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Master thesis / Textile in the Expanded Field

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Some thirty inches from my nose

Aiko Kubo

Tutor: Jonna Lappalainen

Abstract

This essay is written in order to better understand the relationship between the air around body (bubbles) and the external environment. Bubbles are explored as a mixture of feelings, emotions, imagination and thoughts, which we carry with us and which are formed by our perception of our environments. I will suggest that the formation of our bubbles is different at every moment, depending on how we feel about our external situation. Bubbles are used in the protection of ourselves, as the invisible wall that forms our territory. Within this essay I attempt to put forward the notion that we live in our own interpretations of our environments. Through a close analysis of my previous work, as well as through an analysis of two workshops that I was involved in, and through a close look at the work of the artist Cocky Eek, I aim to lay the ground for the way I will work with bubbles in my master project.

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Air as an idea

Immovable place and movable space

'I Have No Gun, But I Can Spit'

Some thirty inches from my nose
The frontier of my Person goes,
And all the untilled air between
Is private *pagus* or demesne.
Stranger, unless with bedroom eyes
I beckon you to fraternize,
Beware of rudely crossing it:
I have no gun, but I can spit.¹
- W.H. Auden

We create private space everywhere, even in public places. It seems a kind of territoriality that temporarily privatizes land, to me. Territoriality is an argument over ownership, it is the defending of a certain distance around us by ones invisible wall, the preventing of a stranger coming too close. In 1969 the anthropologist Edward T. Hall wrote,

... one of the most important functions of territoriality is proper spacing, which protects against over exploitation of that part of the environment on which a species depends for its living.² ... In addition to territory that is identified with a particular plot of ground, each animal is surrounded by a series of bubbles or irregularly shaped balloons that serve to maintain proper spacing between individuals.³

Animals use space and distance to protect themselves. They measure required distance depending on the situation and they keep this space from the others. The size of the bubbles is intimately related to an emotion that an individual holds, at any given moment. For example, when you are sitting on a public bench, you often release an aura. It is as if you own the whole bench, unconsciously indicating the boundary that does not allow strangers to come near. On the other hand, if the stranger was instead someone you knew well, the distance needed between you and him or her, instantly shortens. You allow the other's body to come much closer. At that time, the bubbles that surround you become very small and thin like a film that is torn in a moment. If we take the bench as an example, the person sitting on it, turns the bench into a place through territoriality. Therefore, it can be said that humans

¹ W. H. Auden, "Prologue: The Birth of Architecture," in Edward T. Hall, *The Hidden Dimension*, The Bodley Head: London, 1969, p.107.

² *The Hidden Dimension*, p.9.

³ The animal psychologist H. Hediger has identified and described a number of such distances which appear to be used in one form or another by most animals. Two of these-flight distance and critical distance- are used when individuals of different species meet: whereas personal distance and social distance can be observed during interactions between members of the same species. (*The Hidden Dimension*, P.8.)

possess the *space* that surrounds their bodies, while they only occupy a *place* through territoriality. In human society we do not have the right to attack others. When a stranger passes inside one's area for some reason, one must move oneself to re-establish the territory, to protect one's private space.

I am interested in the private space around the body, the space that moves together with the body. Whereas this *space* is carried around with the body, a *place* that has been occupied may be left behind.

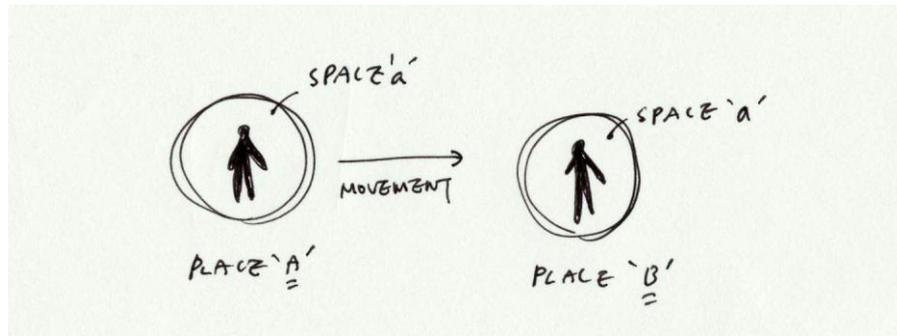


fig. 1) When an individual moves, *place* changes but *space* does not change because it moves together with the body.

Air containing personality

According to Hall, man is an organism that creates extensions of parts of his body, for example the computer is an extension of a part of the brain.⁴ The space around him can also be seen as an *extension* of his personality.⁵ The space and distance that belong to us correspond and move as occasion may demand, like nomads. Furthermore, in this space we can express our personalities as sensory language. In his poem, *I Have No Gun, But I Can Spit*, Auden describes as 'air' the bubbles that Hall explains. Air in this context is different from the one that consists of oxygen, nitrogen and carbon dioxide. For me it corresponds with the idea of atmosphere, or aura. This atmosphere or aura around the body can be read by others, as sensory language.

Our brains automatically insert 'answers' into small empty spaces.⁶ – Kenya Hara

The graphic designer Kenya Hara claims that 'an empty state possesses a chance of becoming, by virtue of its receptive nature. The mechanism of communication is activated when we look at an empty vessel in terms of its capability to be filled with something.'⁷ The space around our bodies is never empty but it is affected by our interpretation of another's air, or by the environment. In other words there is mutual communication between bodies. This language is not read consciously, instead we read

⁴ The computer is an extension of part of the brain, the telephone extends the voice, the wheel extends the legs and feet. Language extends experience in time and space while writing extends language. Man has elaborated his extensions to such a degree that we are apt to forget that his humanness is rooted in his animal nature. (*The Hidden Dimension*, P.3.)

⁵ *The Hidden Dimension*, P.121.

⁶ Kenya Hara, *White*, Chuokoron-Shinsha: Tokyo, 2008, P.44.

⁷ *White*, P.30.

it subconsciously, in a more interpretative and responsive way. In the bubbles around our body are a mixture of our feelings, emotions, imagination and thoughts that come from what we have perceived with our senses. The formation of the bubbles is different at every moment and is intuitive, instinctive, perceptual, emotional and wayward.

Bubbles as a device for the measuring of space

The bubbles that keep a distance between individuals are also used to keep a distance from objects in the world. We unconsciously measure the distance between us, and the objects in our immediate environment, making our bubbles bigger or smaller depending on what is around us. The size of the bubbles we make, depends on how familiar we are with the objects or people around us. It is distinct from the real measurable distance, between us and the object or person.

When we experience something with our body, we utilize all our five senses. We feel information about the environment with more than just vision. The philosopher Yi-Fu Tuan claims that ‘it takes time and practice for the infant or the person born blind but with sight recently restored, to perceive the world as made up of stable three-dimensional objects arranged in space, rather than as shifting patterns and colours.’⁸ For these people it takes time to understand space by using their vision, they are used to perceiving it in a very different way. Perhaps for blind people, the bubbles around them take on even greater importance, their life depends on protecting this invisible wall. The blind person who moves a stick in front of them, is a good example of how these bubbles might be shown. This example also shows that our interpretation of our environments is individual. It is instinctive, emotional and intuitive.

In January 2012, I organised a workshop based on the theme of feeling our environment through our bubbles. I attempted to understand how our bubbles work in the environment, by putting bodies in an extreme situation, where visual perception is blocked. Here our bubbles become more sensitive and careful, and you cannot be sure if strangers invade them.

Dialog in the dark⁹

In December 2011, two weeks before the workshop, I participated in an event called ‘Dialog in the dark’, as a research for my workshop. It was an awareness raising event which was created by the philosopher Andreas Heinecke. This event aims to simulate a real life city experience with only one difference, the lack of sight. Relying on blind and visually impaired guides, visitors go into a room in small groups and learn how to interact without sight, using instead, their other senses.

The things we experienced in the dark were very similar to the things we experience in our daily lives. I heard the sound of water, played on a see-saw, stepped on sand and smelt the smell of wood and then

⁸ Yi-Fu Tuan, *Space and Place*, the University of Minnesota Press: Minneapolis, 1977, P.12.

⁹ <http://www.dialogue-in-the-dark.com/>



fig. 2) Dialog in the dark

I knew that I was in a park. Then I crossed an unstable bridge, passed through a tunnel, went up some stairs and entered a room where there were some musical instruments. I guessed that I had come out from the park and walked into a music class. We all played some music together and then went to a pub. We ordered, paid money and drank a glass of wine. We also wrote Christmas cards and posted them.

I felt so tired after the event. I think it is because other senses that I normally neglect were working more than usual. I felt like I was in the dark for almost three hours although the event lasted approximately one and half hours. Although I had expected that our bubbles would get bigger when we could not see, for me they actually became smaller. Even though I felt insecure and became more careful, I allowed people to come much closer to me. We made sure of each other's existence by keeping an unusually close distance to each other, even if we had just met earlier. On the other hand, sometimes when I reached out my arm, leaning on their voices, they were not where I expected them to be. They were much further than I had understood. This shows that the way we measure with our bubbles is different when we are without vision.

After the event, we had a brief discussion about what we had experienced within the group. Surprisingly, during the discussion, our bubbles became much bigger than they were in the dark room. The size of the bubbles almost gave me the feeling that we had just met five minutes ago, in spite of the fact that we spent more than one hour together, sometime even touching in the dark room. It had been such a strange experience held on a different level from the one that we were having with our sight back.

Workshop

The workshop took place in a dark room of roughly 85 square metres, at a local community hall in Tokyo. There were ten participants and they visited the room without knowing what was in there. I spread out three metres each of three different materials (fallen leaves, water and gymnastic mats) along the walls of the room. Each of these three materials was repeated three times regularly in the room, so that the participants would walk on the same material three times. At the end of the path I spread out some wood, which was a sign that they had walked around the full circuit of the room. They followed the walls using their right hand on the wall as a guide. After the wooden floor, they were guided by an assistant to the middle of the room and waited there for everyone to finish. I observed them in the dark and asked some questions right after they all sat down in the middle of the room. The questions were about how they felt during the experiment and also how they understood the space itself. Each person's answers were different. One said that he had walked in a huge rounded room, another

said that she rounded a small square room three times, while someone else said that he walked around a small room. They also thought differently about the place in which they sat down. In the beginning, most of the participants started walking with an uneasy feeling, however, it seemed that they started walking with some confidence as soon as they recognized the repetition of the floor pattern. Our consciousness of our present environment is built on our past experience and it connects to our next experience, what we experience in the future. Past experience has a retrospective quality and future experience has a projective quality. One looks back to the past in order to stick out from the present.¹⁰

From these two experiences in darkness, I understood more about the measuring quality of bubbles. Humans always have bubbles around them whether it is dark or not. However, the size of these bubbles depends first on our present circumstances and then on our past experiences. We make our bubbles through sensual perception combined with past experience leading to emotion, imagination and thought. We might say there are two ways of measuring space, to measure with a ruler, or to measure with our bubbles. When we measure with our bubbles our experience of space differs depending on who we are, it is subjective.

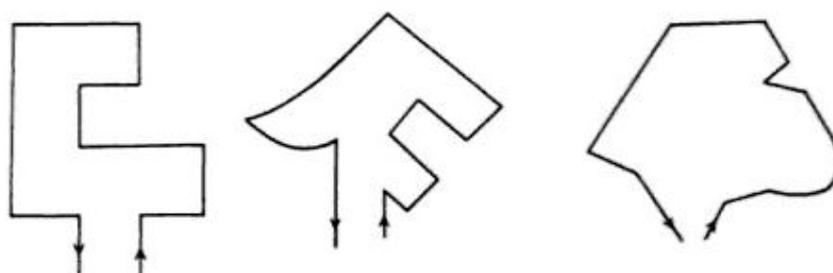


fig. 3) Distortion in drawn mazes: drawn by participants of Brawn's experiment

A similar conclusion is drawn by the psychologist Warner Brown, in this experiment.¹¹ The subject wears a gadget over his eyes so that he cannot see the maze. In the first attempt, the examinee stands at the entrance and is aware of its locality. The exit is his goal but its location is not yet known. With each new trial he learns to identify more and more "landmarks." The more he tries, the more he finds his way to the exit easily. When the person who has learned the maze is asked to walk the same pattern on the open floor, the track he leaves bears only a slight resemblance to the original maze pattern. Drawings of the maze, like the tracks made on the open floor, generally show correct representation of the parts of the course, but they are badly executed as to angle and length. The drawn pattern departs so far from the actual course that it cannot be used as a map.

From Brown's experiment, it becomes clear that our interpretation of space differs from an objective one. The distance between oneself and landmarks, measured by one's bubbles stubbornly derives from the individual as the bubbles are, again, a mixture of our feelings, emotions, imagination and thoughts, that come from what we have perceived with our senses.

¹⁰ Tetsutoshi Nakaizumi, *Dewey's Principle of Experience*, Hirosaki University Press: Hirosaki, 1957, P.5.

¹¹ Warner Brown "Spatial Integration in Human Maze" in *Space and Place*, P. 70.

Previous works

'Blue Moment', Exhibition at Färgfabriken

In October 2011, I created an installation of 18 linen pillars, which hung from the ceiling in a straight line at slightly less, or more, than ninety degrees to the window. This was the beginning of my investigation into the emotional and philosophical characteristics of air.

I chose linen because it is a light material that makes visible movements like jelly when it is affected by external conditions. It is the teamwork of each single woven thread that supports its weight. I ironed eighteen sheets of linen with straight lines, folded them and made quadrangular prisms. Each of those pillars was dyed in a different shade of blue and orange, representing the changing colour of the sky at sunset. I delicately hung them from the ceiling, in a line towards the window. Next to the work, on the wall, I presented a story called 'Blue moment' written by myself. The story speaks about the transition between day and night, and about the 'blue moment', meaning the time when the sky turns completely blue after sunset. Through the translation of a natural phenomena into poetry and into an installation, I hoped to inspire the imagination of the viewer as they encountered the work.

I wanted the process of dyeing the fabric to reflect the natural process of the fabric absorbing the dye. I mixed one colour bath and kept in mind not to add any extra dye after the first colouring. I began by adding one fabric sheet to the dye, leaving it until it had absorbed as much colour as it could, then taking it out and beginning with a new one in the same colour bath. In this way fabric sheets were dyed consecutively, one by one, with progressively lighter colour tone.

The way the pillars are hung from the ceiling is mathematically and structurally calculated. In making the pillars the same length as the height of the window, I hoped to relate the work to the architecture of the gallery. At the same time, through angling the work towards the only nature visible between two buildings outside the window, I hoped that it would also relate to the natural. I wanted these pillars to be at once architectural and natural. This interaction between the architectural and the natural was also present in the contrast between the geometric forms of the pillars and their reverberating undulation. The textile responds to the movement of the viewers that creates air patterns in the space. Through the slight movement of the pillars created by the movement of people, I was hoping that people would get some feelings when walking around the pieces, and that they would put these feelings back into the air of the room, creating even more movement of air around the pillars.



fig. 4) *Blue Moment*, 2011

It seemed that the viewers carried their bubbles and walked around the piece more delicately than they would walk normally. I could see the interaction between the bubbles that move delicately, and the environment, which was the space with pillars. Into the bubbles that a viewer carries around their body, goes emotion, which gives shape and size to the bubbles.

Blue Moment (10 October. 2011)

‘It’s White...’

I opened my eyes.

Yes, I remember... on my way to Black, I lost my way. Then I realized that I came back into White. Although I have been flying for a while, I am always in White when I open my eyes. I was just planning to fly westward through so many worlds in white and black, repeating. However, I am still in White in spite of how much I have flown. I have to start from White today, again.

I have not seen the world in black because every time I try to fly into Black, I lose my way and awaken in White, even on beautiful, sunny, windy or snowy days. Once I get lost, my field of vision changes dramatically. Every time, obviously. And that makes me far away from Black. But one thing is for certain. My field of vision seems similar to the one that came before but it is definitely different. You somehow sense it with your body. My whole body was gradually surrounded by deep, deep tranquility. It was slow, and not sudden, I never noticed that I was losing my way. On the other hand, in the tranquility, there are also many kinds of life energies. Even after so many times I never get used to the fear of losing my way, or of these strange phenomena but I also never get bored of it. Those thousands of energies, the entire atmosphere... they are so beautiful... you cannot even touch them. They are always changing. The kinds of life energies change, and the temperature that surrounds me changes. And the more I fly towards west, the longer I get lost.

Experiment, Exhibition at Student Union Gallery

A week after this exhibition at Färgfabriken I did an experiment in a smaller space, the student gallery at Konstfack. Although this installation used the same kind of elements, here I hung the pillars randomly in the space. There was no poetry, no relation to the window, I simply wanted to focus on the interaction between environment and the bodies.

This small room is connected to a bigger, windowless, room and is also a path used to get to the room behind it. I was interested in the way the air might travel through this space, as the space is used in a linear way, a path from the entrance to the exit. I also wanted to affect the way people moved through this space.

Each pillar was made from a different kind of textile such as cotton, linen and silk, with a different length and thickness. Although viewers had come to this space before, they moved differently in the space in order to take a closer look at the pillars, or otherwise to avoid running into them. The pillars disturbed people and changed the line of flow. The current of the air that is



fig.5) *Experiment*, 2011

affected by those movements also

influenced the material of each pillar, making it move. This air manipulated the material of the pillar, both from the outside and the inside. It was, as well, present between each thread of the woven fabric. One surface is influenced by another surface, moving curiously and reporting it to its neighbouring surface. Each pillar showed different kinds of movement due to its material, size and where it was installed. The materiality of the pillars made visible what we cannot see, the movement of the air created by the movement of the viewers passing close by or a little further away, creating a stronger or weaker movement. After the viewer had left, it was as if something invisible was walking in the room. The feeling of wandering through the white gallery space, with its white pillars, might have expanded imagination into the bubbles.

Bubbles and environment

Work of Eek

Cocky Eek is an artist working with inflatables. In her research she talks about three main qualities of inflatables: 'It has a scale somewhere between our second and third skin. It has a nomadic character in a way that it is mobile or portable. It can be seen as a breathing living organism in which viewers can become co-structures of a space.'¹² Although Eek's work persistently speaks about the 'inflatable', the qualities that she mentions resemble what I think of as bubbles.

In her work, *Illumine* (fig.6), Eek was inspired by a luminescent micro organism in the sea, called 'noctiluca miliaris' and made a costume with a light. Noctiluca miliaris looks like a transparent balloon with a small tail. It produces its bioluminescent light, to scare off its predators.¹³ Eek says that she was an obvious enemy to the Noctilucaes, when she wore the costume while swimming in the sea. Her costume works in the same way as the bubbles, which are visualized and indicated as a shield from external invasion. The bubbles exist a little away from skin and move together with the body.

¹² Cocky Eek, *Pneumatology*, research report written in the context of foAM's "multireal" and "real" worlds, http://libarynth.org/research_report_cocky_eek, 2007

¹³ Cocky Eek's homepage: <http://www.cockyeek.com/projects/illumine/>

Eek claims the work *Float* (fig.7) as ‘a wearable room and its indecisiveness of gravity.’¹⁴ This work seems to me like the unformulated bubbles that belong to the body, which are especially created based on a specific distance that individuals interpret. This room, as a concrete symbol of the bubble, explains that bubbles have a measuring device and hold a certain space around the body. As you can see from the image, the space in front of the person is bigger than the space behind the person. It is the limit of the space that an individual can take care of, or feel like him or herself in. As there is no door, nobody is allowed to come in. Moreover, its ‘indecisiveness of gravity’ seems to be expressing the situation of the bubbles, that are continuously settling and are underneath human consciousness.



fig.6) *ILLUMINE*, 2009

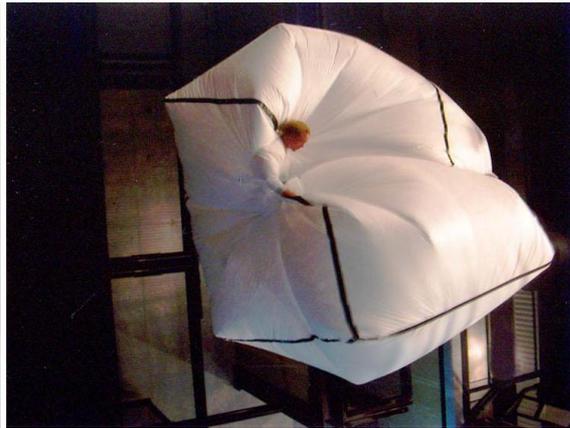


fig.7) *Float*, 2010

These two works show me how we protect ourselves from our environments and also that we feel safe if there is a certain area around us that we have no one else in. These works make me more interested in how these private spaces are affected by how we feel in our environment.

Architectural approach

If, however, one sees man surrounded by a series of invisible bubbles, which have measurable dimensions, architecture can be seen in a new light.¹⁵ - Edward T. Hall

Edward Hall points out that American urban architecture of the late 1960s packed people into vertical filing boxes, conceiving of their space requirements simply in terms of the limits of the body, without considering spacing. In doing this, the builders and speculators of the 1960s saw the spatial requirements of human beings in the same way as they were seen by the early slave traders.

As the zoologist Heini Hediger has identified, the distance of the changeable bubbles depend on the situation,¹⁶ it is possible to measure the size (space) of the bubbles, but only if we know the

¹⁴ <http://www.cockyeek.com/projects/float/>

¹⁵ *The Hidden Dimension*, P.121.

¹⁶ The animal psychologist H. Hediger has identified and described a number of such distances which appear to be used in one form or another by most animals. Two of these-flight distance and critical distance- are used when individuals of different

precise situation (environment) in which we have our bubbles. In other words, if the environment is fixed, the bubbles become measurable and also fixed.

The geographer Yi-Fu Tuan mentions that ‘perception of “inside” and “outside” is in an absent sort of way, although humans acknowledge the distinction.’¹⁷ Tuan also says that ‘the very constructed form can raise its awareness.’ Inside and outside need something like a wall in order to be distinguished, but this wall can be visible or invisible and it has to be fixed. Usually ‘outside’ brings something unfamiliar to you and ‘inside’ has the potential to be filled with familiar things. For example, in my house, only people I know visit me and come into my room. Things in my house are filled up with things that I know well. I can get up to get a glass of water in the middle of the night, without turning the light on, because I acknowledge my environment and my small bubbles are stable. On the other hand, if I, for example, have an argument with my flatmate, my bubbles become much bigger as the inside of my house becomes a little more unfamiliar to me, a little more outside. Our way of thinking about space is subjective and relative. The walls and roof that close our space are not the only characteristics with which we judge whether a space is inside or outside. An example of this could be the city Stockholm, which for me is still an outside space if I compare it with Tokyo, but for a person from Stockholm, the city might be an inside space when compared with Tokyo. A distinction of inside and outside can be, on which side of the fixed wall our bubbles are smaller.

Imagine a life more light and imagine it to be constructed more mobile, flexible, portable, organic and more related to our natural surroundings and the elements, and that we can create our homes or shelters wherever our heart is with no fixed form or any beginning and end, either spatially or in time.¹⁸ – Cocky Eek

If the walls of my room moved into the centre of the room and all my belongings were pushed out from within the walls along with me, I might still feel like I was inside because all my belongings were still around me. However I might come to be unsure about if I am inside or outside because I am physically outside. So if your surroundings have no fixed form, it is difficult to tell whether you are inside or outside. I believe that our ‘Invisible bubbles’ are changeable, they want to move. In an environment which is not fixed, an architecture which is changing, our bubbles take on a playful character. Much of today's architecture considers the movement of our bubbles but not their changeable character. Maybe this ‘architecture seen in a new light’, could be a moveable architecture that is the driving force of our bubbles. In a moveable architecture you might suddenly find yourself inside or outside a closed space and your bubbles would be driven to expand or contract all the time.

species meet: whereas personal distance and social distance can be observed during interactions between members of the same species. (*The Hidden Dimension*, P.8.)

¹⁷ *Space and Place*, P.107.

¹⁸ *Pneumatology*, http://libarynth.org/research_report_cocky_eek, 2007

Tools

As I mentioned earlier, the bubbles that surround a body are a changeable substance, which has a function of subjectively measuring. Thinking about an environment that surrounds humans, that they have been living in and carrying their air, their bubbles in since their birth, I am interested in how the changeable air is affected by our environments and their unpredictable behaviour.

Air as material

Who has seen the wind?
Neither I nor you.
But when the leaves hang trembling,
The wind is passing through.
Who has seen the wind?
Neither you nor I.
But when the trees bow down their heads,
The wind is passing by.¹⁹
- Christina Georgina Rossetti

Another kind of 'Air' is the air that we breath and which is moving around us all the time. It is the 'nothing' in which we exist, with its meanings of emptiness and sky, but it is also the 'something' which can be seen shaking the trees or felt gently or sometimes strongly stroking us.²⁰ Air is one of natural elements that we cannot see but always exists as our environment. We only begin to notice it in its interaction with materials.

Air is also very difficult to control. Even if we create a thing to manipulate air, to make wind, or if we shut out air through use of a balloon, we can never completely control it, it always wants to escape, to slip away. In order to completely predict the way every air particle moves in a space, we would need incredibly complex computer models. The uncontrollable and unpredictable transparent air is the environment in which we create our bubbles. In its invisibility air has throughout history been very difficult to separate from the spirit. It is the substance that keeps us alive but that we cannot see. Air is deeply related to our mentality as the emptiness in which we create invisible bubbles.²¹

¹⁹ Christina Georgina Rossetti, "Who Has Seen the Wind?" in Yasuo Miyake, *Kuki No Hakken (Discovery of air)*, Kadokawa Bunko: Tokyo, 1962, P.9.

²⁰ *Kuki No Hakken [Discovery of air]*, P.10.

²¹ *Kuki No Hakken [Discovery of air]*, P.10.

Textile

External conditions have a dramatic effect on textile. It is truly pliable, since it can be turned into a three-dimensional shape utilizing its thickness and pliability. Textiles sway in the breeze more easily than any other material and absorb water, change their colours, gain weight and even transform their texture in the rain. Subsequently, they freeze when the atmospheric temperature gets colder. Textile has an ability to absorb atmospheric changes, and still keep hold of its materiality.

I attempt to investigate if textile can visualize the relationship between our bubbles and the environment. Although the bubbles are invisible and ideological, textile might be able to show us the edge of our bubbles by passing close or into our bubbles. This physical, external material might allow us to feel the size of our bubbles.

About my work

In my work, I attempt to indirectly visualize the bubbles in an un-fixed environment. As the bubbles that surround us are invisible, and always changing in size, in an intuitive, instinctive or spontaneous way, we cannot control them. The bubbles become quiet and still, until they are influenced by an external situation. As I learned from my previous work, I believe that in utilizing air as physical material, a material that is intimately related to the air around the body, it is possible to notice the existence of our bubbles. By having air as an uncontrollable kinetic environment, I might be able to make the bubbles more knowable.

The theme of my master project is to make the changes in the size of our bubbles more knowable and also to gain a better understanding of the relationship between the bubbles and the environment. I strive to intentionally make elements that sway the bubbles and make a space in which people can experience this. My plan is to use air, to make a textile piece that grows outwards and physically interferes with the visitor's bubbles. I hope that this will allow them to perceive how the environment influences their own bubbles, both mentally and physically.

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