

Chapter IV.

Participatory Environments

When I sit alone in a theatre and gaze into the dark space of its empty stage, I'm frequently seized by fear that this time I won't manage to penetrate it. And I always hope that this fear will never desert me. Without an unending search for the key to the secret of creativity, there is no creation. It's necessary always to begin again. And that is beautiful. (Josef Svoboda)

4.1. Introduction

For Svoboda, space was an invitation: an invitation to explore and to discover that which yet had to unfold within the layers of the creative process and experiment. His concept of 'atelier theatre' not only combines exhibition space and stage, but also makes it possible to employ the mechanical and technological infrastructure of the stage in the production of space, which in itself becomes dynamic and expressive. A type of space which produces a "poetic image" interconnecting the stage and auditorium in such a way as to transform the audience into "actors" (production space); space which produces affect, causing the audience to feel (psycho-plastic space); and space which becomes an expression of many-sided spatio-temporal scenarios and actions which may be observed from a number of optical angles and explored in a non-linear manner within a number of unique events and moments (polyscenic space) (Burian 1993, 21). Svoboda's thinking about space became a lifelong philosophy based on the practice of working on theatre stages and designing world exhibitions such as Brussels 1958 and Expo 1967 in Montreal, culminating in his designs of the unrealized *Theatre D'est-Parisienne* in Paris (1972-1974). What if we revisit these ideas, and design an environment as an experimental platform of

the atelier theatre? What would the experimentation with these spatial concepts in practice tell us about the performance of space at the intersection of visual arts and theatre, and how would this experimentation shed new light on the established understanding of participation?

In previous chapters, I defined scenographic unfolding and employed it as a lens through which to view the performance of immersive environments, primarily as an unfolding of material / technological mediation through body / space relations in which blurring between body, material and media takes place and interactive environments as the unfolding of body / space relations through feedback between spectators and the space. Both of these notions lead us to the context of how space can actually perform as well as the context in which the interrelation between bodies, media, architecture and space is necessary for such performance to take place. In each scenario of space, I explored how our understanding of immersion and interaction operates in the practice of designing and moving between two different contexts of space: exhibition (visual arts) and stage (theatre). Moving forward, I will take this argument further and demonstrate how these spatial concepts merge first and foremost through time within the participatory environment *F O L D*, and in so doing attempt to reconfigure our understanding of participation.

In theatre, immersion is associated with the environmental theatre of Richard Schechner (1994), a type of theatre he defined as a set of “‘transactions and exchanges’ that are sustained, contained, enveloped and nested in the environment that surrounds us” (1994, x). In Schechner’s interpretation, production elements no longer need to support a performance, nor are they to be subordinated to a theatrical text, and can, in some situations, be more important than the performers. Schechner’s notion of environmental theatre is similar to participatory-based practices in visual arts, in works by artists such as Tomas Saraceno or *Numen / for Use*, which over the last several decades began to rely on the spectator’s engagement for their activation.

More recently, a newer term, immersive theatre, has emerged and gained attention. Its main proponent, British scholar and practitioner Josephine Machon, clarifies the understanding of immersion by differentiating between “‘immerse’ – ‘to dip or submerge in a liquid’, whereas to ‘immerse oneself’ or ‘be immersed’, [is] to involve oneself deeply in a particular activity or interest” (Machon 2013, 21). In visual arts, on the other hand, immersion is not habitually theorized through actions but rather as being surrounded by an environment large enough to enter, often interpreted through Merleau Ponty’s notion of the world being around us as opposed to in front of us (Bishop 2005, 10). Furthermore, as Salter points out, participation in installation art has been understood, for the most part, through a social-political aspect rather than through action (Salter 2017, 165).

As we can see, there is a certain degree of entanglement between immersion and participation in installation art (visual arts) and expanded scenography (theatre). My definition of participation aims to embrace both aspects, though it focuses more primarily on understanding the audience not as mere participants or actors but as co-creators of the work. Here I migrate from my previous definitions of immersion, defined as the blurring of media, bodies and space, and interaction as the feedback loop between media, bodies and space as an architectural transformation, towards defining participation as the *temporal* transformation of media, bodies and space.

To explore this notion of participation, and the last degree of defining scenographic unfolding, I fluctuate between three key ideas: (1) Pallasmaa’s idea of interconnection of body and space where the body becomes the environment through this interaction: “*I’m my body,*’ but *I’m the space,* where I’m established” (2005, 64); (2) the notion of past embodied in actions: “The ‘elements’ of architecture are not visual units or gestalt; they are encounters, confrontations that interact with memory. In such memory, the *past* is embodied in actions” (2005, 64); and (3)

Merleau Ponty's interpretation of body in the world as heart in the organism: "Our own body is in the world as the heart is in the organism: it keeps the visible spectacle constantly alive, it breathes life into it and sustains it inwardly, and with it forms a system" (Pallasmaa 2005, 40).

To shed light on the merging of the exhibition space (visual arts) and stage (theatre) that takes place within performative space, as well as on the notion of scenographic unfolding as a material / technological mediation and transformation of body / space relationships through time, I engage here with a detailed analysis of the participatory environment *F O L D*. This experiment consists of four different performances with two objectives: (1) to observe how the concepts of immersion and interaction merge and become reconfigured within the context of participation and; (2) to re-examine the legacy of the theatre avant-garde in the areas of division of space (stage and auditorium) and audience / performer relationships. Whereas in the first section: *Material / Technological Mediation* I primarily discuss performance as the scenographic unfolding explored via immersion and interaction through the temporal scenarios of self becoming the environment, in the second part of this chapter: *Body / Space Relationships*, I concentrate on performance as participation as a collective *action* where immersion and interaction merge within the communal notion of ourselves as becoming the environment. As an introduction to this experiment, I discuss two preliminary projects, *O V A L* and *Light and Darkness*, reflecting briefly on how the creative processes engaged in these environments evolved into the foundations of *F O L D*, the key case study in this chapter.

4.2. *F O L D: The Scenographic Unfolding*

In *Fold: Leibniz and the Baroque* (1995) the French philosopher Gilles Deleuze connects Baroque and contemporary modern art through the infinite unfolding of space, movement and

time (Deleuze 2006, 39). These are also the key ideas that served as the inspiration of the participatory environment *F O L D*. Deleuze states: “The soul is the expression of the world (actuality), but because the world is what the soul expresses (virtuality)” (28). But how can we unfold the notion of the world as the actuality and the self (soul) as its virtuality through time, via material and technological mediation and transformation of the body / space relationships within the performance of a participatory environment?

4.2.1. *OVAL*¹²

Using twelve sheets of glass, I was able to create the interior and exterior space of an oval-shaped environment where the real-time projected images of the audience mixed with the sound compositions of the resonating sheets of glass. The audience alternated between being eclipsed by an audio-visual shell from within and walking around, contemplating the structure as a performative object of sorts from without.

O V A L was activated by movement. By stepping in, the audience had no choice but to be in constant dialogue with the world of the “environment and self” where the “*world* and the *self* informed and redefined each other constantly” (Pallasmaa 2005, 40). When on the outside, however, one would perceive *O V A L* as a form of object that expanded into the remaining environment not only by means of light but also of sound.

During the audience experience of *O V A L*, the tension between sound and image, as well as the duality of the interior and exterior experience, constantly confused the senses. For example, whereas the “vision was directional” and “sound omni-directional” from the central point, when in close proximity to the sheet of glass emitting sound, the sound became more directional through vibration and the vision rather omni-directional, or even peripheral. At the

¹² Structure-born sound for *O V A L* was developed in collaboration with the Finnish composer Otso Lahdeoja, a member of Matralab (*structure-born sound, in this scenario, is formed by vibrating glass structures via transducers attached to them*), and Max/MSP (*software used for processing real-time visual or audio signals*) generated time delays of the projected image were programmed by Montreal-based designer Omar Faleh.

same time, due to its enclosure and exclosure, the notions of “sound creating experience of interiority and sight exteriority” could easily be perceived as reversed (Pallasmaa 2005, 40).

OVAL combined immersion, defined earlier as the blurring of media, body and space, and interaction, as a feedback between the same. As a collaborative undertaking, *OVAL* explored how immersion and interaction emerge as the co-creation of two authors, where both transform themselves within the specifics of their respective processes (to be elaborated upon further in my discussion of *FOLD*). In terms of merging the exhibition space (visual arts) and stage (theatre), however, this environment repeated *Déjà Vu*'s scenario. If an improvised performance occurred (whether organized or spontaneous), it marginalized the performative potential of the audience and more importantly, eclipsed the actual performative possibilities of the space itself.

Whereas in *OVAL* we developed the composition of structure-born sound based on a design of vertically positioned mirrors, in another parallel installation entitled *Light and Darkness* we moved the research forward by employing transducers in the design of a large water channel acting as a mirror. While the structure-born sound was in continuous development from one project to another, the concept of *Light and Darkness* dealt with an altogether different subject.



Figure 34. *OVAL* Installation View. Currents: The International New Media Festival, Santa Fe, New Mexico, (2013).



Figure 35. *OVAL* – Installation View at Currents, International Festival of New Media in Santa Fe, NM, (2013).

4.2.2. *Light and Darkness*¹³

The reflections in the mirror, formed by a forty-four-foot long water channel running through the entire space, opened up a powerful vertical dimension. It turned the interiors (the world), along with the two rows of sculptures representing virtues and vices, and the audiences (actualities) into an upside down underworld (virtualities). The water surface fluctuated between an appearance of a clear mirror and gentle water patterns – generated by powerful transducers underneath the structure, emitting music compositions inspired by each individual character. Light compositions unveiled each statue from and veiled them back into the darkness, whereas projections bounced off the water surface onto the arched ceiling above like an upside down river flow.

The world of actualities and virtualities bathed in light and darkness as it bathed in powerfully resonating sound and silence. The sound, along with the flowing projection of water patterns on the ceiling, created a web of connections amongst the audience and a sense of deep unity within a communal immersion. At the same time, the light compositions dedicated to each character led to more of a personal reflection and an exchange between the visitor and each of the characters (Pallasmaa 2005, 52). As soon as the light compositions turned to darkness, the sound sculpted the character within the mind of the audience, just as the sound of dripping water in the darkness of a ruin would sculpt a cavity directly into the interior of the mind (51). The audiences walked or stood around and let the light and sound overwhelm their senses.

¹³ Technological tools (structure-born sound and Max/MSP-enabled delay lines) established in *OVAL* were further advanced in *Light and Darkness*, and development continued (in collaboration with the same team) throughout *FOLD*. In addition to material and technological development, *Light and Darkness* served as a conceptual inspiration for *FOLD*, particularly the temporal scenarios of the environment. The production team kept growing with the scale and ambitions of these projects, resulting in additional production assistance from the Light Design Institute based in Prague, Czech Republic, and many other contributions (to be detailed throughout this chapter).



Figure 36. Hospital Kuks, Czech Republic, View of the Interior Space of the hospital (statues of virtues to the left, statues of Vices to the right. Statue of Religion in the centre, two statues of the angel of Merciful Death to the left and Dreadful Death to the right).



Figure 37. *Light and Darkness*, View of the Installation site at the Hospital Kuks, Czech Republic (2013).



Figure 38. *Light and Darkness*, View of the Installation site at the Hospital Kuks, Czech Republic (2013).

Despite the success of the performances, the element of participation was insufficiently developed. The nature of the exhibition (a two-day only public event, the restrictions of using a historical landmark) left insufficient time and space for experimentation. Looking forward, the new design for the participatory environment *F O L D* began with questions of how we could employ the material and technological tools developed in *O V A L*, along with embracing the qualities of the sculptural characters in *Light and Darkness*, to design folds as an unfolding maze of temporalities where the self and environment become one through participatory performance.

4.3. Material and Technological Mediation

The production of F O L D took place at Agora Coeur des Sciences, Hexagram UQAM in Montreal, October 26th-November 11th, 2014. The environment took ten days to build and was

open to the public for two days. Four public prototypes ran during the two days.

4.3.1. Time: Temporal Landscapes



Figure 39. Statue of Wisdom – a double-faced woman.

The Baroque sculptor Matthias Braun (1684-1736) set a mirror into the extended hand of Wisdom to create a double-faced woman: turning her gaze towards the past (looking into the mirror) and the other gaze into the future (the reflection in the mirror). What can she possibly see in this mirror, and how do these temporalities merge in the present? How does this image affect the next movement, the next step and the next decision? And for our specific purposes here, how can we instill this temporality into an environment formed by materials, architectural structures, sound and projected image and how may the unfolding of these material and technological compositions transform the relationship of bodies and space?

The allegory of Wisdom's character transformed its double gaze into the temporal landscape of the environment *FOLD*: one face looking into the future (in the entrance auditorium) and the other into the past (in the exit auditorium).

The installation *FOLD* consisted of a composition of twenty-eight mirrors that reflected, metaphorically speaking, the Baroque characters of the statues, but did not replicate the count,

qualities or faces. Instead, the mirrors became a maze of temporal scenarios, of resonating windows into one's own world of the past, present, future and also the infinite, discovered by movement through the environment.

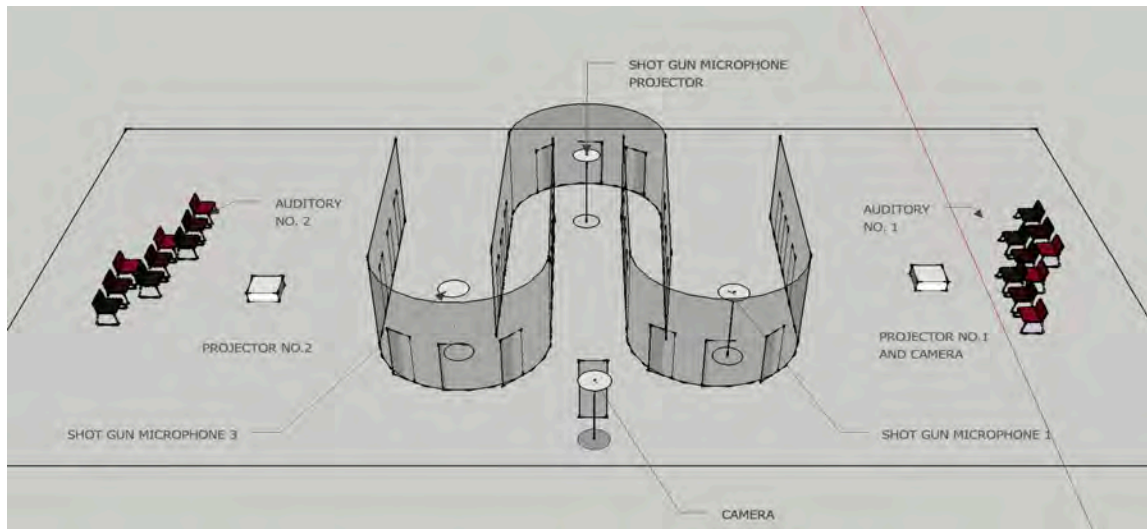


Figure 40. *F O L D*: overall view of the design.

With *F O L D*, there were five temporal scenarios that unfolded within the actual environment from the entrance to the exit: (1) front auditorium – the entrance into the environment; (2) the front row of the mirrors; (3) the centre of the environment; (4) the design of a unique mirror in the centre of the environment; (5) the back auditorium – the exit from the environment. As a result, the gaze of Wisdom into her mirror becomes the entry into the *world / self* where one moves constantly between the *virtual* and the *actual* while moving between past, present and future. The movement of the body through the environment formed the first step in the *becoming of self* as the *environment*.

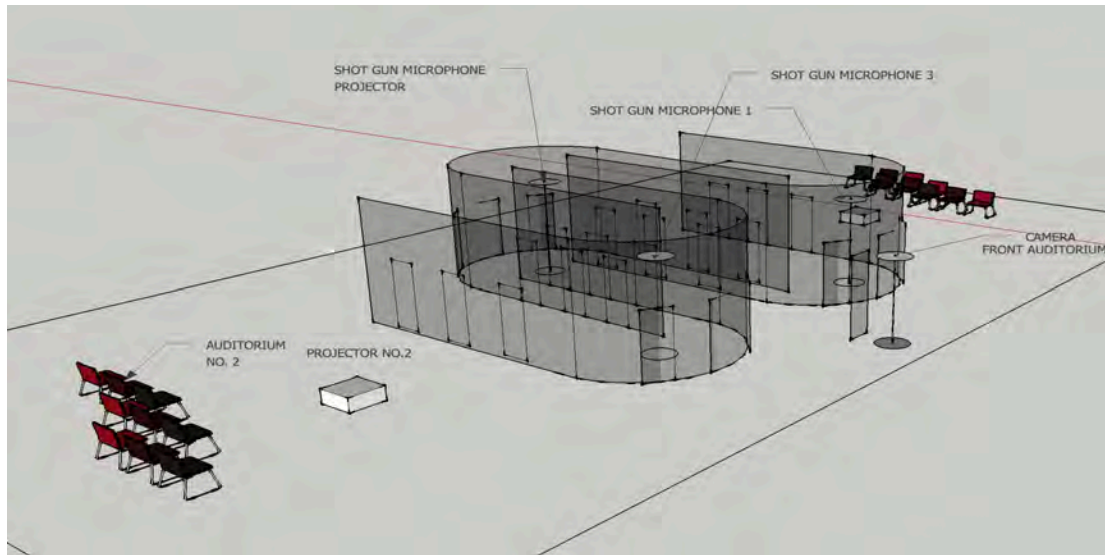


Figure 41. *FOLD*: View of the entrance auditorium.

The Swiss architect Bernard Tschumi argues that the movement of bodies in space is just as important as the space itself. He defines architecture as space, movement and action, referred to as SEM: Space, Event, Movement (Tschumi 1996). SEM may therefore also serve as a way to view participatory environments, which, through the act of space, movement, body and time become performances in themselves, or as Tschumi refers to them, “events”.

Movement is key in both experiencing and participating in the environment and its performance. Some of these notions were developed by members of the Bauhaus, including Moholy-Nagy, who was particularly interested in the movement of not only light but also of the human body. The aim of his creation, according to Gropius, was to observe “vision in motion”, which would form a new conception of space (Gropius and Wensinger 1987, 10). Moholy-Nagy also considered movement as a means to experience space, where dance is a construction of spatial design (Blume and Hiller 2014, 9). These ideas were further developed by Oskar Schlemmer, who considered dancers and actors as moving architecture (Gropius and Wensinger 1987, 9).

The type of participatory environment I examine here, however, does not employ dancers specifically; anyone who enters the environment, whether audience or performer, may be considered a moving part of the environment, and by extension, of the architecture. The concepts of movement and architecture I reflect on here may also find connection with the ideas of Hungarian-born dancer and theorist Rudolf von Laban, who stated: “Space itself was not an empty container waiting to be occupied by a body, but rather a dynamic form that would come into existence only through a moving human presence; space was a ‘hidden feature of movement’ and movement was a ‘visible aspect of space’” (Salter 2010, 229). In *F O L D*, the dynamics of the environment were unravelled through movement from the entrance auditorium to the exit auditorium.

I was seated in the entrance auditorium with others awaiting the performance. A member of the audience got up and walked up towards the structure. I could see him enter the light beam inside. He stood there for a while. Then images would follow. I realized those were his past images; he began to react to them, he bowed a little, turned, then slowly continued to walk. Another person walked up, entered the beam, put his arms up. Then he stuck his hands into the beam as if playing a piano. Many repetitions of hands began to appear as he engaged in his invisible play. Then, someone else walked up. But then I think, it will be me, I am next...

The first auditorium, placed in front of the *F O L D*, had the visitors seated, waiting their turn and watching others before they could enter the performance. Watching other participants interacting with the environment while waiting proved to have much to do with anticipating the future. The passive audience (in the auditorium) remained seated (in the present) and projected themselves into the active audience (in the environment), imagining themselves in their place when their turn arrived (the future).

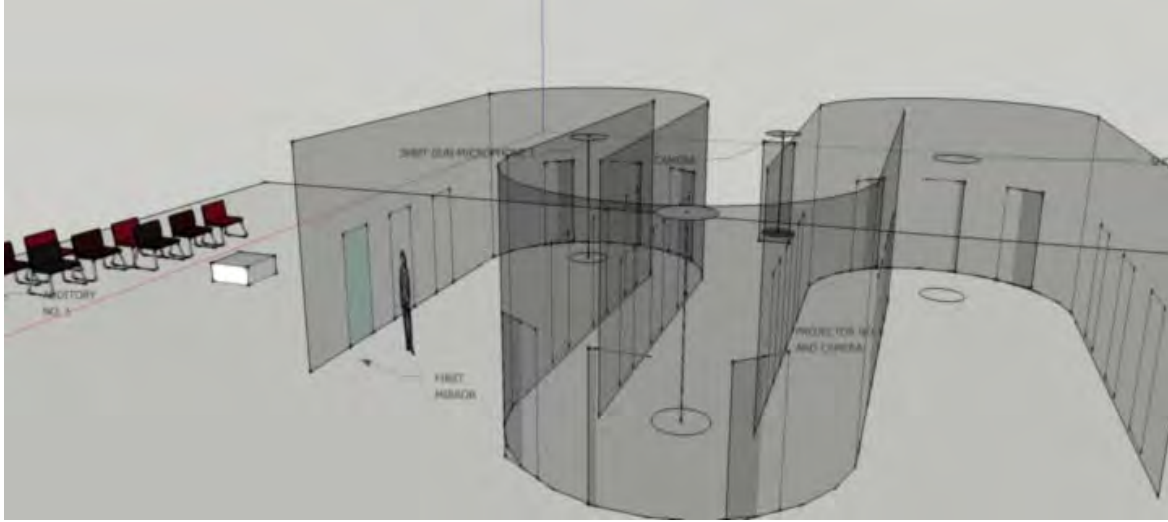


Figure 42. *F O L D*: view of the front row or mirrors.

I enter the first row of mirrors. A few steps, then I stop. I stand still and wait a bit. Here it comes! An image of myself appears and walks right up to me. It stops – and we look at each other for a while. I move my head but my duplicate lags behind. I wait for her to follow. I move my hands, my arms and I bow. More duplicate images of my movements begin to appear now, but I do not wait. I turn around and start walking through the structure towards what appears as my past walking in front of me towards the future.

The second spatio-temporal scenario of ‘past’ and ‘future’ was applied to the design of the front row of mirrors and engages the audience in the play of these temporalities. If a person stood in front of the first mirror, she would be observing the reflection of her face or body in the mirror. This situation expresses the present. As soon as the camera registered a face in the light, however, it would start projecting delayed images of the face back into the environment of the folds. As soon as the person turned around and looked away from the mirror into the environment, with the light pathway in front of her, the delayed images appeared to be in the future (even if the images were her past actions). Some of the delays were so long that the memory of the action was not clear and the movement seemed new.

Both Pallasmaa (2005, 40) and Lotker (2013, 3-4) have argued that architecture is different from other art forms in that it implies action and consequently, a reaction that interlaces our experience with the environment which then, in return, inspires this action. In addition,

Pallasmaa assures us that our constant exchange and interaction with the environment make it impossible to detach the image of self from its existence within the space: “*I’m my body*” but “*I’m the space*” (Pallasmaa 2005, 64). Once a person entered the environment, the transformation of self into the environment, as well as the awareness of this process by the person, begins.

We have also heard from Taussig that “seeing and hearing something” awakens our desire to be “in contact”, hence become that something. Not only do we want to become, but we also want to behave as that something. In this scenario, the ideas of copy and contact merge. We are regarding our own image in the mirror as well as projections of our own delayed images trapped in the fabric of the screen. We study our own behaviour through our own copy of it which is, at the same time, the contact – meaning we are witnessing the becoming and behaving of the self as the environment. The mirroring / becoming is endless. Interchangeably, the self and the environment become both the copy and the contact. The interaction in this case would be defined as the temporal unfolding of self into the environment, which can be equally expressed as the temporal unfolding of media / body and space.

I earlier viewed immersion through the transformation of body into a screen (Iles 2016, 124) and explored screens as membranes into the world of our imagination (Bruno 2014, 8-9). The same notion of immersion applies here, but I now take a step further in my interpretation of immersion within the context of participatory environments by arguing that immersion is the becoming of self, not only as the screen but also as the entire body of the environment (or its parts) through our imagination. Thus, there exists *temporal* becoming of media / body and space specifically through the temporal possibilities offered up by the technologies deployed – in this case, no longer analogue feedback captured by cameras and projected in real time in the environment but now by way of digital software tools that enable a more precise control of time. In this sense, the performance of space reaches yet another level of mediation: bodies, material

and architecture are orchestrated by temporal processes that are no longer shaped solely by performing bodies by the computationally enabled intertwining among bodies, space and machines.

I stop. Right here, where the mirrors line up at each side – I stand in the middle, between them. I look to the left, then to the right. I tilt my head a little to see the repetitions of my body as far as I can. I lean a bit more and try to reach the infinite point in space beyond which I can't see anymore.

The third temporal scenario of the infinite was established in the very centre of the environment by two means. First, it was formed by the optical quality of the landscape; second, by digital manipulation of the real-time images projected across the entire space of folds. This positioning reflected a basic question: What if Wisdom held yet another mirror up to her other face? What if her sight becomes caught in between the past and the future, in the space of the infinite present? How can we understand this dimension and integrate this temporal situation into the performance of the landscape taking place in *F O L D*?

In the first scenario, the optical effect was based on fundamental physics. If a person was standing in the middle of the environment, with lights on and without technology, it was not unlike standing in between two mirrors. In this position, the image of ourselves will repeat as many times as we can observe it before we can no longer see it. The mirrors of the environment were semi-transparent and intentionally lined up in such a way as to create this illusion. The second effect of the infinite, created by digital manipulation of the projected image, also opened up across the folds. If one was standing in the same centre of the environment, one could observe one's own delayed images to the right (where one came from) and to the left (where one is headed). This created a situation where the optical past blended into its future.

Pallasmaa discusses the enigmatic encounter of ourselves in the work of art. We project our emotions into the work, and the work projects an aura into us (2005, 68). At the same time, he

employs Merleau Ponty's idea of the body being in the world just like the heart is in the organism which "keeps the visible spectacle constantly alive, it breathes life into it and sustains it inwardly, and with it forms a system" (Pallasmaa 2005, 40). By positioning oneself within this central area of the environment and observing oneself through the environment, the process of the self *becoming* the environment becomes apparent.



Figure 43. Statue of Wisdom – In between two mirrors. *Wisdom caught in between two mirrors, creating the infinite time and space between the future and the past.*

My gaze falls back on the single mirror at the end of the aisle. Yes, there is a person now, as if coming from a great distance. I wait to see him or her. It is not unlike expecting a stranger returning from a long journey or a messenger from the unknown. The figure approaches slowly. Who is it? And what is there in the darkness he is emerging from? What is the figure's story? We are distant, and yet connected. Now, it is up close – I feel a bit nervous as its face slowly moves into the light – it's me! I stand there and look at my double looking back at me. I look into the eyes, which are my own. Then she turns around, rather quickly, and disappears back into the darkness. And so do I.

The fourth temporal scenario was designed as a pathway between two mirrors. A central mirror placed between two other mirrors formed the central curve of the fold, and a single mirror, standing alone, was at the other end of this pathway, with about twenty feet between the two. The single mirror had a dedicated camera that would register a person walking towards it. The light pathway leading to this mirror made it possible for the person to see himself walking towards himself. As soon as the person turned around, away from the mirror, and started walking back towards the curve, the projector placed on the three mirrors in the curve began to project several delays of the person walking. All three mirrors were mapped, which made it possible to project different temporal situations into each one. By the time the audience arrived back in front of the

three mirrors placed in the curve of *F O L D*, they could observe themselves in a different temporal setting in each mirror. In the centre mirror, they could see themselves walking away from themselves into the infinite. In the two opposite mirrors, the situation reversed and they could see themselves walking back towards them. This was another play on the infinities of space and time.

In my discussion of the third scenario, I explored the encounter of ourselves in the environment as the becoming, where the exchange of self and the environment may be understood as the interaction of one with the other (the self with the environment) or where one fuses into the other (Pallasmaa 2005, 68). Beyond this, our ability to remember and imagine places puts “perception, memory and imagination into constant interaction”, fusing the “domain of presence into images of memory and fantasy” (67). To further the understanding of this exchange, Pallasmaa draws on ideas of American philosopher Edward Chasey and his interpretation of memory as past embodied by action.

The ‘elements’ of architecture are not visual units or gestalt; they are encounters, confrontations that interact with memory. In such memory, the past is embodied in actions. Rather than being contained separately somewhere in the mind or brain, it is actively an ingredient in the very bodily movements that accomplish a particular action” (Pallasmaa 2005, 63).

Embracing Pallasmaa’s notion of embodying our past through actions, and transforming our memories of actions through our imagination into fantasies, makes it possible for the spectator not only to become the environment, but also to embody the self as the environment, and to re-imagine their own past and memories as action.

I exit. Clearly, I can see that there is yet another auditorium, not unlike a movie theatre, with people sitting there and watching the environment as if they were watching a movie. Quickly, I realize that I was in their movie the whole time and the thought of it feels very strange. I head towards them, to join them. I sit down. Relax. I forgive people for watching me. I am one of them now. I can see clearly the images that I am looking at are past images of myself. There I was, walking, shouting, looking and listening. I was watching a movie of my past actions.

The fifth scenario, the exit auditorium, placed at the end of the space, felt more like a cinema. The visitors were seated there after they walked through the entire environment and watched their own past actions through the delayed images of themselves, as well as the actions of others. This experience had to do with being in the present, observing one's own past.

The form of spectatorship in the second auditorium was reminiscent of the screen spectatorship I discussed in Chapter III, where the screen is observed as a spellbinding mirror of the audience (Barthes 1989, Baudry 1986). However, unlike the “hypnotic amorous mirror” that Barthes describes, formed by the projection beam above our heads presenting moving images, the beam in this scenario was again placed at the floor level, and the images that were projected were those of the audience. Thus, the spectatorship could be described more accurately as “hypnotic narcissism”. In such spectatorships, we cast ourselves not only as audiences but also as actors and directors of the screen. We are not only the cinematic mirror, we are also the projection beam, taking place behind the looking glass of the stage.

4.3.2. Design

The figures appear so real! At times I am not quite sure if they are images or reflections or real people. But wait – there! That must be someone else! Yes. It's a person. I can see clearly now as he lifts his arms and claps – up in the air. Clap! The clap was crisp and clear! The clapping sound breaks out throughout the entire space; it shatters, echoes and multiplies. Like a scream in a landscape, like a crack through a lake that is frozen over, like a cat running over the piano strings, like nothing else and ... Crack! It comes around again. It's everywhere!

In his article “25 Years In Theatre Based on Lighting” (1961), Czech structuralist Jan

Mukarovsky viewed early 20th century Czech scenographer E.F. Burian's phenomenal material

applications as the fourth dimension, based on the effect of light in combination with the figure and the surfaces of fabric, where such effects were only magnified by other elements such as “sound, film or projections” (Mukarovsky 1961, 142). Burian himself prized the phenomenal combinations of these elements.

Even without projections, ingenious lighting from both sides of the frontal scrim provided a number of poetically suggestive effects, from a hazy sense of distance and the gradual emergence or disappearance of a character in the darkness, to the lighting of selected details: an actor’s face or hands, depending on the balance of intensities of the different area and spotlights. Space and visual compositions were flexible, modulated, dynamic (Burian 1975, 35).

In designing *FOLD*, I took advantage of the same qualities of fabric. First, the fabric formed the structural design; the folds, due to their scale (in particular their height), projected a monumental presence within and into the space. Second, the fabric served as a projection surface, which created layers of transparencies. The high-resolution image and strong luminosity of the projectors made it possible for the images projected within the folds of the fabric to appear with a hologram-like quality, so clear in fact that they tricked the eye of visitors into thinking they were looking at a real person, stranded in the folds. Third, the fabric acted as a back-up for the mirrors, which were made of glass. It was thanks to the black background of the fabric that the mirrors provided crisp reflections.

While the material qualities of *FOLD* were influenced from the techniques of Czech scenographic practice, the structural and architectural design was shaped by the ideals of Total Theatres developed by the Bauhaus, who imagined theatre as a keyboard for light and space

through which it may be possible to transform not only the body but also the mind of the audience. In the words of German architect Walter Gropius who designed Total Theatre for the German theatre director Erwin Piscator in Berlin in 1926: “For if it is true that the mind can transform the body, it is equally true that the structure can transform the mind” (Gropius 1987, 14). These were also some of the fundamental ideas on which Svoboda, some decades later, built his notion of atelier theatre.

With this in mind, I designed a system of three interlocked U-shaped structures that would allow for: (1) a flexible orchestration of space as the essential condition for experimentation with body / space relations based on alternative arrangement of the stage and auditorium and audience / performer relations; (2) multiple experimental approaches to employing audio-visual components during the experimental performance; and (3) the polyscenic notion of temporal landscapes allowing multiple spatio-temporal entries into the environment.

Based on these, each fold made of dark, shark-tooth fabric and mirrors, independently of each other provided the experience of a virtual and actual spatio-temporal landscape. A play of past / present and an illusion of future were achieved through the single and double mirror as well as the temporal delays throughout the entire space. However, the single unit of a fold could not create the sense of spatio-temporal infinity, as one of the central conception of this installation. To achieve the infinities, a multiple number of folds had to be engaged in the composition. With these in mind, I designed a flexible system that could be assembled in any configuration of two, three or four. By engaging and interlocking a multiple number of folds, not only the scenario of the infinite will open across the horizon, but also multiple spatio-temporal entries into the environment become possible.

4.3.3. Image

Once the structural design was established, it was the image and sound that played a key role. Light was central to the architectural configuration of *F O L D*. If the light was not configured correctly, the installation would not work. Light was needed first for the mirrors to reflect the images, and it was also necessary for the camera to produce the images. If there was no one standing in the light, or if the light was off, the installation would not function. Thus, what is important to realize in this scenario is that the light is formed by the entire apparatus, where each part needs to be configured between the position of the theatre lamps in the ceiling, the setting of the camera, the setting of the projector and the position of the person within the environment. From this perspective, light may indeed be compared to breath. Stepping into the light, one inhales; stepping into the dark, one exhales.

Particularly in the area of image, I collaborated with two Montreal-based designers, Omar Faleh on the mapping of the mirrors and Navid Navab on the image development. We used standard digital image/audio software such as Max/MSP and Mad/Mapper to achieve the visual results. The ongoing research generated a large palette of possibilities and effects. We found, however, that the more processed the image, the more distorted the effect. Eventually, I narrowed the focus to a type of *chiaroscuro* image, defining the aesthetics called for within this project. Not unlike paintings by Michelangelo Merisi da Caravaggio in the late 16th century, we wanted to see faces and bodies emerging strongly from the darkness into the light. This way, we could achieve a holograph-like appearance of the image throughout the landscape.



Figure 44. *F O L D* – Installation view at Agora UQAM, Montreal (2014).

4.3.4. Sound

I wait for a while but then, almost intuitively, I lift my arms. Clap! Like a domino effect, in an instant, the same wave of clapping sounds, but with a different rhythm. And over there? Yes, that's another face out of nowhere. Far in the darkness. It emerges and fades again. Clap! I am sure the clapping comes from there now! Clap! Clap! As though in a jam session, we, the mysterious performers, visible or not, united in a communal event, engage in this improvised concert of space. After a while, the sounds, faces and clapping hands gradually disappear. The space folds back into its stillness. It's quiet again and the mirrors slowly begin to break into compositions of sounds. The sound is muted – nearly imperceptible, as if in a snowy landscape – I am not quite sure why I stand still here. For a while, I listen to the composition. It comes from everywhere.

The actual soundscape of the environment was entirely structure-born, formed by two systems, one compositional (developed by Otso Lahdeoja who collaborated with us remotely from Helsinki) and the other interactive (by musician and member of Matralab Joseph Browne). Both connected to the landscape of mirrors with transducers attached to them. The two systems were interchangeable and complemented each other. Twenty-two channels were connected to the

compositions, and twenty-six channels to shotgun microphones were located in each curve of the three folds, which could be activated by the audience. Each microphone had a slightly different configuration, so two or more people could engage in a dialogue across the environment. As an example of collaboration I include some of the correspondence discussing the development of compositional sound:

Otso Lahdeoja, September 20th, 2014

If 'F O L D' was a place, what kind of place would it be? (looking for field recording sounds for the soundtrack...) (Possible answers include words, images, poems, silence....)

..O.

Lenka Novakova, September 21th, 2014

The places or images that I would relate to 'F O L D' are dark, night-like images. They evolve around dimension of the infinite that dwells in our mind. Places where you can project movement forward but you can't see where it is going. While you know you will be moving forward; the points A and B remains blurry, perhaps this feeling may be reminiscent to being in the desert, although this is a night desert, so you can see the stars, and the light activity within the universe, otherwise all the dimensions remain infinite...

Deep well, is another good example, and things that fall in and you can hear them, but you do not see them falling, you can only imagine the dimensions, and the movement, and the fall into infinity, in fact the sound is so profound it even provides the feeling that you may see them, but in fact they remain invisible to the eyes. Dark river that moves forward, but it's not clear which way, also a long dark tunnel for instance...

Forest is also a good one but thick, and deep with big trees so there is a sense of darkness... Also water surface for instance, and pebbles that you would throw and that jump flat over in a rhythm, a nice forward moving motion projected within the space, that makes you want to repeat the same action, over and over again, as its repetition provides, visually and audibly the sense and perhaps also the feeling of infinity...

Places I imagine do not necessarily resemble each other in the visual sense but are similar in their potential to provide that kind of sound you would listen to attentively and with slowness to get the sense of the space, place and dimension, kind of a sound you can 'hang off' in the midst of spatial nothingness.

Within F O L D as a dark environment of optical architectures, compositional sound, a dark chiaroscuro like moving image, and a performative platform, the question that remains to be asked: 'Can these imaginary spaces, places even, with their infinite dimension be taken back to the human scale and to the body within the tools of expression that are available to us and indeed, provided the answer is yes, what would be a way to make that connection?

There is this quote that comes to my mind: "The soul is the expression of the world (actuality), but because the world is what the soul express (virtuality). (Deleuze 2006, 28)

4.4. Body / Space Relations

4.4.1. Stage and Auditorium

In order to enforce his vision of total immersion, the German composer Richard Wagner (1813-1833) dimmed the house lights of his theatre in Bayreuth housing his magnum opus, *Der Ring des Nibelungen* (*The Ring*), so that the audience had no choice but to project itself onto the stage. As Aronson points out, “to go to the theatre meant risking the loss of self” (Aronson 2005, 101). While Wagner’s ideas were partially embraced by Bauhaus later on, as well as by some avant-garde painters and musicians, they were rejected by others or even perceived as a complete failure. Bertolt Brecht, for instance, wrote that *Gesamtkunstwerk* (a total artwork)¹⁴, “produced muddle in which each element was equally degraded” and the spectator became a “passive, suffering part of the total work of art” (Aronson 2000, 85).

Especially influenced by Wagner’s writings about the theatre, Appia was disappointed when he saw the productions. He thought that the settings betrayed Wagner’s theories, due to poorly realized, naturalistic / flat staging rather than expressive and dynamic forms and almost all of Appia’s writing (beginning around 1891) sought to correct Wagner’s failure to realize adequately his own vision of theatre (Brocket 2010, 228). For example, Appia collaborated with the architect Heinrich Tessenow and the Russian painter and lighting expert Alexander von Salzmann on the design of the ‘hall of syntheses’ between 1910 and 1912 at the theatre space at Hellerau: “a massive 50m x 16m x 12m open space in which both performers and spectators

¹⁴ The term *Gesamtkunstwerk* was first used by the philosopher and writer Eusebius Trahdorff (1783-1863) in his work *Ästhetik oder Lehre von der Weltanschauung und Kunst* (*Aesthetics of the Study of World View and Art*) (1827). Wagner uses the word *Gesamtkunstwerk* in his essay “Art and Revolution” in 1849, describing the ideal relationship of music, text and dance in the *drama*, as the highest art form, the *art-work of the future*.

occupied the same spatial volume, without any barrier between them” (Salter 2010, 6-7). Electric lighting techniques revolutionized by Appia within this setting became creations in themselves, forming an environment where performers’ bodies became animated sculptural objects. These ideas align well with the thinking of Artaud, who also insisted on what he called the “theatre of action”, where “stage and auditorium” are replaced by “a single site” and the communication between spectator – spectacle – actor is re-established (Artaud 1958, 96). The experimental performances in my upcoming discussion revisit these ideas and re-examine them through practice.

4.4.4.1. Performance 1

The first public prototype of the performance was composed of the original spatial arrangement of the environment. One auditorium was situated in front of the environment and the other auditorium behind. This scenario offered three types of spectatorship: (1) frontal viewing from the entrance auditorium; (2) backstage viewing from the exit auditorium; and (3) immersive, interactive and participatory experience within the environment.¹⁵

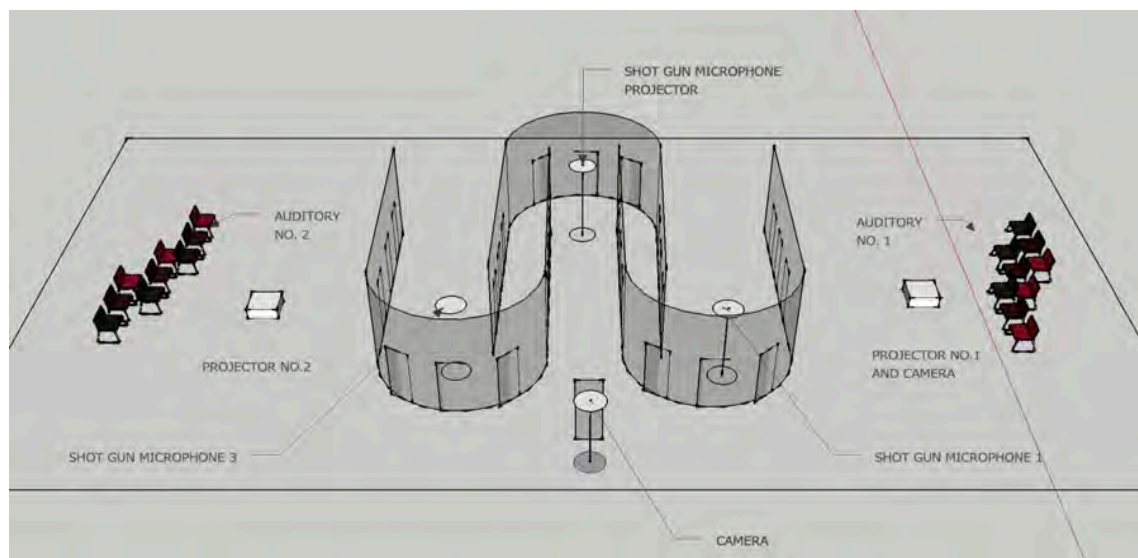


Figure 45. *FOLD* Overall design: (entrance) auditorium-left side / (exit) auditorium-right side.

Svoboda’s interpretation of what he called “production space” is based on the successful interconnection of stage and auditorium in such a way that in the auditorium, “the same

¹⁵ I discuss this situation in the ‘temporal landscapes’ section.

transformation of space takes place as on the stage, the actor transforms himself into the viewer” (Burian 1993, 51). In the first (entrance) auditorium of *F O L D*, the waiting audience projected themselves imaginatively into their own upcoming performance on the stage (the environment), due to witnessing the performance of others in the environment. In the second (exit) auditorium, the audience was seated after their walk-through of the environment (the stage) and observed their own past actions, along with the actions of others still wandering through the folds.

In *Déjà vu*, I employed Taussig’s notion of “copy and contact” as well as “our capacity to mime” in my analyses of performance where the audience re-entered the stage after seeing the dancer interacting with the environment. The entrance auditorium in *F O L D*, however, offered a different scenario due to its position as well as the organization of the performance. Whereas in *Déjà vu* the audience collectively entered the stage leaving the auditorium completely behind, in *F O L D* the audience entered the stage (environment) one by one. This created a scenario in which the members of the audience who entered the environment partially imitated previous members and partially attempted to entertain the remaining audience still seated in the auditorium watching.

To give a concrete example, once a member of the audience entered, the interactive systems became activated. The active audience would wave their arms, bow, turn around as if performing a pirouette in the grand ballet, or otherwise attempt to win the attention of the still-seated audience. This transformed the entire context from an immersive and interactive experience of the environment into a spectacle, where one group of audience members became the entertainers of the other.

The audience seated in the entrance auditorium, by being aware of their upcoming performance, produced a mixture of what Aronson has called ‘voyeuristic’ and ‘self-reflexive’ responses. “We would be watching ourselves being watched, which would really mean that we

would be watching ourselves watching... The moment that we are acknowledged by a character on the stage (or in a painting), our own reality, our own presence, is somehow brought into question. If an actor looks at me, I, too, have become an actor in the particular, often fictional, world of the stage” (Aronson 2005, 100).

However, the self-reflexive response was not produced by the encounter of the actor (performer) staring into the eyes of the audience. Instead, it was generated by the encounter of the invisible eyes which became imprinted in the mind of the audience the moment they left the auditorium and became active upon entering the environment. The invisible gaze that followed them to the environment belonged to the passive audience, still seated in the auditorium, watching, and to their own memory of imagining themselves and their upcoming performance prior to leaving their seat.

The exit auditorium, on the other hand, offered a reflection of past actions rather than contemplation of the upcoming action. We can connect this experience with a type of voyeuristic response that already contains a large amount of insight, due to the knowledge and active experience of the environment prior to taking a passive position in one’s seat. In Aronson’s terms, the back auditorium became the painting where one may enjoy its sight without any awareness of being stared back at. Unlike in a painting, though, we were the actual subject of the environment as well as the authors of the image it generated. In Svoboda’s analogy, it became the ‘poetic image’ or the type of ‘dramatic space’ where the auditorium and the ‘stage’ became connected. The actor not only transformed himself into the viewer, but also the viewer identified the actor as being herself. Hence, within the perception of the seated audience (the viewer), the same transformation of space took place on the *stage* (in the environment) as it did in the auditorium (Burian 1993, 51).

4.4.1.2. Performance 2

It became apparent from the first experiment that to provide the audience with the experience of immersion, interaction and participation in the performance and its unravelling of the temporal scenarios of the environment, we had to have visitors enter the space not knowing what to expect and discover these modalities for themselves. Thus the entrance auditorium, along with the passive spectatorship of the performance, had to be removed. In removing the auditorium, we had to resolve how people entered and where they waited until they could proceed to the environment, so a waiting area was established.

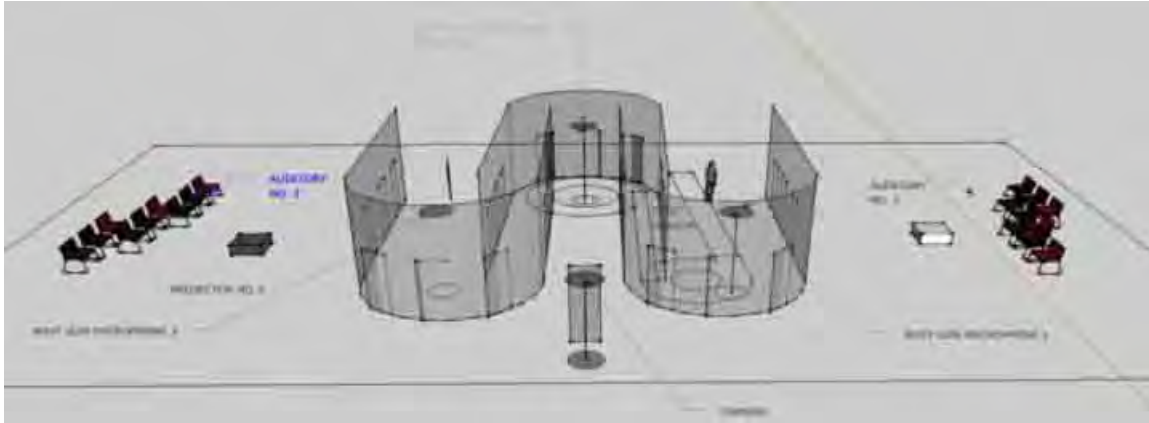


Figure 46. *F O L D* Arrangement of space for the first performance.

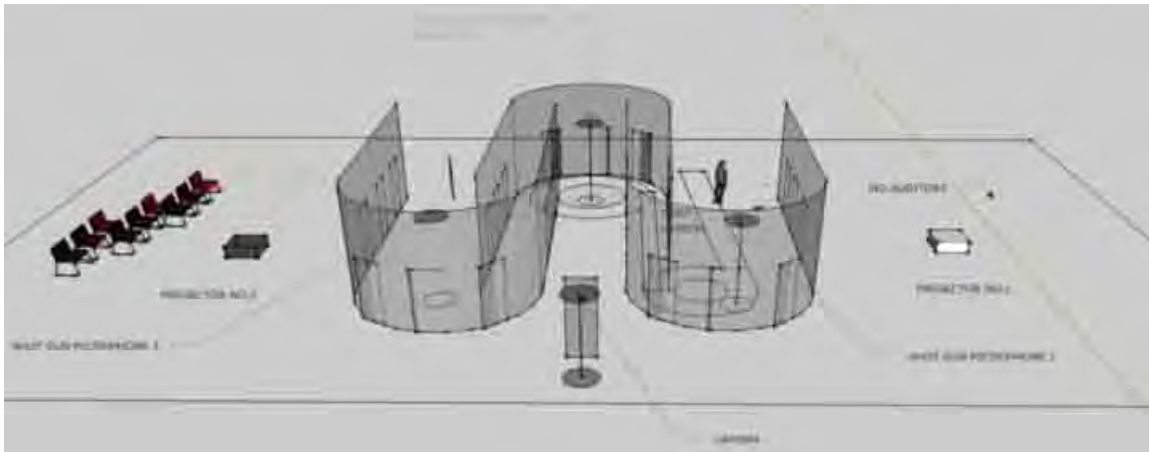


Figure 47. *F O L D* Arrangement of space for the second performance (removing the first auditorium). In designing the second prototype, we decided to cancel the auditory entirely.

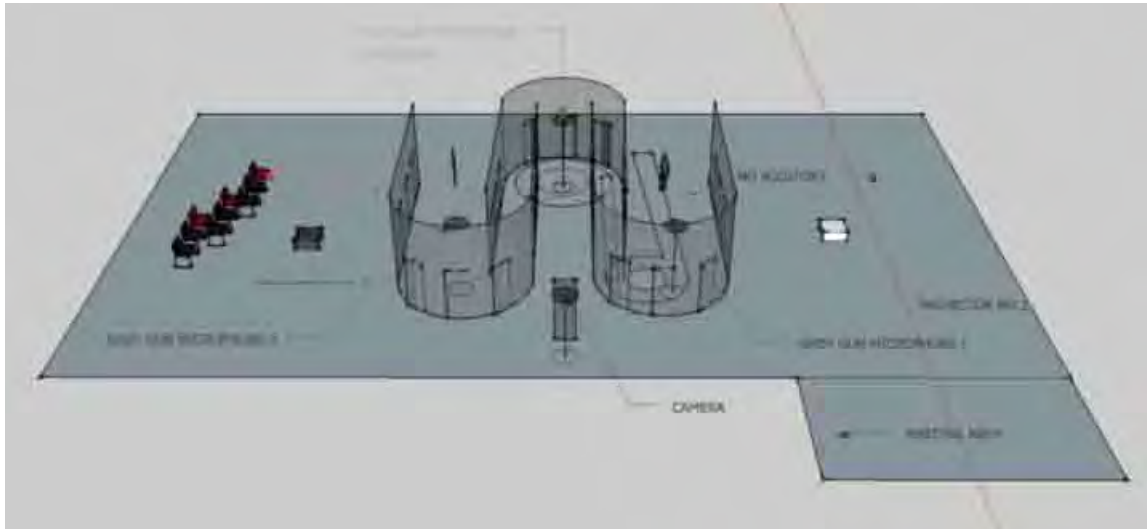


Figure 48. *F O L D* Arrangement of space for the second performance. Replacing the auditorium with an entrance room.

Earlier, I discussed the temporal scenarios of the *environment* as well as the modes of immersion and interaction that *F O L D* generated. Here, I will focus mainly on the evaluation of the drawbacks of this second experiment. In addition to the immersive and interactive aspects of the environment, occasional interaction between audiences occurred in the space and may be considered participation within a collective action. Yet these interactions arose with some level of hesitation and / or amongst groups that already had some familiarity with each other. As it turned out, the relatively subdued level of participation occurred due to the limited access to the interactive audio systems that were relatively invisible, as well as the temporal scenarios of the central mirror.

The microphones, for instance, were hung high in the darkness of each curve of the folds and were nearly invisible. There was no way to discover them unless the visitors were told to pay attention to them. I have observed in my previous works that this is never very effective: instructing audiences makes people aware of things to remember or to do, but they then feel obligated to behave accordingly. It negates the spontaneity of engagement with the work. Paradoxically, the microphones were loaded with complex and powerful sound effects. We

worked tirelessly to improve the existing sounds and added new ones, but many visitors walked right past them. This curtailed the performative potential of the space significantly. The central mirror and its temporal settings were also easy to miss, and again an important section of the space remained undiscovered.

From this experiment, which proved to have a considerable level of success of immersion, interaction and participation, we learned that in order to get closer to the ideals of Svoboda's polyscenic space, we had to increase the level of participation by making the audio-visual systems and the temporal scenarios of the environment more accessible to the audience. To achieve this, the experiments proceeded to the next step: employing performers. This had two objectives: to observe audience / performer relations and to engage performers as a mediator between the environment and the audience. In so doing, I set out to make the environment available to the audience using the central three characteristics of Svoboda's notion of the polyscenic space: as an "expression of free and many sided time-space operations"; as an "expression of one and the same action being observed from several optical angles": and as "breaking up the linear continuity of a theatre action, and its transformation of separate events or moments" (Burian 1993, 21).

4.4.2. Audience and Performers

Hans-Thies Lehmann considers performers as post-dramatic sculptural bodies and identifies them as a type of victim that may project aggression. This observation echoes some of the negative attitudes towards actors (performers) by one of the Futurists, Enrico Prampolini, who considered the actor as a "useless element in theatrical action, and, moreover, dangerous to the future of theatre" (Prampolini in Kirby 1971, 229-230). Prampolini built his views on those of Craig, Appia and Tairov, who as he claimed, also sought the diminished importance of actors. Craig, for

instance, “defined him as a spot of color; Appia established a hierarchy between author, actors, and space; and Tairov considers him as an object, that is to say, like one of many elements in a scene” (229-230).

Decades later, however, Schechner viewed the interaction of performers and audiences more positively. He asked, “What happens to a performance when the usual agreements between performer and spectator are broken? What happens when performers and spectators actually make contact? When they talk to each other and touch? Crossing the boundaries between theater and politics, art and life, performance event and social event, stage and auditorium?” (Schechner 1973, 40). His experiments with the Performance Group showed that these moments were the most extraordinary parts of the performance and posited that “what the audience projected onto the play was matched by what the players projected back onto the audience” (43).

4.4.2.1. Performance 3

In the third prototype, we decided to alternate between having live performers and audience in the environment together and independently of each other. There was a hope that the performers would help solve the issues of spatio-temporal landscape and the activation of performative elements, and assist in guiding the audiences through the polyscenic qualities of the environment, resulting in an increased form of participation.

The focus of the third experiment was to engage performers within the environment and in so doing, to increase the level of participation and meet the condition of the polyscenic space. Participation could be increased only by giving the audience access to all the temporal audio-visual scenarios within the environment, thus generating a larger number of: “separate events and moments”, “free and many-sided time-space operations”, as well as “optical angles from which one and the same action may be observed” (21). To test these theories, I invited Montreal-based

choreographer Mayra Morales to explore the performance of the environment with her performative group, *If you no what I mean*.

Mayra's performance began. Her performers had worked together for a long time and their vocabulary was well established. They began developing their own systems and compositions and the performance quickly took a direction of its own, forming a whole new context. For instance, one member of her group began to recite poems under one of the microphones and another brought a chair to climb on. There seemed to be a specific narrative taking place, as if in a play. As the performers continued, we began to send the audience in, one by one. This, however, created tension on both sides from the outset. The performing group experienced discomfort at times, arising from unpredictable encounters with the audience as they attempted to improvise their own narratives and interact with the space. The audiences in turn reacted similarly, and their attention was often diverted from interacting with the environment due to awkward encounters with performing members of the group.

This experiment proved that we lacked the understanding of how we could activate these elements and present them to the audience in such a way that they would perform to their full potential. Following the analogy of the 'self-reflexive' and the 'voyeuristic' response by Aronson, this experiment generated a situation where the self-reflexive reaction produced discomfort on all sides. Thus, Svoboda's concept of the production space based on the interpretation of the 'poetic image' formed within the 'dramatic space', where the actor transforms himself into the viewer, seemed from our experiment impossible.

In conclusion, in this third experiment, we found ourselves even further away from presenting the potential of spatio-temporal landscapes embedded within the audio-visual interactive elements of the environment to the audience, thus failing to guide them to Svoboda's

polyscenic space, as well as to generate an inspiring performance based on participation of the audience.

4.4.2.2. Performance 4

The last performance began with the absence of the performers on short notice and it was decided that the team members were going to perform the environment instead. They knew the interactive systems best and were going to take on the roles of invisible performers pretending they were the audience. Joseph Browne was going to place himself by the microphones and Navid Navab along with Omar Faleh were going to interact with the visual aspects of the space and guide visitors from light spaces to darkness, from past to present, from one microphone to another, etc.

Svoboda's definition of psycho-plastic space as being in love and projecting this feeling through our experience of architecture where the experience of this makes us see the streets of a familiar city in a completely different and new light, is comparable to spontaneity and the self-perpetuating affect generated by the fourth and the last experimental performance (Burian 1993, 17). All together (audience and performers), they navigated through waves of emotion that fluctuated anywhere between bursting with laughter or settling into silent contemplation. The event resulted in such communal power that the audience and performers, together with the environment and its performative elements, held the potential to create any type of psycho-plastic space they had imagined.

Psycho-plastic space may also serve as a lens through which to view the overall success of the last performance. As Svoboda explains, time is essential for the development of psycho-plastic space as details evolve slowly. He adds that, "this unfortunately is not possible in big theatres pressured by time" (Albertová 2012, 305). Indeed, the success of the fourth performance was made possible only through the time and space that was available to us. It took the trials and errors of the previous three performances to arrive at the optimal results of the last performance. Had our time been restricted to the installation of structures and technology only (as it was during

our *Light and Darkness* installation), we would have never arrived at this last performance. Thus, time was an essential aspect of the experiment.

Schechner builds on ideas developed by the Bauhaus who, decades earlier, imagined the role of the technical team in the place of actors stating that:

the task for the future would be to develop a technical personnel as important as the actors, one whose job it would be to bring this apparatus into view in its peculiar and novel beauty, undistinguished and as an end in itself (Schlemmer 1987, 84).

Experimenting with the engagement of a technical team within the performance itself, Schechner argued that “during performances the technicians should be as free to improvise as the performers, modulating the uses of their equipment night-to-night” (Schechner 1973, xxvi). He imagined that once this method is established, the technicians would have major roles in “workshops, rehearsals, and performances and with dancers and actors who would assume the supporting role as the technicians would become a central stage” (xxvi). Schechner prizes the role of the technicians so highly that he argues that it is not the most sophisticated equipment that we need, but rather the more sophisticated use of the human beings who run whatever equipment is available (Schechner 1973, xxvi). This resonates well with Svoboda’s view of technology, where the appropriate use is also valued over sophistication (Burian 1993, 17).

While *F O L D* would not be considered a piece of immersive theatre (as is, for example, the case with the work of Punchdrunk), Lehmann’s analyses apply to it nonetheless. The environment becomes a living organism formed through ‘threads’ of human interactions, relations with materials, space, movement and light. This was made possible by the creative (and technical) team of *F O L D*, who proved to be a turning point in the final performance of the

environment.

Once we sent the first visitor in, the change in dynamics was noticeable. The team, acting as friendly audience members, was able to interact and guide the visitors through the landscape comfortably. They let them have the space alone to explore and intervened only as an opportunity to help them discover the performative elements embedded in the architecture of the environment, such as microphones or hidden visual effects. The interactions quickly began to evolve into a collective performative action. The audience became so engaged that they were not leaving the performance.

We also had audiences that came back in from the back auditorium, which was meant to be the exit of the installation. The entire environment turned into a harmonious spatial performance and a sound chamber of sorts, formed by spatial compositions of human voices that carried throughout the environment with a powerful resonance. This became what the Futurists called the “scenic atmosphere” or the “unity of action between man and his environment”, represented by “copenetration of the human element with the environment element in a living scenic synthesis of action” (Prampolini in Kurby 1971, 226). The notion of time in this performance was no longer limited to beginning and end. It became a self-perpetuating, self-inspiring mechanism that performed. The infinite notion of folds gained another dimension: the infinite notion of time.

Once we closed the exhibition, I received several comments on social media. A message from Mayra, the choreographer of one of the experimental performances, was one of those relevant to questions I have been asking in this research:



Figure 49. *FOLD*: Agora Coeur des Sciences, at Hexagram UQAM (2014) Performance: View from the front (entrance) auditorium.



Figure 50. *FOLD*: Agora Coeur des Sciences, at Hexagram UQAM (2014) Performance: View from the back (exit) auditorium.

07/11/2014 14:37

Hello Lenka, I have come to realize that our type of performance is not really fitting with the kind of work that you are proposing. It is not really working and I think your work makes already the performance that you are looking for. For this reason and because for us as artists we need to strongly defend our ways of working I need to communicate to you that we have decided that we cannot continue. I think your work is great and the way that people are interacting with it in a more natural and free way is more responsive to the piece itself. I'm convinced that you'll have a great night today without us and I wish you the best of luck with it not only for tonight but also for the future. Thanks for everything. Mayra.

10/11/2014 23:32

Dear Mayra, I realize equally so that it would be difficult perhaps to accommodate a group with a strong vision, mandate and a vocabulary of movements already formed such as yours is in such a unique and wonderful way. The work I have developed is not the kind of work that would be developed in the service of performance (such is the case often with stage design or scenography, for instance, where you design work for performance and in the service of performance). The type of work I have made and presented is work that in fact is in itself already performance (as you have also realized in the short period of time you have had with it) and what it needs or looks for is performers that support the work (in this sense the performers are there for the work). Having said this, it could put the role of a performer on its head (upside down and could be difficult to come in terms with and I certainly realize that). Thank you Mayra for all the time invested. I will look forward to seeing all of your new work, please keep me updated, and again many thanks! Lenka

4.5. Conclusion

In previous chapters I have demonstrated how the audience, through immersion and interaction with the environment, may become the environment either through blurring with or dialogue through it, which I defined as a feedback. I have also discussed how these processes unfold in practice, in the actual space of the performance. However, participation, which does not exclude the previous modalities of immersion and interaction but on the contrary embraces them, implies a collective action as well as collective becoming facilitated through new technological means. In addition, we have learned from the experimental approach to performance that the becoming of self/ environment through participation not only requires a collective action but also requires learning to do so. Thus we are dealing with knowledge emerging within the invisible processes of transformation.

In a lecture in Zurich in 1969, Louis Kahn discusses the concept of the “measurable” and “unmeasurable” and associates the unmeasurable with things about which one may say, “It’s terrific! It’s beautiful! It’s immense!” On the other hand, the *measurable* may be expressed by, “I don’t like stone. I think it should be taller. I think it ought to be wider”. Describing the measurable as that which is made as a servant of the unmeasurable, Kahn draws attention to the ephemeral qualities in things as well as the affect which may arise within the invisible.

Svoboda arrives at similar associations by drawing on Klee’s ideas of translating the world into a new principle, not only through the representation of the visible but also through making the invisible visible. “Instead of the phenomenon of a tree, brook, or rose, we are more interested in revealing the growth, flow, and blossoming which takes place within them” (Burian 1993, 22). I have associated these notions earlier, predominantly with action, yet we have also learned that action is not necessarily expressed through movement of the body alone, but also through the movement of the mind: that is, through emotion. Thus the first part of the transformative processes has to do with action and affect unfolding within the invisible. However, the remaining part, as yet another outcome of the invisible processes, has to do with the emergence of knowledge.

In *Theatre and its Double* (1958), Artaud attempts to define a new language associated with the *mise en scène*. According to Artaud, this language would not define thoughts but cause thinking, and entice the mind to take profound and efficacious attitudes from its own point of view (Artaud 1958, 69). Further, he argues that all true alchemists know that the alchemical symbol is a mirage, just as the theatre is a mirage. Elaborating on this idea, he further states that:

This perpetual allusion to the materials and the principle of the theater found in almost all alchemical books should be understood as the expression of an identity (of which alchemists are extremely aware) existing between the world in which the characters,

objects, images, and in a general way all that constitutes the virtual reality of the theater develops, and the purely fictitious and illusory world in which the symbols of alchemy are evolved (Artaud 1958, 49).

Whereas Artaud's ideas emerge within the notion of the stage, based for the most part on envisioning yet another type of open space described as 'theatre of action', my definition finds ground within Svoboda's model of 'atelier theatre', merging stage and exhibition. It is through merging these spatial concepts in practice that we arrive at the definition of scenographic unfolding, which as it turns out follows in these steps, embracing the invisible processes of transformation while drawing an important connection to knowledge.

It is through this process of direct engagement with practice itself that I have established a definition of the scenographic unfolding in immersive, interactive and participatory environments through its invisible / intangible quality and discussed the reasons why these cannot be predetermined. We cannot produce a drawing or a maquette of the unfolding. It takes place within the actual transformation of body / space relationships through the temporal unfolding of the material and technological mediation in the space where action, affect and consequently, creation of knowledge are key.

I have followed the notion of transformation since the very beginning of this process where I introduced the idea of the exhibition space as a key spatial context within the process of scenographic unfolding and discussed different contexts of spaces, such as nature, the studio and the exhibition. For instance, in my earlier discussion of immersive environments we observed how the author becomes the water ripple through being immersed in the phenomenon itself, first in the space of the nature (outdoors), and then within the processes of material and technological mediation in the working setting of the studio. Eventually, by entering the exhibition space, the

processes of scenographic unfolding are handed over to the audience who become not only the ripple but also the author within the context of the exhibition space.

To provide more context on the processes of becoming self / environment and author / audience, I engage Pallasmaa's exploration of the work of Cezanne, where the painter looks at a landscape almost as if it were a human being. He views this process as an exchange of emotion and aura between the subject and the author: "The landscape thinks itself in me, and I'm its consciousness (2005, 66). Thus we meet ourselves in the work of art" (66). Cezanne meets himself in his landscape, and his audiences eventually meet themselves, as well as Cezanne, through looking at this landscape.

This same transition takes place within the construction of an environment as a landscape, in which case, relating an environment to architecture provides a good example of this process:

As the work interacts with the body of the observer, the experience mirrors the bodily sensations of the maker. Consequently, architecture is communication from the body of the architect directly to the body of the person who encounters the work, perhaps, centuries later (67).

Through this example, I also attempt to elucidate how the processes involved in the development of the *Light and Darkness* project unfolded themselves into the project *F O L D* through time.

Thus far we have observed and probably understood how through immersion and interaction a "great musician" (metaphorically speaking) is able to play "himself rather than the instrument", as well as how the instrument is able to become through the same process of unfolding, and again through immersion and interaction, the audience. Nonetheless, if

participation is based on communality rather than a single action and if the performance unfolds as a collaborative action rather than individual immersion or interaction, how does the individual process of becoming the instrument and learning to play herself as the instrument unfold within the audience in the becoming of an orchestra? How do they learn and eventually play themselves, and by extension together, through this becoming?

In the last experiment of the performance *F O L D*, we have seen how the collaborative team of designers entered the performance and became the environment by playing the instruments that they had designed, thus playing themselves rather than the environment; in so doing, they became a guiding light for the audience. While the environment commenced with the single vision of one author, the collaborative team of designers all entered the processes of the scenographic unfolding during the production. Through this experience, they themselves also entered the processes of immersion in and interaction with the environment, becoming not only the designers but also the players of these instruments.

Let us consider *F O L D* as a large musical instrument. If our ability to participate is largely dependent on our ability to learn to play this instrument, and if we define learning, in the process of the scenographic unfolding, as ‘knowing-in-action’ and ‘reflection-in-action’ (Schön 1983, 49), then the role of the designers in facilitating this process through the technological design is key. In addition, if indeed we begin to view participation as a collective becoming of the orchestra, where immersion and interaction form an integral part of participation, then immersion and interaction also make it possible for the individual instruments (audiences) to fluctuate between playing themselves as a large musical ensemble or stepping out and play themselves as a virtuoso would. Since the audience in this process not only becomes the environment but also become the authors, the success of the performance largely depends on our ability to hand over our autonomy of the environment to them. In doing so, we cannot predict ahead of time what the

audience will do or imagine. The material and technological mediation as one part of the process at this point meets the transformation of body / space relationships through the explicit design of technologies that enable such participation to take place; the consequent unfolding through the temporal scenarios of the environment is, at this point, largely in the hands of the audience, forged through the relationship with the technologies.

In his idea of atelier theatre, Svoboda tried to interconnect the stage and auditorium through the notion of production space; the poetic image is formed in between the auditorium and the stage, where the actor transforms herself into the viewer. Svoboda also described how he first imagined his designs for an ideal space, and then he altered these designs to meet the limitations of the stage. Our experimentation with body / space relationships and the division of space demonstrates how, in the context of interactive environments the audiences, due to their previous passive role in the auditorium, became imitators. In the context of our experiments in the participatory environment, the auditorium turned the audiences into entertainers.

Further experimentation with the actual performance of the environment *F O L D* also demonstrated that producing instruments with an eventual alteration for frontal viewing of the stage, as Svoboda had described, may not necessarily be an ideal scenario. Trying to play or even produce an authentic music with such instruments would prove as difficult as to work with musicians / composers who are imitators or entertainers. In either case, we would achieve only partial results.

Svoboda's notion of atelier theatre makes it possible to produce affect within the psychoplastic space, temporality within the polyscenic space and the poetic image as action through a web of relations amongst audiences and performers within the production space. Once the spatial conditions are met, participation takes place within the scenographic unfolding, which not only unfolds the space as action but also unfolds ourselves as well the temporality of the past into

present actions. The transformation of body / space relationships through material and technological mediation not only combines immersion, interaction and participation within one performative action, but it also follows and embraces the legacy of ‘living art’ where the “participants are the creators of the work” (Beacham 1993, 165-168) and the theatre of action where direct communication between “spectacle and spectators” and “spectators and actors” is established (Artaud 1958, 96). Such action, however, requires an aesthetic and technological conception, both of the design of instruments for participation and, equally important, the design of affordances for audiences willing and wanting to learn to play these instruments, and in so doing, learning to play themselves. Moreover, since we the authors will through this process become the audiences, and the audiences will become us, it is essential to provide the best instruments possible – the way to play ourselves. In other words, the abyss wants to become something – it wants to inspire action through its becoming. And even the mirror wants to become something – something of a looking glass.

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Appendix G

OVAL

OVAL is an interactive audio-video installation, composed of ten large sheets of glass hanging in a dark room. Structure-born sound drivers, attached to each sheet, induce and emit sound through ten independent channels. The vibrations form a spatial polyphony of sonic objects. Real-time moving images of the spectators themselves are projected with various applications of time delays programmed through Max/MSP on the glass sheets, creating a maze of self-portrait reflections and transparencies. The audience is immersed into a chimerical space of sonic and visual illusions. The installation becomes a macro-scale musical instrument, as well as an object for a compositional work. It creates both interior and exterior environments, which may be discovered by walking between the glass sheets and letting oneself be mesmerized by the play of light, reflection and sound within the walls of the exhibition space. *OVAL* constitutes a powerful esthetical experience, engaging the visual, spatial and auditory senses.

Link to work description: <http://www.lenkanovak.com/works/o-v-a-l-2>

Link to video: <https://vimeo.com/81186614>

Duration of video: 2:13 min.

Technical Information:

10 sheets of glass 2' x 6'

10 transducers

10 pieces of shark tooth fabric

1 spotlight

1 interactive camera

2 projectors

5 amplifiers

Motu interface

Mac mini (Max MSP)

Credits: Year of creation: 2013 – 2014

Concept/Creation: Lenka Nováková & Otso Lähdeoja

Lenka Nováková - Visual Artist

Otso Lähdeoja - Composer

Omar Faleh - Computer Design

Photo/Video credit: © Lenka Novakova

Special Thanks to:

Frank Ragano & Mariannah Amster

Co-Executive Directors at Parallel Studios

Quebec Art Council, CIAM – Hexagram

Selected Exhibitions

2013 Black Box Hexagram, Concordia University, Montreal, QC,
Canada <http://hexagram.concordia.ca>

2014 Currents 2014 Santa Fe New Media Arts Festival, Santa Fe, New Mexico, USA (June 13-
June 29. 2014) <http://currentsnewmedia.org/artists/lenka-novakova>
2015 Sibelius Academy, University of the Arts, Helsinki, Finland



OVAL in Santa Fe, New Mexico – at Currents, Festival of New Media 2014.



OVAL in Santa Fe, New Mexico – at Currents, Festival of New Media 2014.

OVAL

Lenka Novakova & Otso Lähdeoja

Audiovisual installation

Open doors:

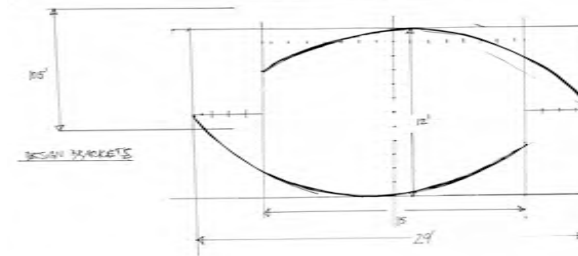
Friday September 13, 5 pm - 8 pm

Saturday September 14, 5 pm - 8 pm

Hexagram Black Box, Concordia University EV Building, 1515 Ste. Catherine West -3 floor

We are opening the doors to our research lab at Concordia University where we have been working on our new audiovisual installation. O V A L is a space made of glass, light and sound - please feel welcome to walk into it!

O V A L has been made possible with the generous support of a Hexagram / CIAM research grant.



Portes ouvertes :

Vendredi 13 Septembre 17h - 20h

Samedi 14 Septembre 17h - 20h

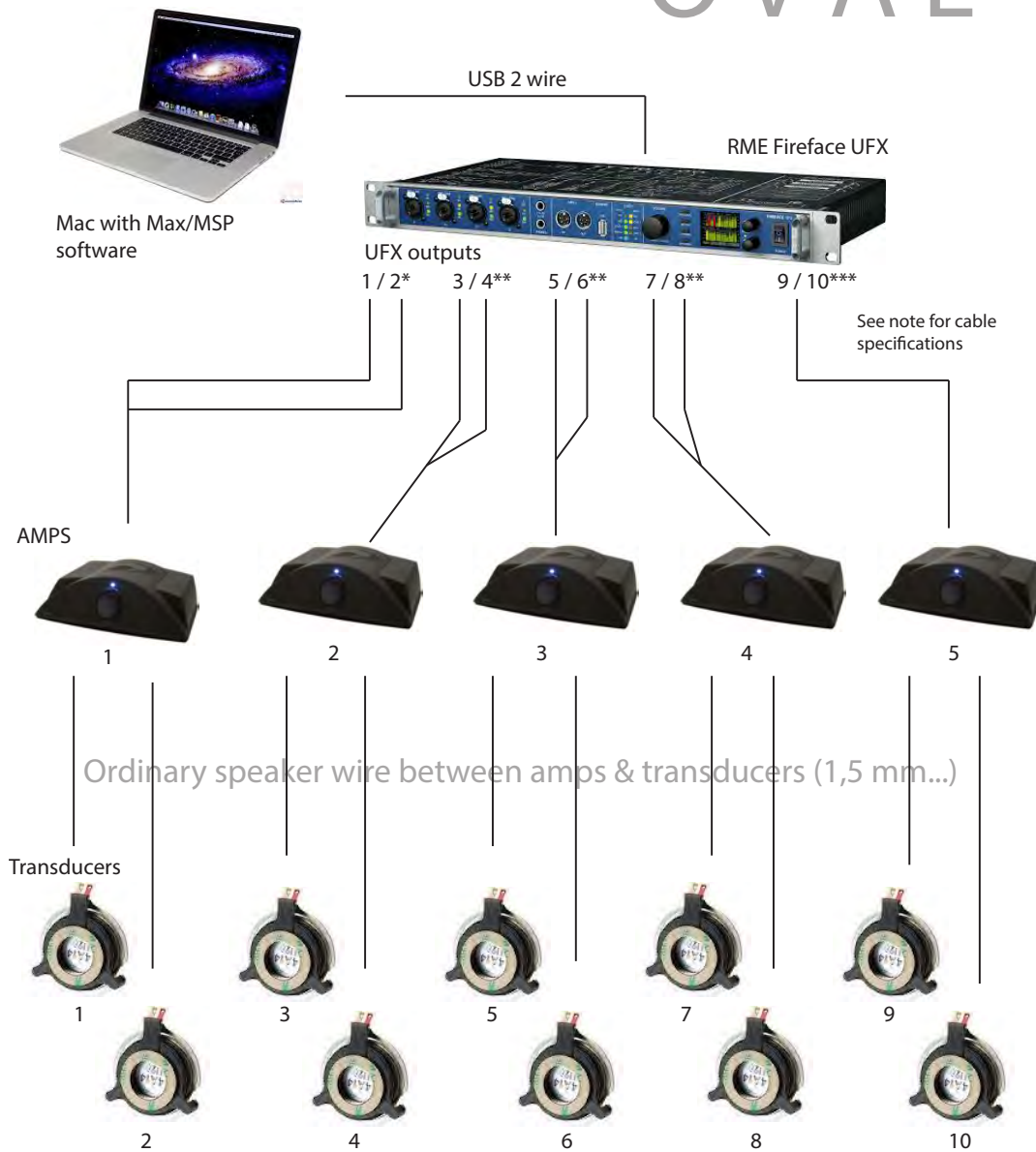
Hexagram Black Box, Concordia University bâtiment EV, 1515 Ste. Catherine O., étage -3

Nous ouvrons les portes de notre labo à L'Université de Concordia où nous avons travaillé sur notre nouvelle installation audiovisuelle. O V A L est un espace fait de verre, de lumière et de son - soyez les bienvenues de vous y promener !

O V A L a été rendu possible grâce au soutien généreux d'une bourse de recherche Hexagram / CIAM.



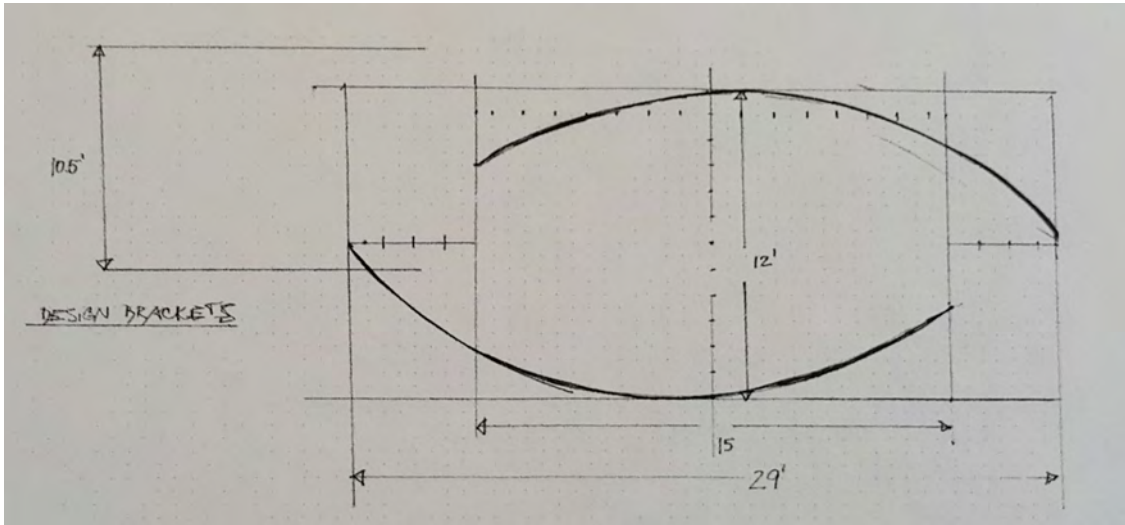
OVAL



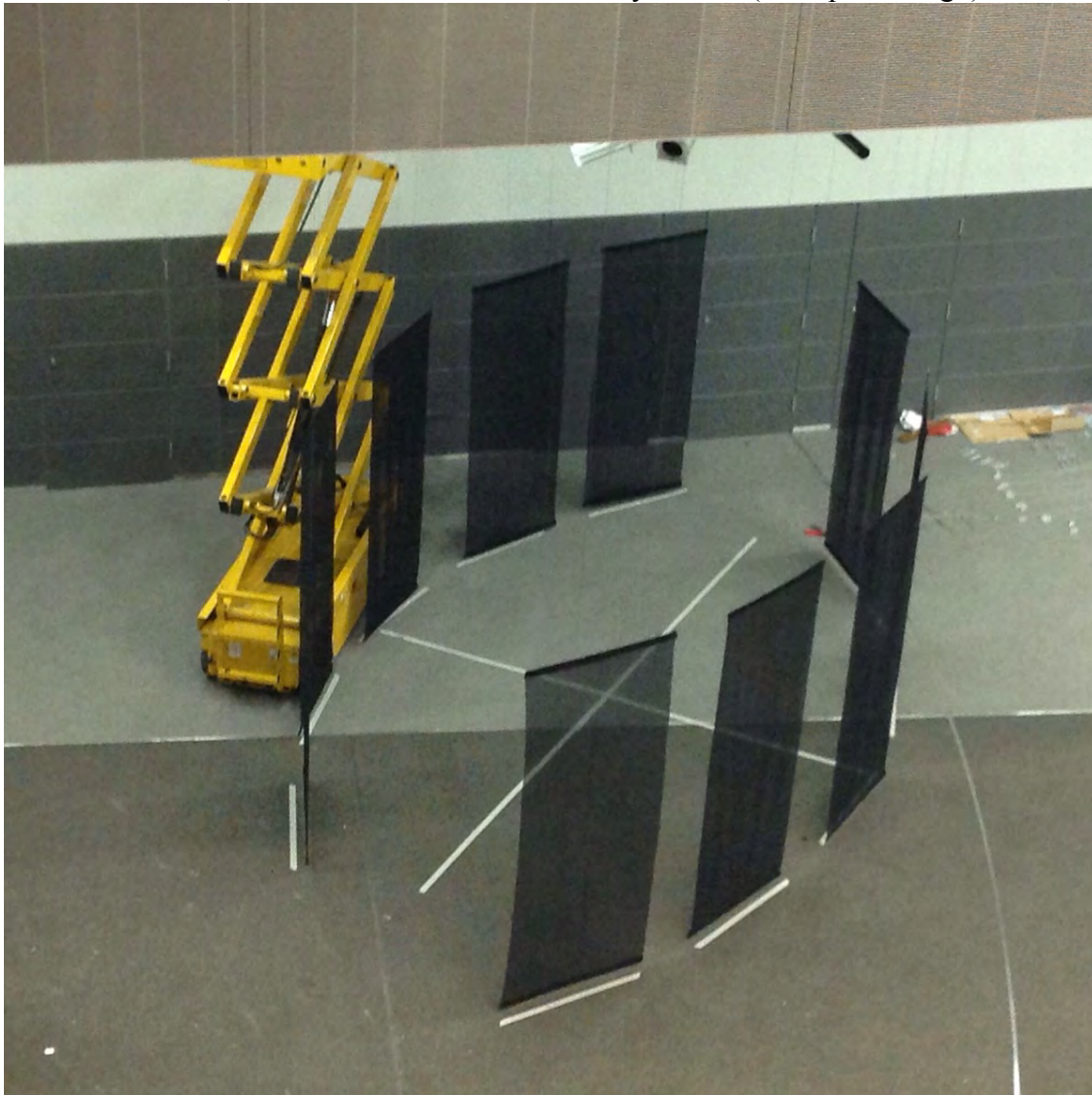
* Cable required (outputs 1 & 2): 2 Female mono XLRs to male stereo mini jack

** Cable required (outputs 3 & 4 / 5 & 6 / 7 & 8) : 2 male mono 1/4' jacks to male stereo mini jack

*** Cable required (outputs 9 & 10): male stereo 1/4' jack to male stereo mini jack



OVAL in Helsinki, Finland at the Sibelius Academy of Arts (floor plan design).



P a r a l l e l S t u d i o s

Lenka Novakova
4010 A Drolet
Montreal, Quebec
2HW 2H2

January 22, 2014

Dear Lenka,

As Co-Executive Director of Parallel Studios, a 501(c)(3) non-profit arts organization which is producing Currents 2014: Santa Fe International New Media Festival, I am happy to inform you that your new media installation "OVAL" has been selected for this year's main exhibition at El Museo Cultural de Santa Fe. The Festival will run June 13 - 29, 2014. Our opening reception, which will take place on June 13 from 6pm until midnight, will be attended by at the least 1,500 visitors.

We are very excited to showcase your beautiful and evocative work to celebrate our fifth year as an annual, city-wide, international event.

Parallel Studios will be able to supply one week's lodging in Santa Fe, shipping costs and any equipment needs you may have to realize your project.

We are looking forward to having you in Santa Fe and to presenting "OVAL" which will certainly be one of the highlights of the Festival.

All my best,



Frank Ragano
Co-Executive Director
Parallel Studios

PO Box 31674 Santa Fe, New Mexico 87594 USA . 505-216-9638 . 505-670-6473
www.currentsnewmedia.org . parallel-contact@earthlink.net

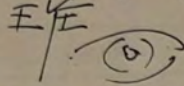
3 PROJECTORS

① OVAL

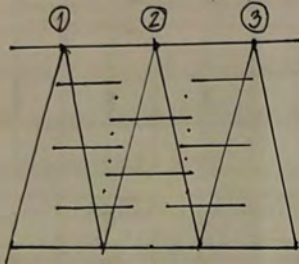


QUESTIONS!

- CAN WE GENERATE OPTICAL IMAGE?
- HOW DO WE TREAT THE GLASS AS A PROJECTION SURFACE
- HOW DO WE PARALLEL THIS AS A ZENOGRAPHY?
- CONCEPT - AN OPTICAL EYE



② FIELD OF SHEETS
→ HOLOGRAM IMAGES



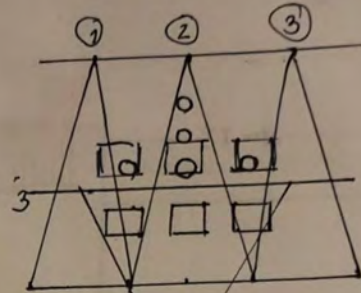
8 SCREENS
8 SHEETS OF GLASS

④?

SCREENS THAT WITH GLASS

- HOW DO WE TREAT THE GLASS?
- HOW DOES IT WORK IN COMPOSITION?
- WHAT SHOULD ALSO COMPOSE?
- IS THERE ANOTHER COMPOSITION?

③ - WHAT DO WE DO WITH IT?



- ① SQUARES - WORKS!
- ② CIRCLES - WORKS!
- ③ GOING LIGHT - ??? MAYBE

④ FOG → MAKE ANIMATION FOR FOG GIVEN SCREENS

HOW DO YOU DO THAT?

HOW DOES THIS COMBINE WITH THE SHARPTOOTH CONCEPT?

SATURDAY: ① GO OVER SETTINGS WITH K

② DOCUMENT FOR WEBSITE

③ NAVID: A HOW DO WE DELTA THE IMAGES WITH DISTORTION?

③ DO WE NEED A...

Appendix H

Light and Darkness

In Between the Light and Darkness is a site-specific audio-video installation and performance designed for the interiors of a national historical landmark, the Baroque Hospital Kuks located in the Czech Republic. The installation site has very specific characteristics and provides a challenge of bridging the Baroque artwork with a contemporary multimedia performance. The installation space is very long and open with two rows of windows set high up. It is arched with high ceilings, and shelters twenty-two Baroque statues that embody allegories of virtues and vices, created by a well-known local sculptor Matthias Bernard Braun (1684 – 1738). The performance of *Light and Darkness* consists of elaborate light and sound compositions, which were developed to embrace the aesthetics of the space and the essence of the allegories. Two long water channels, which divide and optically dominate the space, function as a light reflector and sound resonator, turning the entire site into a musical chamber of light compositions.

Link to work description: <http://www.lenkanovak.com/works/in-between-the-light-and-darkness>

Technical Information:

2 water channels 42' each
23 pin spot lights
23 halogen theatre lamps
2 video projectors
2 high-res surveillance cameras
8 speakers
4 transducers
22 poems performed as a projected image,
22 Baroque statues

Credits: Year of creation: 2012-2013
Lenka Nováková - Concept/Direction

Otso Lahdeoja - Music Composition / sound
Julie Dunlop - Poetry
Petr Zima - Theatre/Lights
Omar Faleh, Stanislav Abrham - Max MSP light compositions
Vojtech Dvorak – Fabrication, Assistance
Petr Rehak – Fabrication, Assistance
Alena Nova – Graphic Design
Martina Prochazkova – Production
Light Design Institute Prague - Production

Baroque Quintet Orchestra:

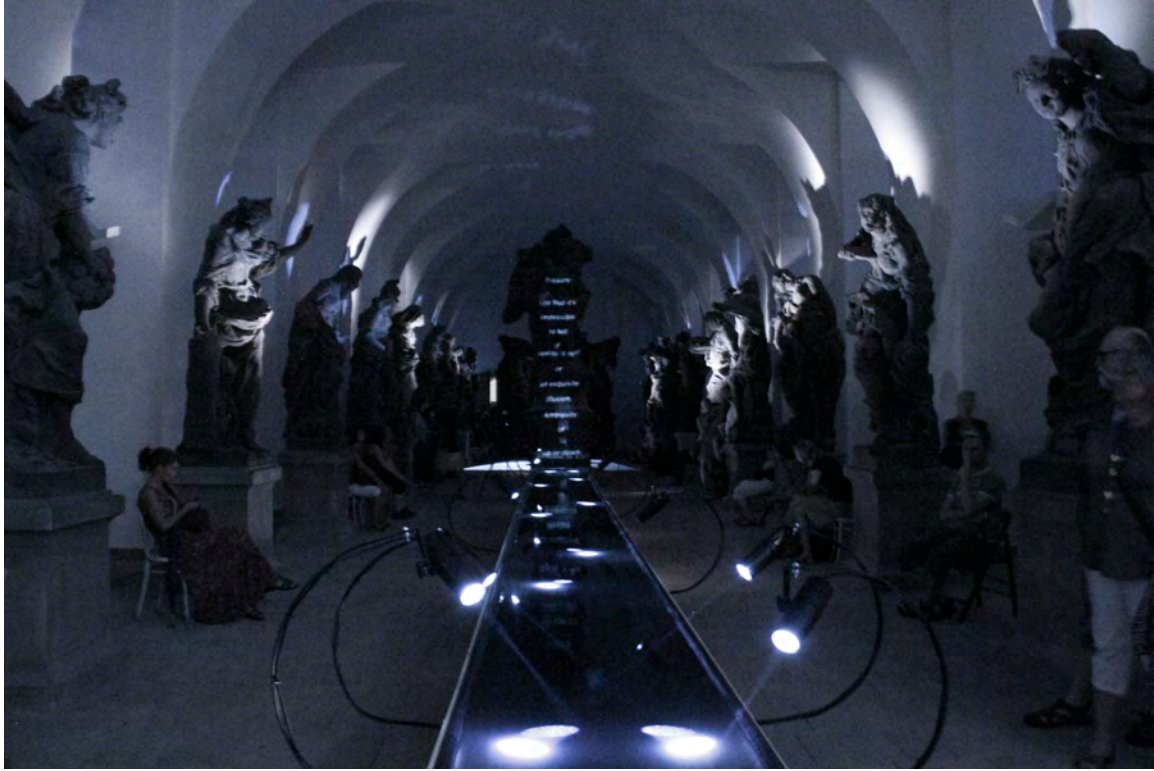
(Klara Homonaiova (1st violin), Natsuko Brouckova (2nd violin), Lenka Maierova (viola), Tomoko Wiedswand Kanda (violoncello), Victor Martinek (double bass), Solists: Lucie Pavlikova (violin), Michaela Pitrova

With the support of Quebec Art Council, Light Design Prague, Historical Hospital Kuks
Photo and video Credit: © Lenka Nováková
Special thanks to: Historical Hospital Kuks and Libor Svec (kastelan) and staff.
Very special thanks to my family, friends and neighbours.

Selected Exhibitions

Historical Hospital Kuks, Czech Republic, August 2013 - <http://www.hospital-kuks.cz/en>





Lenka Nováková / Otso Lähdeoja / Omar Faleh
IN BETWEEN THE LIGHT AND DARKNESS



AUDIOVIZUÁLNÍ VÝSTAVA

3. - 4. 8. 2013

Sobota 3. 8. / 19:00 / VERNISÁŽ

Neděle 4. 8. / 19:00 / koncert MUSICA AETERNA / J. Mysliveček, A. Vivaldi, G. P. Telemann a J. S. Bach

**LAPIDÁRIUM
HOSPITALU KUKS**



Poems by Julia Dunlop:

Hope

Hands open, lifted to a sky of sun or sleet
offering supplication, waiting for a sign
portending relief, redemption, salvation
Electric lantern pale next to candle's glow

Despair

Darkness folding itself around
every hint of light, its weight
smothering any glimmer of hope
pressing its gloom like a shadow
around the very throat of
inspiration rendering the most luminous
rivers dull and foreboding

Wisdom

Where are the eyes that can see
in the dark? Owl-vision watching
silently, observing with the patient
dedication of one who knows how to
open the locked gates of the universe,
mistaking nothing for anything but what it is

Greed

Gorging on the thought of more.
Reveling in the pursuit. Each goal
expanding, spreading to take in
extra land, money, prestige, power.
Dark void swallowing or swallowed by light

Love

Listen—the light is breaking
Over a mountain, over a broken bottle
Vanquishing all past battles—if
Even just for this moment, this breath

Anger

Angles of discord, flocking.
No closer to peace, tensions rising.
Genesis of the fury unknown
Explosions beneath the surface about to
rip through. Trapped fury about to burst.

Diligence

Diving into the grey sea waters
illumination of dedication and salvation
Listen, the entire ocean is pulsing
Intuitively dedicated to its function

Patience

Perpetual waiting, wondering—
an interminable gestation
The time it takes for mountains to be born from
the sea
in the time it takes for film (or truth) to be
exposed, a world may change.
Not necessarily. Prayers at dawn and dusk,
centuries of looking to the skins,
eternity masked in the shimmering tail of a
falling star

Faith

Fortitude unbending even during
avalanches of the soul
in the midst of absolute uncertainty
the lifted cross a deeper
hope than mortality can measure

Anger

Angles of discord, flocking.
No closer to peace, tensions rising.
Genesis of the fury unknown
Explosions beneath the surface about to
rip through. Trapped fury about to burst.

Despair

Darkness folding itself around
every hint of light, its weight
smothering any glimmer of hope
pressing its gloom like a shadow
around the very throat of
inspiration rendering the most luminous
rivers dull and foreboding

Greed

Gorging on the thought of more.
Reveling in the pursuit. Each goal
expanding, spreading to take in
extra land, money, prestige, power.
Dark void swallowing or swallowed by light

Laziness

Lassitude of a summer afternoon, gentle
avalanche of plans, restless
zephyr, ennui sinking in.
Incalculable the seduction of sleep
Naps thick with dreams, the deep

Gift of devotion, returning. Reliable
excellence, detail by detail, each star's position
no less important than its constellation.
Ceaseless attentiveness, breath by breath, not
giving up.
Echo of generations distilling labor into light.

Laziness

Lassitude of a summer afternoon, gentle
avalanche of plans, restless
zephyr, ennui sinking in.
Incalculable the seduction of sleep
Naps thick with dreams, the deep
ecstasy of doing nothing, sweet
softness not fully awake or asleep,
somewhere in between

Justice

Joy not so much in right or wrong but in
Understanding the entire constellation,
Subtleties of nuance and design
The entire cosmos and its wavering patches of
illumination and obfuscation. Discernment
closing in like a telescope, the most
elusive caught and brought to light

Bravery

Briars and blades no impediment to the
rare one who does not flinch
at a thousand suns or a hundred black holes
valorously watchful. Armies of deceit nor
envoys of malice bring a faltering step.
Rooted in unyielding courage, a resounding
yes, no matter how many slurs, spears, guns,
bombs appear.

Modesty

Making a cup of mint tea
or sitting on a rock, not
demanding a plush seat and scone.
Excess trimmed away, no flashy show.
Subtleties abound. Hint of light in a corner:
Treasures buried beneath, slightest glimmer of
a smile
yielding grace, equanimity, a tempered fire

Sincerity

Synthetic or organic? The texture of a moment
in the context of a cyberoptic world may
not resonate as purely as a cathedral bell
chiming the midnight or noon hour.

ecstasy of doing nothing, sweet
softness not fully awake or asleep,
somewhere in between

Trickery

Too bad it's impossible to tell if
reality is real or an exquisite
illusion. Ambiguity of up or down.
Chicanery or a trick of the light?
Kaleidoscope of night and day
evoking endless interpretations
ripe for misinterpretations
yet you can prove life's sleight of hand?

Gluttony

Gilded platters of lamb roast, duck, sirloin
Ladles of au jus; rich, creamy sauces, marinade
Unctuous venison and pork piled high,
delicious
tortes and truffles, desserts of every kind
Tender vegetables expertly sautéed, loaves
of freshly baked bread and as the mouth waters,
still
not satisfied, appetite beyond measure,
insatiable
yearning for something food can never fulfill

Gossip

Guess what? You won't believe what I
overheard the other day. It is
simply unbelievable, you would never
suspect...there's just one condition:
If I tell you, you have to
promise not to tell another living soul...

Pride

Precipice of the ego
refusing to acknowledge grace
instead shining brighter as if
determined not to let anyone
ever glimpse its shadow side

Lust

Lascivious wanting, watching every curve
unable to suppress the flesh, incessant
search for pleasure, sensual delight
Tasting everything, ravenously

Echo of a single birdcall
resonant and complete in the way
intimacies can glow when genuine
young and old in the birth and death of its
knowing





Hospital project, lighting equipments.

Omar Faleh <omar@morscad.com>
To: Eva Novakova <avenovak@gmail.com>
Cc: Lenka Novakova <lenkanovak30@gmail.com>

Mon, Jul 8, 2013 at 12:18 AM

Hi Eva

I had a quick meeting with Lenka today about the equipment that we need for the hospital project.
we will be using 36 spotlights (I think Lenka will, or have already, talked to you about the type of spots to be used?)

these lights will be controlled by DMX controller, so we will need DMX dimmer boxes to control these lights.
so 9 x (4 channel dimmer boxes)
or 6 x (6 channel dimmer boxes)

we will also need DMX cables to connect these boxes in a daisy chain (long enough to be comfortable moving the boxes around the space.)

I think most DMX dimmer boxes are now 5 pins, right?
our ethernet-to-dmx box (which we will bring with us) has a 5 pins DMX output, so if you dimmer boxes are 4 or 3 pins please let me know so we can get a converter

please let me know what is accessible and what is not so I can adjust the plan and design accordingly

Thanks and have a nice day

Omar Faleh

Senior Interactive Developer / Responsive spaces craftsman
Montreal, Canada
<http://www.morscad.com>

Lenka Novakova <lenkanovak30@gmail.com>
To: Omar Faleh <omar@morscad.com>
Cc: Eva Novakova <avenovak@gmail.com>

Mon, Jul 8, 2013 at 5:18 AM

Morning Eva,

to be on the same page with Omar

Yesterday I confirmed to the 24 lights (par 36 with stands.)
If possible, please send me spec. for these specific par lights
images of the light and the stand the best so I know exactly the type of light we have.

Please, consider this confirmed.

Appendix I

F O L D

Agora Coeur Des Sciences, UQAM, Montreal, Quebec – Canada (October 27 – November 7th, 2014) Open to public: November 6 and 7 2014

Description:

The *participatory environment F O L D* is an elaborate multimedia landscape developed as an experiment and a public prototype of my doctoral research. As such it's both a theoretical and practical proposition of performative space formed by shifting agencies of stage, auditorium, and expanded cinematic screen along with the audience taking part in the performative action, composed collectively by them. The environment is designed as an interlocked system of folds composed of projection fabric and mirrors, forming optical architectures of a performative landscape. Numerous projectors are engaged in a layering real-time projected image with various time delays, programmed through Max/MSP, within and throughout the folds. Structure-born sound resonates throughout the space via transducers attached to each glass.

The entire structure has a monumental feeling. It reaches fourteen feet up towards the ceiling, into the suspension grid and is about twenty feet across its span. Each fold is composed of a thirty-six-inch strip of fabric designed into a U-shaped form, held in place by the suspension structures. Each fold contains nine mirrors. These are suspended in sets of threes within the interior of the fabric. There are three mirrors along each side, facing each other, and three mirrors in each curve of the fold. There is an additional mirror, standing independently. This mirror has its own set of functions within the spatiotemporal composition of the environment.

The performative action is carefully orchestrated and designed into four public prototypes aimed at observing the performance, guided by the shifting agencies of the stage, auditorium, and the expanded screen in relation to the actions of the audience. The environment is designed with two sets of an auditorium at each side to accommodate the experiments of these public prototypes.

Dimensions

Dimensions are variable and the work is designed site specifically for each venue. For best results the minimal requirements are 35' x 55' (the work may expand to larger settings). First prototype was premiered at 30' x 78' Black Box. (Best in the Black Box setting, Large Gallery and Black Box Theatres).

Link to work description: <http://www.lenkanovak.com/works/fold>

Link to video: <https://vimeo.com/113272045>

Duration of video: 6:45 min.

Technical Information:

28 sheets of glass 12" x 72"

50 m x 4.5 m dark shark tooth fabric

28 theatre lamps

28 transducers

3 x microphones

2 x motu interfaces

1 x amplifier
2 x cameras

Credits:

Lenka Novakova: Concept / Direction
Otso Lahdeoja: Music / Sound Composition
Navid Navab: Image / Interactive design
Omar Faleh: Mapping / Consultation / Interactive design
Joseph Browne: Interactive Sound
Invisible Performers: November 7th, 2014
Navid Navab, Joe Brown, Omar Faleh
Ted Stafford: Light Tech.
Technical Assistance: Pietro Cerone
Graphic Designer: Alena Nová
Event Coordinator: Pamela Tudge
Event Assistant: Julie Caron

Photo Credit: © Lenka Novakova, Omar Faleh, Sonya Mladenova
Video Credit: © Sonya Mladenova, Adina Vukovic, Karim Dogruel and Omar Faleh

Colaborators:

Bio: Otso Lahdeoja

<http://otsola.org>

Otso lähdeoja is a Finnish composer, guitarist and researcher in digital arts. He holds a doctorate in music from Paris VIII University and has led a myriad of crossover artistic projects over the past ten years. His works include musical ensembles, solo and group albums, multimedia projects, music-poetry, installation art and music for dance performances. An international figure, he lives and works between Finland, Canada, Belgium and France, in addition to which he has toured around Europe as well as in U.S.A., Korea and India. Otso Lähdeoja is currently a Finnish Academy Postdoctoral Researcher at Sibelius Academy, Helsinki.

Bio: Julie Dunlop

*Julie Dunlop is the author of *Bending Back the Night* and *Faces on the Metro*, chapbooks of poetry exploring both internal and external landscapes. The recipient of several Dorothy Sargent Rosenberg Poetry Contest awards, she has been awarded fellowships from Virginia Center for the Creative Arts and Vermont Studio Center. Her poems have been published in a variety of journals, including *Poet Lore*, *Threepenny Review*, *Atlanta Review*, *Cold Mountain Review*, *JAMA*, *North Carolina Literary Review*, *New Mexico Poetry Review*, *Harpur Palate*, *Elixir*, *Flyway*, *Baltimore Review*, *Appalachian Heritage*, and the 2012 *Hippocrates Prize Anthology*.*

Bio: Omar Faleh

<http://www.omarfaleh.com>

Omar Faleh is an interactive media developer and architect with an interest in designing responsive environments, interactive media installations and public interventions. His work

investigates the phenomenology of perception, embodiment and presence in responsive spaces, and is interested in the two-way relations between body and space in performative settings, as well as everyday practices. Omar has completed his MA in individualized studies at Concordia University in Montreal, studying the areas of architecture, arts, technology and philosophy. He is a member of the Hexagram research institute in Montreal, Canada, and is currently a part-time faculty at the department of Design and Computation Arts at Concordia University. He holds a bachelor degree in Architecture, with a master of science in Virtual Environments from the Bartlett, University College London. He also holds a second bachelor degree with a major in Computer Science and Computation Arts from Concordia University.

Omar has been involved with the Topological Media Lab as a research assistant since 2006, worked in several R&D projects for the web and mobile devices, and is a consultant and analyst for interactive development projects for mobile and web applications.

Bio: Joe Browne

<http://www.josephbrowne.net/about.html>

Joseph Browne is an emerging sound artist based in Montreal. His work encompasses: sound design and composition for theatre as well as interaction design and computer music. In 2015 he was awarded CUSRA (Undergraduate Research Award) funding to research and develop spatial audio methods for stage performance. He was recently nominated for a META (Montreal English Theatre Award) for Outstanding Composition for his sound design on Scapegoat Carnivale Theatre's production of Bar Kapra: The Squirrel Hunter. He studied electroacoustic composition at Concordia University, where he now works as an artist researcher and technical coordinator of the Matralab, and as an artist researcher at the Topological Media Lab. His research areas include machine improvising, responsive media and spatial audio.

Bio: Navid Navab

<http://matralab.hexagram.ca/people/navid-navab>

<http://navidnavab.net>

Navid is a Montreal-based media-artist, composer, interaction and sound designer. Navid studied music performance and composition for many years. Since 2005, he has been studying Electroacoustics and Computational Arts at Concordia University and Music Technology at McGill University. Currently he works as a sound designer and research assistant at both Topological Media Lab and Matralab, while pursuing his studies and various collaborations. Navid creates real-time clouds and crystals of sound, engaging composition with interaction, improvisation, philosophy and cognition within various spaces. Often in his practice, gestures, rhythms and vibrations from everyday life are mapped dynamically to various DSP and sound synthesis parameters. Most of Navid's creations and investigations range from fixed acousmatic compositions to responsive architecture, interface design, theatre and performance.

Navid is listening...

Installation: Documentation



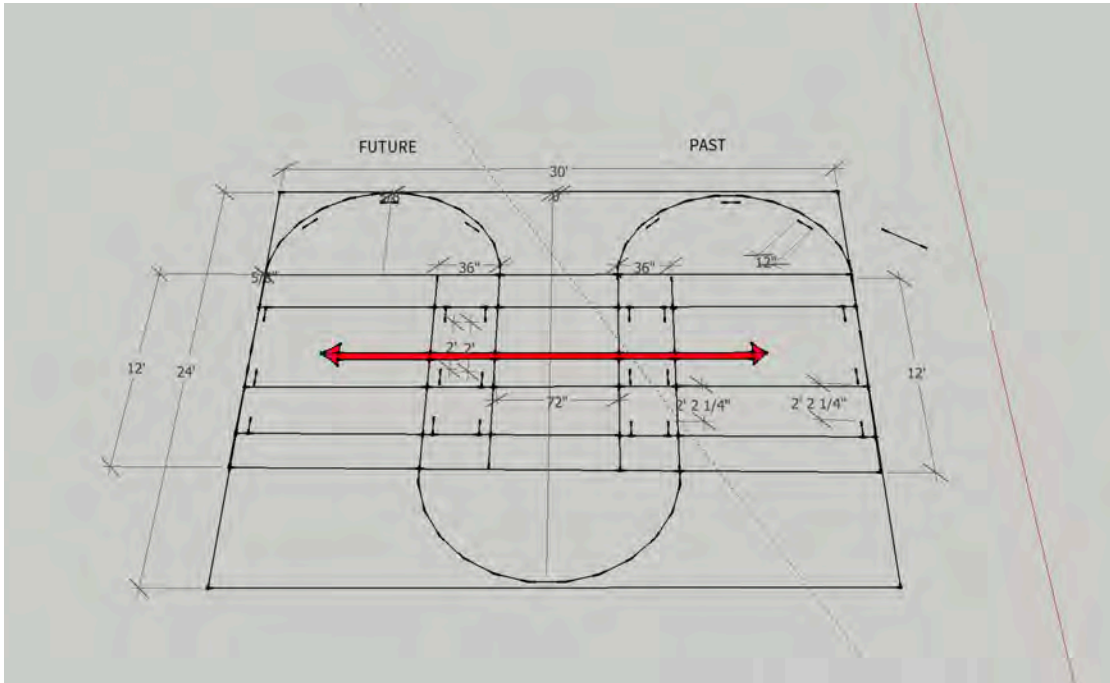
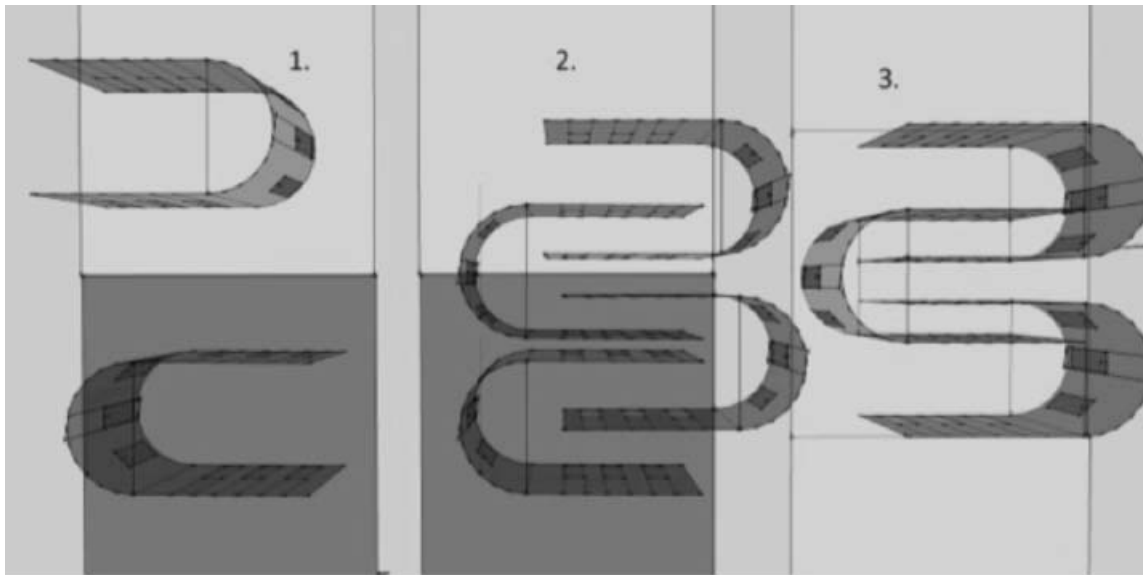


Figure 56. *F O L D* Design element of time delay.

If a person stood in front of the first mirror, she would be observing her face in the mirror (provided she exposed her face to the light). This situation expresses the present. However, as soon as the camera registered the face in the light, it would start projecting delayed images back into the environment of the folds...

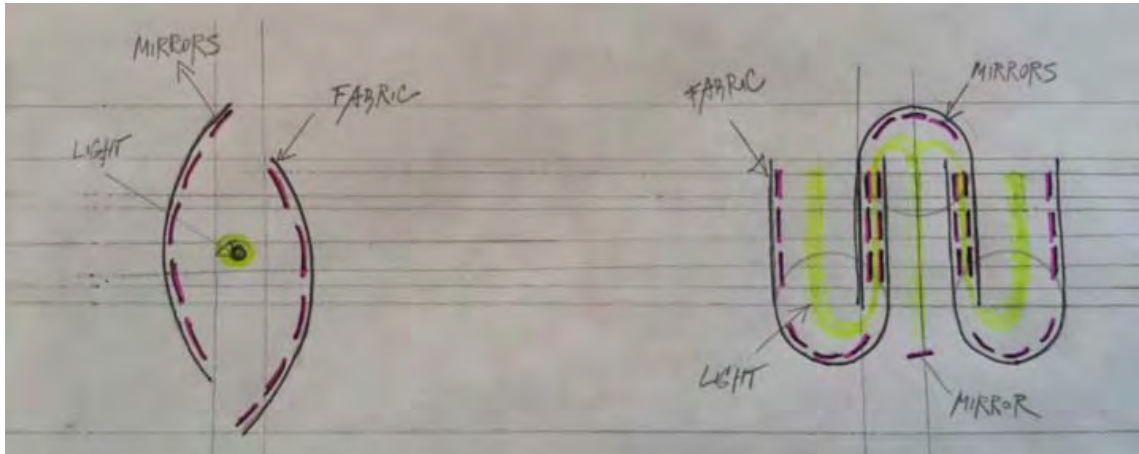


Figure 57. Statue of Wisdom – In between two mirrors. *Wisdom caught in between two mirrors, creating the infinite time and space between the future and the past.*



F O L D: Design variations.

To achieve the infinities on the perceptual, visual and temporal ground, a composition of three folds, interlocked into each other, is needed. Once we introduce the interlocked structure of the folds, which can be any configuration of two, three or four (in this case I have employed three), the infinities will open across the horizon.



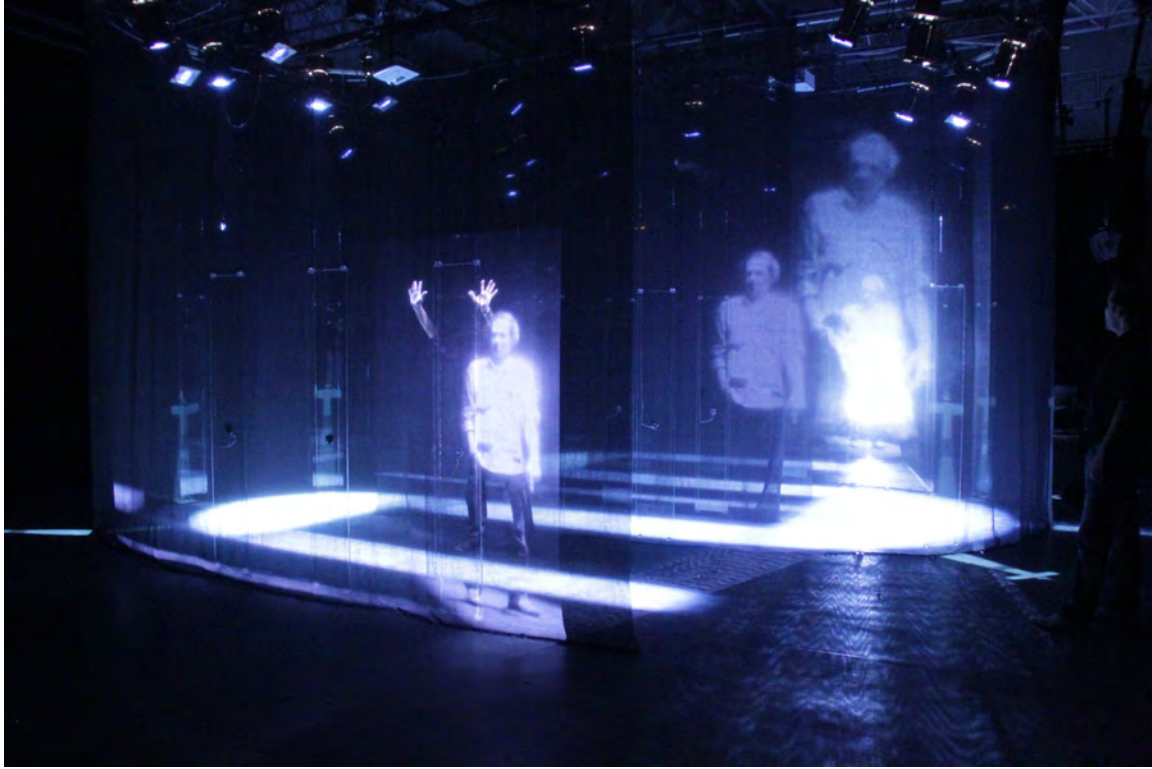
O V A L and *F O L D* – comparing the design elements.

The design of the optical architectures for the performative environment F O L D is a direct continuation from the previous project O V A L, which also built on the combined optical qualities of fabric, mirrors and light.



Figure 53. *OVAL* – Installation view at Currents, International Festival of New Media in Santa Fe, NM, (2014).



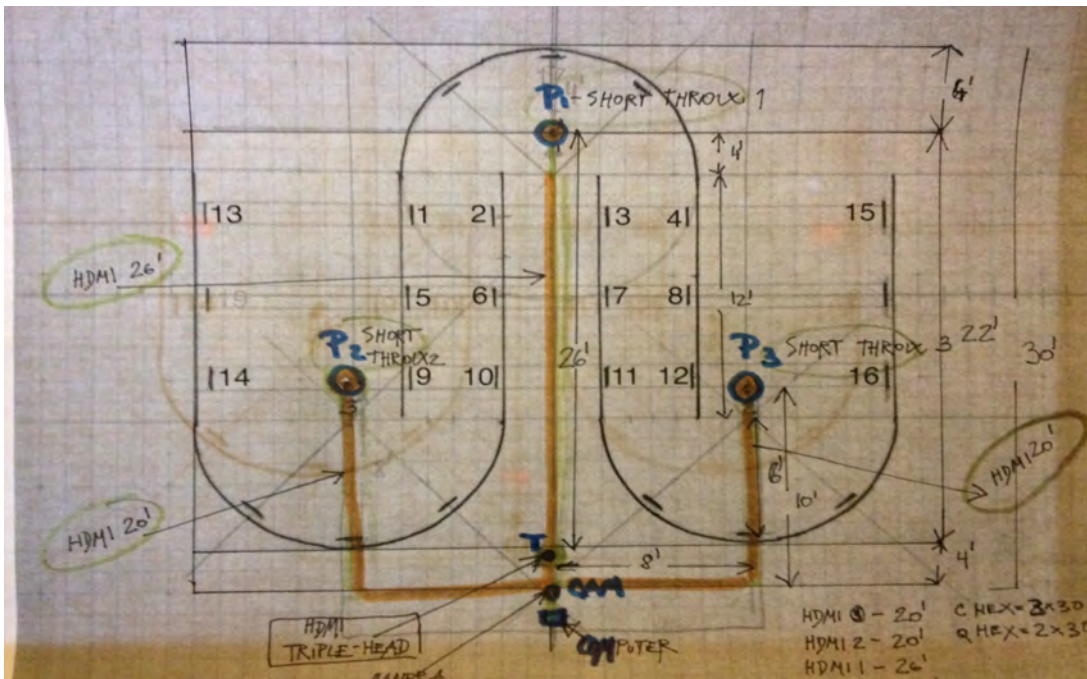


F O L D: Performance view of the front stage (from the entrance view).



Performance view from the far back auditorium.

Drawings and diagrams: Examples





Autorisation

Montréal, le mardi 4 novembre 2014

Lenka Novakova
(et ses assistants)

est une étudiante autorisée à entrer et à utiliser les ressources et équipements d'Hexagram situés aux locaux CO-R500 et CO-R550 à toute heure du jour et du soir du mardi 4 novembre 2014 au vendredi le 7 novembre 2014.

Merci de votre collaboration

Martin Pelletier
Chargé de projet - Coordonnateur
Hexagram UQAM



Lenka Novakova lenkanovak30@gmail.com

Agora October 26th - November 8th – assistance

Lenka Novakova <lenkanovak30@gmail.com>

To: Jason Pomrenski <jason@animatoproductions.com>, Carl Aksynczak <carl.aksynczak@gmail.com>

Cc: Hexagram UQAM coordination.uqam@hexagramciam.org

Hello, Jason

I'm getting ready for installation at Agora and I hope to meet with you and Martin on the October 16th in the morning to discuss more. Here are some important dates, also dates during which I'll need an assistance and I was wondering if Carl would be available as we have some installation do as well as audio cables, technology, etc. We will need about 2 and a half days or 3 days. Please, let me know, also if you have any questions. Lastly, I will be needing some chairs or benches, as the audience will be seated at certain point, perhaps we could look at what is available?

Thank you,

Lenka

Dates bellow:

26/10 - installation

27/10 - installation

28/10 - installation

29/10 - 1/10 media research (sound, video, light)

2/10 - 3/10 performance research (interaction/rehearsals)

Detail: In terms of the grind. We will need the grid down on Sunday the 26th in the morning and we plan to go up with the grid on the 28th in the morning.

26/10

- installation of structures 12pm - 6pm (**assistance needed**)

- installation of lights 1 pm - 5 pm

27/10

- installation of structure - 10 am - 5 pm (**assistance needed**)

- installation of audio cable

- installation of equipment (afternoon Navid will arrive)

28/10

- finishing installation (**assistance needed for finishing + grid going up**)

- grid is going up in the morning if ready

Other important dates:

November 4th Comprehensive Exam Committees - Revision of the project at 5:30

Preparation for the project all day/Rehearsal all day

November 6th (Public Event - Rehearsal) 6:30 - 9:30 TBA

November 7th (Public Event - Vernissage) 6:30 - 9:30 TBA

November 8th

- Strike down



Gmail

Lenka Novakova <lenkanovak30@gmail.com>

christie 14 k projector

2 messages

Lenka Novakova <lenkanovak30@gmail.com>

To: Hexagram UQAM <coordination.uqam@hexagramciam.org>

Hello Martin,

We are in the mids of the installation and with the test of the projectors this morning that I have we thought it would be the best to use the christie 14 k projector.

Would it be possible to use those 2 christie 14 k projectors for my installation?

I think it would have really great results with this particular install.

Please, let me know,
thank you,

Lenka Novakova

*Ph.D. candidate, Interdisciplinary studies in the Humanities, HUMA –
Centre for Interdisciplinary Studies in Society and Culture, Concordia University;
Studio Arts/Cinema/Theatre*

T: 1 514 833 3005

e: llenkanovak30@gmail.com

w: <http://www.lenkanovak.com>

Coordination UQAM - Hexagram <coordination.uqam@hexagramciam.org>

To: Lenka Novakova <lenkanovak30@gmail.com>

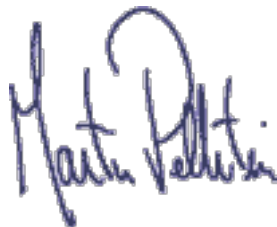
Cc: Carl Aksynczak <support2.uqam@hexagramciam.org>, Jason Pomrenski
<dt-agera.uqam@hexagramciam.org>

Bonjour Lenka;

C'est possible d'utiliser les 14K , cependant il faudra comptabiliser les heures de fonctionnement en prenant note des heures affichées au début de l'installation (à faire par Carl ou Jason) et en notant les heures utilisées parallèlement sur papier (à faire par Lenka) de façon à avoir les deux informations à la fin lors de la lecture des heures sur les projecteurs au démontage.

Il y a un coût ce 4\$ de l'heure par projecteur.

Bonne présentation !



Martin Pelletier Chargé de projets, coordonnateur – HexagramUQAM

coordination.uqam@HexagramCIAM.org

UQAM SB-4220 (514) 987-3000 2929#

- can we suspend the grid and install the lights from the floor? We can lower the grid to suspend the lights from the floor, but for any grid movements, our technician must be present to operate it.

- is there a charge for the hours of working with technician and how much? Martin probably explained to you that you have a minimum fee of \$110 to cover technician/technical director costs associated with your presence in the Agora. This includes my time and/or Carl's time working on your project. My rate is 35\$/hour, whereas Carl is 25\$/hour. I must warn you that I must charge for time I spend on your project. This includes e-mails research, communication with other departments in UQAM, and so on. Just so you are aware, speaking to me on the phone for 5 minutes does not mean that you have only used 5 minute of my services as I'm usually required to organise whichever demands you may have had during that phone call. I will keep you posted on the time I have spent on your project.

Though I do not work full time at the Agora, I am often present and can make myself available if you require a few minutes of my time here and there. If you require Carl's services, we ask that you book him for a minimum of three hours at a time.

- also, since there will be holidays in Hexagram can we still work with you during the install? I will be on holiday from July 25th till August 10th. I notice on Carl's calendar that he is, at the moment, available on August 8th. If you will require his services, I recommend that you book him (through me) ASAP.

In terms of technology. Is it possible to reserve the following?

- two projectors 5000 or 6000 lum. each

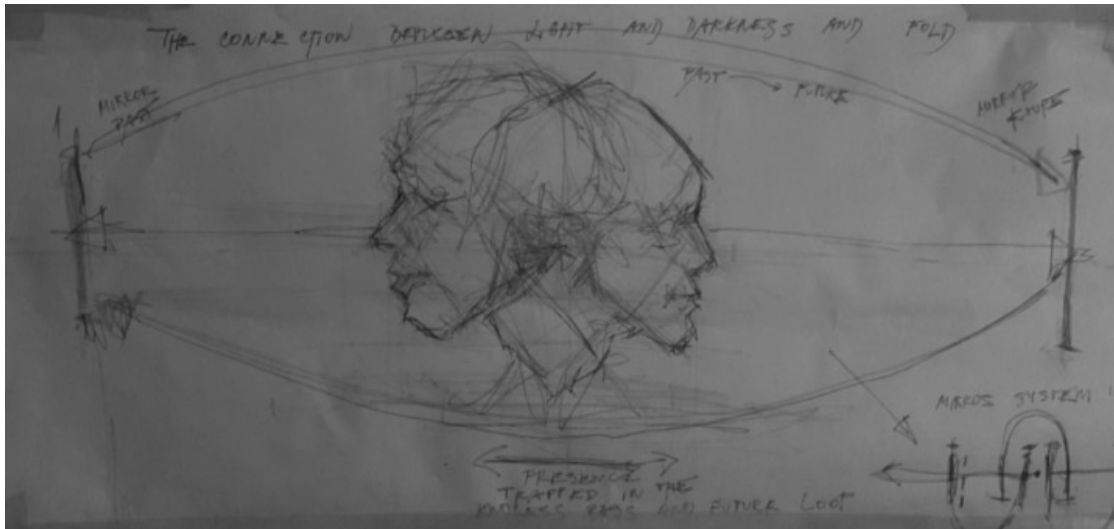
- two mac pro (ideally with max map installed)

This is about all for the info, we will send the light plan and I will try to reach you tomorrow, Monday to arrange for a meeting and/or any questions. (I will be available during the week since we work at Concordia during the day).

Martin will make the equipment reservation following the list you give us. It is important that this list be completed by this coming Thursday as we will not have access to the equipment rooms afterward and until the 18th of August. We do have 2 Barco 6000 lumen projectors, but Martin will confirm the availability. As for the Mac Pros, you'll have to check with him.

I am awaiting your call to organise the meeting.

Thanks, Jason



A selected sketch showing how I worked out the relationship between the understanding of time, expressed within the Baroque character of Wisdom in the project Light and Darkness and the design of temporal landscapes of the environment F O L D.

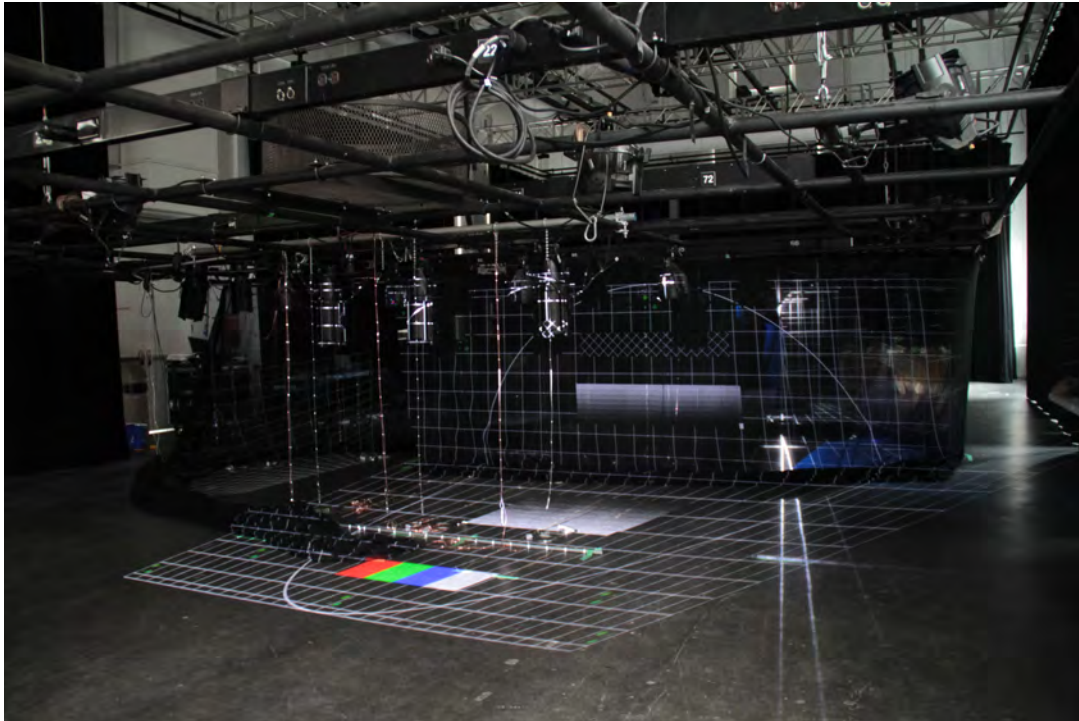


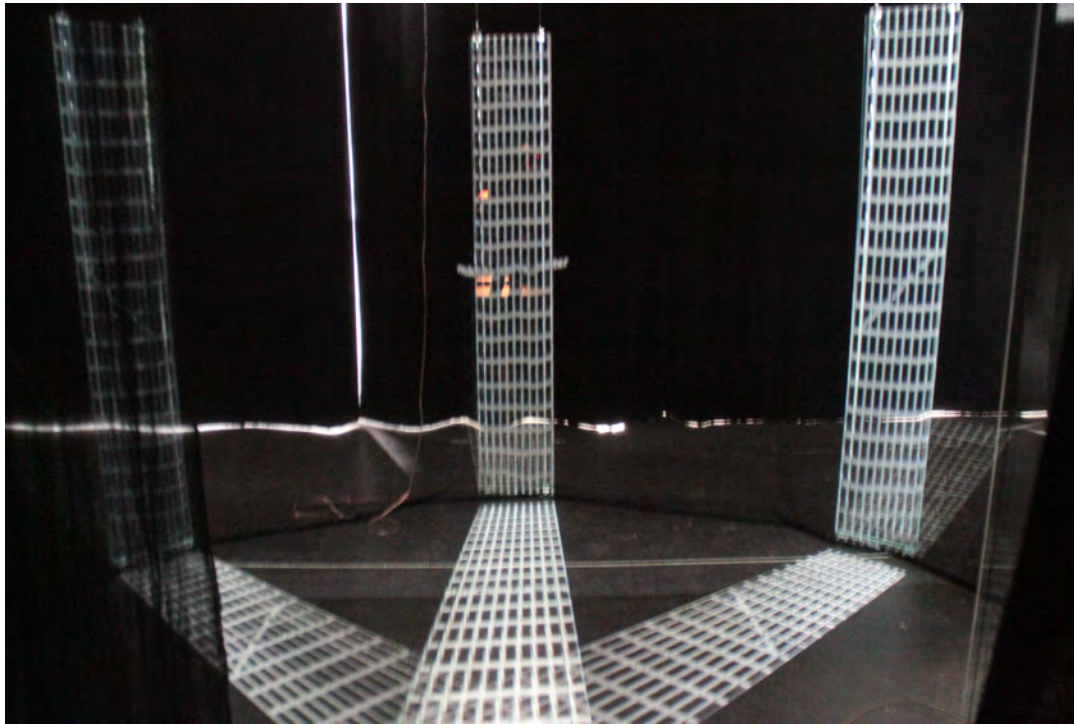
From left: Navid Navab, Joe Browne, Lenka Novakova and Vladko from Ostrava





On the break. From left: Adina Vukovic, Omar Faleh and Navid Navab





Mapping design by Omar Faleh.

Lenka Nováková en collaboration avec:
Otso Lähdeoja / Navid Navab
 en dialogue avec le groupe performance: IF YOU NO WHAT I MEAN: Mayra Morales / Petur Grunansom // Marcelino Barsi / Mona Ayash

FOLD

environment / installation performatif audio-visuel

Agora Hydro-Québec
 du pavillon Cœur des sciences; 175 avenue du Président-Kennedy, Montréal (Québec) H2X3P2
 Directions: Station Métro Place-des-Arts, (bus 80, 129, 365, 435)

LE 4 NOVEMBRE 5:30 pm (Répétition privée / par invitation seulement)
LE 6 NOVEMBRE 6:30 pm – 9:30 pm (6 pm présentation de l'artiste 9:00 pm – 10:30 pm vernissage)
LE 7 NOVEMBRE 6:30 pm – 9:30 pm

Pour réservations: veuillez réserver en avance à: <http://doodle.com/e3hwur2pq75v84a>
 Informations: FOLD.lenkanovak.com / www.lenkanovak.com

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hexagram **matralab**

Lenka Nováková

in dialog with performance group: IF YOU NO WHAT / WCAH / Katerina Boudnik / Tereza Gerasimova / Marcelina Bera / Maria Vozak

FOLD

performative audio-visual environment / installation

Agora Hydro-Québec

100 avenue des sciences, 110, répertoire de l'Université Laval, Montréal, Québec H3C 2G4
Directions: 500 rue Marie-Pierre des Arts, 400, 400, 129 365 6100

NOVEMBER 4TH 5:30 pm (Private rehearsal, by invitation only)

NOVEMBER 6TH 6:30 pm – 9:30 pm (to purchase tickets, visit the box / 1-800-361-1031 pre-booking)

NOVEMBER 7TH 6:30 pm – 9:30 pm

For reservations, please reserve tickets at: <http://boxoffice.usher.com/2017/11/44>
More info: FOLD.lenkanovak.com / www.lenkanovak.com

