



THE  
MAGNIFICENT  
CLOUD

PROJECT SERENDIPITY

VILLAGE NO.91 "RENAISSANCE MAN 2.0"

EXPERTS IN TEAMWORK SPRING 2014

PROJECT REPORT

TEAM 1

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# INTRO

## CONTEXT

Meta.Morf2014

TKM Gråmølne

May 1 – June 1

Meta.Morf is Trondheim's biennial on art and technology. Its third manifestation is like the previous ones organized by TEKS (Trondheim Electronic Arts Centre) and is installed at art spaces and venues throughout the city.

The village Renaissance man 2.0

From the node genius to the ingenious hub.

The potential in network based consciousness, a project for investigating interdisciplinary practices within art and science.

Science and art, humans highest forms of creativity, have through history diverged into two different intellectual forms. This village aim to challenge the notion of science and art as separate entities with the ambition of bringing down the artificial barriers that might be blocking major breakthroughs in human society and culture.

We will investigate the potential in network based consciousness, specifically aimed at interdisciplinary practices in art and science; from the node genius to the ingenious hub, the Renaissance man 2.0.

## THE VILLAGE THEME

Art and Science have met in our group, represented by Eva (Art School), Ana and Espen (Architecture), Heidi (Medicine) and Ziwei (Neuroscience).

We've started by looking at the large context on this project and it's integration in Meta.morf 2014 that will happen in May in Trondheim.

Our approach was towards art in public space as a manifestation of a point of interest, in this case the city and the sea and the broken connection between Trondheim and the Fjord.

Our goal is to reestablish the connection by bringing the sound of the Ocean into the city using the technology available today that will allow us a live streaming.

As methods, we used the research into both sound art and artists with similar interests, site visits and recordings, and meeting with sound specialist. We also found beneficial the input from our village supervisors and ideas from our village colleagues.

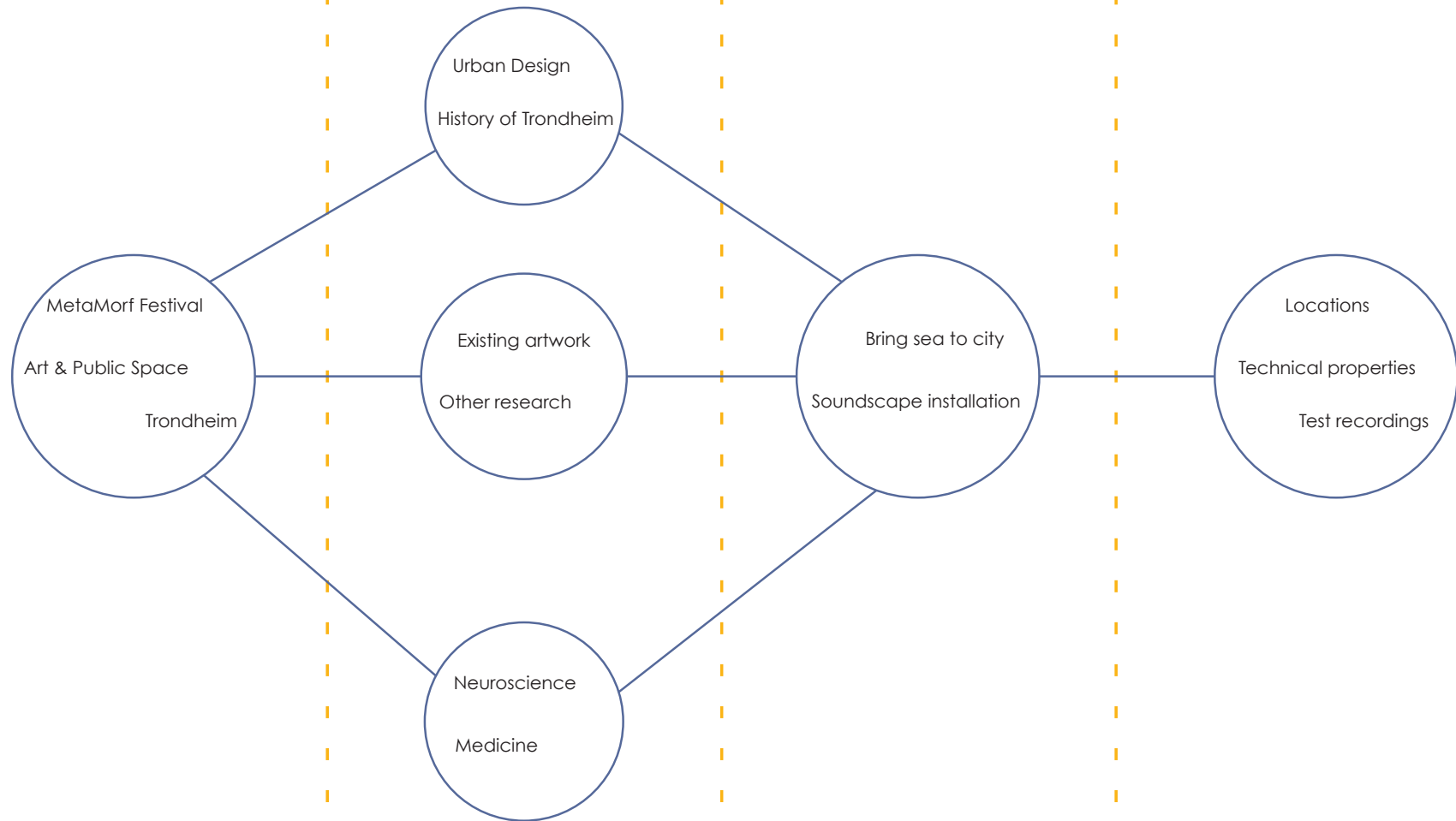
# CONCEPT EVOLUTION

FOCUSING POINT OF INTEREST

EXPLORING INTERDISCIPLINARY  
RESOURCES

FINDING RELEVANT  
INTERSECTION

DEVELOPING PROJECT



## SERENDIPITY

One of the conceptual goal of our project is to increase the chance of “serendipity” in people’s life. According to the New Oxford American Dictionary, serendipity means “the occurrence and development of events by chance in a happy or beneficial way”, or according to the Merriam-Webster dictionary, it means “the faculty or phenomenon of finding valuable or agreeable things not sought for; also : an instance of this”. In the context of our project, we aim at creating serendipity as pleasant surprises.

Surprise is one of the six basic emotions defined by psychologists. It is distinguished from other emotions based on its unique manifestations (e.g. facial expression). According to the two-stages model of surprise proposed by appraisal theorist of emotions, the process of experiencing surprise starts with the appraisal of an events as unexpected or novel. If the events are considered as personal relevant, a person would act to explore the surprising event further. In our project, we try to live stream the sound of the sea into the city center of Trondheim, which aim to introduce the above-mentioned sensation by creating the sense of inconsistency between the urban sounds scape and the natural sounds scape. It is worth to mention that it is possible to experience surprise without a further evaluation in theory. However, in real life, we would explore the unexpected event inevitably because we are biologically

programmed to “solve the puzzle”.

In the next section, we will further explain why we use the sound of the sea to create the sense of serendipity.



## URBAN HISTORY

One of the angles we explored when making our concept, was the historical urban development of Trondheim. Our group has several members with background from architecture and urban design, so this was a natural way to go. We found that the urban context in Trondheim is very interesting, in terms of the interplay between sea and city.

Historically, Trondheim has been a city that focused on the river Nidelva, as this was the original place of commercial activity. This is evident in Cicignons first urban plan from 1681, shown on the next page, where the harbor activity is clearly focused on the eastern side of the city. As the demand for trade increased, additional harbor areas were established on the north side. However, as contemporary technology progressed, ships got bigger and eventually became unsuitable for a river harbor.

The solution to this problem was new filled land in the fjord, as shown on the map from 1883, where Brattøra is complete. This new land originally hosted larger harbour functions, and later also railways and other infrastructure. Today, this has become part of a larger industrial belt that acts as a barrier blocking the city interaction with the fjord, as seen on the illustration on the next page. It could be argued that a closer connection with the sea is a beneficial quality that the city is missing out on, both as a whole and for its inhabitants. This is an issue that is very relevant in present

day events, and there has been several projects trying to find ways to bring the city closer to the fjord. The picture shown on the next page is from Havana, Cuba , and is an example of a situation that we think Trondheim is lacking, but could benefit from having.





## OCEAN SOUNDS AND HEALTH

When you start talking about the sound of the ocean and health it can quickly seem very floating and New Age inspired. On Google Play there are numerous sound therapy apps with ocean sounds they claim to be effective for both difficulty sleeping and depression. In the description of the app Ocean Sounds – Sound Therapy Vol 3 it is said to “have a subconscious effect on your brain” and that “you will start to feel joy and happiness”. When it comes to actual hard facts little research has been done on the effects of ocean sounds on the brain. Despite the lack of scientific proof, however, it is a common belief that the ocean is good for us. The ocean has somehow become this symbol of balance and relaxation. We go on vacations to the beach to recharge our batteries, an ocean view hotel room is the most exclusive and will cost you extra and oceanside houses are among the most attractive you can get. It's said that babies feel secure in water, because it reminds them of the familiar environment inside their mother's womb. Whether it is the calming memory of life as a fetus or of lazy days at the beach that causes it, it seems that the ocean triggers some good emotions in us.

This feeling of relaxation that the sea gives stands in strong contrast to the busy city life. Today more people than ever are living in cities. Urban life affects both our minds and bodies. It has been shown that cities have a higher rate of mental illnesses than rural areas (1,2). Depression, psychosis

and anxiety disorders are just some of the diseases which are more prevalent in the city. The reasons for this, however, are not crystal clear. There are theories that connect it to social stress, but the mechanisms are unknown. It seems as if one of the ways an urban citizen can protect himself from this higher risk of mental illnesses is keeping in contact with nature. For instants, there are studies suggesting that nearness to green areas in cities have a positive effect on mental health (3). In our talking about reconnecting the city and the sea we also raised the question of the human beings living in the city and the possibility that they also have lost some connection with the sea.



## SOUND ART - INSPIRATION

**Sound Island** is a sound installation at the Arc de Triomphe, in which the live sound of the sea from Normandy was broadcast to 48 loudspeakers hidden on the facade of the monument, creating the illusion that the cars circling the place Etoile were silent. Live natural white sounds of the sea from the Normandy coast were transmitted to loudspeakers installed on the facade of the monument. The presence of the breaking and crashing waves created the illusion that the cars were silent. This was accomplished in contradiction to the visual aspects of the situation. The sound of the sea is natural white sound, and has the psycho-acoustic ability to mask other sounds, not by virtue of being louder, but because of the sheer harmonic complexity of the sea sound.

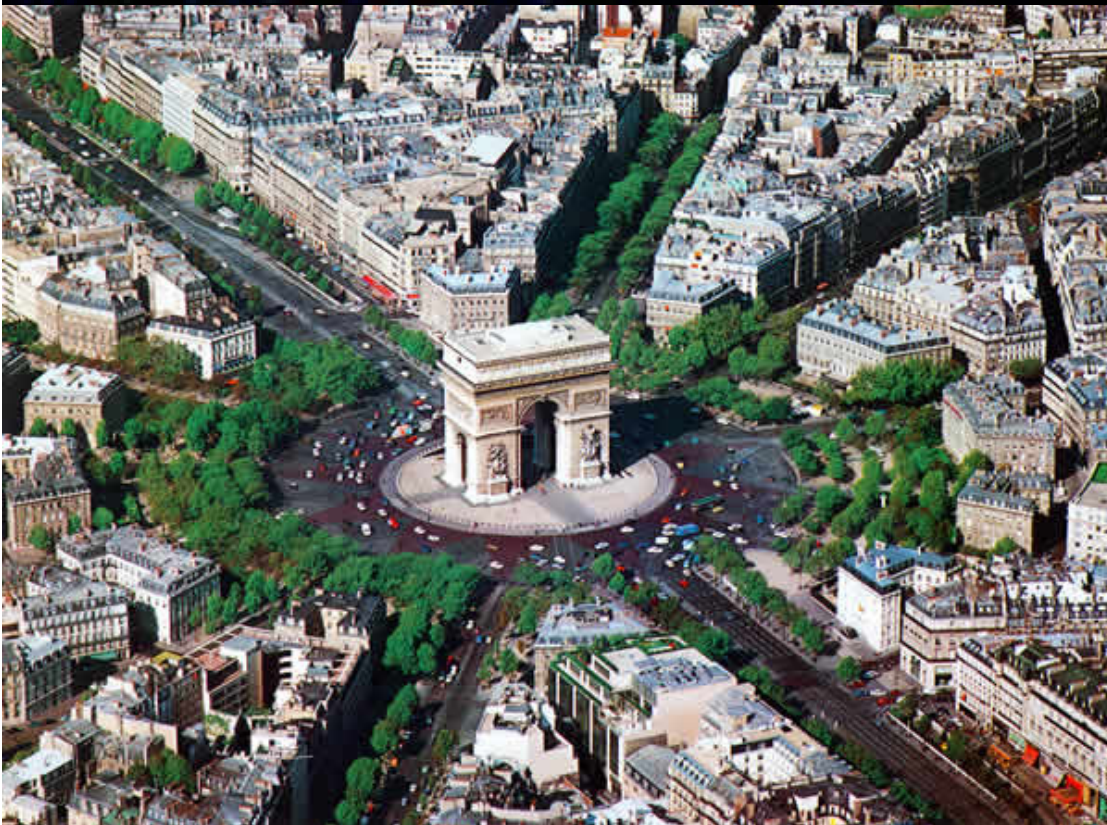
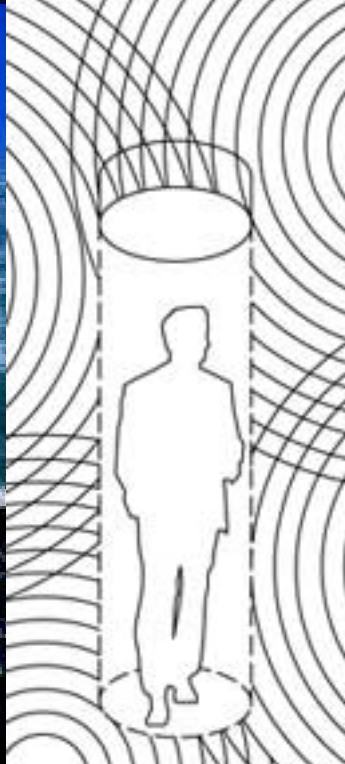
Other similar installations were placed in different other locations, as for instance in "White sound project" where the sound of Chesil beach was streamed in Euston Road, London.

*Bill Fontana is an American composer and artist who developed an international reputation for his pioneering experiments in sound. Since the early 70's Fontana has used sound as a sculptural medium to interact with and transform our perceptions of visual and architectural spaces.*

**Silent sound** sculpture is an artist-driven interdisciplinary research project. The artistic idea is to create a silent sound sculpture in a noisy public environment. This can theoretically be done by using anti-sound (phase inverted sound) that counteracts the existing sound, thereby creating silence. The aim is to clearly define a 3-dimensional space, where the contrast between the silent zone and the surrounding sound environment is so striking that you can almost touch the surface of the zone

A prototype was used to test the concept, in a passageway underground station. With the help of different optimizing methods for placing speakers and microphones and further development of the technique and technology the team believes it is possible to reach the goal and create a silent sound sculpture in a public space, such as an underground passageway. It is possible for people walking in the passageway to experience a true moment of silence as they walk through the zone.

*Ann Rosén is a sound artist, composer, musician, instrument builder, visual artist, director and project manager.*



## PROJECT DETAILS

In this report, we present two variations of our project. However, there are some universal key elements present in both versions that constitute the spine of our project. These elements will be presented on this page, but they all relate to the honesty with which we want to convey the ocean sounds to the public.

### THE REAL TIME ASPECT

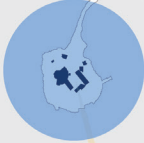
It is very important for our project that the sound we play for the public is a real time representation of whatever is going on in the fjord of Trondheim. This partly relates to the aforementioned honesty, but it also strengthens the relation to the overall village theme of “art & technology”. This offers some technical challenges, and we would of course have to have a small data buffer which would cause a delay of a second or two, but the most important thing is that it is not a recording that have selected the most interesting sounds. This real time aspect makes the connection between city and sea, which we argued the importance of earlier, more genuine.

### BROADCAST LOCATION

In the same honest spirit, it is important for us that we only have one broadcast location. We think that a stereo microphone is the most appropriate, in order to offer the most accurate representation for humans. For the broadcast location, we have selected Munkholmen; an island situated a bit off the shore of the city. We made some test recordings of ocean sounds at the locations shown on the map, and while we got decent results, we think that the noise caused by highway, railway and harbour activities would be a disturbance. It is our hope that putting the microphone at Munkholmen will give a more isolated and pure ocean sound.

### INSTALLATION ANONYMITY

It is important for us that the audio equipment does not become a focal point in itself. The sound is what we want to convey, and the audio equipment should either be completely hidden or implemented in the existing environment in a subtle way.



MAIN BROADCAST LOCATION

TEST LOCATIONS



## CONCEPT 1

The two concepts presented in this report mainly differ from each other in terms of output location, meaning where the ocean sounds are played for the public. The first concept is primarily focused on the context of the city, and relies on the old axis between Nidarosdomen and Munkholmen, which was established in Cicignons city plan of 1681, shown earlier in this report. Our proposal here is to fill the entire street of Munkegata with ocean sound. Because of the old axis, the sound would be supported by the immediate visual reference of Munkholmen and the fjord when looking to the north.

This is a large-scale version of our project, and we think this makes it more suitable for a single event of one or more days, related to the MetaMorf festival in may 2014. If one wanted to make this version more permanent, we think you would have to use hyperdirective ultrasound speakers, in order to not impact the whole street for a longer period of time.





MUNKEGATA 2014



EIT 2014



MUNKEGATA, TORGET 2014

## CONCEPT 2

While concept 1 is derived from context, concept 2 is governed by experience. For this version, we explored the city center, looking for places that would give the best experience of our soundscape installation. These spaces are smaller than Munkegata, making it easier to control from an acoustic point of view. Because of this, we think concept 2 is more suitable for a permanent installation.



BRATTØRVEITA 2014



EIT 2014

## INTERPRETATIONS

We consider important for our project not to lead people's thought into specific way of interpreting the project. We leave it open for each individual to take what they want from this experience.

However, for the purpose of this report, we will offer some of our thoughts on the following pages.

*we work to ...*

sea

people

**CONNECT...**

city

public spaces

nature

*...by using the environment as a musical resource and relocating it into urban context*

*we aim to ...*

an envelope of sounds

***CREATE...***

new acoustic architecture

an urban seascape

a sound island

*...by transformation of the visible (public space) by the invisible (sound).*

*that might...*

***EVOKE...***

a natural activity that moves towards a deeper time, a continuous cycle over thousand of years  
a sound with no apparent beginning or end, as close as we can come to experiencing infinity in  
the acoustic realm (Bill Fontana)  
primordial sea

*we expect that...*

be nicely surprised

go to the sea

reflect

***PEOPLE WILL...***

remember

rise questions

*... pay more attentions to the surroundings as they may be surprised to discover what they're missing*



*we wish that people will...*

purity of water

environmental issues

relation with the environment

***RAISE QUESTIONS AND REFLECT ABOUT...***

stillness and movement in both natural and built environment

human ephemerality

noise pollution

carbon emitting transport

sustainability

the sea

The ocean is what connects the continents together and also what keeps them apart. It is the element in-between land. Seventy one percent of the world's surface is ocean.

It holds secrets humans have yet to discover. It has been the main nutrient source for people in Norway since people started living here. The harbor has been the connection between the people living in the district that came to the city for trading goods. The ocean is a connection to distant continents, and standing by the waterfront, it is like a port to undiscovered places.

Now it is the element covering our main income source, oil; thick, floating, black, gold. We still do not fully know the consequences of bringing this dark fluid to the surface; it is also yet to discover.

In the book "Moby Dick" written by Herman Melville, there is a description of a state of mind one can find oneself in, when standing in the mast scouting for whales. It is about losing one's own tangible presence; dreaming away, while trying to grasp and understanding of the ocean in all of its size and content. This is also a comment on Pantheism, which is the belief that the universe or nature is the totality of everything.

"...but lulled into such an opium-like likeness of vacant, unconscious reverie is this absentminded youth by the blending cadence of waves with thoughts, that at last

he loses his identity; takes the mystic ocean at his feet for the visible image of that deep, blue, bottomless soul, pervading mankind and nature; and every strange, half seen, gliding, beautiful thing that eludes him; every dimly discovered, uprising fin of some indiscernible form, seems to him the embodiment of those elusive thoughts that only people the soul by continually flitting through it. In this enchanted mood, thy spirit ebbs away to whence it came; becomes diffused through time and space; like Crammers sprinkled Pantheistic ashes, forming at last a part of every shore the round globe over"

Later in the chapter he writes:

" But while this sleep, this dream is on ye, move your foot or hand an inch; slip your hold at all; and your identity comes back in horror. Over Desecration vortices you hover. And perhaps, at mid-day. In the fairest weather, with one half-throttled shriek you drop through that transparent air into the summer sea, no more to rise for ever. Heed it well, ye Pantheists."

Suddenly reality comes forward, and one is confronted with mortality. One can be dreaming away, but the thin membrane between imagination and reality can easily be broken by the physical reality of the world. One can lose the connection between thought and action.

Concept one, and goes into concept two.

We have talked about two different ways of bringing ocean sound into the city. The two ideas are different from each other in how they are placed in the public spaces, and the time period it will happen.

“Life between Buildings”-“Using Public Space”. Jan Gehl. p.169

“Every time a street with automobile traffic is converted to a pedestrian street, there are renewed opportunities for hearing other people. The noise of cars is replaced by the sound of steps, voices, running water, and so forth.”...  
...”In these traffic-free streets and in old pedestrian cities, it is possible to study how valuable and important the opportunity for hearing is for the general ambiance and for physical and psychological well-being.”

When walking towards the city center in Trondheim, one can find small narrow streets or quiet spots between or close by the busy noisy areas. These places can function as in-between breaks or shortcuts that people uses to get from one point to another. The street Brattørveita one can imagine being very close to the fjord, before the railway station where build. Now it is not possible to hear the ocean at all, neither to see the ocean. The whole area close to Fjordgata has lost its connection to the fjord.

Placing the ocean' sound in “non-places”, places that do not have a specific function, is an attempt to discreetly

bring people to consciousness about another element through a surprise. It is a way of reestablishing a connection with the sea.

When one for example can hear the sound of something known in an unfamiliar setting, smell a smell in a place where it does not usually appear, it can evoke a surprise or an estrangement.

It can be something put in a context that makes one feel uncomfortably strange or uncomfortably familiar, something outside our consciousness.

Thought and understanding collides when something are perceived out of its context.

Ernst Jentsch defines the uncanny as a product of intellectual uncertainty. When thought and understanding of something collides with each other and one do not fully comprehend it.

Speakers will be putted up in places where people pass, in-between big areas. The sound will be live-streaming of the actual sound of waves of water meeting land. We imagine it the shores of the waves are at Munkholmen. Munkholmen is visible from many places in the city and out there are no noise from cars or other sounds will interfere.

The other idea is to use the sound of waves as an event, related to Munkegata and its connection between

Munkholmen and Nidarosdomen. The straight line from the island up to the church is where we will project the sound. And when standing on the square looking in the direction of the sea, one can also be able to hear it. Normally, one would not hear it at all from that point; barely see it behind the railway station. But with the sound it is maybe easier to imagine or connect with the fact that there is an ocean behind that industry area.

These two different ideas, concepts, are also different in the way that the one involving non-places can be something permanent, while placing sound in Munkegata and Torget is more of an event, because of the technology needed to make it happen. This two could also be connected and when the event is over, the non-places are more like drops or leftovers of the happening, and gently reminding.

Without being sure of what consequences of projecting live sound of ocean in the city, we imagine people's personal connection and memories to the sea can evoke some kind of states of mind. If it is only as a surprise, it could also be a way of getting ones thoughts to another place - Closer to the sea.

The undiscovered secrets of the ocean are maybe what

one could imagine in mind when hearing the sound of it. This is where science and art meet, both seeking an understanding of what is ungraspable. To do so, one must take into consider that the world is understood differently from person to person in relation to ones individual experiences, skills, memories, culture and background - a person's associations with it.

This project is a product of different people meeting on the compromises of a bigger organizations idea. We all have different backgrounds and understanding of the world. We have chosen to use the ocean as a connection between each other, the sea and the city of Trondheim.



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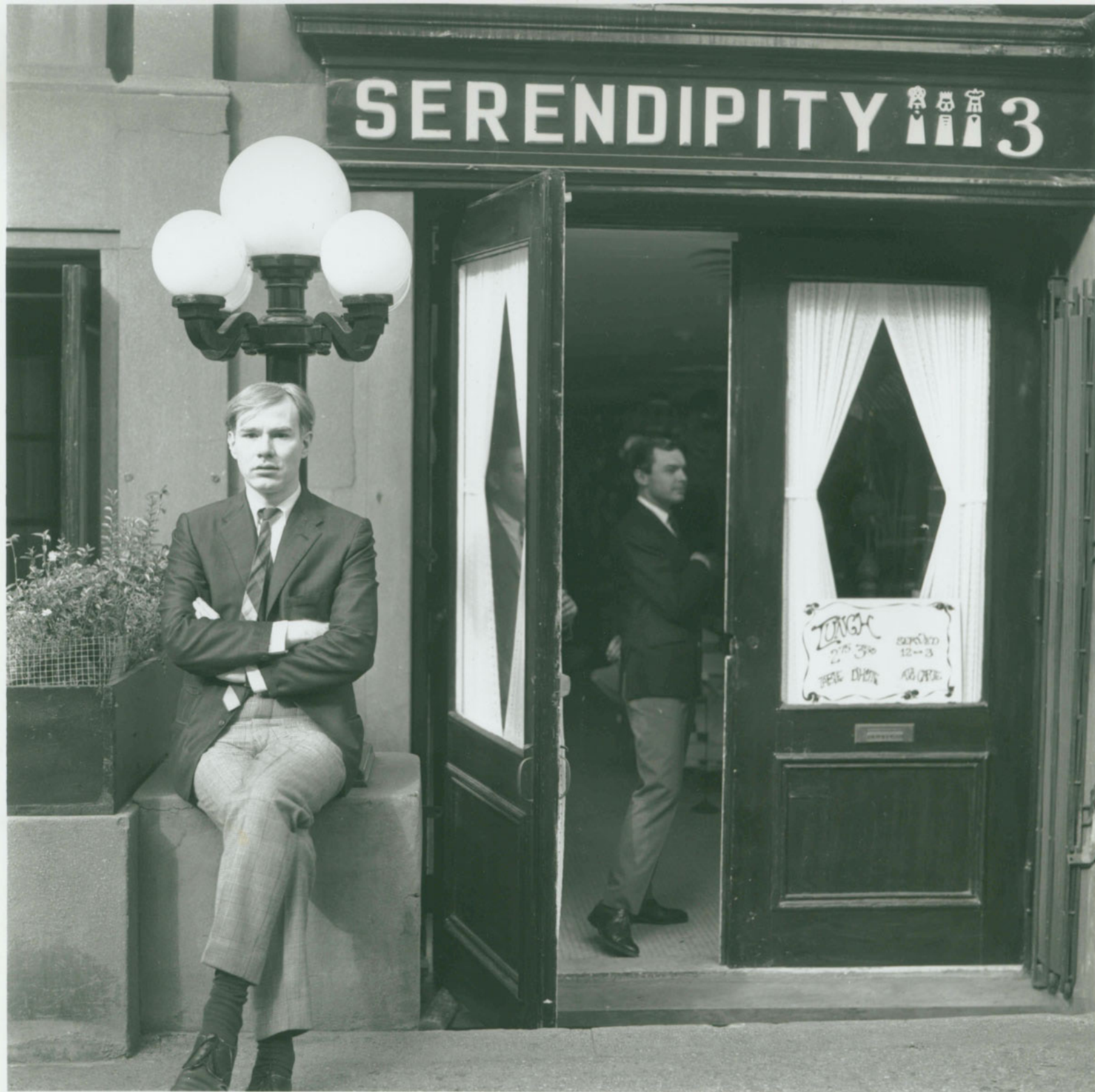
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ANDY WARHOL