

# The Atmosphere of

**Research Plan**

S I L E N C E

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Graduation Studio

*Methods of Analysis & Imagination:*

*A Matter of Scale*

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# The Sound of Silence

*Little Yoshio was on his way to school. Suddenly he heard the strangest sound, high and then low, squeaky and vibrating - It was a koto player carefully tuning her instrument.*

*Then the koto player played. When the song finished, Yoshio said,*

*"Sensei. I love sounds, but I never heard a sound like that."*

*The koto player laughed, and it sounded like the metal bell that swayed in the wind in Mama's garden.*

*"Sensei", Yoshio said, "do you have a favourite sound?"*

*"The most beautiful sound," the koto player said, "is the sound of ma, of silence."*

*Where can I find silence? Yoshio wondered as he listened to the thwack of his boots on the pavement.*

*He listened for it through the school day. He even went to the quietest place he knew - the bamboo grove. But even there, the bamboo made a takeh-takkeh-takeh sound as the wind banged the stalks together.*

*Walking home from school. Yoshio listened hard. He could hear the horns of buses and the whoosh of bullet trains and the beep-beep-beep*

*of traffic lights. Yoshio knew so many different sounds, loud and soft, sudden and soothing, but silence?*

*It wasn't in the dining room, where there was always the sound of chopsticks and slurping and clewing and swallowing.*

*Silence wasn't in the bath, where even his toes made noise and little droplet of water kept dripping off his nose.*

*Where was silence?*

*The next day, Yoshio went to class early in the morning. The classroom felt different without anyone in it. He sat at his desk by the window and pulled out a book. He loved this story, and as he read, he forgot where he was.*

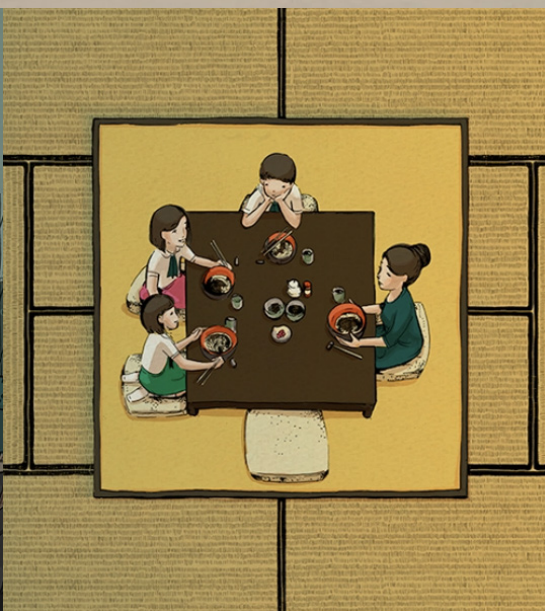
*Suddenly, in the middle of a page, he heard it. No sounds of footsteps, no people chattering, no radios, no bamboo, no kotos being tuned.*

*In that short moment, Yoshio couldn't even hear the sound of his own breath. Everything felt still inside him. Peaceful, like the garden after it snowed. Like feather-stuffed futons drying in the sun.*

**Silence had been there all along.**

- Japanese concept of MA, Extracted from The Sound of Silence by Katrina Goldsaito (2016) -







# ***Silence***

Silence is not about the emptiness and absence of sound, but a fullness of mindful presence. It is the ability to listen inwards, to experience inner peacefulness and relish meaningful moments in the present.

# Problem Statement

## Mental health issues

The Estonian National Institute for Health Development and the University of Tartu conducted a health study from 2020 to 2022, revealing the prevalent occurrence of mental health issues within the Estonian population, particularly in depression and anxiety disorders. The probability of mental health issues increases notably, especially in the aftermath of the global pandemic. Today, more than a quarter (28%) of Estonians face the risk of depression, whereas one in five, approximately 20% of Estonians, are at risk of developing anxiety disorder (Ministry of Social Affairs, 2022).

Lasnamäe is chosen as the main study area as it is Tallinn's most densely inhabited neighbourhood. The research indicates that adolescents and young adults, individuals with lower levels of education and lower incomes, as well as the unemployed, are more vulnerable to mental health problems, which to a certain extent, aligns with the demographic composition of Lasnamäe (Ministry of Social Affairs, 2022).

Moreover, the Estonian Human Development Report (Randver et al., 2023) highlighted that preventing mental health problems is more manageable than treating them. However, the overall structure of the care system supporting people's mental health and well-being is fragmented, complex and under-resourced.

## Lack of cultural spaces in Lasnamäe

There is a disconnection between Lasnamäe and the wider Tallinn region mentally and culturally. There is a negative stereotype originated during the Soviet occupation and the elevated crime rate experienced in Lasnamäe during the 1990s. Till today, the perception towards Lasnamäe has not yet successfully shifted because of its self-sustaining infrastructure, which contributes to the neighbourhood's inward-focused orientation. Lasnamäe is well-equipped with daily amenities such as kindergarten, schools, playgrounds, and shops, providing residents with everything they need within the area. However, the lack of cultural and gathering spots eliminates the will for 'outsiders' to visit and explore the district.

During our site visit in Tallinn, we interviewed Maria Derlos, one of the founders of Lasnaidee, a non-governmental organisation in Lasnamäe. She told us that the Soviet apartments in Lasnamäe are currently fully occupied, and the government is planning to build more housing in the district to accommodate more affordable houses in the near future. As the neighbourhood becomes more densely populated, its population has greater diversity. Consequently, the demand for various public or cultural needs increases.

As mentioned by Paul Agurauja (Fold, 2022), the director of Tallinn Art Hall, even though Lasnamäe has the highest population density in Tallinn, it has almost no cultural activities. If

treated as a standalone city with its 120,000 residents, Lasnamäe would rank as Estonia's second-largest city. Nevertheless, It has always been a sleeping district with no easy access to contemporary Estonian culture.

### **Problem Statement Conclusion**

Pointed out in the Culture for Health Report by the World Health Organization (2022:3), "the arts provide cost-effective interventions for complex health challenges that may not have current healthcare solutions, while alleviating pressures on limited health resources", emphasizing the significance of arts and cultural activities in promoting the positive mental health and well-being.

With the dual focus on mental health issue and the deficiency of cultural spaces in Lasnamäe, the proposed project aims to devise a concept or a function that effectively tackle both issues.











# Theoretical Framework

*“The most essential auditory experience created by architecture is tranquility... A powerful architecture experience silences all external noise; it focuses our attention on our very existence, and as with all art, it makes us aware of our fundamental solitude.”*

- Juhani Pallasma -

## **What role does culture play in mental health?**

Emmy van Duerzen (2012), an existential therapist, psychologist and philosopher, argued that the role of self is essential in mental health. Accessing a deeper level of self can help individuals in many ways by creating a sense of direction and reducing dysfunctional ambivalence. However, finding a lasting sense of self in a world saturated with competing narratives and shared meaning is a complex and difficult proposition. Only minorities are able to establish a selfhood that can withstand the disturbance of the world.

At this point, this is where the impact of culture comes into play. Some believe that culture can act as a barrier to self-discovery, but there are also opposing voices understanding the concept of self as a social construct. Nevertheless, both sides of opinions imply that the impact of cultural factors shaping one's self-perception is a crucial aspect that cannot be overlooked, as it hinders the formation of correct opinions about self or the world—in turn, having a significant influence on one's mental health (Ellis, 1974).

## **The atmosphere of silence**

Emotional tones forming different atmospheric patterns will affect our emotions, body reactions and state of mind, resulting in our judgement and behaviour (Sioli, 2022). Linking to the prevention of mental illness, the atmosphere of silence directly correlates with a sense of calmness - allowing for a pause from the busy urban life, similar to the blank space on the canvas, the rest signs between musical notes and the pauses between speeches. This gives one a space to breathe while embracing solitude and quietude.

## **Different kind of silence**

Referencing the Estonian Human Development report (Oru et al., 2023), air and noise pollution is identified as the main urban annoyance affecting one's mental health. Noise pollution is a main concern in Tallinn's car centric society, especially in Lasnamäe, where major highway cut through the centre of the microdistricts. In the report, it is stated that exposure to traffic noise can cause anxiety and sleep disorders in people sensitive to noise regardless of the levels of



noise.

There is always a clear definition of what is an annoying sound. On the contrary, the question arises, what defines the kind of sounds that constitute to tranquillity and inner peacefulness?

In the book, 'The Place of Silence' (Dorrain and Kakalis, 2020:1), the authors described silence as "experienced as not just something you 'hear' but as something you participate in, maintain and even produce – for it affects the way you move... perhaps even the way you breathe." The unnoticed sounds and actions in everyday life can be magnified when the annoying sounds are being removed. Hence, it is crucial to identify the 'right' sound for a space that serves as a healing mechanism that allows individuals to process their emotions and reconnect again with their inner selves.

## **Summary**

Acknowledging the multisensorial nature contributing to the atmosphere of silence, the proposed project, nonetheless, will prioritise sound as the initial focal point for both the design process and analysis.

# Design Brief

## Program

A refuge from the outside world: An art museum that challenges the notion of sound while questioning the role of quietude in cultural public spaces. What is a comfortable silent space for different people? Diverging from mainstream museums where sound design is typically isolated from architecture and more closely tied to individual exhibits, the proposal aims to weave the atmosphere of silence into the very fabric of the museum as its primary exhibition of all time.

The museum's function will be divided into two main categories, possibly catering for different user groups.

### 1. Museum spaces:

Recognising these spaces might not be universally suitable; the design of this program is aimed at individuals or minorities seeking refuge from external distractions.

### 2. Communal gathering area:

The proposal envisages a clear separation or a gradual transition from community to solidity. The decision addresses Lasnamäe's issue of limited cultural and gathering spaces. Therefore, the proposal seeks to play a role as a cultural centre, meeting the needs of the residents of Lasnamäe.

## Potential Sites

### Option 1: Within the heart of a microdistrict

*Kivila 26* in Mustakivi is a potential site positioned right beside Laagna Tee, the primary transport axis in Lasnamäe. Being at the center of Mustakivi, the site ensures easy accessibility and clear position as a cultural focal point. However, the site poses challenges in dealing with sound due to its proximity to a busy highway, a large supermarket and a petrol station, with limited nature around.

The current state of the site is an open car park. If the proposal were to be implemented here, a key consideration would be: where would the car parks be relocated?

### Option 2: Natural setting

The choice is between the *natural land along the Pirita River (option 2i)* or *the empty land to the north in the Paevalja subdistrict (option 2ii)*, where there is a connection with the coast. Both sites nestled in a natural setting at the edge of Lasnamäe. They provide a chance to include the sounds of the nature with Lasnamäe as its picturesque backdrop. However, unlike option 1, these locations are not as accessible and inclusive as they require additional travel.



# Option 1

Kivila 26, Mustakivi





# Option 1

Kivila 26, Mustakivi





# Option 2

*option 2ii*  
Connection with  
the coast

*option 2i*  
Along Pirita  
River





# Research Questions

Aiming to explore the various connotations of 'silence' among potential users and its interplay with the architecture form and chosen site, this leads to the main research question:

*"Respecting the local context of Lasnamäe, how can architecture shape the atmosphere of silence in a cultural setting?"*

Following by a secondary research question:

*"How is the term 'silence' understood by different potential users?"*

Subsequently, the main research question will be broken down into several subcategories to construct a multifaceted understanding of the project. In line with the studio's overarching theme, 'A Matter of Scale,' the sub-questions will centre on the interconnection between culture, soundscape and users across five different scales: the scale of Tallinn, the scale of Lasnamäe, the scale of the chosen site, the scale of a building and the scale of a human body.

## 1. The Scale of Tallinn

*What is the value and significance of constructing a cultural building in Lasnamäe?*

*What distinguished the soundscape of Lasnamäe apart from other districts of Tallinn?*

To highlight the absence of cultural facilities in Lasnamäe, I will create a cultural network map of Tallinn, specifically emphasising the eastern subdistrict of Lasnamäe. I will also incorporate quotes and personal stories from the interviews conducted during the site visit, underscoring the pressing need for cultural building in Lasnamäe. Moreover, I will revisit the video footages from the trip. This is to analyse the auditory environment in various Tallinn districts to pinpoint the unique soundscape associated with the Soviet neighbourhood.

Methods: Cultural and soundscape mapping

## 2. The Scale of Lasnamäe

*How can the existing soundscape of Lasnamäe contribute to the atmosphere of silence?*

*Are there any cultural-related or natural sounds within the current context of Lasnamäe?*

Sound clips of one-minute durations were recorded at different locations during the site visit in Lasnamäe. The prevalent sounds in Lasnamäe are the noise of traffic, the chatter of people and the cheerful voices of children playing in schools or playgrounds. In the next stage, I will conduct a thorough analysis of



all the recordings, with the intention to filter out unwanted noises and identify the 'hidden' sounds that should be amplified. Using the reverse engineering methods to dissect the existing overlapping soundscape.

Methods: Soft mapping; a catalogue of sound-related elements; Sound clips of the existing context

### 3. The Scale of the Chosen Site

*When responding to the atmosphere of silence, what particular sound on-site should be incorporated, completely removed or partially reduced?*

*Who are the potential users?*

*How can architects create a building of belonging and inclusion through the exploration of sound?*

A detailed examination of the cultural and social context in Lasnamäe is fundamental for a thorough understanding of the potential users for the proposed project. While analysing the site as a group, we already noticed a substantial population of Russian speakers. However, it is noteworthy that the area has experienced increasing diversity in recent years due to its affordable housing options. Therefore, it is essential to investigate the cultural background associated with this shifting demographic. At the same time, inspecting if there are any potential sonic attachments to it.

If feasible, I intend to reach out to artists, with a preference for those based in Lasnamäe or work with Lasnamäe, to gain their insights on what constitutes an atmosphere of silence.

The results, hopefully, will inform the kind of spaces and acoustic requirements that enable different artists to achieve optimal concentration.

Methods: Population and cultural background mapping; Quotes related to what is silence from different artists; Detail analysis of the chosen site and its immediate surrounding; Literature review.

### 4. The Scale of a Building

*What is the relationship between sound and architectural form?*

*How can the different kinds of silence promote mental health and well-being?*

*What type of program fosters inner tranquillity, and what acoustic criteria are essential for these spaces?*

*Construction site typically generates a lot of noise. Can the construction of building be carried out in a manner that embraces the atmosphere of silence?*

The analysis of different precedents will inform the type of function that facilitates an atmosphere of silence and how this silence is curated through spatial design. Additionally, this study also aims to examine how the ambience of silence can be adapted to accommodate the diverse group sizes of visitors. For example, what constitutes a silent space for an individual, a small group of friends or a larger event group?

After concluding the site and program analysis, form studies will be conducted to bring together the sound of the site, determining which sound should be eliminated, preserved

or enhanced concerning the proposed program. Also, the feedback from the artists will decide if there is a need to introduce a new kind of sound on-site to meet the expectations of a tranquil space. Digital platforms such as Treble could be utilised to study the relationship between form, chosen material and sound.

Methods: Precedent study; Model study; Choice of primary building material; Literature review.

## **5. The Scale of a Human Body**

*What is the ideal spatial formation in allowing potential users to embrace inner peace and reconnect with their emotions?*

*How does the relationship between form and sound affect the overall design and perception of human experience?*

The method of analysis for this scale will be a continuous assessment of the scale of a building but will focus on the soundscape of each room. While hearing serves as the primary senses and sound acts as the primary stimulus and foundation of this project, it is important to recognise that other senses will also be considered as complements to sound during the design process. Together, all of the senses shape and form the atmosphere of silence.

Methods: Sound and acoustic mapping; Precedent study; Model study; Literature review.

# Precedent Study

Several precedents have been selected and will be further examined in the next stage. These selected projects will give a clue of the proposal's direction, aligning with the atmosphere of silence while respecting cultural and acoustic sensitivities.

## **Cultural-related precedents:**

1. Monologue Art Museum
2. Teshima Art Museum

From Saarinen's unrealised plans to Soviet interventions and the current capitalist era, Mustakivi and Lasnamae have consistently been shaped by a top-down approach. Nevertheless, housing privatisation after independence allowed people to start thinking and reflecting on their way of living. This kind of reflection can be observed through the tiniest detail of the diversified façade character changes.

Besides promoting mental healthiness, the design strives to create a platform of reflection, inviting residents to not only reflect on their way of living but also to reconnect with their senses and emotions. Similar to the concept of both the Monologue Art Museum and the Teshima Art Museum, the proposal aims to establish a platform of quietude and solitude, which encourages a certain extent of disconnection from the surroundings. It provides spaces where individuals can enjoy the present moment without any external distraction, offering a sanctuary for concentration and detoxification from the

outside world.

## **Acoustic-related precedents:**

1. The Sound of Chapel
2. Tallinn Song Festival Ground

The primary design methodology for both projects revolves around sound, emphasizing the complex interplay between geometry, material, sound and user perception. These projects offer an excellent example of the complex relationship between architectural form and the amplification or reduction of selected sounds.

# Monologue Art Museum

by Wutopia Lab

*"It allows different people to be in different spaces at the same time, but one can be alone in an artistic way... It is truly conceived as a one-person paradise, and enjoying the sea that unfurls in peace somewhere nearby."*

- Zhang Xiaoyan, Wutopia Lab (Iype, 2022,) -





# Teshima Art Museum

by Ryue Nishizawa + Rei Naito

*"In "Matrix" at Teshima Art Museum, water trickles out from the ground, here and there, throughout the day. As light, wind and the voices of birds - on occasions also rain, snow, and bugs - enter through the two openings and come in resonance with each other, an infinity of expressions are revealed as time passes. Immersing calmly in this space, feeling united with nature, we may sense the joy of life on earth."*

- Rei Naito (Benesse Art Site Naoshima, 2010) -

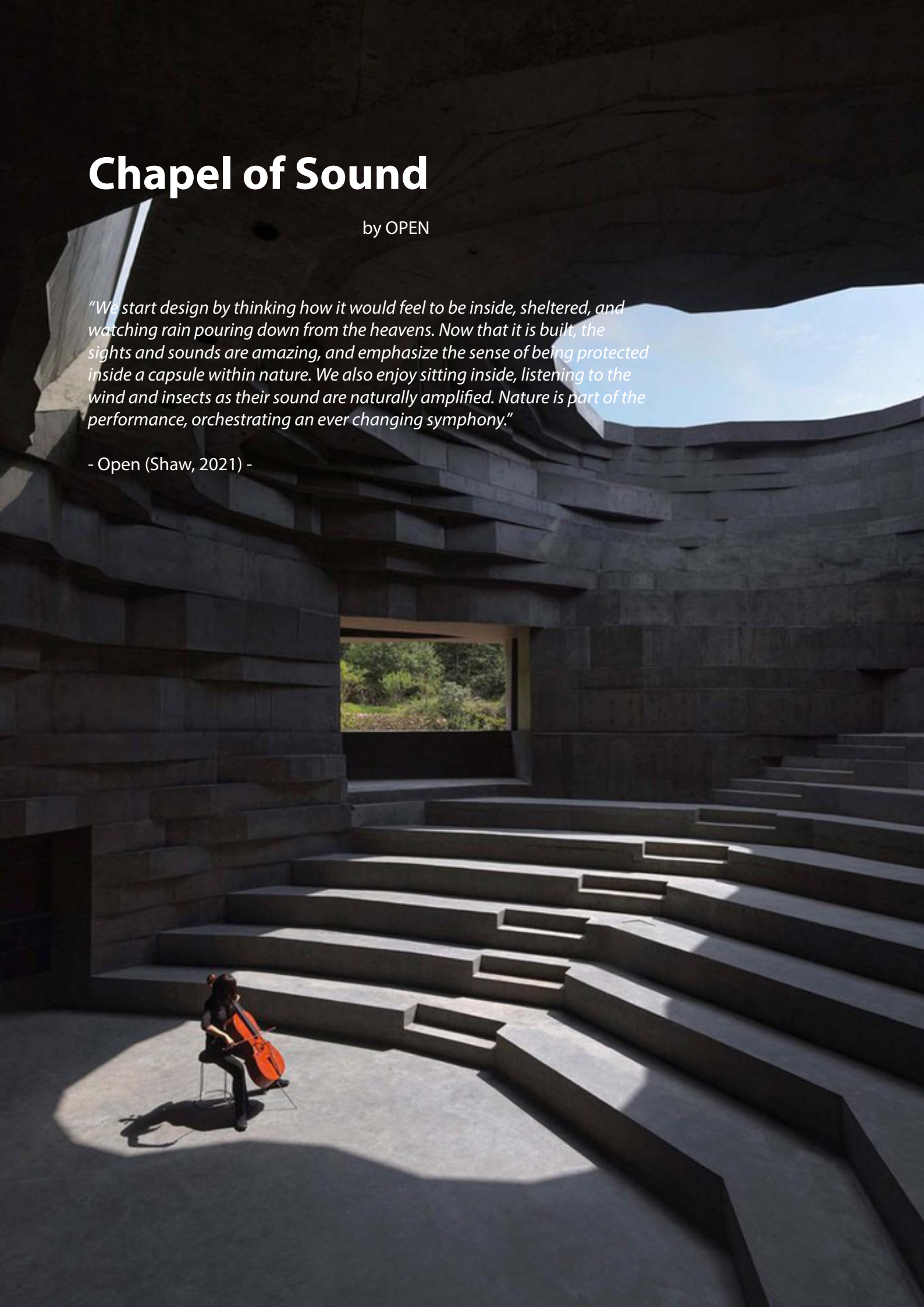


# Chapel of Sound

by OPEN

*"We start design by thinking how it would feel to be inside, sheltered, and watching rain pouring down from the heavens. Now that it is built, the sights and sounds are amazing, and emphasize the sense of being protected inside a capsule within nature. We also enjoy sitting inside, listening to the wind and insects as their sound are naturally amplified. Nature is part of the performance, orchestrating an ever changing symphony."*

- Open (Shaw, 2021) -





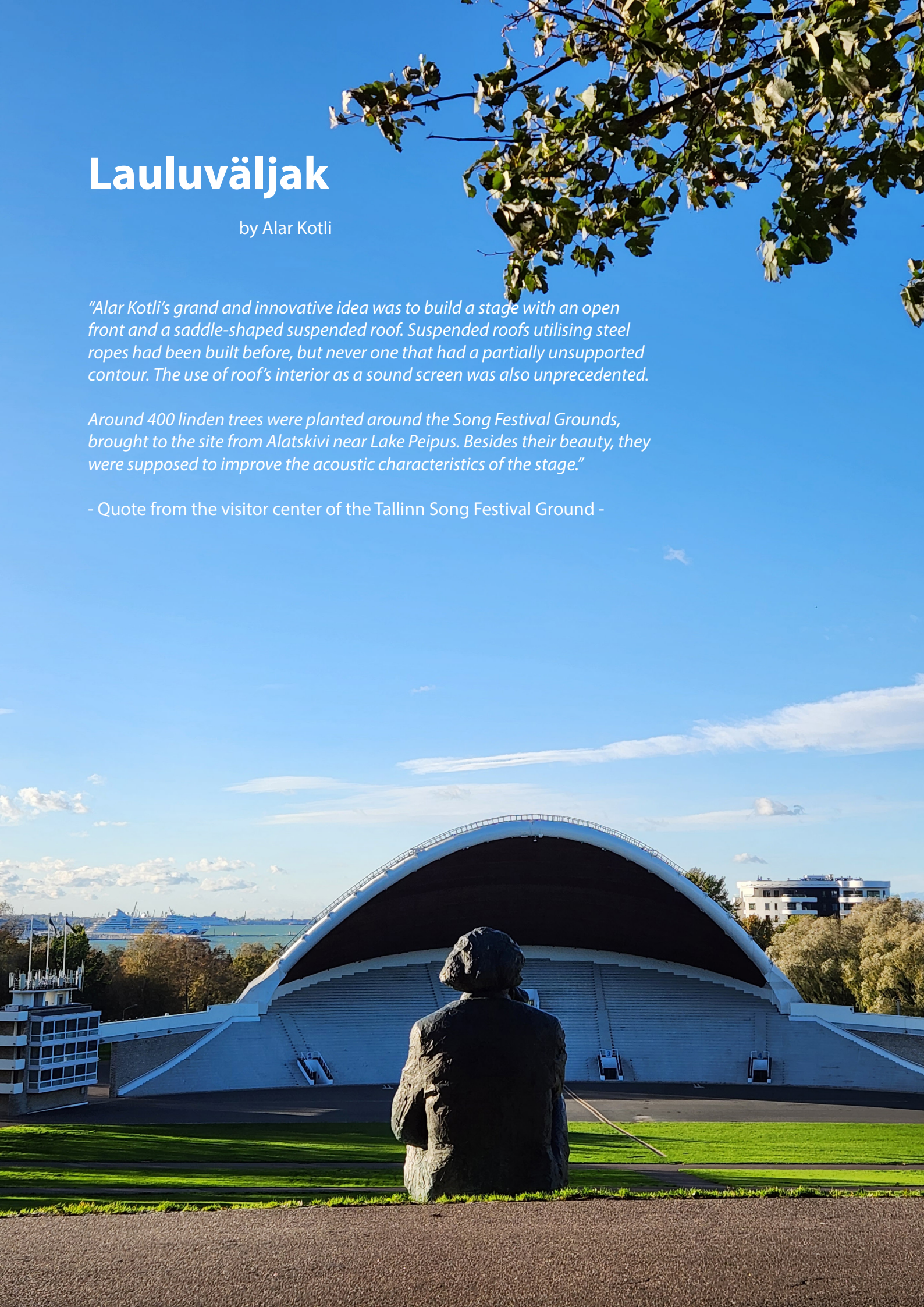
# Lauluväljak

by Alar Kotli

*"Alar Kotli's grand and innovative idea was to build a stage with an open front and a saddle-shaped suspended roof. Suspended roofs utilising steel ropes had been built before, but never one that had a partially unsupported contour. The use of roof's interior as a sound screen was also unprecedented."*

*Around 400 linden trees were planted around the Song Festival Grounds, brought to the site from Alatskivi near Lake Peipus. Besides their beauty, they were supposed to improve the acoustic characteristics of the stage."*

- Quote from the visitor center of the Tallinn Song Festival Ground -





What kind of sound should be included?

What does silence meant for different people?

What is the relationship with Laagna Tee?

Who are the potential users?

Solitary

What is the unique soundscape on site?

Community

Art Museum

# The Atmosphere of Silence

Precedent Studies / Form Studies

What kind of sound should be partially or fully eliminated?

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