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# *The Music of the Sea*

*An Observatory of Music, Space and Time*

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Department of Architecture and Civil Engineering  
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*Cover page image:*

*Fig. 01. Forte. 2025. Watercolour on paper. A4.*

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MASTER THESIS TITLE    **THE MUSIC OF THE SEA:**  
An Observatory of Music, Space and Time

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## Abstract

There is a significant connection between music and architecture. Similarities could be found not only in terminology but also in the ways architects and composers approached their work. Architects made decisions based on feelings, intuition, and experience while sketching initial concepts, much like composers beginning their first musical scores. In both disciplines, the creative process is driven by an invisible force, an inspirational flow influenced by the surrounding environment.

This thesis explored not only the existing relationship between music and architecture, but also emphasised the importance of the connection between humans and nature, the senses, and soundscapes. It critically examined how our sensory experiences have been diminished by modern technologies such as headphones, speakers, and mobile phones.

At the beginning of the thesis, a list of shared terminology was developed as an inventory of overlapping terms between the two disciplines. This served as a conceptual framework for the design process. Defining these terms helped to visualise the

similarities and differences between architecture and music, which were later translated into spatial structures during the design phase.

The chosen site for the project was Ganleberget, with its rocky landscape near the sea. The intention was to observe and map the site using photography and watercolour techniques, highlighting phenomena related to the defined terminology. This exploration served both as inspiration for the design process and as a means to emphasise the musicality and form of the landscape.

The final architectural design proposal expresses the musical character of the site through watercolour interpretations and spatial experimentation. A walk-through structure was designed to allow visitors to experience the sensations of music. The design aims to enhance the connection to nature by creating a space that offers a shifted perspective of the site, introducing a fourth dimension. The visitor's movement through the structure becomes an emotional expression of the landscape's inherent musicality.

*Keywords: Architecture, music, resonance, sea, watercolour*



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*A heartfelt thank you to my friends for your continuous help, encouragement, and companionship along the way.*



Fig. 02. Portrait (Photography by Hedenskog, J., 2025).

## *Author*

My story as a musician starts with the day I was born. As if the first breath I took determined my future. When I came into the world, I broke one of my lungs because I breathed in too strongly. As a baby, I had to be in an incubator so that my lungs could heal. This was the reason why my mum decided to prevent any possible problems with my breathing and signed me up for a flute class as soon as possible. That's where my music journey begins.

My relationship with the flute was going up and down over the years. My flute teacher was convinced that hard work, precision and a lot of practice are the only way to play music. In my opinion, she was wrong. After 8 years of flute classes, I joined the local wind orchestra in my hometown and discovered the true enjoyment of playing the instrument. In the orchestra, the focus was not that much on individual musical performance, but rather on the group as a whole. I felt proud to be a part of the ensemble. While performing the music on stage, it always felt as if we were all united through the universal language of music.

When I began studying architecture, everything else faded into the background. I stopped playing music, and I stopped painting. The demands of such a time-consuming field left little room for other interests. The first years of my studies were especially intense, requiring me to absorb a lot, particularly in the areas of construction and computing.

With this thesis, I am bringing my artistic skills and musical background back to the forefront. I aim to demonstrate how architecture can be approached from a musician's perspective, combining technical knowledge with a deeply creative and artistic vision.



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*"Why is it so difficult for so many people to listen?  
Why do they start talking when there is something to hear?  
Do they have their ears not on the sides of their heads but situated inside their  
mouths so that when they hear something their first impulse is to start talking?  
The situation should be made more normal, don't you think?  
Why don't they keep their mouths shut and their ears open?  
Are they stupid?  
And, if so, why don't they try to hide their stupidity?"*

*(Cage, 2011, p. 48-49)*



# *Waves of Thoughts*

INTRODUCTION



Fig. 03. Watercolour toolkit.



## *Why Painting ?*

When I was visiting Ganlet Badplats during late summer and early autumn, I often brought a sketchbook with me. Sketching rocks, cliffs, boulders, the sea, I realised that with pencil or fine liner pen I am not able to express what I am looking for. Colour plays an important role in my artwork, mixing pigments, crating shades and nuances feels very natural for me. It is almost as if I have been born with this skill when I don't need to think much about how to reach a certain shade of blue, I just do.

With this thought I decided to make the watercolours as part of my thesis process. While sketching on site, I am using the sea water to mix colours. The touch of the brush on rough texture of the paper is somehow linked to the roughness of the landscape that surrounds me and that is also what I am expressing in my paintings.

## *Why Music ?*

When was the time to think about the thesis topic, I started my thought process with who am I as a person. What is my true core and what message do I want to share through my thesis? I am an architect, well, almost, but I am also an artist and musician. Can I combine all those parts of me in my thesis?

When I play music, I feel this invisible wave of emotions that is communicated through the sound of the instrument. I feel the same while painting as if my hand was moved not by my own will but by my feelings. I was a flute player in a wind orchestra for several years. Being one of the seventy players, performing music all at the same time, in harmony, is truly moving experience. Music is a language of feelings and when players are carried away on the sweetness of melodies, it's almost as if all the orchestra would become one. This thesis reflects my personality and gives the reader a chance to experience the deep connection between music and architecture through my eyes.

## *Research Questions*

### MAIN QUESTION

*How can the relationship between music and architecture inform a design proposal that emphasises a landscape near the sea?*

### SUBQUESTION

*In what ways can the watercolour technique serve as a tool to explore the shared language between music and architecture within the design process?*

## *Aim*

The aim of the thesis is to explore the existing relationship between architecture and music and create a design strategy based upon that. The intention is to propose a design that embodies the essence of music, allowing everyone to experience it in a space that emphasize the shape of the landscape and the proximity to the sea.

The profound connection lies not only in the vocabulary used or how composers or architects work but also in similar feelings and senses while making key decisions during the work process.

## *Delimitations*

This thesis doesn't focus on the translation between music and architecture and how architectural design can be visually based on musical notation. This research does not cover studying acoustics, how different shapes of spaces can influence indoor sound qualities or designing a concert hall. Nor does involve testing and measuring the reverberation in various spaces or improving indoor acoustic qualities through a selection of materials.

## *Architecture is Frozen Music*

Music is an art we can't touch or see. On the contrary, architecture is an art based on visual appearance and design. However, both arts have a lot in common. Music and architecture are the only two arts that surround our corpse, events in space and time, absorbed and perceived through our body. Music is instant, experienced and received in the moment when played. We can say that music is sound in time. However, architecture lasts centuries, experienced in time and space.

The sensation we experience when listening to music is equal to the emotions evoked by the intentional interplay of architectural forms. Already in the 18th century, German writer Johann Wolfgang von Goethe expressed this significant connection between the two arts by calling architecture "frozen music" (Stravinsky, 1936). From my point of view, the way architects create spaces is driven by similar rules and parameters as when a composer writes music

scores. Therefore, architectural values such as rhythm, form, contrast or texture can also be found in musical terminology.

One of the most impressive things about the music of John Sebastian Bach is its "architecture." The listener can differentiate melodic, harmonic and rhythmical elements without losing the sense of the overall composition (Zumthor, 2006). A similar applies to architecture. Details could represent different musical elements or even instruments in an orchestra, but when played in harmony, one does not lose the sense of overall design and its atmosphere.

Reflecting upon that, working with architecture and music terminology was essential in my thesis research. Defining a framework to my work by introducing a list of terminology used in both arts helped me to better understand the similarities and differences between music and architecture.



Fig. 04. The flute and the sea.

21/01

*I finally play the flute again. I haven't played for a while, but after an hour of playing, I can feel that it is slowly coming back. I think it is not only about training the fingers, but mainly about breathing and tone. How do I play the tone? How do I feel it through? each tone has its length, and it has to be played at a specific moment. If one can't feel the music and rhythm, the moment is gone. It is essential to understand dynamics, rhythm, and the structure of the composition.*

*At this point, I have so many questions going on in my*

*head regarding my thesis. What does one experience through music? Does the listener feel what the player feels, the feelings that are expressed through music? Or do both sides feel something slightly different based on their interpretation? Some of the études from the practice book are called, for example, "Summer evening" or "Purple sky". Are those short compositions supposed to evoke or imitate their title? How can I hear a purple sky that I cannot see? How can I emulate something without directly showing it through music or art?*



## Experiences & Emotions

As Kant once said, music is the language of feelings. By listening to sweet melodies, one can be carried away and get lost in the presence of music and sounds. (*Böhme, 2020*) A material work – a piece of music, dance or a painting – cannot contain emotions itself but evokes sensations within us. Likewise, the meaning of architecture work, the one that can move us to tears, does not lie in the materiality or structure itself or in volumetric composition of the work. The meaning results from the encounter of the visitor's body and mind with the mental and physical reality of the building.

An artistic experience dissolves boundaries in time-space and revives our long-forgotten memories. Our experiences and memories from the past blend into the mental reality of this encounter, allowing us to complete the work presented by an artist, an architect,

a musician. Without this interaction of the viewer's imaginary mental reality with the artistic work, the piece would become a lifeless and meaningless object. (*Pallasmaa, 2012*)

*"Art must give suddenly, all at once, the shock of life, the sensation of breathing."* (*Shanes, 1989, p.67*)

For artists, architects or musicians, it is essential to know how to work with emotions. Creating a space that leaves visitors speechless, composing a music that moves us to tears, this is exactly what my thesis aims for. The meditation between music and architecture allows us to experience the landscape from different perspectives and by implementing music to the design it is almost as if adding a fourth dimension to the site.



Fig. 05, Fig. 06. *Artwork SKYSPACE by James Turrell in Lech, Vorarlberg, Austria.* (Schäfer,2022). CC-BY-SA.

## Senses

Every touching architectural experience is multi-sensory; our eyes, ears, skin, tongue, and all body equally measure the qualities of matter, space and scale. These sensory experiences interact and infuse each other. While sight isolates us, hearing stimulates connection and unity. When visiting a cathedral, our eyes wander around, but the sound of the organ makes us feel a deeper connection with the space. The same as the sound of church bells through the streets makes us conscious of our citizenship.

When walking in a city, the echo and reverberation of steps have an emotional charge because they give us a sense of direction and make the space comprehensible. It puts us in direct interaction with our surroundings. The contemporary city has lost its echo (Holl et al, 2007). Sounds are absorbed in the interiors, and music comes from speakers in shopping malls and other public spaces. This eliminates the possibility of understanding the volume and orientation in space. *"Our ears have been blinded."* (Pallasmaa, 2012, p. 55)

Nature has healing power and is beneficial for human well-being. Coming to the coast and feeling the warm rocks heated by the sun under bare feet is

truly a healing experience. One can feel the texture of the stones, the energy from the sun, and the uneven surfaces. Feeling the slow breathing of the earth right under the feet. This tactile sensation makes us feel closer to nature and at peace.

The sense of touch and auditory perception is more profound when received without the presence of sight. The moment when we close our eyes, we bring ourselves closer to what surrounds us. The presence of our loved ones, the orchestra playing in harmony, the calming sound of the sea, and the presence of ourselves in space. But also, the eye touches. When a building offers interesting shapes and surfaces to look at, we say that the architectural design is a pleasurable touch to the eye.

Senses are tightly connected with emotions and memories. What one feels while touching a rough surface of a rock or hearing distant echoes of seagulls above the sea horizon. Creating emotionally touching architecture is not only about the space and its visual appearance, but also about the choice of the materials and how our senses are stimulated while present in a space.

*"Everyone carries a room about inside them.  
This fact can be proved by means of the sense of hearing  
If someone walks fast and one pricks up one's ears and listens  
Say, at night, when everything 'round is quiet  
One hears, for instance  
The rattling of a mirror not quite firmly fastened to the wall. "*

*(Richter, Swinton, 2004)*

## Soundscape

*"All I am doing is directing attention to the sounds of the environment."*

*– John Cage (LaBelle, 2006, p.1)*

Music consists of sounds and for Cage, this is exactly what he is trying to communicate with his artwork. He emphasizes the "here and now" of sound, directing the focus towards sounds that are immediate and proximate, whether it is in a concert hall, shopping mall or his own throat. Rather than prioritizing the musical language of the classical tradition, Cage sees each thing directly as it is, seeing sounds as the essence to musical experience. To make music was thus to harness the essential ingredient of sound, mobilizing it for direct sensory experience (LaBelle, 2006).

Aural elements are something we can't

see; thus, it is impossible to visually analyse them. A soundscape of any location gives the heard sounds weight by their link to the actual source and site of their origin. By soundscape, we understand not only outdoor sounds, but also sounds coming from people and animals and their conversations and interaction with sounds of the environment. Those interactions can be with other people or/and animals, but also other sounds that orient use in our everyday lives, such as church bells, sirens or the sound of one's phone (LaBelle, 2006).

In my design proposal the soundscape of the chosen site plays a significant role as it is understood as the music of the site. Directing the focus of visitors towards the sounds of the nature, the sea creates a connection between music, art and architecture.





Fig. 07. Distant Blue.

26/01

*The sea is a symbol of infinity and freedom. When looking into the blue distance, eyes are trying to find a sign of life on the horizon, questioning what there is behind horizon. Waiting for a ship, mind is wondering if something else will appear there instead. Birds can fly over the sea into the unknown infinity. The sea is like never ending music, the whooshing of the waves lapping the shore, cliffs, stones and rocks. What is it trying to tell us with its music?*

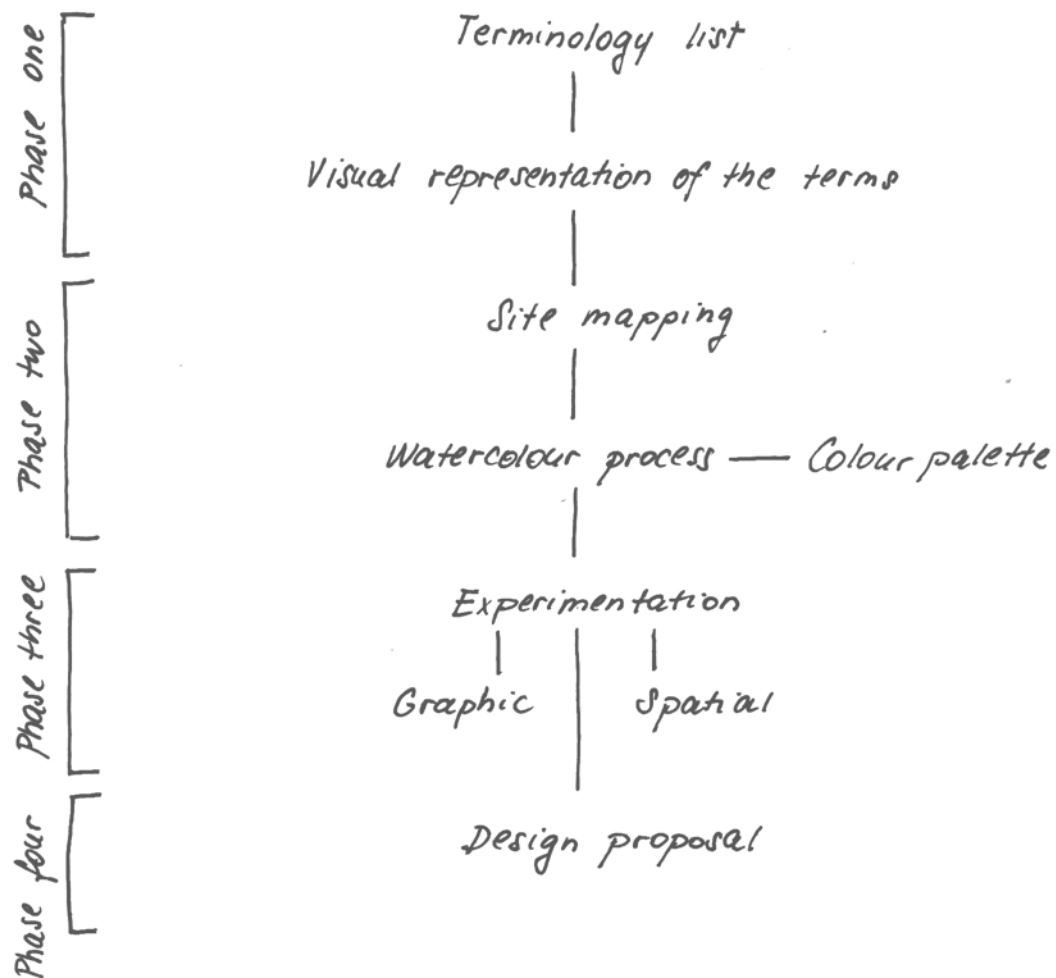


Fig. 08. Methodology diagram.

## *Process & Techniques*

The design process focuses on the transition from a vocabulary used by both music and architecture to a design proposal which is strongly influenced by its location at the West Coast of Sweden. The terminology list was created to serve as an inventory, framing the design process. In this phase of the process, the chosen terms were further developed to visually highlight the similarities and differences between both arts. This was the pivotal moment in my thesis work which guided me through my design process and to which I continually returned.

The watercolour technique has been used as part of the process and as a medium to analyse the site, express observed phenomena, and visually represent the project proposal. In order to maintain a consistent visual language across all the paintings, a defined colour palette was used. From my point of view the chosen technique resonates with the topic of music and the proximity of the project to the sea. The way pigments blend on the paper resembles the flow of the sea, while the brush's touch on the rough watercolour paper evokes the tactile sensation of a rocky landscape.

Following phase focuses on introducing the site through series of paintings which were further explored in the experimentation phase with focus on graphical and spatial aspects. The exploration part was essential to examine the transition from two-dimensional paintings to three-dimensional model making. The design proposal is the result of a continuous process of working with musical architectural terms, observing the site, and developing physical models.

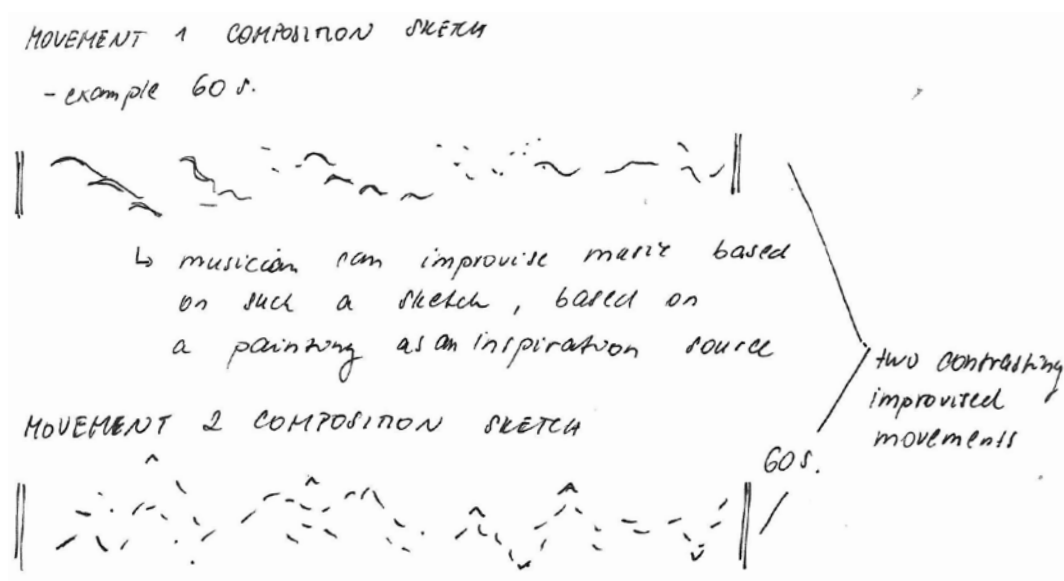


Fig. 09. Movements composition.

## Inspiration

The following referential artists, architects and sculptors provided valuable insight for my design work and have been inspirational throughout my thesis process. Some significantly influenced my design proposal, while others inspired and resonated with me as I progressed in my design work.

### DANIEL BERG

Meeting with *Daniel Berg* was a crucial moment in my thesis process. Daniel is a composer, marimba soloist and professor of percussion and chamber music at the University College of Gothenburg. Every musical composer has their own approach to writing music, and I had the valuable opportunity to gain insight into Daniel's creative process. The way he composes is to first focus on feelings, start to formulate words that he sees in his inspiration and write them down (for example, from a painting). "In addition to that," he explains, "you have the overall feeling of the painting which comes from its colours. Are the colours warm, or are they cold? If they are warm, the music is perhaps going to be more melodic, containing warm tones." The next step is to work with movements. "You don't need to have many movements, maybe five or six." Each movement reflects different feelings, and together they form a complete piece of music. Movements are usually arranged to contrast with one another, such as fast followed by slow.

### STEVEN HOLL

American architect, *Steven Holl*, works with the relationship between music and architecture by translating a specific piece of music into a design strategy. The Stretto House was designed as a parallel to Béla Bartók's *Music for Strings, Percussion and Celestra* from 1936, a composition of four movements with distinct division in materiality between heavy (percussion) and light (string). Bartók's tool to compose his music is by layering mismatches. The first movement consists of 89 bars, while the number of bars in each section of the movement approaches the Fibonacci sequence, and all the turning points are related to this sequence. Holl proposes a structure consisting of two modes: heavy orthogonal masonry and light, curvilinear metal. The relationship between the orthogonal plan and contrasting curvilinear section becomes a mismatch, similar to that used by Bartók (Holl, 1994).

The way Holl sees the music piece as an inspiration for a design resonates with my own process; however, unlike Holl, the aim of my proposal does not lie in the translation of a particular music piece. Despite the importance of mathematics and precision in both music and architecture, I am looking into something more profound that drives both composers' and architects' work.



Fig. 10. *The Roden Crater – Alpha Tunnell*. (Jurvetson, 2021). CC-BY (top)

Fig. 11. *Sodra Porten* by Claes Hake, Göteborg. (bottom)

## JAMES TURRELL

The ongoing project Roden Crater by American artist *James Turrell* is located in the Painted Desert of Arizona in the USA. It is a monumental, naked-eye observatory, transforming the landscape into architecture since 1975. It is an intersection between architecture, sculpture, landscape, engineering and astronomy where the main importance is not much on what it looks like, but what it looks at. Alpha Tunnell, the first of at least six tunnels, is finished, becoming the world's largest naked-eye telescope, focusing the light from the cosmos down onto a marble stone (Bowring, 2021).

Reading about Turrell's ongoing mega-project made me immediately interested in the phenomenon of light that the artist works with. I watched videos where Turrell is talking about the Crater, and I got inspired by the philosophy behind the project. He explains that his work is not something that he discovers and captures for the visitors; it is something that visitors discover themselves and complete the artist's work from their own perspective. The idea of the Crater project is to examine the understanding of intellectually known phenomena, like an ellipse appearing as a circle from a distance (Los Angeles County Museum of Art, 2020).

This led me to the intention of my design proposal, which goes along with Turrell's philosophy, where I challenge the visitors to experience the space with their body and to understand and interpret it on their own. My project aims to create a space for visitors to slow down and experience all that the site can give, sunlight, rain, sea, wind and offer new perspectives. Connecting the landscape with architecture and music adds the site another layer almost like a four-dimensional space.

## CLAES HAKE

*Claes Hake* is a Swedish artist and sculptor, known for his expressive, large-format paintings and stone sculptures that reflect the rough landscape of Sweden's West Coast. His abstract paintings have a distinctive character created using rough handmade paper with ink, charcoal or watercolour. One can clearly see that these paintings express Hake's artistic ideas, leading to robust, sculptural work. For Hake, working on paper doesn't mean less, and it is not unimportant, however, the financial and physical risks are not involved (Hake, 2018).

What inspires me in Hake's work is the importance of brushstrokes on rough paper that becomes crucial in the transition between paintings and sculptures. One can sense that both share the same language, allowing the viewer to experience Hake's personality. Similar to Hake, the use of watercolour technique to express the rough landscape of the West Coast of Sweden is an integral part of my design process.





*Phase one :*

*Common Language*

## Terminology

As discussed in the chapter '*Architecture is frozen music*', both arts have a lot in common. The reference article - *Musi-ecture: Seeking Useful Correlations Between Music and Architecture Therefore* (Young et al., 1993) – showcases educational material that features a correlation between music and architecture. The authors describe new approaches to teaching musical composition and architectural design. From there, a terminology list has been created

as an inventory of shared terms and concepts and as a starting framework for the process. The understanding of the language used in both architecture and music was a crucial part of the process that led my work forward when working with the site. Some of the chosen terms have been closely described on the following pages, showcasing similarities and differences in both architecture and music, allowing the reader to understand the interpretation of those terms.

ATMOSPHERE

COLOUR

COMPOSITION

CONTRAST

DIALOGUE

DIMENSION

DYNAMICS

FORM

HARMONY

INTERACTION

INTERSECTION

LAYERING

LIGHTNESS

MOVEMENT

ORGANIZATION

PROPORTION

RHYTHM

REPETITION

SCALE

SHAPE

STRUCTURE

SYMBOLISM

SYMMETRY

TENSION

TEXTURE

TRANSITION

## Contrast

### MUSIC

The contrast between forte and piano in Beethoven's Symphony No. 5 (see below) creates an effect where the first forte part feels heavier and slower than the following piano, which feels lighter and faster despite the same rhythm throughout the piece.

### ARCHITECTURE

In architecture, contrast can be achieved through the use of different shapes and forms, as well as through the interplay of light and shadow within interior spaces. Contrast is often evident in building extensions, where the differentiation between old and new elements creates visual and conceptual tension.

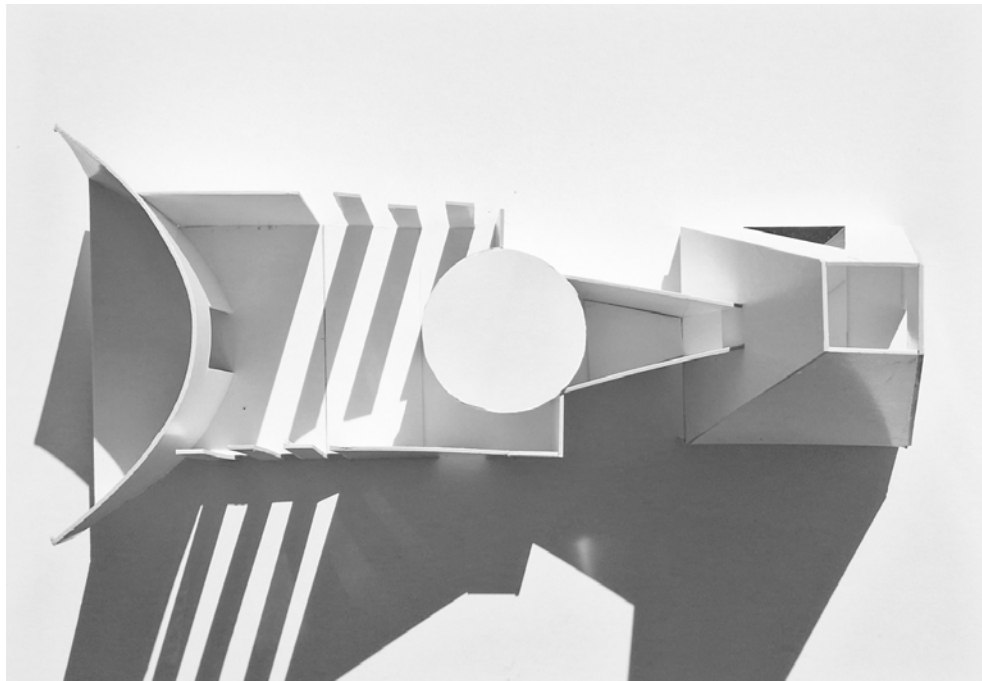


Fig. 12. Contrasting architectural forms and interplay of light and shadow.

**Symphony No.~5**

effect between forte / piano **C minor** effect between long / short notes  
 ⇒ contrast **Piano Solo** Ludwig van Beethoven (1770-1827)  
 Op.~67 (1809)

articulation of the note (fermata) = feels slower

heavy, slow

lighter, faster

shorter notes = feels faster

Fig. 13. Beethoven, L. (1809). *Symphony No. 5 in C minor*. [Piano Solo score]. Mutopia Project. CC.

# Dynamics

## MUSIC

Dynamics in music serve as a way to express intensity and loudness, as seen in Mozart's *Don Giovanni* or *Don Juan* (see below), where he creates a grandiose and dramatic opening using forte, followed by piano, which builds tension and leaves the listener anticipating what comes next. Using crescendo (gradual increase in loudness), Mozart creates an impression of a wave of music.

## ARCHITECTURE

In architecture, dynamics can be perceived as movement or energy within a space, conveyed through elements such as light, form, and flow. Dynamic architecture often appears impressive, featuring organic shapes and expressive forms. Today, dynamic façades are increasingly common, particularly in parametric design.



Fig. 14. Dynamic shapes.



Fig. 15. Mozart, W. A. (n.d.). *Don Juan*. [Flute score]. International Music Score Library Project.

# Symmetry

## MUSIC

Symmetry appears in musical notation through mirrored melodies or symmetric rhythms. In 24 Capricci: Caprice No. 24 by Niccolò Paganini, symmetry is achieved through vertically mirrored descending notes and the horizontal symmetry between high-pitched notes and low bass tones, where symmetry is intentionally used to create a sense of order or tension.

## ARCHITECTURE

Symmetry in architecture refers to the balanced composition of elements on either side of a central axis. Classical architecture often emphasises symmetry for harmony, stability, and aesthetic appeal.



Fig. 16. Symmetrical form.

**24 CAPRICCI: Caprice No. 24**  
Violin

Niccolò Paganini  
Op. 1

*quasi Presto*

TEMA *p*

VAR. I *f* *pitch tone / bass tone* *mirroring notes*

Fig. 17. Paganini, N. (1836). 24 Capricci: Caprice No. 24. [Violin score]. Mutopia Project. CC.



*Phase two:*

*Coming to the Site*



## Context

The project site is situated on the West Coast of Sweden, southwest of Göteborg, called Ganletbadet (Ganlevägen, Västra Frölunda). This coastal landscape, with its rugged rocks and proximity to the sea, captivated me from the beginning. I have a personal connection to this place, having spent many days last summer there. Over time, I became deeply connected with this place, both emotionally and physically, making it a meaningful and intuitive choice for this project. I have observed this site during all the seasons and watched how the landscape changes under different weather conditions. The site is fairly remote but still accessible to the public.

I repeatedly returned to the area, documenting various natural phenomena through

photography, such as the distinctive shapes of rocks and the changing forms of water. These photographic observations were then translated into watercolour paintings, with particular attention to colour, texture, and form. The selection of images was guided by the music and architecture terminology list introduced earlier, establishing a conceptual link between visual expression and theoretical framework. Through this process, painting became not only a method of observation but also a tool for analysis. By engaging with the site's qualities in a tactile and intuitive way, I was able to extract spatial and material hints that later informed key aspects of the design proposal, such as rhythm, proportion, and spatial sequencing.

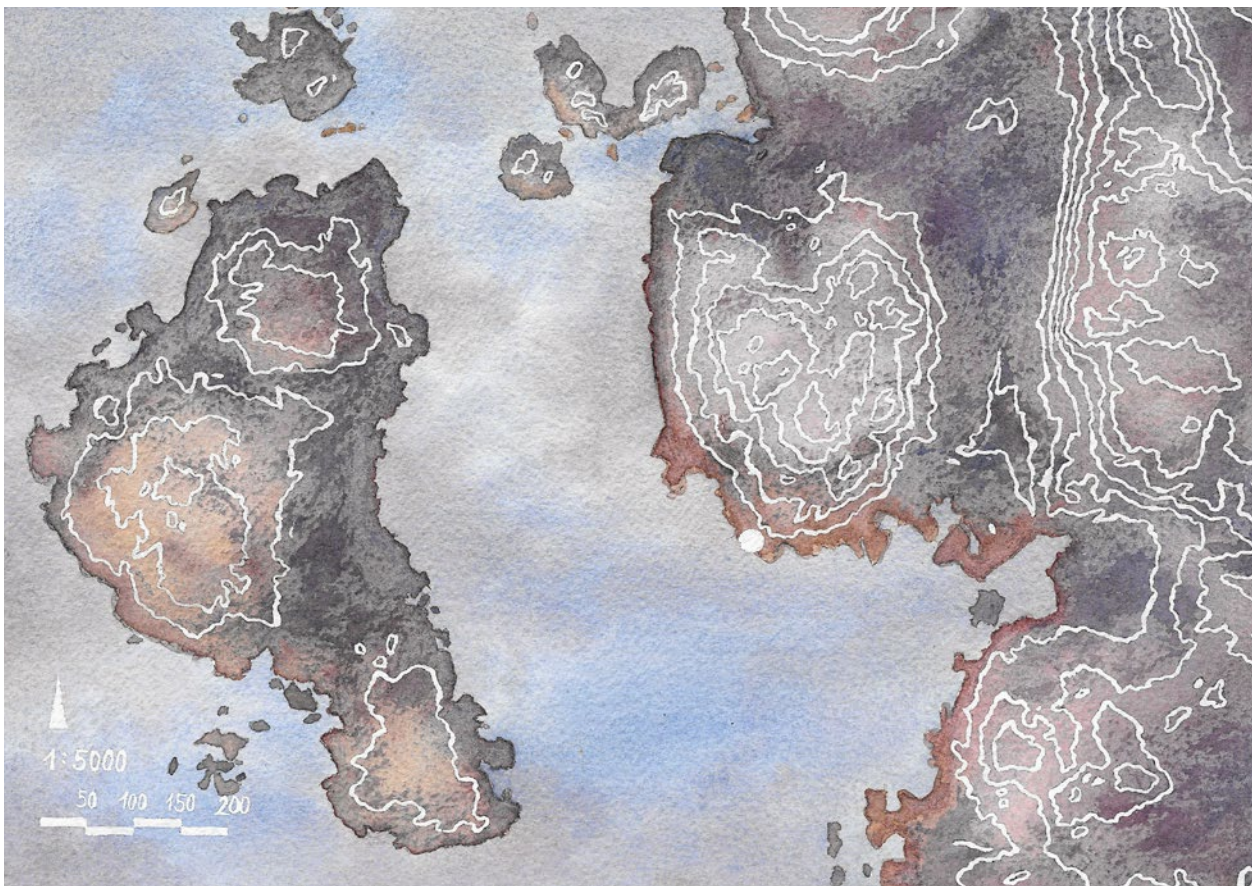


Fig. 18. Site plan, 1:5000. 2025. Watercolour on paper. A4.





Fig. 19. Frozen reflection. 2025. Watercolour on paper. A5.

12/02

*Sun is shining, and I am going to my favorite place by the coast – Ganletbadet. It takes about an hour to get there, and I realize that it's been a while since I went to the sea. I am walking on the rocks and feel the blissful feeling of the sun rays shining directly into my eyes. I feel the sudden happiness; I missed this all winter.*

*Last time I was here was in summer/autumn and I can see that this place looks different in winter. Time seems to have stopped here, the landscape is quiet and calm. The rocks are at some places covered with a thin layer of ice, looking frozen. I come closer to look at the ice, which is cracked into small pieces. Ice created a beautiful pattern, looking almost like an artistic masterpiece. I feel like in a*

*fairytale, a landscape bathed in sunlight, slowly getting ready for the spring but not quite yet.*

*I sit on one of the rocks and I take a deep breath. How lucky I am to enjoy such a warm day in the beginning of February and sketch outside. I draw the first scene, suggesting the shapes of the rocks and frozen water. This is not easy to draw as the sun is shining directly in my face and reflects from the sea and ice surfaces as well. Here and there I find places where the ice is slowly melting. Water flows, creates streams, bubbles and paths under a thin layer of ice. The sound of the dropping water is subdued by the layer of ice.*

07/02

*Watercolour process:*

*I am using 90lb aquarelle paper for painting a splash of sea waves. This picture reminds me of the cymbals in an orchestra, often used to create an accent, final beat, rhythm or dynamics. The contrast that is so often awaited.*

*First, I use a pencil to suggest the main shapes' outlines and dark spots, where I know that the pencil mark will be covered with a darker colour. I need to analyse the photo for a moment and decide what to paint first. I start with the sea, the background. I wet the paper generously, I am using blue and violet tones to create uneven colour shades. When the paper is still wet, I use an opaque wash of white acrylic to create light spots to imitate the sea foam.*

*Now that I have the background, I can continue painting the foreground. Closer to the viewer, the more detail we see. I am painting the rocks, using a darker contrast colour but still using a hint of blue to connect the foreground visually to the background. Like that, the painting feels more homogeneous. Where the sea water splashes over the rocks, I let the pigment fade away. I take advantage of the paper texture and hold my brush parallel with the surface and touch it gently with a very dark colour to create a stone-like texture.*

*I feel like something is missing, so I start to shape the form of the splash in more detail. I use a darker colour to create a contrast border and define the form. To enhance this contrast, I am adding some extra white acrylic paint for water drops that are flying in the air.*



Fig. 20. Colour palette. Watercolour on paper.

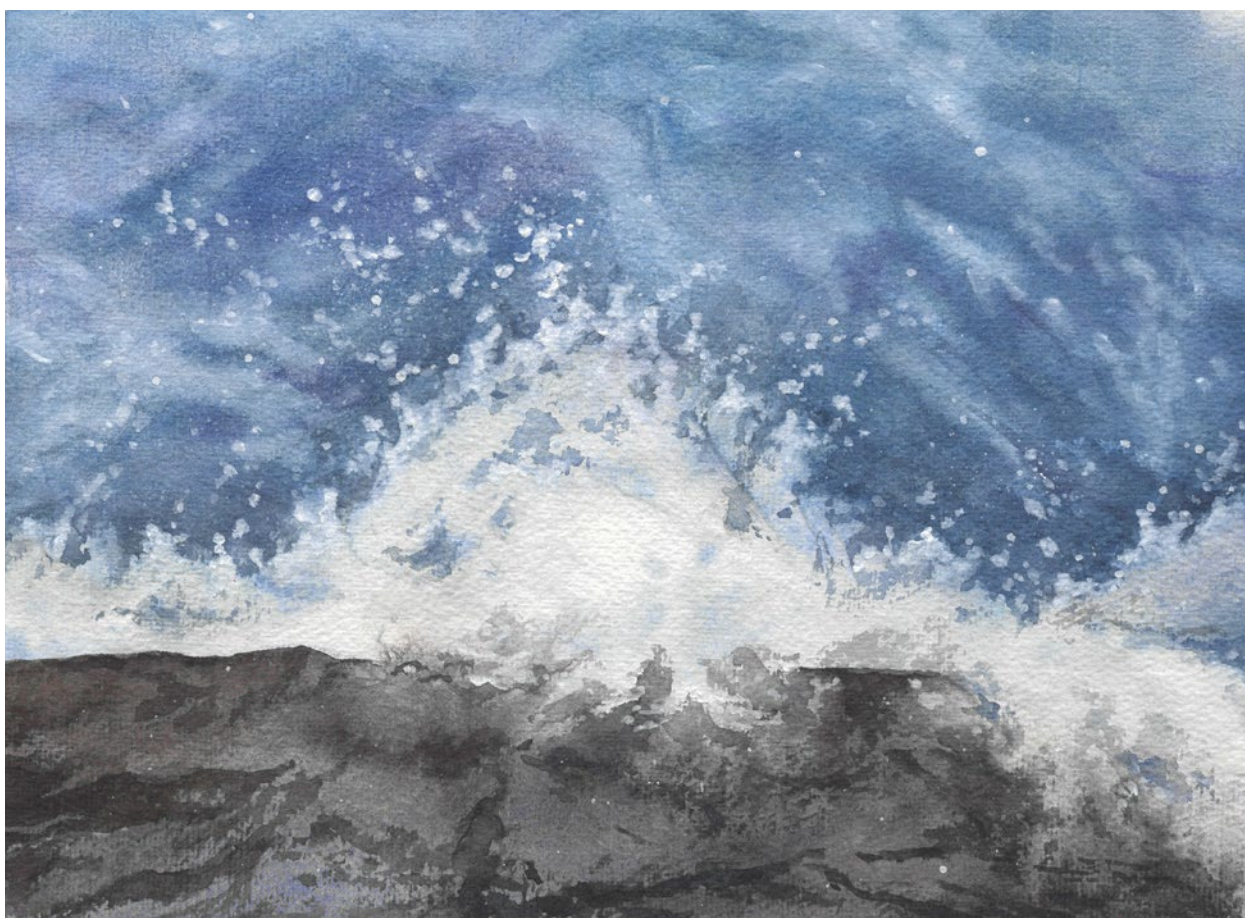


Fig. 21. Forte. 2025. Watercolour on paper. A4.





Fig. 22. Legato. 2025. Watercolour on paper. A4.



Fig. 23. Rhythmic rocks. 2025. Watercolour on paper. A4.





Fig. 24. Chimes. 2025. Watercolour on paper. A4.

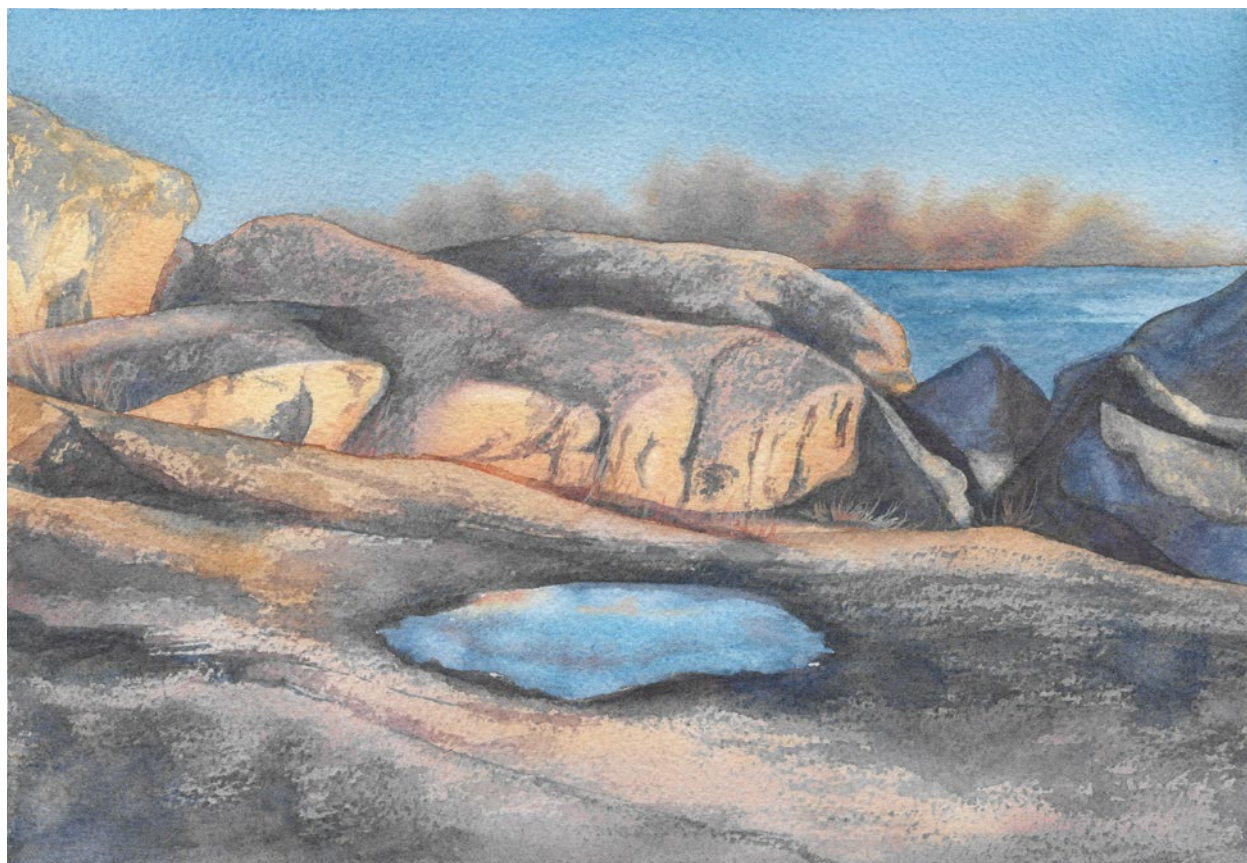


Fig. 25. Accent. 2025. Watercolour on paper. A4.



*Phase three :*  
*Brushstrokes in Space*

## *Graphic Exploration*

The experimentation phase played an essential role in the overall design process, showcasing the transition from two-dimensional paintings to three-dimensional model-making. This phase began with an in-depth graphical exploration, focusing on a single selected painting from the previous phase. Through a series of analytical sketches, key visual elements such as shadows, light, texture, and form were closely

examined and highlighted. By deconstructing and interpreting the various shapes found within the painting, the process gradually evolved into a more spatial investigation. This progression allowed for the conceptualisation and initial presentation of a three-dimensional space, informed by the visual language and atmosphere of the original artwork.



Fig. 26. Decomposed painting, variation 01.



Fig. 27. Fragment of the painting „Rhythmic rocks“.

Fig. 28. Repetition

Fig. 29. Positive/negative.

Fig. 30. Texture direction.

Fig. 31. Texture flow.



Fig. 27.

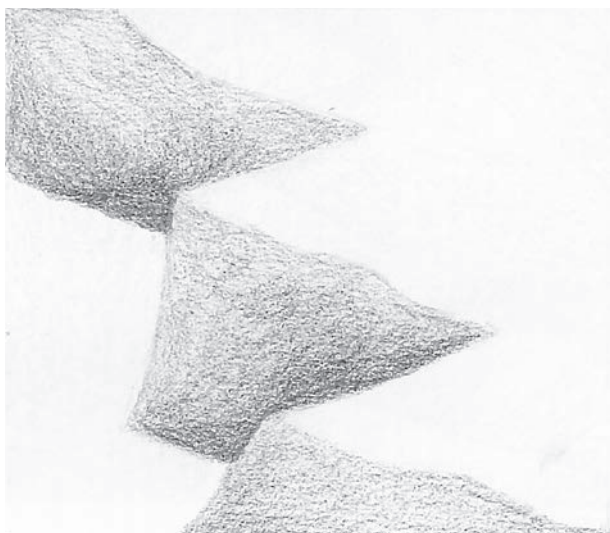


Fig. 28.



Fig. 29.

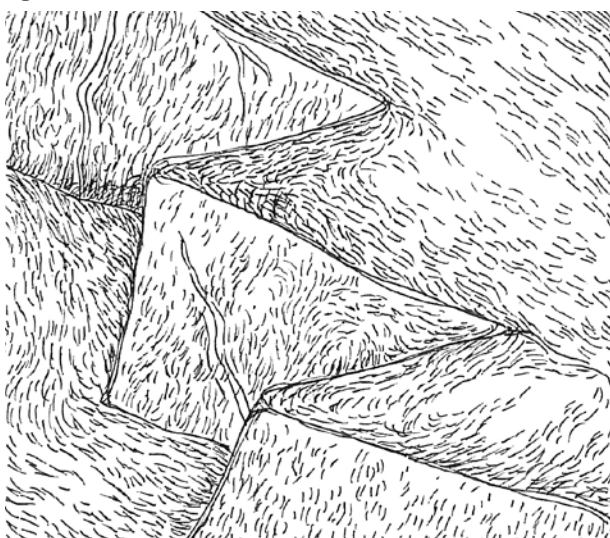


Fig. 30.

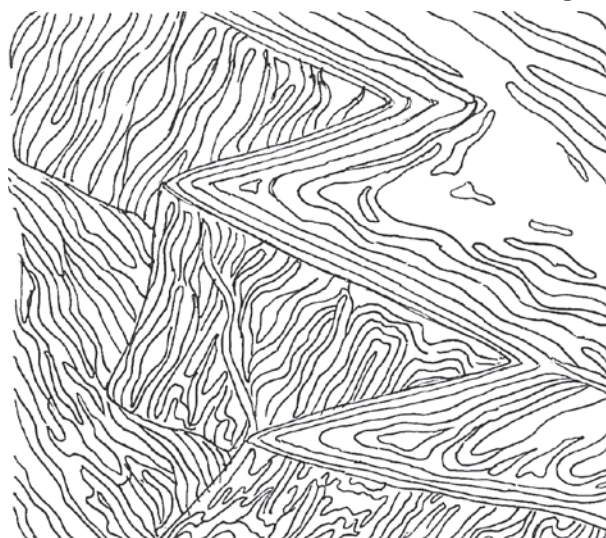


Fig. 31.



Fig. 32.



Fig. 33.



Fig. 34.



Fig. 35.



Fig. 36.

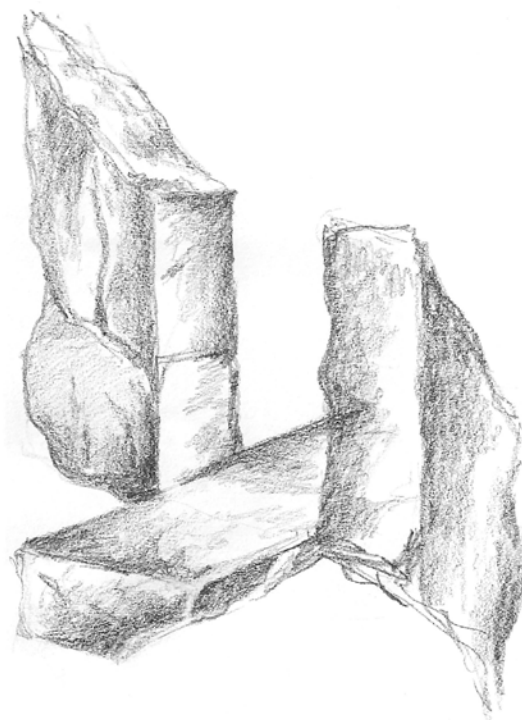


Fig. 37.

Fig. 32. Decomposed painting, variation 02.

Fig. 33. Decomposed painting, variation 03.

Fig. 34. Decomposed painting, variation 04.

Fig. 35. Mismatched stripe fragments of the original painting variation 01.

Fig. 36. Mismatched stripe fragments of the original painting variation 02.

Fig. 37. Sketch for spatial exploration.



# *Spatial Exploration*

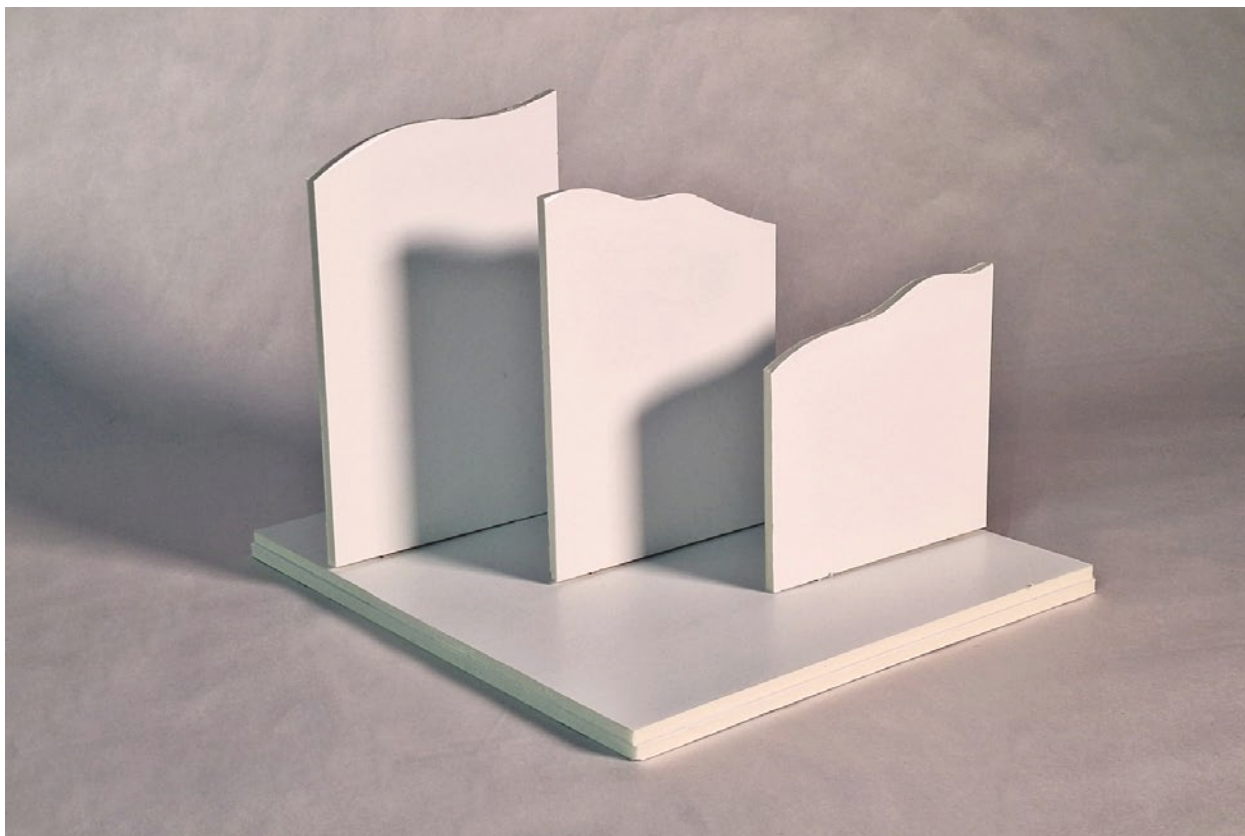
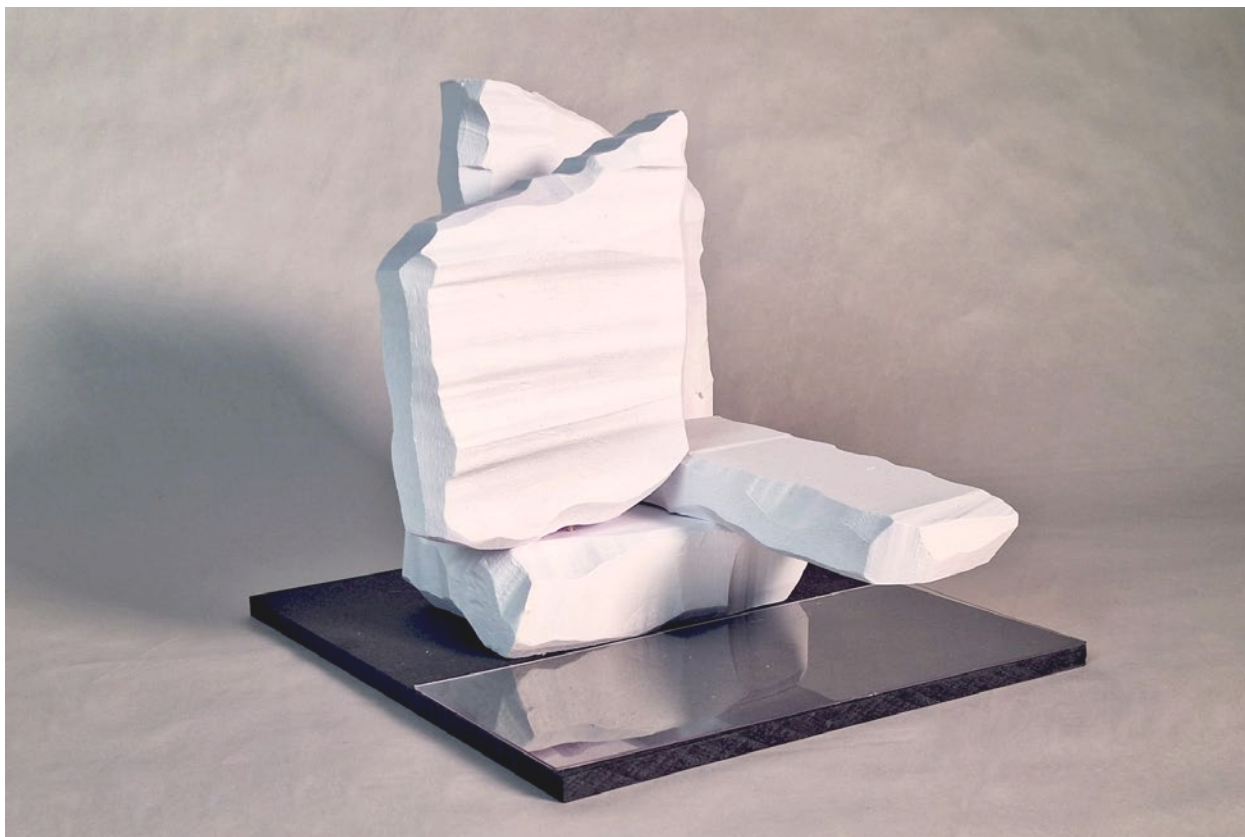


Fig. 38. Photograph of model, spatial exploration. platform. (top)

Fig. 39. Photograph of model, spatial exploration, repetition. (bottom)



*Phase four :*  
*Composing Architecture*

## First Sketches

While thinking about the site I am working with and music at the same time, I began to ask myself: *What is the music of the landscape? How can I create a space where people can experience music through their presence? Can I design a place that evokes the same emotional response a musician feels when listening to or performing a piece of music? How can I draw the visitor's attention more deeply to the surrounding landscape?*

These questions, along with insights from a previous meeting with composer Daniel Berg, led me to reflect on emotion. What do I want the visitor to feel in this space? And how can form and spatial rhythm influence and frame that experience?

A piece of music is typically composed of several movements that share a cohesive atmosphere. These movements can contrast in dynamics, rhythm,

and emotional tone, setting moods, expressing feelings, and shaping the listener's inner response. In contemporary music, such movements are often presented as individual songs within an album.

Inspired by this, I began to imagine the architectural structure as a musical composition, consisting of emotional "movements" one can walk through. I sketched an imaginary line from entrance to exit and mapped out the emotions and sensory phenomena I wanted visitors to encounter along the way: welcoming, familiar, comforting, calming, enjoyable, secure, then gradually shifting into contrast with discomfort, slowness, quiet, darkness, and focus, before reaching a powerful finale that is impressive, speechless, and surprising.

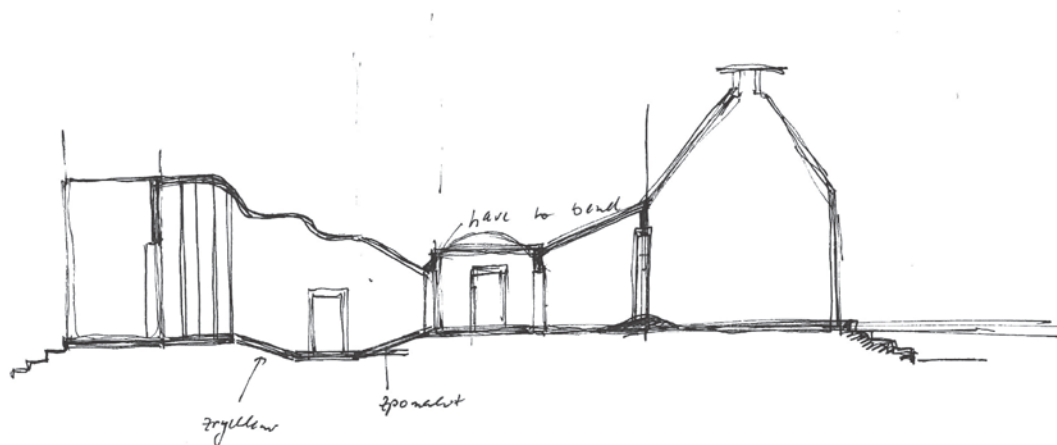


Fig. 40. Concept sketch, section.

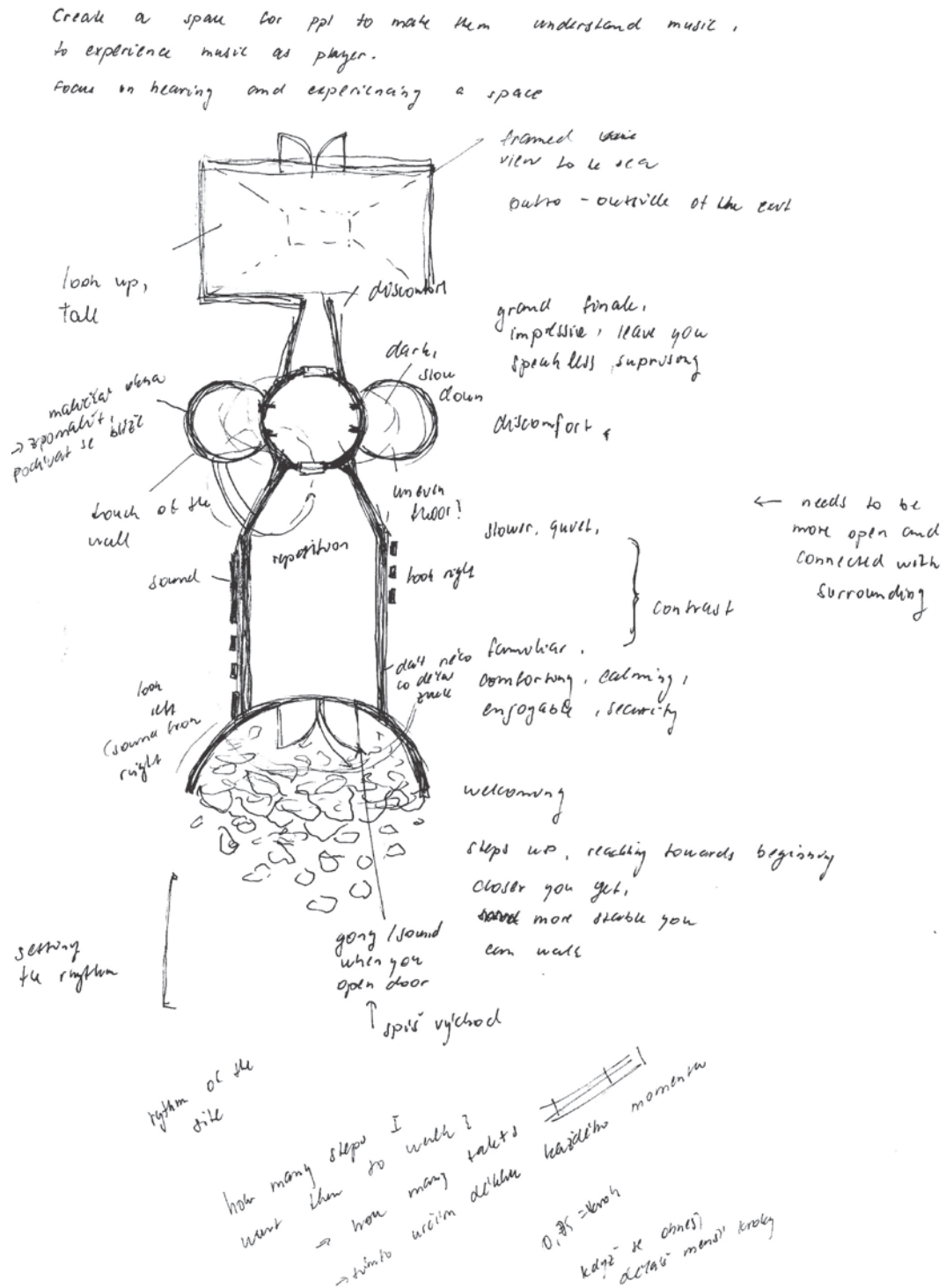


Fig. 41. Concept sketch plan.

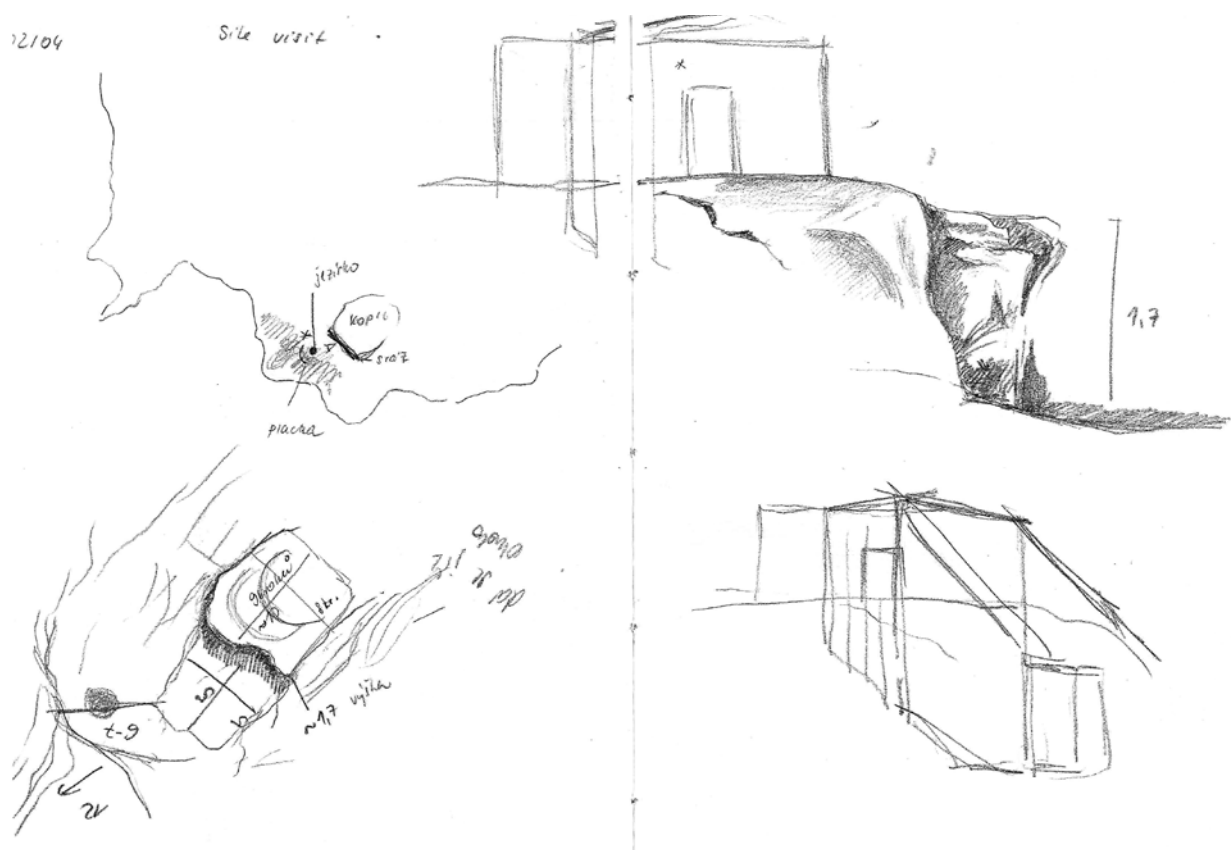


Fig. 42.

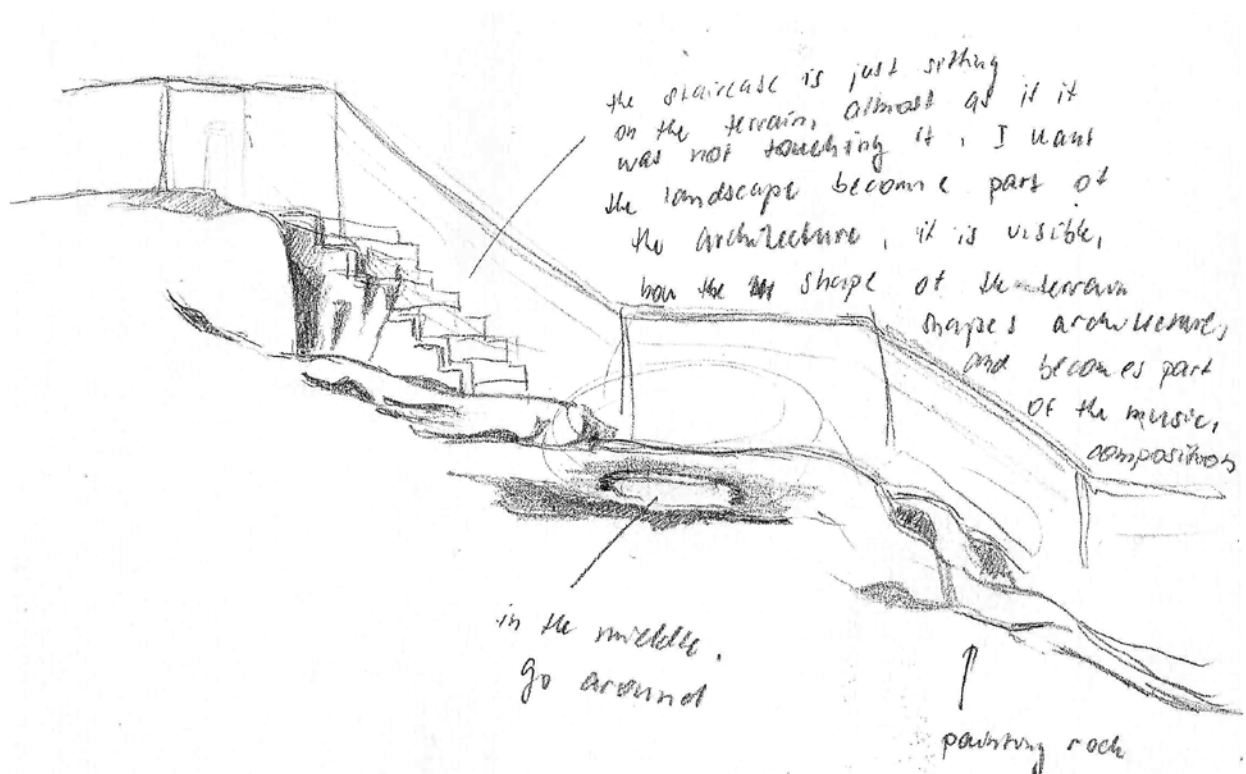


Fig. 43.



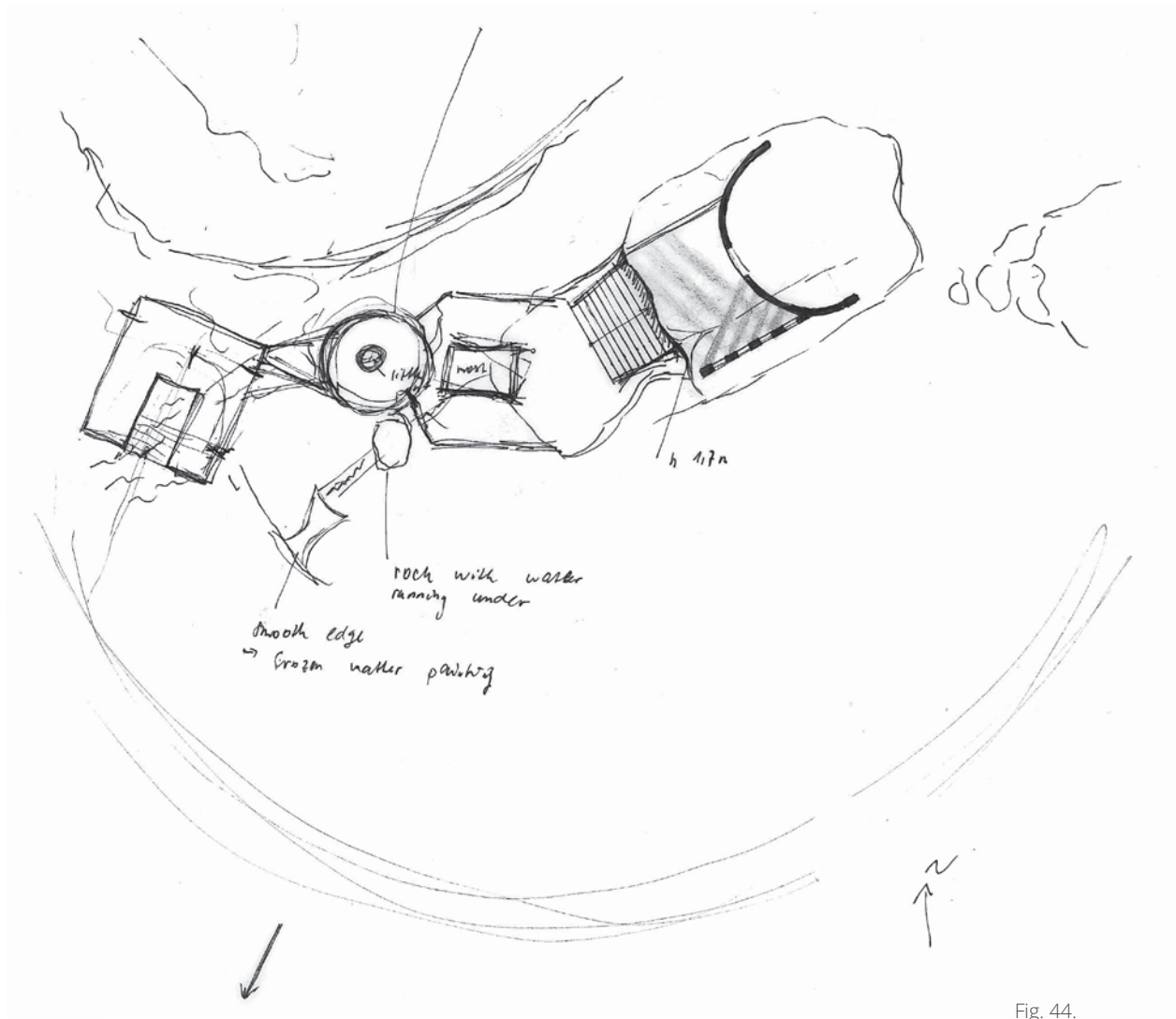


Fig. 44.

VIEW FROM THE SITE



Fig. 45.

Fig. 42. - 45. Site visit sketches.

The landscape sets the music, movement.  
by its shape and like that it defines  
architecture and the space inside is  
influenced by this movement and  
visitors move in the flow with  
the music of the landscape



Fig. 46. Site sketch.

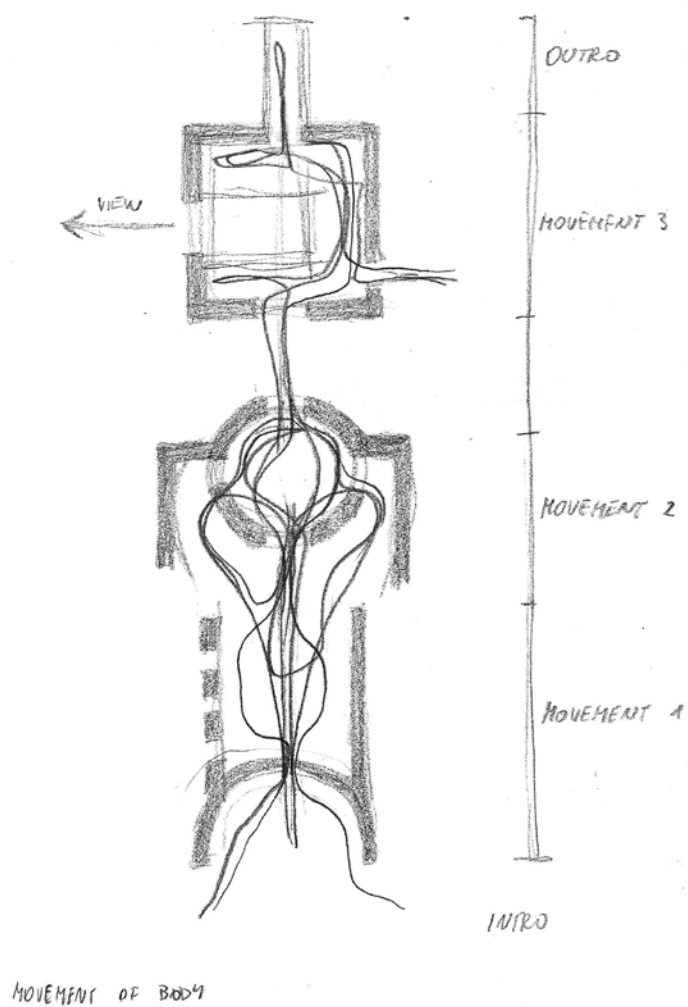


Fig. 47. Movement of body through the structure.

## Concept Model

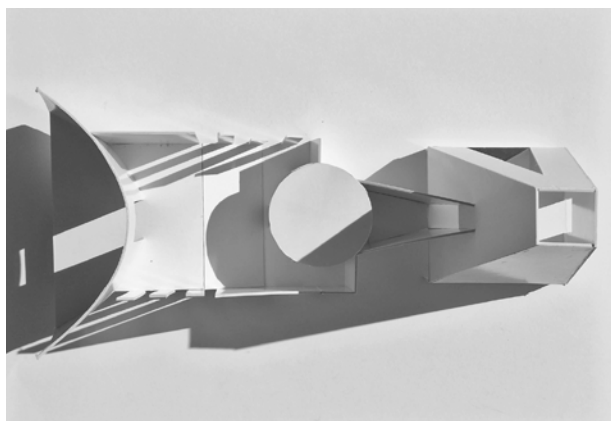


Fig. 48.

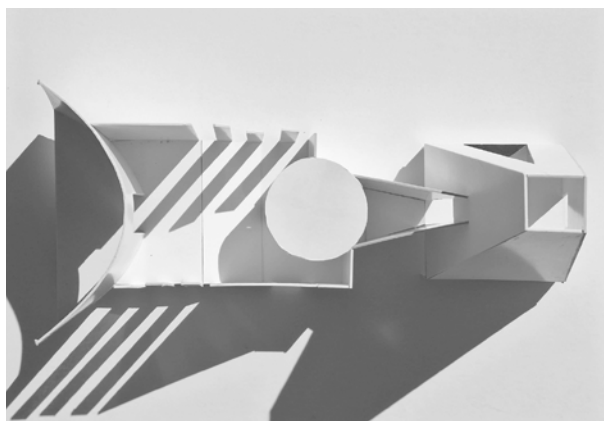


Fig. 49.

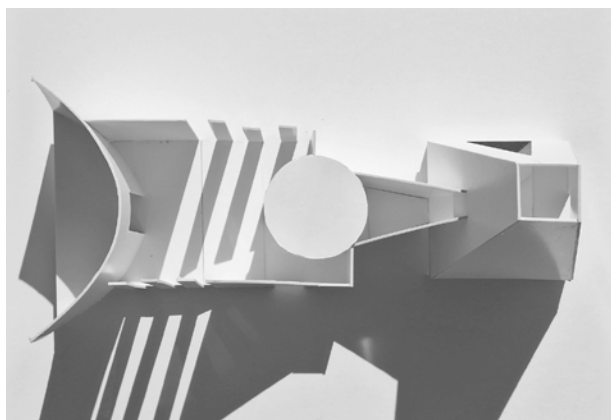


Fig. 50.

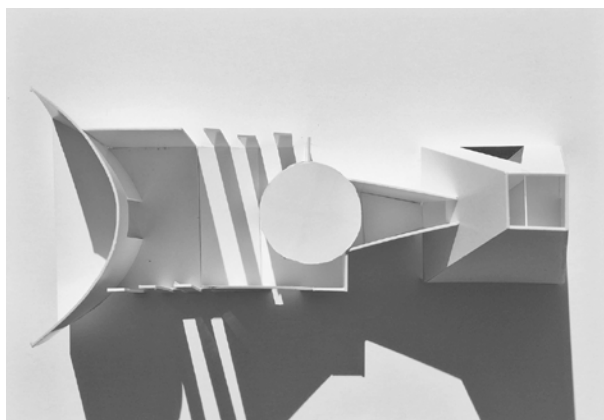


Fig. 51.



Fig. 52.

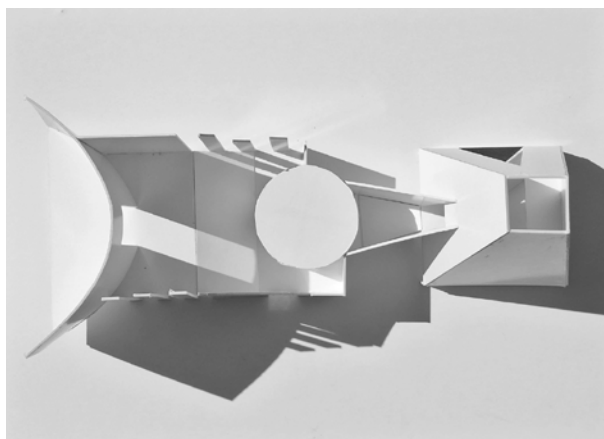


Fig. 53.

Fig. 48 - 53. Sun analysis, a series of photographs of the physical model on site.



*I want to take you on a journey,  
to experience the sensation of music through space,  
as if it was you, who is the player of the music,  
the player of the space.*



Fig. 54. Photograph of the concept model on site.



# Design Proposal

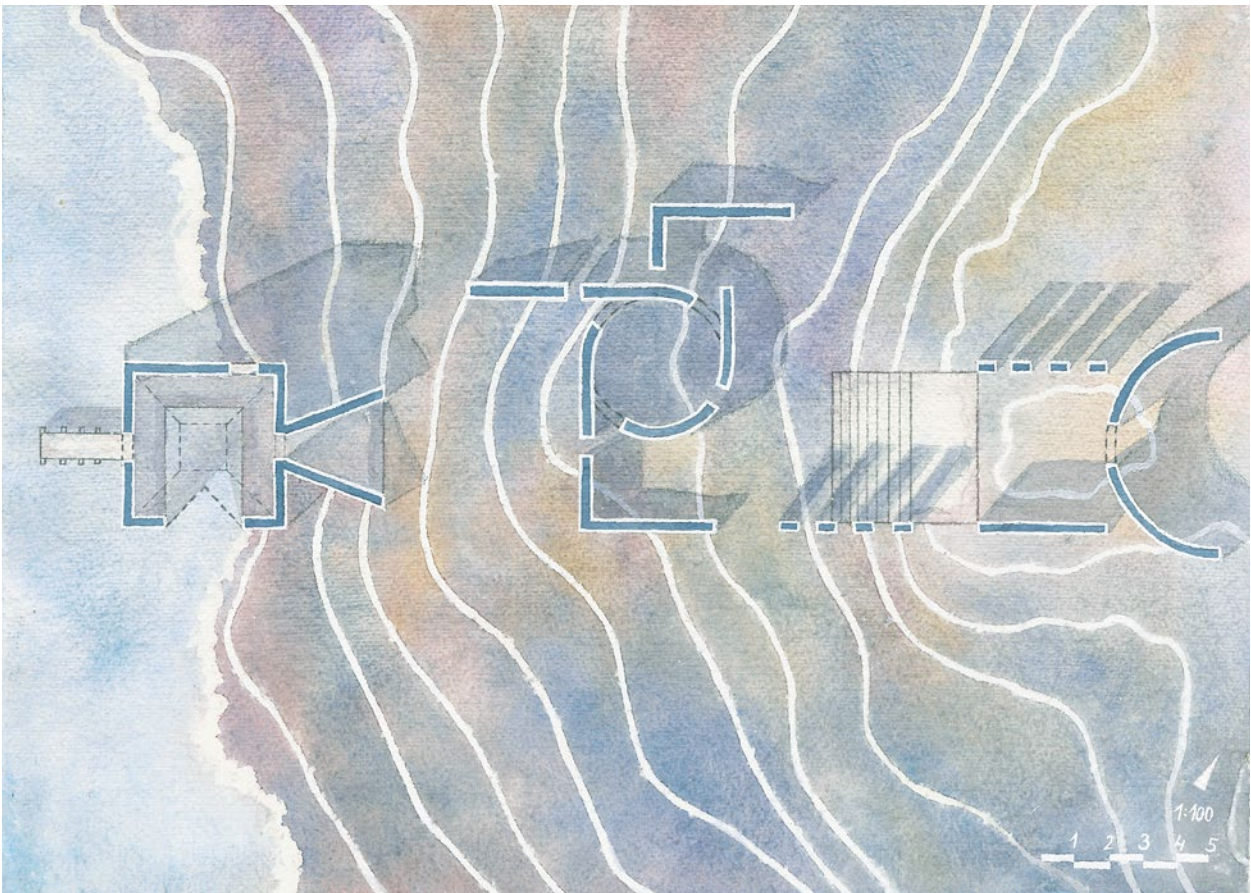


Fig. 55. Site plan, 1:100. 2025. Watercolour on paper. 40x29,5 cm.

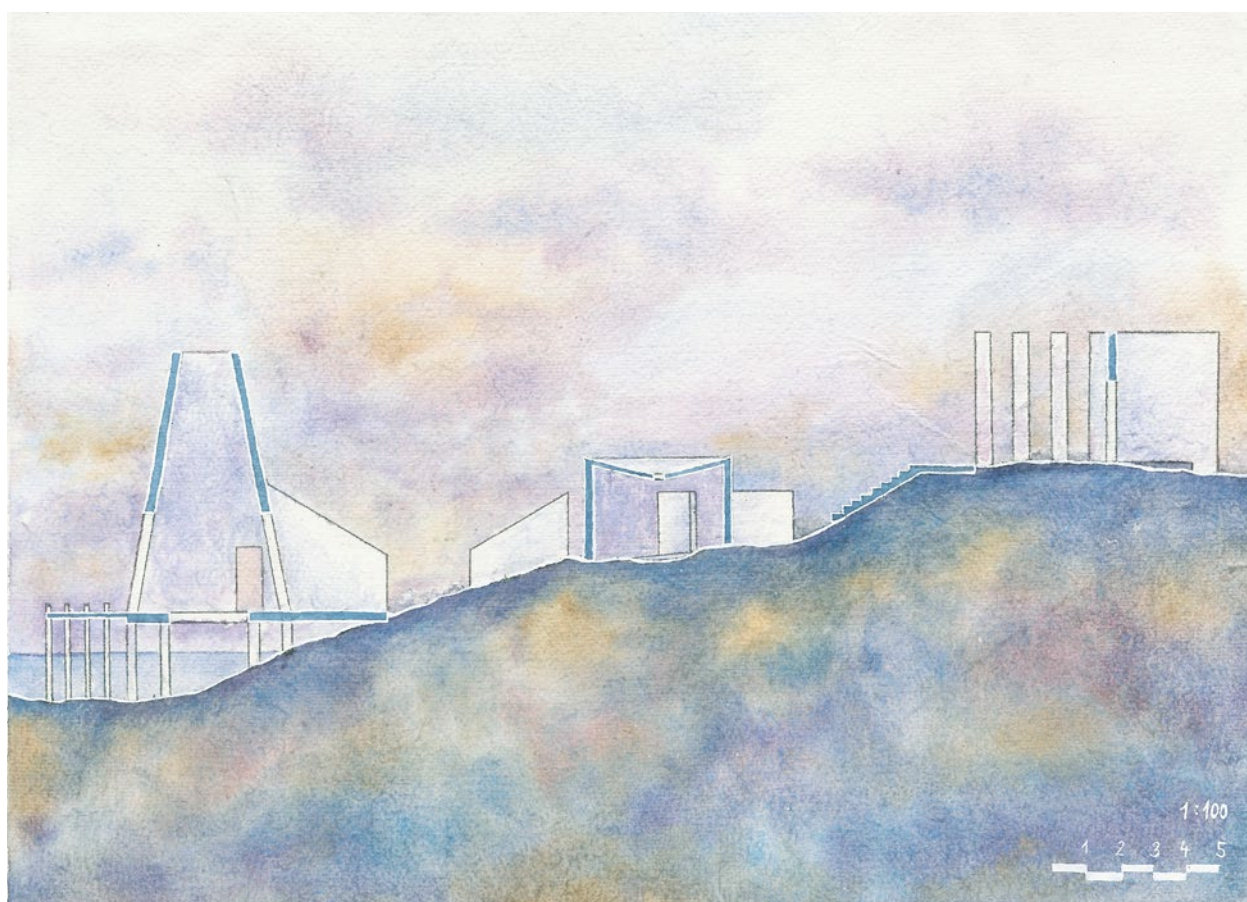


Fig. 56. Section, 1:100. 2025. Watercolour on paper. 40x29,5 cm.









Fig. 57. Graphic Music Score. 2025. Watercolour on Nepalese Lokta paper. 50x76 cm.



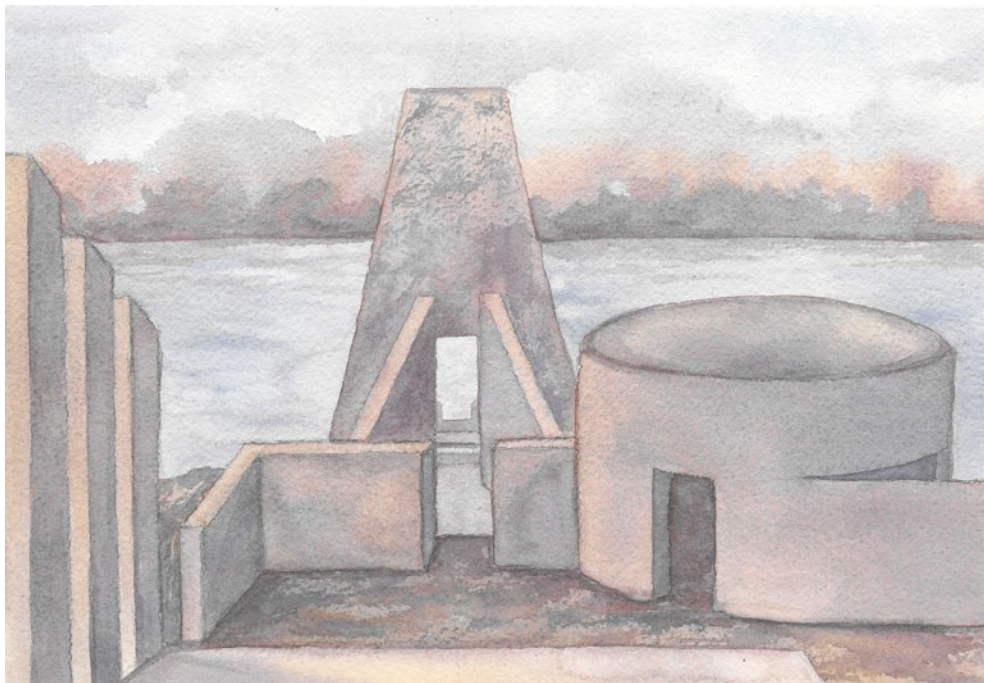


Fig. 58. Opening act. 2025. Watercolour on paper. A4. (top)

Fig. 59. Interplay. 2025. Watercolour on paper. A4. (bottom)



Fig. 60. Entrance to the Finale. 2025. Watercolour on paper. A4.



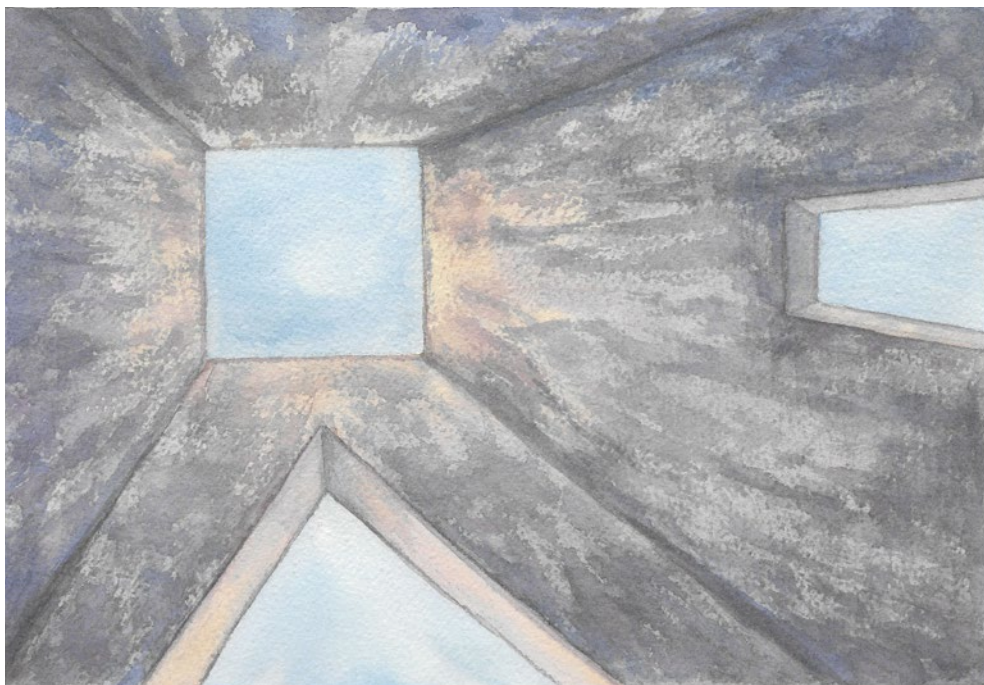


Fig. 61. Slow Movement. 2025. Watercolour on paper. A4. (top)

Fig. 62. Framing the Sky. 2025. Watercolour on paper. A4. (bottom)



Fig. 63. Reflection. 2025. Watercolour on paper. A4

*And so I looked finally up,  
and saw the sky above me,  
framed as a painting,  
that changes every moment.  
And with a warm feeling in my heart,  
I found the place,  
where I felt complete.*



## Discussion

This thesis originated from a curiosity about the existing relationship between music and architecture, as well as the similarities and differences between the work of a composer and that of an architect. I chose this topic not only to gain a deeper understanding of the connection between these two art forms, but also because I have a personal connection to both fields. At the beginning, I asked myself, “What message do I want to address through my thesis?” As the work progressed, I was able to answer this question through the development of my research and creative exploration.

The main focus of this thesis was to explore the correlation between music and architecture, and to showcase how musical expression can inform and inspire a design proposal. The theoretical framework provided essential guidance as the project progressed. This framework unfolded not only the music-architecture relationship, but also considers the topic of senses, emotions and atmospheres as a part of it. By engaging with the theories of Juhani Pallasmaa, Gernot Böhme, and Peter Zumthor—each of whom addresses these themes in different ways—I was able to position myself within the broader discourse.

Following James Turrell’s philosophy of letting visitors interpret and complete the experience of his artwork themselves, my design proposal encourages visitors to interact with the designed space through their own bodily presence and individual perception. Turrell’s project, Roden Crater, is an observatory that transforms the landscape into architecture, and similarly, my design functions as an observatory of natural phenomena that can be experienced on the chosen site, Ganletbadet. The artist Claes Hake has also been an inspiration for the visual appearance of my project, particularly in emphasising the roughness of stone and its strong connection to the surrounding coastal landscape, as well as in the transition between painting and sculpture.

The chosen technique of watercolour helped express the overall atmosphere of the project. In music, the mood of a piece is established by the key and tone in which it is composed. I draw a parallel to architecture and the representation of my project, where the atmosphere is shaped by the choice of visual technique. In this case, the use of watercolour plays a significant role in allowing the viewer to experience the project through the emotional and sensory qualities of the paintings. The paintings aim to communicate the spatial and emotional intentions of the design, much like a musical composition conveys mood through tone and rhythm.

My project explores the intersection between music and architecture, starting from a musical composition as the initial inspiration for the design. For further research, it would be fascinating to reverse this process, taking the developed architectural design and using it as a foundation to compose a new piece of music. This cyclical exchange between sound and space could lead to a series of design variations, each uniquely shaped by the evolving musical responses, deepening the dialogue between the two disciplines.

There is often a lack of interdisciplinary connection, and architecture can sometimes feel distant or even separated from other art forms, such as music. However, when we look at history, the development of all arts has gone hand in hand. I believe greater emphasis should be placed on the connections between the arts. From my point of view, fostering dialogue and sharing knowledge and ideas across artistic disciplines is crucial for the enrichment of society.

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## List of Images

Fig. 02. Hedenskog, J. (2025, April). *Portrait*. [Photograph].

Fig. 05. Schäfer, M. (2022, August 10). *Artwork SKYSPACE by James Turrell in Lech, Vorarlberg, Austria*. [Photograph]. CC-BY-SA. Wikimedia Commons. [https://commons.wikimedia.org/wiki/File:Lech-SKYSPACE-James\\_Turrell-dome-hole-17MSA.jpg](https://commons.wikimedia.org/wiki/File:Lech-SKYSPACE-James_Turrell-dome-hole-17MSA.jpg).

Fig. 06. Schäfer, M. (2022, August 10). *Artwork SKYSPACE by James Turrell in Lech, Vorarlberg, Austria*. [Photograph]. CC-BY-SA. Wikimedia Commons. [https://commons.wikimedia.org/wiki/File:Lech-SKYSPACE-James\\_Turrell-dome-hole-18MSA.jpg](https://commons.wikimedia.org/wiki/File:Lech-SKYSPACE-James_Turrell-dome-hole-18MSA.jpg).

Fig. 10. Jurvetson, S. (2021, November 6). *The Roden Crater Telescope*. [Photograph]. CC-BY. Flickr. <https://www.flickr.com/photos/jurvetson/51663342108/in/feed-22706-1636342362-1-72157719987057589>.

Fig. 13. Beethoven, L. (1809). *Symohony No. 5 in C minor*. [Piano Solo score]. CC. Mutopia Project. <https://www.mutopiaproject.org/cgi-bin/piece-info.cgi?id=497>.

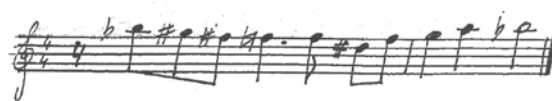
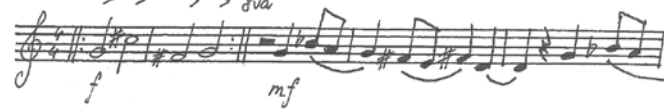
Fig. 15. Mozart, W. A. (n.d.). *Don Juan*. [Flute score]. International Music Score Library Project. [https://imslp.org/wiki/File:PMLP36804-Mozart\\_Don\\_Giovanni,\\_K.527\\_B.H.\\_-\\_Flute\\_1.pdf](https://imslp.org/wiki/File:PMLP36804-Mozart_Don_Giovanni,_K.527_B.H._-_Flute_1.pdf).

Fig. 17. Paganini, N. (1836). *24 Capricci: Caprice No. 24*. [Violin score]. CC. Mutopia Project. <https://www.mutopiaproject.org/cgi-bin/piece-info.cgi?id=2000>.



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THE MUSIC OF THE SEA  
NIKOLA CHYTILOVÁ  
2025