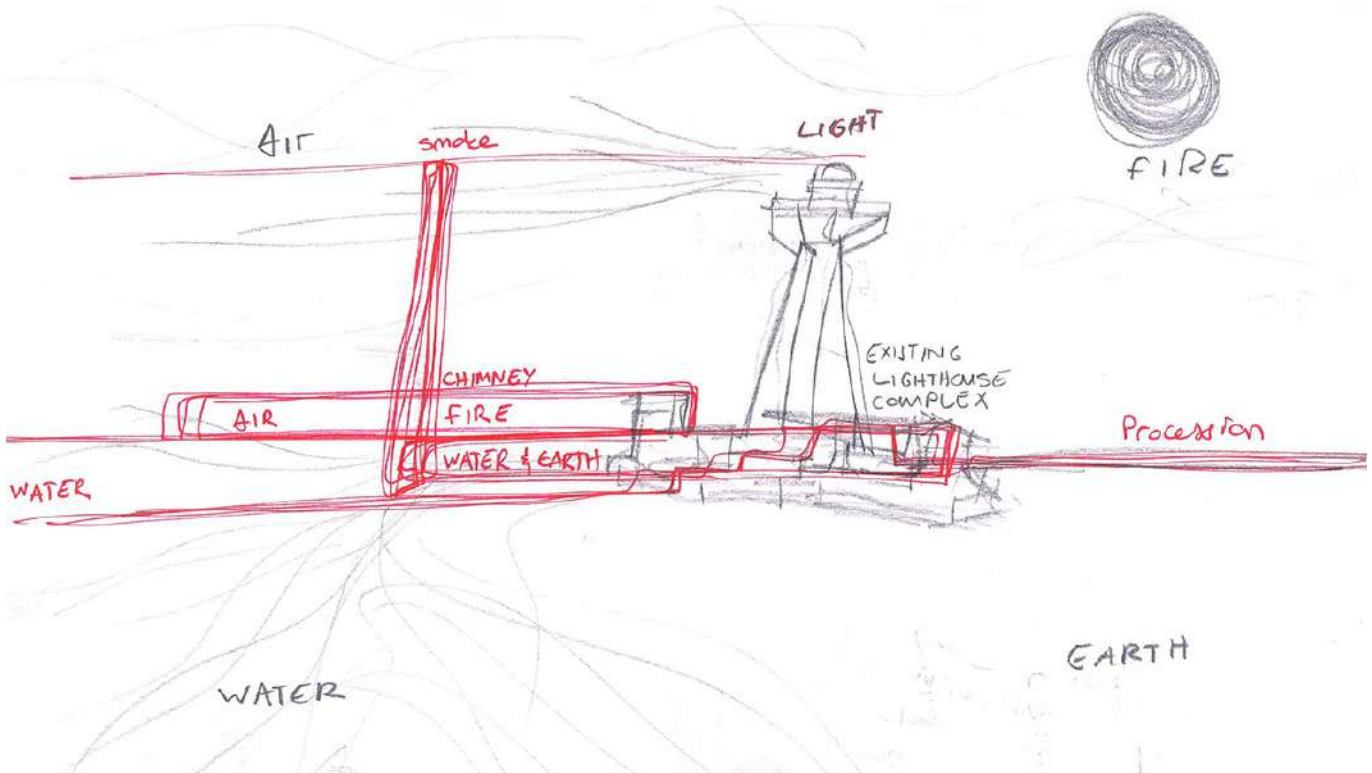
The elements in formation.
Sketch: Author. Pencil on paper. 2020



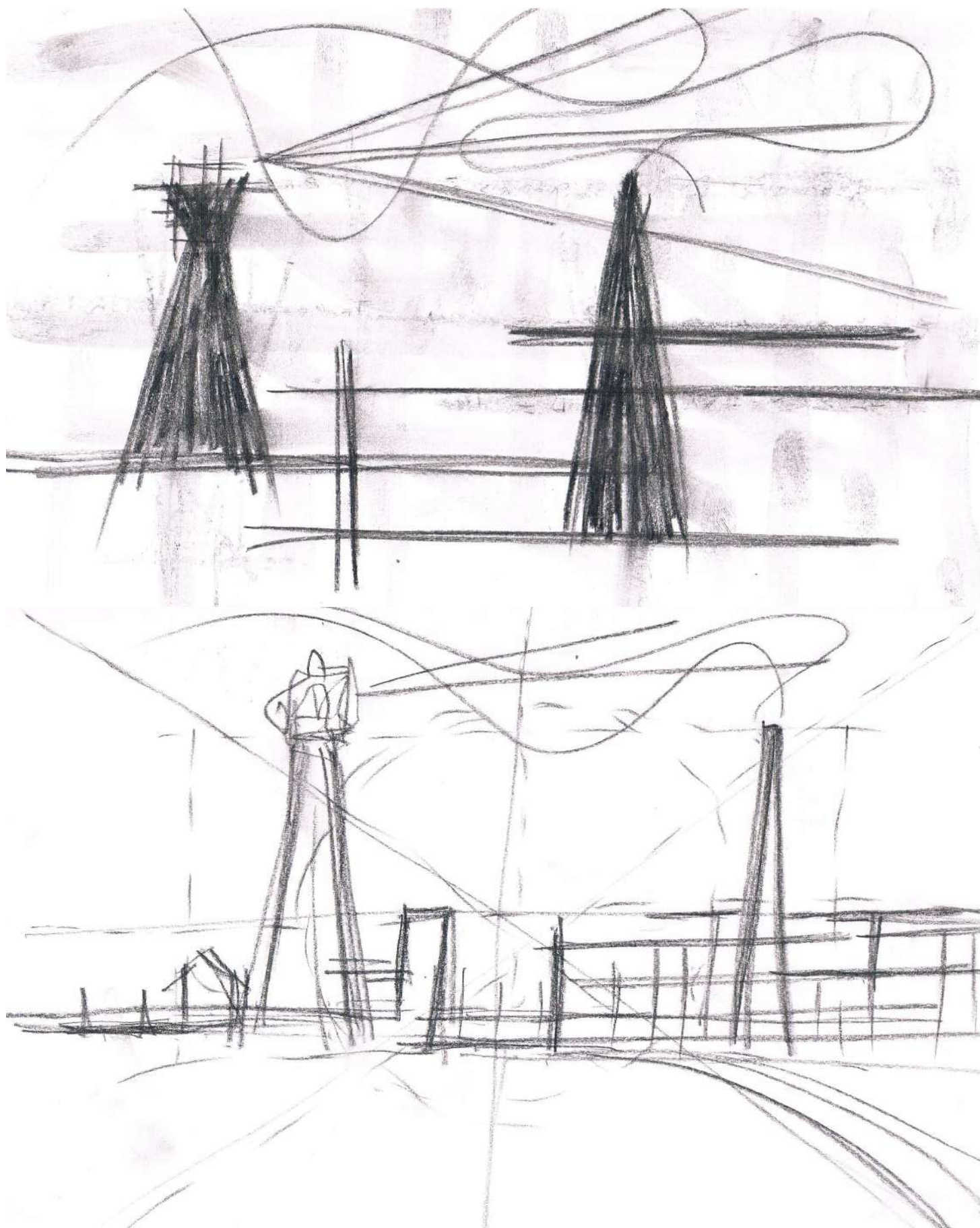
Character of the elements.
Sketch: Author. Pencil on paper. 2020



Funeral in a shipwreck.
Sketch: Author. Pen on paper. 2020



The elements in procession on site.
Sketch: Author. Pencil and pen on paper. 2020



The lighthouse and the chimney.
Sketch: Author. Charcoal on paper. 2020

PRECEDENT STUDY

SEASHORE CHAPEL - BEIDAIHE, CHINA - VECTOR ARCHITECTS - 2015



Seashore chapel, Beidaihe, China.
Image: (H. Chen, 2015: Online)

Seashore Chapel was envisioned by the architects as an old boat washed ashore and its remains houses the human spirit. The perched structure at low tide provides a resting place for people on the beach as it also sets up a space connecting religious space to the mundane life. When the tide rises, this space will be submerged by water and in that moment, the boat as a chapel is reincarnated.

With a glimpse of ocean in the distance, one would walk up the entry stairs, through the heavy timber doors, pass around a screen wall and into the chapel space with as solely framed ocean view uninterrupted by urban life. The relationship between this space and the ocean is much more connected due to the structure being elevated. The view is isolated, purposeful and drawing strong spiritual connection to the ocean where one is enlightened to be in this space.



Seashore chapel, Beidaihe, China.
Image: (H. Chen, 2015: Online)

The chapel has very limited openings to emphasise the only large horizontal “ocean-view” window on the east facade to have the ocean framed. A few narrow gaps cut between the walls and peeled from the exterior facade also bring in natural light that creates a soft ambiance. The interior light is completely natural and controlled by the openings cut and diffused along the vault. Although the effect of the light is momentary for a specific time the stucco wall becomes transcendent to feeling and lets the visitor experience different feelings toward the changing light, and almost becomes a tactile skin. On the northern side a small space for meditation merely fit one person where the walls wrap around one’s body tight, and one curved wall extending the sight towards the ocean’s horizon.

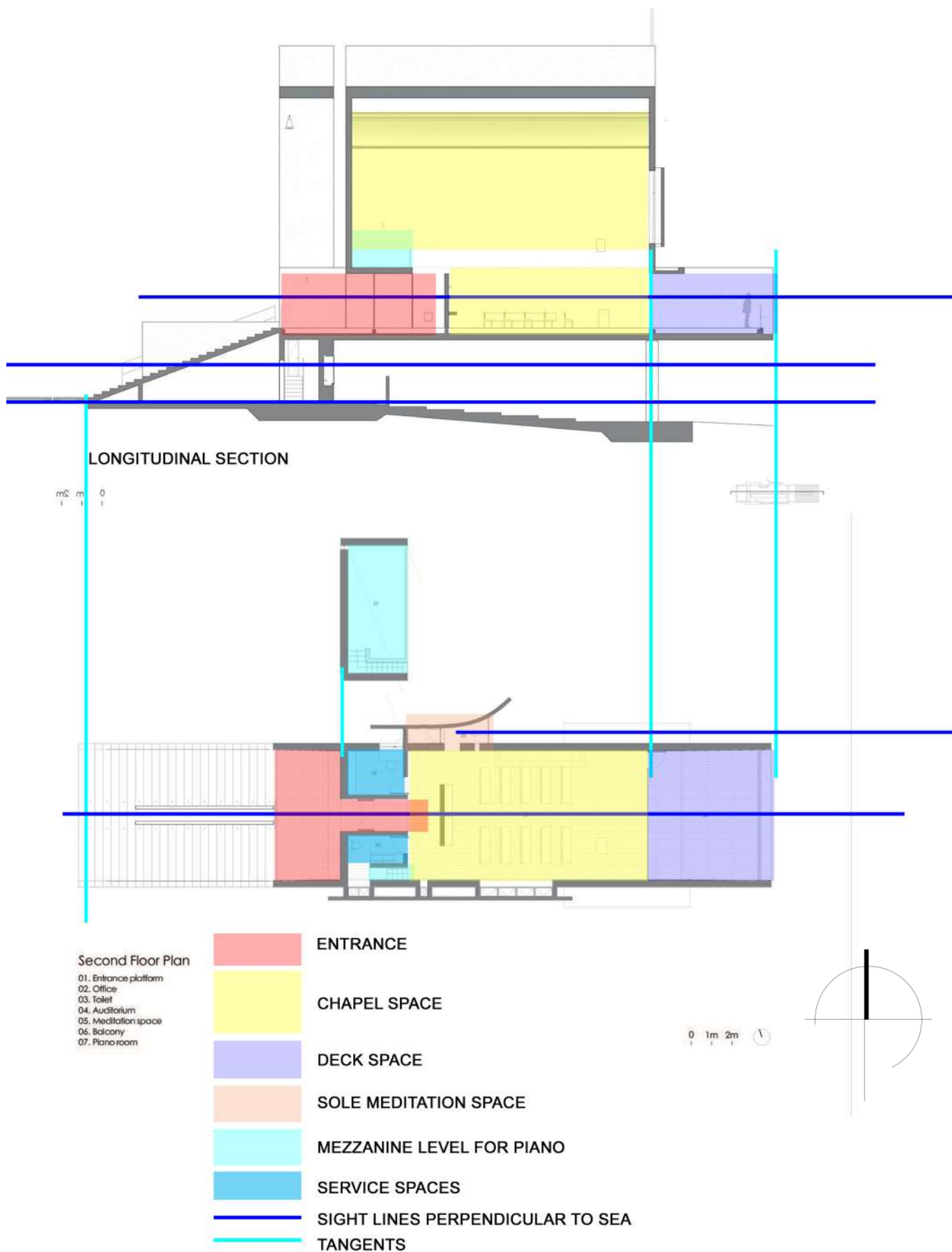


Seashore chapel, Beidaihe, China.
Image: (H. Chen, 2015: Online)

The design of the chapel utilises natural ventilation, as thus a low-tech structure using vernacular construction methods of loadbearing walls and pad foundations. The uniform appearance of the chapel exterior is kept by having all openings concealed by peel away walls that helps control the light and sculpt the interior, except for the meditation space and main eastern window.



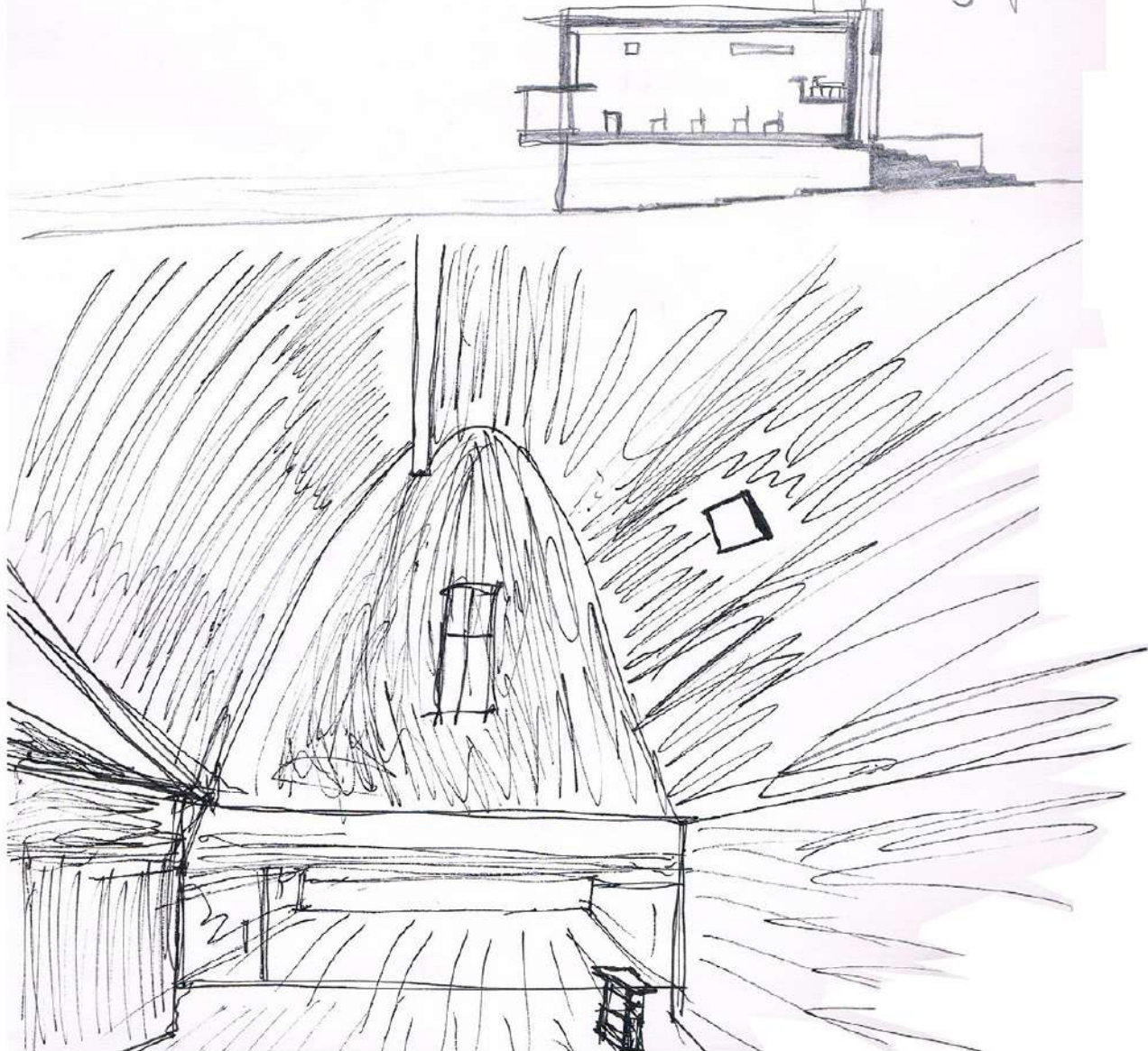
Seashore chapel, Beidaihe, China.
Image: (H. Chen, 2015: Online)



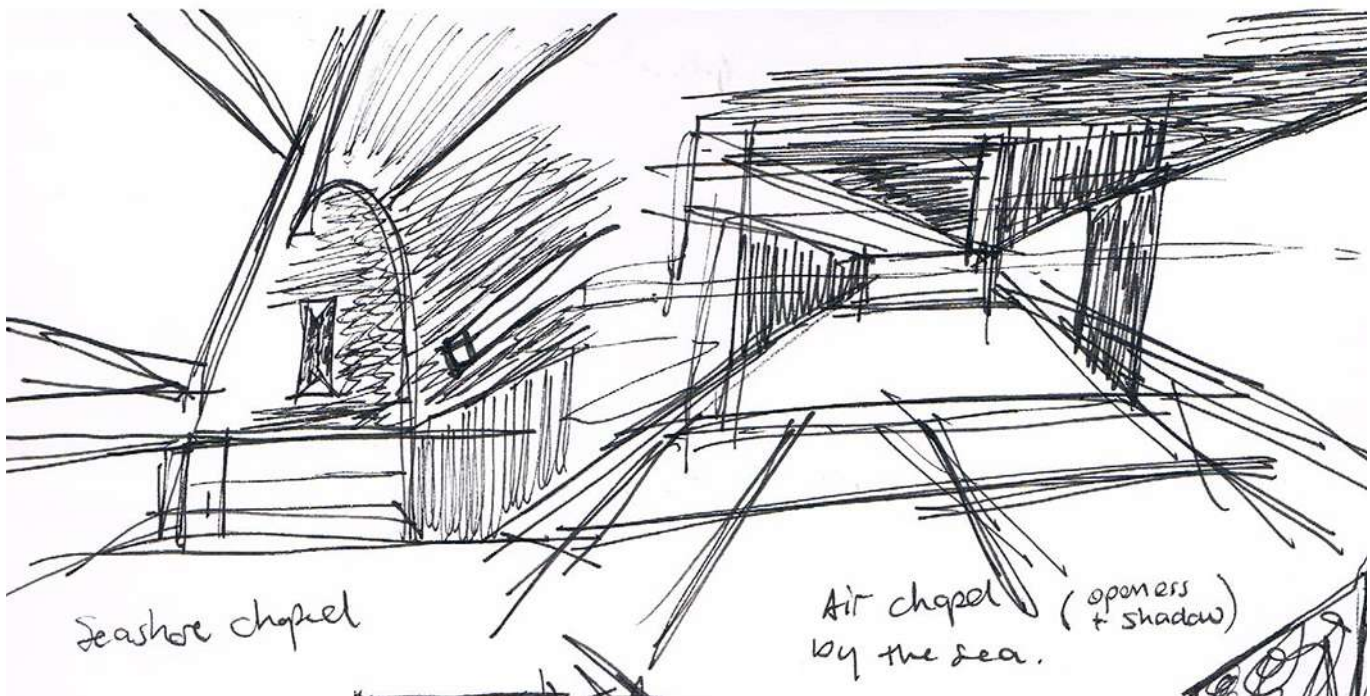
Program, Seashore chapel, Beidaihe, China.
 Diagram: Author. Multimedia. 2020
 Drawing: Vector Architects. 2015: Online

— Raised above water level for when tide comes in it will be perched above water. Space beneath when tide is low.

— Play of light and enclosure with side orientation to sea as only opening point.



Seashore chapel, Beidaihe, China.
Sketch: Author. Pencil and pen on paper. 2020



Seashore chapel, interpreted on site.
Sketch: Author. Pen on paper. 2020



Air on site.
Photograph: Author. 2020

Air is the element of intelligence, creativity, and beginnings (Beyer, 2020: Online). Largely intangible and without permanent form, air is an active, masculine element, superior to the more material elements of water and earth (Beyer, 2020: Online). It thus refers to the relationship it has with the other elements as essential to their being, as it shapes their presence on site with its own will and power. Dunes shift slowly, waves grow larger, solely by the invisible force of wind. Fire in its raw form depends on air to breathe as much as we humans do. Although it is a physical presence one can feel and see influence it remains mysterious, rather than a physical manifestation such as earth or water that remains purely phenomenological.

Port Elizabeth is known as the windy city through South Africa, but only because of its brute occurrence in daily life. The predominant winds range from South Westerly to South Easterly with the blink of an eye, but remains inevitable especially along the shore. Without disrupting views, the field of walls will also aid in shielding from the harsh winds, but it will also be embraced, as much of the in-between spaces are exposed to all the elements for physical and mental breathing space.



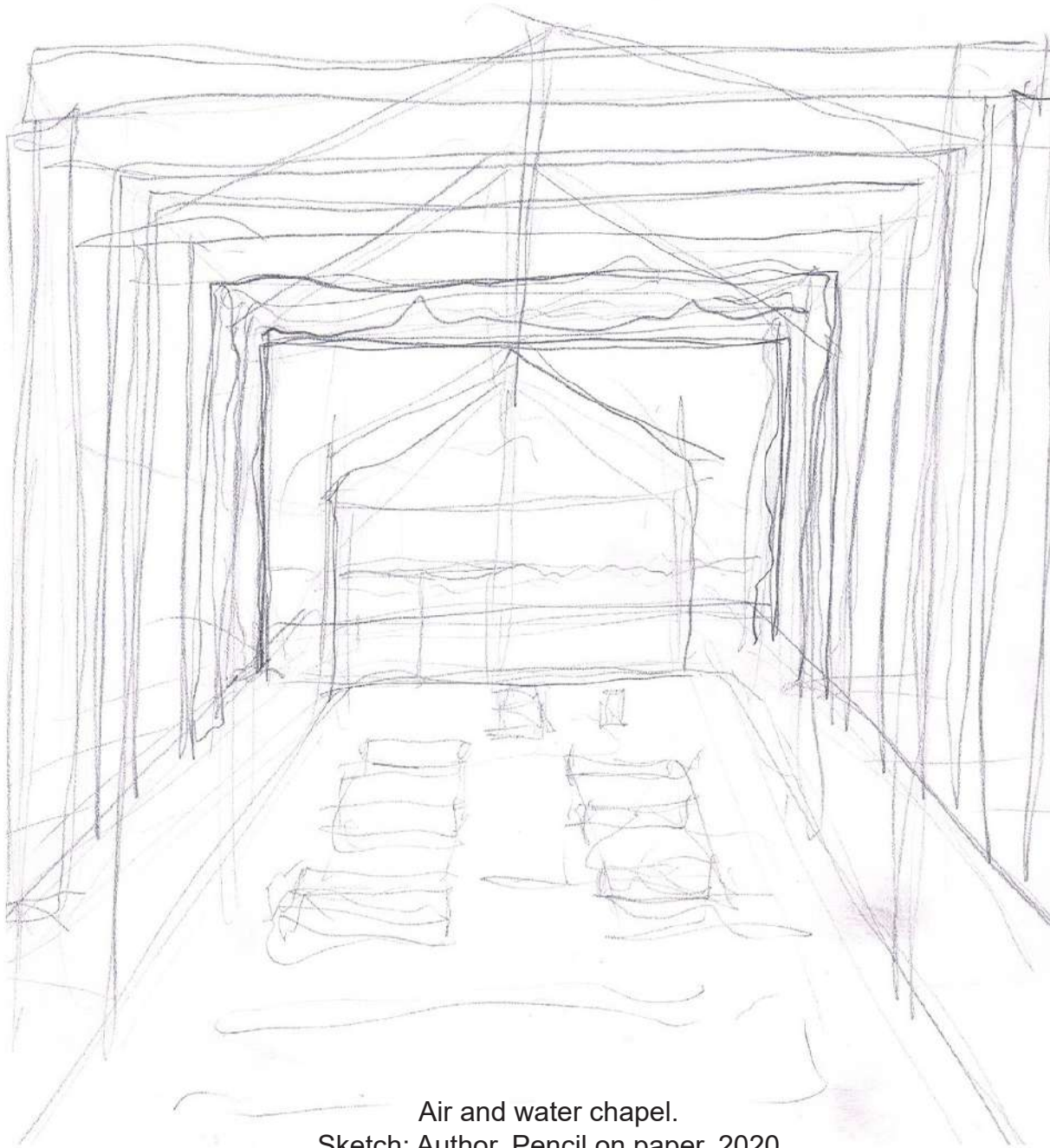
Air taking form.
Sketch: Author. Pencil on paper. 2020

In Buddhism, air is the element that refers to the body's breath, wind, and movement. Whenever we move, it is as though the wind has swept through us. Even when one walks it is visible that the dispersing of air and creation of movement, however subtle is as present as the air in our lungs (Khema, 2018).

Air carries the same characteristic of being a dominant element in the sense that it fills everything on earth. Usually where air is absent, so is life. Water and air are unique in this that they are comprised of the same scientific elements of oxygen, hydrogen and nitrogen. Meaning that they are fluid but also opposite. The most confronting of engagements with air, is of course wind. Wind moves many beings, shifts the earth itself and makes the oceans waves rise even higher. Realising the power and influence of air or wind on everything is fundamental because as it flows through you so does it flow to fuel a fire (Khema, 2018)



The elements in juxtaposition.
Sketch: Author. Pencil and watercolour on paper. 2020



Air and water chapel.
Sketch: Author. Pencil on paper. 2020

This means that an element derived as fuel for fire is also an element of our bodily construction. We are thus fuel to be burned in achieving a heavenly altered physical state enabling so much more possibilities for other living things. Is it not more humane to give this state as space? We have over time developed modes of tolerance for cremated remains but never returned it to a physical body as the earth element in ourselves. To manifest this architecturally one has to embrace the aspect of a universal belief where the spectrum of states via the expression of the four elements are unified as neutral to all, meaning its essence which is nature. Upholding the natural state of life on site is essential as already the structure pierces the earth and disrupts the air, but fire will follow a process into shelters for the reef inhabitants, as the way of water solely delegates the physical morphology and spiritual well being to be in accordance with the environment.

PRECEDENT STUDY

LYCEE SCHORAGE SECONDARY SCHOOL - KOUDOUGOU, BURKINA FASO - KÈRÈ ARCHITECTURE - 2016

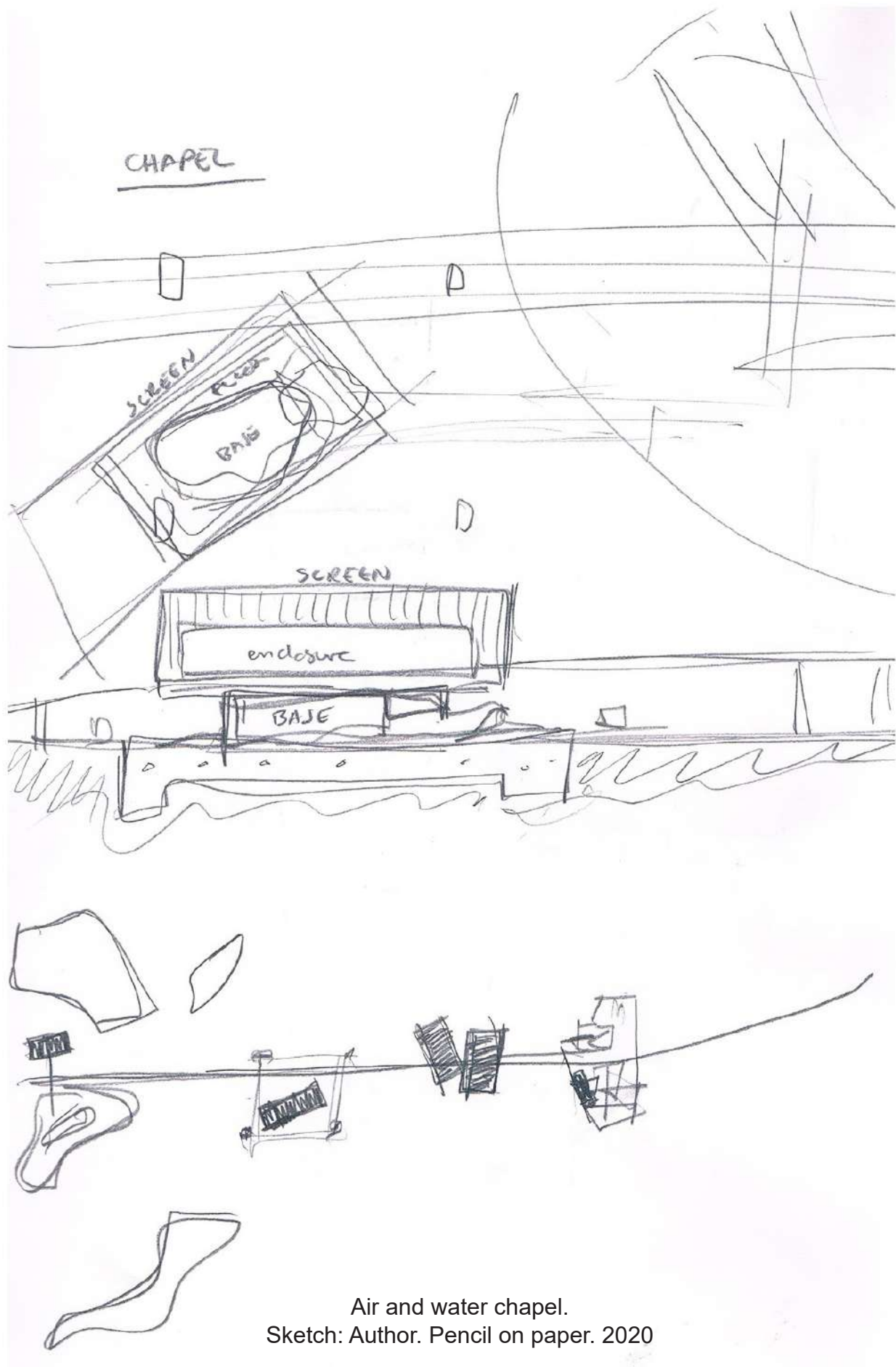


Lycee Secondary School, Koudougou, Burkina Faso.
Image: (I. Baan, 2016: Online)

In this harsh environment, the sun and prevailing winds where key factors Kèrè had to address in order to make a comfortable educational space that could also help grow and stabilise the community. The project utilises the winds and sunlight by having an enclosed core wrapped by locally sourced wooden slats being employed as a screen filtering these elements and increasing connections between inside and outside. The courtyard typology is of course the primary legitimisation of this where community and shelter is at heart. Another way of enhancing the natural ventilation of the building was by placing 'wind boxes' on the roof that rid the core spaces of hot air and is re-ventilated by the screen enclosure and courtyard.



Lycee Secondary School, Koudougou, Burkina Faso.
Image: (I. Baan, 2016: Online)



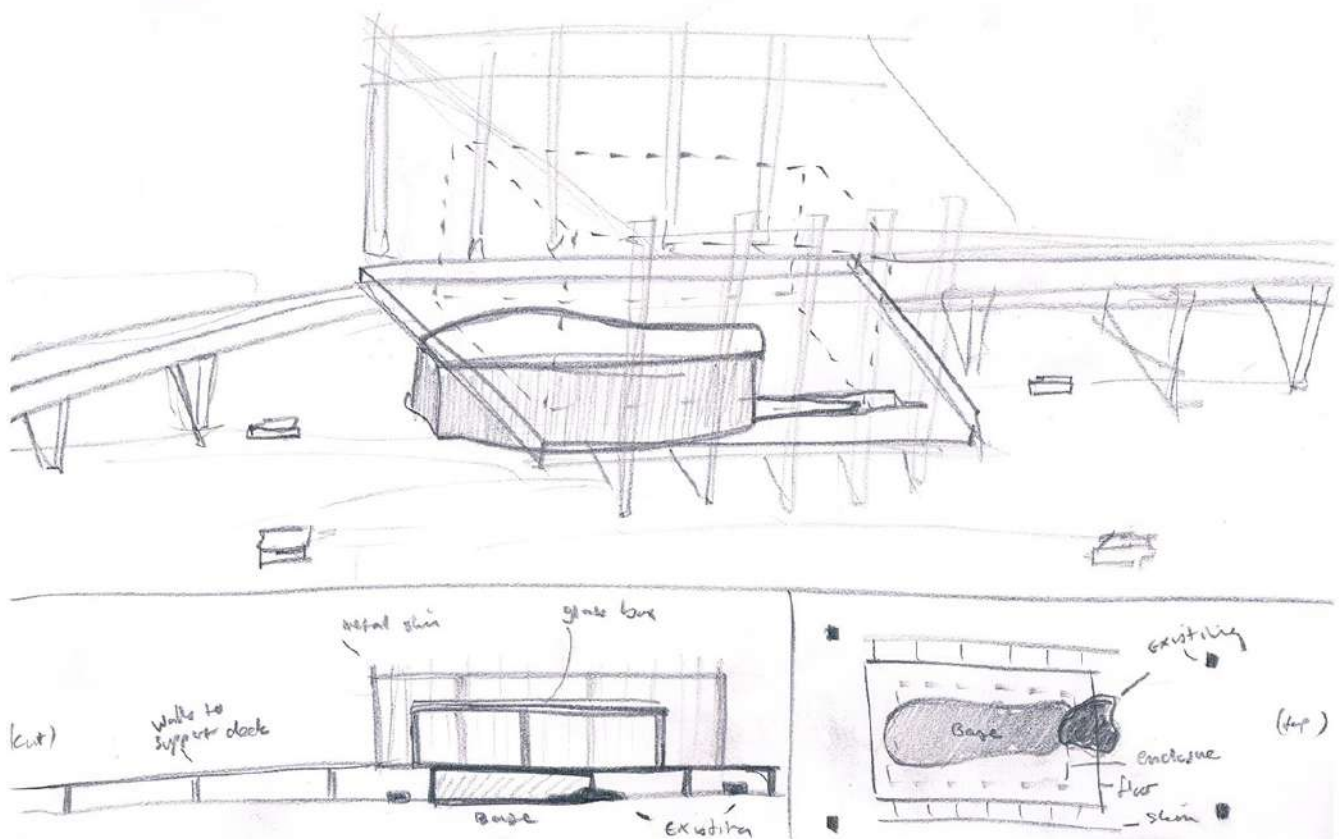
Air and water chapel.
Sketch: Author. Pencil on paper. 2020



Lycee Secondary School, Koudougou, Burkina Faso.
Image: (I. Baan, 2016: Online)

The appropriate use of local materials and the elements produced a sustainable and conscious building that is of place and time, as the architects envisioned it to age into the landscape and become an integral part of the environment and peoples lives by means of education, community and the future of their well-being at its core.

For the air and water chapel on site the prevailing winds remain a problem to address, but by means of a double enclosure and orientation of the entrance it becomes more filtered. The glass enclosure and timber screen (form-work from concrete moulding, char treated) supported by respective galvanised steel portal frames will be structurally upheld by the concrete frame extending earth into sea. It remains a conglomerate of the elements supporting and catalysing each other in order to create and enhance space to bare its characteristics through the elements of nature, where air is the driving force and water the binder.



Air and water chapel structure.
Sketch: Author. Pencil on paper. 2020

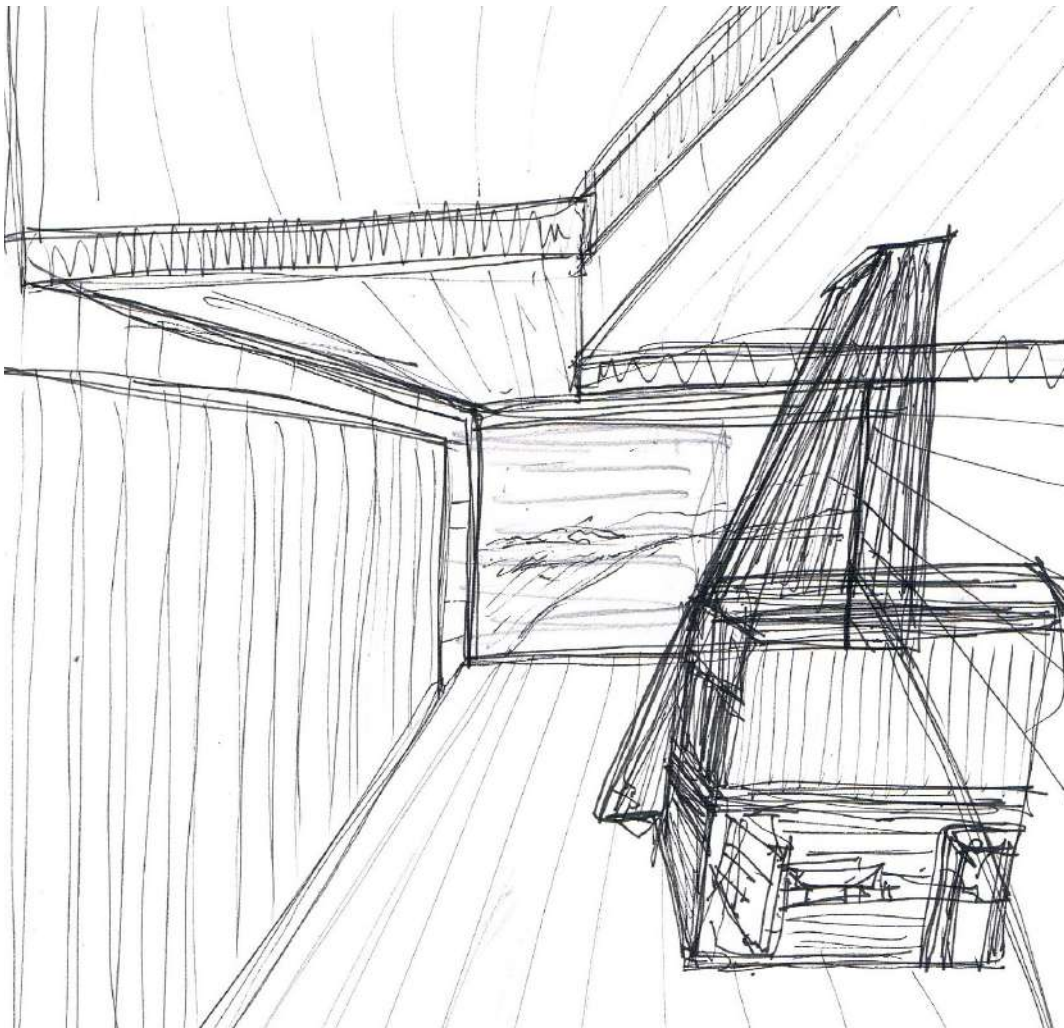
A photograph of a beach with sand dunes and a lighthouse under a bright sun. The sun is in the upper left, creating a lens flare. The lighthouse is on the right, with a white base and a black and white striped tower. The foreground is a sandy beach with some small rocks and debris. The sky is clear and blue.

FIRE

Fire on site.
Photograph: Author. 2020

According to Beyer, fire is associated with strength, activity, blood, and our life-force. Fire is also regarded as highly purifying and protective, cleansing and consuming the impurities in life and ridding the world of darkness. It is traditionally seen as the most rare and spiritual of the four natural elements due its masculine nature and the primitive regard of being supernatural or not originally of this world. It also lacks a physical existence in a general form, where the sun is the only physical manifestation related to us by its product of light. The transforming power of fire when it comes in contact with physical materials is its most significant quality as it not only instantly destroys matter, but also gives new form and substance (Beyer, 2020: Online). When considering cremation and the new method of reef burial, the transformation from corpse to housing marine life involves all the other elements, but fire makes it possible to alter the state of our physical existence as well as give way for other forms of life to come into existence.

The materiality of fire can be explored by actually burning the structure of the crematorium by means of the earth(concrete) being moulded by the product of the earth(timber) and scarring the remains of that product with the char of a flame. This was inspired by the Bruder Klaus field chapel by Peter Zumthor in Mechernich, Germany, where the interior form-work of logs were burned to create a complete other appearance to the smooth outside. Thus where the order of death is present (crematorium, moulding room, chapel, reception hall) either the burned concrete form-work or timber charred after removing the form-work will represent the element of fire and continue to decay as a body would naturally, also posing a paradox of new life destroyed instantly and decomposed over time.

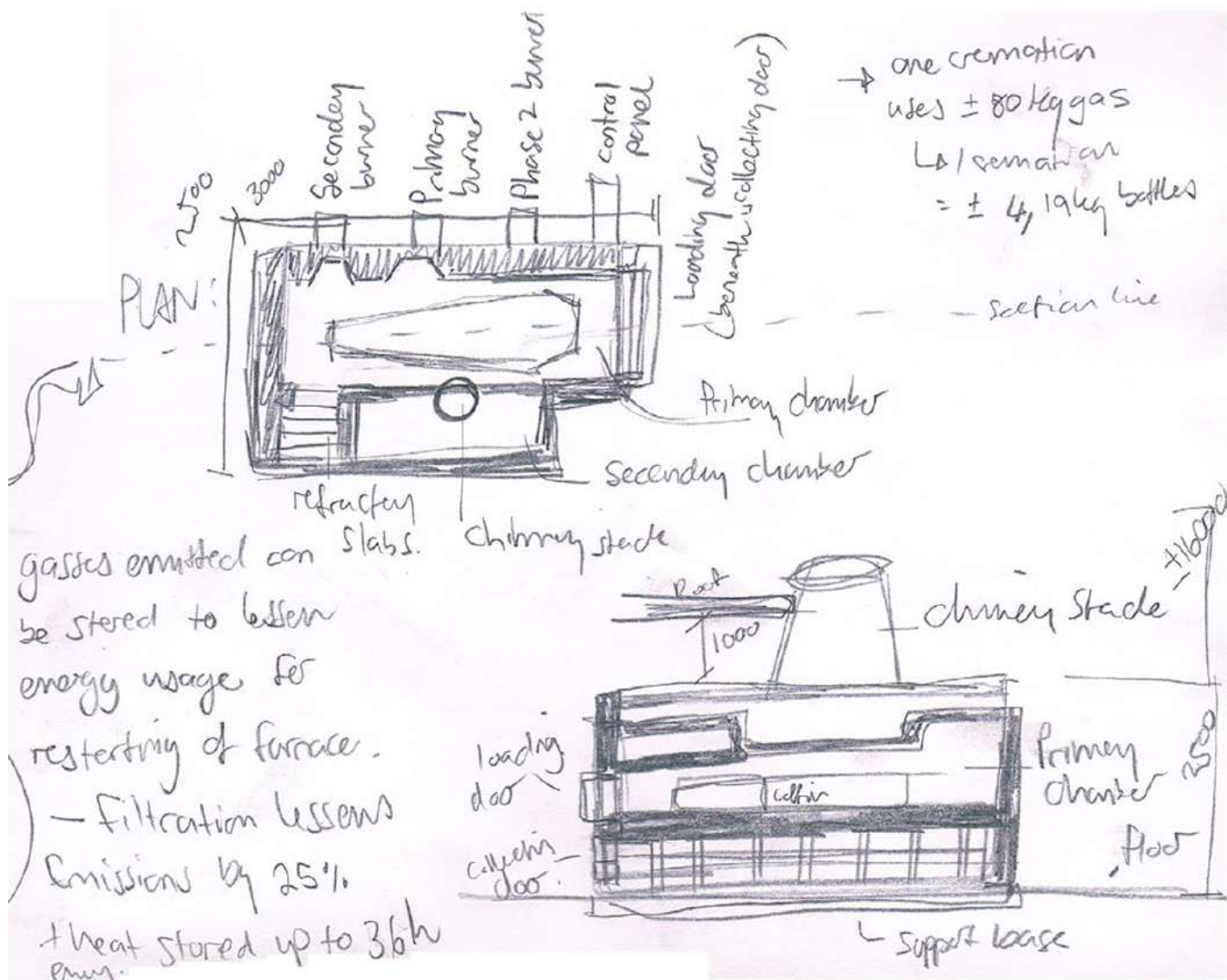


Crematorium.

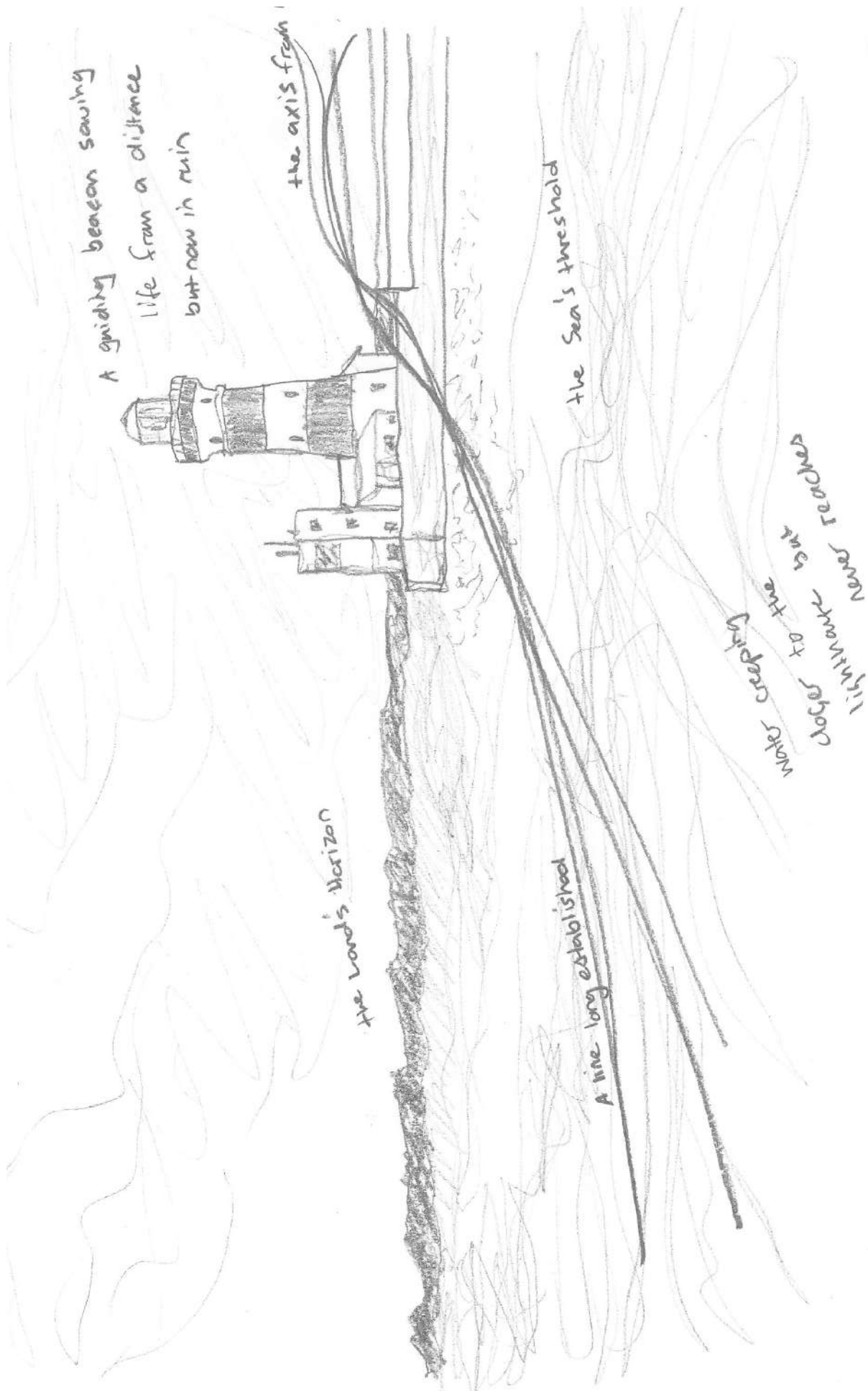
Sketch: Author. Pen on paper. 2020

According to Buddhist traditions the fire element indicates temperature, energy, and the capacity to digest food. Some say in a state of nirvana one can expand comfort levels to different temperatures and environments that would open oneself up to the realization that the body contains all temperatures as the universe, where extreme differences in heat and cold was one of the catalysts for existence as it is (Khema, 2018).

Arabic alchemists largely worked from an Aristotelian theory of the formation of matter in which the four qualities of the elements (heat, coldness, dryness, and moisture) generate first-degree compounds (hot, cold, dry, and moist), which combined in pairs, acquire matter, and generate the four elements where hot + dry + matter = fire, hot + moist + matter = air, cold + moist + matter = water, cold + dry + matter = earth. They proved that an external cause, either natural or artificial, could generate a change in the structure of the body, re-balancing the natural proportion of its external and internal qualities and thus changing its appearance (Ferrario, 2007).



MacroTech cremator specifications.
Sketch: Author. Pencil on paper. 2020



The path of the lighthouse .

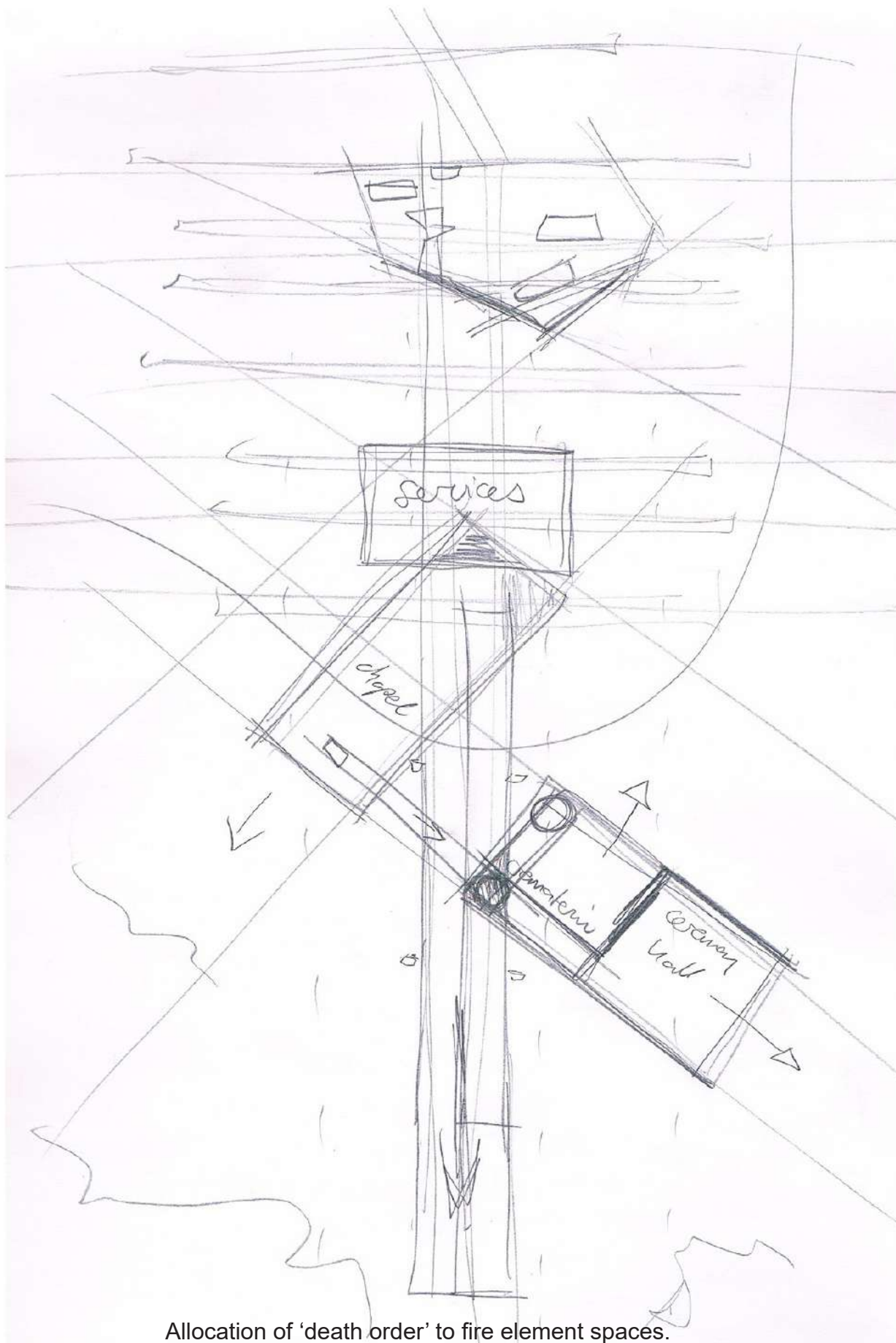
Sketch: Author. Pencil on paper. 2020



Two fire towers on the water.
Sketch: Author. Pencil on paper. 2020

C.G. Jung in his works such as, *Man and his Symbols*, *Psychology and Alchemy* and *Psychological Types*, have aligned his own theories to that of Aristotle and Plato with the same sequence only naming them personality functions as, Intuitive, Sensing, Thinking and Feeling. He stated that though each person has a dominant function within the elements and that the psyche is dependent on the temperamental and sociological substance, there is the shadow or dark side that is one's own mystery and it is mostly found along the inferior function that can either be one's worst downfall or prove to bring balance (that can be referred to inner peace) (Jung, 1968).

The problem of opposites raised by the shadow plays a great or rather decisive role in alchemy, since it leads in the ultimate phase of the work to the union of opposites in the archetypal form of the "chemical wedding." Here the supreme opposites, male and female (as in the Chinese yang and yin), are melted into a unity purified of all opposition and therefore incorruptible. It captured new interpretations, from a connection between modern psychology of the unconscious and alchemical symbolism where the elements predicted certain traits in human behavior and allowed for sparks of deviation to new beliefs or traditions and rituals (Jung, 1968).



Allocation of 'death order' to fire element spaces.
Sketch: Author. Pencil on paper. 2020

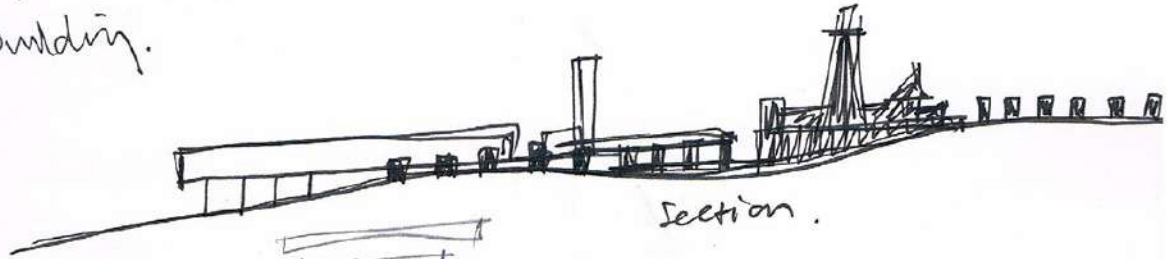
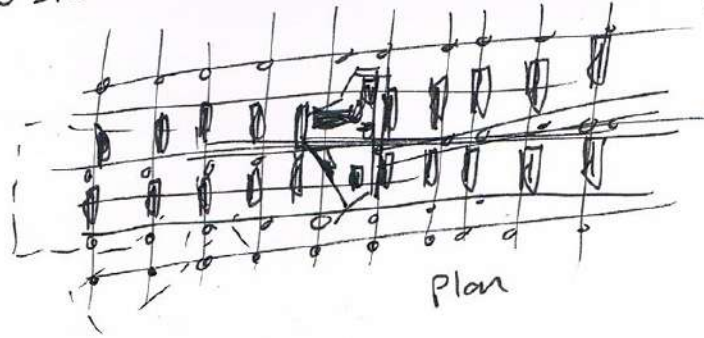


The aging and decaying of the project to the site.
Touchstone before and after burning.
Model: Author. Clay, concrete, balsa wood, water, fire. 2020

form

Procession of walls to direct movement + set up hierarchy to building.

PE site: Grid of 'structure' set up movement/direction.



Section.

Lighting as a beacon of the bygone - a pyre burning on the ocean was the mythos of Alexandria

2nd floor
+ other spaces expand
as needed to
condense +
define spaces.

on ground floor full space of walls.

Chapel as juxtaposition on 1st floor.
(a jewel set into a shipwreck)

Q = To say death is an means to all ends and an end to all means.
A = It does not end.

Death is but a path we all must take.

- Gandalf LOTR

Scientific (by evidence) VS reality
general

Mutation of stories into myths. more emotional than rational

Mythic feelings
villains

Joseph Campbell

Here with or there faces

Site massing of death and fire over water.
Sketch: Author. Pencil and pen on paper. 2020

PRECEDENT STUDY

HOFHEIDE CREMATORIUM - HOLSBEЕК, BELGIUM -
RCR ARCHITECTES + COUSSÉE & GORIS ARCHITECTEN - 2014



Hofheide crematorium, Holsbeek, Belgium.
Image: (S. Hisao, 2014: Online)

The Flemish Plain of Belgium contains a vast landscape which can be epitomised into this site that shapes a gentle swampy basin at this point of Hofheide in the Holsbeek region. This basin is the setting for the crematorium that forms part of a procession through the park and vineyards that spreads across the entire precinct. At the end of this journey through the landscape are two cemeteries, one for traditional burials and the other for columbarium walls and the placement of ashes. The area allows for scattering of ashes and the architects had several spaces and columbaria allocated for this. Large embankments, orchards and trees shield the area from the nearby regional road and the vineyard next to the pond containing water plants, create a pleasant and solitude atmosphere for memorials and silent contemplation.

The pond also serves as the water management system for the precinct where rainwater is collected for use in the bathrooms, and processed underground in the wastewater treatment plant, before passing into the pond once more. The intent was to primarily create a space in close correlation with nature and enhances our sense of being a part of the environment and our immediate surroundings. An important part of the design aspect was to organise and create a building that would not impose any belief or culture, and thus giving a neutral ground for mourners.

“Crematoriums tend to be too industrial. But death is a part of life. Once we leave the Earth, we are still part of the universe, and architecture can help connect the two.” Carme Pigem of RCR Arquitectes.

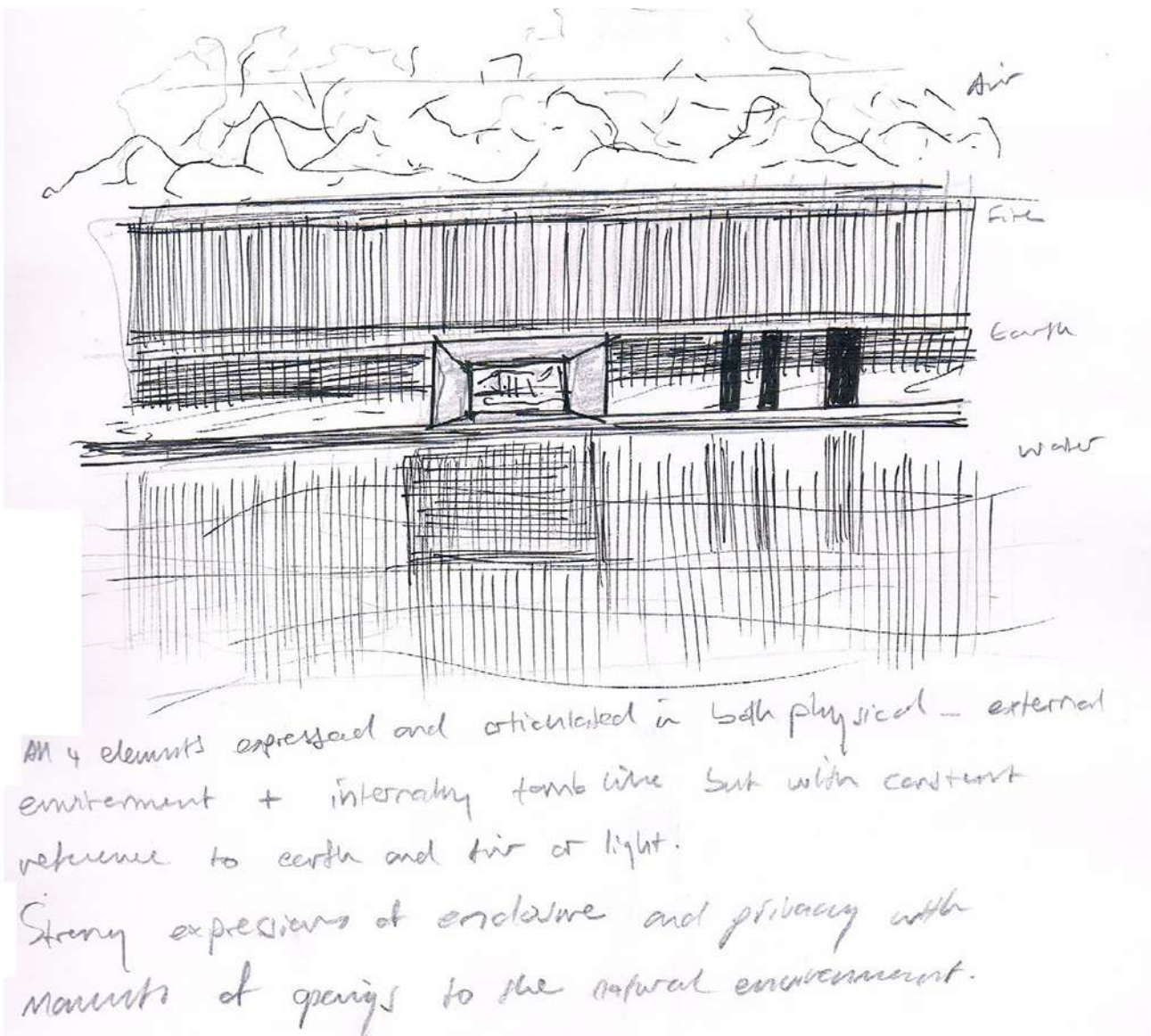


Hofheide crematorium, Holsbeek, Belgium.
Image: (S. Hisao, 2014: Online)



Hofheide crematorium, Holsbeek, Belgium.
Image: (S. Hisao, 2014: Online)

What is most remarkable about the design is not only does the aesthetics derive and blend with the seasons of the landscape, but the multi-functionality of the program is organised in a very user-friendly structure. A crematorium that offers a complete array of services under one roof. The publicly accessible areas are on ground floor, with two ceremony halls, family rooms, furnace entry space with separate an area for witnessing the entry of the coffin, reception and administration, sanitary facilities, cafeteria and rooms for funeral meals. The basement level contains the ventilation plant room for the crematorium, along with the water treatment plant, services, processing room for the crematorium with administration. It is simply put, a shell-like enclosure that has spaces organised along a single service axis that simplifies the approach for the user as well as clearly articulating where main functions takes place.



Hofheide crematorium, Holsbeek, Belgium.
Sketch: Author. Pen on paper. 2020

DESIGN SYNTHESIS

View from pier, to the north.
Photomontage: Author. 2020

CONCEPTUAL DEVELOPMENT

FIRE AND AIR

ABOVE WATER AND EARTH-
THE ENTITY FLOATING



WATER WITH THE EARTH

BELOW, AND ABOVE-
THE ENTITY CHANGING THRESHOLD

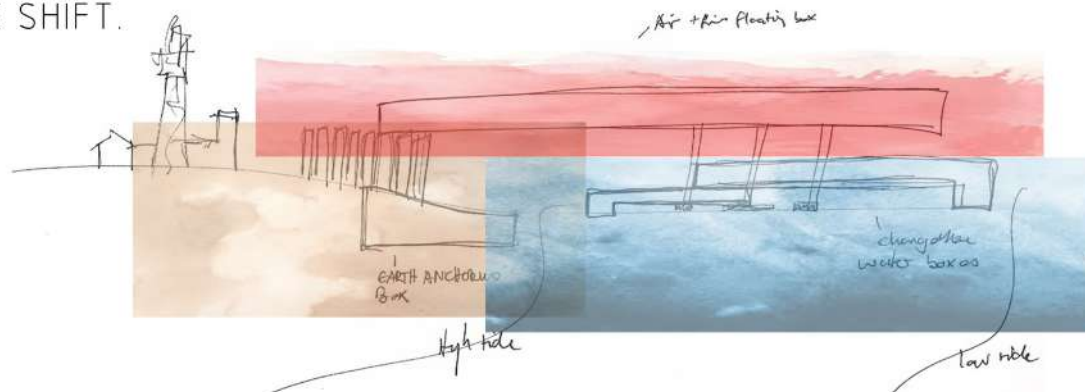


EARTH

UNDER, AND BETWEEN-
THE ENTITY ENCLOSURE AND SOLID



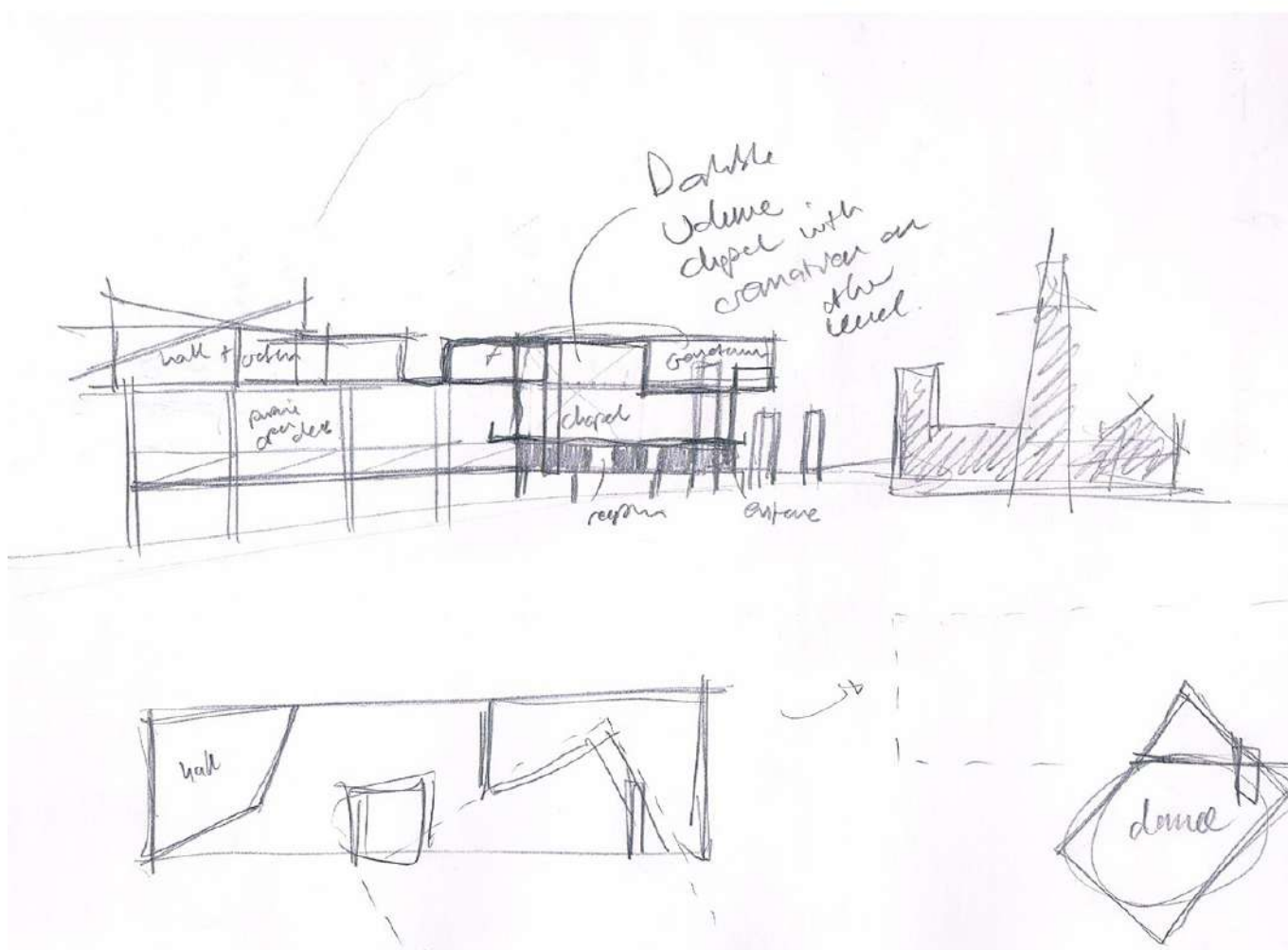
THE DIFFERENCE IN WATER LEVELS APPEAL TO A MOVEMENT OF LANDSCAPE AND THE INTERPLAY OF THE ELEMENTS IN HOW THEY REACT TO THE CHANGE, WHERE A FUNDAMENTAL ELEMENT BECOMES A DRIVING FORCE IN NATURE, AS WELL AS ITS SIGNIFICANCE AS THE TIDE SHIFT.



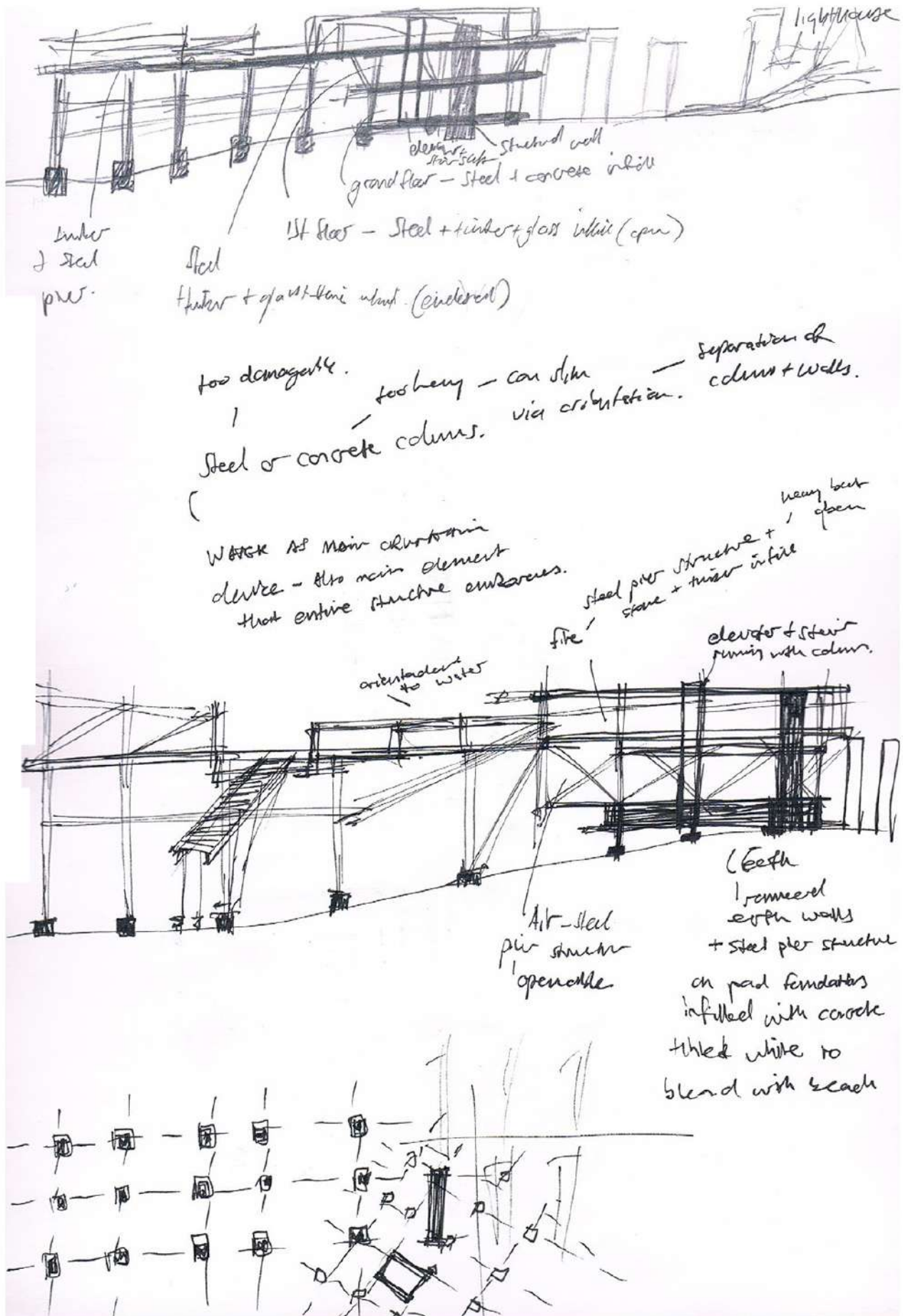
The elements embodied.
Sketch: Author. Mixed media. 2020

The initial design proposed to extend from the existing ruinous lighthouse complex, where it will be re-enliven by a program that essentially portray death. It is thus furthered by the implementation of the four natural elements as the source for all life and the balance thereof in space would resemble a neutral spiritual rite that will be grounded in aiding nature. At first the extension from the lighthouse simply took the form of a pier directly on the axis of the lighthouse to the south, and juxtaposed to the order of the rocks and the parallel wall of the lighthouse complex. Later this juxtaposition became the order of death where the crematorium and chapel respectively fell into the order along with the elements of fire and water. Earth grounded the extension into the sea as the field of walls that took the order of the lighthouse north to south began to disperse the project even more.

Thus the accumulation of the elements represented in space along with the orders of death and rocks juxtaposed to the order of the lighthouse, evolved into a procession starting with death and the earth we inhabit, crossing the threshold of the ruinous lighthouse, finally transforming via fire into the possibility of breeding new life for the creatures of ocean and air.

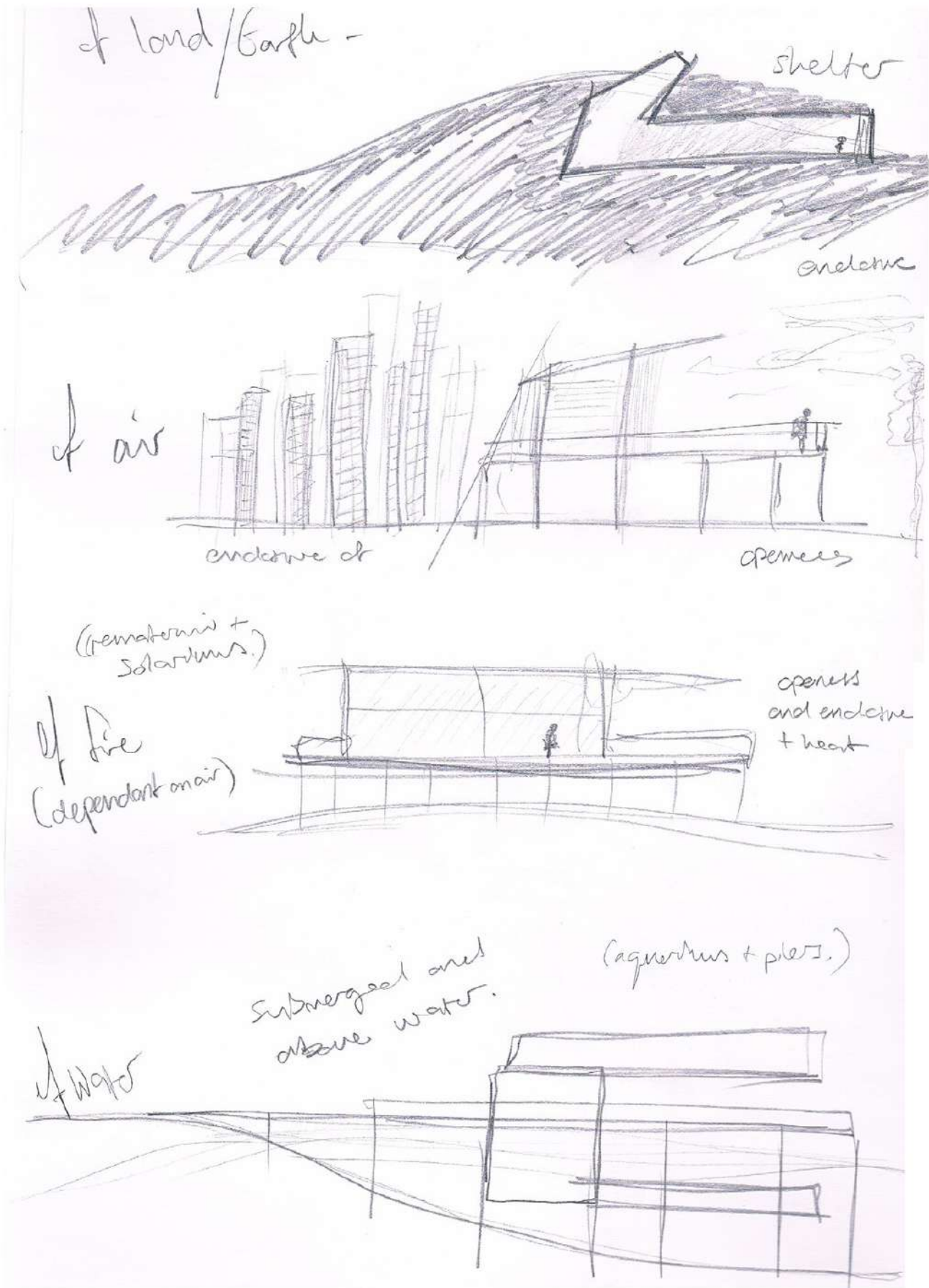


Conceptual planning and spaces.
Sketch: Author. Pencil on paper. 2020



Conceptual structure.

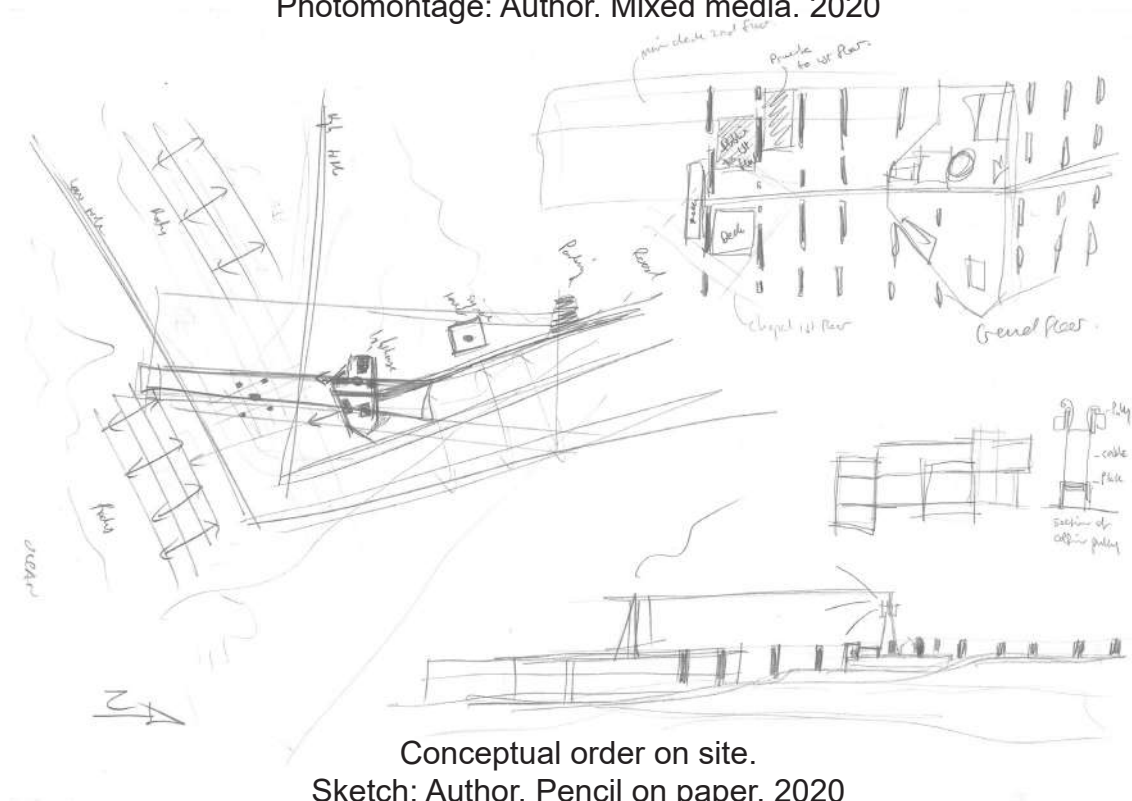
Sketch: Author. Pen and pencil on paper. 2020



Conceptual spaces of the elements.
Sketch: Author. Pencil on paper. 2020

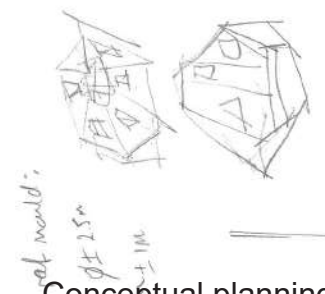
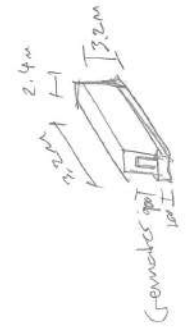
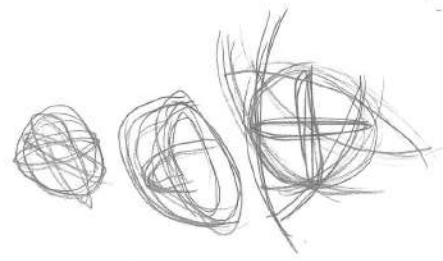
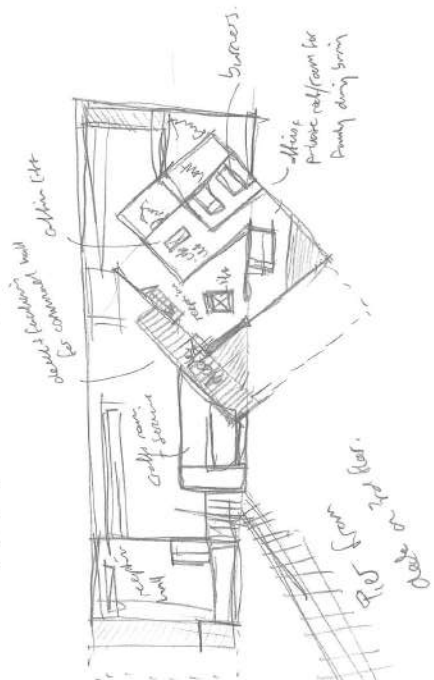
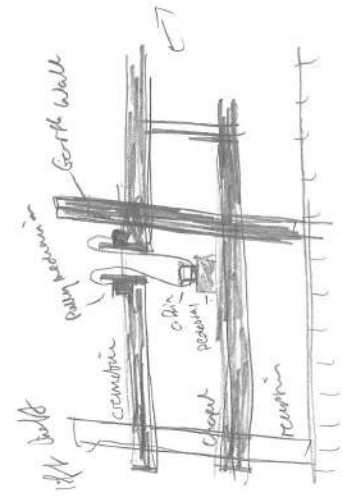
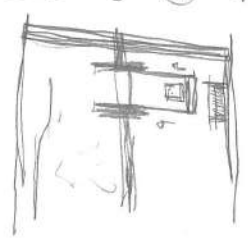


Conceptual order on site.
 Photomontage: Author. Mixed media. 2020



Conceptual order on site.
 Sketch: Author. Pencil on paper. 2020

from ceremony to cremation
 are level up, area for close
 family to go with cremation present
 + areas for guests/northern +
 area for interaction with guests
 to the sea.
 After cremation, ashes are
 mixed with concrete to form
 reefs and dispatched via
 pier/ramp to sea.

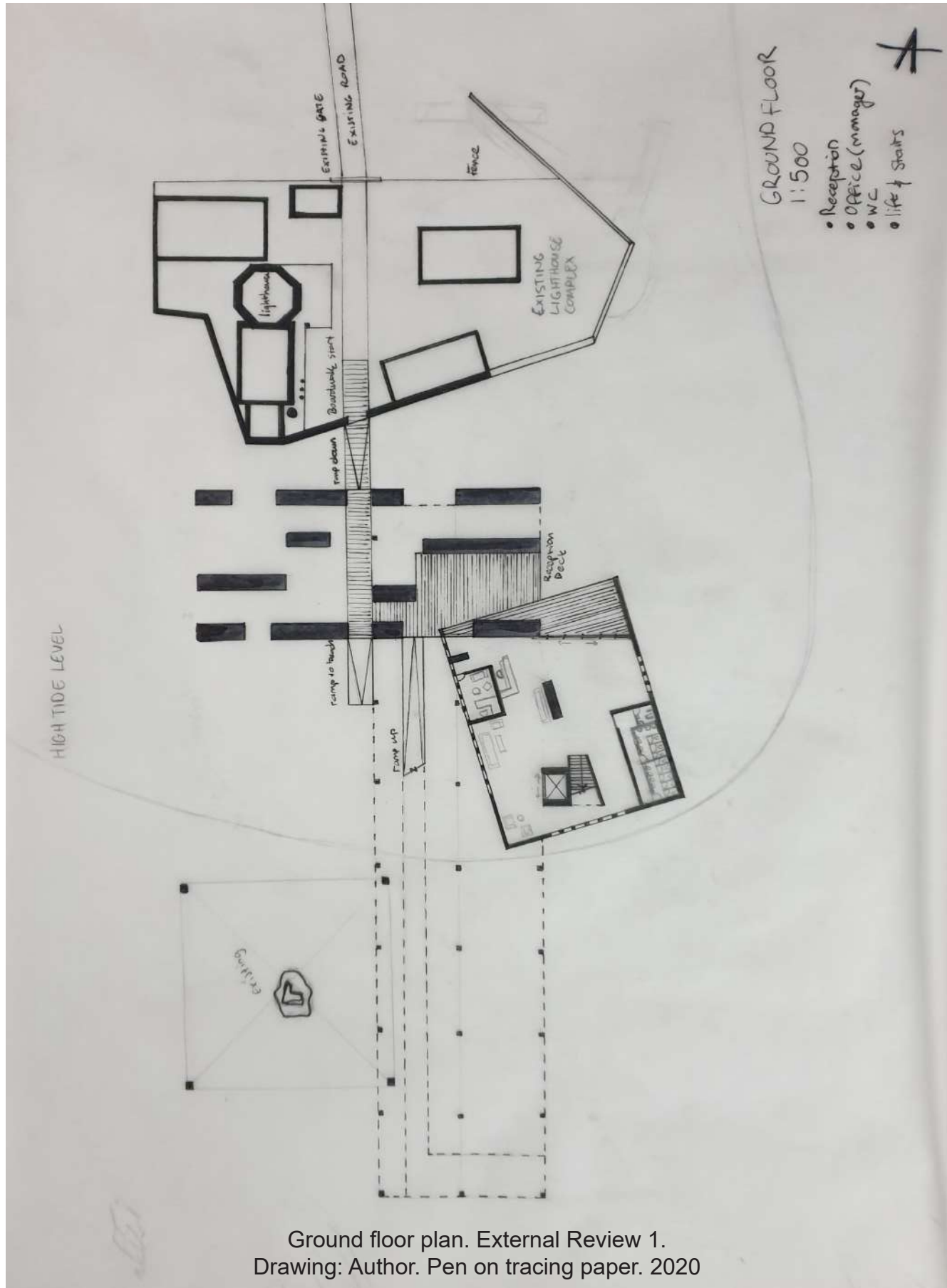


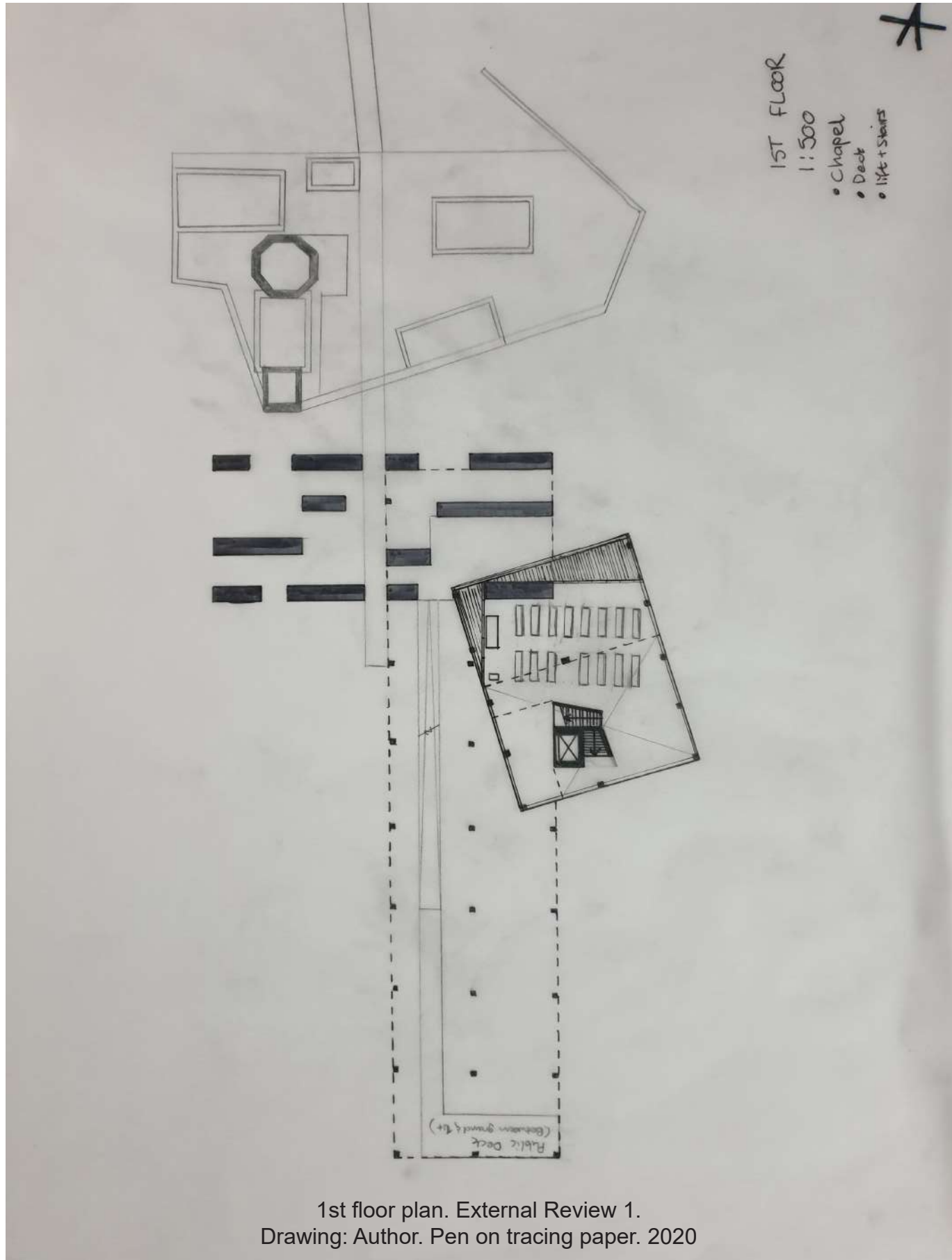
Conceptual planning 2nd floor.
 Sketch: Author. Pencil on paper. 2020

2nd floor:
 - cremation area, possibly
 rooms, crafts area,
 reception halls - lounge
 + small groups.

+ fire (burn)
 and air above
 water.

DESIGN DEVELOPMENT

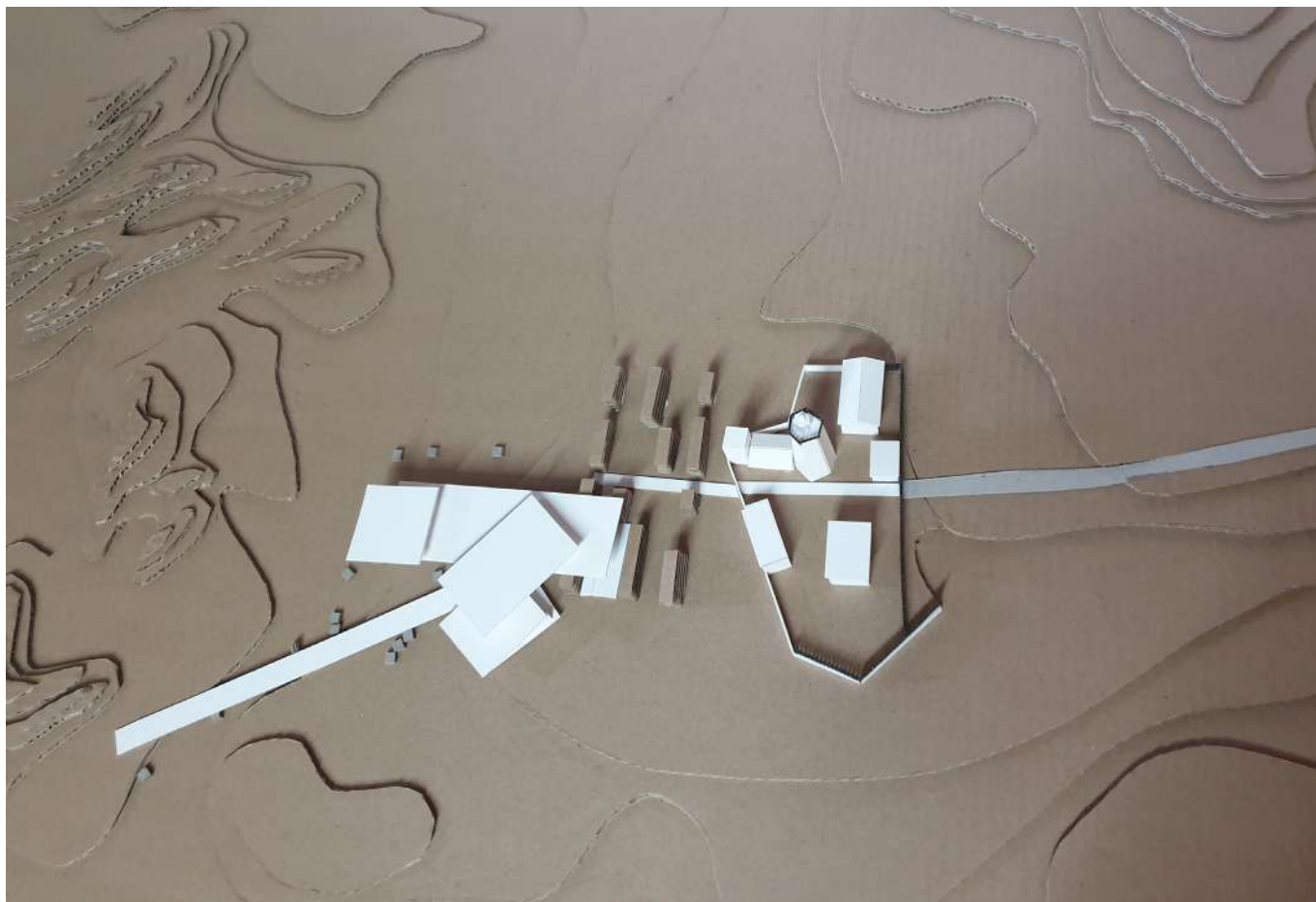




1st floor plan. External Review 1.
Drawing: Author. Pen on tracing paper. 2020



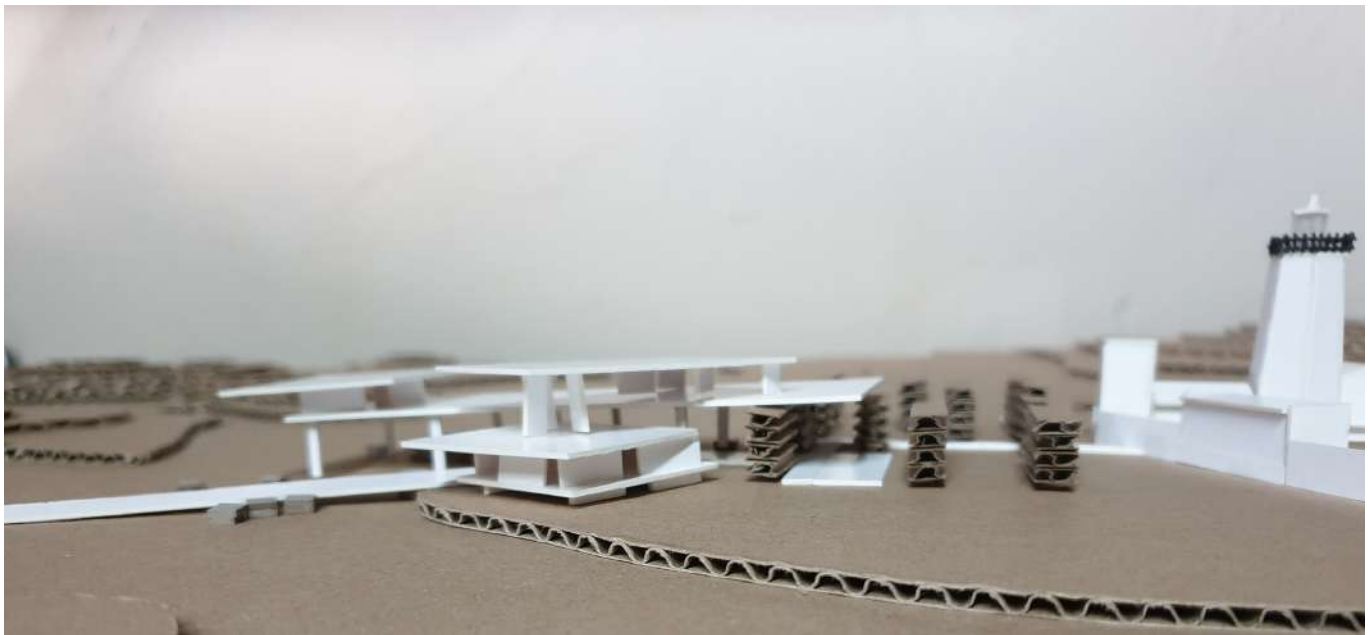
2nd floor plan. External Review 1.
Drawing: Author. Pen on tracing paper. 2020



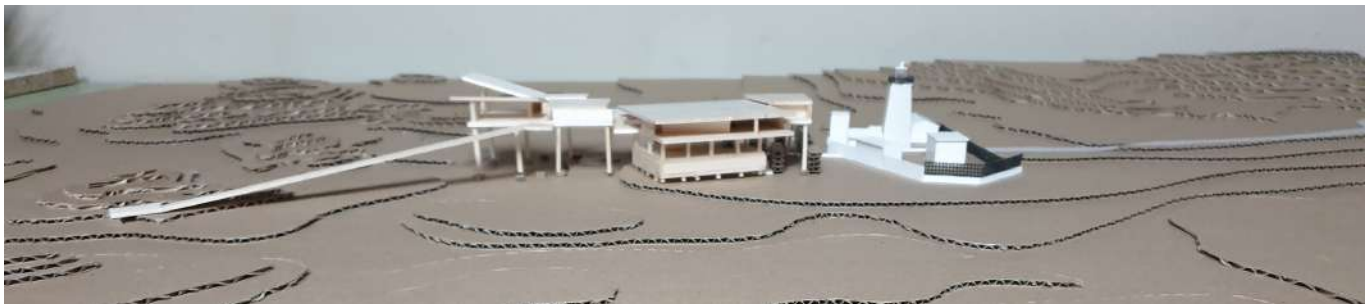
Model 1. External Review 1.
Model: Author. Mixed media. 2020



Model 1. External Review 1.
Model: Author. Mixed media. 2020



Model 1. External Review 1.
Model: Author. Mixed media. 2020



Model 2. External Review 1.
Model: Author. Mixed media. 2020



Model 2. External Review 1.
Model: Author. Mixed media. 2020

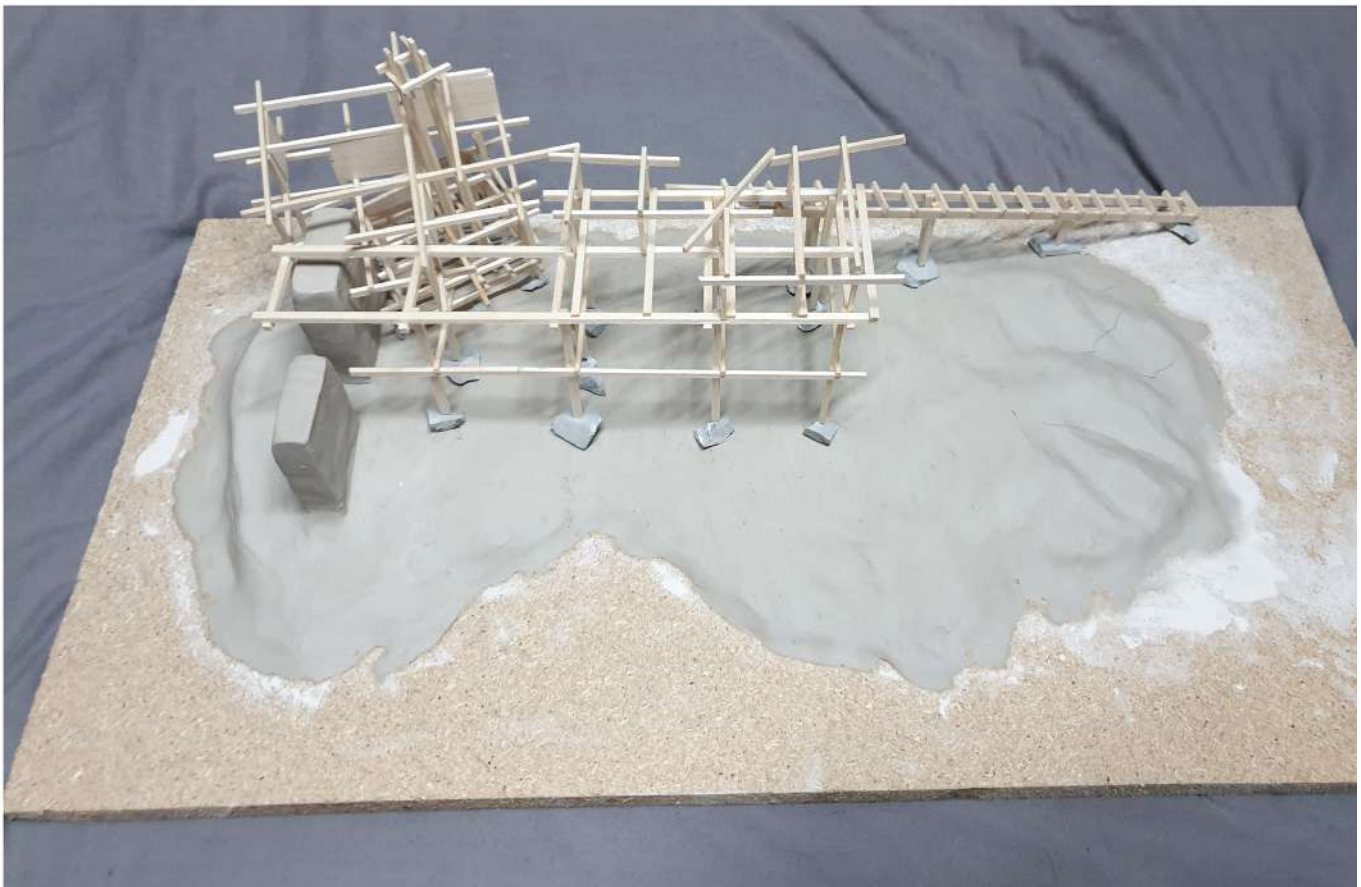


Construction touchstone.
Model: Author. Mixed media. 2020





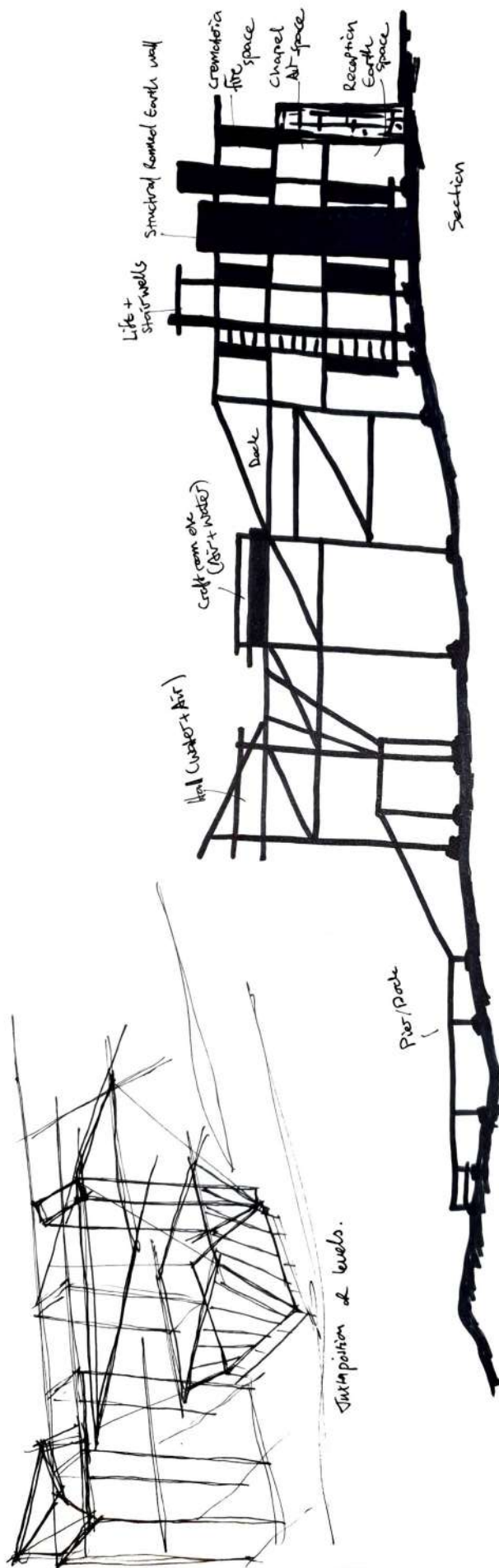
Construction touchstone.
Model: Author. Mixed media. 2020



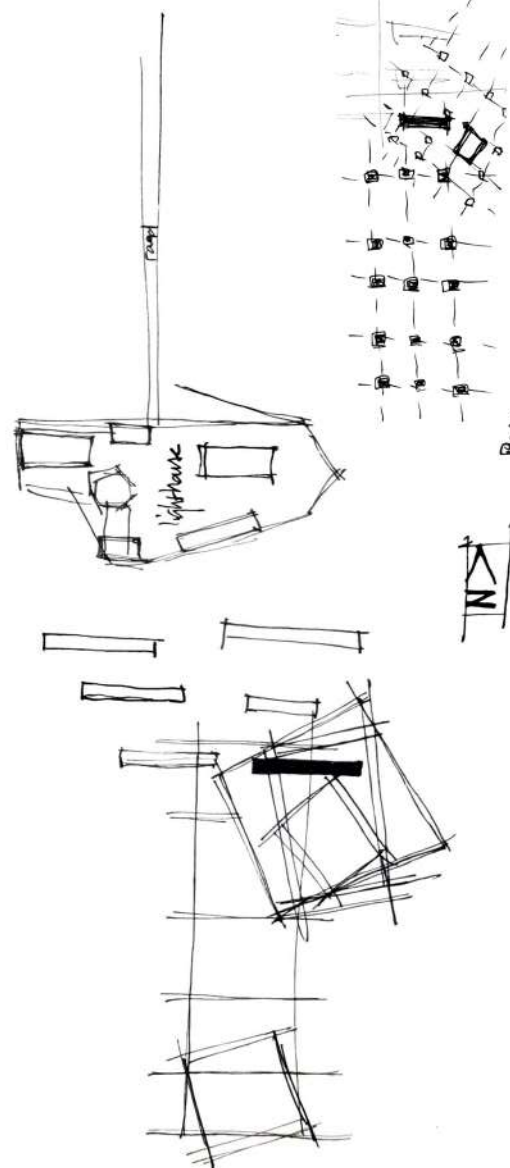


Construction touchstone.
Model: Author. Mixed media. 2020

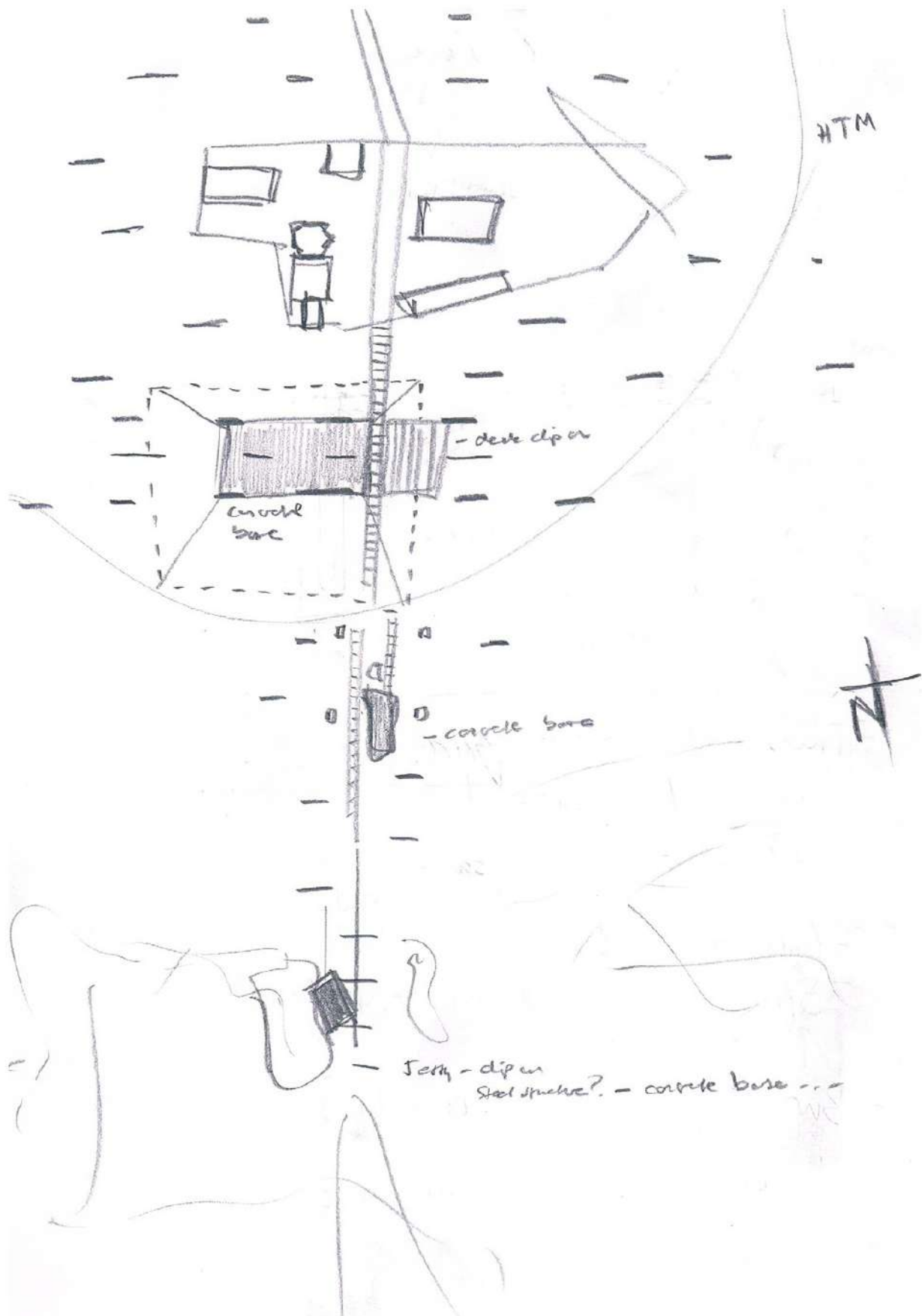




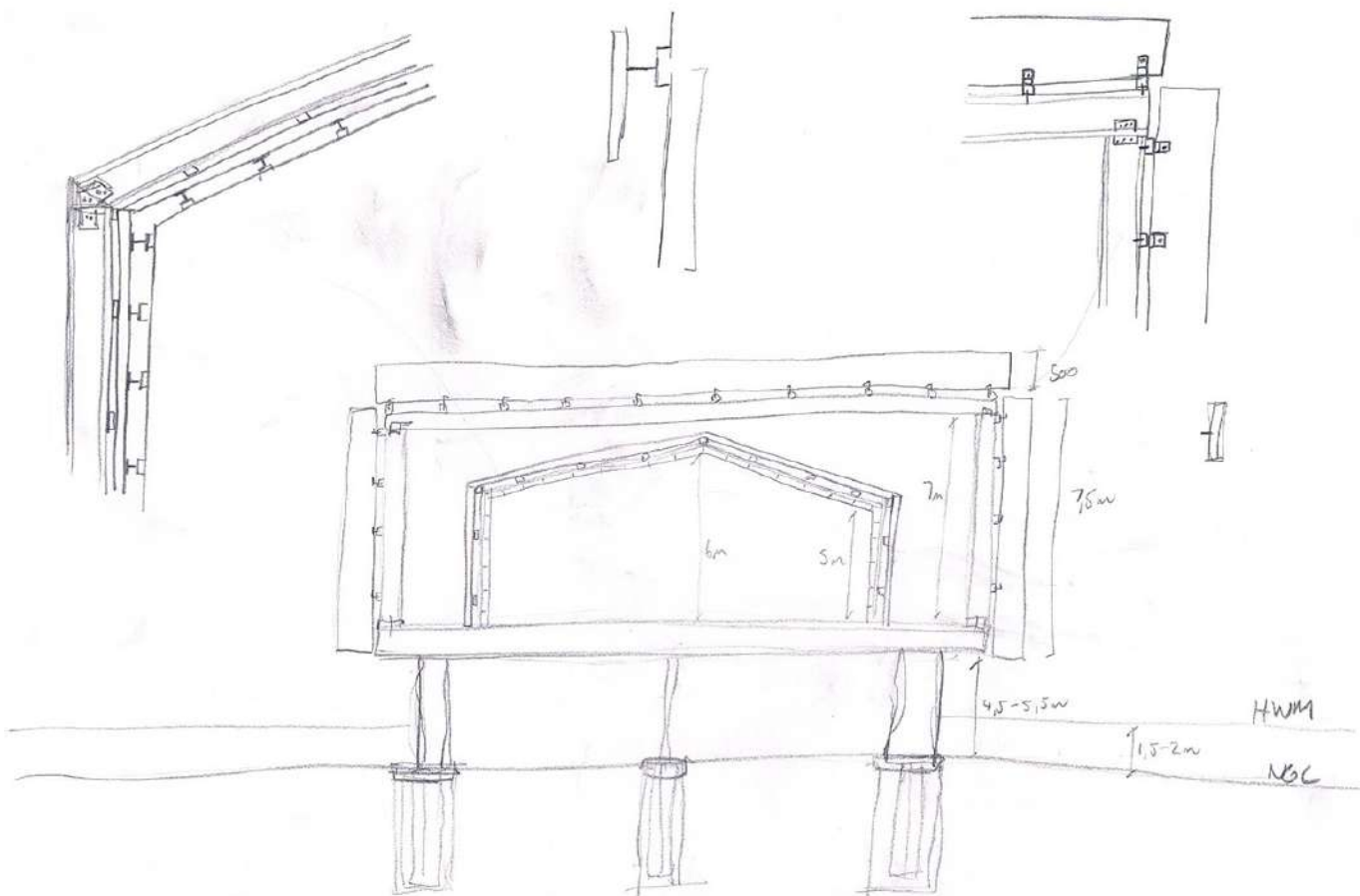
- Rammed Earth Walls
- Steel + Timber Post Structures for open + accessible spaces
- Concrete play as pool - foundations



1 — ^{Flow} Construction touchstone.
Sketch: Author. Pen on paper. 2020



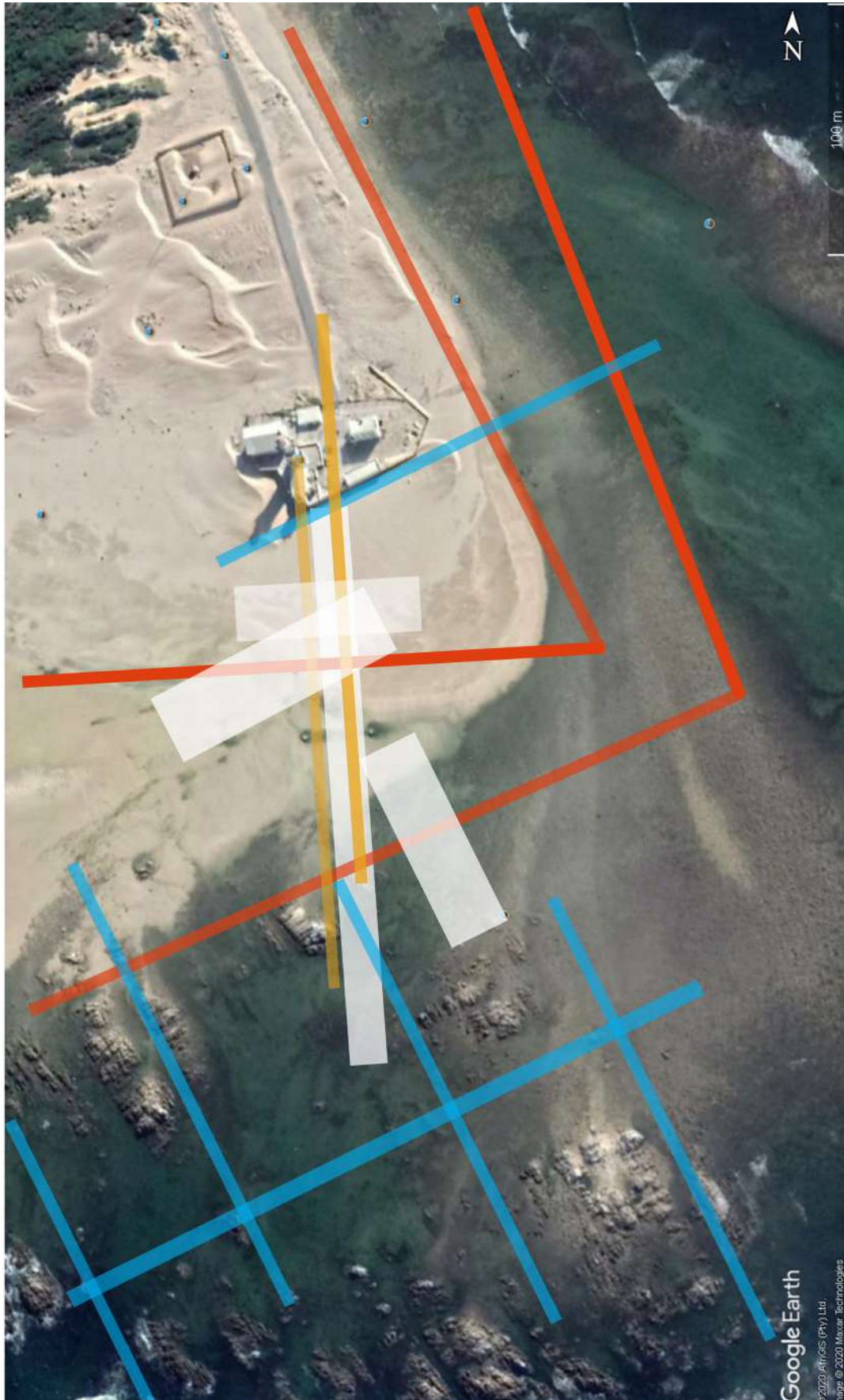
Main structure layout.
Sketch: Author. Pencil on paper. 2020



Chapel structural development.
Sketch: Author. Pencil on paper. 2020



Site plan. External Review 2.
Photomontage: Author. Mixed media. 2020

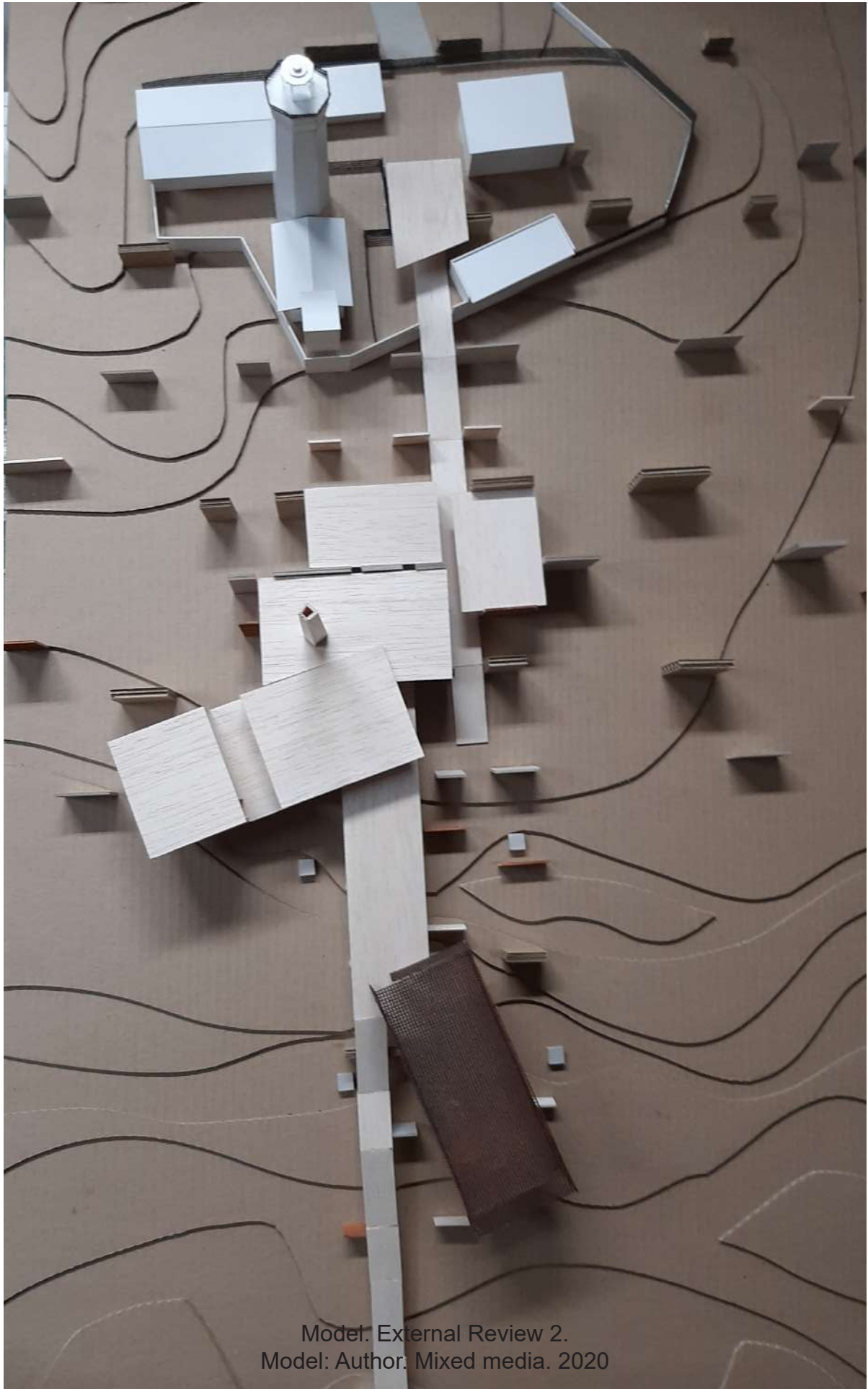


Site geometry. External Review 2.
Photomontage: Author. Mixed media. 2020

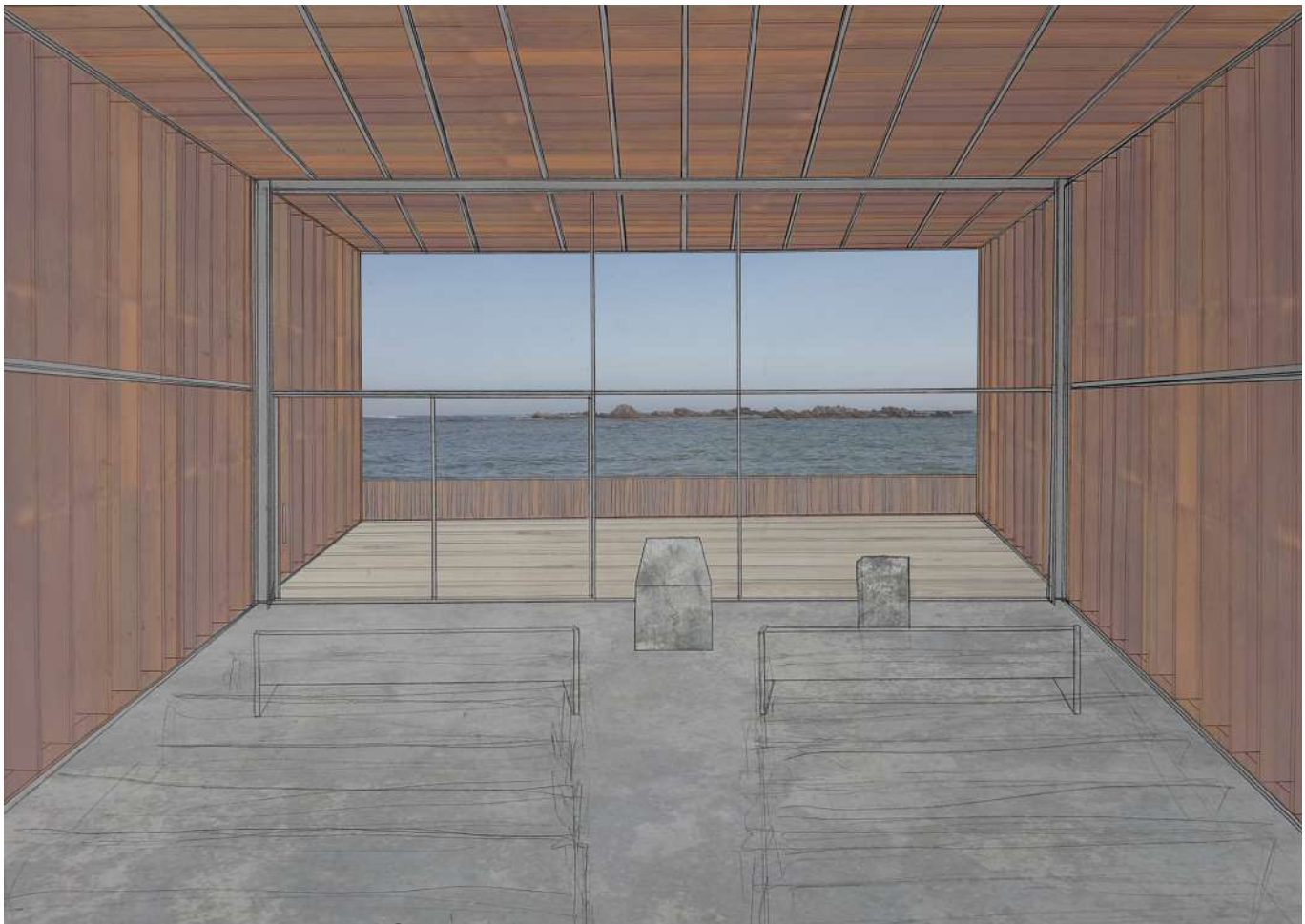




Ground floor plan. External Review 2.
Drawing: Author. Mixed media. 2020



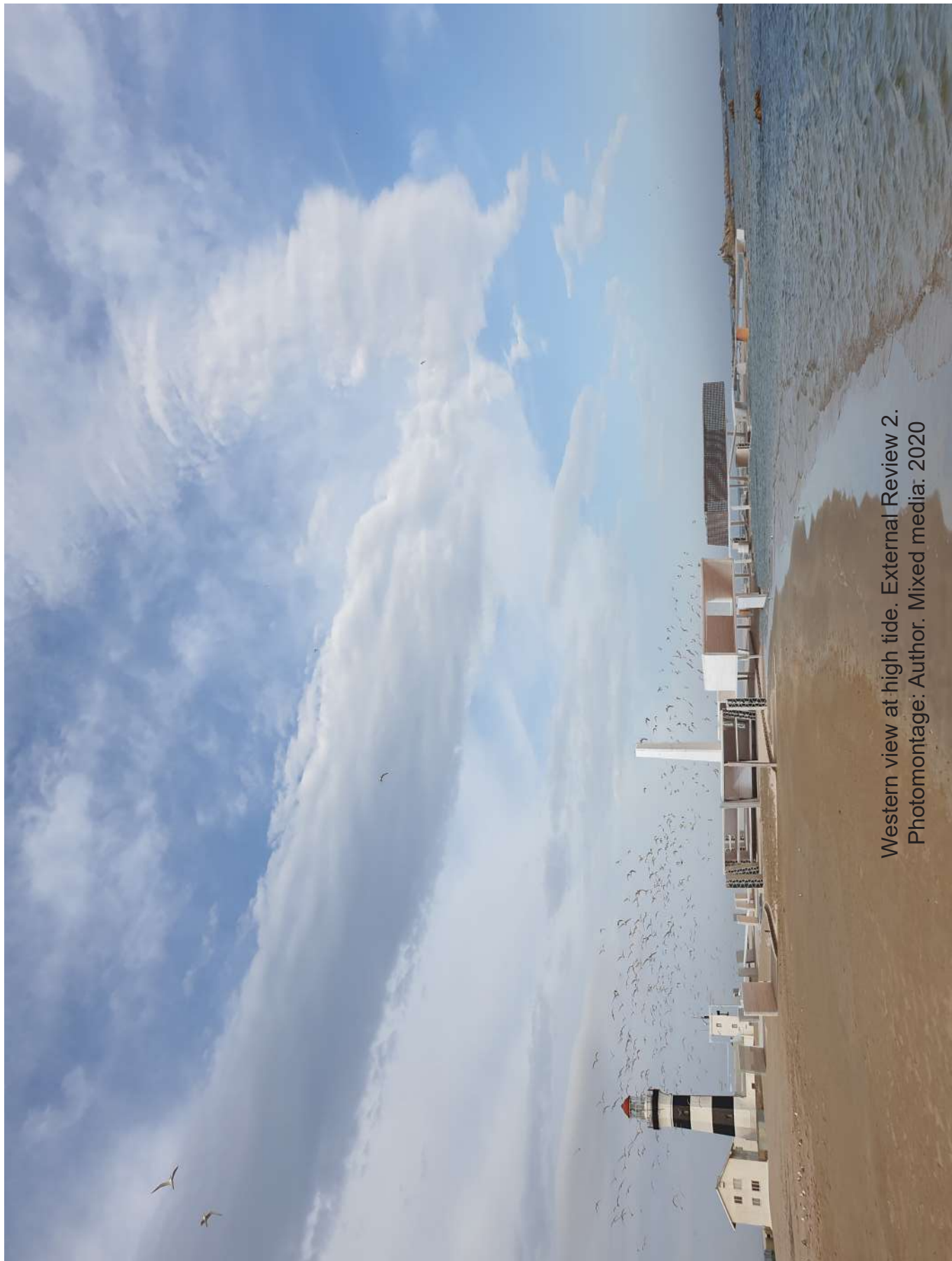
Model: External Review 2.
Model: Author: Mixed media. 2020



Chapel perspective. External Review 2.
Drawing: Author. Mixed media. 2020



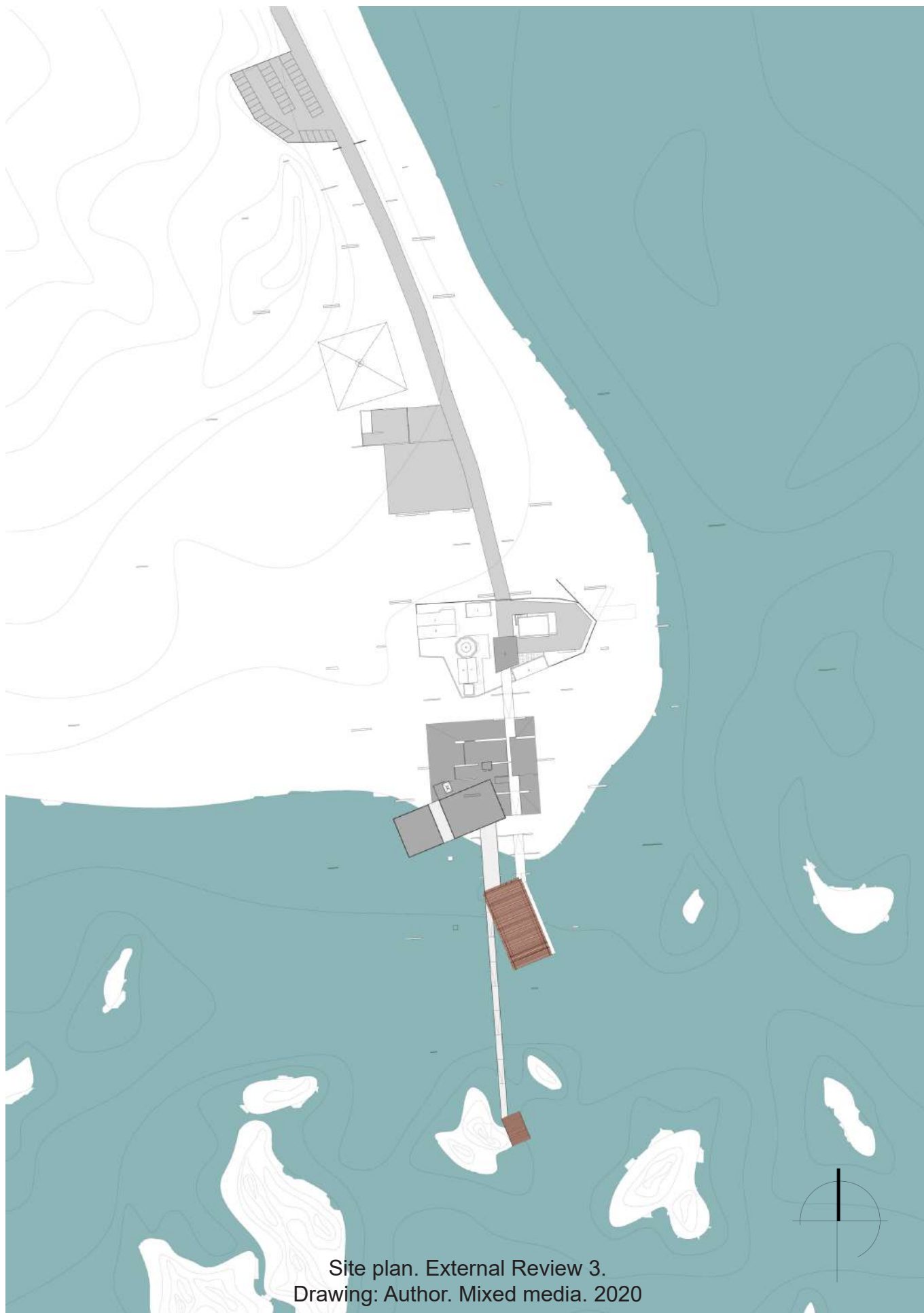
Crematorium perspective. External Review 2.
Drawing: Author. Mixed media. 2020



Western view at high tide. External Review 2.
Photomontage: Author. Mixed media: 2020

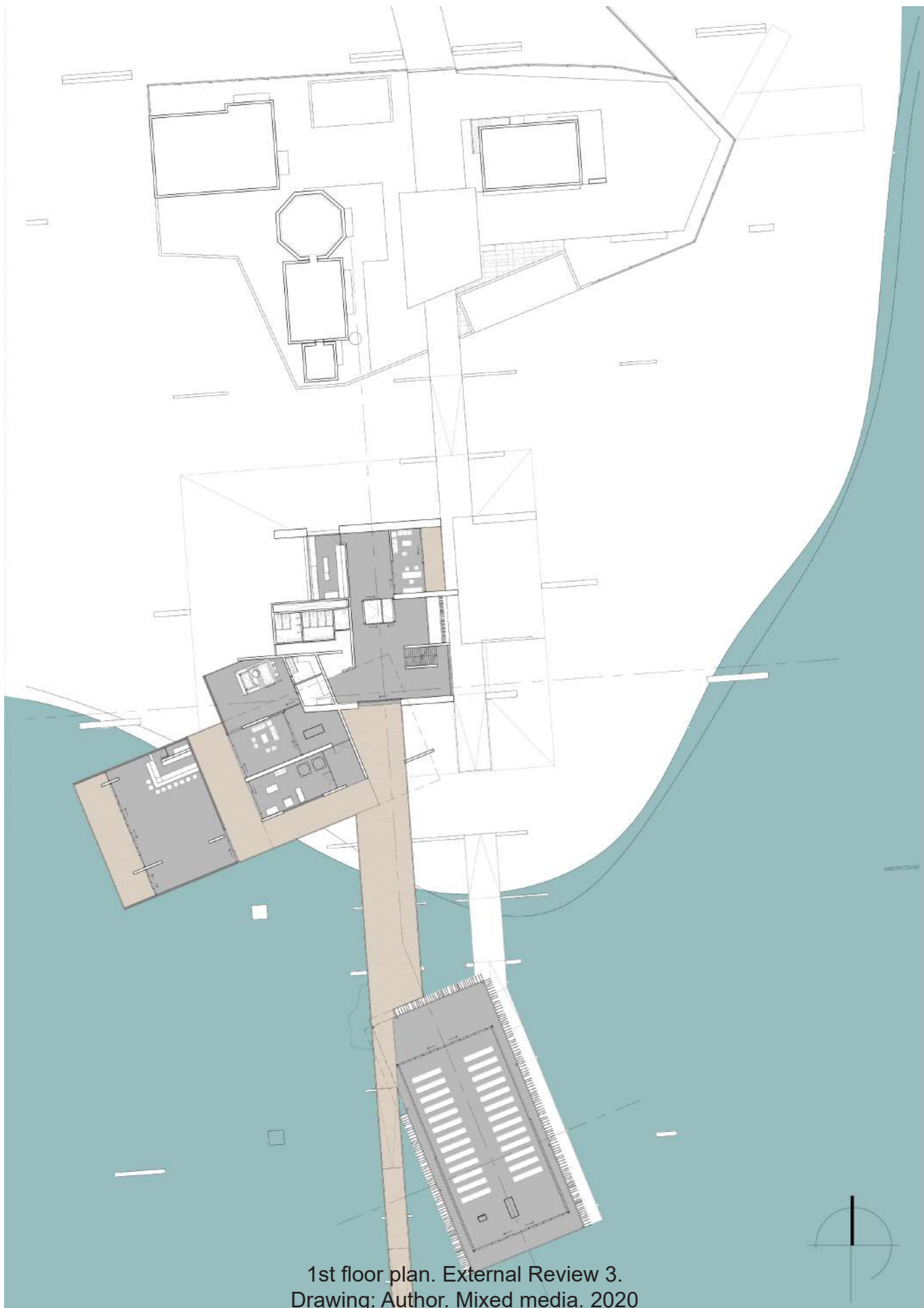


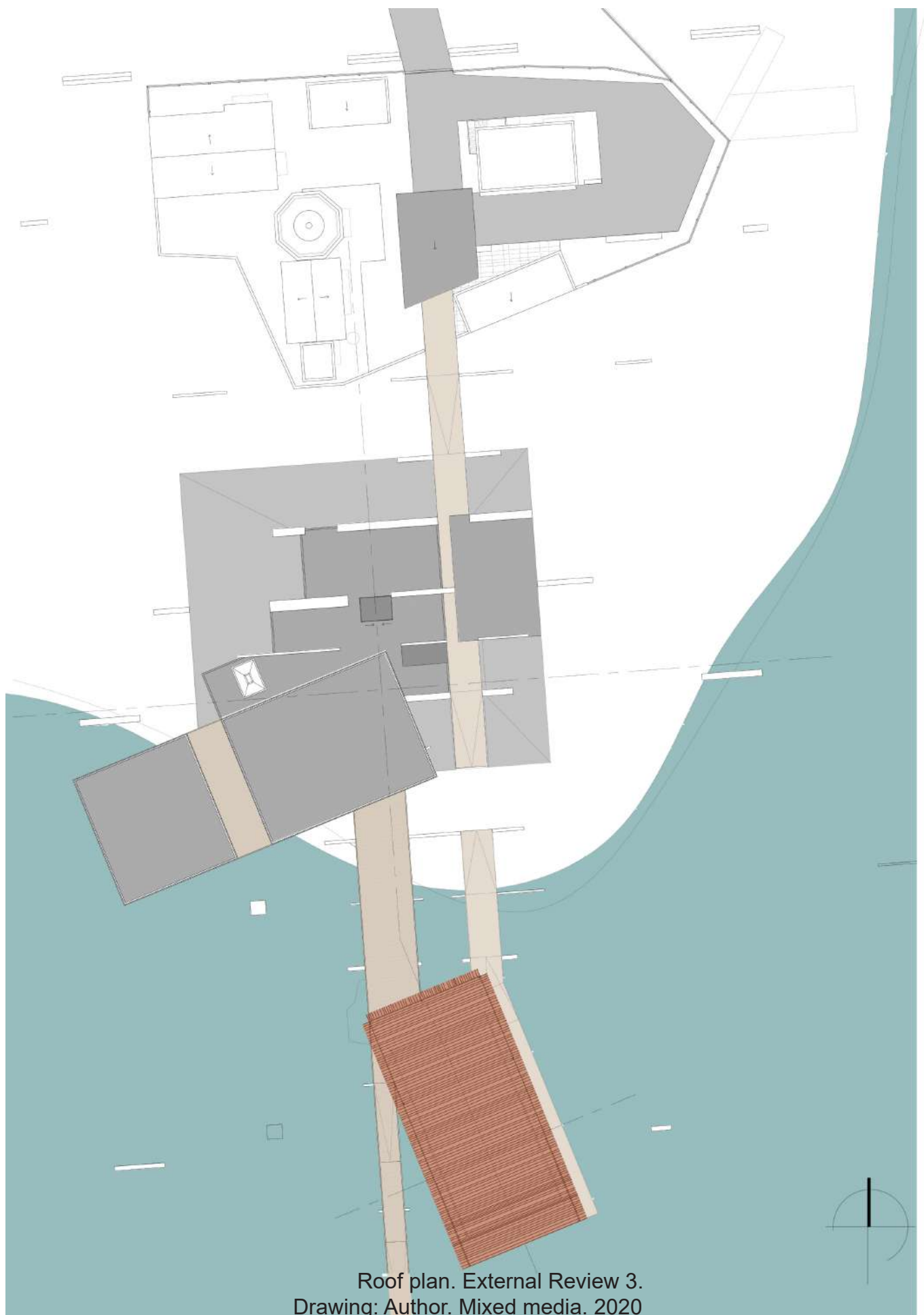
Eastern view at low tide. External Review 2.
Photomontage: Author. Mixed media. 2020



Site plan. External Review 3.
Drawing: Author. Mixed media. 2020



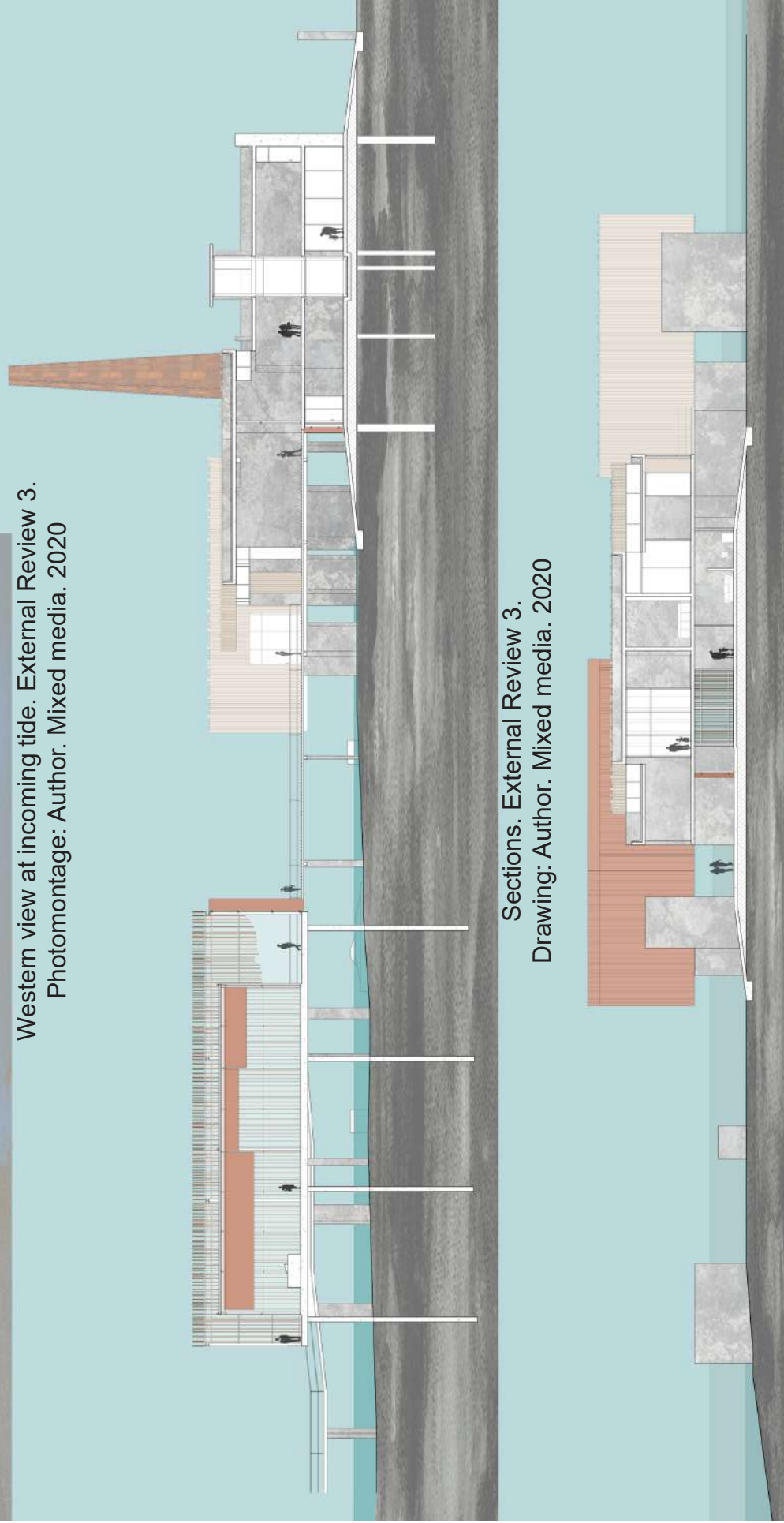




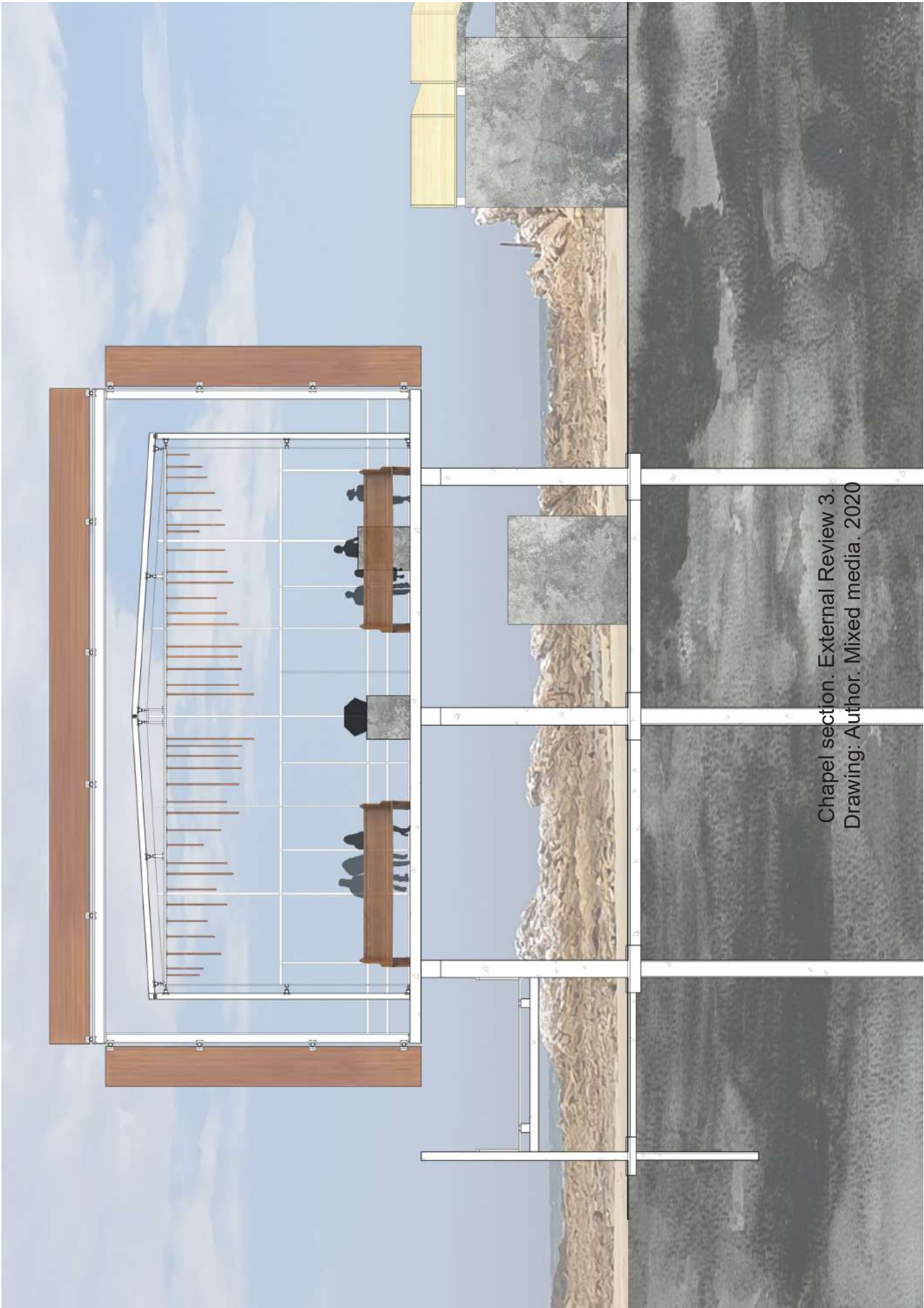
Roof plan. External Review 3.
Drawing: Author. Mixed media. 2020



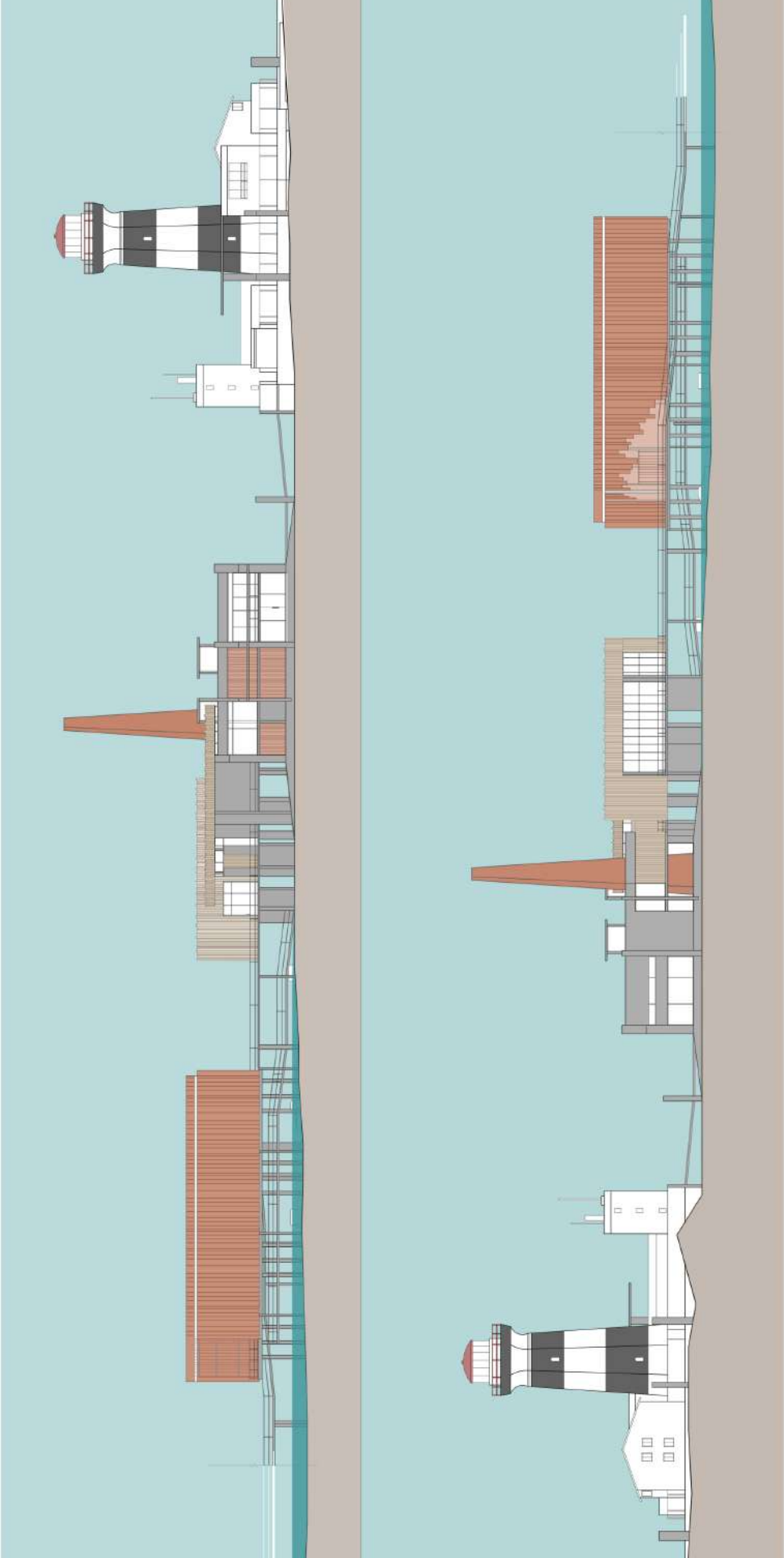
Western view at incoming tide. External Review 3.
Photomontage: Author. Mixed media. 2020



Sections. External Review 3.
Drawing: Author. Mixed media. 2020



Chapel section. External Review 3.
Drawing: Author. Mixed media. 2020



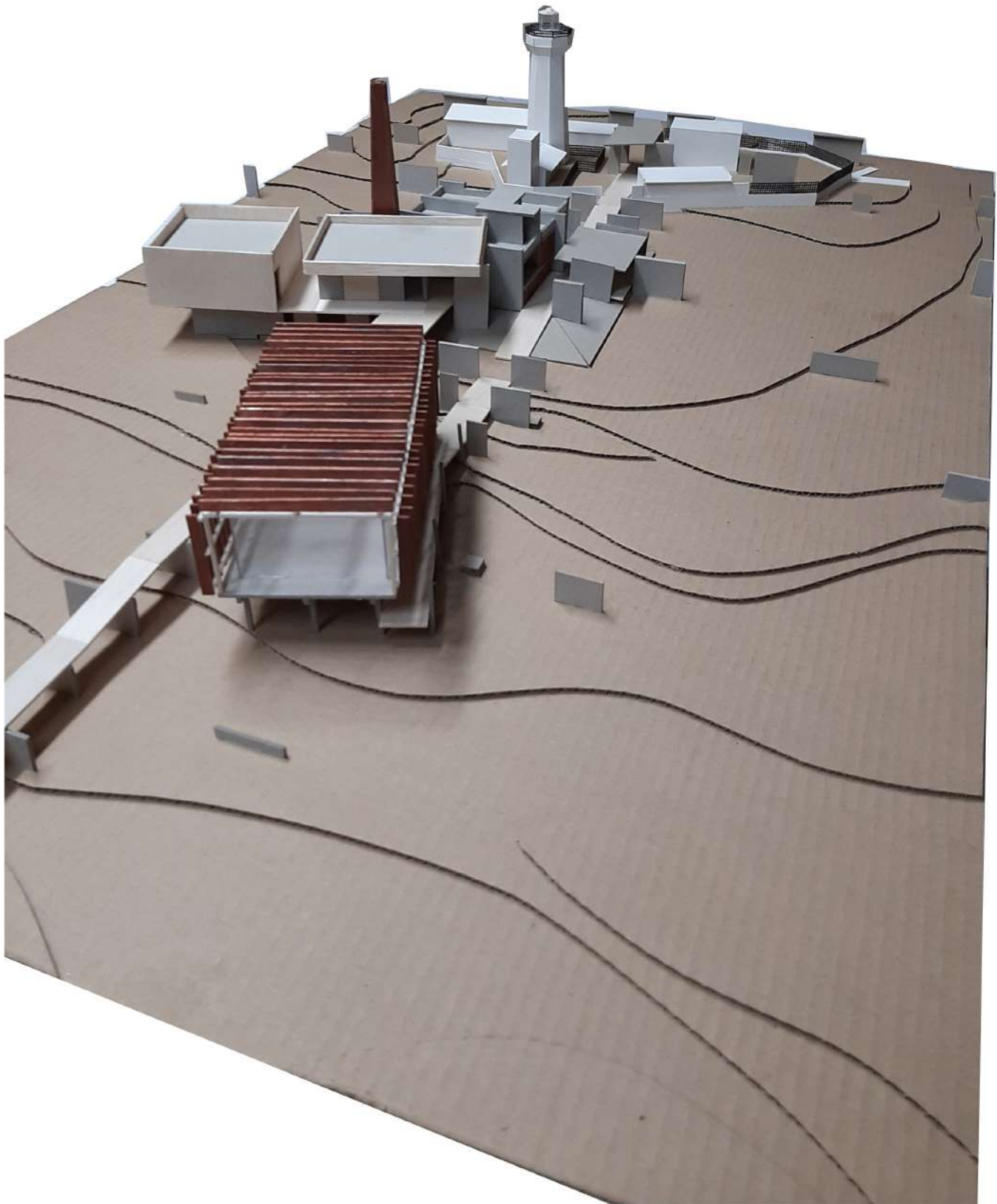
Elevations. External Review 3.
Drawing: Author. Mixed media. 2020



Western view at high tide. External Review 3.
Photomontage: Author. Mixed media. 2020



View from south on pier at low tide. External Review 3.
Photomontage: Author. Mixed media. 2020



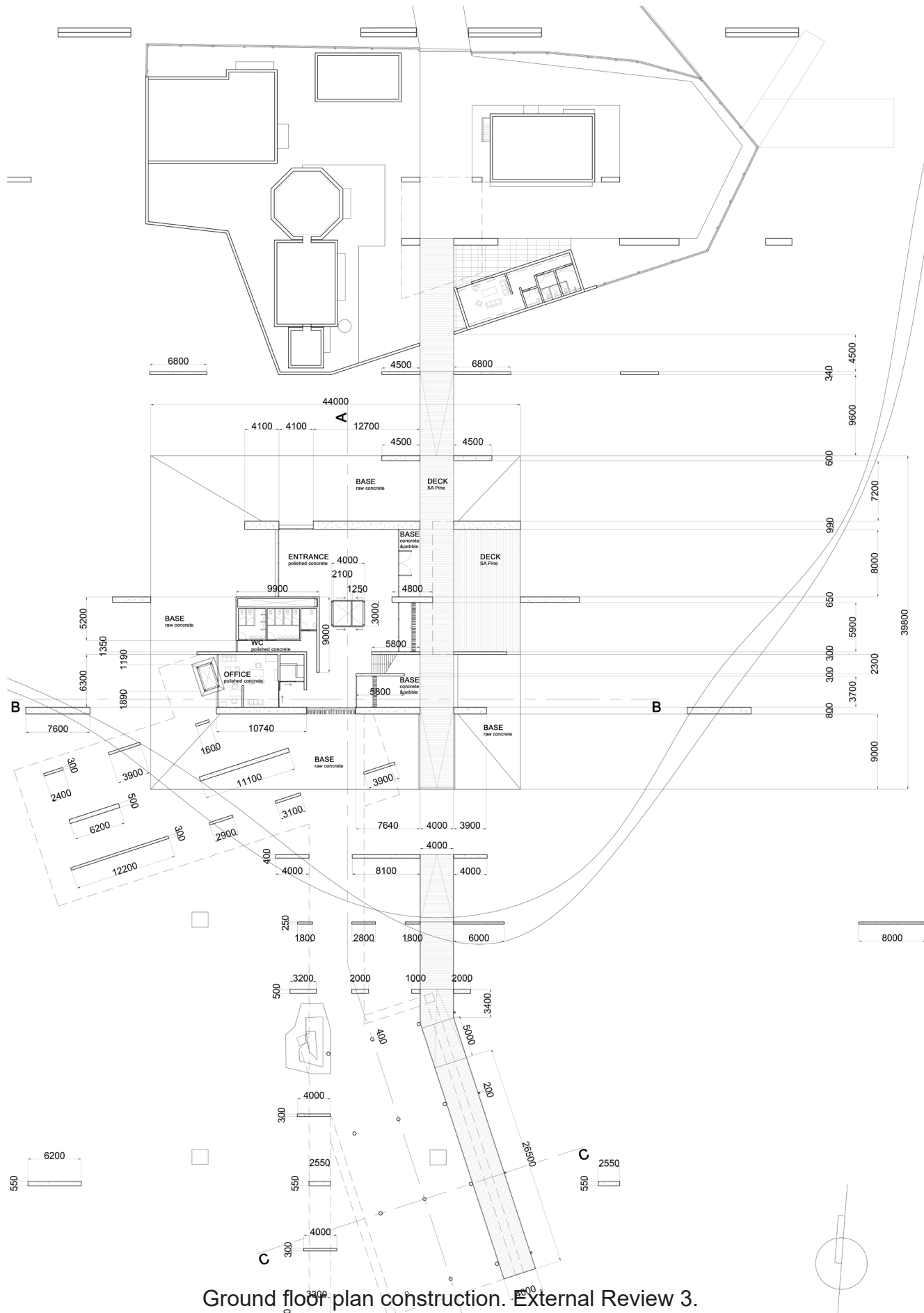
Model. External Review 3.
Model: Author. Mixed media. 2020



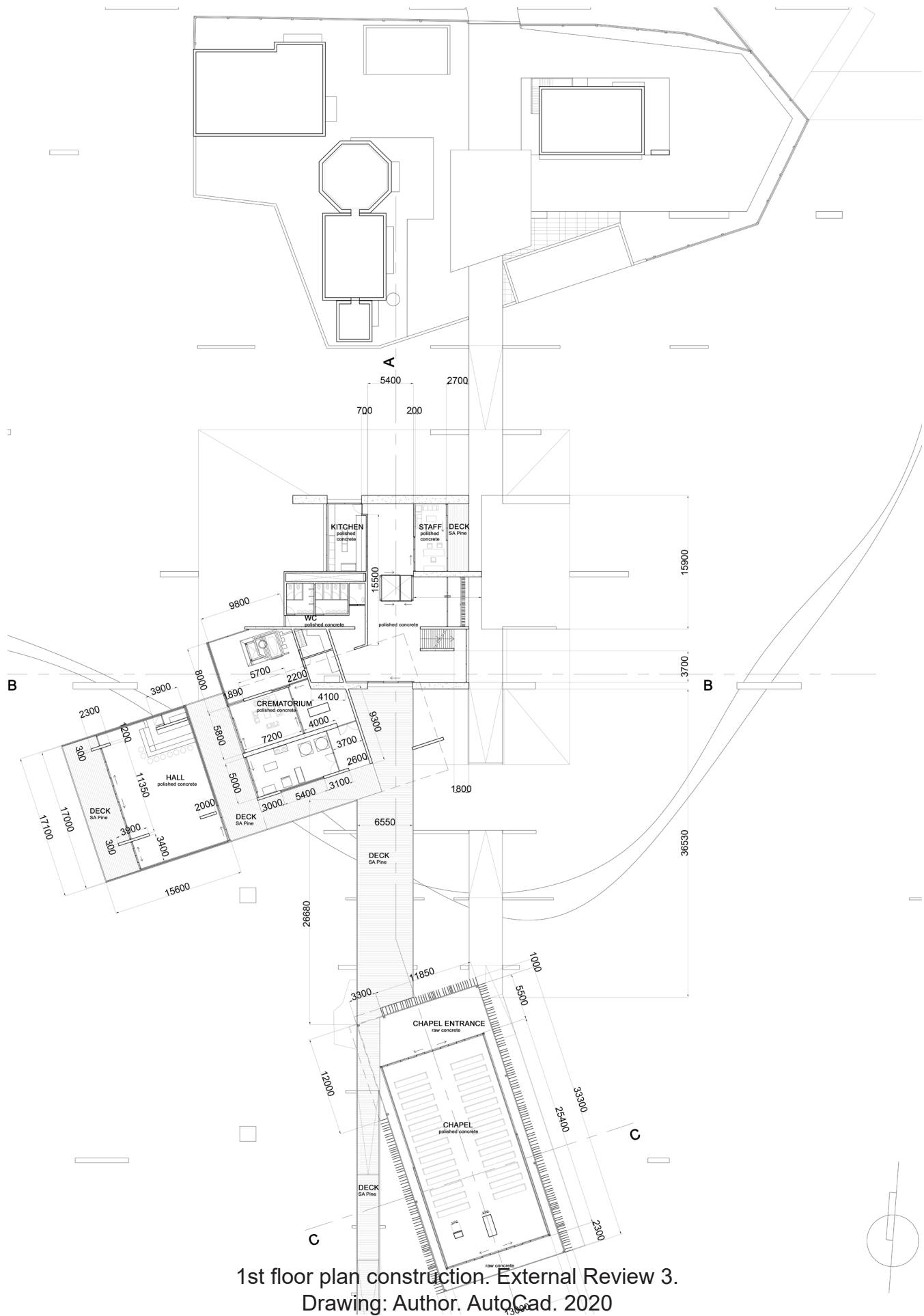
Chapel skin exploration.
Model: Author. Mixed media. 2020

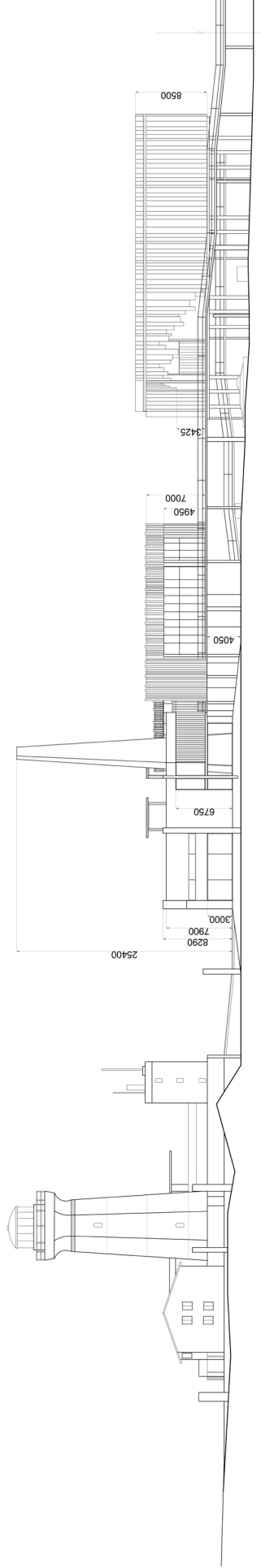


Chapel skin exploration.
Model: Author. Mixed media. 2020

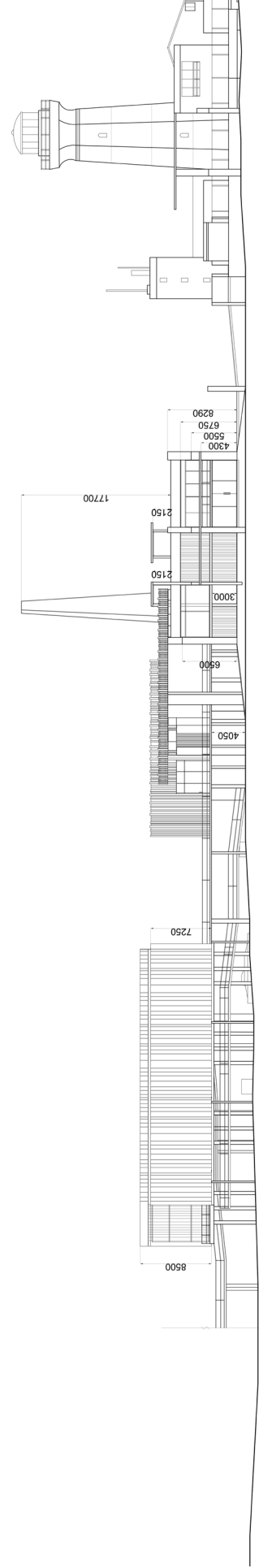


Ground floor plan construction. External Review 3.
Drawing: Author. AutoCad. 2020

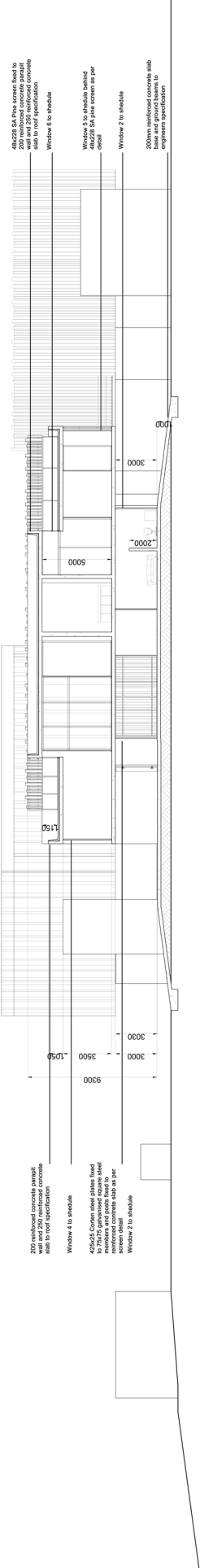




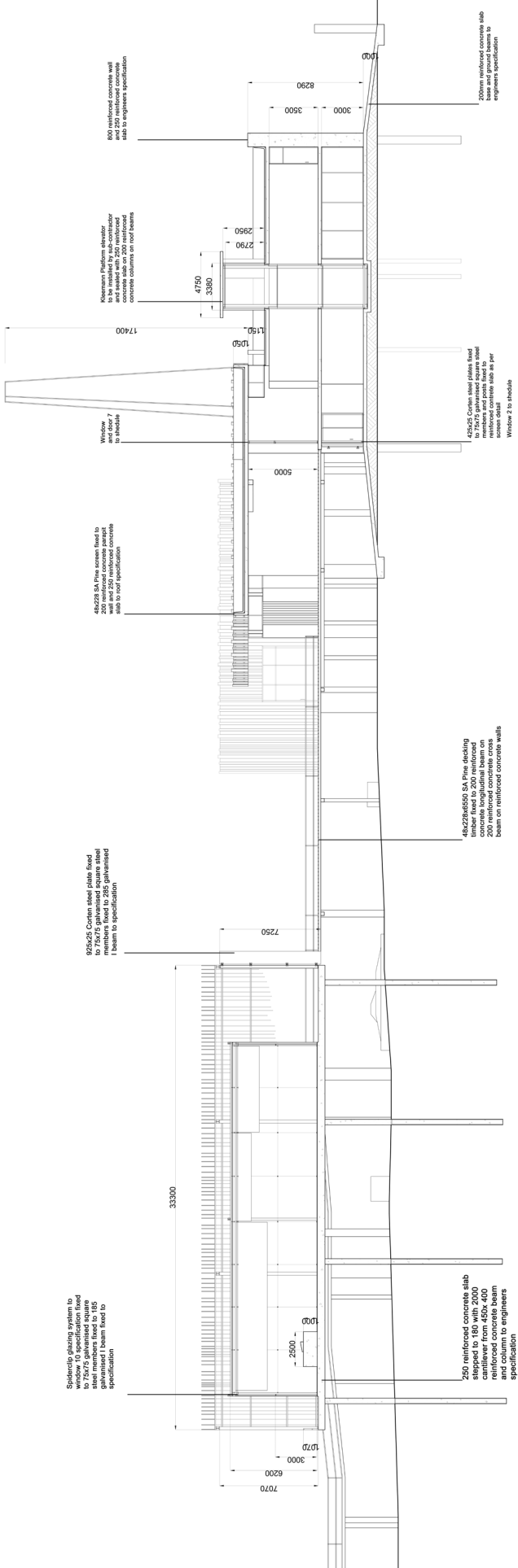
West elevation construction. External Review 3.
Drawing: Author. AutoCad. 2020



East elevation construction. External Review 3.
Drawing: Author. AutoCad. 2020

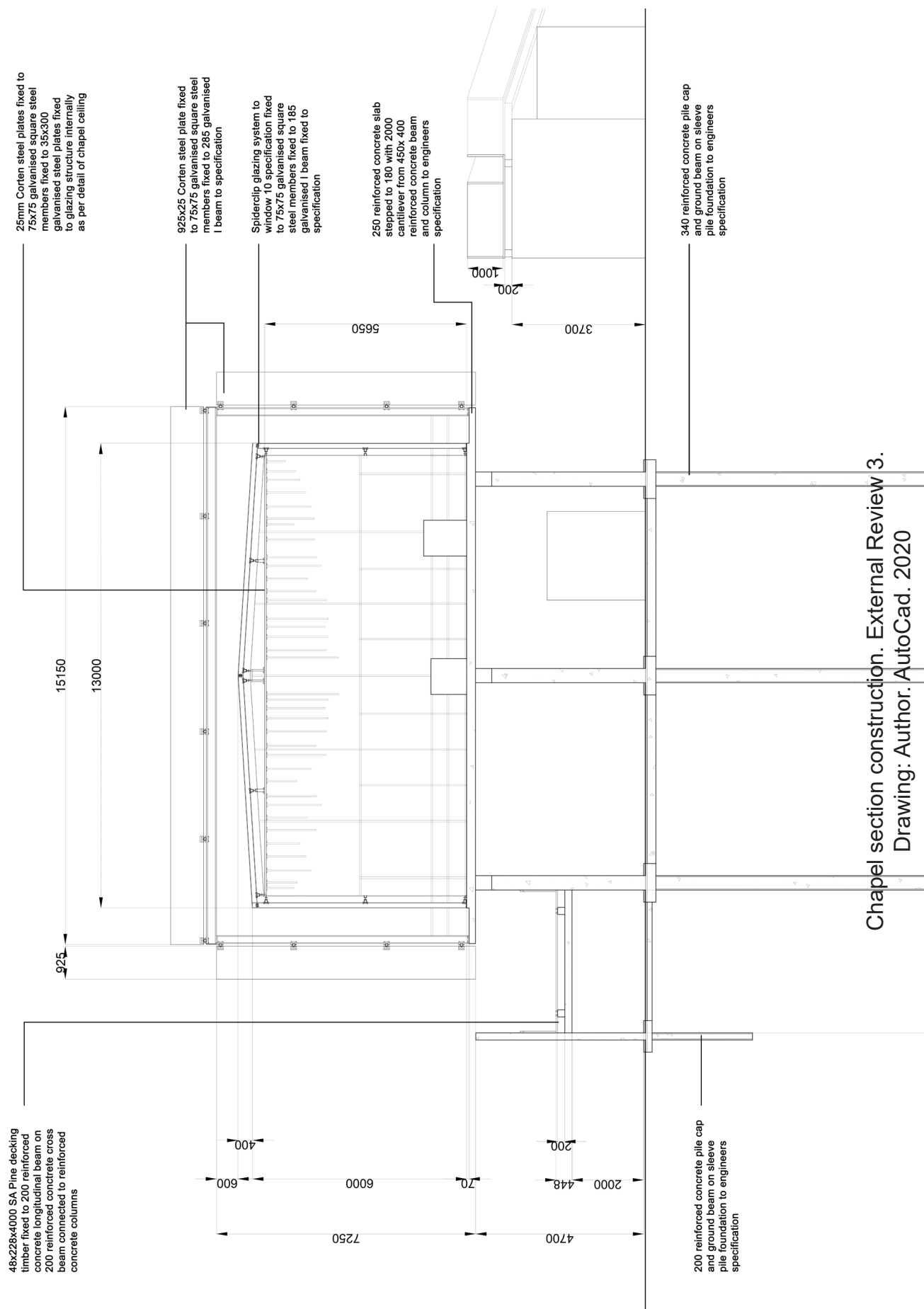


SECTION B-B
SCALE 1:100



SECTION A-A
SCALE 1:100

Sections construction. External Review 3.
Drawing: Author. AutoCad. 2020



Chapel section construction. External Review 3.
Drawing: Author. AutoCad. 2020



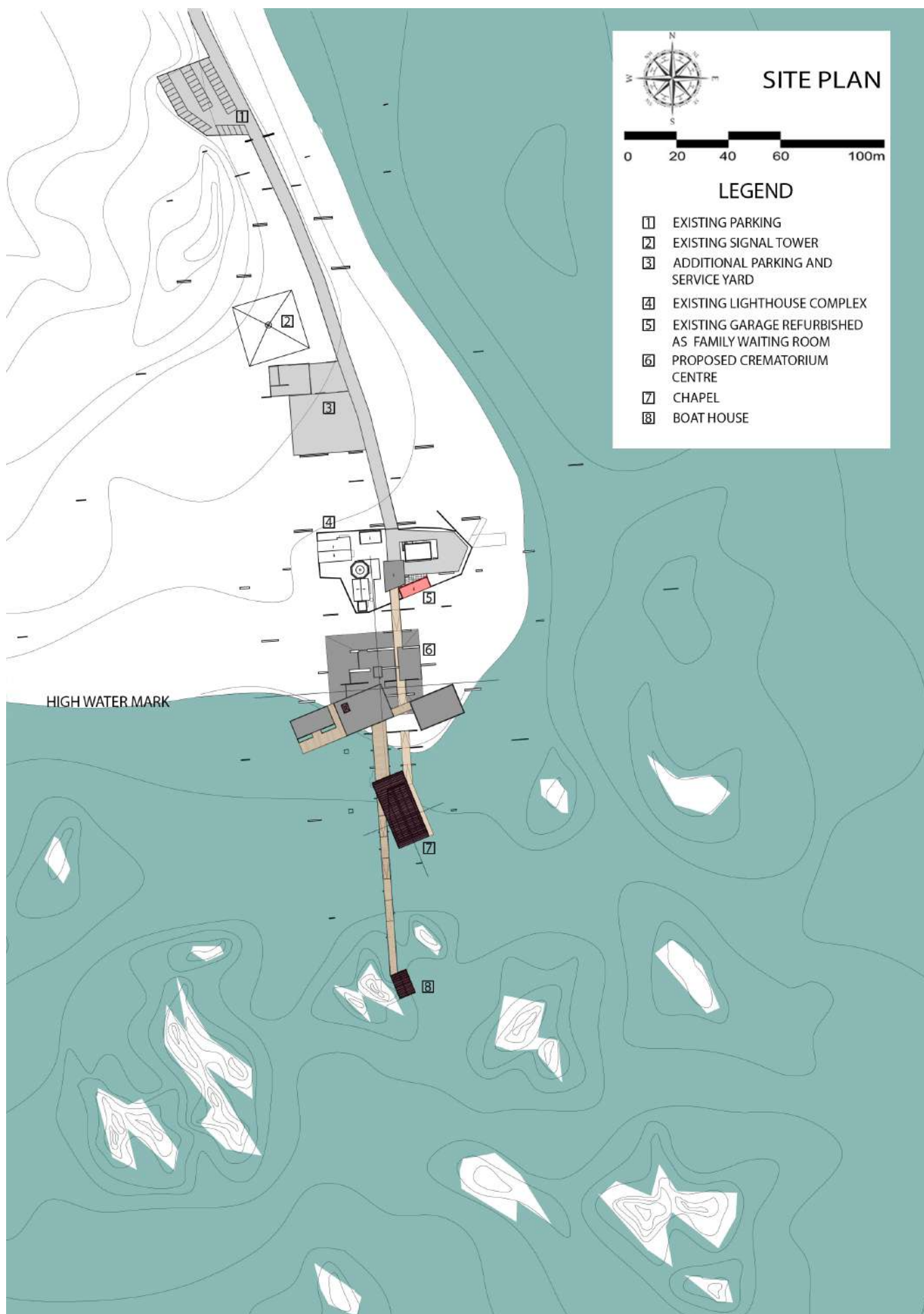
FINAL DESIGN

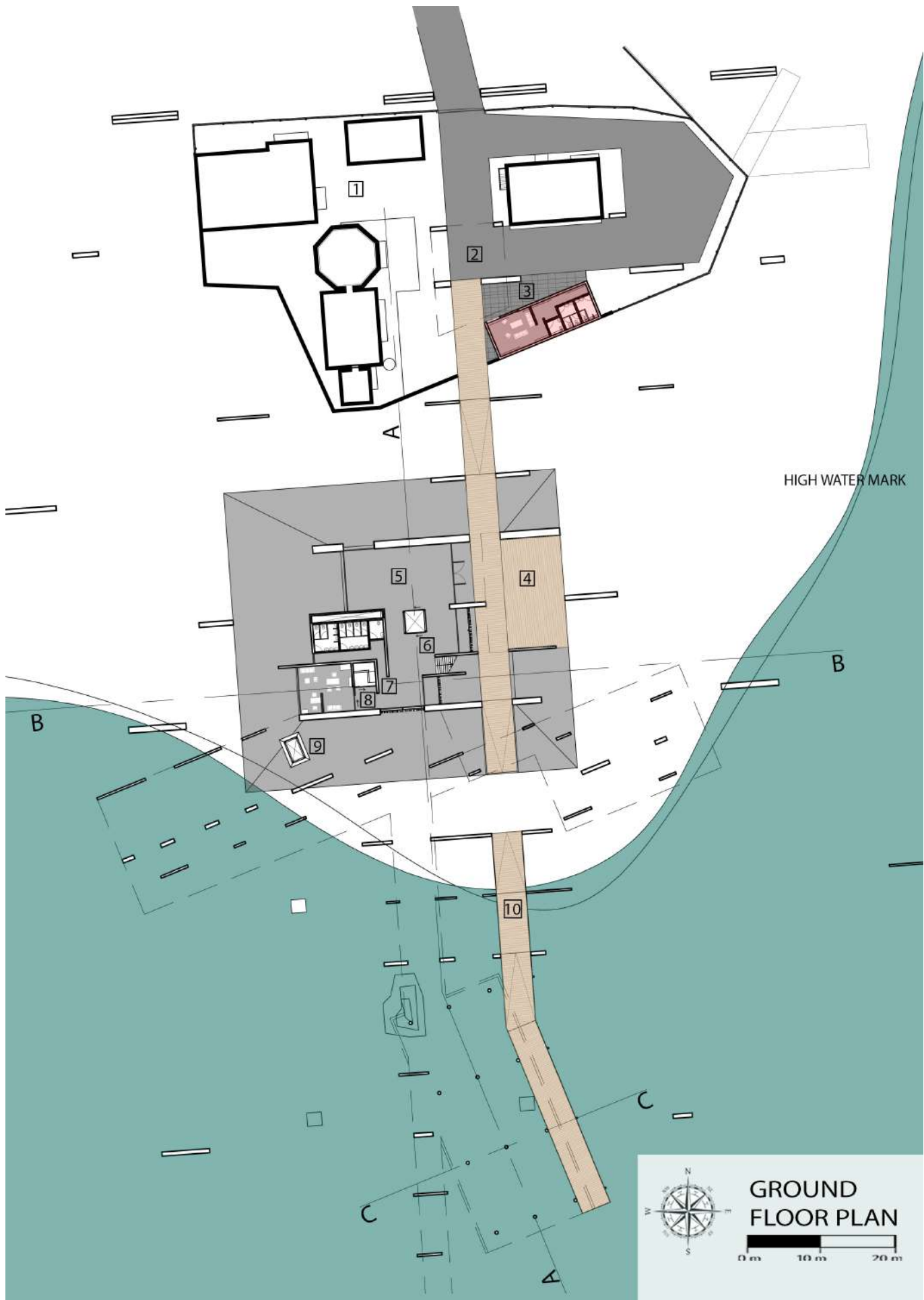
The four elements on site.
Photograph: Author. 2020



Northern view from existing parking area.
Photomontage: Author. Mixed media. 2020



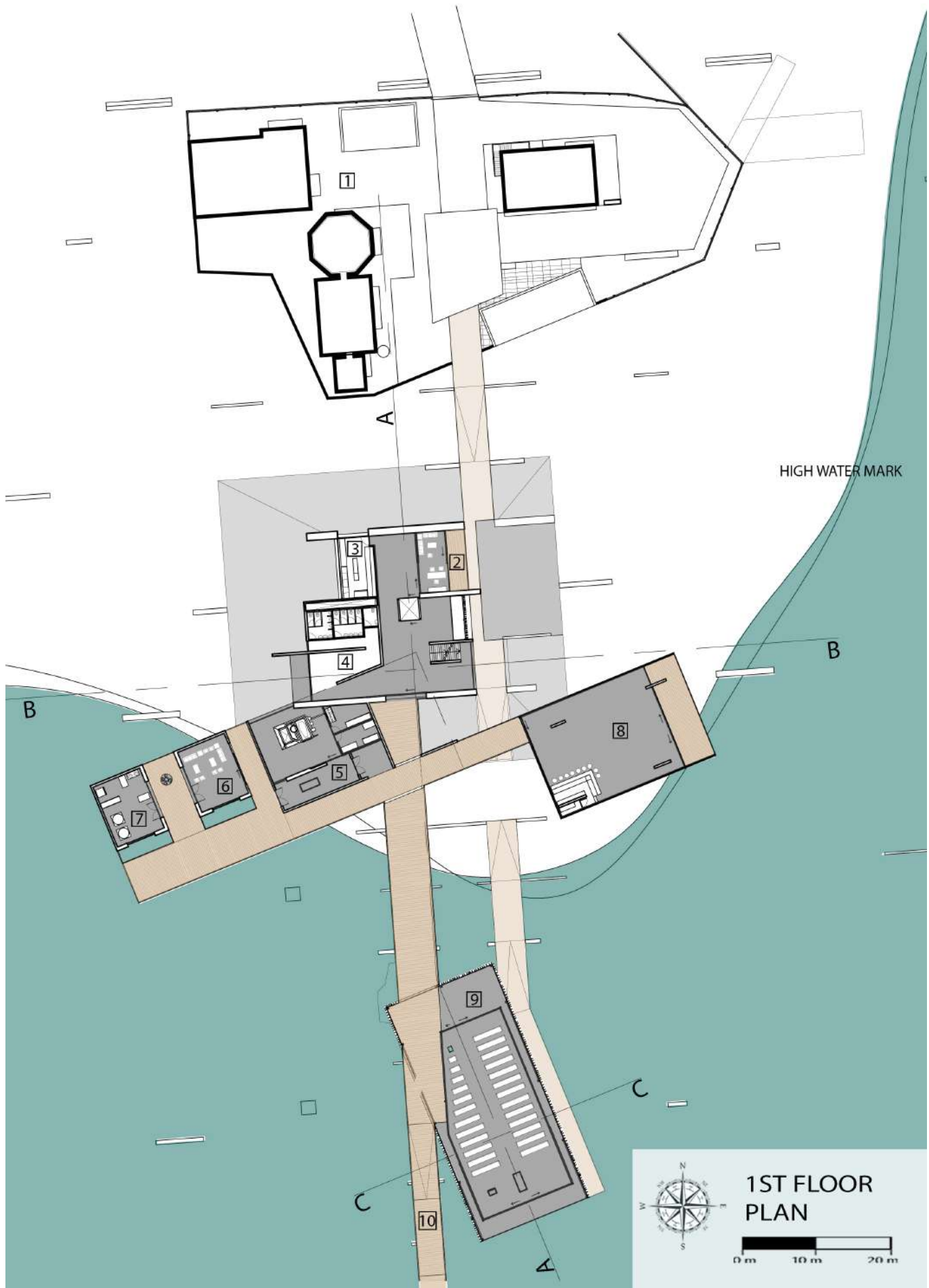


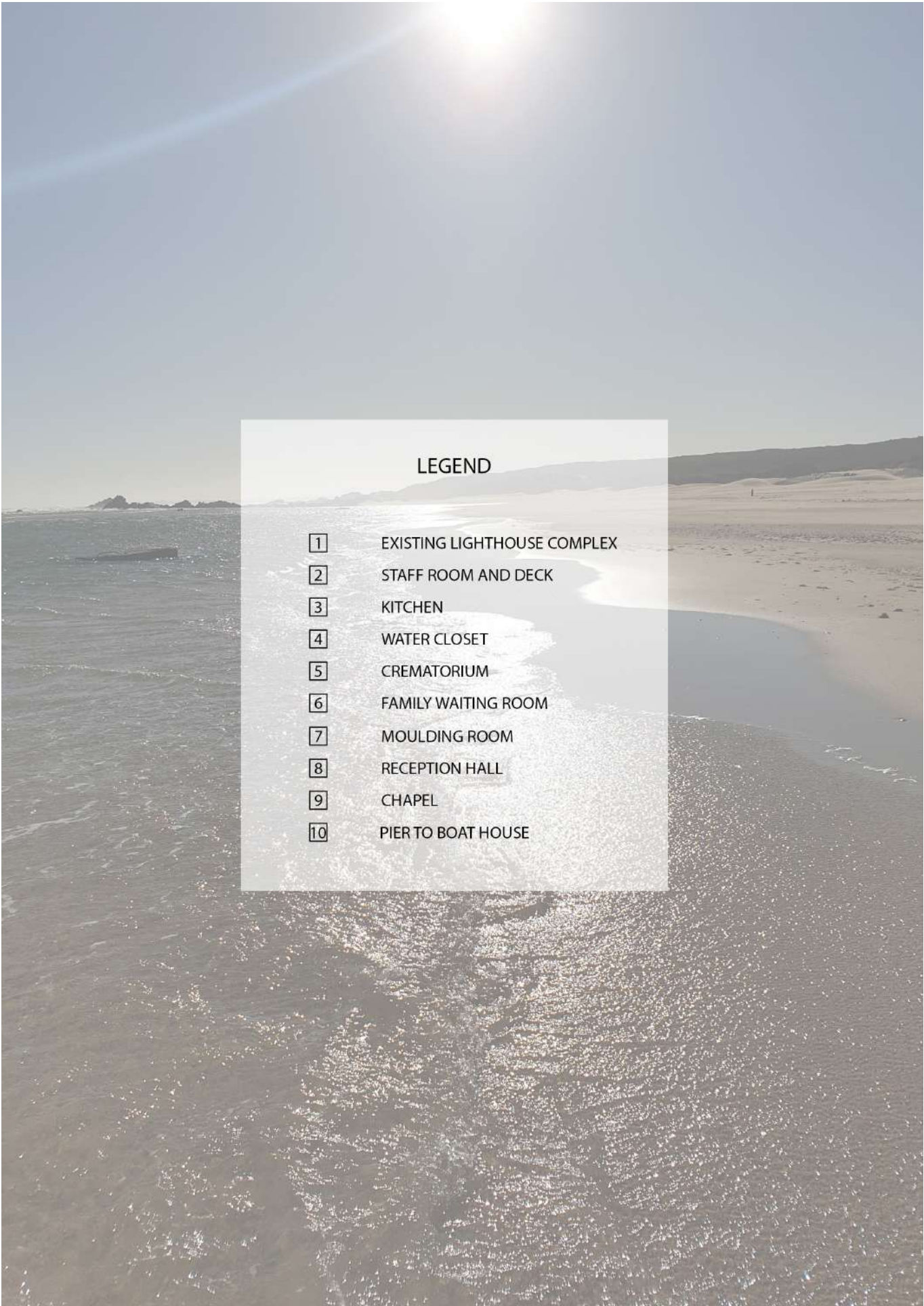


An aerial photograph of a coastal area, showing a sandy beach, the ocean with waves, and distant hills under a bright sky. A semi-transparent white rectangle is overlaid in the center, containing a legend.

LEGEND

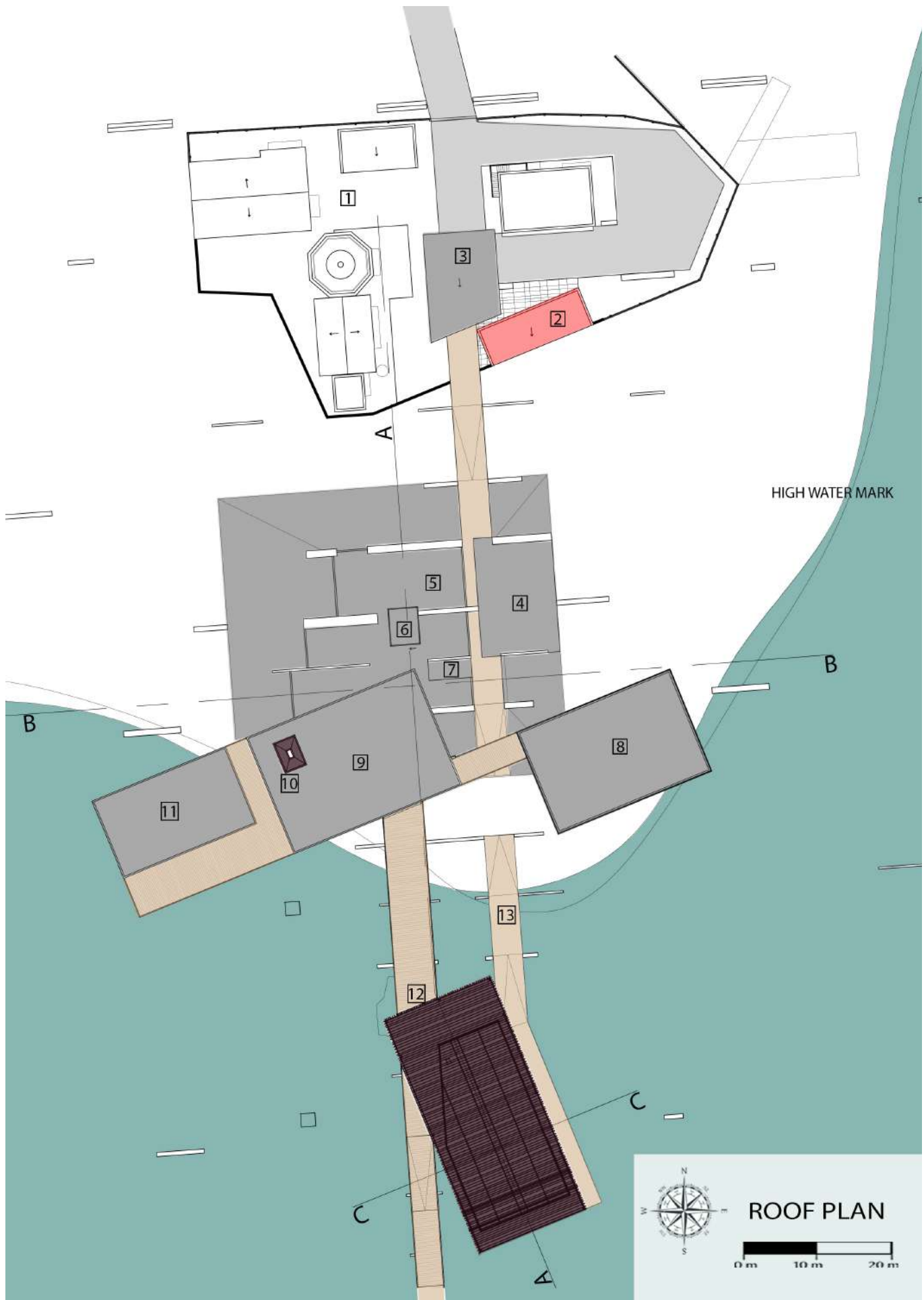
- 1 EXISTING LIGHTHOUSE COMPLEX
- 2 HEARSE DROP OFF
- 3 EXISTING GARAGE REFURBISHED
AS FAMILY WAITING ROOM
- 4 ENTRANCE DECK
- 5 ENTRANCE SPACE
- 6 ELEVATOR AND STAIRS
- 7 WATER CLOSET
- 8 OFFICE AND STORAGE
- 9 CHIMNEY
- 10 PUBLIC BOARDWALK UNDER CHAPEL





LEGEND

- 1 EXISTING LIGHTHOUSE COMPLEX
- 2 STAFF ROOM AND DECK
- 3 KITCHEN
- 4 WATER CLOSET
- 5 CREMATORIUM
- 6 FAMILY WAITING ROOM
- 7 MOULDING ROOM
- 8 RECEPTION HALL
- 9 CHAPEL
- 10 PIER TO BOAT HOUSE



An aerial photograph of a coastal area, showing a sandy beach, the ocean with waves, and distant hills under a bright sky. A semi-transparent white box is overlaid in the center, containing a legend.

LEGEND

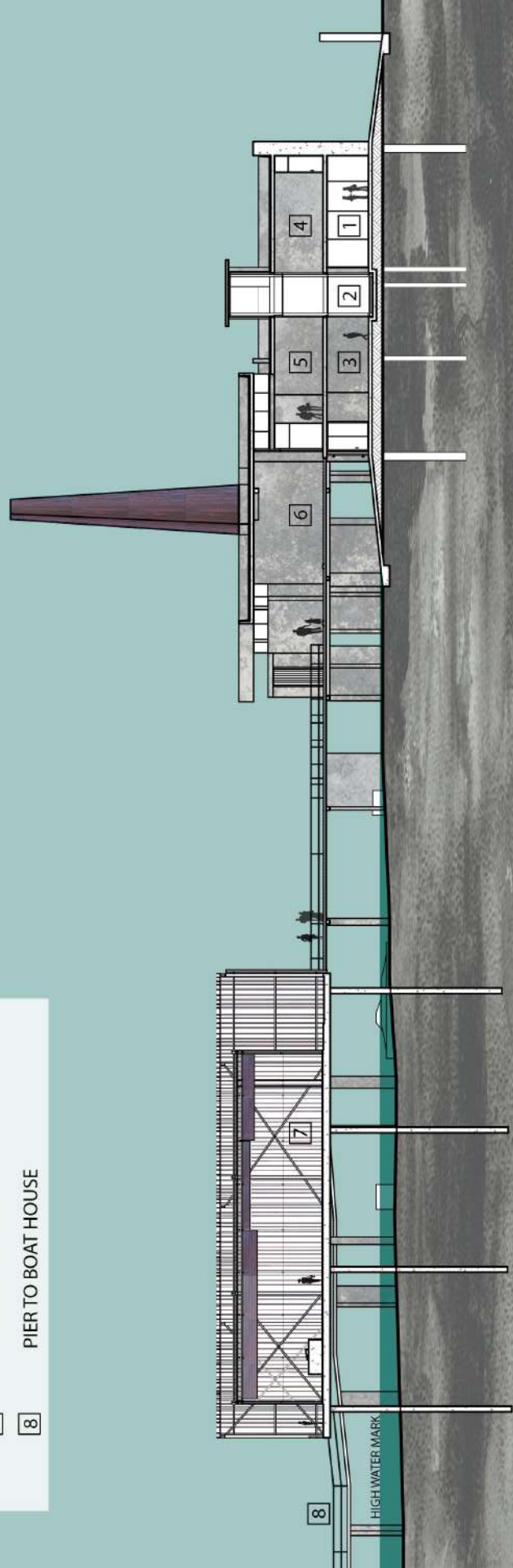
- 1 EXISTING LIGHTHOUSE COMPLEX
- 2 EXISTING GARAGE REFURBISHED AS FAMILY WAITING ROOM
- 3 HEARSE DROP OFF CANOPY
- 4 ENTRANCE DECK CANOPY
- 5 ENTRANCE AND ADMIN ROOF
- 6 ELEVATOR ROOF
- 7 STAIRS ROOF
- 8 RECEPTION HALL ROOF
- 9 CREMATORIUM ROOF
- 10 CHIMNEY
- 11 MOULDING ROOM ROOF
- 12 CHAPEL ROOF
- 13 PUBLIC BOARDWALK UNDER CHAPEL

SECTION A-A LONGITUDINAL SECTION



LEGEND

- 1 ENTRANCE SPACE
- 2 ELEVATOR
- 3 LOBBY SPACE BETWEEN ELEVATOR STAIRS AND OFFICE
- 4 STAFF AND KITCHEN
- 5 LOBBY SPACE BETWEEN ELEVATOR STAIRS AND WATER CLOSET
- 6 COVERED DECK SPACE
- 7 CHAPEL INTERIOR
- 8 PIER TO BOAT HOUSE



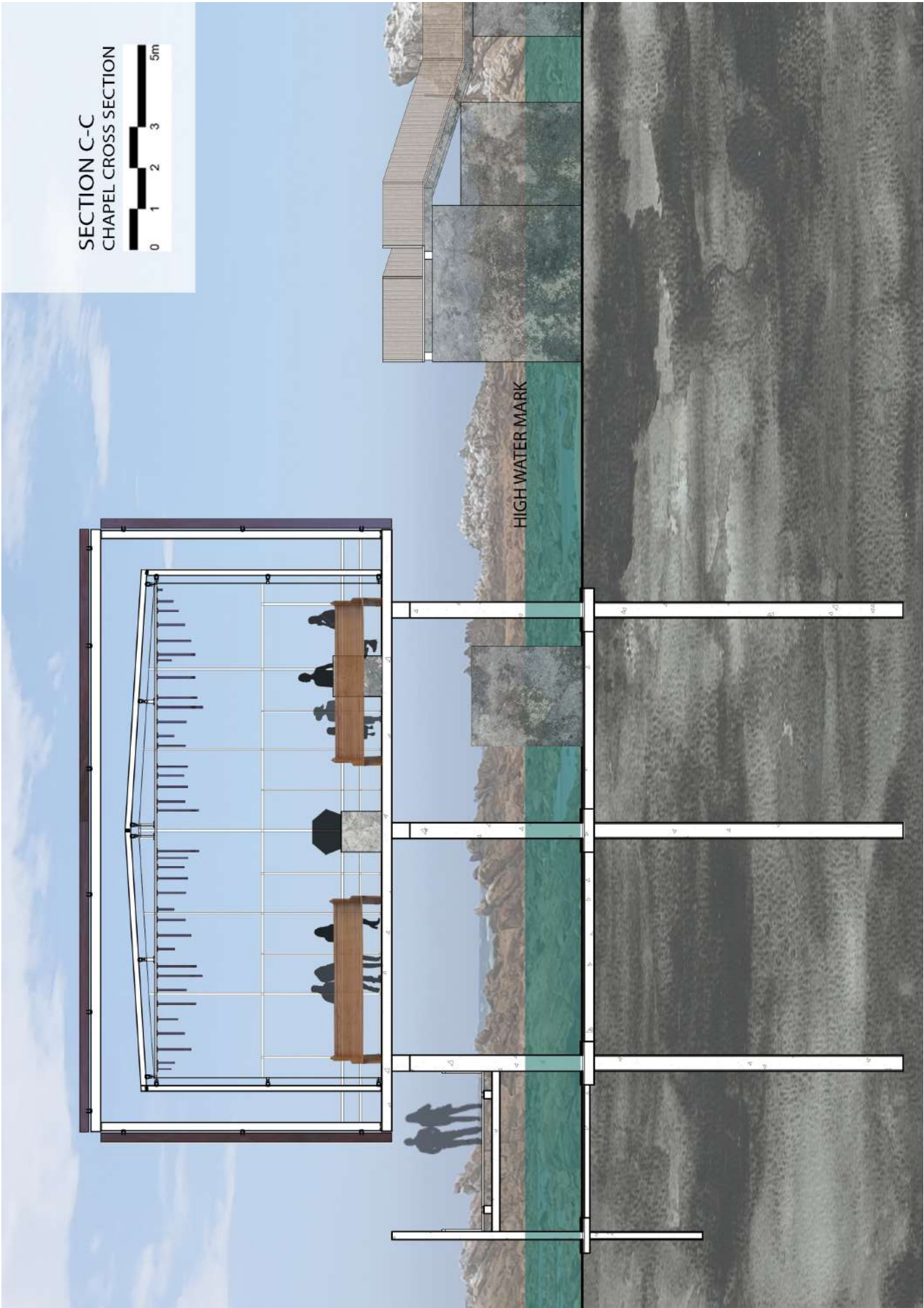
SECTION B-B BASE CROSS SECTION



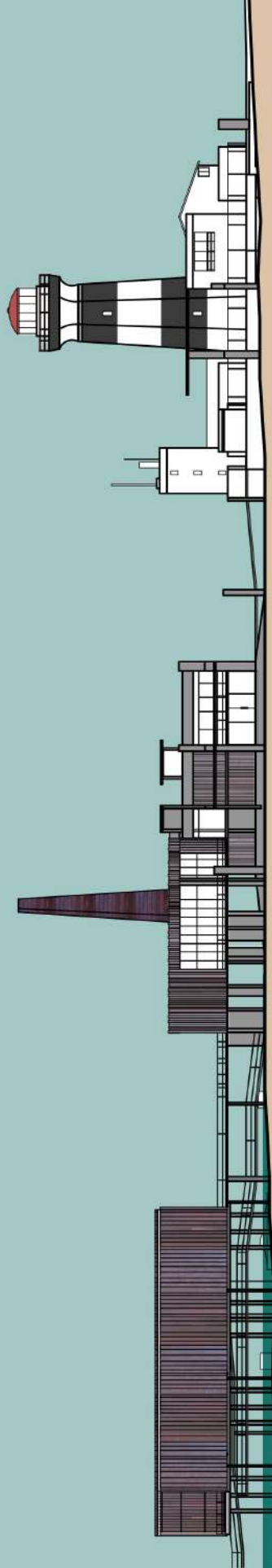
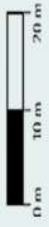
LEGEND

- [1] LOBBY SPACE BETWEEN ELEVATOR STAIRS AND OFFICE
- [2] OFFICE
- [3] LOBBY SPACE BETWEEN ELEVATOR STAIRS AND WATER CLOSET
- [4] WATER CLOSET ENTRANCE SPACE
- [5] RECEPTION HALL
- [6] CHAPEL
- [7] MOULDING ROOM

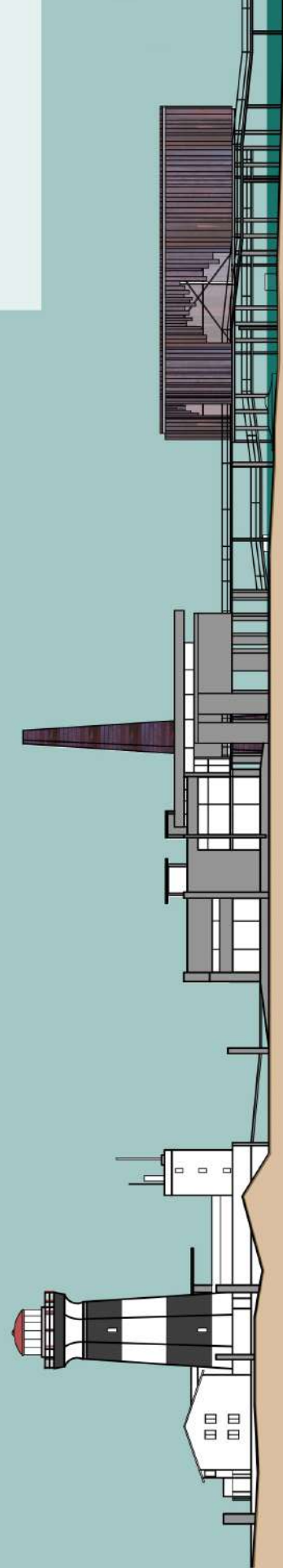


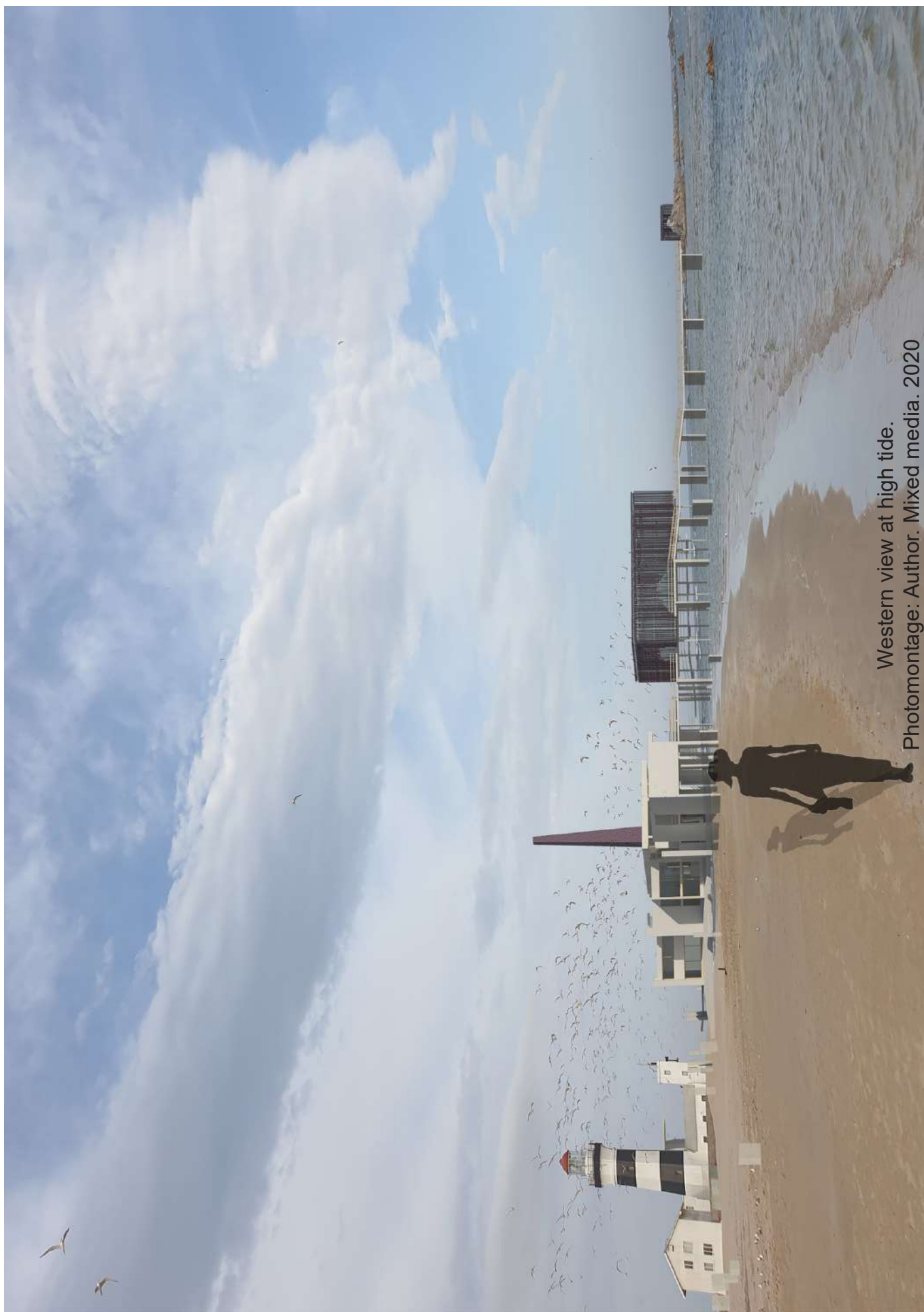


EAST ELEVATION



WEST ELEVATION





Western view at high tide.
Photomontage: Author. Mixed media. 2020



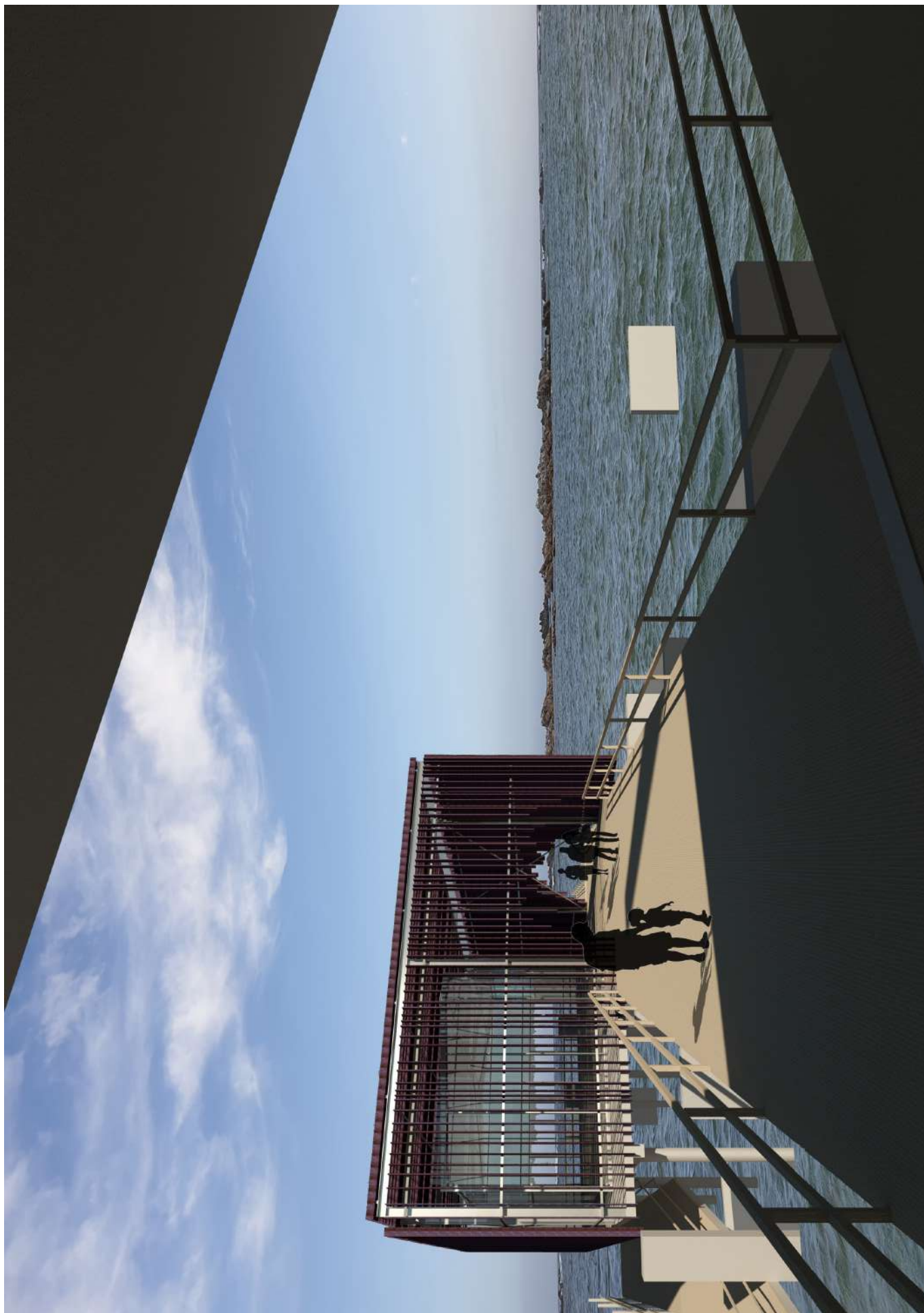
Eastern view at low tide.
Photomontage: Author. Mixed media. 2020



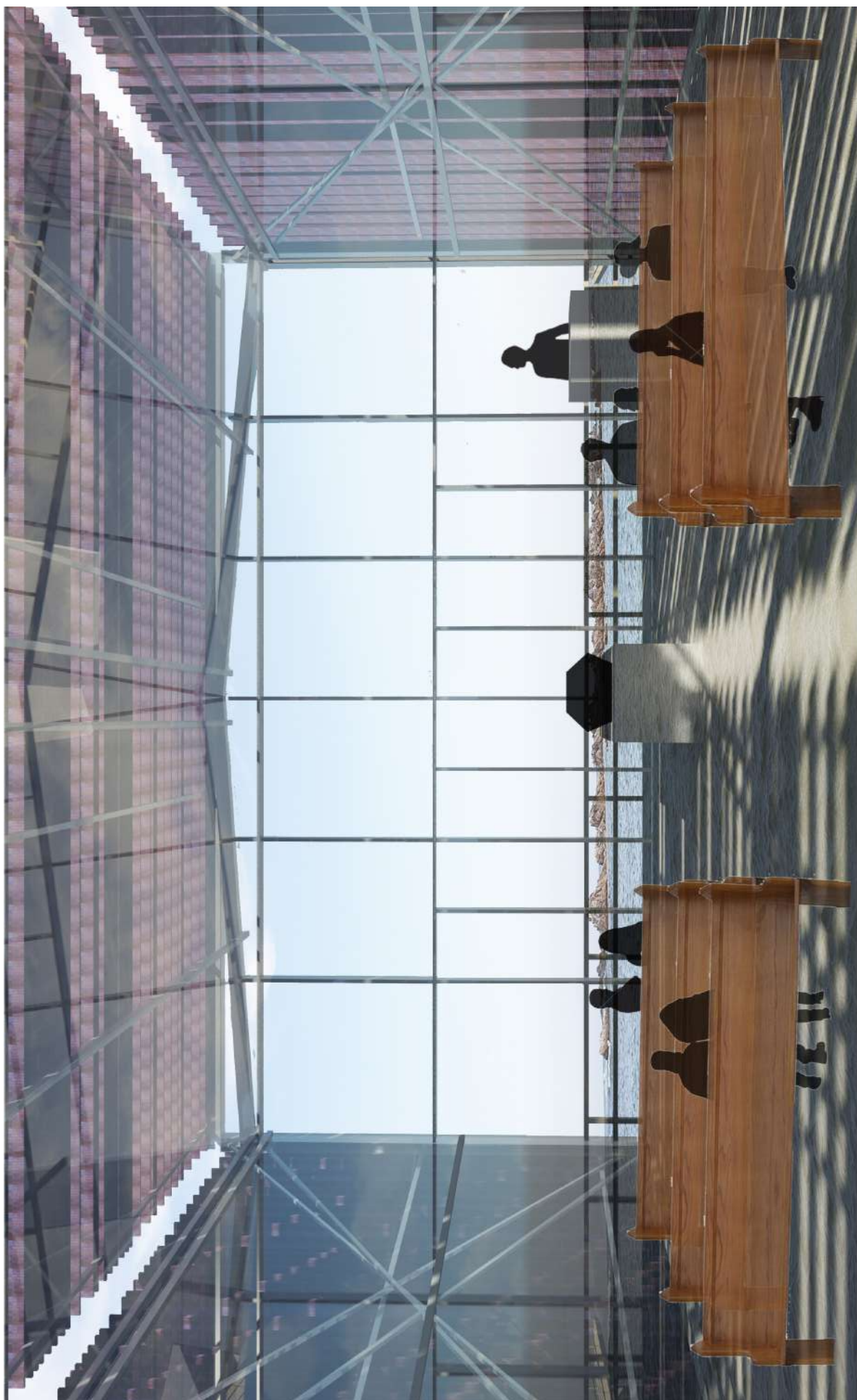
View from entrance deck to entrance.
Photomontage: Author. Mixed media. 2020



View from stairs and lift to deck and chapel.
Photomontage: Author. Mixed media. 2020



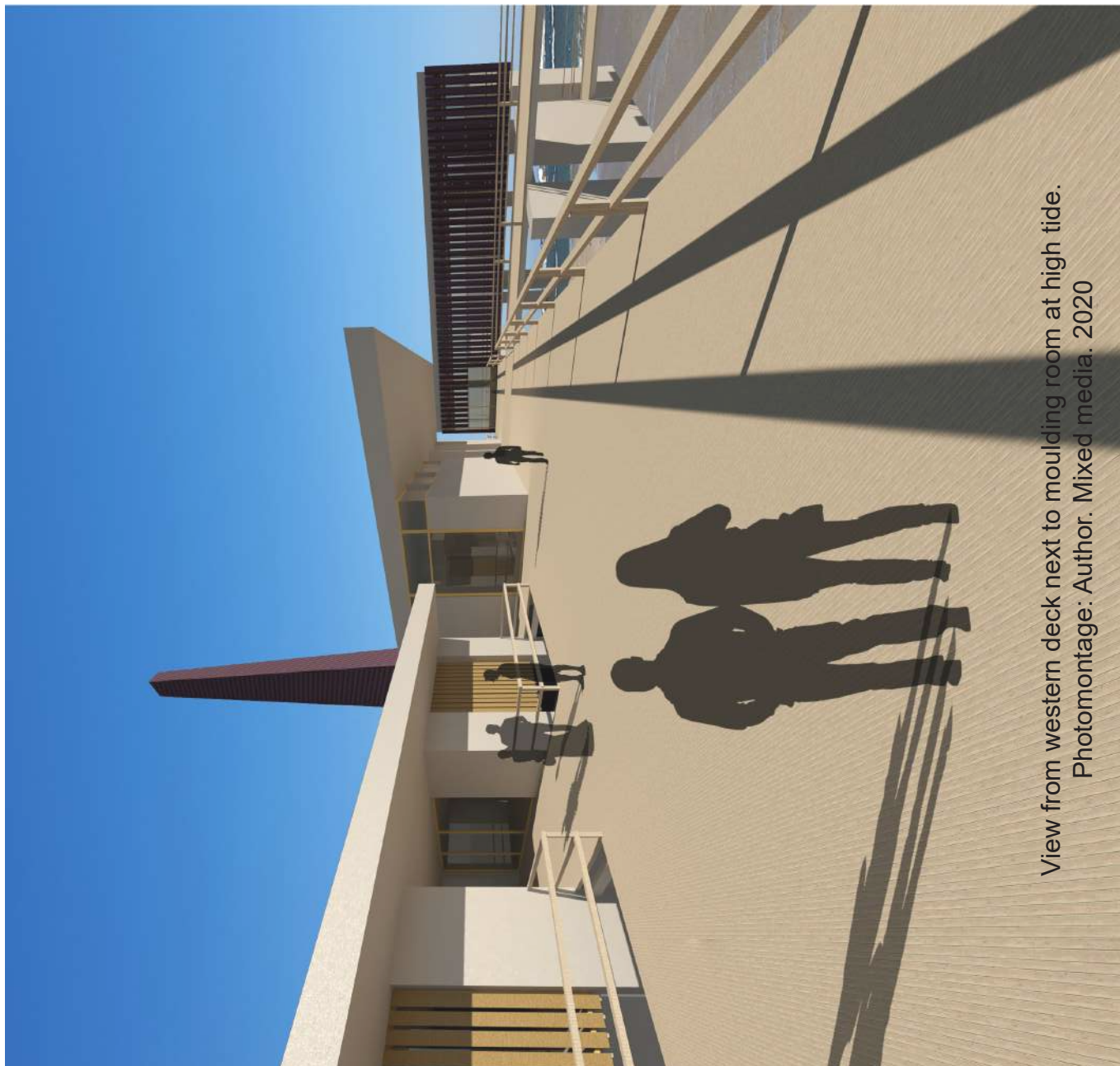
View from deck to chapel.
Photomontage: Author. Mixed media. 2020



View of chapel interior at high tide.
Photomontage: Author. Mixed media. 2020



View of reception hall interior at high tide.
Photomontage: Author. Mixed media. 2020



View from western deck next to moulding room at high tide.
Photomontage: Author. Mixed media. 2020



View from boathouse to the south at low tide.
Photomontage: Author. Mixed media. 2020



View from east to reception hall at incoming tide.
Photomontage: Author: Mixed media. 2020



Southern view from pier at low tide. Year 2021, after completion.
Photomontage: Author. Mixed media. 2020

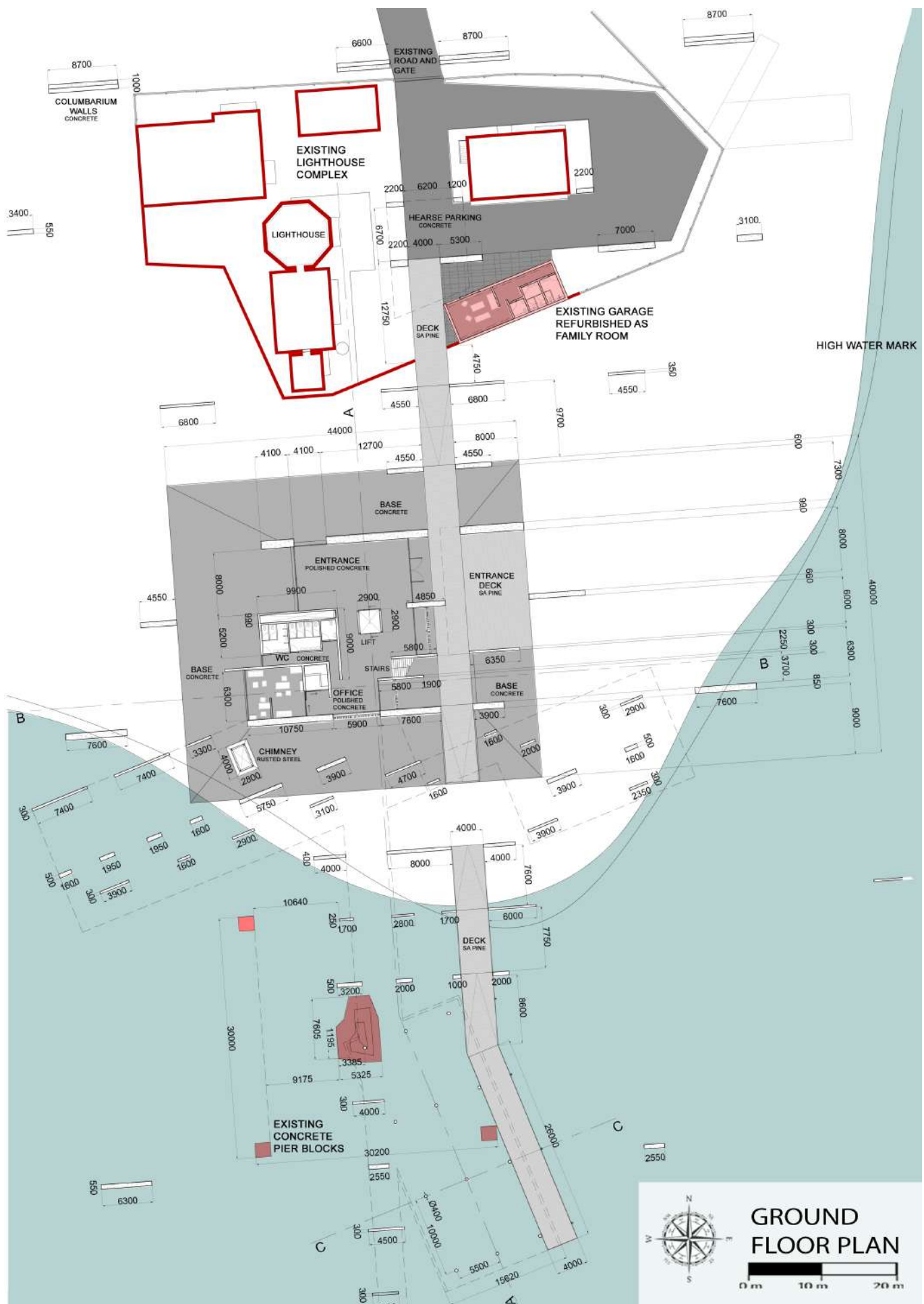


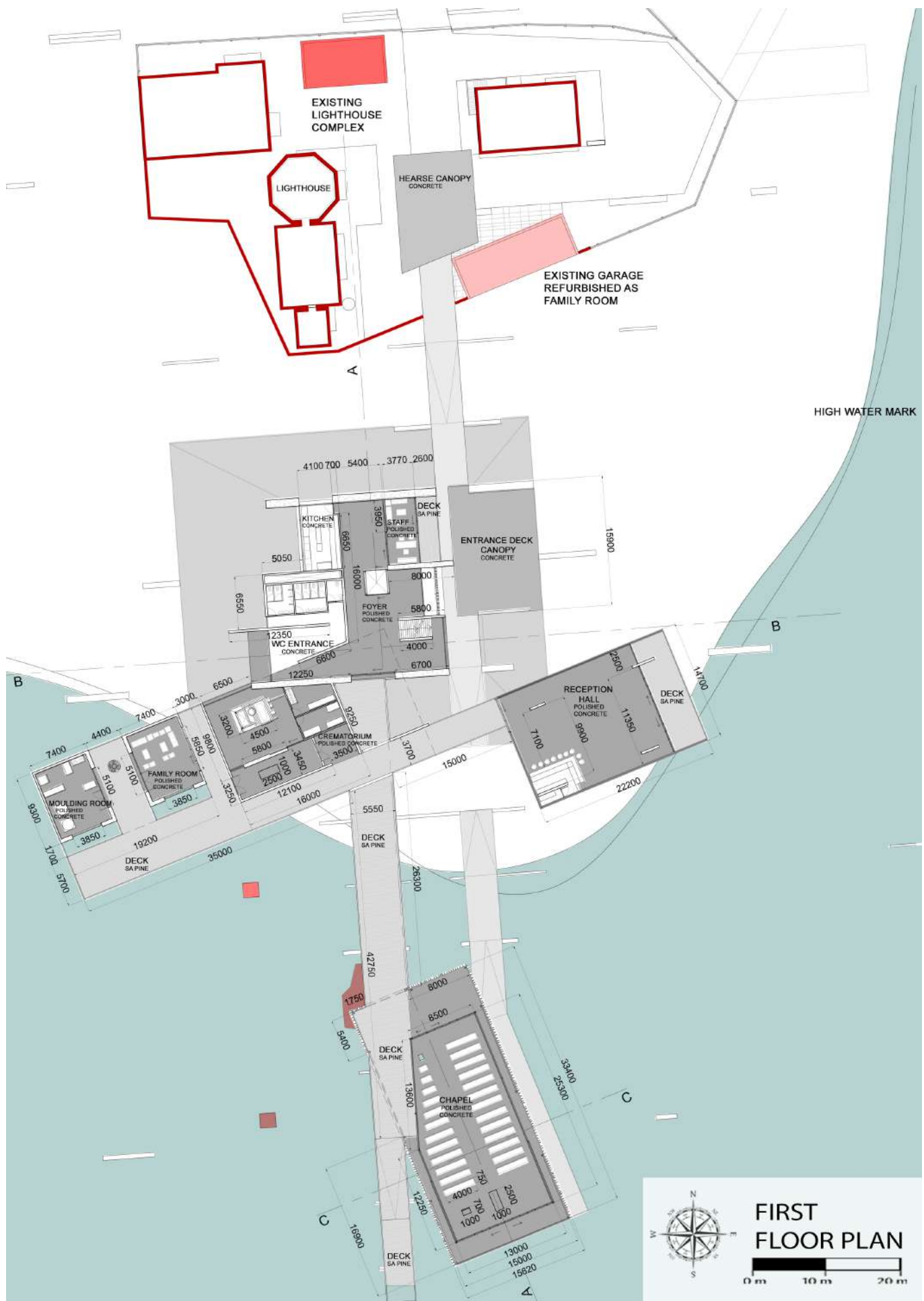
Southern view from pier at low tide. Year 2051, after elemental merge.
Photomontage: Author. Mixed media. 2020



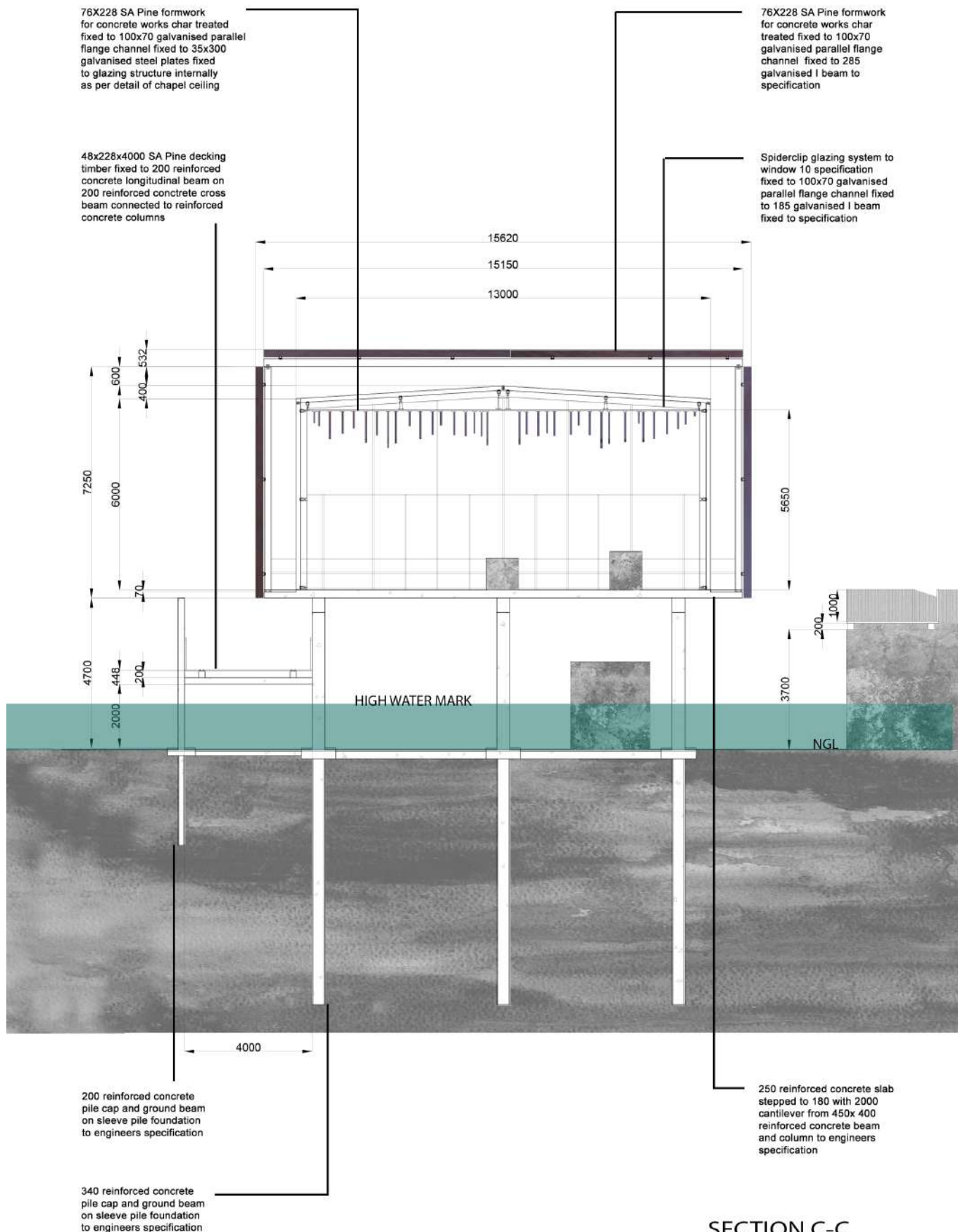
Birds eye view from the east at low tide.
Photomontage: Author. Mixed media. 2020





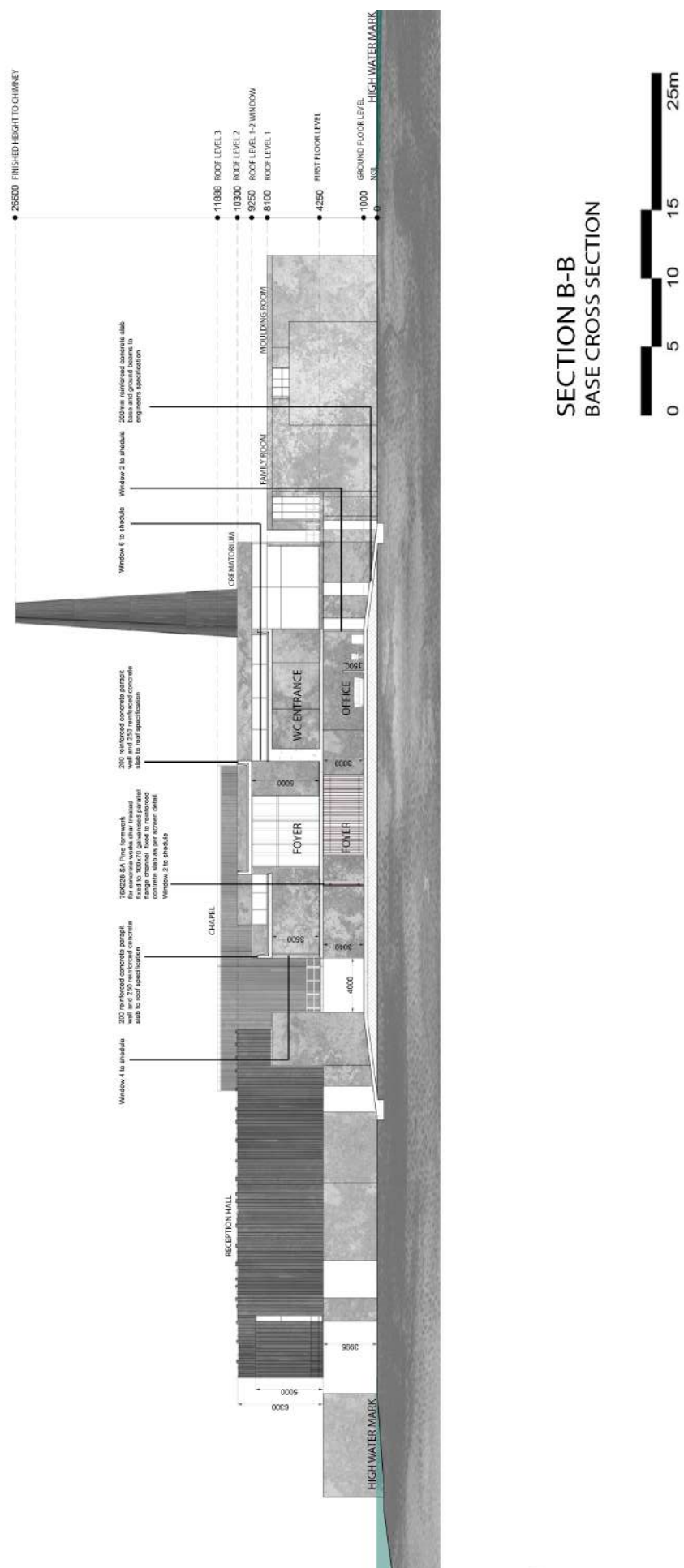


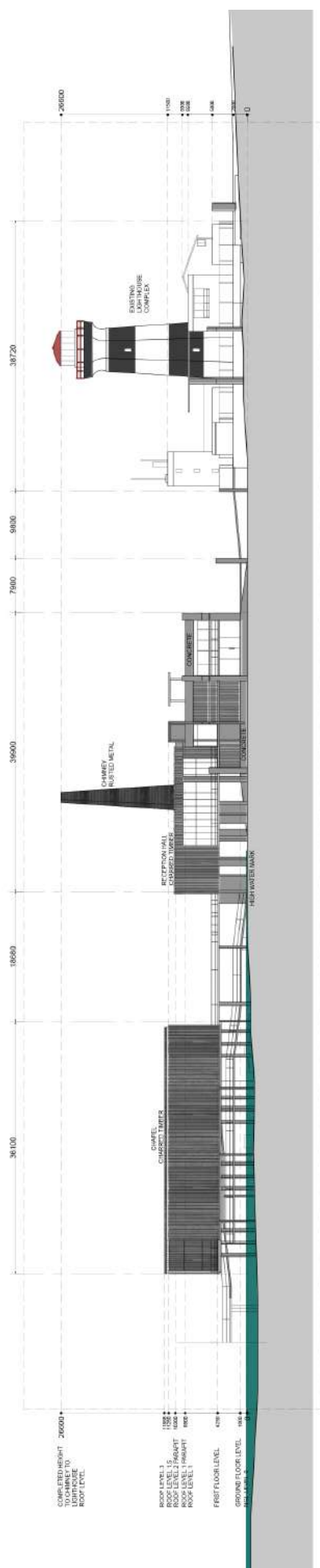




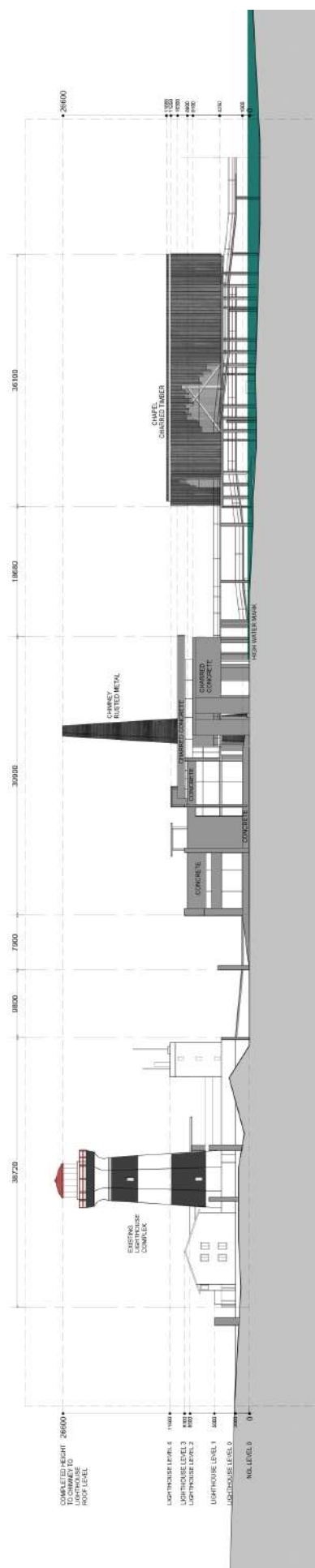
SECTION C-C
CHAPEL CROSS SECTION



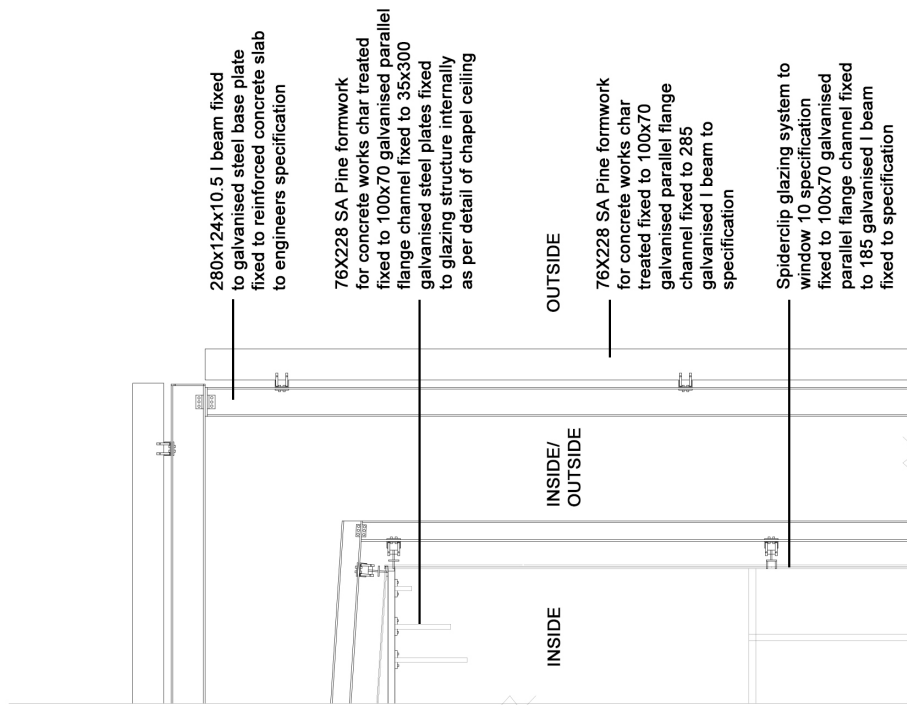




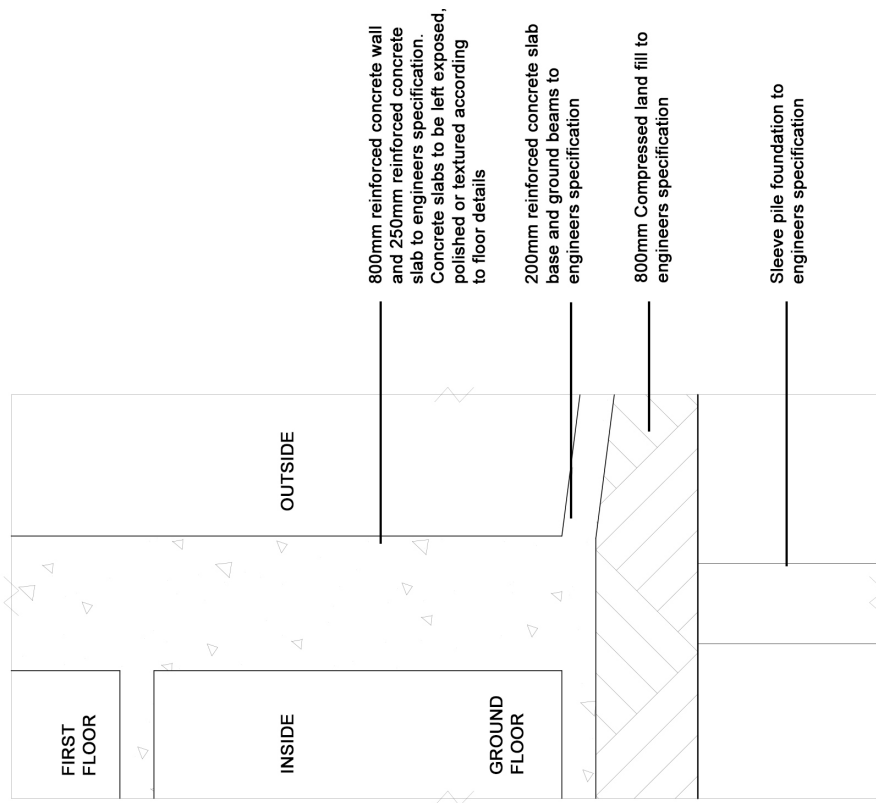
EAST ELEVATION



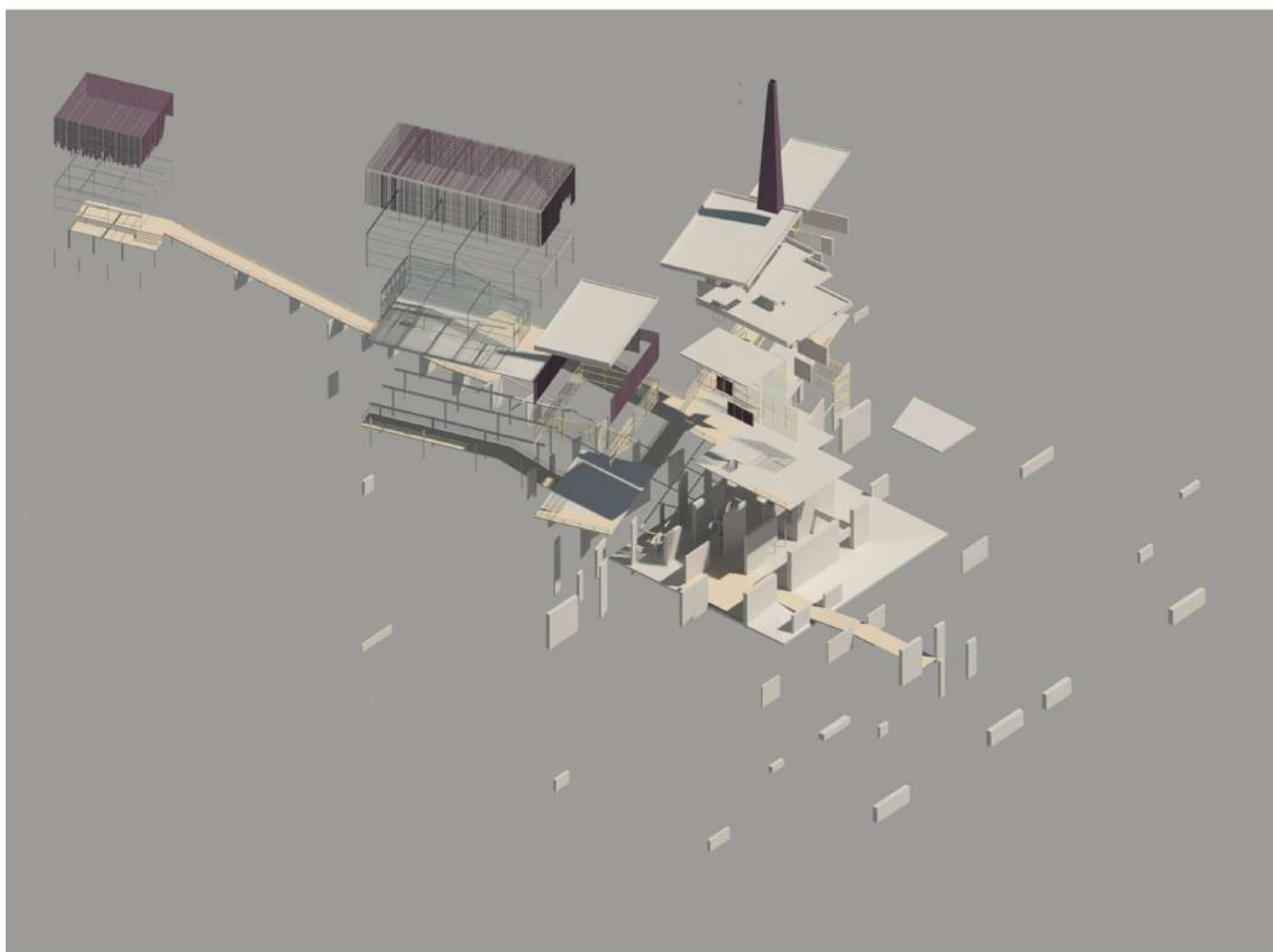
WEST ELEVATION



CHAPEL: SCREEN AND GLAZING DETAIL



ENTRANCE SPACE: WALL AND FLOOR DETAIL



Exploded Axonometric viewed from the North-East.
Revit model: Author. Autodesk Revit. 2020.



Exploded Axonometric viewed from the South-West.
Revit model: Author. Autodesk Revit. 2020.

CONCLUSION

By grounding the project with the four elements and their manifestation on site it became possible to create a bond with nature by both the program and its functions aiming at bettering the environment along with the ephemeral being of mankind alongside nature. The procession of land to sea and death to life speaks not only of current attempts to better memorialise our deceased but encourages us to rethink the ways to aid our environment by small personal contributions in the form of this body but for the next life. Thus promoting this method of reef memorialisation, that have been employed around the world for some time, in Port Elizabeth will have many people rethink burial and their contributions to the well being of their city and ocean that provides joy and sustenance.

By placing materials in relation to the elements and having the site as a part of the structure as a mirage on the horizon, it allows to have the site itself physically influence the character of the structure and let it change and adapt over time as the shifting dunes and tide. The earthen structures in the sea will become growing and breeding ground for ocean critters and sustain the sea birds of the air. Continuously rotting away similarly to a body in the ground, but housing a method of burial that rejuvenates the sea. Burned concrete and timber manifests fire in tactility and lets our wondrous eyes to seeing the sun. All the elements are in harmony, a new facility re-enlivening the extinguished lighthouse, processing death and bringing life, a balance, but in chaos.

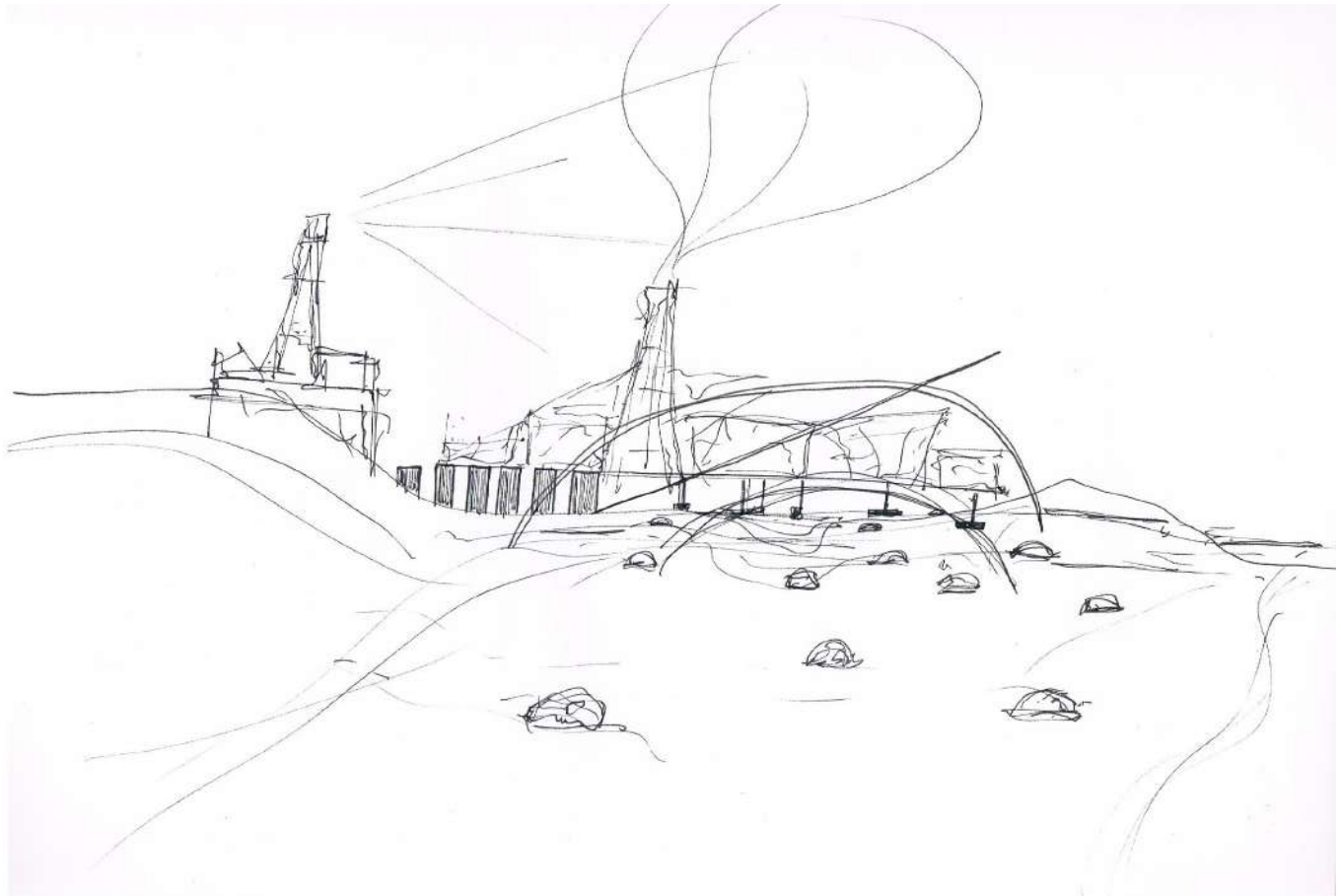
To life by the sea, for the well being of the sea, in this life and the lives to follow.



Taken to church.
Photograph: Author. 2020. First day on site.



A shipwreck mirage. Concept sketch
Sketch: Author. Pen and watercolour on paper. 2020



Land to sea, death to life. Concept sketch
Sketch: Author. Pen on paper. 2020

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