The Scenographic Unfolding: Performance of

Immersive, Interactive and Participatory Environments

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Abstract

*The Scenographic Unfolding***:**
Performance of Immersive, Interactive and Participatory Environments

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Performance in theatre, as well as in certain forms of visual arts (such as happenings, performance art, etc.), has for the most part been understood as an action of a live performer in front of an audience while space / scenography has typically been conceived of as that which provides a certain atmosphere for or otherwise supports this said performance. This dissertation sets out to explore yet another way of thinking about performance: the performance of space itself, emerging from within a dialogue between theatre and visual arts as a *scenographic unfolding*.

Insisting that material / technological mediation and transformation of body / space relationships is key in thinking about performance at the intersection of installation art (in visual arts) and expanded scenography (in theatre), this present research employs practice itself in the exploration of performance as scenographic unfolding in environments that are *immersive*, *interactive* and *participatory*. In so doing, this study seeks to shed light on how the established definitions of immersion, interaction and participation*,* as terminologies entangled between the visual arts and theatre, may be reconfigured through practice. Hence, this research aims to fill a gap by highlighting how practice elucidates this mediation and transformation of spatial performance at the intersection of visual arts and theatre.

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I also want to thank the dedicated staff at Agora UQAM for the unique opportunity to

Prologue

This is a story of a maker who not only views space as performative, but who also constructs and observes this performance in action. But what is the connection between making and performing? And how does the performance of space become a guiding question and a quest of research and creation?

This/My story begins at the School for Sculpture and Stone-Carving, one of the oldest and probably the only institution of its kind in Europe, in the town of Horice v Podkrkonoší in the Czech Republic. Along the old hallways filled with drawing easels, the ever-present Baroque statues silently watch as the fine black dust of drawing charcoal sifts down to the white marble floors and covers the worn-down stairways. This is where my first artistic ideas were formed. Here I learned the 18th century carving methods, mastered the traditional skills of figure modelling and learned how to draw. And this is where I became an exceptional craftsman of the human form, developing a deep sense and appreciation of both its traditions and history.

Little did I know that my further education, which took me to the United States where I continued my training at the Academy of Fine Arts in Philadelphia, would radically change my practice and my thinking about the human form. New skills and a wealth of material knowledge led me to fabricate objects that formed the landscapes of my early installations. These became a vehicle for recreating experiences and sentiments, often drawing on my memories of the Bohemian landscape and my childhood playgrounds there. Gradually, I abandoned thinking about the internal tensions and conflicts of the figure, and began to view the form externally through the spaces in which it was situated and in relation to space itself and/or its objects. Hence my practice turned from figurative sculpture to installation art.

Once on the threshold of my professional career, however, which overlapped with my training, my interest increasingly shifted towards the applications of light and projection technology. While my passion for material research remained consistent, I realized that I became more interested in the ways in which objects, constructed from these materials, expanded through the use of light and projections into the environment rather than the physicality of the objects themselves. Thus my practice shifted again from the production of work of installation art towards works that we would recognize as environments.

Both types of works were landscapes in a sense that one could enter, experience and walk through them. However, I soon noticed that the primary difference between my installations and the environments constructed by combining material structures, technology and moving light, was in the ways in which these environments made my audiences feel. Environments, unlike installations, inspired the visitors to project their own associations and memories, or even to act in the environment and become a living part of the performance.

Environments, however, were not only an inspiration to my audiences. As soon as I expanded my technical vocabulary and incorporated applications of real-time media, formed by interconnecting sets of projectors and live video-recording equipment, the environments offered an increased potential for interaction and became an open invitation for live performance. Thus from one day to another, performers appeared in the landscapes of my work and began to uncover new layers of performance within environments that in themselves were already performances.

Working with performers was particularly exciting because it allowed me to reintroduce figurative elements into my work and returned the human form to a central role in the performance of these environments. Nonetheless, incorporating performers into spaces that I initially designed specifically for my audiences brought new sets of questions for which I felt unprepared through my training in the visual arts. These questions concerned the division of

space and the role of the performers, as well as the role of the audience. Suddenly, the logistics of organizing my exhibitions and presenting two different levels of somewhat conflicting performance, one integrating the audience and the other incorporating live performers, became an issue. This was especially challenging within the institutional context of art galleries that often had to improvise to accommodate this exhibition format.

Being the author as well as the audience of my own environments, there was no question in my mind that the variety of spaces I had designed up to that point were already performances in and of themselves: not only did they make oneself feel in a certain way, but they also inspired oneself to reflect, to imagine and to act. Nevertheless, the lack of understanding of the shifting layers of performance generated by these new types of environments began to draw a larger question that grew with each new project and new exhibition.

Coincidentally, it was around this time that I happened upon the 2011 edition of the Prague Quadrennial of Performance Design and Space (PQ), the largest symposium of scenography worldwide, which embraced performance on the margins of scenography and installation arts. Having surveyed the symposium, I became aware that even though my production work was grounded within the visual arts and relied on the gallery network for its dissemination, significant parts of the actual art form belonged to the historical lineage of scenography.

To my surprise, I also began to learn that it was the designers and thinkers of the theatre who have been grappling with the very same questions as my practice ever since the theatre avant-garde, dating back to the late 19th and early 20th century. A question of what the historical roots and theory of scenography may offer to a contemporary spatio-material practice dealing with scenographic environments as a form of performance and exhibition today is what, nearly six years ago, led me to the research that forms this dissertation.

The forthcoming pages promise to engage the reader in an exploration of how the histories

and theories of scenography may be engaged in framing contemporary scenographic designs in performative environments. They provide a perspective into several layers of spatial performance within three different types of environments and show, through the eyes of a practitioner, how they gradually evolved from installation art to the scenography of performative environments. Finally, this research-creation project culminates in a discussion of *F O L D*, an experimental scenographic environment where the historiographical methods of scenography are re-evaluated in practice.

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Introduction

This study investigates the creation, production and exhibition of three interrelated projects that entangle practices from both the visual arts and theatre in order to create what I call performative space. Given this entanglement, I attempt to understand the nature of how space performs, the historical basis for spatial performance and how such performance arises in practice. It is important to clarify that by performative space I mean a type of space that becomes dynamic, active and expressive through the mediation and transformation of materials, structures, technology and bodies (audiences / performers). In this context, I focus on three core types of spaces — *immersive*, *interactive* and *participatory* —and describe how, why and when these spaces perform.

With immersive space, I define *immersion* as the *blurring* of media, bodies and space. Here, I draw on terminologies used in expanded cinema, a term that emerged in the 1960s to describe artists exploring cinema through its materiality and active spectatorship. I consider the bodies and the imaginative minds of the audience within this context as fusing with the performing screen (Bruno 2014, Iles 2016). In the second type, interactive space, *interaction* is defined as a *feedback loop* between media, bodies and space. Here I depart from traditions of employing closed-circuit video (CCTV cameras and monitors) by artists in both visual arts and theatre from the 1960s to the 1980s, and expand on these early experiments using projection technologies and video-recording equipment to create feedback through which the audience engages by projecting their minds and bodies within the 360-degree architectural surround of the given space. The role of the audience in this type of space fluctuates between engaging in a playful dialogue with the architectural landscape and / or passive viewing. Finally, in the third type, participatory space, *participation* is defined as the *temporal transformation* of media,

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bodies and space. While the common notion of participation defined in immersive theatre [1] functions "as a form of deep engagement" within the activity of a particular medium (Machon 2013, 21-23), I examine and position the bodies and imaginative minds of the audience and performers as internal elements which co-create the performance of space. This arises specifically through generating temporal scenarios within the audio-visual potentialities of the participatory environment, formed by computer manipulation of projected images and sound, as well as the actual landscape of the environment incorporating a number of temporal scenarios within the design elements.

While all three of these spaces rely on the exhibition / institutional format within the gallery context for their display, their performance embraces several characteristics inherent to theatre, such as audience-performer relationships and divisions of space. Considering these tensions and shifts between exhibition and performance formats, this project requires first and foremost a rethinking of these relations within these three specific models of space.

The move from exhibition to performance, the gradual shift from the display of static objects to the activation of dynamic spatial relations, and the complexities of audience-performer relationships which I observed firsthand through the projects described in this thesis, are not singular. Trends in contemporary multimedia and material-based practices, relying on the combination of materials, technologies and audience participation for their existence, suggest that performance has increasingly been focused less on the relationship between live performers in front of spectators and instead, more along the lines of audience members as performers inhabiting dynamic spatial environments – in other words, performance is moving increasingly towards spatial performance in which bodies and environments become equally important.

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[1] a term that draws on the broad concepts of environmental theatre, understanding space as an active mangle of performers, audiences and production elements developed by Richard Schechner in 1994

For example, in his introductory talk during the Prague Quadrennial of Performance Design and space, PQ 2015 Transformation Conference, theatre historian Arnold Aronson addressed this direction and considered a dialogue between the practitioners of visual arts and theatre:

"In last several decades, at least, much contemporary art has moved into the realm of what we would call scenography. The people in the world of art are dealing with space, light, imagery, color, and of course with certain forms of visual arts we are dealing with live performers, live performance, creating environments, building architectural spaces, transforming architectural spaces, […] but many of them have very little knowledge of what is going on in theatre and people in the theatre sometimes do not know what is going on in the wide reaches of the art world […] and it seems to me that, there may be some kind of dialog established there."

This thesis aims to both establish the dialogue that Aronson suggests and extend it to address the strategies, concepts and practices through which spatial performance takes place. In so doing, I seek to unravel several key questions: What is the performance of space? How has this term been historically and conceptually understood, and what can the understanding of the performance of space from the point of view of practice add to this lineage? Finally, how can we employ the practice itself to reconfigure the concepts of immersion, interaction and participation, and what can such reconfiguration contribute to the definition or our understanding of these terms?

In addressing these questions, I will argue that the key element in thinking about the intersection between theatre and visual arts in the context of performative space is the material and technological mediation and transformation of space / audience / performer relationships,

(by which I mean a transformation of space and body relations which takes place through the unfolding of relations between materials, architectural structures and technologies engaged in the production and / or manipulation of the projected image and sound). Hence, this study will fill a gap by highlighting how technological means transform notions of space at the intersection of theatre and the visual arts, and will demonstrate how material practice can elucidate this mediation and transformation of spatial performance.

Scenography vs. Installation

To address the questions above, I will first provide the contextual background necessary to examine the interrelationship between the visual arts and theatre. In order to do this, I will define and give context to two core terms: scenography, which has traditionally been used in a theatre context; and installation, which is used primarily in the visual arts.

Scenography and its Expansion

Although originally employed mainly within the context of the theatre stage, the concept of scenography is now utilized across a range of different genres, disciplines and practices on the margins of visual arts, architecture and theatre performance (Aronson 2017).

The word *skenographia* (scenography) literally means scenic writing, referring to visual aspects of theatre that date back to Aristotle. The contemporary understanding of scenography as a discipline, however, was more or less established in 1967 during the first Prague Quadrennial International Exhibition for Scenography and Theatre Architecture[2]. It was at this time that the

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[2] The name of the Prague Quadrennial was changed in 2011 from the formerly known Prague Quadrennial International Exhibition for Scenography and Theatre Architecture (established in 1967) to Prague Quadrennial of Performance Design and Space.

Czech stage designer Josef Svoboda, who became one of the most prolific and influential scenographers, brought the role of 'scenographer', as an artist responsible for all the visual and aural aspects of theatre performance, to the level of stage director (Príhodová 2014, 48).

Svoboda believed that scenography was a fundamental part of performance and as such, could not exist by itself (Príhodová 2014, 145). Major theoretical discourse framing ideas of spatial performance and challenging and extending the boundaries of both scenography and performance has, however, recently emerged within the field of scenography, generally termed as "expanded scenography". This concept has been developed mainly within the last decade, particularly within the context of the Prague Quadrennial of Performance Design and Space in 2007, 2011 and 2015. There are four key elements to this notion, namely that scenographic practice emerges: (1) through an intersection of installation arts-based practices (Brejzek 2011, Gough and Lotker 2013); (2) through the audience experience and its role in the scenographic practice (McKinney 2009); (3) through the notion of performance as space-event outside of conventional theatre architecture (Hannah 2008), largely drawing on terminology developed in architecture by Bernard Tschumi (Tschumi 1997, 1994); and (4) through the disappearing stage caused by the development of the digital media (Aronson 2010, 2012, 2015, 2017).

First, the reformulation of scenographic practice increasingly involves what has been termed installation art, referring to works that are "'theatrical', 'immersive', or 'experiential'" in the sense that they are large enough for the audience to enter (Bishop 2005, 6). For example, scenographer Thea Brejzek sees a shift in scenography from a material-based practice in the service of a performance to one which sets a concept of spatial performance as its own point of departure. In her article "Expanding Scenography: On Authoring the Space" (2011), she brings attention to the recent change in the title of the PQ, which shifted in 2007 from *Prague Quadrennial International Exhibition for Scenography and Theatre Architecture* to *Prague*

Quadrennial of Performance Design and Space. She notes that this change is significant as it considers 'space' as a construct and as an idea, and explains that 'scenography' implies action as 'performance design', and the notion of 'architecture' as dissolved within a broader notion of 'space' (Brejzek 2011, 11). According to Brejzek, working with space as a concept inherently brings the conception of the work to the visual arts domain. This emphasis on the role of space is key to the argument about its performance.

Secondly, the co-creation of the performative space in expanded scenography also incorporates the audience as a key element, addressing not only the role of the audience but also the cross-section of the visual and performing arts. In theatre, the consideration of the role of the audience dates back to the late 19th and early 20th century theatre avant-garde such as Appia, Craig and Artaud (Aronson 2005, Bablet 1976, Beacham 1993, Bentley 2008, Baugh 2005, Brandstetter 2010, Brockett et.al. 2010, Carlson 1993, Salter 2010). In visual art, the viewer's position in relationship to space and the object began to gain attention with the emergence of minimalism in the 1960s and early 1970s, and art historian Michael Fried's oft-cited essay "Art and Objecthood" (Fried 1967). While in theatre, the role of the audience has been affected traditionally by the theatre architecture and the division of performance space into the stage and auditorium, in visual arts the audience has, for the most part, been included in the exhibition space.

A clear example of such an incorporation of the audience into a spatial scenography appeared in the 2011 edition of the (PQ) in the *Intersection* exhibition curated by its artistic director, Sodja Lotker. The exhibition comprised thirty white cubes / black boxes, designed by Oren Sagiv, located at Piazzetta between the National Theatre and New Stage Theatre (ex-Laterna Magika) in Prague. The exhibit presented a maze of relationships between architecture,

objects, performers and audiences, and blurred the boundaries between installation art and scenography.

The *Intersection* exhibition at the (PQ) 2011 was not only significant in terms of merging installation art and scenography, but also in the consideration of the role of the audience in scenographic environments. In her article "On Scenography: Editorial", Lotker expanded the view of scenography at large and centralized the audience.

> Scenography can be built or it can be found or it can be a combination of the two. It can be built by a scenographer, a collective of artists, an architect or nature itself…What is important is that scenographies are environments that not only determine the context of performative actions, but that inspire us to act and directly form our actions (Gaugh and Lotker 2013, 3-4).

Aronson saw the *Intersection* exhibition as an event which brought to the fore the question of the audience at large. He noted that the response of his younger companions to the question of why the *Intersection* exhibit was their favourite was "because we actually were part of it. We weren't just watching" (Aronson 2012, 3).

Figure 1. *Intersections: Intimacy and Spectacle,* Prague Quadrennial of Performance Design and Space, Piazzeta of the National Theatre (2011) Curated by Sodja Lotker, Architectural design Studio Oren Sagiv © Photography by Miroslav Halada, June 2011, http://www.intersection.cz/prague/boxes Web. December 15th, 2017.

Joslin McKinney, a professor at the University of Leeds and theoretician of expanded scenography, uses her own practice to understand the nature of communication between scenography and audiences and is rethinking scenography as a practice where objects and materials are central to the audience experience (McKinney 2007). She builds on her research in "Scenography, Spectacle and the Body of the Spectator" (2013) and discusses the kinesthetic experience of scenography in which she argues that it is the "imagination of the viewers that allows the images to properly occur" (2). McKinney views audience experience and the various ways in which spectators might be engaged through the material and structural aspects of scenography as a contemporary turn in scenographic practice and research (McKinney 2015, 79). Her recent contributions are particularly helpful in understanding the nature of audience

interactions with spatial performance; this relationship, however, is mainly explored within the context of theatre scenography and not the visual arts.

With the focus on audience, practitioners began to view the experience of the spectator not only as the centre of the work but also as an integral part of its direction and existence. Numen/For Use[3], an Austrian/Croatian collective working in the fields of conceptual arts, scenography and industrial and spatial design, embraced co-creation by engaging their audiences in the materiality of the work. In an artist talk, Kristof Katzler and Nikola Radeljkovic, two members of the collective, stressed the engagement of the audiences in their new site-specific installation:

> The tape projects were very beautiful for us because we were always employing people (we had helpers) wherever we came, we had people that came to help and there was actually a "know how" (Numen/For Use 2011).

Numen/For Use won the Gold Medal for Best Stage Design at the PQ 2011, which is notable due to the fact that the collective does not come from a theatre background *per se,* but is known mostly for their hybrid and experimental works such as *Tape Installation* or *N-Light* in 2008. While engaging with stage design, their other work generally rests on the margins of visual arts and theatre histories, and may be described equally as both.

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[3] http://www.numen.eu/home/news Numen/For Use was first formed in 1998 as a collaborative effort of industrial designers Sven Jonke, Christoph Katzler and Nikola Radeljković under the banner For Use.

Figure 2. Numen/For Use, *Tape,* Vienna / Odeon (2010) © Numen/For Use (2010), http://www.numen.eu/installations/tape/vienna-odeon, Web. December 15th, 2017.

Figure 3. Numen/For Use, *Tape,* Vienna / Odeon (2010) © Numen For/Use (2010), http://www.numen.eu/installations/tape/vienna-odeon Web. December 15th, 2017.

The third concept in expanded scenography is looking at space as an event in itself. The theatre architect and scholar Dorita Hannah builds on the concepts of what she calls 'space-event', a term established by the Swiss-French architect Bernard Tschumi, and which she develops further by drawing specifically on the architecture of theatre. In particular, Hannah focuses on defining space as performing through "time and movement" and event as "spatializing performance".

A more recent example of putting these theories into practice is Hannah's project *CONTAINMENT + CONTAMINATION A performance landscape for the senses* at (PQ) 2003. In this exhibition she criticizes the stage and the auditorium of the theatre architecture as spaces that maintain the passivity of the art form at the cost of challenging the creative potential of the audience and their participation. By asking "If we unhouse theatre from the confines of its dark and disciplined interiors, what can we find?" Hannah transformed the interiors of the Prague's Industrial Palace into a site exploring how her interpretation of space and event may take place within the context of scenography via a performance landscape as an architectural sensorium (Hannah, 2007).

The final characteristic of expanded scenography comes from Arnold Aronson, who argues that there is a need to distinguish between scenography, which regardless of its visual and spatial approach, continues to be a part of a "historical continuum of theatrical design", and scenography, which finds itself not only outside of the "architecture of theatre", but also "denies the presence of the stage", and escapes the traditional conventions of "spectator and performer" (Aronson 2010, 87). Aronson suggests that the stage is disappearing largely due to the digital image and electronic media engagement in spatial practice (2011, 9). In *The Future of Scenography* (2010), he contemplates the perspective of future scenographic practice within the

historical view of scenography as a "pendulum swinging between space and image" (84). This position contrasts with that of theatre historian Denis Bablet, who sees the primary impulse of 20th-century scenography as "the battle with space". In response, Aronson adds that this may be equally perceived as a "battle with the image" (Aronson 2010, 84).

Aronson views the stage as increasingly dematerialized due to digital technology such as projection and video. He argues that the introduction of new media into live theatre not only began the process of dematerialization but also ruptured time and space on the stage (Aronson 2011, 88-89). Here, an exploration of the role of materiality, particularly its relationship to technology and temporality, has an important significance in the increasingly virtual age of today (Bruno 2014, 2).

Installation Art

What should be apparent from the understanding of expanded scenography is that many of its champions not only rely on the context and history of scenography and the design of space in the theatre, but also draw on another body of literature in the visual arts with regard to the role of space and its actions. According to art historian Claire Bishop, installation is "the type of art into which the viewer physically enters, and which is often described as 'theatrical', 'immersive', or 'experiential'" (Bishop 2005, 6). Not unlike the authors of expanded scenography (Aronson 2010, 2012, 2015, 2017 Baugh 2005, 2013 Brejzek 2011, Hannah 2008, Gaugh and Lotker 2013, McKinney 2007, 2009, 2015, McKinney and Palmer 2017), Bishop focuses her understanding of installation art on the experience of the viewer.

Bishop argues that installation art may be categorized by the "type of experience" that it provides for the viewer (2005, 8), unlike the mainstream discourse in installation art which, as she claims, focuses mostly on chronological or material accounts (Oliviera, Oxley et al., 1994,

Ran 2009, Reiss 1999). She distinguishes four modalities of the viewer's experience: (1) "dream scenes" relating the viewer's experience through Sigmund Freud's *Interpretation of Dreams* (1900); (2) "heightened perception" through the phenomenological theories of French philosopher Maurice Merleau-Ponty (1908-1961), perceiving space as one that is "around me, not in front of me"(1962 8-9); (3) "mimetic engulfment" where audiences have no sense of where they are because there is no perceptible space between external objects and themselves; and (4) "activated spectatorship" as an "active engagement in the wider social and political arena" (2005).

These distinctions are useful, particularly Bishop's definition of "activation" and "decentralization", which contrasts with the Renaissance viewing of the "sensory immediacy" of installation art requiring physical participation of "walking into and around the work" to experience it (11-13). In this context, Bishop refers to a range of visual artists whose works similarly sound like the characteristics of expanded scenography and highlight the experience of the viewer and the role of materials and/or objects in performance of space. Examples include Olafur Eliasson's *Weather Project* displayed at the Turbine Hall at the Tate Modern in London (2003), James Turrell *Wedgework/V1974* at Hayward Gallery in London (1993) or Lucas Samaras *Room no.2 or Mirror Room* in the Knox Art Gallery in Buffalo, NY (1966).

As we can see, the role of the audience has moved to the forefront in both installation art and the notion of expanded scenography, blurring the boundaries between the two disciplines. As a more recent example, Tomas Saraceno, an Argentina-born artist trained in architecture, makes no differentiation between art, architecture, design and life. Saraceno works in different media, drawing inspiration from soap bubbles, dust particles that float in the air, spider webs and visionary figures, such as Buckminster Fuller. In a reflection on his work *On Space Time Foam,* exhibited at the Hangar Bicocca in Milan, Italy in 2012, he states:

The art for me was really to build this web of relationships between people.   Maybe the

people were not so visible but the beautiful spirit of collaboration that we weave between

us, that was really the work, which was invisible again… but I think that is what drives it to

complete (Saraceno 2012).

Figure 4. Tomas Saraceno, *On Space Time Foam* (2012), Installation View, Hangar Bicocca, Milan, curated by Andrea Lissoni, courtesy the artist, Tanya Bonakdar Gallery, New York; Andersen's Contemporary, Copenhagen, Pinksummer Contemporary Art, Genoa; Esther Shipper, Berlin. © Photography by Alessandro Coco and Studio Tomas Saraceno, 2012. http://tomassaraceno.com/projects/on-space-time-foam Web. December 15th, 2017.

Saraceno's mixing of architectural and social space has also been a focus for scholars trying to understand the performative possibilities inherent to installation-based practices. In *History of Installation Art and the Development of New Art Forms: Technology and the Hermeneutics of Time and Space in Modern and Postmodern Art from Cubism to Installation* (2009), scholar and curator Faye Ran suggests that the spatial practice of installation will gravitate naturally towards its hybrid form as a "total artwork capable of expanding the spatial and social concerns and possibilities of sculpture and theatre" (Ran 2009, 94).

However, aside from including the history of constructivist sculpture, Futurist manifestos, Dada, the Surrealists and the Bauhaus, and following the already well-established discourse in installation art ranging from pop art and earthworks to body, minimalist and conceptual art, and happenings (Borges et al., 2015, Oliviera, Oxley et al., 1994, 2004, Riess 1999), Ran does not put forward any solutions as to how this might be accomplished. Neither does he provide insight into how these two distinct disciplines (sculpture and theatre) bring their respective processes together. In other words, he does not address how spaces perform by actually *'doing it'* or *'trying it out'*. In addition, Ran does not address how the conceptual idea becomes the centre of spatial performance or how it transforms from its initial inception to material processes, audio-visual composition and finally, becomes the actual performance of space co-created by the audience.

Danish author Anne Ring Petersen also explores the impact of the scenic and performative elements in installation art and the visual aspects of installation in performance art and theatre in her post-doctoral research *Installation Art: Between Image and Stage* (2015). In setting out to discover what installation is, Petersen's argument revolves around what appears self-evident: that installation art borrows from performance theatre, and performance theatre borrows techniques from visual arts while setting the body of the audience as the integral part of the experience of the work (2015).

We have seen that scenography and installation art intersect at several crucial points, particularly in the experience of the viewer and the sensed experience of space. On the one hand, Aronson's understanding of Aristotle's *skenographia* (in theatre) goes beyond its Western interpretation of a stage design, embracing a broader comprehension of the term as "it emerged in the latter half of the twentieth century in Europe" as the expressive language of stage "embracing all visual-spatial construct" which constantly transforms itself (Aronson 2005, 7). On the other hand, Salter's more recent understanding of scenography (in light of elucidating the role of technology) situates the term in the context of installation art-based practices whose existence increasingly rely on the audience's sense of "embodiment, perception and time", casting them as "actors" within its unfolding (Salter 2017, 165). These are also the notions expanded scenography builds on. However, this dissertation aims to go beyond viewing scenography through the experience of the audience (as in installation art and expanded scenography) or the expressive / transformative language of the stage (as in theatre), and aspires to establish yet another way of thinking about performative space by conversing with these two diverse understandings of scenography and performance in theatre and installation art, using Chris Salter's term *scenographic unfolding* as a springboard for a theoretical / critical positioning of performance (165).

What is intriguing about the term scenographic unfolding for the purpose of this thesis is its implication of space as action: (*scenography – space / unfolding – action*), which also makes it possible to think about scenography not in terms of what it *is* but more so in the French sense of the word*, mise en scène,* in terms of what it *does*. To this end, the ambition of this thesis is to develop the definition of scenographic unfolding by exploring its emergence as a dialogue between the visual arts and theatre and as an evolving form of mise en scène within spaces that are immersive, interactive and participatory. Observing the folding of the two diverse

understandings of scenography and performance in theatre and installation art in practice as the scenographic unfolding, I insist that the material and technological mediation and transformation of space / audience / performer are the key elements in thinking and conversing about performative space.

Consequently, in defining the performative space as scenographic unfolding in environments that are immersive, interactive and participatory, I will also demonstrate that it is not only our understanding of performance and space that is entangled between the visual arts and theatre, but also correspondingly our understanding of immersion, interaction and participation. This study will elucidate how the established definitions of these terms may be reconfigured through direct engagement with these practices.

Method

The literature on expanded scenography in the theatre and installation art in the visual arts provides a framework through which to understand the basis of current theoretical discussions around the hybridization of visual arts and theatre performance. This thesis, however, adds to this discussion via a study of direct engagement with the artistic practice of creating such hybrid performative spaces, and a reflection in action on these practices (Schön 1983, 49, 54). This will form a core methodological component of this study. In order to explore this question, I engage my direct experience of the creative process as a lens through which to view the performance of space, develop theoretical frameworks and tease out definitions of performance within three areas of investigation: immersion, interaction and participation.

To aid this exploration, I use both historical accounts of theatre and installation art practices, mainly concerning the movement of expanded cinema and materiality of the screen

from the European avant-garde of the early and mid-20th century and late 1960s to focus on three key elements: (1) the roles of media, technology and body in the transformation of space; (2) the relationships between media, technology and body (audience and performers) within different configurations of space; and (3) the impact of the division of space (into the stage and auditorium) on the performance of space.

I discuss these in relation to installation and scenographic projects developed between 2008 and 2017, which includes the immersive environments *Deep Waters I, II* and *River,* and the interactive environment *Déjà Vu*. This approach also plays a key role in the analytical evaluation of the final case study in this research, the participatory environment *F O L D*. Here, I employ Svoboda's models of space to evaluate the results of four experimental performances aimed at cross-examining theories of the theatre avant-garde concerning the division of space into the stage and auditorium and performer-audience relations (Albertová 2012, Burian 1993, Bablet 1968, Prihodova 2014, Salter 2010).

Alongside the application of historiographic methods that shape this research, it is important to stress that this research-creation project is guided by arts practice, where the involved processes continuously move in a cyclic motion between research, creative process, experiment and exhibition (as a public prototype). Requiring first and foremost critical thinking and evaluation of meaningful information through observation and reflection (Schön 1983, 49, 54, Polanyi 1983, 4), these processes relate to all projects discussed in this dissertation, but are best demonstrated in the sequence of the four experimental performances of the final project *F O L D*.

It is also within these experiments that I demonstrate how my collaborators, audiences and performers may be "trapped in the temporality of the event", which is described by the American philosopher and educator Donald Schön, as moving between modes of 'knowing-in-action' and

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'reflection-in-action' (Schön 1983, 49, 54). These are modes that continuously move between tacit knowledge, intuition and embodied knowledge. Tacit knowledge develops through experience and implies that "we know more than we can tell" (Polanyi 1983, 4), while embodied knowledge may be "incommunicable", yet it serves as a base to "knowledge creation" (Nelson 2006, 107). These processes are not exclusive to working with materials, structures and technologies in the studio alone, but also expand into the exhibition space where their autonomy is transferred, and becomes the base of knowledge creation, from that of the author to the audience.

Furthermore, I emphasize the value of the experimental approach to my project *F O L D*, particularly in the evaluation of each performance where the outcomes could not be predicted and "failure proved productive" (Hannah 2007, 143). To demonstrate the importance of this approach, I report, reflect upon and openly evaluate the successes, hardships and shortcoming of the performances to illustrate how the less successful experiments opened up new horizons and led to unexpected solutions. It was the experimentation and risk-taking that resulted in a performance where the audience made the performance of the environment their own by engaging in the creative processes formed by them, co-creating the ultimate performance of space that is the aim of this research. To investigate how these notions operated in practice, I evaluate each performance and their outcomes based on careful observation of the action of the audiences reflection on the video and audio documentation of the events, written notes as well as discussions with audiences regarding their experiences.

Finally, it is important to state that although the reflection in action method that I employ is my own, many of the works described were collaborative, particularly the final work *F O L D* discussed in Chapter IV (as well as the two preceding projects *O V A L* and *Light and Darkness*). Thus, I attempt to incorporate in my analysis the action and contribution of others.

To aid the reader in further understanding the processes involved in the creation and presentation of the works, I have included as indices related materials, such as sketches, drawings, notes, designs, and documentation of the performances, documentation of the production and correspondence with collaborators, and in some cases, participating performers. In addition, I include additional links to video documentation, images and project descriptions. Finally, I also include more detailed narratives related to my creative processes of all the projects that I discuss in each chapter. Combined, these should be understood as important evidence for this research-creation that relies on ephemeral processes to create new knowledge (Nelson 2006, 113).

Overall, this dissertation moves between short, reflective description of hands-on engagement with the creative process related to conceiving and constructing the three core works and the historical, theoretical framing of the research. This is also reflected in the style of writing, which moves between short, concise, first-person narratives and historical/theoretical reflection, embracing the above methodologies for this inquiry that are necessarily qualitative, dealing as they do with the production of art and the sensed experience of space (Nelson 2006, Popat and Palmer 2006, Trimingham 2002).

Structure

This dissertation is organized into four chapters: Chapter I Historical Context; Chapter II Immersive Environments; Chapter III Interactive Environments; and Chapter IV Participatory Environments and a conclusion. Whereas Chapter I provides a necessary historical context, Chapters II-IV represent a survey of nine years of studio production (2008-2017). This survey may be viewed as two main parts: Chapter II and III, where I discuss earlier works (immersive

environments: *Deep Waters I, II, and River,* the interactive environment *Déjà vu* along with related works consisting of filming pedestrians at Faubourg Staircase in Quebec City and experiments with real-time media using imagery from Eastern Penitentiary); and Chapter IV, where I focus on works developed in the research context of my Ph.D. (the participatory environment *F O L D,* as well as *O V A L* and *Light and Darkness,* the related projects that preceded this work)*.

Chapter I provides a historical context in three areas which are essential threads of the dissertation: (1) the materiality of the screen in scenography and expanded forms of cinema in the visual arts; (2) the historical tensions concerning the divisions of space into the stage and auditorium in theatre; (3) and the dynamic spatial concepts developed by Joseph Svoboda. This chapter serves to contextualize issues that I grapple with in the creation, production and presentation-related processes of my practice that positions itself on the margin of installation art (in visual arts) and expanded scenography (in theatre). First, I begin by pointing out the significance of the late 19th and early 20th century avant-garde including Adolphe Appia, Edward Gordon Craig, Antonin Artaud, the Futurists, the Bauhaus and Svoboda, elaborating on the legacy of their revolutionary ideas about light, movement and the changing role of the audience (Aronson 2017, Brockett et.al. 2010, Bablet 1977, Carlson 1993, Polieri 1964). Second, I discuss the development of the materiality of the cinematic screen on the stage within the context of Czech stage designers (Burian 1975, Mukarovsky 1961) and the Laterna Magika, the first multimedia theatre in Prague (Salter 2010, Weibel and Shaw 2003) and make a connection to the use of the screen in the context of expanded cinema (Bruno 2014, Iles 2016, Mannoni 2000, Mondloch 2010, Uroskie 2014, Rees, White, et al., 2011, Weibel and Shaw 2003, Youngblood 1970). Third, I trace the historical development of issues concerning the division of space into the stage and the auditorium. Here I pay particular attention to how these divisions were viewed by

the late 19th century and early 20th century theatre avant-garde and trace their influence back to the Futurists, Artaud, the designers of the Bauhaus and Svoboda. I elaborate on the significance of total theatres as models of performing architecture developed by Bauhaus professors Walter Gropiusa and Oskar Schlemmer, and students such as Andreas Weininger and Farkas Molnár (Gropius and Wensinger 1987). I connect the concepts of total theatres with Svoboda's unrealized production of the *Theatre D'est-Parisienne* in Paris (1972-1974) (Albertová 2012) and discuss the relevance of his designs to my project *F O L D*. Finally, I discuss Svoboda's concept of 'atelier theatre' as a model of space that combines exhibition space and the stage, and present an overview of core related spatial concepts: psycho-plastic space, polyscenic space and production space as a frame to evaluate four experimental performances of the environment *F O L D*. These are employed as a lens through which to view the outcomes of the experimentation with the organization of space and the shifting agencies between performers and audiences in the environment *F O L D*.

Given that the screen is a central link between scenography in the theatre and expanded cinema in the visual arts, Chapter II focuses on the question of immersion and the performance of immersive environment in an early series of installations: *Deep Waters I, II and River*, produced and exhibited between 2008 and 2014. These employ custom-designed screens, light, sound and projected moving images to create a powerful experience which envelops the audience in the immersive environment and its performance.

To understand how the performance of this environment unfolds and to illuminate how immersion may be reconfigured by practice, I observe these processes within two phases: (1) production; and (2) dissemination. In the first phase, I unravel the creative processes from their inception point of childhood memories and experiences (in spaces of nature). I then position my own body within the work and its process, exploring the merging with the agency of materials

and technology interchangeably as the author and as the audience (in spaces of the studio and the exhibition).

In the second phase, I observe and discuss the experience of the immersive environment with my audience in the exhibition context. Whereas I initially depart from the established definitions of immersion in installation art as being surrounded by works large enough to enter (Bishop 2005) and in expanded forms of cinema as the blurring of bodies and minds of the audience with the performative screen (Bruno 2014, Iles 2016), I observe, through my own processes as well the experience of the audience, that it is not only the audience who becomes immersed but also myself, the author. Thus the main argument of this chapter evolves from reconfiguring immersion not as that which occurs or begins in the space of the exhibition – with the immersion of the audience– but rather something which emerges within the stages of the creative processes of material and technological mediation and transformation of body / space relations of the author. Here, I begin to observe, explore and define the transformation of immersion between spaces of nature / studio / exhibition, as well as between the author / audience, as scenographic unfolding.

The concept of space is categorically different in theatre and in visual arts. Whereas the theatre focuses on the division of space into the stage and auditorium, in the visual arts space is an open concept inclusive of the audience in the context of the exhibition. But why did the long lineage of theatre artists beginning with the theatre avant-garde (Appia and Artaud), insist that the bifurcation of performing space into the stage and auditorium come to an end? Keeping the two different contexts of space in mind, Chapter III employs the interactive environment *Déjà vu* developed in 2009 at La Chambre Blanche in Quebec City, to look at how experimentation with the division of space into the stage and auditorium may alter our understanding of interaction. This is explored by first merging the division of space, collapsing the stage and auditorium into

one open space (exhibition context), and then dividing the exhibition space into the stage and auditorium (stage context). In the first scenario of the exhibition (both production and dissemination stage), I insert my own body within the process as a way to observe and reconfigure interaction in action from an author / audience perspective, as well as to witness the unravelling of the same process in the audience. In so doing, I reflect on how processes and outcomes of working with fabricated materials, such as woven screens and projections of recorded audio-visual media using collected video and audio footage (as explored in Chapter II), differ from working with architectural structures formed by simple constructions, such as an assortment of theatre platforms arranged to make a staircase and projections of real-time media engaged by the direct interconnection of video-recording equipment and projectors to generate live-feedback. This transition is also reflected in my discussion of two related projects: short films developed at the Faubourg staircase in Quebec City (using projections of recorded audio-visual media) and experimentation with images collected at the Eastern State Penitentiary in Philadelphia (using projections of real-time media as a looped feedback).

As this chapter will show, the shift from recorded to real-time media also signifies a key shift from immersion to interaction. I explore both notions (interaction and immersion) within the visual arts and theatre as two-fold: first, through the interpretation of movement in the city as an embodied experience of architecture by Finnish architect Juhanni Pallasmaa (2005, 40); and secondly, by contextualizing my understanding of interaction in Lotker's interpretation of scenography as spaces that inspire our actions (Gough and Lotker 2013, 3-4). Within the second scenario, the stage, I introduce a new element by inviting live performers into the environment. This results in a split of performative action and space organization, thereby shifting the concept of space as well as the audience experience. The moment performers begin to occupy the active space of the environment (stage), the audience removes itself from the main space into passive

zones of the exhibition (auditorium).

To entangle the body / space relationships within the context of exhibition space and stage, I employ interchangeably Aronson's interpretation of stage as a mirror (Aronson 2005, 97-112) and Taussig's discussion of "mimetic faculty" and "copy and contact" (1993, 19-27). Hence, the tension between performers and audiences within the experimental approach to performance in the interactive environment and the reconfiguration of the existing definitions of interaction through this experimentation are at the core of this chapter.

As a model of space developed by Josef Svoboda, atelier theatre is unique for merging the space of exhibition (in visual arts) and of stage (in theatre). In Chapter IV, I employ the participatory environment *F O L D* as a key case study of this present research and explore: (1) how the entanglements of immersion and interaction in visual arts and theatre merge and become reconfigured within the context of participation via material / technological mediation; and (2) how we can employ body / space relations to re-examine the legacy of the theatre avant-garde in the areas of division of space (stage / auditorium and audience / performer), thus shedding light on participatory environments as merging the context of exhibition (visual arts) and stage (theatre).

In the first part of Chapter IV, I focus on *material / technological mediation* and discuss performance as the scenographic unfolding explored via immersion and interaction through the temporal scenarios, where I consider the bodies of the audience as well as the author becoming the environment. This notion is further explored as *self* becoming the environment.

In the second part of this chapter, *Body / Space Relationships*, I concentrate on performance as scenographic unfolding via participation as a collective action where immersion and interaction merge within the communal notion of ourselves as becoming the environment. Here, I view the audience not as mere participants or actors but as co-creators of the work. Proceeding

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, I define participation as temporal transformation of media, bodies and space (the notion of time being imbedded in both the design of the environment as well computational manipulation of the projected real-time image through temporal delays programmed in software such as Max/MSP[4]). Departing from Machon's understanding of being immersed as being "involved deeply in a particular activity or interest", my focus is on participation as '*becoming*'. By becoming, I mean becoming both the environment and *self* through action: a scenographic unfolding. Thus, while my concept of participation / immersion somewhat follows from Machon's understanding it does not exclude or replace the possibility of immersion in a metaphorical sense as a way to seek the same psychological satisfaction as we experience from "being submerged in liquid" (Murray 1997, 98).

Experimentation is key to my approach. To observe, reflect on and evaluate immersion, interaction, participation as well as the notion of the atelier theatre defined as the merging of exhibition and stage, I discuss four experiments around *F O L D* divided into two groups: (1) experimentation based on the flexible arrangements of stage and auditorium; and (2) experimentation with audience and performer relations. To evaluate each performance, I explore how the outcomes of the experimental performances meet the three spatial models developed by Josef Svoboda: production space as a way to generate (*poetic image*), psycho-plastic space (*affect*) and polyscenic space (*time*). Through this analysis, I measure to what extent the experimental performances parallel the notion of the atelier theatre as a form of space that not only connect these three spatial concepts with the poetic image, affect and time but also merges the context of exhibition space and stage (Albertová 2012, Bablet 1968, Burian 1993, Prihodova

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[4] Max/MSP: *software used for processing real-time visual or audio signals*.

2014, Salter 2010). The discussion in this final chapter combines all of the resources generated by and made available through this present research and sheds light on performance of space as material and technological mediation and body / space relations in the temporality of scenographic unfolding, and elucidates what the performance of participatory environment is, how it arises from practice and how our understanding of participation (which in itself contains the notions of immersion and interaction) is reconfigured by practice.

The dissertation concludes with a theoretical / critical definition of scenographic unfolding as performance of space positioned within a reflection on the processes and production involved in this research project and answers the research questions thematically, according to the types of environments explored in this study: immersive, interactive and participatory. Here, I also elaborate on my contributions to the exploration of technology in relationship to performance, scenography, space and the visual arts.

Chapter I

Historical Context

> If a characteristic of theatre is the act of transformation, which converts a stage into a
> dramatic space, an actor into a dramatic character, and a visitor into a spectator, then even
> theatre space, architectonically speaking, must achieve a higher qualitative level and be
> transformed. After all, it is not a matter of theatre space, but of the space for a production,
> therefore production space, and that is fundamentally different from theatre space (Svoboda
> 1993, 20).

Introduction

Major publications in the scholarly field of scenography (Aronson 2017, Brockett et.al. 2010,

Bablet 1976, Carlson 1993, Polieri 1963) recognize the late 19th and early 20th century theatre

avant-garde, which includes Adolphe Appia, Edward Gordon Craig and Antonin Artaud, as

pioneers who radically redefined the way performing space is constructed and understood today.

The Futurists, the Bauhaus and later on, the Czech scenic designer Josef Svoboda, advanced the

field with their revolutionary ideas about space, light, movement and the role of audiences within

a scenographic surround. Contemporary scholarship in expanded scenography (Aronson 2010,

2012, 2015, 2017, Baugh 2005, 2013, Brejzek 2011, Hannah 2008, Gaugh and Lotker 2013,

McKinney 2007, 2009, 2015, McKinney and Palmer 2017) has been tasked with making

connections between the legacy of the avant-garde and current issues in scenography, particularly

those relevant to the area of audience participation (Gaugh and Lotker 2013, McKinney 2007,

2009, 2015). Surprisingly, the significance of these historical thinkers and designers has gone

without much notice or is otherwise entirely missing from the scholarship concerning spatio-

material and multimedia practices grounded in the visual arts. As this thesis will demonstrate,

there is a lack of bridging the wealth of knowledge generated by designers and thinkers of this

period with the contemporary concerns of practitioners in the visual arts. This gap exists despite the fact that material and technological mediation and the transformation of audience / performer relationships (by which I mean a transformation of space and body relations taking place through the unfolding of relations between materials, architectural structures and technologies engaged in the production and / or manipulation of the projected image and sound) is more often than not at the centre of contemporary spatio-material and scenographic practice.

In this chapter, I will argue that Svoboda's ideas about the transformation of theatrical space not only build on the traditions of the theatre avant-garde, but also act as a key link in thinking about performative space that arises at the intersection of exhibition space (in the visual arts) and stage (in theatre). Expanding on this argument, this present research – which insists that the transformation of body / space relations through the material and technological mediation is key in thinking about the performance of space emerging at the junction of these two traditionally distinct models of space (theatre and visual arts) – revisits Svoboda's ideals of performative space and re-examines them through practice. In doing so, this dissertation takes notions of space and performance a step further by developing a definition of scenographic unfolding as a way of trying to understand the performance of space in immersive, interactive and participatory environments in the context of contemporary scenographic practices.

This framework outlines three areas of investigation: (1) the historical development of the screen and its materiality in the stage and exhibition context; (2) the historical significance of the organization of scenographic space and how the division between stage and auditorium has been viewed and understood in the context of audience / performer relations, as well as the material and technological mediation in scenography; and (3) concepts of dynamic space that arise in the work of Svoboda and blur the boundaries between stage and exhibition.

First, by providing historical accounts of the role of the screen in both the stage and exhibition context, I cast a historical and contextual lens through which to view the merging of the body (both performers and audiences) and media. I then highlight their role in the transformation of body / space relations in scenographic and visual art practices that I developed between 2006-2014, representing the immersive, interactive and participatory environments that I discuss in Chapters II-IV. In this context, I point out the visionary ideas of the Futurists regarding the plasticity of space, movement, optics and perception and present a brief overview of these ideas constructed through direct sources such as the original Futurist writings and manifestos (Kirby 1971, Berghaus 1998).

Further, I highlight the extraordinary technological and material advancements of Czech designers such as Josef Svoboda, Vlastislav Hofman, Frantisek Troster, E.F. Burian and others (Bablet 1976, Burian 1975, Mukarovsky 1961), and point out links to the technological achievements of Czech scenography drawn by artist and scholar Chris Salter (Salter 2010). The historical developments of the screen in the context of theatre architecture are contrasted with the way the expansion of the performative screen evolved in the context of exhibition in visual arts (Bruno 2014, Iles 2016, Mannoni 2000, Mondloch 2010, Uroskie 2014, Rees, White, et al., 2011, Weibel and Shaw 2003, Youngblood 1970).

Second, historical accounts concerning the division of theatrical space into the stage and the auditorium and its impact on audience / performer relations, as well as the performance of space, provide a historical framework for the experimentation with body (audience and performers) and space relations tackled in Chapter IV, in the four experimental performances of the participatory environment *F O L D*. These experiments address exactly these issues by testing them through practice. I also demonstrate how practice can be employed to analyze space / audience / performer relations. Here, I depart from the historical foundations set by the theatre

avant-garde Appia, Craig and Artaud (Aronson 2017, Brockett et.al., 2010, Bablet 1976, Carlson 1993, Polieri 1963) and elaborate on both the significance of Total Theatres, developed by the designers of the Bauhaus as a construction of an ideal performance space (Gropius and Wensinger 1987, 10, 84) and the connection to Svoboda's designs for the unrealized production of the *Theatre D'est-Parisienne* in Paris (1972-1974).

Third, a framework is provided to contextualize and evaluate the participatory environment *F O L D*. Here I concentrate on Svoboda's three spatial models, which are embedded in the idea of atelier theatre as a concept of space combining exhibition and stage. These models are: psycho-plastic space, production space and polyscenic space (Albertová 2012, Burian 1993, Bablet 1976, Prihodová 2014, Salter 2010). By engaging in an experimental approach in *F O L D*, this present research not only re-examines the notion of atelier theatre as a type of space merging the exhibition and stage, but also explores the production of *affect* within the context of "psycho-plastic space", *poetic image* within the "production space" and *time* within the notion of "polyscenic space". Furthermore, this study goes a step further and expands on Svoboda's theories by developing the definition of scenographic unfolding as a dynamic, invisible dimension of performative space in immersive, interactive and participatory environments.

This chapter concludes with a brief reflection on how this thesis and the projects that I explore in the forthcoming chapters deal with this entanglement of visual arts and theatre through practice. In so doing, I shed light on our understanding of how the material and technological mediation as well as the transformation of space / body relations depart from the historical lineage of two separate scholarships in theatre and visual arts, how they are merged in the contemporary practice and how this practice continues to evolve as a hybridized art form of these two disciplines, positioning performance as a dynamic expression of space.

1.2. Screen – Stage vs. Screen – Exhibition

What is important to understand when thinking about the historical exploration of screen at the intersection of scenography and installation art, is that the concept of space in theatre (stage) and in visual arts (exhibition) has evolved from two fundamentally different contexts. In theatre, the entire architecture including the stage and the auditorium may be understood as a type of mechanically and technologically well-tuned and often highly sophisticated apparatus within which the exploration of the screen takes place. In visual arts, space is an open concept ranging anywhere from exhibition to black box theatre to alternative forms of space, where the expansion of the screen into the environment is inclusive of the audience. Furthermore, while the expansion of the screen into the environment as well as its materiality has been typically explored as that which gradually evolved from traditions of the moving image and the cinematic apparatus (Mannoni 2000) many of the material and technological resources and concepts explored by practitioners in visual arts, originated on stages of theatres (Poliery 1963).

The forthcoming sections will provide the necessary historical context for how the materiality of the performing screen has been explored in the context of theatre and visual arts. Understanding these differences will also provide some basic insight instrumental to clarifying Svoboda's concept of atelier theatre as a unique proposition, which merges these two historically different notions of space within one idea of production space (Svoboda 1993, 20-22). This is also what sets Svoboda's thinking about performative space apart from the other theorists and artists who explored the materiality of performative screen in the context of theatre and / or visual arts.

1.2.1. The Futurists

The theories and practice of the Italian Futurists are largely underestimated, despite the fact that,

as Steve Dixon argues in *Digital Performance: History of New Media in Theatre, Dance, Performance Art and Installation* (2007), they laid the foundation for new media and digital performance today. Dixon's focus on the Futurists' influence is helpful, particularly in live forms of digital performance (performers / dancers) across the various types of performance art, dance and theatre. The significance of the Futurists, however, does not lie solely in the areas of live performance, but also plays a key role in thinking about performative space as an expressive and dynamic form that arises through material and technological transformation of space. Rather than highlighting the legacy in live forms of digital performance (performers / dancers), this present research draws links to the Futurists' ideas about space as expressive, inspirational and active, based primarily on light, movement, optical perception and sound, which may be equally perceived as first steps in thinking about the material and performative nature of screens.

In *Futurist Performance* (1971), Michael Kirby connects the ideas of Craig and the Futurists, proposing that Marinetti wrote the "Foundation and Manifesto of Futurism" in 1909 with Craig's concepts on the plasticity of space in mind (Kirby 1971, 75). He also credits the Futurists with setting a foundation for abstract film by working with optical materials such as mirrors, curved lenses, etc. Although he develops no connection between Futurist and contemporary spatial performance practices, his collection of Futurist Manifestos as a direct source is instrumental to material concerns of this present research – a scenographic practice operating at the intersection of visual arts and theatre - particularly *The Futurist Synthetic Theatre* by Marinetti, Settimelli and Corra (January 11, 1915), *The Futurist Scenography* by Prampolini (April-May, 1915), *The Futurist Cinema* by Marinetti and others (September 11, 1916), and the *Manifesto For a New Theatre "Electric-Vibrating-Luminous"* by Montalti (1920).

In *Italian Futurist Theatre* (1998), Günter Berghaus argues that Prampolini was somewhat of a visionary in terms of "optical perception" and brings forward points that are also key to this

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study. In Prampolini's essay *Atmosphere-Structure: Basis of a Futurist Architecture* (1914), he defines architecture as "an abstract consequence of the atmospheric elements of the forms of space" and as a "mirror of the intense life of motion, light, and air". A paradigm relating to immersive environments arises from the connection of Prampolini's ideas in this essay to Boccioni's vision of sculpture as "a plastic whole", "summing up the object and the atmosphere", as described by Boccioni in his *Plastic Dynamism* (2013), *Technical Manifesto of Futurist Sculpture* (2012) and *Technical Manifesto of Futurist Painting* (2010).

Berghaus describes Prampolini's vision of 'scenic architecture' as integrating "the temporal media of sound and motion into the spatial media" to become noise producing and mobile, whilst actors would take on chromatic and spatial qualities. However, as Berghaus points out, the Futurists lack any concrete propositions on how to actually do this. He asks: "How are these sounds produced, are they a natural product of the dynamic stage machinery, or are they produced by musicians or specially constructed noise machines? Are they an invention of the composer, or does the scenographer also serve as sound designer? And how exactly are they related to other media?" These questions run parallel with the present study but none found answers in the manifestos (Berghaus 1998, 266-7).

Berghaus also brings forward Prampolini's argument of redefining the 'internal-element' of the work of art, explored by Kandinsky in his essay *Pure Art* (1915), as "direct emotion of the object which, via a sensation, becomes a subject" (267). These elements are instrumental to materio-spatial practices today, particularly in realizing that the human element – the audience and / or performers – becomes an integral component in the composition of immersive environments. The plasticity of space, or to use a term later coined by Svoboda, the "psycho-plasticity of space" (Albertová 2012, Bablet 1968, Burian 1993, Prihodová 2014, Salter 2010), must be inclusive of the human as well as the materials, architecture and audio-visual media.

Thus, the success of the environment and the performance of space largely depends on its ability to combine all of the elements successfully and to evoke not only action but also emotions in the audience, resulting in their participation and / or co-creation of such performance**.**

1.2.2. Czech Scenography

It is not only the influence of the Futurists that goes underestimated in the contemporary discussion concerning the role of materials and technologies in mediation and transformation of body / space relations in performative space. The extraordinary wealth of material and technological advancements, as well as the innovative way of thinking about space established by the Czech Scenography (Bablet 1976, Mukarovsky 1961, Burian 1975), go largely unrecognized, particularly in this context. Yet, these are the key intersections in thinking about performative space between the visual arts and theatre. More recently, Chris Salter began to draw a number of connections to the plethora of these resources within the context of technological advances of the stage (Salter, 2010).

In *Entangled: Technology and the Transformation of Performance* (2010), Salter helps elucidate this interconnection of visual arts and theatre by highlighting the significance of Czech Scenography, particularly the technical sophistication of stage experimentation developed by Svoboda for the International and Universal Exposition in Brussels in 1958 (*Laterna Magika, Polyekran*) and in Montreal in 1967 (*Polyvision and Diapolyekran*). He describes Svoboda's technologically advanced production in his experiments with temporality using CCTV recording and playback on stage: "I was able to put my hands on equipment and facilities that I previously could only dream about" (Salter 2010, 127).

Salter also directs much attention to the roots of Czech Scenography by looking into accomplishments of the previous generation, such as E.F. Burian's technologically advanced

experiments with performers and screens, arguing that "what Burian attempted to accomplish already foresaw late-twentieth century and twenty-first century holographic-inspired visions" (149-151). The strength of Czech Scenography is not solely in the innovative designs formed by highly advanced technologies at the time; it is primarily in the long tradition of combining material and technological means within processes engaged in the transformation of space. In other words, performative space is not transformed by technological innovations alone but rather by insightful and aesthetically advanced designs that thrive on combining materials, architectural structures and technologies, as well as their relationships to human form. These are deeply rooted in the traditions of Czech Scenography, going back to stage designers such as Hofman, Troster and Kouril who, along with Piscator and Traugott Müller, opened the door for new scenographic expressions by bringing together architectonic structure, lighting and projected images (Bablet 1976, 148-149).

Writings by the Czech critics of that time period are also a valuable first-hand resource for the powerful ways in which the Czech designers transformed the performative space, namely their highly developed sensibilities of combining materials, technologies and the human form. For instance, Czech structuralist Jan Mukarovsky, in his article "25 Years of Theatre Based on Lighting" (1961), viewed Burian's phenomenal material applications as the fourth dimension, writing that

> "In the relationship of light to the dramatic figure and to the surfaces that divide the dramatic space, and in the placement of the lighting instruments and the color of their lights lies the fourth dimension of the new theatre, and it is multiplied by others: sound, film, projection" (Mukarovsky 961, 142).

Burian himself elaborated on this further, stressing that the combination of the material qualities of the scrim and light not only made the space dynamic and expressive but also created powerfully suggestive poetic effects, where a figure could blur with the darkness of space in one instance and emerge with a sharp visual clarity projecting an urgent presence in another (Burian 1975, 35).

What is important to realize, however, when discussing the achievements of Czech Scenography is that many of the highly advanced technological designs that transform the theatre stage into dynamic, expressive and active space are experienced by the spectators passively from the auditorium, and hence are limited to frontal viewing. Svoboda's designs for Wagner's *Tristan and Isolde* (1967) directed by C.H. Drese and developed for Hesse State Theatre, Wiesbaden, serve as one of many examples of this scenario. Here, Svoboda, with the help of a German technical and engineering team, develops a powerful sculptural element of a central column formed by water vapor and light. The design, however, was to be experienced by the visitors from a distance. Thus, while the audience may be affected by the dynamics of the scenographic space, they are still physically separate from it, unable to enter the actual environment of the space or experience it from different angles. Svoboda, himself, makes a reference to this particular limitation in his discussion of the atelier theatre, which I refer to in more detail later in the chapter,

> An atelier-theatre, which, as I see it, I will no longer succeed in building, would be an architectonically neutral space and would make possible a different relationship between audience and stage for every production (Svoboda 1993, 20).
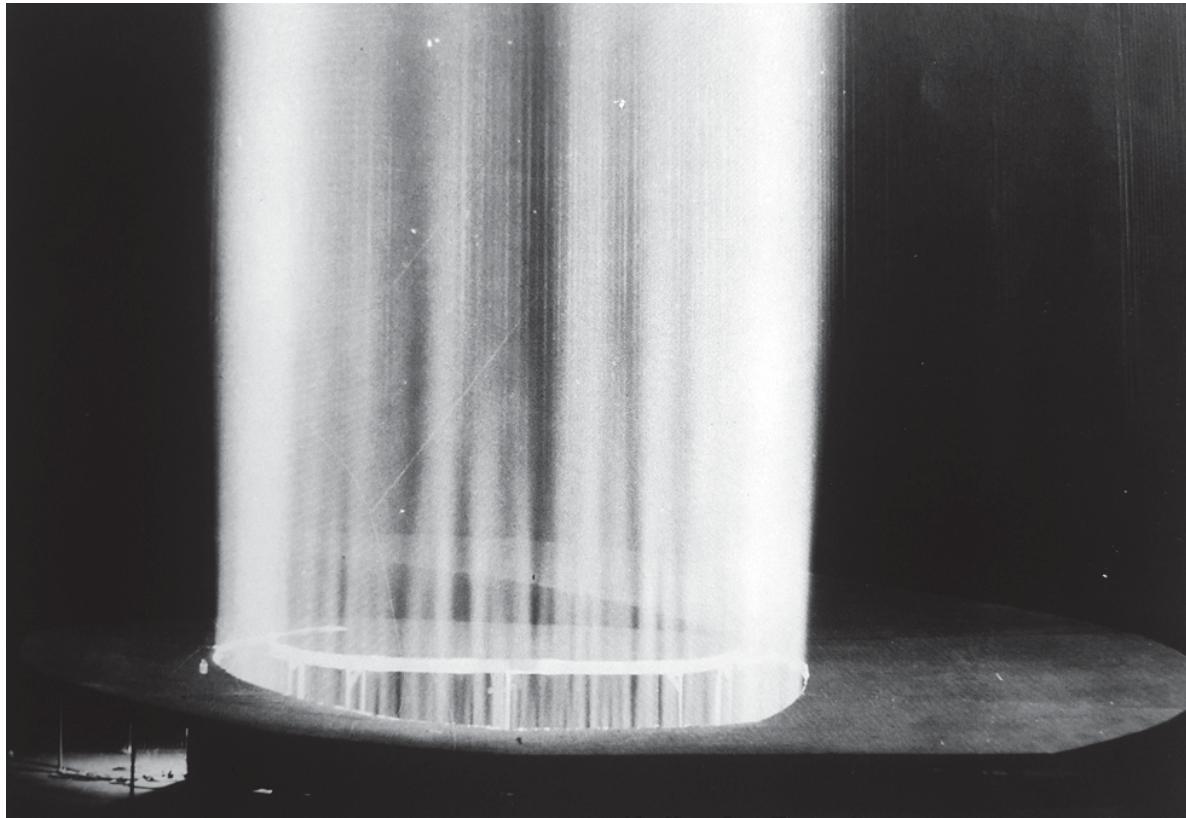
Figure 5. Svoboda's design for Wagner, *Tirstane and Isolde*, Hesse State Theatre 1967, Wiesbaden Directed by C.H. Drese. From Burian, M. Jarka. *The Secret of Theatrical Space: The Memoirs of Josef Svoboda,* New York: Applause Theatre Book Publishers, 1993.

1.2.3. Expanded Cinematic Screen and Materiality

While Czech Scenography advanced the dynamics of performative space through technologically innovative ways of exploring the cinematic screen as the merging of body, screen, projections and light on stage, these notions began to appear in the visual arts in the 1960s within the context of expanded cinema, which explored the expansion of the screen into the space of exhibition (Bruno 2014, Iles 2016, Mondloch 2010, Uroskie 2014, Rees, White, et al., 2011, Weibel and Shaw 2003, Youngblood 1970).

The materiality of the screen as the shifting of focus from the spectatorship of the screen to the surrounding environment explored within the larger notion of expanded cinema may be traced through several viewpoints: (1) materiality of the screen and the understanding of the space as

well as the audience as material (Iles 2016); (2) live-action events and performances, which break down the barrier between artists and audience (Rees, White, et al., 2011); (3) the notion of the performing screen (Mondloch 2010); (4) the site-specific context of the display and institutional conditions of exhibitions (Uroski 2014); (5) the consciousness of the viewer and the context of synaesthetic cinema[5] (Youngblood 1970), exploration of time-space as event (Le Grice 1972) and the notion of Future Cinema (Weibel and Shaw 2003).

In *Dreamlands: Immersive Cinema and Art 1905-2016,* a catalogue published with the similarly titled exhibition at the Whitney Museum of American Art (2016) featuring installations, 3-D environments, sculptures and performances of artists such as Anthony McCall, Oskar Schlemmer and Stan VanDerBeek, curator Chrissie Iles argues that this type of immersion barely has anything to do with cinema at all; rather it dismantles the original apparatus of the cinema, "projection, film, frontal rectangular screen, etc." and reassembles them into new forms of experience (Iles 2016, 121).

In an earlier exhibition held at The Whitney Museum of American Art's exhibition *Into the Light, The Projected Image in American Art 1964 – 1977* (October 18, 2001 to January 6, 2002), Iles suggests that artists such as Robert Whitman, Bruce Nauman, Keith Sonnier, Dan Graham, Anthony McCall, Simone Forti, Paul Sharits and Peter Campus, amongst others, invite the audience to experience the materiality of the screen not as a viewing situation in front of them but rather as a spatial experience which they may enter:

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[5] Synaesthetic cinema abandons traditional narrative because events in reality do not move in linear fashion. It abandons common notions of "style" because there is no style in nature. It is concerned less with facts than with metaphysics, and there is no fact that is not also meta-physical. One cannot photograph metaphysical forces. One cannot even "represent" them. One can, however, actually evoke them in the inarticulate conscious of the viewer (Youngblood 1970, 97).

The spectator's attention turned from the illusion on the screen to the surrounding space, and to the physical mechanisms and properties of the moving image: the projector beam as a sculptural form, the transparency and illusionism of the cinema screen, the internal structure of the film frame, the camera as an extension of the body's own 'mental and ocular recording system,' the reality of the slide sequence, and the interlocking structure of multiple video images (Iles 2001, 33).

Artist Anthony McCall's *Line Describing a Cone* (1973) serves as a good example of the expansion of a screen into the environment. The performance is formed by a projection beam following a white line drawing a circle on a black wall. The physicality of the slowly evolving beam forming a hollow cone has a very strong presence and invites interaction from the audience who, by inserting body parts such as faces or hands, merges with the performative element of the work. In the work, light is no longer employed for its technical or operational qualities but rather becomes a material connected to performative action. The audience in this type of work becomes, unlike the audience in my earlier example of Svoboda's design for Wagner, *Tirstane and Isolde* (1973), yet another element of the overall performance. Whereas Bruno defines such work as communal architecture (Bruno 2014, 148), Iles defines the relationship of McCall's work and the audience precisely, as "performative penetration, where viewers become temporary cyborgs, transformed into hybrid cinematic bodies for the duration of their merging with the technology of the filmic space that they momentarily inhabit" (Iles 2016, 124).

Figure 6. Anthony McCall, *Line Describing a Cone*, 1973. Courtesy Julia Stoschek Foundation e. V. and Sprüth Magers. Installation view at KW Institute for Contemporary Art, 2017. © Photograph: Frank Sperling, Studio International, May 10th, 2017, Web. December 15th, 2017
http://www.studiointernational.com/index.php/berlin-gallery-weekend-2017-review

Figure 7. Anthony McCall, *Line Describing a Cone*, 1973. Courtesy Julia Stoschek Foundation e. V. and Sprüth Magers. Installation view at KW Institute for Contemporary Art, 2017. © Photograph: Frank Sperling. Studio International, May 10th, 2017, Web. December 15th, 2017
http://www.studiointernational.com/index.php/berlin-gallery-weekend-2017-review

A. L. Rees and Duncan White follow a similar pathway to Iles in viewing film's ontology in the medium's simplest elements, such as the projector light beam or the bare bulb. In their book *Expanded Cinema: Art, Performance, Film* (2011), they locate the origin of the term 'expanded cinema' within the context of multimedia performances by artists such as Stan Vanderbeek and Carolee Schneemann and focus on the exploration of media as multimedia live-action events, which break down the barrier between artists and audience.

Kate Mondloch goes in a different direction by shifting the attention to the exploration of the screen itself. Her distinction between 'screen based' and 'screen reliant' not only ascribes architectural qualities to the screen but renders it 'performative'. Mondloch argues that almost anything, "glass, architecture, three-dimensional objects, and so on – can function as a screen and thus as a connective interface to another (virtual) space", which may dramatically alter our conception not only of space but also of time (Mondloch 2010, 2). She also analyzes screens and "screen-based viewing" within the institutional context of the visual arts, focusing on installations made with media screens, but her work does not investigate the actual nature of materiality of screen-based viewing.

Professor of visual and environmental studies at Harvard University Giuliana Bruno fills a gap in the area of the materiality of screens in her book *Surface, Matters of Aesthetics, Materiality, and Media* (2014) by addressing the role of materiality in the increasingly virtual world. In her discussion, she views the screen as architecture, which precedes the world of cinema and "originates in the world of objects and material space" (Bruno 2016, 157). In this context, she questions the relations of materiality, aesthetics, technology and temporality through research, much like the practitioner would question them via material processes and making. While hands-on engagement with material processes in the studio or the actual exhibition space and the tactile knowledge it generates cannot be replaced by the theoretical discourse alone, her

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insight is instrumental, particularly to sections of this study where I explore the performative quality of screens through conception and process.

Exploration of the material composition of the screen is crucial to understanding the building blocks of performative space. The screen and its material qualities, however, do not stand alone. Indeed, material or immaterial screens are unthinkable without the context of space that not only forms but also defines them. Andrew Uroskie's *Between the Black Box and the White Cube*: *Expanded Cinema and Postwar Art* (2014) shifts this focus from the virtual space of the screen to the actual space surrounding the screen and moves between two cultural sites: the art gallery and cinema theatre. In conceptualizing how the perception of time and space removes itself from the physicality of the local space to the world of the screen, he links the expansion of cinema to spatial concerns, site specificity and institutional conditions of exhibitions and argues that it is the "situation within which the moving image is exhibited and seen as well as the context within which it was understood" (Uroskie 2014, 12). His views are vital for understanding the expansion of the media, filling a gap left by Youngblood, who explored forms emerging between 1964 and 1966 in New York purely in terms of consciousness of the viewer (Youngblood 1970).

Historically, not only theorists have focused on the question of the materiality of the screen and the logistics of space as an institutional site, but also artists themselves. For example, artist and filmmaker Malcolm Le Grice builds on his own practice and argues that film is experienced as a time / space event. In this sense, time is dimensional in sculptural terms and projections along with sound and body form the work (Le Grice 1972, 40-43)**.** Le Grice sees limitations in the physical venue for this kind of work, where installing elaborate equipment and structures may present a logistical problem; he does not, however, further address this issue.

Advancing this discussion of the performative screen, new media artist and researcher

Jeffrey Shaw and Austrian artist and theoretician Peter Weibel formed a notion of 'Future Cinema', organizing an exhibition at the ZKM/Institute for Visual Media in 2003 that investigated a decade of cinematic installations, from multimedia and net-based works to immersive works and technologically innovative environments (Weibel and Shaw, 2003). In the exhibition catalogue *The Future Cinema: The Cinematic Imagery after Film,* the Czech-German media artist Michael Bielicky argued that Laterna Magika[6], which was initially a stage concept developed as a performance program for the Expo 1958 in Brussels, and then became the first multimedia theatre company in Prague (combining action on the screen and on the stage), was also the first and most important experimental venue acting as a bridge between experiments on stage and those developed in an exhibition context (Bielicky 2003, 96-102). This present study continues to build on these notions not only through the exploration of the materiality of the screen in the context of expanded forms of cinema, but also by exploring the notion of the screen through the dialogue between the visual arts and the theatre.

1.3. *Stage and Auditorium*

The French poet, thinker and theatre theorist Antonin Artaud stated:

> If we abolish the stage and the auditorium and replace them by a single site, without
>
> partition or barrier of any kind, which will become the theatre of the action. A direct
>
> communication will be re-established between the spectator and the spectacle, between the
>
> actor and the spectator, from the fact that the spectator, placed in the middle of the action, is

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[6] Laterna Magika was designed by Svoboda, directed by Alfred Radok as a performance program for the Exposition in Brussels in 1958. Svoboda became head of Laterna Magika, which later became a company, in 1973. The period of 1973-1977 is recognized by Svoboda as transitional (Burian 1993, 116)

engulfed and physically affected by it. This envelopment results, in part, from the very configuration of the room itself (Artaud 1958, 97).

While the exhibition concept of performative environment is habitually an open space (a gallery-type space or a black box) and differs from the concept of performative space within the theatre architecture that is traditionally divided into the stage and the auditorium, the concerns of spatial divisions between passive areas (auditorium) and active areas (stage) are essential to a contemporary spatial practice dealing with performance. Part of this research closely examines the spatial concepts of a stage and an auditorium and attempts to untangle the tension between the way we organize space and the way we compose the movement of the audience within it. To gain an entry point to this discussion, it is important to provide a historical overview of the tensions between the stage and the auditorium and of the relationship between the performative space and the audience.

The organization of theatrical space and the concerns of the stage and auditorium has been an evolving issue ever since the conception of theatre. Problems of spatial divisions addressed by Antonin Artaud in the 1930s had already been a major concern to the late 19th century and early 20th century theatre avant-garde. Appia, Craig, Meyerhold in Russia, the Futurist Enrico Prampolini, the designers of the Bauhaus, the architect Frederick Kiesler and, later in the 20th century, Grotowski in Poland, were all troubled by the impact that the separation of the stage and auditorium had on the experience of the audience and the perception of the work. Their practices fundamentally restructured not only the position of the stage but also that of stage relations: the relationship between scenery, lighting, performers and audience.

The structuring of stage and auditorium and the impact of the revolutionary thinking of the avant-garde is discussed in the major publications in the field of scenography (Brockett 2010

et.al., Bablet 1976, Carlson 1984, Polieri 1963). However, these tend to be mainly descriptive and illustrative and do not seek theorization or analysis of the spatial divisions, nor do they draw connections to contemporary multimedia and material-based spatial practices dealing with performance today.

Several recent publications have been more instrumental in discussing the connections between the avant-garde and the concerns of the contemporary spatio-material practice. For example, Christopher Baugh's *Theatre Performance and Technology: The Development of Scenography in the Twentieth Century* illuminates the significance of the avant-garde (Baugh 2005, 35), complementing work done in the realm of technology and performance by Salter (2010). Hans-Thies Lehmann, in the area of the post-dramatic theatre (a term coined in the publication of the same title), helps underline the issue by discussing how the workshops by Josef Szeiler facilitated the shared experience of performers and visitors once the differences between the stage and the auditorium were lifted (Lehmann 2006, 122-123).

These works are particularly helpful in drawing links to the historical roots of the stage and embracing those within the knowledge generated in this research by an artistic practice grounded in the lineage of theatre. However, researching historical links addressing the spatial concerns of the stage as well as exhibition leads back to Czech Scenography, particularly to Svoboda, who developed numerous stage productions in his lifetime and, unlike the others, revised, worked with and thought about the contextual differences between the exhibition space and stage.

Josef Svoboda was an artist, architect and professor born in Prague, Czech Republic (1910 – 2002). He started working on theatre stages in the 1950s and produced designs for over 700

theatre productions in his lifetime. The immediate success of his designs[7] *Laterna Magika* and

Polyekran developed for Expo '58 in Brussels, followed by *Polyvision* and *Diapolyekran* for

Expo '67 in Montreal, gained Svoboda worldwide recognition. These works were at the time

extremely complex and technologically advanced multimedia mechanisms that explored action

on the screen and stage. At the same time, their innovative nature pushed the boundaries between

the stage and exhibition.

In addition to his international prestige and recognition as a scenographer, Svoboda was a

formally trained architect and took an active interest in the concept of Total Theatre. This can be

seen most clearly in his unrealized designs for *Theatre D'est-Parisienne* in Paris (1972-1974).

The Czech curator Helena Albertová, who worked closely with Svoboda, connects the concept of

atelier theatre with this production's design. Departing from archived notes, Albertová indicates

that in the designs of atelier theatre, Svoboda envisioned a space where it was possible to arrange

the stage and auditorium in any imaginable configuration vertically and horizontally as if in an

exhibition space (Albertová 2012, 303-317).

Thus, Svoboda not only departs from the theories embracing light, space and the audience

as the essential components of the performance previously established by Appia, Craig, Artaud

and Kiesler, but also builds on foundations of performative space set by the designers of the

Bauhaus. The latter, in an effort to overcome the constraints of the separation between stage and

auditorium, developed concepts for the Total Theatre. Gropius, for instance, who first designed

the Total Theatre for Erwin Piscator in Berlin in 1926 (Gropius and Wensinger 1987, 10),

believed that the "contemporary architect should set himself the aim to create a great keyboard

for light and space" (10). In his vision, the imagination became central to the scene in action. "If

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[7] Laterna Magika (1958) was designed by Svoboda, directed by Alfred Radok; Polyekran (1958) was designed by Svoboda, the text was written by Emil Radok. Polyvision (1967) was designed and directed by Svoboda, Diapolyekran (1967) was Svoboda's design, text/scenario by Emil Radok.

it is true that the mind can transform the body, it is equally true that the structure can transform the mind"(14).

In the design of his Total Theatre, Gropius combined three types of stages: the deep stage, proscenium stage and central stage. These formed a universal theatre where flexible configurations of space and performance were possible (Gropius and Wensinger 1987, 84).
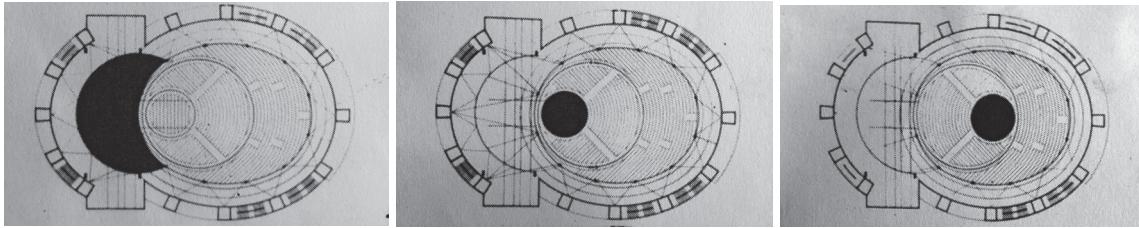
Figure 8 – 10. Plan showing the use of: (1) the deep stage; (2) proscenium stage; (3) and the centre stage. Gropius was not the only designer of the Bauhaus attempting to develop a design for Total Theatre. In a lecture-demonstration at the Bauhaus in 1927, Oskar Schlemmer presented concepts for the 'mechanical stage' by Heinz Loew, who focused on the mechanical aesthetics of theatre as a mobile machine, and the 'spherical theatre', designed by Andreas Weininger, who was particularly concerned about the perceptual experience of the spectator. Loew's mechanical stage addressed the reality of backstage activities, which he saw as the more interesting aspect of the theatre. One of Loew's concerns was to develop a technical team as important as the actors, whose job it would be "to bring this apparatus into view in its peculiar and novel beauty, undistinguished and as an end in itself" (Gropius and Wensinger 1987, 84). On the other hand, Weininger's spherical design proposed positioning the audience on the inner wall of the sphere, where they would experience "new psychic, optical, acoustical relationships and be confronted with new possibilities for concentric, eccentric, multidirectional, mechanical space-stage phenomena" (89).

This concern for audience inclusion was also at the centre of the design of the *U-Theatre* by Farkas Molnár, who aimed to construct a true machine for viewing and / or audience participation. This stage consisted of three stages, all of which could move in different directions; the first could be raised and lowered, while the second slid forward and backward, and the third could be moved to the rear or to either side. Most importantly, the designs included several suspended bridges and hydraulic apparatus, making intimate contact with the audience possible and offering the possibility of real audience participation (74). Moholy-Nagy, who called for the kind of stage activity that would end the divisions of passive and active space and allow for a fusion of the audience with "the action on the stage at the peak of cathartic ecstasy" (Moholy-Nagy 1987, 67), proposed a system of suspension bridges in horizontal, diagonal and vertical directions and imagined stages that would extend or swing into the auditorium (Brocket et.al. 2010, 281).

The unrealized concepts of these designers form an important foundation for performative space on which Svoboda continued to build. In the first design by Loew, we have a machine that becomes a spatial-kinetic performance, turning technicians and spectators into the human element of the performance. In the second design by Weininger, the spectator is made aware of perceptual, optical and spatial relations. Lastly, in the design by Molnár, the entire building is converted into a performing mechanism, integrating humans into the architecture and transforming the performance into a sort of a playground.

What sets Svoboda's concept of the atelier theatre, developed several decades later, apart from these models may be explained in three points. First, there is the ability to combine all of the previously envisioned elements within one design. Second, there is the applicability and the consideration of the exhibition space and the stage (absent in all other concepts) into one multifunctioning space (dubbed the atelier space by Svoboda). Third, there is the complexity of

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the three combined models of space – production space, psycho-plastic space and polyscenic

space – within the one conceptual idea of the atelier space.

1.4. *Svoboda's Models of Space*

> Theatre has been deprived of imaginative power of an uninterrupted freeing of the spectator's fantasy. Should the border between stage and audience continue to be strictly maintained, or is it possible to do away with this division and situate the production within a single undivided space, in which-in extreme cases-there might be an indiscriminate mixing of actors and spectators? It seems to me we are constantly groping around a cursed concept, "theatre" space (Svoboda 1993, 20).

The significance of Svoboda's atelier theatre for this present research lies primarily in its vision

to combine the exhibition space and stage within one concept, described by Svoboda as the

transformation of theatre space into production space – which is, as he suggests, completely

different from theatre. As Svoboda further explains, atelier theatre not only combines the stage

and exhibition while interconnecting the audience and stage, but also, as the term "atelier"

suggests, makes it possible to work with the space of exhibition / stage as if in a workshop /

studio, where all the lights, technology and basic mechanical equipment is readily available to

facilitate the unfolding of the creative process at all times (Albertova 2012, 324).

In addition, Svoboda also develops and describes three other notions of space imbedded within

his idea of atelier theatre: (1) production space as a way to create a type of *poetic*

image interconnecting stage and auditorium; (2) psycho-plastic space awakening *affect* in the

audiences; and (3) polyscenic space providing the experience of *time* through many-sided, non-

linear time-space scenarios. These are also the notions that are carefully re-examined by this

present research that is tasked with re-configuring our understanding of immersion, interaction

and participation through practice.

Svoboda discusses the qualities of a 'production space' as being the same as those of a 'poetic image', presenting a set of problems related to the interconnection of the stage and the auditorium. The mutual relationship of two separate modalities of space affects all of the involved elements: the production of work, the audience and the concept of time. Burian also talks about "place of conflict, where the static nature of theatre, inherited from tradition, is no longer possible" (Burian 1993, 19). In this sense, 'production space' is a space of transformation, where all the elements including audience, performative agents and space fuse into a performative action. This, Svoboda states, is fundamentally different from a theatre space (1993, 20).

Prihodová also takes a closer look at the issue by relating a conversation between Burian and Svoboda, where Svoboda shares that all his productions (in his mind) are made for this ideal 'production space'. However, these concepts are later adjusted due to the frontality of viewing of the proscenium theatres, which makes many of his ideas difficult or impossible to execute. These challenges apply particularly to his designs with mirrors, where the geometry he needs to develop and the optical qualities he desires are impossible to achieve within the confines of the interior architecture of these theatres (Prihodová 2014, 67).

Complementing the notion of production space is Svoboda's work in what he called "psycho-plastic space", a term coined at the Prague Quadrennial of Scenography and "Theatre Architecture" (PQ) 1967 (Prihodová 2014, 51). Psycho-plastic space is closely related to the experience of the audience and how certain spaces make the audience feel. While Svoboda further developed this concept later on, he explained that his initial idea embraced the 'atelier theatre' notions, once described by Craig in his drama without words, "Steps" (1905). Burian provides a citation of Craig's interpretation, which Svoboda carried like a torch illuminating his own journey of tender connection with spaces:

Have you ever been in love and had the feeling that the street before you suddenly expands, that houses grow, sing, lose themselves, and it seems to you that the street darkens drastically, levitates, and becomes transformed into a cloud? In reality you were walking along an ordinary street - or so everyone claims, but it's a lie, don't believe them, keep faith in your own truth, which is the truth of ecstasy (Burian 1993, 17).

Prihodová interprets this concept of space experienced emotionally by the spectator, filled with his associations and memories, as Svoboda's reflection on several ideas of the previous generation of Frejka and Tröster, asking: "Is the room where someone confesses love the same as the room where someone dies?" (Prihodová 2014, 53). Burian offers yet another context. Svoboda recalls someone asking him a question in a survey in 1958: "Does modern technology belong in a modern theatre in the same way that an elevator belongs in a modern house?" Svoboda thought it was asked completely incorrectly; the issue was not at all whether it belongs there or not, the issue was what function it had in the building and in the drama. He further specifies, "And you can't answer that with a formula" (Burian 1993, 17).

Unlike Burian and Prihodová, Albertová is not looking for definitions of psycho-plastic space. Instead, she uses the term to describe specific plays in a chapter dedicated to mirrors and optical illusions (Albertová 2012, 303-317). This is certainly helpful in seeing this model of space 'in action'. For instance, she uses the term 'psycho-plastic space' in relationship with Svoboda's scenography for the *Die Trauring* by Witold Gombrowicz (1968) or *Wozzeck* by the Alban Berg (1971), including Svoboda's description of how the complex systems of mirrors were used to develop this dynamic psycho-plasticity of space.

Albertová makes an important observation, one that escapes the other authors, which is that

psycho-plastic space is closely related to experiment. This observation brings the discussion back

to Svoboda's design of the atelier theatre. In this context, Svoboda explains that time is essential

for the development of psycho-plastic space, as the details evolve slowly. This unfortunately is

not possible in big theatres pressured by time. For instance, Svoboda perceives the large

manufacture of the National Theatre, with 80 workers employed in the costume department alone

and able to produce an entire production in two days, as complete nonsense. Much more valuable

is having two people on hand, being available and working flexibly with changes that need to

take place during the experimentation process (Albertová 2012, 332).

The last model, polyscenic space, embraces temporality on stage. As Burian describes:

An expression of a free and many-sided time-space operation, in which one and the same

action is observed from several optical angles which set cause and effect next to each other

and take their measure. Polyscenic-ness means a visible joining and severing of these axes,

these relationships – a breaking up of the linear continuity of a theatre action, and its

transformation into separate events or moments (Svoboda 1993, 21).

Svoboda's notion of performative space as merging the spatial concepts of exhibition and

stage (inclusive of his concepts of production space, psycho-plastic space and polyscenic space)

is put forward by this present research as key in thinking about space and performance at the

intersection of visual arts and theatre. As such, his theories and ideas are revisited, explored and

re-examined through practice by four experimental performances within the participatory

environment *F O L D*, discussed in Chapter IV. Based on this re-examination, as well as on my

discussion of immersive and interactive environment in Chapters II and III, this dissertation takes

Svoboda's concepts of space further by viewing and defining the performance of space as scenographic unfolding.

1.5. Conclusion

This chapter has provided the necessary historical context and basic understanding of how the historical roots of thinking about performative space and the mediation of materials and technology have played key, although different roles, in the transformation of space / body relationships in theatre and in visual arts (particularly the expanded forms of cinema) and have contributed to an understanding of performative space.

This introduction should be viewed as a road map of historical theories arising from the knowledge generated by practitioners, thinkers and theorists in two different disciplines and understood as a point of departure for the forthcoming chapters. Later chapters will employ practice in the investigation of how the different traditions, models and histories of space and performance merge within the contemporary practice, grappling with the performance of spaces that are immersive, interactive and participatory. In so doing, this research explicitly demonstrates: (1) the relevance of both histories and theories of theatre and visual arts to contemporary concerns of practices dealing with performance of space; (2) how the material and technological mediation and the transformation of space / body relations emerge within two different histories of space (in theatre and visual arts) and how they merge within the context of performative space in practice; and (3) how practice itself may be engaged in the reconfiguration of our understanding of the basic terms immersion, interaction and participation.

Chapter II.

Immersive Environments

> *Perhaps, like a piece of rock that falls in space horizontally and*
> *breaks through layers of a night sky reflected on the water surface, turning*
> *into multiple repetitions of a pulsing ripple – to my right and to my left.*
> *I'm the ripple and the rock falls through me into the darkness.*[8]

2.1. Introduction

In *Surface: Matters of Aesthetics, Materiality and Media* (2014), Giuliana Bruno argues that the essence of materials is not in materials themselves but rather in the activation of material relations. She understands projection in the works of James Turrell or Anthony McCall as landscapes where the "flow of time and the experience of duration" is essentially the passage of light, developed not only as an "external but also internal phenomenon", where light essentially becomes "permeable architecture" (Bruno 2014, 8). Her views underscore my thinking about the role of materials, light and structures in spatial performance (in an exhibition space). However, I go further and explore material relations and their role not only in the space of the exhibition, but also in their unfolding prior to entering the public space – that is, investigating how such material relations come to be structured, arranged and imagined, from inception to prototyping / testing in the studio. Based on this exploration, I will argue that the performance of space in immersive environments is not structured solely through relations between materials alone but also through scenographic unfolding – as material and technological mediation and transformation of body space relations. By this statement I suggest that the manner in which media, space and materials

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[8] *Deep Waters*

are combined, both inside the studio in the development of such performative spaces and then within the exhibition space, leads to a particular blurring of the relationship between the body of spectators and the mediated space itself – a blurring that will shift in intensities and qualities depending on the different way materials are organized in the space. This argument should be also viewed as a first step in the evolving definition of scenographic unfolding as a lens through which to understand the performance of immersive space, how it arises through practice and how existing definitions of immersion may be reconfigured through this practice.

Discussing the performance of immersive environments that employ materials, architectural structures and recorded audio-visual media, I follow a key understanding of immersion in visual arts that considers the bodies and the imaginative minds of the audience as fusing with the performing screen (Bruno 2014, Iles 2016), and define immersion as the blurring of media, bodies and space. I observe this from two perspectives: (1) Iles' interpretation of the viewer who, within the given space, becomes "yet another screen" by being transformed into a "hybrid cinematic body for the duration of her merging with the technology within the given *environmen*t[9]" (Iles 2016, 124, my emphasis); and (2) Bruno's understanding of the screen projection as "relational psychic architecture […] a screen-brain that leads to matters of imaginary space – that is, to engaging the kind of projections that are forms of the imagination" (Bruno 2014, 123, 165).

Being the audience as well as the author and the maker of these environments, I am immersed not only in the performance of the immersive environment but also in all the steps of its production as well as dissemination, composed of: (1) the experience of the environment and

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[9] Iles draws a connection to the Dimensionist Manifesto here. In 1936 in Paris, Kandinsky, Duchamp, Picabia, Arp, Sirato and others had signed the Dimensionist Manifesto, declaring that "a completely new art form will develop…The human being, rather than regarding the art object from the exterior, becomes the center and five-sensed subject of the artwork" (Iles 2016, 124).

its natural phenomenon; (2) the creative processes of working with materials and technologies; and (3) the transformation of space / audience relationship into the performance of the immersive environment. Here, then, I will describe how exactly, from the point of working with materials, such immersion – the blurring of bodies, minds, screen and space – is actually conceived, experimented with and implemented – thus making possible a new kind of scenographic experience where the separation between audience, stage, media and material breaks down.

In order to do so, it is first and foremost important to clarify that immersion did not originate in spaces altered by digital media and technologies (as it may appear from the wealth of media-related literature), but in fact derives from the "Latin *immersio* and may refer to any act of experience of plunging into something, without necessarily applying to computer-generated virtual environments" (Dogramaci and Liptay 2015).

In this chapter, I define scenographic unfolding as a key term through which to view the performance of immersive environment through an early series of installations called *Deep Waters I, II* and *River,* produced and exhibited between 2008 and 2014. Departing from memories and experiences of natural phenomenon as the inception of these immersive environments and their performances, I insert my own body interchangeably as the author and as the audience to explore the blurring process of media, bodies and screens that I discuss above. From these perspectives, I engage in, observe and evaluate the processes of the scenographic unfolding in action, as well as the type of performance and immersion it affords within the space of the studio and the exhibition.

2.2. *The Scenographic Unfolding*

The summer rains of East Bohemia coloured many moments of my childhood memories;
I sit on a bench in front of the local store, tucked under the roof away from the rain. The bench I
sit on is too high for my feet to touch the ground. I rock my legs back and forth and watch large

raindrops falling down, bouncing up and down, breaking the surface of large puddles into hundreds of tiny ripples. Here, there, and over there! It is like a grand ballet of dancing raindrops and pulsing water patterns. The rhythm is nearly hypnotic and the repetition pulls me in.

In *Matter and Memory,* the French philosopher Henri-Louis Bergson reminds us that the most precious memories are those of childhood. They are not only beautiful, he writes, they are "coloured by poetry". He explains that to become a base of artistic creation, memory needs to be worked upon. However, the most important thing is not the reconstruction of the actual memory, it's the reconstruction of the "particular emotional atmosphere", without which the evoking of the memory runs a risk of merely giving a "rise to a bitter feeling of disappointment" (Bergson 1965, 28).

But how does this "reconstruction of the emotional atmosphere" take place, first through the material and technological mediation in the studio and second through the transformation of the exhibition space and the bodies of the audience? In other words, how does the process of the transformation of space / body relationships and material and technological mediation unfold from its inception to its dissemination, and how can our understanding of immersion be reconfigured by this unfolding of performance in action?

The first thing to consider in exploring this mediation and transformation is the nature of materials that enable this reconstruction of the emotional atmosphere to take place. The Austrian-American architect Frederick Kiesler, for instance, observes that no object "of nature or of art exists without environment". In this sense, he believes that an object can become an environment by its own expansion through light (Kiesler 1965, 18); light can also create presence (Kahn 2013, 26). Similarly, the Bauhaus artist Moholy-Nagy claims that light can be perceived as architecture and experimented with as a connective tissue between media (Bruno 2014, 110). Both the expansion and transformation of an object into an environment through light may be compared to

what Bruno termed *technological alchemy*, as a way to describe processes engaged in the activation of material relations. As an example, she uses the phrase "passing the celluloid" to describe where the film arrives at the screen on the surface of other media (Bruno 2014, 8). I employ this notion of transformation as an entry point to understanding the invisible processes engaged in the unfolding of objects into an environment where light not only becomes the connective tissue between media, but also plays a key role in the transformation of space / body relations.

2.2.1. *Deep Waters I.*

My curiosity about creating spaces that would allow the audience to enter the imaginative dimension of depth and the hypnotic performance of water ripples through the use of screens as affective membranes is what led me initially to material experimentation. At the same time, as the memory that opens this section makes clear, I was long fascinated by the immaterial nature of things: water, ripples, reflection and how one could combine these things. These optical qualities could be combined with light in such a way as to allow me to create physical spaces where depth became both the subject of the imagination as well as the actual dimension. These materials had to be firm and sturdy and at the same time, their structures had to appear as floating in the air, like rain or mist.

The first environment in which I attempted to convey my memory of the summer rain began with a series of projects titled *Deep Waters*. The first installation was composed of a number of large steel pools set on the floor, filled with water, with simple plumbing systems installed in the ceiling and vellum screens surrounding the pools. The plumbing distributed drops of water above each pool; each time a drop fell it was followed by a ripple, forming a symphony of pulsing lines on the water surface horizontally and making a corresponding pattern of pulsing

light on the screens vertically. Once the work was on display in an exhibition context, the pulsing

of the ripples drew my audience in. Once they arrived, they would stand quietly around or sit

down on nearby benches without speaking a word. Then they remained seated in complete

silence, for a very long time, becoming in their own way the child that sits on a bench of their

summer rain – just like I once did.

Figure 11. *Deep Waters I*. Installation view, NAC, St. Catharine's, ON (2008).
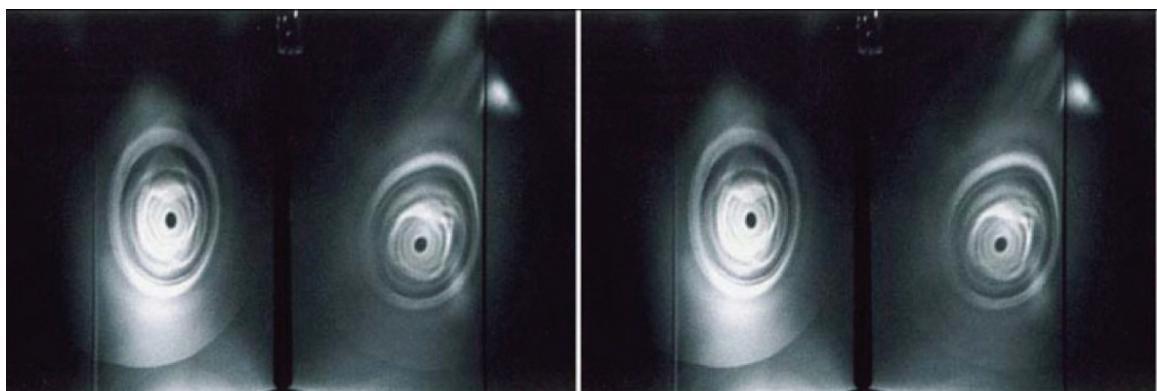

Figure 12. *Deep Waters I*. Installation view. Reflections on the vellum screens (2008).

Bruno's idea about materiality of screens and her argument that the depth may be found on

the surface of the "cloth" and envelop the audience in "imaginary architectural formation in

which projections, literally and metaphorically, can occur" (Bruno 2014, 78), clearly embody the

manner in which audiences encountered *Deep Waters*. One had the impression that the audience

wanted to let the screens dissolve, using their bodies as the surface of the play of reflections. In

nature, not unlike in an exhibition context, we become pulled into the phenomenon, such as a

pulsing pattern of light reflected off the water surface, by their sheer capacity to overwhelm our

"perceptual apparatus" (Murray 1997, 98). The distance of the screen as part of this perceptual

apparatus acted as a barrier. But could the experimentation with materials, light and structures go

further and construct a type of immersive environment where depth may be experienced both

imaginatively and physically? In other words, could we design a space where the audience can

physically enter the subject of the depth of waters and blend with the performance of a pulsing

water ripple?

2.2.2. *Deep Waters II*

In searching for the answers to these questions, I began experimenting with several different

materials and gradually became less interested in existing materials and more so in creating new

ones. From there, I moved to using thread as a building block for my installations and engaged in

constructions of weaving frames. After several test sessions with different threads, I settled on

using monofilament for its optical qualities and designed a large frame. From this point, my

determination turned my days into endless hours of labour in my pursuit of weaving the fabric of

depth. Thread by thread, the subject of depth, as well as its material fabric, began to clothe my

body and mind as it eventually would "clothe" the bodies (and minds) of an audience (Bruno

2014, 5).

This is best expressed by the architect Louis Kahn, who describes materials and light as a

language by which poems were written even before we had languages. The "material making of

light" by itself already is "an inspiration – besides the inspiration," he says. Thus, materials hold

a strong promise to fulfill the growing need and the desire of the soul and the mind for expression (Kahn 2013, 26). Kahn addresses materials as an outlet for this expression further: "what nature gives us is the instrument of expression, which we all know as ourselves, which is like giving the instrument upon which the song of the soul can be played" (Kahn 2013, 26).

Thus far I had employed low-tech theatre lights, pools and dripping faucets to reflect the pulsing ripples of the water surface onto vellum screens. But what if I were to go a step further towards shifting the screen onto the bodies of the spectators? Instead of using light and water to create the effect, what if I were to employ video recording technology, not as a way to capture a narrative or a story (as might often be the case), but rather as the subject of the performance, in this case, the water ripple as moving light, activating the optical qualities of the materials and transforming the space and the audience? How will the scenographic unfolding take place between three different modalities of space: the nature (the phenomenon), the studio (the action of making) and the exhibition? In other words, how would the space be activated and include the bodies of the audience as integral to that activation and not separated from it?

Just like the first time we came here, it is quiet and dark. The streetlight on the bridge shines onto the river and reflects off the water's surface. As the river moves, the reflection makes a little bow of dancing light. I throw a rock in, just to see. It works beautifully, just like the first time: the light breaks into a pulsing ripple. We set the bag down, heavy with rocks from under the bridge. I mount a camcorder on the railing and centre the viewfinder on the river light. There, perfect. We start throwing rocks. At first we throw them too quickly and the image is chaotic, without enough time for one ripple to finish before the next one begins. Finally, we get an ideal rhythm and I record a good ten minutes of nice steady video.

The materials I worked with relied on light for their activation and required darkness and unreflective walls for the optical effects to take place. My studio had two white walls and two black walls: this allowed for a realistic testing of the work, which combined transparent and reflective materials as well as light projections. At this point, the space of the studio resembled a laboratory where viewing, experiencing, reflecting on and making the work became one

continuous process. In this respect, the idea of studio space begins to overlap with that of an exhibition. In *Between the Black Box and The White Cube: Expanded Cinema and Postwar Art* (2014), Andrew V. Uroskie talks about the folding of the white cube into the black box space of the cinema which "transports the viewer away from her present time and local space, into the […] cinematic world of the screen" (Uroskie 2014, 5). Uroskie's argument, however, is not exclusive to the space of the exhibition and in relation to the viewer. As I learned, it begins in the studio, in relation to the material processes and the author who makes the work.

The next day, I get to my studio early. I load the projector with the video, aim it towards the screen and I turn off the lights. Finally, I see the ripples that we recorded last night in action. Formed entirely by captured movement of throbbing light on the pitch dark water surface, the projected light strums the strings of the screen as if it were a large harp. The optical quality of the fishing line, woven vertically with about one millimetre of space in between each line, absorbs the projected light and reflects it. This creates tiny shimmering reflections along the walls in my studio. The impact of the effect is not only visual, but also physical. Seduced by the performance of the screen, I sit in the darkness of my studio, and watch the endless fall of the rock and the repetition of water patterns.

Importantly, the transparent nature of my screens, in which the border between the image and the space began to dissolve, complements the theories of the American poet Vachel Lindsay, who described screens as a hybrid medium capable of crossing between interior and exterior worlds (Bruno 2014, 115), in a sense transforming separation into immersion due to the blurring of demarcations between body, screen and space. Lindsay's idea of "sculpture-in-motion", "painting-in-motion", and "architecture-in-motion" is readily applicable to my screens, which became transparent objects capturing the performance of a pulsing ripple, and at the same time, formed the architectural environment of the performance.

After a while, I got up, walked towards the screen that leaned on an angle against my studio wall and squeezed my body behind it. Sandwiched between the wall and the screen, I viewed the ripples from there. A bit like standing behind a waterfall. Indeed, there was that feeling of being behind. Of being absorbed somehow. Eventually, the audience will replace my body. They will stand where I stand watching the performance of shimmering light on the strings. In fact, was I not the audience now?

The scale of the screens I fabricated was larger than myself and their architectural compositions forming the environment designed for gallery spaces were also larger than my studio. Thus, I could never see an entire work in my studio setting. There were moments in the studio, though, with materials, structures and light, which already by themselves became a performance, where the optical nature of my screens allowed me to layer the projected image and insert my body, and thereafter the body of the audience, into the work.

Previously, I established a definition of immersion as the transformation of bodies (of the audience) into 'screens' via blurring with projections (Iles 2016, 124), and as transformation of mind via projections that are forms of imagination (Bruno 2014, 8-9). I have observed, however, in my own processes of working with materials and technologies, designing and creating the type of immersive environments that Bruno and Iles describe, that my own body and mind were, in fact, inspired and affected by the processes in making *prior to* granting access to my audiences.

Here, immersion operates in two ways: (1) it inspires, imagines, plans and conceptualizes, or even dreams, about the forms of transformation of space / body relations within a performance of an immersive environment which does not yet exist; and (2) immersion as a reflection of the natural phenomenon and as an experience, memory or even a dream of space that has transformed us and served as an inspiration for the creative process in the first place. In either case, we can establish that the immersion arises from a type of situation or surrounding that "take over-all of our attention, our whole perceptual apparatus", and is driven by our desire to be surrounded by a "completely other reality, as different as water is from air" even if this reality arises as a result of optical illusion formed by material and technological mediation (Murray 1997, 98).

As we can see from the processes that I have just described, the scenographic unfolding is not limited to the material relations (Bruno 2014) or the experiences of the audiences (McKinney

2014, Bishop 2005) alone; instead, this unfolding is made possible by both the matter itself (the

materials used including the body) and the structuring of these materials so that a specific

transformation can take place where body, mind, space and screen lose their individual identities

and engage in a kind of spontaneous interplay with and among each other.

*I finished my designs, set them on the table and was ready to leave. Just as I was closing the door
of my studio, I came to a key realization: I am not a designer of work, painting, or sculpture, or
even installation, but rather a designer of space, spatio-material and temporal relations, and
potentialities. The designs of my objects first became screens and those through the use of
moving light and projections became environments. These made my audiences feel, imagine and
perhaps even act – communicating not the memory but first and foremost its "emotional
atmosphere"* (Bergson 1965, 28).

2.2.3. River

The experimentation that formed the *Deep Water* series led to the next generation of works titled

River. In the *River* series, the screens were made by engineering a different type of frame to

produce ten-foot-tall conical structures, formed into screens with cast-glass bases. Once the

structures were finished and suspended from the ceiling, I projected video images of white water

rapids through them. I soon learned through my studio experiments with materials, structures and

light, and by inserting my own body into the work during the test sessions, that any object, or any

shape, cube, column, cone or even a person could become a screen (Mondloch 2010, 2). These

designs became "landscapes in motion" (Bruno 2014, 112), as images projected through conical

screens became material by means of molding three-dimensional space (Kiesler 2001, 75) and

where human bodies, moving and experiencing, were included already in the design of the work.

Once the work was on display in an exhibition context, each cone transformed into a

harmonious circular moving pattern of coiling water rapids and became an open invitation to

walk right in and through the silent landscape of a *River* where the "passage of light became the

passage of time" (Bruno 2014, 8). The movement of light through the landscape and its rhythm

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also affected the movements of the audiences, fluctuating between walking, stopping and standing still. When they stopped they remained motionless, silently blurring with the coiling cones all around them. The audience became part of this landscape both physically and imaginatively. Their bodies absorbed the projected light, and at the same time cast shadows throughout the landscape. Their mind was pulled into the space and time – through immersion in a river that was their own.

This motion of emotion, combined with that of a body and the coiling landscape of water patterns trapped in the cones, and the way one became immersed in the environment, was not unlike the way one becomes immersed in observing the motion of the river from a bridge. In either case, movement in some way represents stillness. In other words, the performance was not about the river alone but also about the blurring of one's mind within the phenomenon of the movement of the river, where the mind appears to stand still while the river runs. The two different temporalities of the mind and the river became not only the subject of the performance but also a means of forming a key aspect of the installation.

Figure 13. *River* Installation View, Hexagram Black Box, Concordia University, Montreal (2009).

Figure 14. *River* Installation View, Hexagram Black Box, Concordia University, Montreal (2009).

2.3. The Performance of Immersive Environment

My eyes take a few moments to adjust to the darkness in the room. Soon a number of pulsing ripples begin to appear. One – two – three – four – five. The sound follows. Clack – clack – clack – clack – clack. The eye catches what appears to be a rock flying through the space, breaking each screen into a ripple. After a while the ripples and the sound come to a stop, but the space does not become completely dark; there is a small wave of light sitting on every screen, swaying ever so gently. I now recognize each screen and see spaces between them, as well as other people around the perimeter of the gallery. I watch the swaying wave on each screen, and then decide to walk right into the screens. The ripples started coming again. I notice shimmering reflections of the projected light on other people, also on hands, my entire body. We are all living participants in the projection.
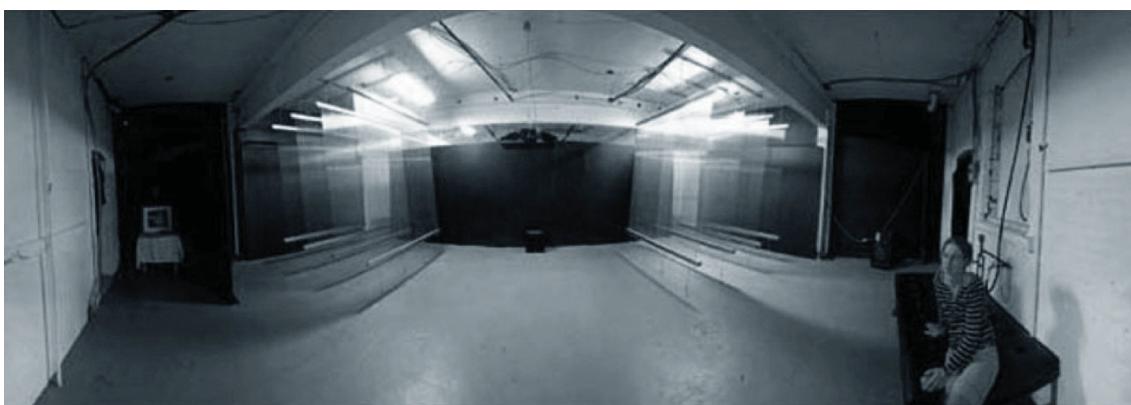

Figure 15. *Deep Waters II*. Installation View at NAC, Saint Catherine's, ON (2008).
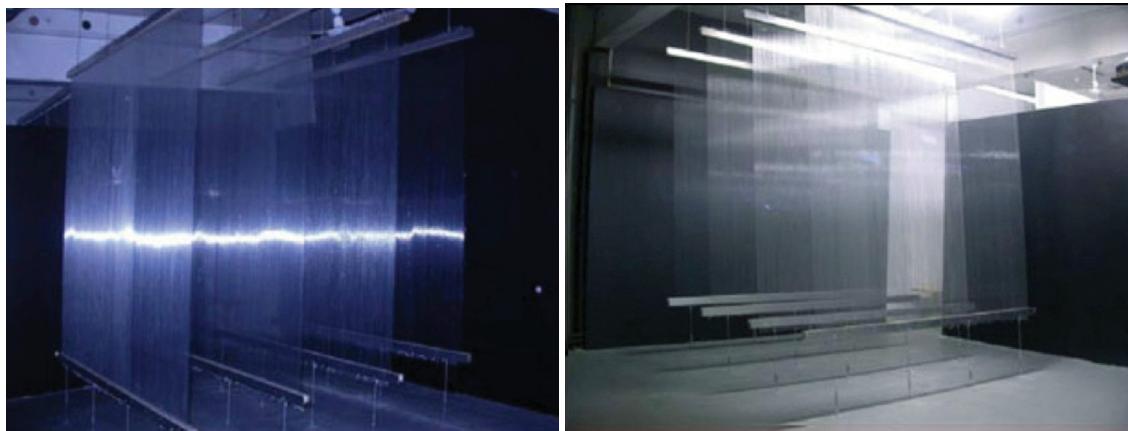
68

Figure 16. *Deep Waters II*. Installation View - screen detail (Screens fabricated in monofilament).
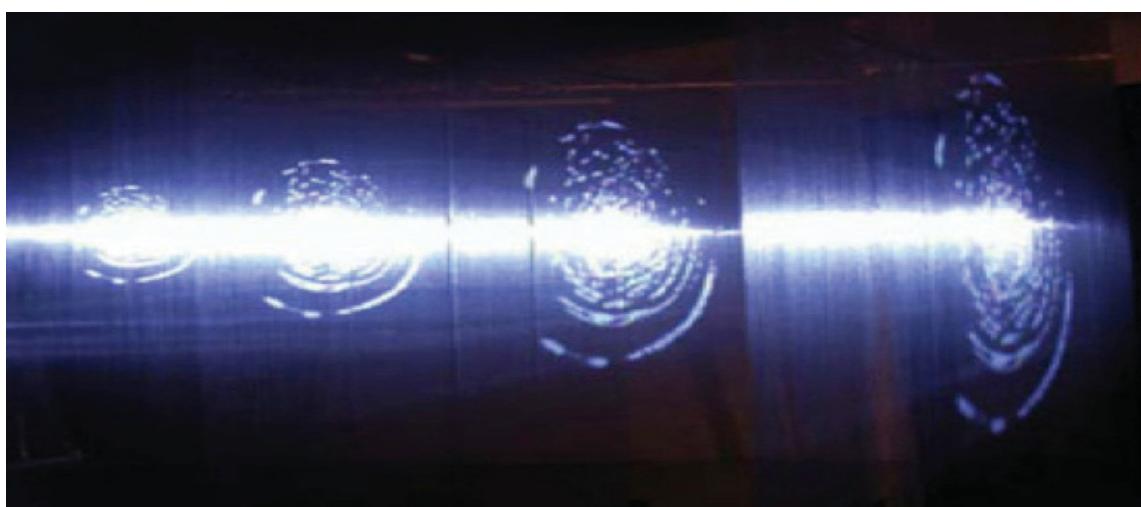

Figure 17. *Deep Waters II*. Installation View – screen detail (Screens fabricated in monofilament).

Enjoying what Barthes described as the "bliss of discretion", the darkness of these exhibitions provide me with the benefit of invisibility and a certain degree of voyeurism towards the work and the audience (Barthes 1989, 348). This allows a kind of fluctuation between visibly sharing the space with the audiences or withdrawing myself from the scene of the action to evaluate on three levels: (1) to assess the work based on sharing the space and actions of these audiences and blurring with the work as well as them; (2) to listen and watch the response the audiences from a certain distance; and / or (3) to engage in a conversation with the audience and reflect on the experiences and ideas that they share with me.

The reactions of the audiences became nearly predictable and there was a pattern to them across all the works that I have described (*Deep Waters I, II* and *River*). My initial observations corresponded with Youngblood's notion of synesthetic cinema and his claim that

…it's not what we're seeing so much as the process and effect of seeing: that is, the phenomenon of experience itself, which exists only in the viewer […]. One cannot photograph metaphysical forces. One cannot even "represent" them. One can, however, actually evoke them in the inarticulate conscious of the viewer (Youngblood 1970, 97).

Youngblood's reference to "the hypnotic draw to the fire" or the "spellbound gaze" is particularly suitable to the way the members of the audience appeared (91). Going further, one could compare their experience and reactions to "seeing the cathedrals in clouds", not thinking anything in particular but feeling somehow "secure and content" or what Youngblood also describes as the "oceanic effect", feeling attracted to the technologically mediated images of natural elements, in a mindless stare of wonder at the ocean or a lake or river (Youngblood 1970, 91).

In terms of the type of immersion that occurred in the exhibition context of this environment as a result of processes of scenographic unfolding, there were three types of space, hence three types of immersion which emerged, overlapped or fused in this process: (1) the natural environment where the phenomenon, such as the pulsing water ripple, may occur; (2) the studio where the transformation of the body / space relations and the material and technological mediation begin to take place; and (3) the exhibition context where the space of the gallery along with the audience are transformed by the material and technological mediation combining the first two types of immersion.

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Previously, I have discussed the link between the first type of immersion in the natural environment and the second type of immersion within the exhibition context of the *River* installation. There, I referred to our attention and the whole perception apparatus being taken over by the phenomenon of the water rapids, and compared it to the way one becomes immersed in observing the motion of the river from a bridge to the way one becomes immersed in the environment of the coiling landscape of water patterns trapped in the cones. The two different temporalities, of the mind and the river, became not only the subject of the performance but also a means of forming the immersive aspect of the installation.

Similar processes occurred within the exhibition context of *Deep Waters II*. It was the immersion in the phenomenon of the water ripples in nature, caused by a rock falling into the depth and darkness of waters, that inspired the processes of scenographic unfolding as a transformation of body / space relations by means of material and technological mediation, resulting in the audience becoming immersed in the environment. While the communication of the phenomenon took place by different means, it resulted in a powerful experience where the performance of the water ripple formed not only an immersive performance but also the actual immersion within.

The third type of immersion I refer to here is the transformation of body / space relations between the types of immersion that occur in the studio and in an exhibition context. In the exhibition space, not unlike during the test sessions in my studio, I both observed and blurred with my work. However, in an exhibition context I also blurred with the audience in terms of understanding their responses to the work itself. My body as well as theirs were being pulled, physically and imaginatively, deeper towards the dimension of depth, experienced through movement and time. Whether this pulling was embodied by the horizontal falling of the rock, or the pulsing water ripple throughout the space of the environment, the outcomes remained the

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same: immersion occurred as a result of having our entire attention and the whole perceptual apparatus captured by the phenomenon of the water ripple – through the way in which the material, the image and the bodies of the spectators interacted within the space of the installations.

In *Deep Waters II*, for example, some audience members stood in the middle of the work for a long time in complete silence, observing and blending with the performance of the water ripple. Others stood and observed before spreading their arms, as if attempting to "swim through it". Then there were walking audiences. They chose to experience the work by moving their bodies within the dynamic movement of the performing ripple.

There were also audience members that connected with each other across the screens, realizing that they were all part of a pulsing environment, that they were also rippling as the flickering reflections of the projected light fell on their faces, hands or their entire bodies. Some audience members were playful, hiding in the darkness and then emerging within the performance of the water ripple. Some reached out for the flying rock, trying to catch its illusion. And then, of course, there were children who completely accepted and embraced this new dream-like world as their playground.

Audience members rarely connected with me in the dark space, nor did they approach me while inside. On the rare occasions, when I was introduced as the author of the work by a colleague or a friend within the working darkness of the space, there was a sense that the serenity and the silence of the environment needed to be maintained. This applied to *Deep Waters I, II* and *River*, where not only would talking disrupt the experience of the environment, but there would be a sense of discomfort as if having to suddenly wake up from a dream.

I did not engage with the audiences at the exit point either. The moment they walked out of the darkness of the installation, they were still within the experience, still processing, still holding

on to what was inside. Barthes refers to this particular state as "coming out of hypnosis" (Barthes 1989, 345). The audiences would walk out in silence and carried, or seemed to want to carry, that serenity away with them as far as they could. With some distance, however, they felt more open to sharing their experience.

When I did engage them afterwards, the conversation usually shifted towards their own experience within the space. They would tell me how they felt, many of them saying that they had never seen anything like that before. Complete strangers suddenly felt an almost personal connection with me and wanted to share their memories and experiences. Others provided endless ideas of what else I could do with these screens, or told me they wanted to do something similar or that they had thought about this idea before.

Regardless of this sudden connection with audiences, in reality, they entered into a process of shaping the work that was their own. Not unlike the "readers" whom Barthes refers to in his oft-cited essay, "The Death of the Author", who felt a strong desire to become writers through the act of reading, *River* and *Deep Waters I, II* awakened in the audiences the urge to create (Barthes 1967) as they lost the boundaries between themselves and the materially and technologically mediated space they inhabited. Similarly, like Bachelard's interpretation of the "bringing about a veritable awakening of poetic creation, in the soul of the reader, (the audience) through the reverberations of a single poetic image" (Bachelard xxiv), be it the phenomenon of the pulsing water ripple in *Deep Waters I, II* or the phenomenon of moving water rapids in the *River* exhibition, the audience had a strong desire to make the work their own.

2.4. Conclusion

Expanded forms of cinema evolve around viewing the bodies of the audience as an extension of the filmic apparatus in physical space, and as forms of body / mind screens with potentialities to

become the subject of the artwork. The "virtual condition", a term established by Bruno which positions the understanding of materiality outside of materials themselves within the transformational process of reactivation, might be one way of understanding the materiality of the cinematic apparatus within these expanded forms.

This investigation, however, has attempted to go further, exploring the potentiality of such a virtual condition not only in the exhibition context but also within the creative process itself, through a shaping of spatio-corporeal relations that foster the transformation of viewers into body / mind screens. From this perspective, I have argued that the transformational processes engaged in body / space relations are not the outcome of the 'virtual condition' alone but occur as an unfolding of performance within processes of material / technological mediation. In other words, the work of enabling immersion to occur does not only take place within the space of the installation, but is constantly in the state of *becoming* within the manipulation of materials and media in the studio. To explore this process of becoming and to view how it arises from practice, I established and began to define a key term, scenographic unfolding, as a lens through which to view transformation of space / body within the space itself. I then explored the scenographic unfolding of the immersive environment in action, and tried to understand not only how the process of immersion unfolds in the space of the exhibition and the performance of the *environment*, but also throughout the entire process, from inception to dissemination.

For instance, in *Deep Waters II*, the pulsing water ripple is the subject of the performance; the multiple transparent screens frame the layers of the image and the immersive experience of this performance. The audience may enter the frame of the performance by blurring with the media, and even interacting with it to some degree by having it fall onto their bodies, but they do not, by themselves, become the subject of the exhibition or change its course. On the other hand, *Line Describing a Cone* (1973) by Anthony McCall, referred to earlier, is formed by the

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volumetric filling of space with light due to particulates in the air; the only screen is at the end of the projection on the gallery wall. The moment the audience disturbs the volume of light with their body parts, they themselves become the screens. By physically entering the projected beam of light, unlike in *Deep Waters II*, they also become the subject, the material and the space itself. Yet, in something like *Line Describing the Cone*, while the audience may manipulate the light and hence, the space – they still remain fundamentally outside of it.

What has become apparent from this investigation is that there is a direct correlation between the type of media employed in forming the performance of the environment and the space / body relations, as well as the type and degree of immersion and performance it affords. Thus, in providing a context and a definition for scenographic unfolding, this chapter also projected a clear notion that the unfolding is a dynamic dimension, which in itself may lead to many forms of body / space relationships and expand not only the possibility of immersion (of the audience), but also their roles within the environment. Moving forward, how can the findings of this chapter be instrumental in advancing the performance to yet another level? In other words, how can we expand on these findings and go beyond the transformation of the audience and empower them with an increased autonomy of creation, and / or even expand their potential of becoming the *co-creators* of the work?

Chapter III.

Interactive Environments

Perhaps, like endless steps on a staircase that recedes into infinity
I can see myself on those steps in multiple variants of space and time.[10]
I recede on those steps and they recede within me.

3.1. *Introduction*

In striving for the "theatre of action", the theatre avant-garde not only tried to figure out how to

tear down the fourth wall, but also how to re-establish direct communication between "spectacle

and spectators" and "spectators and actors" (Artaud 1958, 97). However, what happens if the

audience steps onto the stage, not only shattering the fourth wall but interfering with or becoming

the performance itself? To explore this question, I examine the development of the spatial

environment *Déjà vu*, focusing on the problematics and affordances of the division of space into

the stage and the auditorium. In doing so, this chapter continues to explore and view performance

through the lens of scenographic unfolding, seeking to understand how it arises from practice and

how our understanding of interaction may be reconfigured through the intertwined action of

bodies and the space itself.

If Chapter I focused on how performative space arises in the material and technological

blurring of spectator, material and media, exploring how the common notion of immersive

environments can be reconfigured through this blurring of body and screen, this chapter focuses

on rethinking the notion of interactive environments. Whereas before I defined and followed the

scenographic unfolding mainly through the material and technological processes and their

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10   *Déjà Vu*

mediation, here I focus on scenographic unfolding through the less visible processes involved in body / space relationships, which are formed, become affected and evolve through the technological manipulation of constructed environments.

Earlier, I established the degree of entanglement between immersion, interaction and participation as terminologies wedged between two diverse understandings and interpretations of installation (in visual arts) and scenography (in theatre). My definition of interaction as environments that perform through the use of analogue real-time media, projections and architectural structures, springs from a lineage of artists employing closed-circuit video in both visual arts and theatre from the 1960s to the 1980s. Extending these early experiments, the projects I describe in this chapter employ projection technologies and video-recording equipment (instead of CCTV cameras and TV monitors) to create feedback through which the audience engages by projecting their bodies and minds within the 360-degree architectural surround of the given space. The feedback is formed directly through analogue connection with no further computer manipulation, unlike the general understanding of interaction within media-based practices which describe interactions that take place "between digital computer systems and audiences" (Salter 2017, 171).

Given the immediacy of the feedback formed by this analogue-based closed circuit, I define interaction as a feedback loop between media, bodies and space. I explore the notions of interaction and immersion within the visual arts and theatre within two different contexts: first, through Finnish architect Juhanni Pallasmaa's concept of embodied movement through a space (in Pallassma's case, moving through a city) and how that movement shapes a space; and secondly, by Sodja Lotker's interpretation of scenography as spaces that inspire our actions – they (scenographies) "perform us as we perform them" (Gough and Lotker 2013, 3-4). This entangling of the body with space through movement within the context of exhibition space and

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stage also plays with how the spectator becomes observer through the processing of mirroring: both in the sense of Aronson's interpretation of stage as a mirror (Aronson 2005, 97-112) and Taussig's discussion of "mimetic faculty" and "copy and contact" (Taussig 1993, 19-27).

Given that body / space relationships have traditionally evolved in two different contexts of space, the exhibition (in visual arts) and the stage (in theatre), this chapter attempts to shed light on how our understanding of interaction may be reconfigured within these seemingly opposing scenarios. In order to do this, I focus on the spatial strategies in the environment *Déjà vu*. In so doing, I continue to employ practice as a framework through which I view and advance our understanding of performance as an evolving definition of scenographic unfolding, which in this case, I situate and explore primarily around the entanglements of body / space relationships. In this instance, however, the performativity of space is not only made possible by the relational configuring and blurring of spectators' bodies, materials, and media, but also by using technology to mirror action, projecting that action into the space and in effect, making the bodies of the spectators into performers themselves through technological (albeit analogue) means.

My discussion opens with a brief reflection on the two projects that preceded the production of *Déjà vu*. These precursors (short films developed at the Faubourg staircase in Quebec City and experimentation with looped feedback in the gallery space employing imagery collected at the Eastern State Penitentiary in Philadelphia) may be viewed as a transition from the use of pre-recorded media (video / audio) to the deployment of real-time media (sets of projectors and video-recording equipment) and principles of feedback. In other words, I want to argue that feedback becomes essential not only for interaction but also for removing the fourth wall between space and spectator.

3.2. The Scenographic Unfolding

In *From Margin to the Centre: The Spaces of Installation Art*, Julie Reiss defines installation as work created in the artist studio and assembled again in the exhibition space, which is also reflective of the specific parameters of the gallery (Reiss 1999, xix). While this might generally be the case, certain works are also developed directly in the exhibition space. This was the case at La Chambre Blanche in Quebec City, where I was invited to develop the installation *Déjà vu* using the gallery as a studio. While this installation was constructed and performed directly in the gallery space of La Chambre Blanche, it emerged from the creative processes of two seemingly unrelated projects: short films of moving shadows of pedestrians at the Faubourg Staircase in Quebec City and an experiment with real-time media employing imagery of cellblocks from the Eastern Penitentiary in Pennsylvania. Departing from these creations, I will demonstrate how the transition from recorded media (audio-video) to real-time media (live-feedback), and the transition from screen to architectural space, present different trajectories of scenographic unfolding, leading not only to different experiences but also to different types of performative space.

3.2.1. Faubourg Staircase (recorded media)

Once the sun was up, the steel structure of the staircase, as well as the rushing pedestrians, cast fascinating shadows on a neighbouring façade and I aimed the lens of the camera there. Large and canvas-like, the shadows would move fast over its smooth surface, transforming the shape of the staircase, with its pedestrians tirelessly running up and down. I'd stand there, plunged into the symphony of moving shadows through the lens of my camera and film for the entire morning, working constantly, in full concentration, as time passed right in front of me.

Figure 18. Faubourg Staircase (L'Escalier du Faubourg), Quebec City.

The interactive environment that I set out to develop at La Chambre Blanche was to embrace what I consider to be one of the essential aspects of Quebec City: the notion of the old and new parts of town being connected by steps and the movement of pedestrians upwards or downwards on those steps. The filming of moving shadows at Faubourg staircase was the beginning of this process. However, my accidental rediscovery of real-time feedback, which

emerged through my experimentation with cameras, projectors and footage I had collected earlier from the Eastern Penitentiary, provided me with new sets of tools and led to new possibilities and ideas. One of the key questions I asked was: could I construct a real staircase inside the space of the gallery, and then with my own body (and its projections) replace the body of the pedestrians and their shadows in the real time-space of the gallery? Would the mimetic projection of my body and my own images present the same poetics and possibly seduction that the moving shadows of the pedestrians did? Would the projected images of my own body (and later on the bodies of my audiences) be liberated from the bothersome reality, the physicality of *I/me* trapped inside the corporeality and transport both the body and mind to what Hans Thies Lehman calls "a dream vision"? (Lehmann 2006, 170).

In *Postdramatic Theatre*, Lehmann argues that "when given the option of devouring something real or something imaginary", the eye is seduced by the attraction of the image, and it is the image that fascinates us more. One possible explanation for this is that "the image being liberated from the real live" […] gives pleasure to the gaze and the gaze liberates desire from the bothersome 'other circumstance' of real, really producing bodies and transports it to a dream vision" (2006, 170). The immersion that occurred while filming the shadows was not unlike the immersion of the pulsing water ripples on the puddles of the summer rain or the rock falling into the night river detailed in the previous chapter. The moving shadows pulled me in, and the process of filming them took over my "entire perceptual apparatus" (Murray 1997, 98). Concurrent to filming the staircase and processing the collected material, I also initiated a series of unrelated experiments with yet another set of technologies and visual materials in the space of the gallery / studio itself.

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Figure 19. Installation View: Corner mirrors with projections of films from the Faubourg Staircase, La Chambre Blanche, Quebec City, (2010).
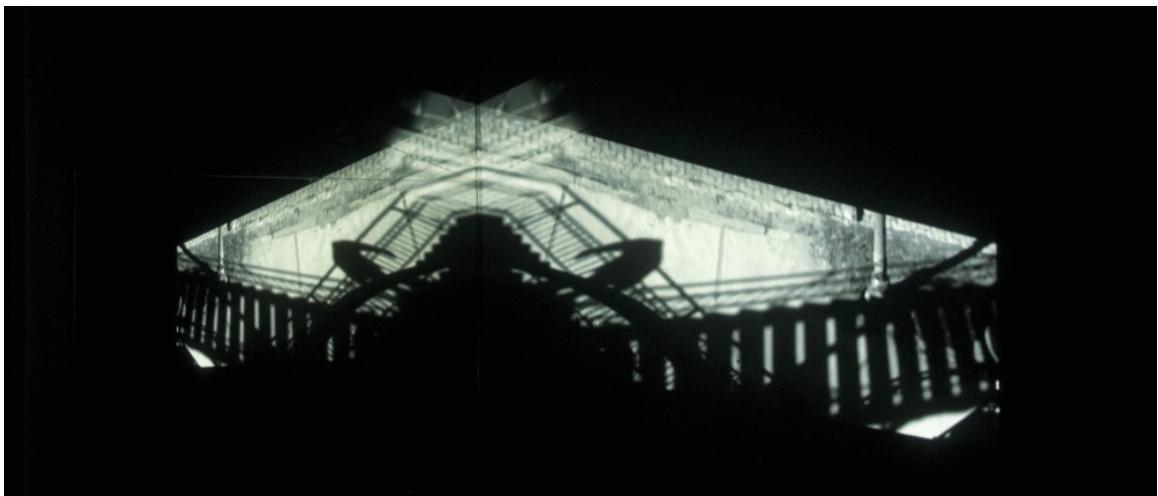

Figure 20. Installation View: Corner mirrors with projections of films from the Faubourg Staircase in Quebec City (2010).

3.2.2. Eastern Penitentiary (real-time media)

Finally, I set up two slide projectors at each end of the gallery and loaded them with two visually striking slides with arched ceilings and many small cellblocks on each side of the long hallways of the Eastern Penitentiary. Then, I set up another projector and connected a camcorder to it to see if I could form repetitions of the projected images on the wall. I was struck with surprise when the image literally multiplied in front of me, and created not only one more image, as I initially hoped, but an entire wall of repeating images of hallways. In fact, it created more than repetitions of the image that the camera was aimed at. Each time a person stepped into the field of vision, they also became an object of this repetition.

Figure 21. Installation view: Looped feedback, test session: testing footage from the Eastern Penitentiary, Philadelphia, PA. At La Chambre Blanche in Quebec City, QC (2010).
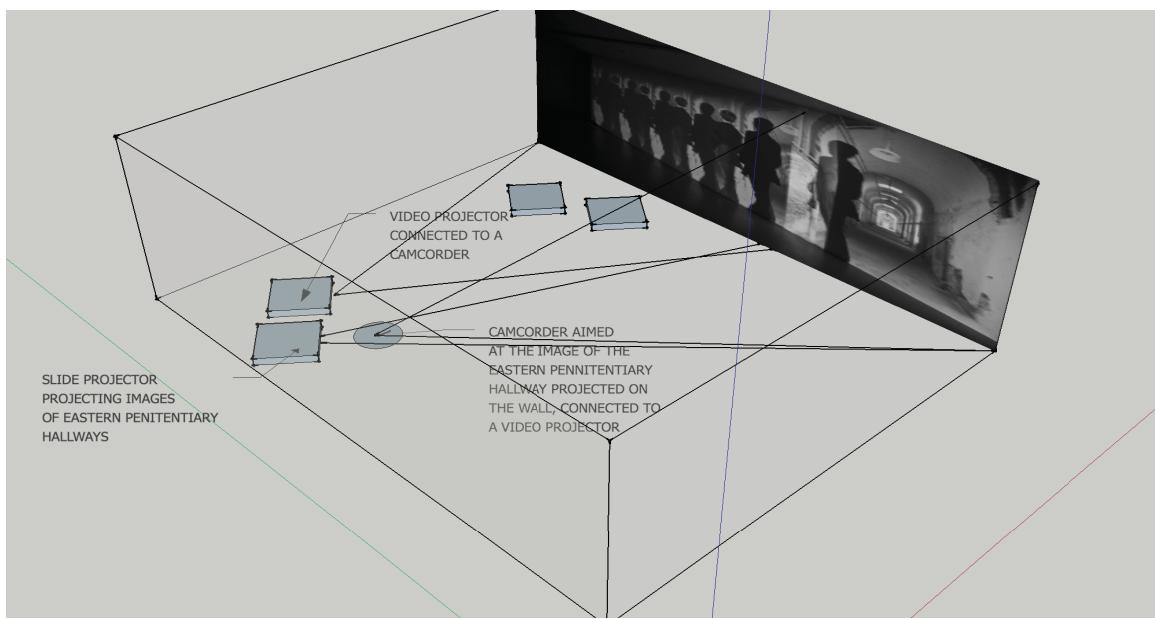

Figure 22. Installation Design: Test Session at La Chambre Blanche, Quebec City, QC, (2010).

Figure 23. Installation view: Test session at La Chambre Blanche (2010).

The platforms were perfectly aligned, forming little stage-like steps in the centre of the gallery. I got the projectors and cameras set up, and aimed them towards the platforms. As soon as I turned the projectors on, layers and endless repetitions of platforms circled the entire gallery room and filled it with a green glow. The steps of these platforms projected on the walls appeared to be receding into infinity and created a dreamlike landscape. I sat on top of the platforms, overlooking my new 360-degree site.

Figure 24. *Déjà vu,* Installation view at La Chambre Blanche in Quebec City, QC, 2010.

Figure 25. *Déjà vu,* Installation view at La Chambre Blanche in Quebec City, QC, 2010.
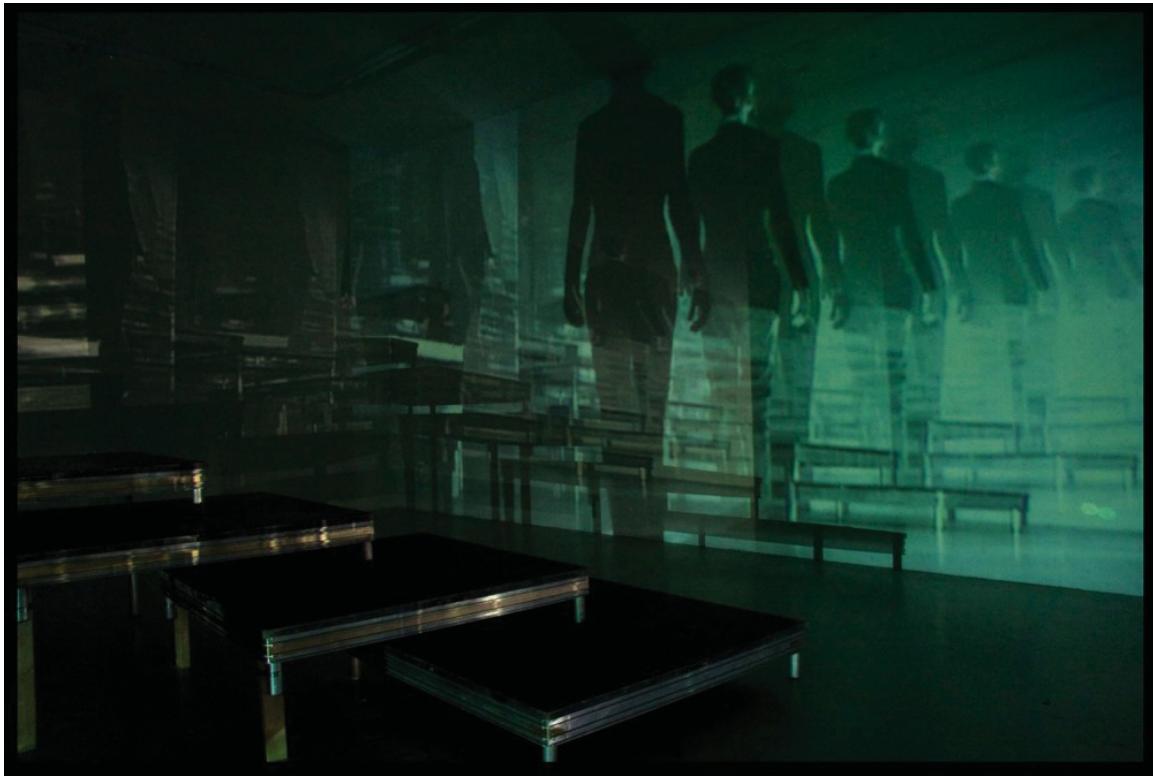
Figure 26. *Déjà vu*: Installation view, detail of the visual echo, at La Chambre Blanche in Quebec City, QC, 2010.

Theorists have long tried to understand traditional screen spectatorship through the exploration of the screen as a mirror. For instance, the French film critic Jean-Baptiste Baudry views the screen as a mirror based on the physical property of the light beam that comes from the projector placed above the heads of the spectators (Baudry 1986, 294). Barthes' interpretation is more concerned with the screen as a mirror in relation to the passive situation of the spectator whose mental apparatus is being dissolved within the screen. "As if I had two bodies," he says, "a narcissistic body which gazes, lost, into the engulfing mirror, and a perverse body, ready to fetishize not the image but precisely what exceeds it: the texture of the sound, the hall, the darkness". Barthes' type of mirror devours the spectator along with other bodies who share the same situation in darkness, a state he refers to as "amorous hypnosis" (1989, 348-349).

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Unlike projection technologies in traditional forms of cinema that are located above the heads of passive, seated spectators, the projectors employed in the environment I developed at La Chambre Blanche were situated on the floor connected to a set of cameras forming live-feedback in real time (meaning the input and output are processed at the same or slightly variable time). This scenario also repositions the "light beam" from the traditional overhead situation to floor level. In crossing the entire gallery space, the light beam of the projector (connected to the camera) envelops the spectator, captures and then projects their body into the space thorough multiple repetitions, generally referred to as a real-time feedback.

In addition, I placed a large mirror at each corner of the gallery along with another set of dedicated projectors, each paired with a camera aiming back at the platforms. Thus, the audience not only observes projections of their own bodies along the perimeter of the gallery, but they may also see the entire scenario of the gallery and themselves from another perspective, by gazing into the corner mirrors while seated on top of the platforms. Both scenarios – traditional forms of spectatorship and real-time feedback – may be viewed through Barthes' notion of the *cinematic mirror*. In a real-time feedback situation, however, audience engagement is no longer defined by its passivity, as "hypnotic and amorous", but rather through an active relationship with the work, where the audience forms the environment through their own movement in the space (348-349).

Déjà vu draws connection with artists' works engaging with the projection beam, such as Anthony McCall's *Line Describing a Cone* (1973), referred to earlier, and Malcolm Le Grice's *Horror Films* (1971), as well as artists exploring closed circuit video, such as Dan Graham in his *Present Continuous Past(s)* (1974), Bruce Nauman in his corridor pieces (1969–1972) or Peter Weibel's *'Observation of the Observation: Uncertainty'* (1973).

However, there are differences in the basic structure and the engagement of the apparatus, affording different experiences for the viewer. For example, whereas the works of McCall and

LeGrice are cinematic performances that rely on the direct interaction of the human body with the projection beam, *Déjà vu* creates live feedback via the connection of the projection beam, the camera, the body and the architecture. Similarly, works by Graham, Neuman or Weibel employ CCTV cameras and TV monitors instead of projection technology. This leads to experiencing the monitors as objects that, in a sculptural sense, exist in the same space as the audience rather than in a type of environment that not only surrounds the audiences but in which the audience becomes part of the scenographic space and thus, affords direct forms of interaction with their surroundings.
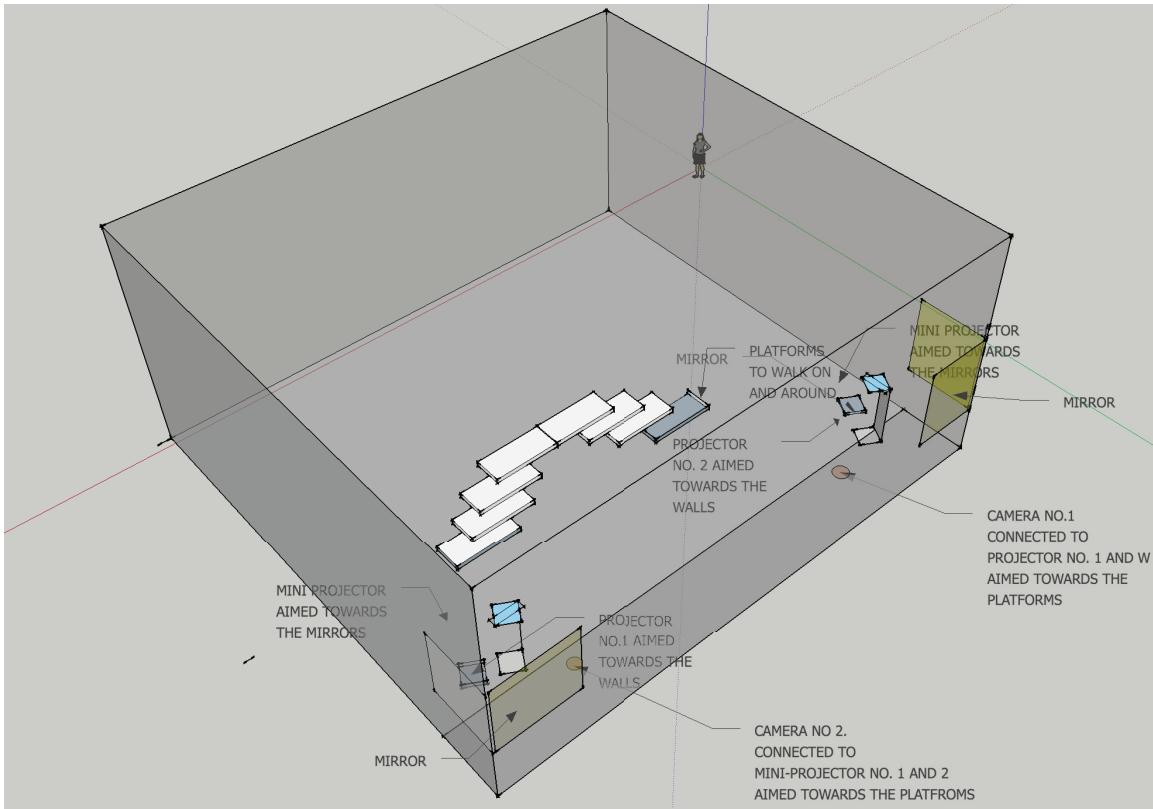
Figure 27. *Déjà vu,* Design of the installation for La Chambre Blanche, Quebec City, Quebec (2010).
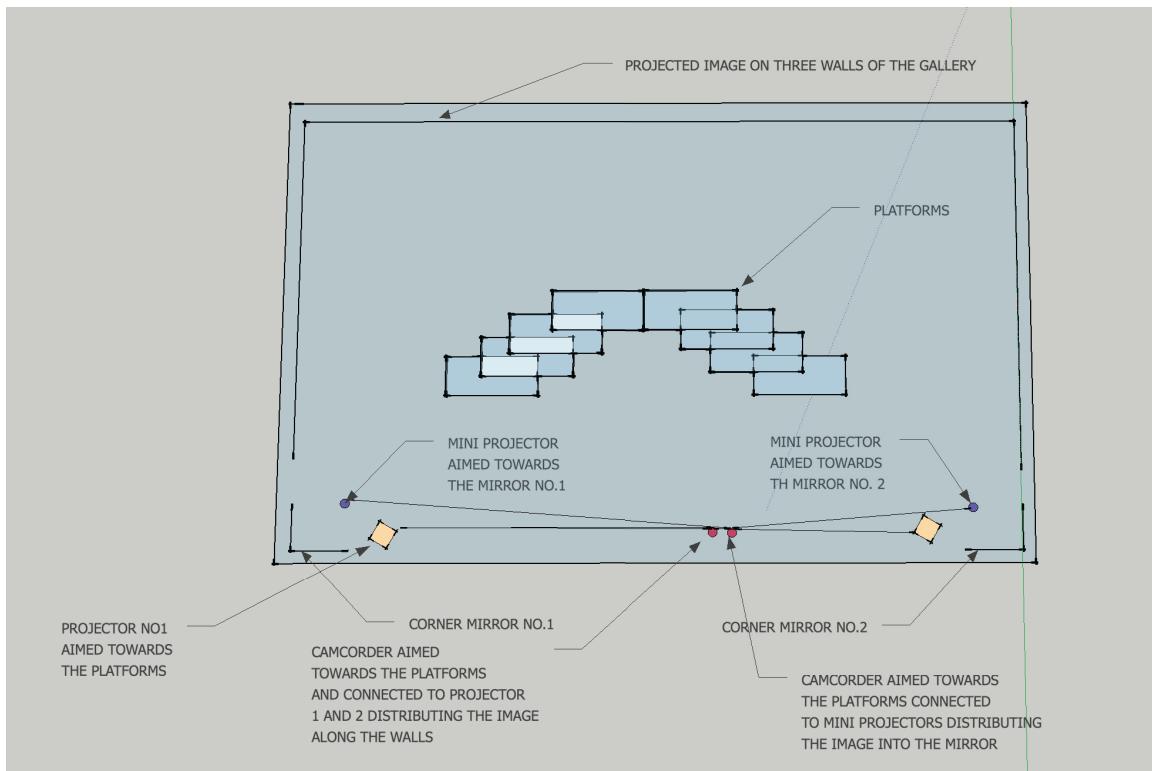
Figure 28. *Déjà vu,* Design of the installation for La Chambre Blanche, Quebec City, Quebec (2010) Plan view of the installation.
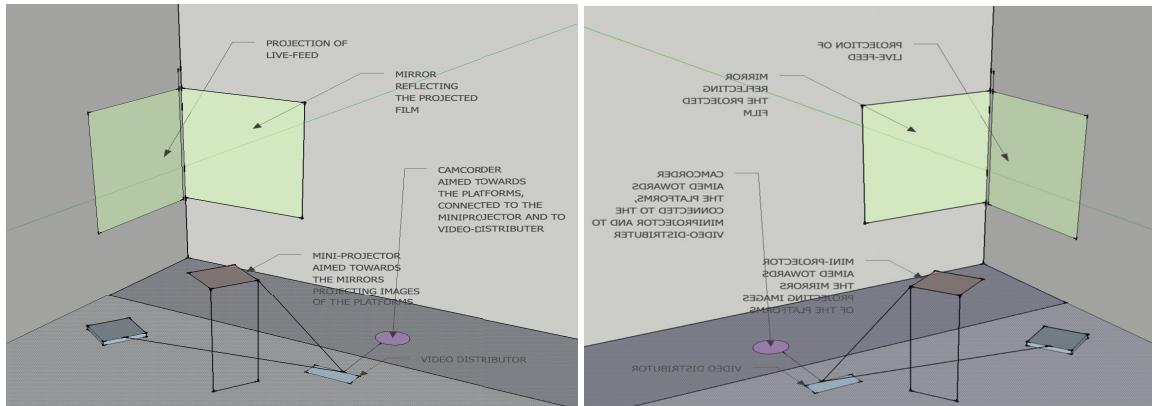

Figure 29. *Déjà vu,* Design of the installation for La Chambre Blanche, Quebec City, Quebec (2010) view of the corner mirrors.
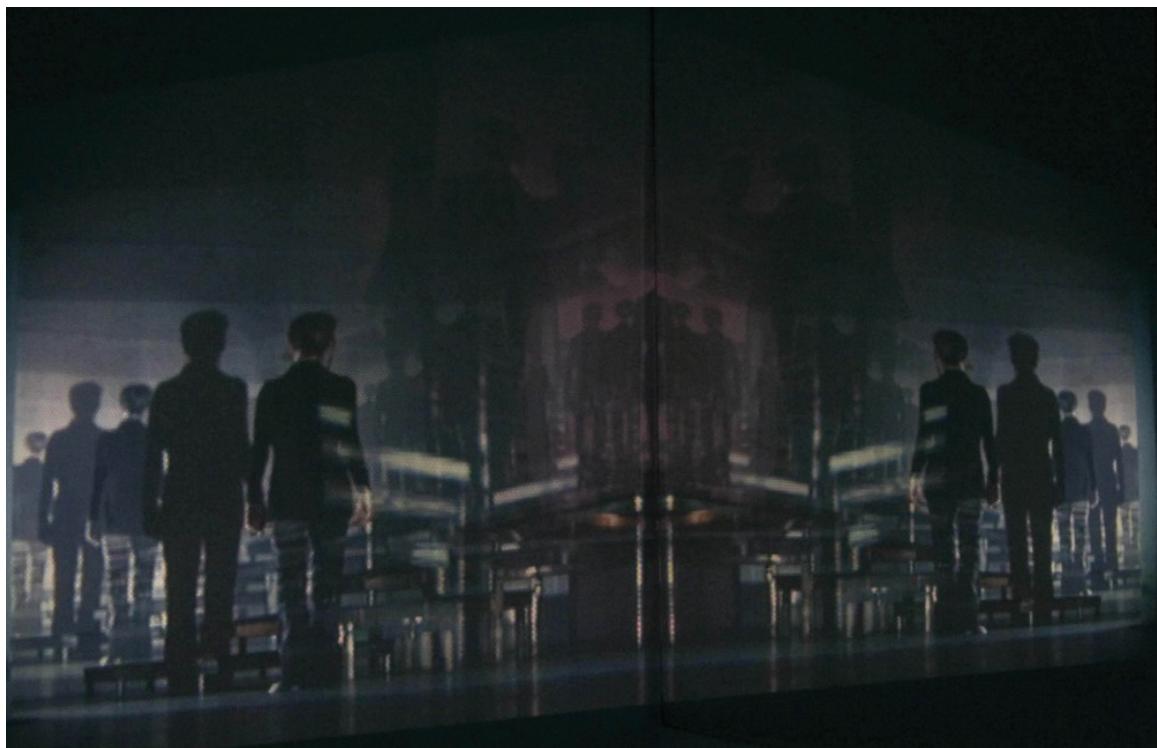
Figure 30. *Déjà vu*, Installation view at La Chambre Blanche, Quebec City, QC, (2010) (view of the corner mirror).
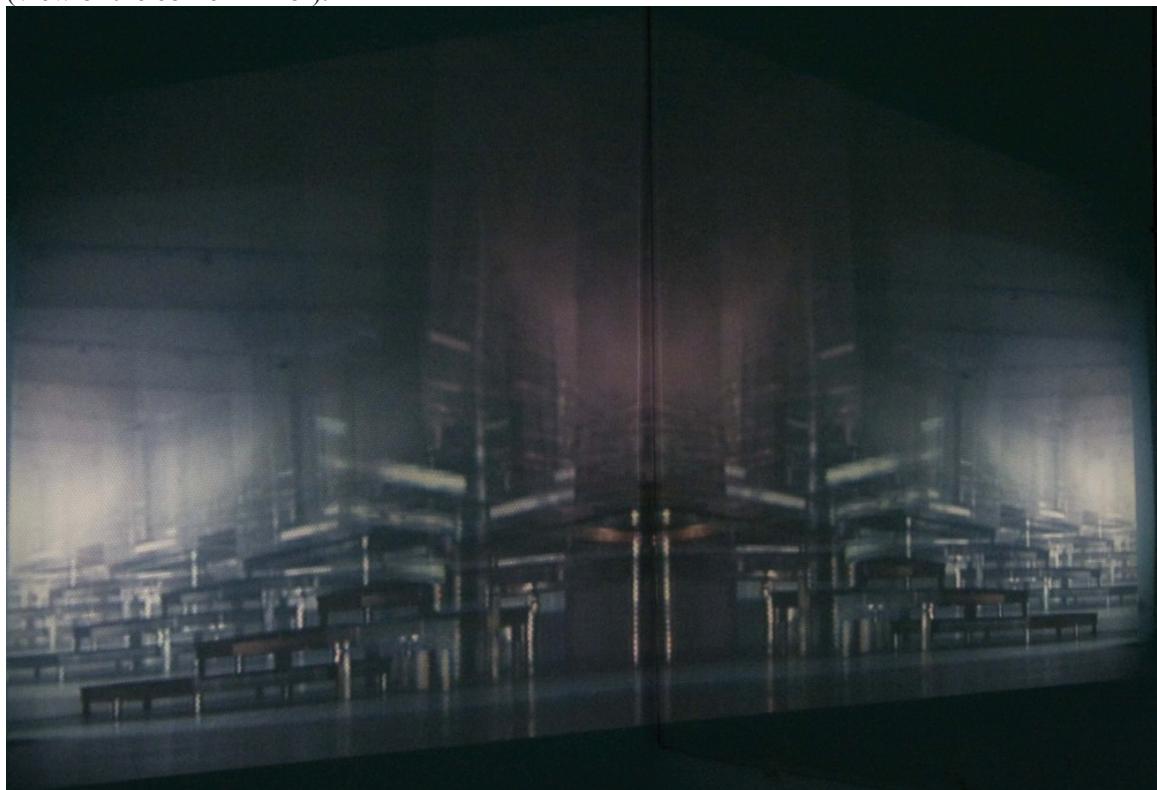

Figure 31. *Déjà vu*, Installation view at La Chambre Blanche, Quebec City, QC, (2010) (view of the corner mirror).

What type of interaction and immersion, then, did the environment *Déjà vu* provide for, and how did the performance begin to unfold?

Testing the space I first began to walk on the platforms, carefully observing my own image projected on the wall. I moved. Several images would follow. Depending on where I was standing, they would position themselves somewhere on the endless stairway. Even if everything was happening in real time, the projection of my own image on the steps gave me a sense of time. It was as if seeing my own image disappearing along with the steps into the distance (it provided that type of perspective) provided a personal reflection. It had the feeling as if one was looking ahead into a journey to be taken and projecting one's own image into that journey. I sat on top of the platform, observing the repetition of my own image, letting my mind escape within the landscape around me.

What is it about this fascination with spectating / observing and acting? In *Installation Art in the New Millennium*: *The Empire of The Senses*, De Oliviera and Oxley interpret the fascination with the 'spectatorship' of closed circuit by employing the phenomenology of seeing and the notion of a mirror as related by French psychoanalyst Jacques Lacan, suggesting that whatever the spectator can see constitutes one point from which he could be seen. As Lacan observed, the mirroring between the viewer and the viewed becomes endless. "I see myself seeing myself. I see outside, that perception is not in me, it is on the objects that it apprehends" (De Oliviera and Oxley 12004, 167). Indeed, once the body positioned itself within the reach of the projection beam and the lens of the camera in the landscape of *Déjà vu* and the images of the body occurred, Lacan's theories took stage. Although these theories in themselves may be one way to enter the discussion of the perception of the viewer, I observed that the primary experience of this environment, not unlike in the case of the pedestrians and their shadows that I filmed at the Faubourg staircase, unfolded through movement in space. In other words, it was by moving one's body that the imaginary landscapes of mind, body and architecture came alive and became an inspiration in themselves.

It is also from this perspective that I choose to explore interaction and immersion as well as

the nature of the performance of this environment through theories related to movement and action, combining Pallasmaa's understanding of self and architecture as a duality where one dissolves into the other (2005, 40). Pallasmaa's understanding of the existence of the city through one's embodied experience provides a certain degree of autonomy over a performance that unfolds in a dynamic dialogue and exchange with the environment itself, as well as a duality of *self* and the landscape of the architecture.

> I confront the city with my body; my legs measure the length of the arcade and the width of the square; my gaze unconsciously projects my body onto the façade of the cathedral, where it roams over the moldings and contours, sensing the size of recess and projections, my body weight meets the mass of the cathedral door, and my hand grasps the door pull as I enter the dark void behind**.** I experience myself in the city, and the city exists through my embodied experience. The city and my body supplement and define each other. I dwell in the city and the city dwells in me (Pallasmaa 2005, 40).

As we can see, however, employing one's own body to create projected imaginary landscapes is not limited to the layering of one's own visual and physical surroundings alone. As Pallasmaa points out, the city exists first and foremost through our experience. On the one hand, there is the visible site formed by the projected images on the surrounding walls; on the other, there is the invisible landscape within one's own mind.

In this sense, the body becomes the landscape, forming it by its movement, projecting itself into it and experiencing it as a projection of self. In the case of *Déjà vu*, the body becomes the receding staircase and it explores the suddenly new reality of self through this projection. Thus, interaction and immersion here constitute the exchange between the body and the landscape

formed by the projected image. The body forms the landscape by movement and the unfolding of the landscape informs the movement of the body where I, through my body, become the landscape and the landscape, by absorbing my body, becomes myself.

Pallasmaa's theories demonstrate the vital connection and exchange between the environment and the body. Beyond the theoretical framing of interaction and immersion, however, there is also the larger context of the performance itself. As curator Sodja Lotker observed, "we perform scenographies and they perform us", in the sense that scenographies rather than sets of objects in space become an unfolding inspiration of our actions (Gough and Lotker 2013, 3-4).

Both the conscious and unconscious processes of an author walking through his or her works are complex. However, the first time this landscape of receding steps unfolded, I noticed immediately the powerful notion of being pulled into this landscape that took over my entire attention. Slowly, I began to walk around the platforms and explored my unexpectedly new existence. As if walking in a dream that guided me, I explored it and it explored me (Pallasmaa 2005, 40). I moved carefully and studied every move in detail. I moved my arm and it created new archways. I stepped further and my body became a kind of forest-like formation receding into infinity.

Yet from time to time I became aware of the apparatus, as a system that generated this landscape in the first place, and stepped away to adjust the exposure on the camera or contrast on the projectors. I went back to test and soon I realized that, to my surprise, not only I was performing it, it was performing me (Gough and Lotker 2013, 3-4). But how will my experience – explored through my body (in the environment that I created not only for myself but primarily for an audience) live and breathe through the body of the visitors and be experienced by them? How will they unfold their selves in this landscape and how will the landscape unfold within

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them?

A random 'open door visitor' comes in. She walks around slowly. Repetitions of her own image begin to follow her. She stops, observing her own image for a while, moving her arm, slowly. She gets up on the first step, hesitant as if unsure if she should be there, then she walks up on top, slowly, never losing sight of her own image along the way. As if in disbelief of this landscape formed by repetition of her own image and what appears as an endless staircase, she makes a random movement again. The slow motion of her hand flies through the walls and ripples the images of the steps ever so slightly. Taking a faster rhythm now, she walks around the platforms, never turning her head away from the projected landscape, makes several random moves within the entire room, as if exploring the limits of the space.

In *Postdramatic Theatre*, Lehmann argues that the exhibited performer (for our purposes, the audience) becomes a kind of sculptural object (Lehmann 2006, 165). However, this can also be reversed and the object may become a subject through the emotions evoked by the environment (Berghaus 1998, 267). At the same time, considering our visitor is moving through the landscape and observing herself as both the object and the subject, we may begin to view this scenario through Bruno's interpretation of film and architecture via Le Corbusier's interpretation of the "architectural promenade", which offers a constantly changing array of unexpected and surprising views" (Bruno 2014, 71).

Without her knowledge and consent, my first audience (the random visitor) became both an exhibited performer and a moving sculptural object. While I observed her 'performance', I also knew that she (not unlike myself) did not perform for the other (myself). Instead, she moved through the landscape and the landscape was moving through her. While she could be perceived in Lehman's sense as a moving sculptural object (2006, 165), she was also becoming a subject, through the emotions generated by the environment (Berghaus 1998, 267). Furthermore, having been in her position before, I was also fully aware that the landscape which was unfolding externally (in the space), or the "architectural promenade", was also unfolding within her (in the body) (Bruno 2014, 156). Through the processes of unfolding the external and the internal

landscape within her, she was unfolding a performance of her own. In other words, the scenography began to perform her and she performed it.

In addition to unfolding a cinematic mirror of her own, the visitor also became the *author*, the *actor* and the *audience* at once. And yet, unknowingly, she was also becoming my own mirror. Indeed, the moment she stepped into the space she replaced, without her knowledge, my own body. Suddenly she embodied what I had imagined, as a performance of an interactive environment that I had designed, constructed and tested first with my own body. Not only did her presence transform body / space relations, but she also transformed myself through the process of making the performance and the landscape of the environment her own.

In trying to fully understand the ephemeral or even invisible nature of the scenographic unfolding in terms of the body / space relationships, I want to return to the design stage and propose yet another possible angle from which to view the nature of such unfolding. For example, if we glanced over the designs of the environment (sketches, doodles, etc.) we would certainly see objects, technology, space as well as bodies. While we can include all these in the design, scenographic unfolding is something we cannot predict in advance. In that sense, we must view the scenographic unfolding as something that arises in the actual space of either the studio, or the exhibition, or both. In other words, while the scenographic unfolding of the body / space relationships is something that emerges from the unfolding of material and technological mediation (in the studio or the exhibition), it can only take place in the actual space of the exhibition entirely depending on the ability to immerse and / or engage the audience (or as we also begin to see, the author). Because body / space relationships cannot be designed, or entirely predicted based merely on sketches, and can unfold only in the actual space of the exhibition, it also requires, as will become more clear in the next chapter, the necessary time to unfold.

Later, once this unknown visitor sat down on top of the platform to relax, I approached her

and we engaged in a conversation about her experience. Listening to her tentatively, I soon learned that her experience, not unlike my own, led to feelings of reflection which she described as discoveries of self within the landscape. Clearly, she (not unlike myself) travelled through this landscape and the landscape travelled through her. This encounter with the visitor only confirmed my prediction that the affects that took place within her journey were at the core of this experience, and more importantly, were also something that I could not have included in the design or predicted beforehand. It occurred as a result of the scenographic unfolding, the experience of which she shared with me.

It should be evident from this situation that feedback between the visitor's body and the image that almost engulfed the room accounts for the transformation of space and its becoming performative. It is also clear that the spontaneous actions of the visitor mirrored in the room were not planned, but instead a result of the technological set-up.

But what if the body of the visitor was replaced by the body of a trained performer? How would the space / body relations of this environment develop in this scenario? Would the quality of interaction and hence, the performance of the space, be any different?

The gallery turned from an exhibition space into a rehearsal studio or, more precisely, since we were not rehearsing a specific set of movements but rather exploring the space and movement, a laboratory of movement. I sit down on the floor as the performer starts moving through the space. The projected images of the theatre risers forming the architectural surround begin to react to the movement and turn into abstractions of water patterns. The luminosity of the entire space goes somber, and the walls all around appear no longer solid but flow in repeating patterns resembling water currents or a dark storm out on the sea. Other times the space fills with light and the dancer engages with her virtual double I observe, quietly. Take notes. Then we stop and discuss.

To begin to understand the body / space relationship of this scenario, it is important to first compare and contrast the experience of the bodies engaged in the scenographic unfolding of this environment: (1) *the visitor*; (2) *the dancer*; and (3) *the author.* We all introduced our bodies to

the environment, but we did so with different sets of tools and objectives.

By entering the space, the visitor provided the imagination and the willingness to get and be involved. Through her immersion in the environment and interaction with it, she became the audience / actor / author of her own scenographic unfolding. The dancer brought a set of tools, along with her imagination and willingness to immerse in and interact with the environment provided: a trained body and mind. She became the actor / author of her scenographic unfolding. The author / myself provided the subject of the immersion and interaction, and the potential to transform body / space relationships through the material / technological mediation. By inserting my own body into the process of scenographic unfolding, I became interchangeably the author / audience / actor.

The key difference, however, in terms of body / space relationships was not in the skills we brought with us, but in the way we embodied the idea of the audience through our skills. For instance, my body temporarily became that of the audience by way of projecting my own experience of the environment into an imagination or a vision of how my future audiences might experience the work. I employed my skills in producing this experience for both my audiences and myself. The visitor became not only the audience in terms of entering the space, but she also became the audience of her own scenographic unfolding. She employed her experience, skills and imagination in forming her own performance within the space. The dancer, not unlike me, entered the space and her creative process with the audience in mind; however, the audience that she imagined was not in the space of the environment but outside of this context or in what we would call the auditorium – in other words, the spectator. Her trained body and mind assigned the role to the audience, that is watching her, and to herself, that is being watched. She employed her skills to form the best experience for the audience. In other words, she was pulled not only by the interactive and immersive qualities of the environment, but she was also pulled into her own

creative processes employing her own body as an expressive tool determined by her training and experience. These inner processes were to some extent available to me through the collaboration with the dancer but not to the visitors.

She would be perceived by the visitors as a moving sculptural object that would, through the affect generated by the environment, become a subject. However, the body of this exhibition, the dancer / object / subject, was not to be experienced within the same space (as it normally would in an exhibition context), but from the auditorium. How then did this scenario play out in the exhibition context?

Figure 32. *Déjà vu*: Performance by Karijn de Jong at Hamilton Arts Centre, Inc. Hamilton, ON (2012).
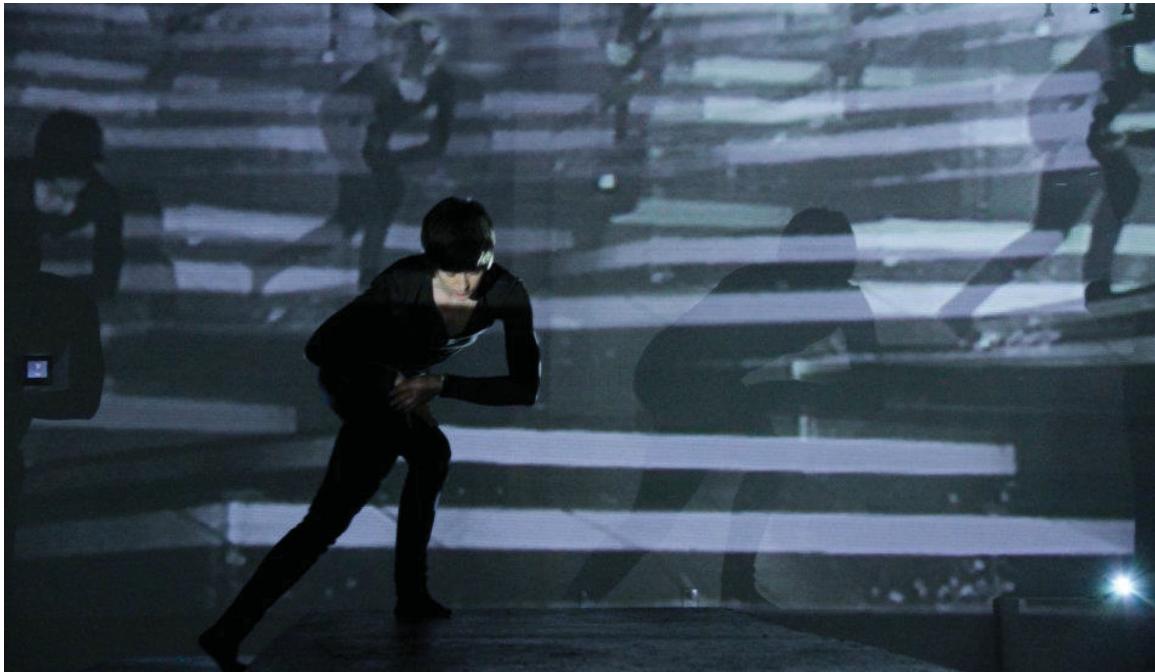
Figure 33. *Déjà vu*: Performance by Karijn de Jong, at Hamilton Arts Centre, Inc. Hamilton, ON, (2012).

3.3. Performance of Interactive Environments

The exhibition format of the environment required a split. There was a "performance format", in which the performers interacted with the space and the audiences watched from afar, and an "exhibition format", a communal event and a performance for all audience members, performing or not. Thus, each display of this installation had to deal with a split in spatial composition and a split in the performance format. The performers and audiences never shared the same space

The experimentation with spatial compositions of *Déjà vu* led to three distinct types of performance through which to view the body / space relationships within the performance of an interactive environment: (1) audience in the space, interacting with the environment and engaging with the performance; (2) performer in the space interacting with the environment and creating a performance for the audience / audience watching first and then re-entering the environment; and (3) additional propositions of performances by random artists and audiences.

In the first scenario of the performance, the audiences entered the space and began to engage freely in its performance by interacting with the live-feedback apparatus. Not unlike the first visitor of this environment, the audience members walked in and began to explore

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repetitions of themselves projected around the perimeter of the gallery. Usually, they would walk around the structure letting the visual echoes follow. Once they reached the platforms, they would walk up, look around, walk down and explore the gallery space. They would then return to the platforms and arrive at the place of contemplation. It became a ritual that they would sit down to rest there. Then, they would plunge quietly into observing the repetitions of their own images disappearing into the infinite landscape of steps, following the same patterns of immersion and embodied interaction through the direct feedback as expressed through Pallasmaa (2012, 40) and Lotker (Gough and Lotker 2013, 3-4).

The environment was also experienced in groups ranging from two to ten visitors. The effect of the work varied, depending on the configuration of the gallery space (there were many versions of this exhibition over time) and on the energy the audience generated through their actions. The audience fluctuated between being engaged in interaction with their own images, being plunged into their own thoughts and unfolding their own performance through their actions, observing each other passively, or engaging with others in the actions of a communal performance of the interactive environment.

As in the previous discussion of the solo visitor, the same scenario of immersion and interaction applied to the communal action. In the shared experience, these notions also became shared. The audiences were unfolding a landscape that surrounded them. The live-feedback apparatus and the audience's gaze were both unconsciously or consciously projecting their bodies onto the "façade" of their own unfolding where one dissolved into the other (Pallasmaa, 2012, 40).

The visitors became *actors*, *audiences* and *authors* on the same stage. In this sense, they were equal and they equally took hold of the environment. From the notion of shared space and the sudden sense of communal, yet simultaneously independent autonomy, they also became

collaborators of their performance.

As audiences within the same shared space, they could choose between observing the bodies of other audiences / actor*s*, and observing the unfolding of the landscape formed by the projected images of their bodies and the architectural surround. They also had to be willing to accept the reverse scenario of being observed by others.

As *actors*, they could choose to proceed alone or to engage in collaborative actions across the floor with another body or group of bodies and / or with the bodies projected within the landscape of the architectural surround. As *authors,* they had the autonomy and liberty to enter, walk around, observe, engage with the environment or with others, interact or leave without much of a trace. In other words, the scenographic unfolding of the performance fully depended on their willingness to engage, to be immersed and / or to interact with the environment and their sense of communality.

Beyond observing these audiences, I also had numerous conversations with them. Unlike in works like *River* and *Deep Waters*, the audience of *Déjà vu* felt comfortable connecting with each other and me. One of the reasons for this ease was that the space, unlike my previous installations, was filled with light. The warmth of the projected light, unlike the darkness of previous works, encouraged not only interaction but also an open exchange amongst the visitors given the fact that they could not only see each other but were also part of the environment. Through conversations with visitors, it seemed that the audiences were split between experiencing a sense of deep reflection and feeling like they were in a playground of sorts.

In the second scenario of the performance, the inclusion of the performer not only offered a new form of experience for the visitors, but also required a reorganization of the exhibition space – an alternate division of stage and auditorium. In other words, the exhibition space temporarily became a stage and all the remaining space not designated as the stage became an auditorium. For

example, in the Thames Art Gallery in Chatham-Kent, Ontario, I was able to situate the audience on the upper level gallery, to offer a bird's-eye perspective of the performance. However, this was rather unusual for a gallery space. In most cases, galleries had to improvise to make the performance of the dancer possible. Typically, once the performance was announced, the audience was asked politely to pull away towards the margins of the space. However, having the majority of the gallery walls in use as the projection surface and most of the equipment positioned on the floor in the corners of the gallery left little additional space. Standing by the walls would block the view of the visuals, and standing close to any corner would block either the projectors or the camera. Yet, there was somehow always enough room for a group as large as fifteen people to gather and quietly view the performance of the dancer in the space as if she / he were on a stage.

In *Looking into the Abyss*, Aronson compares the stage to a mirror: "Like the mirror the stage is a real place" he says, "but unlike the mirror […] the space seen on the other side is not virtual but real". And yet, on another level, he argues it is no more "real than the image in the mirror" […] "I could, in theory cross over the threshold onto the stage, but to do so would shatter that world just as certainly as an attempt to pass through the looking glass" (Aronson 2005, 100).

In this sense, *Déjà vu* was a curious type of mirror, particularly once the trained dancer entered the space. On the one hand, it became a mirror of the dancer who engaged in the unfolding of her performance by interacting with the live-feedback apparatus; the mirror occurred between the walls of the gallery and the body of the dancer in the space. On the other hand, the performance of the dancer in itself became the type of mirror Aronson refers to: a type of stage that the audience would gaze at from afar. By crossing over to the space of the dancer (the environment / stage), the audience would, not unlike in theatre, certainly shatter the world of the performance and that of the dancer (her mirror). In doing so, however, they would only trade

their passivity for activity and discover a mirror and a performance of their own.

Indeed, the exhibition split offered the visitors two different ways to experience the performance of the space / environment: they could view the performer and the performance from a distance or they could be physically in the space of the environment, be immersed in and interact with it. The performance of the dancer usually lasted ten minutes, and it was understood by the audience that the performance and the free access to the space were separate and unique experiences. If the performer worked with the environment in a way such as to generate and present interesting visual results, the audience was satisfied. They enjoyed the spectacle and clapped at the end. Once the dancer was gone, they would take their turn in the public version of the performance. But how did this division of space and performance affect the type of immersion and interaction, first of the dancer and second of the audience? And how did the division affect the performance alone?

From working with performers / dancers in the interactive space of this environment, I learned that while they were interacting with the images and the space, they could not always see themselves or the space from a larger perspective. Of course, my position as a choreographer / director was different in this respect. While in rehearsal, I could observe the spectators as well as the performance being unfolded through their interaction with the live-feedback apparatus and direct their movement to areas that were more interesting. If I navigated them to work close to the camera lens, for instance, their hands or faces created powerful landscapes of abstracted figures around the perimeter of the gallery space, but they could not see or react to their movements.

I could not enter their body and their experience just as they could not gain the oversight of the space and the perspective I had. This also affected their immersion within the environment as well as their interaction with it. In fact, it disconnected them from the actual environment in the real space and the visual outcomes they were creating by their interaction with the live-feedback

apparatus and pulled them further into their own internal processes.

They became blind visitors in Pallasmaa's idea of the city, where the body experiences itself in the city, and the city exists through the embodied experience and where one supplements and defines the other (Pallasmaa 2005, 40). The city dwelled entirely within themselves (internally), within their own body and perceptual apparatus where often the only guiding clues became my voice.

In this respect, the experience was not unlike the blind leading the blind, where neither of us had a direct communication with the apparatus generating live feedback or a proper connection with the unfolding landscape. Yet we were completely taken over by the processes, each through our own creative capacities. These pulled us into it and may also be defined as a type of immersion that arises within the scenographic unfolding of this process.

As we have observed, both immersion and interaction in themselves evolve around a complex set of processes which I defined as scenographic unfolding. My concern at this point lies in the moment when the audience re-entered the space after having seen the dancer. Did the experience of passively watching the dancer from afar affect the way they re-entered the space and, if so, how did it affect their immersion within and their interaction with the environment? Watching the performance of the dancer from an improvised auditorium introduced an additional mirror to the performance. The assumption is that the moment the audience would cross over to this mirror, they would certainly shatter it in favour of discovering yet another mirror of their own performance. But was this the case in practice?

First, it is important to point out that the mirror / the stage of the environment was never shattered: the audience watched the dancer's performance attentively and never dared to "purposely and self-consciously" cross over to the "threshold onto the stage" and violate the decorum (Aronson 2005, 100). Rather, when the performance concluded, the mirror was

carefully removed for the audience who could then enter the space. My query here is two-fold: Was their experience affected by seeing the dancer? If so, how did their performance and the experience of immersion and interaction differ from earlier audiences, who had not seen the dancer prior to entering the space?

To delve into these questions, I move between Aronson's association of stage as abyss, which draws on a fragment from Friedrich Nietzsche's "Section Four Epigrams and Interludes" in *Beyond Good and Evil* (Aronson 2005, 97-112), and discussion of the "mimetic faculty" and the "copy and contact" by the American anthropologist Michael Taussig in his essay *'Mimesis and Alterity: A Particular history of The Senses'* (1993, 19-27), drawing from two seminal essays of the German philosopher and cultural critic Walter Benjamin: "On the Mimetic Faculty" (1993) and "The Work of Art in the Age of Mechanical Reproduction" (1936).

Making some sense of the audience projecting themselves into the characters on the stage, Aronson departs from Nietzsche's idea of abyss: "Anyone who fights with monsters should take care that he does not in the process become a monster," warns Nietzsche. "And if you gaze for long into an abyss, the abyss gazes back into you" (Nietzsche 1998, 209). In arguing that the stage is able to return the gaze of the spectators, metaphorically speaking, Aronson aligns the idea of the stage with a mirror. Furthermore, associating abyss with bottomlessness and darkness, he connects this to the idea of stage materialized by the German composer Richard Wagner in his creation of Bayreuth – where the darkness of the spectacle equally becomes, not unlike in certain forms of screen spectatorships, a kind of a black hole.

I have pointed out similar tendencies in cinema theorized earlier by Barthes (1989, 348-349) and Baudry (1986, 294), who likewise viewed the screen as a mirror and put the spectators under its spell in the darkness of the movie theatre. Not unlike the attraction of a moth to light, the "amorous hypnoses" refers not only to their inability to unglue themselves from the passive

complacency of their seat, but also to their inability to break away from the seductive images of the screen that pull them in (Barthes 1989, 348-349). However, we must remember that in the first case we are dealing with a mirror as an illusion of images projected from a beam someplace above the spectator's head, whereas here, on the stage, we are looking at real bodies.

Looking at the same mirror from yet another angle, Michael Taussig's discussion of Benjamin's ideas on the "ability to mime as the capacity to Other", lends us another perspective (Taussig 1993, 21). In Benjamin's words: "his gift of seeing resemblance is nothing other than a rudiment of the powerful compulsion in former times to become and behave like something else" (1933). At the same time, he draws on another idea from Benjamin on the nature of our desire "to get hold of an object at very close range by way of its likeness its reproduction" (1936). Taussig elaborates on this further in his discussion about copy and contact:

Elementary physics and physiology might instruct that these two features of copy and contact are steps in the same process, that a ray of light, for example, moves from the rising sun into the human eye where it makes contact with the retinal rods and cones to form, via the circuits of the central nervous system, a (culturally attuned) copy of the rising sun. On this line of reasoning, contact and copy merge to become virtually identical, different moments of the one process of sensing; seeing something or hearing something is to be in contact with that something (Taussig 1993, 21).

At this point, we cannot expect the audience to re-enter the space as if they had never seen the dancer. They did and it altered their capacity to immerse and / or interact with the environment, hence their ability to unfold their own performance. In practice, however, how did this play out in the space and how can the experimental approach to these faculties help us

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understand the tensions involved in body / space relations? And how can contextualizing those by theories of Aronson (2005) in scenography and (Taussig 1993) cinema help us articulate these notions?

After seeing the dancer interact with the environment, the audience tried, upon re-entering the space, to duplicate the witnessed movements and interactions. For instance, if the audience saw the performer working close to the camera lens, the audience also approached the camera the same way. After seeing the performance, they were more likely to become performers themselves and unconsciously looked for opportunities of being viewed, or even appreciated for their tricks and performing skills – which they, unlike the trained bodies of the dancers, lacked. Thus, they stopped performing in harmony with the space, denying their opportunity to unfold an authentic collaborative performance with other audience members, in favour of entertaining themselves and the others, as if invisible mirrors were set in between them. They began to view themselves through these invisible mirrors of invisible auditoriums, rather than through the mirrors of the live-feedback apparatus that would enable them to engage in the scenographic unfolding with the other members of the audience.

The performer / dancer and the space s/he occupied became the abyss in Aronson's interpretation and the mirror in which the audiences began to see themselves. Indeed, while the dancer's focus was to produce striking visual images (employing the live-feedback apparatus) of the unfolding landscape on the walls of the gallery, the audiences still directed their attention, not unlike in theatre, to the real body of the dancer and perceived the actions of the environment in the background. While the cinematic mirror that the dancer unfolded on the perimeter of the gallery space did become the "hypnotic and amorous" type of mirror that the audiences became seduced by, they still made the primary connection with the moving body of the dancer generating these images first rather than, like in cinema, the projected images (Barthes 1989, 348-

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349). Why is this so?

As we have heard from Taussig, "seeing something or hearing something is to be in contact with that something". Here, the copy (the audience) and contact (the dancer) merge and become virtually identical (Taussig 1993, 21). Thus the audiences – seated standing or otherwise passive in the auditorium – imagine the dancer to be themselves creating beautiful, seductive images of the unfolding landscape.

In his interpretation of copy and contact, however, Taussig departs from Benjamin's argument that it is our nature to desire and "to get hold of an object at very close range by way of its likeness its reproduction" (1936). In this scenario, we may begin to view the moving body of the dancer as a kind of sculptural, almost architectural form.

Another notion that helps us understand the same concepts through movement of the body is Taussig's argument for our "ability to mime as the capacity to Other" (Taussig 1993, 21). In the context of *Déjà vu*, the audience is being pulled into the abyss of the mirror that the environment, along with the dancer, have turned into. In addition to their desire to become an identical copy of the dancer, they are also being pulled in by the nature of desiring to not only "become" but also "behave like something else": the dancer (1933).

In comparison, audiences denied the experience and the knowledge of the staged performance of the dancer were more likely to collaborate as equal actors sharing the same stage, forming the same performance. Thus, the division of space that the audience experienced left a deep notion of being watched or viewed, regardless of whether or not the physical division was present after the fact. It was as if an invisible line that separated the space was drawn, or as if an additional mirror, or many additional mirrors, were added to the performance. Paradoxically, while all the mirrors in the installation had the ability to immerse and to encourage interaction, the invisible mirror that was introduced to them by the performer arguably separated them from

these notions. In this sense, perhaps there was a mirror that shattered the fourth wall after all. It was not the stage mirror in Aronson's terms; rather, the shattered fragments were those of the mirror that was (or more precisely was to be) their own.

The third and last scenario of a performance emerged from the inspirational aspect of this work. One could notice trained or aspiring performers amongst the audience members, as they would attempt to develop a performative composition within the work. Once we had a self-invited visitor engaging himself or herself spontaneously in the performance and claiming the interior space for their own performative actions, the remaining public was pushed towards the perimeter of the exhibition space. There were several reasons for this. First, the audience was polite and let the performer take the space he or she needed. Second, they were curious. Third, they had to clear the way in front of the interactive systems, such as projectors and cameras, so as not to prevent the systems from working. This would happen regularly during opening nights. The space wanted to perform and the audience took the invitation. However, it did not end there. Once I left the exhibition venue, and left the installed work there for a five-week period, I would start receiving emails requesting the use of the work as a stage setting for a performance.

The performances I choreographed, usually with local dancers, were specifically designed to introduce the performative elements of the space and to engage in an experimental approach to the exhibition format – in essence, making the space perform through the careful arrangement of media, architecture and bodies. The performance itself was a dialogue with the optical qualities of the spaces. However, I also received requests from people, performers or not, who wanted to use the space as a stage, or more precisely as a scenographic backdrop. People wanted to dress up, use fabric components, recite poems, etc. Some proposals were more complex and I began to feel that proceeding with them would challenge or otherwise question both the context and concept of the work. It seemed to me that the work became a type of chameleon, absorbing the

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colours of local artists who were attracted to it. As an example, this request came from a director

and friend at the Hamilton Artists Inc.

Date: Wed, 29 Feb 2012 20:39:31 -0500
Subject: performance art on the artcrawl
From: loughlin.irene@gmail.com
To: lenkanov@hotmail.com

Hi Lenka
Nora Hutchinson, one of our senior artists wanted to do a performance on your risers...
We won't use the documentation for much, I don't think but if we do will credit you.
It will be 10 minutes during Mar 9th artcrawl. It will be Nora, Karijn and me - she is speaking a work (her work is kinda surreal) and I will do performance drawing, Karijn will do performance/movement. Let me know if its a problem, I think you said its ok as long as we credit you?
Thanks!
Irene

On Wed, Feb 29, 2012 at 9:06 PM, lenka novak <lenkanov@hotmail.com> wrote:
Irene, this may be somewhat problematic as you will be using my work - publicly as a back drop for a performance (s) that I have had no input in and seems far removed from what the work is meant to be. Kind of like: inserting a text on Agnes Martin paintings so there seems to be something on those lines... or making a drawing on Barnet Newman painting... I can only agree on sharing the credit with an artist (s) that develops work in collaboration with me; however, the public presentation of performances (created solely as a performative act) would be promoting the work and images for what this very work is not meant to be to begin with.
I am definitely pleased that there is an interest and inspiration found in my installation; however for now it seems a bit removed from what the work is about and I am not ready to go forward with it without further discussion. Please, do give me a call tomorrow night if you can and we can talk this over. Thanks Irene!

My best,
Lenka

This situation was not uninteresting in terms of authorship. Also, in terms of this research,

these proposals opened some additional perspectives.

Employing the parable *Art of Cartography* by Jorge Luis Borges,[11] Aronson argued that by

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[11] *The Art of Cartography* says a story of cartographers who produced a pointless map mimicking the region on 1:1 scale.
 —Suarez Miranda, Viajed de varones prudentes, Libro IV, Cap. XLV, Lerida, 1658 Jorge Luis Borges,

bringing performance into the exhibition of scenography we are essentially laying a map over the scenography, and once again scenography becomes subsumed within the larger realm of performance.

As demonstrated, *Déjà vu* is a type of scenography where the introduction of a performance into its immersive and interactive environment presents many open-ended opportunities for scenographic unfolding. However, could this unfolding also become simply a layering of maps, one over another, or what Aronson calls the subsumed scenography? Indeed, even within the field of scenography itself, we are still lacking a clear vision and understanding of scenography as a performance in the exhibition context, not to mention insight into how it may unfold. Furthermore, we have mused over the same audience / actor puzzle arising from body / space relationships, as the theatre avant-garde did more than a century ago. Meanwhile, no one less significant than Antonin Artaud provided us with some basic clues:

We abolish the stage and the auditorium and replace them by a single site, without partition or barrier of any kind, which will become the theater of the action. A direct communication will be re-established between the spectator and the spectacle, between the actor and the spectator, from the fact that the spectator, placed in the middle of the action, is engulfed and physically affected by it. This envelopment results, in part, from the very configuration of the room itself" (Artaud 1958, 96).

In expanded forms of cinema and installation art, the positions on the illusional world of the mirror have been made clear. In expanded cinema, the viewers turn away from the "illusion

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Collected Fictions, translated by Andrew Hurley (1946)

of the screen to the surrounding space" (Iles 2001, 33). As an example, I discussed the expansion of the cinematic screen and the metaphorical breaking of the cinematic mirror as a form of breaking away from the "amorous hypnoses" (Barthes 348-349). I have also included an example of how the audience physically becomes a part of the performance in the discussion of the work of Anthony McCall (1973) and how the author himself becomes a subject of a performance in the work of Malcolm LeGrice (1971). In installation art, Bishop views this through the activation of the viewer who is able to physically enter the work (Bishop 2005, 13).

Yet, the leading theories in expanded scenography continue to regard the stage and auditorium as spaces that maintain the passivity of the art form at the cost of challenging the creative potential of the audience and their participation (Hannah, 2008). These are the theories promote scenography as something that is not just seen by an audience, but something that can engage the audience in an experience (McKinney 2008) or even inspire them to act (Gough and Lotker 2013, 3-4) and touch them more via their own engagement rather than just by simply watching (Aronson 2012, 3).

Indeed, opening the door of *Déjà vu* and inviting performers to propose and create exhibitions for the environment could and would lead to interesting performances. For instance, groups of invited actors / dancers / performers would collaborate in creating a performance and connect within the environment through its interactive apparatus, and even immerse themselves in it through their own creative processes. In this vision of potential collaborations, these performers would become a combination of what I have discussed previously as: (1) the performance of the dancer; and (2) the performance of first-time visitors. Their ability to be immersed would, not unlike the dancer, emerge from their creative processes and, not unlike in the collaborative group of visitors, within their collaborative creation. In this regard, these collaborations would still make the environment breathe and live within.

However, as this chapter demonstrates, if we do indeed turn the performative environment into a theatre stage, we should not expect audiences to be able to transform themselves and the environment into Artaud's "theatre of action" once (or more precisely after) we assign them passive roles (in the auditorium). Based on the fact that we deny them the opportunity to be placed in the "middle of the action", and be physically engulfed and affected by it, we also deny them the opportunity to establish communication between the "spectator and spectacle" and the "actor and the audience" (Artaud 1958, 56).

3.4. Conclusion

The Swiss architect and theatre designer Adolphe Appia saw the audience as "the obstacle of living art" and believed that the very concept of an audience, as the expression of passivity, must be replaced by what he called the "living art", which existed entirely without an audience because it already contained the audience within itself. Also because it was a work lived through a definite period of time, those who lived it – the "participants and creators of the work" – assured its integral existence solely through their activity (Beacham 1993, 165-168).

Arguably, we may see *Déjà vu* and similar environments as spaces that embrace the ideas of Appia by means of engaging the material / technological mediation in a way such as to create a powerful immersive and interactive experience for the audience. Within *Déjà vu*, this strategy is met by introducing technologically mediated feedback between the audience and the room through cameras and projected images such that, as in the description of the screen and body in Chapter II, the body of the spectator begins to merge with the spatial environment – indeed, in effect, it becomes the environment, thus eliminating the distance set up in both the theatre (in terms of the division between audience and stage) and the gallery (between viewer and object).

At the same time, we have seen the complexity of body / space relationships once the trained body of a performer / dancer enters the space of the exhibition, turning the environment into a theatre stage. On the one hand, the experience and the role of the audience is key. On the other hand, a trained performer, familiar with all the performative elements of the space, may introduce yet another perspective into the work and expand on or even thwart its potential by once again initiating a split between a performing body and a mainly passive spectator. But how can we include the performer without excluding the audience? Furthermore, how can this approach further our understanding of immersion and interactions through this process? In other words, how can we go a step further and design an environment where both types of performances merge into a harmonious performative action?

To approach these questions, we need to experiment with merging the two types of performance of audience and performer, as well as confront the fusion of the two traditionally distinct concepts of space of exhibition and stage. In other words, issues of the stage and auditorium must be addressed, as well as the performer-audience relations.

Thus far, I focused on the exploration of performance through the evolving concept of scenographic unfolding in Chapter II as material and technological mediation, and here in Chapter III as transformation of body and space relationships. However, as will become apparent in the forthcoming Chapter IV, scenographic unfolding as a concept of space that unfolds through action must be first and foremost viewed and examined through the lens of time.

Of course, the notion of time within the merging of, yet again, traditionally two different concepts of space exhibition (in visual arts) and stage (in theatre) presents an uneasy task. Expressly, how can we form the notion of time within the design elements of the environment in an open space of an exhibition and while doing so, situate both the performer / dancer behind the looking glass of the stage (keeping the mirror intact)? In other words, how can we design a type

of environment that will allow the audience to become the co-creators of the performative action in and over time, embracing Appia's vision of living art?

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.

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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)

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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

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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

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[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).

O V A L combined immersion, defined earlier as the blurring of media, body and space, and interaction, as a feedback between the same. As a collaborative undertaking, *O V A L* 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 *F O L D)*. 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 *O V A L* 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. *O V A L* Installation View. Currents: The International New Media Festival, Santa Fe, New Mexico, (2013).

Figure 35. *O V A L* – 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.

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[13] Technological tools (structure-born sound and Max/MSP-enable delay lines) established in *O V A L* were further advanced in *Light and Darkness,* and development continued (in collaboration with the same team) throughout *F O L D*. In addition to material and technological development, *Light and Darkness* served as a conceptual inspiration for *F O L D*, 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 *F O L D*: one face looking into the future (in the entrance auditorium) and the other into the past (in the exit auditorium).

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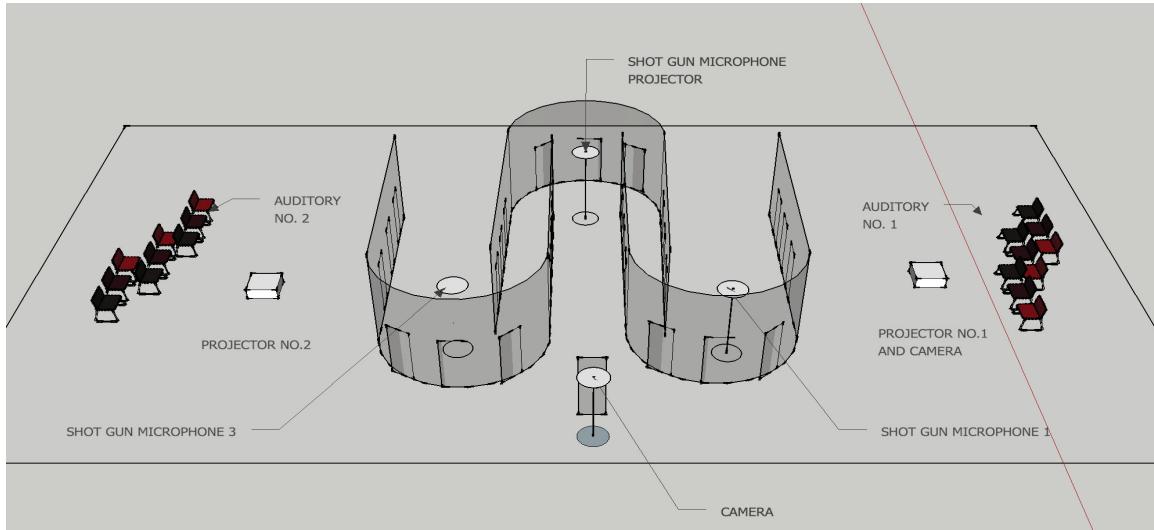
Figure 40. *F O L D*: overall view of the design.

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*.
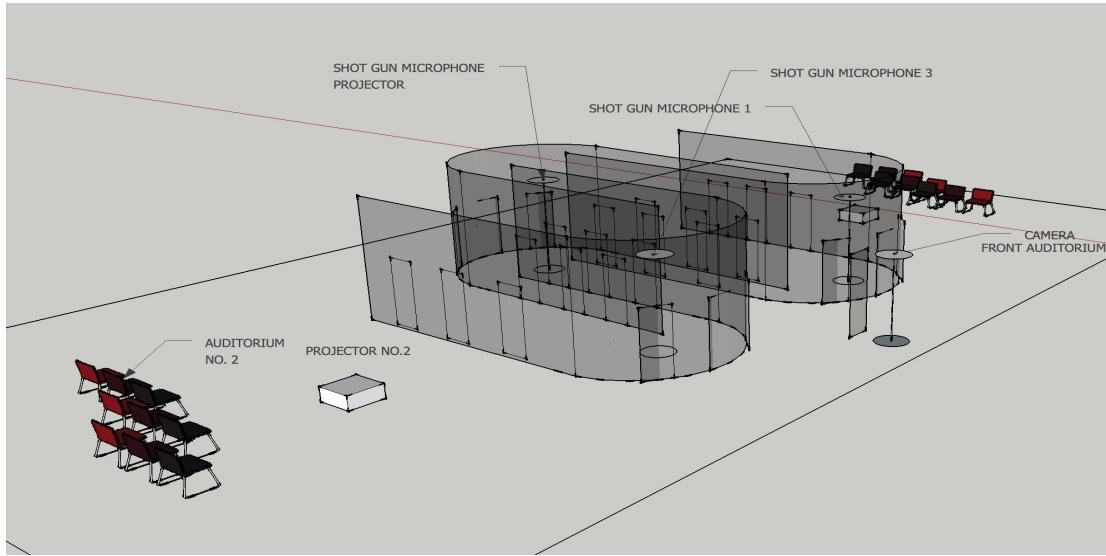
Figure 41. *F O L D*: View of the entrance auditorium.

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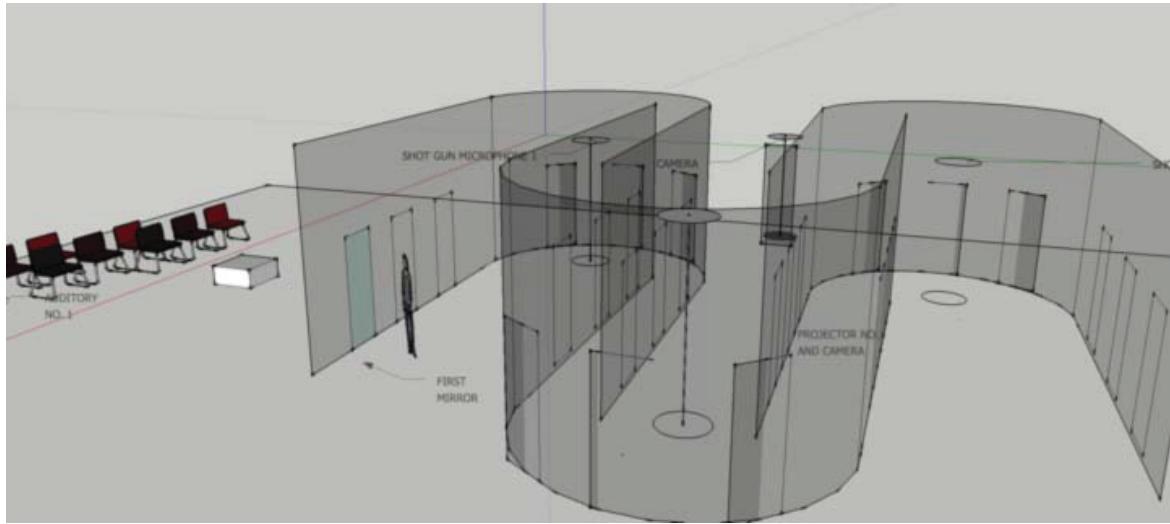
Figure 42. *F O L D*: view of the front row or mirrors.

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,

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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

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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.

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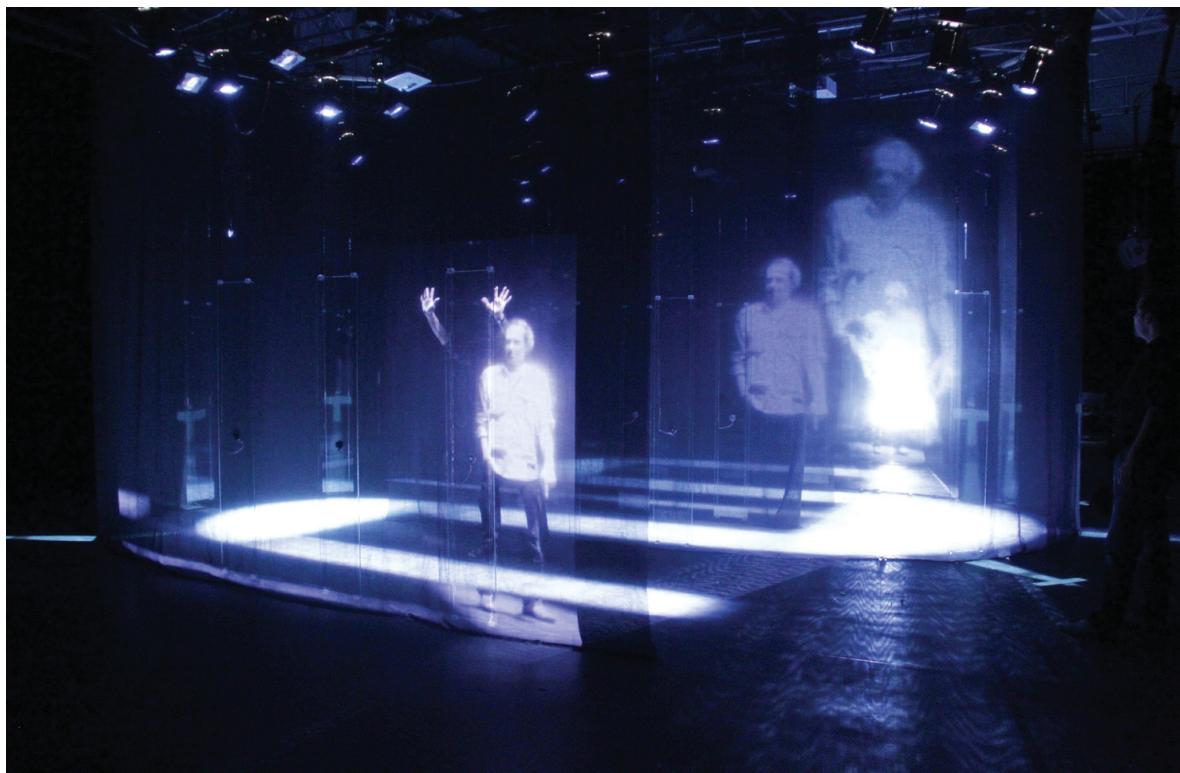
Figure 44. *F O L D* – Installation view at Agora UQAM, Montreal (2014).

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

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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

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[14] The term Gesamtkunstwerk was first used by the philosopher and writer Eusebius Trahndorff (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]
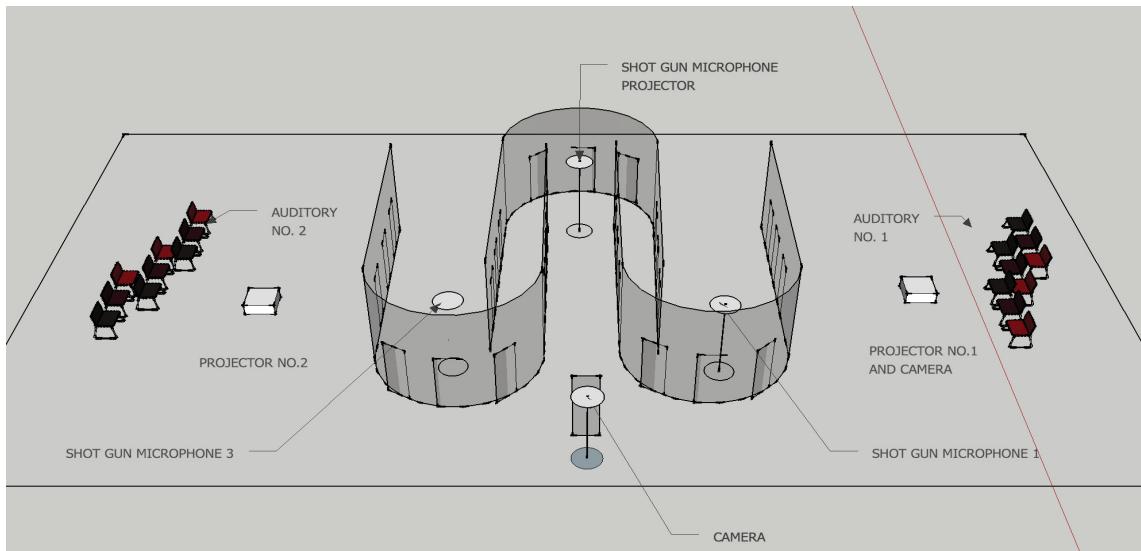
Figure 45. *F O L D* Overall design: (entrance) auditorium-left side / (exit) auditorium-right side.

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

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[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

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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.
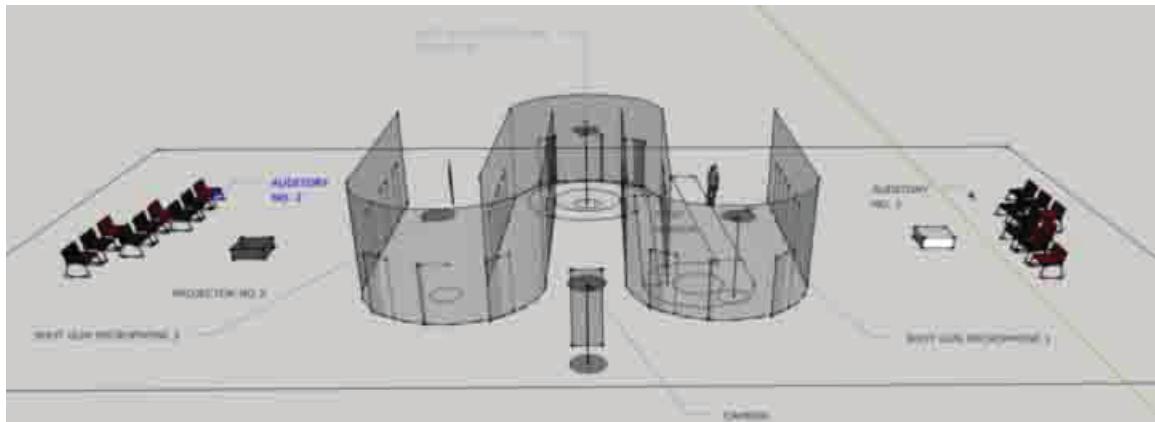
Figure 46. *F O L D* Arrangement of space for the first performance.
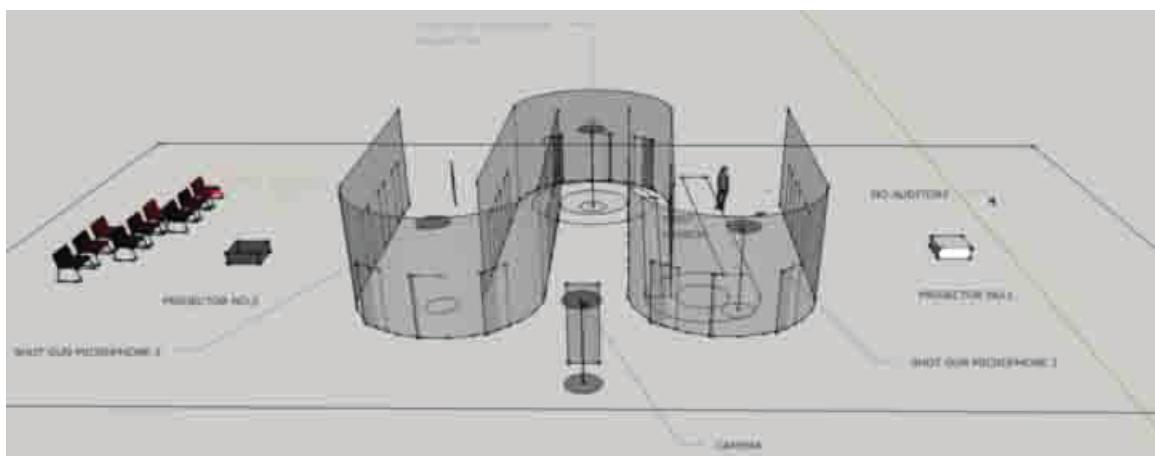
Figure 47. *F O L D* Arrangement of space for the second performance (removing the first auditorium). In designing the second prototype, we decided to cancel the auditory entirely.
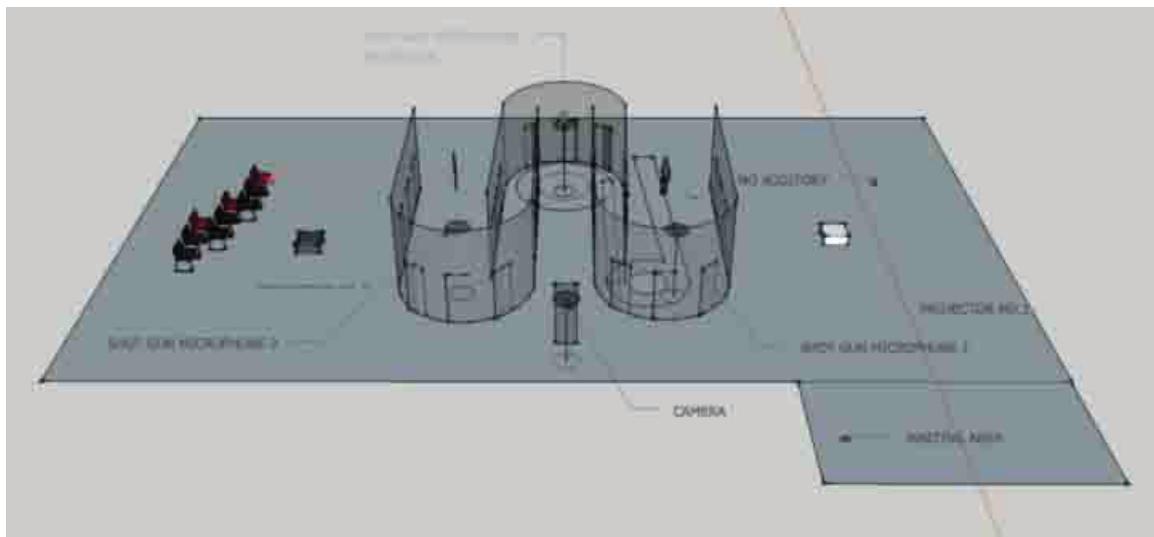
Figure 48. *F O L D* Arrangement of space for the second performance. Replacing the auditorium with an entrance room.

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. *F O L D*: Agora Coeur des Sciences, at Hexagram UQAM (2014) Performance: View from the front (entrance) auditorium.

Figure 50. *F O L D*: 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,

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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

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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 psycho-plastic 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

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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.

Conclusion: *The Scenographic Unfolding*

The Curatorial Symposium of Shared Space in 2014 opens with a citation from Arnold Aronson's reflection in the *Exhibition on the Stage: Reflections on the 2007 Prague Quadrennial* catalogue (Aronson, Parízková 2008):

> Theatre has often been described as the art of absence. The visible realm of the stage implies a vast absent world beyond. Theatre is about onstage and offstage – the visible and the invisible. […] It is the dichotomy of presence and absence that gives theatre its power. If the PQ is understood as performance, then the exhibition hall is its stage, the pavilions and their content its scenography. What is absent, of course, are the performances to which the exhibits refer, and there is thus a continuous discourse between the two. Without this dialogue, the PQ would be merely an exhibit of objects – fascinating or attractive objects perhaps, but objects nonetheless devoid of meaning.

Aronson's view of the exhibition of scenography within the context of the PQ as that which implies the performers' absence in favour of the audience's presence has, in fact, become a resonating echo of the absence of dialogue between the visual arts and theatre, to which he drew attention in his introductory speech at the Prague PQ 2015 Transformation Conference[16]. This dissertation has aimed to explore the absence of this dialogue and to introduce yet another way of thinking about the performativity of space as an intertwined set of relations between audience / spectator / participant bodies, media, architecture and the creators themselves. As Aronson suggests, in theatre we often think of live performers as those that constitute the performance; in

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[16] Page in the intro.

certain forms of visual arts (such as happenings or performance art), we think of the artist as the central element of the performance. In either case, we think of space as a container, that which provides a certain atmosphere for or backdrop to support performance. In this dissertation, however, I have aimed to take a step further and explored the performance of space itself, emerging from within this dialogue between theatre and visual arts as a scenographic unfolding.

Scenographic Unfolding is a dynamic dimension, which in itself may lead to many forms of body / space relationships and expand not only the possibility of immersion (of the audience), but also their roles within the environment. It emerges through invisible / intangible processes of the transformation of body / space relationships which take place through the temporal unfolding of the material and technological mediation and result in the type of performative space where action, affect and consequently creation of knowledge is key. While scenographic unfolding as such is an invisible dimension of the performance, the action arising as the outcome of the engaged processes require 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.

What does the exploration of scenographic unfolding across environments that are immersive, interactive and participatory contribute to this dialogue? And what does it add to the existing definitions of immersion, interaction and participation, as well as to how spatially oriented and organized performance has been understood historically and conceptually?

Performance and Space – Immersion, Interaction, Participation

The evolution of my practice, which operates at the intersection of the visual arts, performance

and theatre, has guided the theoretical inquiry of this dissertation. Moreover, while my passion for material research in the creation and development process has remained consistent, as I began to move from designing objects to environments, I realized that I became more interested in the ways in which these objects, constructed from specific materials, expanded through the use of light and projections into the environment rather than concentrating on the physicality of the objects themselves. From this realization, I began to try to understand the relationships between objects, environments and spectators as each influenced the other.

I initially took my lead from theories of immersion in expanded screen in the visual arts (Bishop 2010, Bruno 2014, Iles 2016) and defined immersion as the blurring of media, body and space, but I have learned through my own practice that immersion does not simply begin in the exhibition context of the gallery, but rather occurs as an evolving modality throughout the entire creative process. It initiates within the material practices of artists in studios, laboratories or other sites, encompasses experimentation with materials and bodies (the artist at first) and then continues to unfold throughout its dissemination as the experience of the audience.

Reflecting on my own process in the production of these immersive environments, I learned that immersion occurs within three different types of space: (1) the natural environment; (2) the studio; and (3) the exhibition context. I also determined that the transformation of these spaces, and consequently the immersion that occurs through material and technological mediation and transformation of body / space relations, is a two-fold process. That is, it is not only the audience who becomes immersed in the space of immersive environments. It is also the author who initiates the processes of the scenographic unfolding and follows this process as 'knowing in action' and 'reflection in action' from the space of the studio to the space of the exhibition, where she hands the process over to the audience while never being sure how relations between them and the environment will take form.

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Building on my exploration of immersion within the immersive environment, I went a step further and investigated scenographic unfolding as a shift from immersive to interactive environments, caused by a change from projections of recorded media (audio-video) to projection of real-time media (as looped feedback engaging projectors and video-recording equipment). Departing from traditions of artists employing the closed-circuit video (CCTV cameras and monitors) used in both visual arts and theatre from the 1960s to the 1980s, I defined interaction as the feedback loop between media, bodies and space in which through projection technology, the entire space becomes activated through such feedback. What has become apparent from this exploration is the direct correlation between the type of media (by which I mean the type of materials and technologies) employed in forming the performance of the environment, and the type of experience resulting in immersion and / or interaction it affords. Thus, scenographic unfolding is not only something that invisibly transforms one place into another but it is also something that (in its environment stage) involves a direct relationship with the type of media employed in its production and the manner in which such media is organized in relation to the space.

Consequently, I continued to expand on my previous findings while challenging them through experimentation with body / space relations, by dividing the exhibition space into the stage and auditorium, essentially exploring through practice why a long lineage of theatre artists, starting with theatre avant-garde (Appia, Artaud), insisted that the bifurcation of the performing space into the stage and auditorium must come to an end.

The immersion within the exhibition space of the interactive environment *Déjà vu* provided the audience with a sense of self becoming the environment. In addition, the interaction made them aware of their autonomy over their own roles in the scenographic unfolding. Rediscovering themselves through their own movement, which created ephemeral landscapes

(around the perimeter of the gallery as well as in the mirrors positioned in the corners of the gallery), the audience could project the movement of both their body as well as their mind within this environment (Pallasmaa 2005, 40). They were performing its scenography as it was performing them. Moreover, I as the author found myself in exactly the same situation during the production stage of the environment as the audience did during the exhibition.

The division of exhibition space into the stage and auditorium, however, provided an altogether different outcome. While the performers, through their exploration of immersion and interaction, experienced the transformation of self as the landscape and explored the mutual inspiration between self and the scenography, once they discovered the most interesting zones of the environment, they began to rehearse repeated movements rather than exploring new ones. In so doing, their performance effectively turned into a precontemplative, repetitive, almost scripted event which, in the end, led to an almost re-establishment of the spectator/performer divide.

Inviting the audience back to the stage after they had watched the dancer only confirmed the obvious: if the dancers lost one end of the thread of the scenographic unfolding by creating scripted action or repetition on stage, the audiences lost the other by re-entering the environment after they had passively watched the dancer from the auditorium. Taussig's insight into our desire to become and behave like something through his interpretation of "mimetic faculty" and "copy and contact" provides a helpful insight into why the audience, at the point of re-entering the stage, wanted to both behave like and become the dancer.

The outcomes of this experiment demonstrated that if we invite the performance of a live dancer (performing) in front of a live audience (passively seated in the auditorium), we once again create a divide between action and space, breaking the possibility of scenographic unfolding due to the subsuming of scenography to a supporting role. Based on these findings, one can wonder if Artaud, by insisting on placing the audiences in the "middle of the action" and

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generating communication between "spectator and spectacle" and the "actor and the audience", imagined that the audience becoming the performer might once again restore the problematic relationship of body separate from performance space.

In the final chapter, I explored the development process and eventual performances of the experimental environment *F O L D*, which bases itself on Svoboda's notion of atelier theatre as a space merging the exhibition and stage. As we have seen, it took four experiments with changing arrangements of stage and auditorium and performers with audiences to arrive at the final outcome. This final performance / configuration utilized real time digitally controlled processes in software to reorganize the sense of temporality for the spectator – a temporality that, unlike the almost immediate feedback discussed in Chapter III, was extended across time and space, thus affording a different level of participation. Moreover, *F O L D* demonstrated that Svoboda's notion of atelier theatre makes it possible to produce *affect* within the psycho-plastic space, *temporality* within the polyscenic space and to inspire *action* by forming the poetic image through a web of relations amongst audiences and performers within the production space. Once these spatial conditions are met, immersion and interaction, as well as participation, take place within the scenographic unfolding, via material and technological mediation and the transformation of body / space relations, which not only unfolds the space as action but also unfolds ourselves (individually or collectively) from the past into the present.

Svoboda's atelier theatre combines the context of the exhibition space and stage and makes it possible to play the material and technological mediation as well as the body / space relationships as a musical instrument, developing a key element in thinking about the interconnection of exhibition (in visual arts) and scenography (in theatre). While the theatre avant-garde only imagined the audience as creators through Appia's notion of the *living art* (1960), engaging directly with the environment and the performers within Artaud's *theatre of*

action (1958), scenographic unfolding makes these visions possible through material and technological mediation and body / space relationships – as a key approach to performance in the context of visual arts and theatre. While the findings of the last experiment capitalized on this research, each of the three previous iterations were lacking in one way or another, thus failing to fulfill the vision of the atelier theatre. And yet in doing so, they proved the importance of the experiment, as well as the significance of time and space to allow for risk-taking in the less successful scenarios as necessary prerequisites to form a foundation from which more desirable outcomes may emerge (Albertová, 2012, 305).

What is important as a key thread throughout this thesis is the fact that I have sought to use my own practice as a test bed to explore the relationship between installation art and expanded scenography and to explore how we can think about performative space at the intersection of visual arts and theatre. To this end, my exploration of performative space as scenographic unfolding in environments that are immersive, interactive and participatory sheds some light on how the entanglements of existing definitions can be reconfigured through hands-on engagement with these practices. By situating the exploration of these terms within both spectrums of practice (production / creation, as well as exhibition / dissemination), I not only have aimed to rethink the common understanding of terms like immersion, interaction and participation that have been used frequently in discussions about installation art and scenography, but also to understand how the creative process of the artist as well as the experiential and perceptual processes of the audience are already entangled within the conception and development of a work, long before it appears for the public.

What has transpired in the conclusive thoughts of this research is the implication of the extraordinary wealth of knowledge that may be generated from the continuation of this dialogue between the visual arts and theatre. While this research focused on the performance as

scenographic unfolding, there is yet much to be discovered and, as this research has implied in highlighting the legacy of the theatre avant-garde as well as that of Josef Svoboda, also rediscovered by practitioners in both theatre and visual arts by continuing this dialogue. At the same time, there is much work to be done in educating our audiences to experience and to learn (not only about themselves, but also the world) through immersion, interaction and participation in performance as the scenographic unfolding. And, conversely, there is much to be done by practitioners in learning from their audiences who are, as we have also learned, becoming the inseparable, if not the essential, part of the performance and its unfolding.

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Tomas Saraceno, *On Space Time Foam* (2012), Installation View, Hangar Bicocca, Milan, curated by Andrea Lissoni, courtesy the artist, Tanya Bonakdar Gallery, New York; Andersen's Contemporary, Copenhagen, Pinksummer Contemporary Art, Genoa; Esther Shipper, Berlin. © Photography by Alessandro Coco and Studio Tomas Saraceno, 2012. http://tomassaraceno.com/projects/on-space-time-foam Web. December 15th, 2017.

APPENDICES

List of Media Works

Web-accessible documentation of all my work discussed in this dissertation, including video documentation, technical description and credits, may be found at: http://www.lenkanovak.com. Below is a list of links to each individual work and video documentation. All the works and documentation listed here are submitted by myself (Lenka Nováková) as a component of Concordia Research-Creation based Thesis in Humanities titled: *Scenographic Unfolding: Performance of Immersive, Interactive and Participatory Environments (2018).* The author of this dissertation (Lenka Nováková) is also the author of all the included works and the documentation, unless otherwise specified.

01.   *Deep Waters I.*   *(2006-2008)*

Link to work description: http://www.lenkanovak.com/works/deep-water

Link to video: https://www.youtube.com/watch?time_continue=62&v=Le9BT0zU18k

Duration of video: 1:22 min.

02.   *Deep Waters II.*   *(2006-2008)*

Link to work description: http://www.lenkanovak.com/works/deep-waters-ii

Link to video: https://www.youtube.com/watch?v=7TyODaYPpSg

Duration of video: 0:43 min.

03.   *River*   *(2009)*

Link to work description: http://www.lenkanovak.com/works/river

Link to video 1: https://www.youtube.com/watch?v=NegaGg--7o0

Link to video 2: https://www.youtube.com/watch?v=KpZfPOPINWU

Duration of video 1. 0:33 min.

Duration of video 2. 1:22 min.

04. ***Déjà vu*** *(2010-2012)*

Link to work description: http://www.lenkanovak.com/works/deja-vu

http://www.lenkanovak.com/works/have-i-been-here-before-deja-vu-hamilton-version

Link to video 1: https://www.youtube.com/watch?time_continue=12&v=eocKc_woAjE

Link to video 2: http://www.lenkanovak.com/works/deja-vu

Link to video 3: http://www.lenkanovak.com/works/have-i-been-here-before-deja-vu-hamilton-version

Duration of video 1. 1:03 min.

Duration of video 2. 1:22 min.

Duration of video 3. 4:00 min.

05. ***Déjà vu*** (Short films at Faubourg Staircase: Time is Walking By…) (2010)

Link to work description: http://www.lenkanovak.com/works/time-is-walking-by

Link to video 1.: https://www.youtube.com/watch?v=tk6hL1f-K84

Link to video 2.: https://www.youtube.com/watch?v=8mNtR2Cj9BA

Duration of video 1.: 2:13 min.

Duration of video 2.: 1:56 min.

06. ***Déjà vu*** *(Experiments: Eastern Penitentiary* (2010)

Link to work description: http://www.lenkanovak.com/works/deja-vu-ii

Link to video: https://www.youtube.com/watch?time_continue=5&v=EnUATjSgIjI

Duration of video: 0:52 min.

07.   *O V A L*   *(2013-2014)*

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.

08.   *Light and Darkness*   *(2012-2013)*

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

09.   *F O L D*[17]   *(2013-2014)*

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

Link to video[18]: https://vimeo.com/113272045

Duration of video: 6:45 min.

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[17] 11.-14. *Documented by Sonja Mladenova, Omar Faleh, and Lenka Novakova*
[18] 18 11.-14. *Documented by Sonja Mladenova, Omar Faleh, and Lenka Novakova*

Deep Waters I.

Deep Waters I. is an immersive environment formed by reflected light, architectural elements and water. The actual installation is composed of eight large water containers, five feet in diameter each, fabricated in 1/8" steel, positioned on the floor and filled with water. Above every water pool, there is a two-foot-long acrylic cylinder suspended from the ceiling. Alternatively, there may be a plumbing structure installed (in place of the cylinders), releasing a drop of water approximately every five seconds. The drops fall to the pools with a gentle tipping sound, breaking the water surface into ripples. These are being reflected, in their enlarged form, onto white vellum screens placed around the water containers. Viewers are invited to walk between the pools or sit on benches and experience the phenomena of the reflected light, movement, water and sound. The minimal nature of this work and all its elements are employed to embrace the preconceived notion of depth, which begins at the surface and continues to imaginary dimensions within the contemplative mind of the audience.

Link to work description: http://www.lenkanovak.com/works/deep-water
Link to video: https://www.youtube.com/watch?time_continue=62&v=Le9BT0zU18k
Duration of video: 1:22 min.

Technical Information:
6 theatre lights
8 steel water pools
8 acrylic water containers
Plumbing systems
Double sided vellum screens 360-degree perimeter of the gallery space

Credits
Date of Creation: 2006-2008
Lenka Nováková: Creation / Concept
Francis Anjo: Assistance
photo/video credit © Lenka Nováková
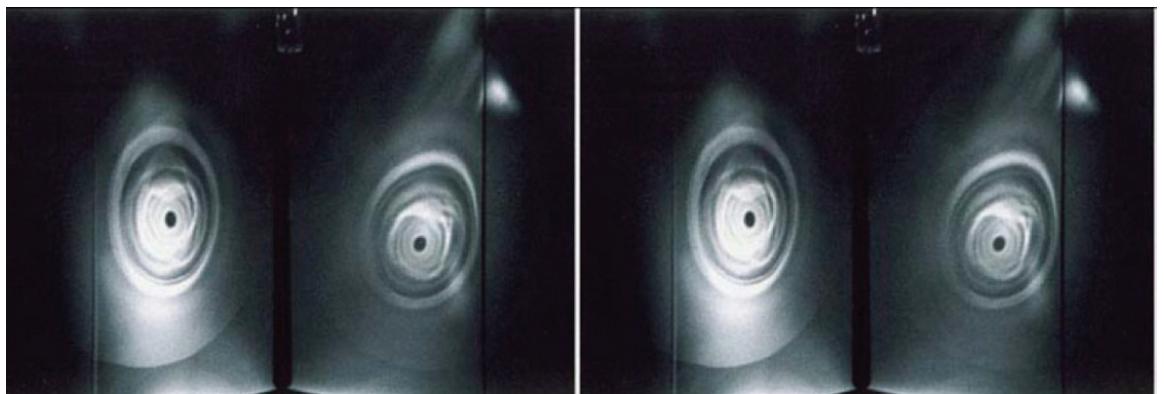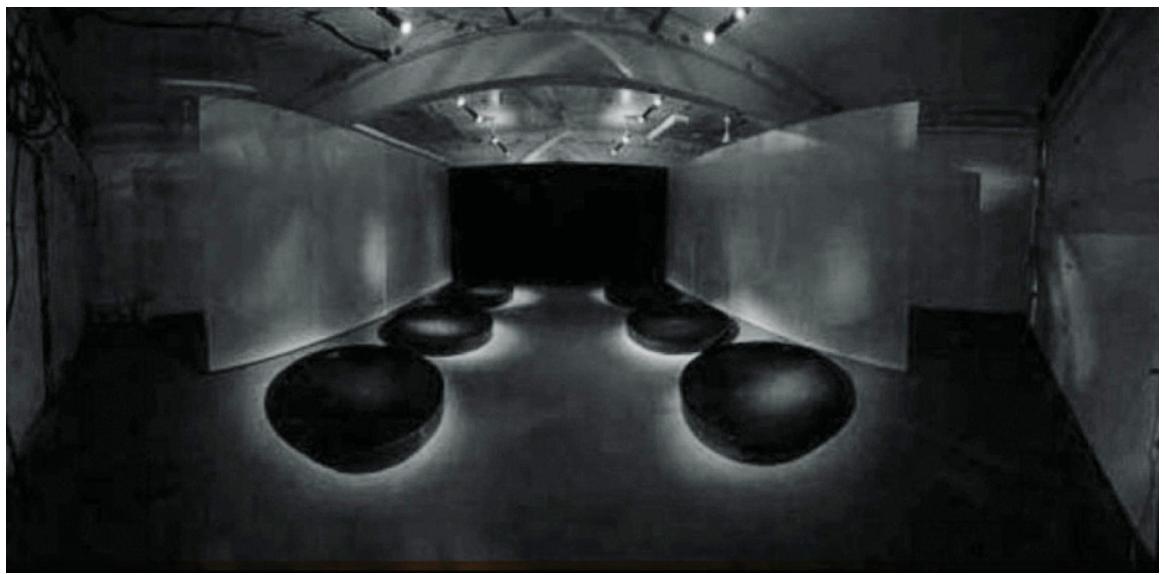
Selected Exhibitions
NAC (Niagara Artist Run Centre), Saint Catherine's, ON, Canada http://www.nac.org
PAFA Museum of Fine Arts, Philadelphia, USA http://www.pafa.org/museum

Appendix B

Deep Waters II.

In *Deep Waters II.,* I explore the notion of depth and consequently the notion of a fall by employing an elaborate design of multiple projection screens to layer the projected image and recreate the lustrous, transparent and reflective qualities of a dark water surface. Eight minutes of looped video footage of rocks falling in the middle of the night into the quiet Schuylkill River is projected across and through eight large water-like screens. The screens are fabricated in monofilament, woven between two 8'x 8'aluminum bars. These are set in a row, approximately three feet apart, and create multiple repetitive images. The audience is invited to walk around and between the screens. The projected image captures the repeated action of rocks falling into the calm night river, breaking the water surface into a pulsing ripple of light before it proceeds towards the dark bottom. Every eight minutes the DVD goes dark and the screens return back to the appearance of a calm, uninterrupted water surface of the night. In this work, I attempt to explore the phenomenon of depth as imaginary and psychological dimension of the unknown and the invisible.

Link to work description: http://www.lenkanovak.com/works/deep-waters-ii
Link to video: https://www.youtube.com/watch?v=7TyODaYPpSg
Duration of video: 0:43 min.

Technical Info:
8 screens 8' x 8' (stretched between the floor and ceiling)
2 projectors (same resolution/lumens)
1 DVD (audio and video) 8 minutes looped
(Darkened gallery space installation of black fabric)

Credits
Date of Creation: 2006-2008
Lenka Nováková - Concept/Creation
Marinko Jareb - Audio
Assistance: Francis Anjo
Photo/Video Credit © Lenka Novakova

Selected Exhibitions
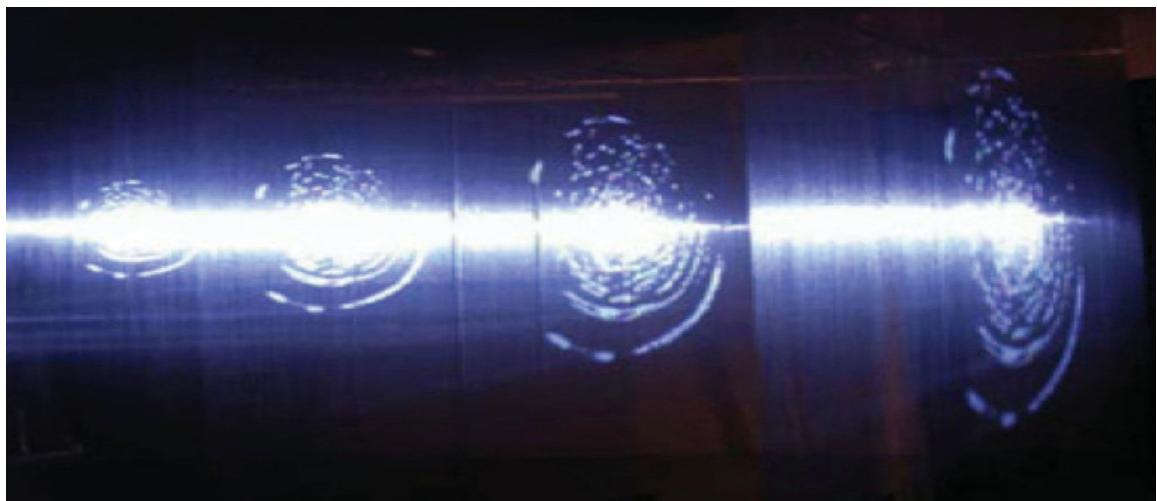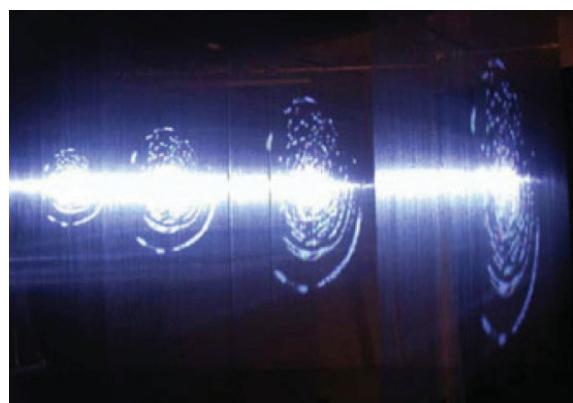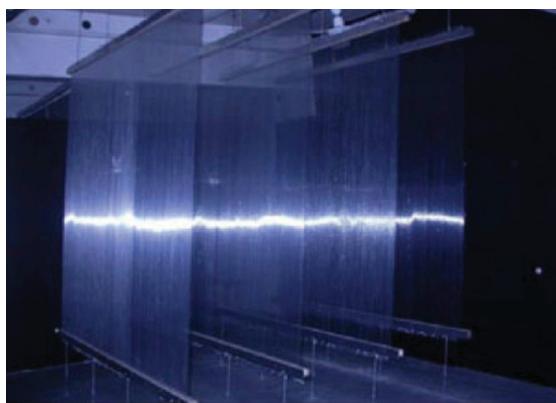
Niagara Artist Company, St. Catherine's, Canada http://www.nac.org
PAFA Museum of Fine Arts, Philadelphia, USA www.pafa.org/museum
Definitely Superior, Thunder Bay, ON, Canada www.definitelysu
Ed Video, Edifying Edifice, Festival of Moving Image, Guelph, ON, Canada
Espace F, Matane, QC, Canada http://www.espacef.org

Appendix C

River

River is an immersive installation transforming the entire gallery space along with the audience's bodies and minds into a submersive experience of a river current running through the darkened gallery space. The installation consists of multiple conic screens installed throughout the gallery, forming an inward-directed space and creating the premise for a possibility of perception which encompasses the viewers' entire physical being. The cones are suspended from the ceiling structure on a grid leaving approximately two-foot space in between for audiences to walk comfortably within the landscape of the installation. The number of the units varies from twenty-eight to forty-two according to the availability of space.

Link to work description: http://www.lenkanovak.com/works/river
Link to video 1: https://www.youtube.com/watch?v=NegaGg--7o0
Link to video 2: https://www.youtube.com/watch?v=KpZfPOPINWU
Duration of video 1. 33 min.
Duration of video 2. 1:22 min.

Technical Information:
4 projectors
4 DVD players
1 DVD (8 min loop)
36 conical glass structures

Credits
Date of Creation: 2009
Lenka Nováková: concept, creation
CIAM http://www.ciam-arts.org/
OAC http://www.arts.on.ca/site4.aspx
Photo/video credit © Lenka Nováková

Selected Exhibitions
Fofa Gallery, Montreal, QC, Canada fofagallery.concordia.ca/ehtml/2009/11lenkanovakova.h
Canada, Hexagram Black Box, Montreal, QC, Canada hexagram.concordia.ca
Grimsby Public Art Gallery, Grimsby, ON, Canada grimsbypublicartgallery.blogspot.ca
Estevan Art Gallery and Museum, Estevan, SK, Canada www.estevanartgallery.com
Gallery de Matane, Matane, QC, Canada http://www.galerieartmatane.org
Definitely Superior, Thunder Bay, ON, Canada http://www.definitelysuperior.com/
Musee d'Art Contemporain de Baie – Saint Paul, QC, Canada http://www.macbsp.com
WKP Kennedy Art Gallery, North Bay, ON, Canada http://www.kennedygallery.org
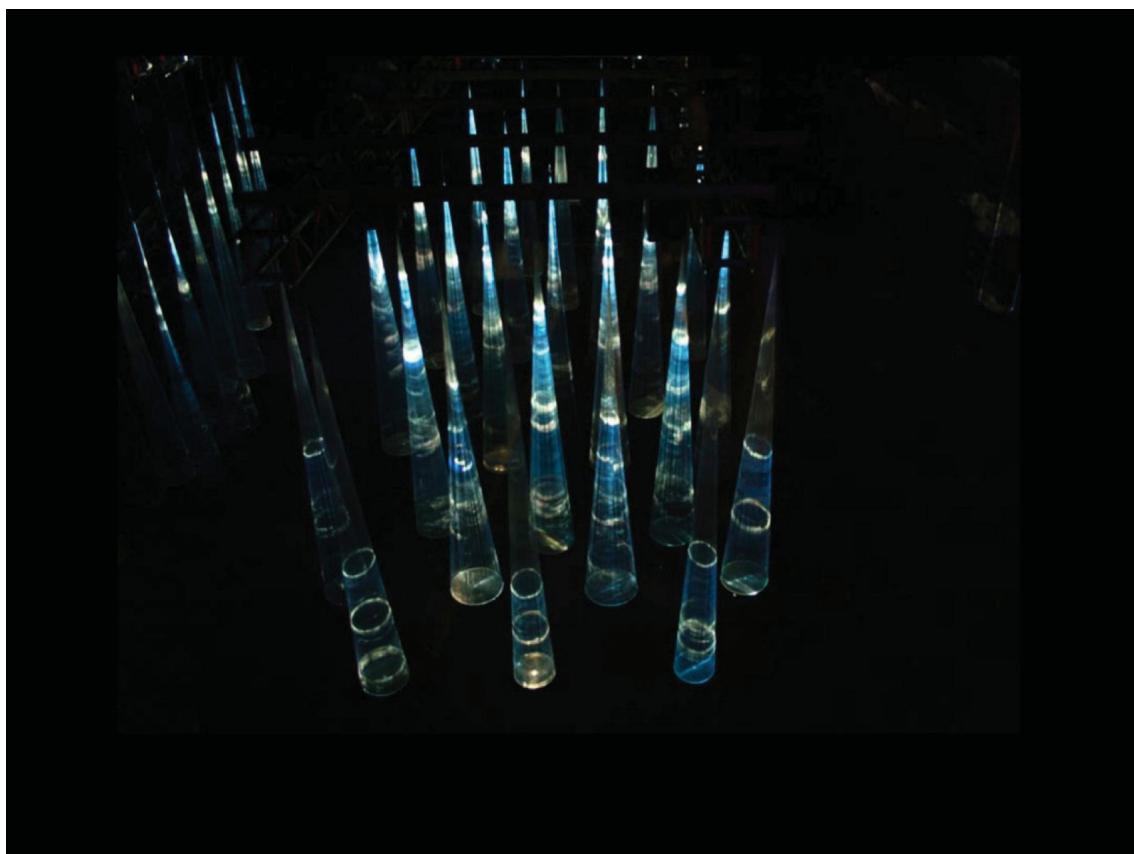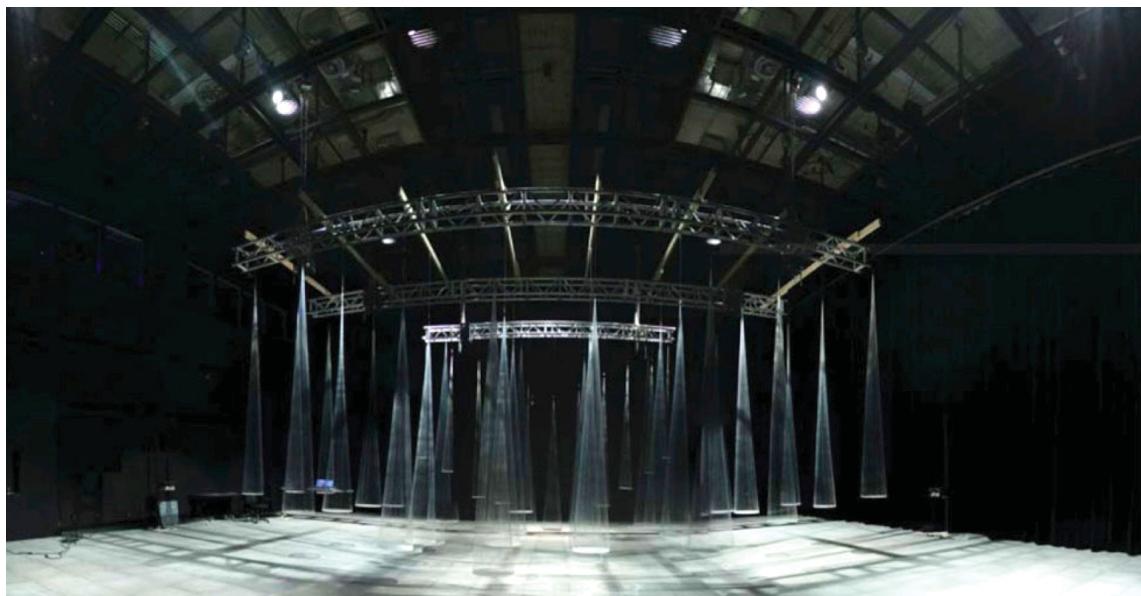
Appendix D

Déjà vu

Déjà Vu is an interactive installation composed of theatre risers assembled into a staircase-like structure, two real-time cameras, four projectors and two large corner mirrors. The cameras are aimed towards the central architectural assembly and the projectors are positioned in such a way as to distribute a real-time projected image around the perimeter of the gallery space. Multiple layers of the projected image form an illusion of steps descending into infinity, around the 360-degree perimeter of the gallery space. Movement of the audience through the space creates visual echoes and repetitions of the projected image and mingles with the projected images of the infinite steps. The audiences are invited to walk up, down and around the structure (as if walking on a stage), observing the movement of their own bodies and projecting their thoughts within the given landscape of infinite steps around them.[19]

In addition, two large mirrors are placed in each corner of the gallery with another set of mini projectors aimed towards them. These are connected to an additional camera which 'observes' the platforms and feeds the image back. This set-up reflects the entire scenario back to the space of the installation, each from a different angle. If the visitors rest up on the platforms (as if sitting in an auditorium) they may observe an optical illusion of multiple visual echoes of the theatre platforms descending into infinity and their own images being distributed within this disappearing landscape. In addition, they may glance into the two sets of corner mirrors set up at each side of the gallery. This view is not unlike watching a TV monitor offering a reflected image of the entire site distorted into infinite echoes of the architectural setting, as well as multiple images of the visitors. Both the walls of the gallery, as well as the mirrors, may be considered a form of an expanded screen.

Link to work description: http://www.lenkanovak.com/works/deja-vu
http://www.lenkanovak.com/works/have-i-been-here-before-deja-vu-hamilton-version
Link to video 1: https://www.youtube.com/watch?time_continue=12&v=eocKc_woAjE
Link to video 2: http://www.lenkanovak.com/works/deja-vu
Link to video 3: http://www.lenkanovak.com/works/have-i-been-here-before-deja-vu-hamilton-version

Duration of video 1:1:03 min.
Duration of video 2: 1:22 min.
Duration of video 3: 4:00 min.

Technical Information:
4 projectors
2 CCTV high res. cameras
Theatre platforms
 2 mirrors

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[19]The connection of the cameras to the projectors is on analogue basis and all the imagery is in real time, created purely by the looped feedback. (Unlike in my later installations, there is no time delay, neither is there any digital manipulation of the image by Max MSP.)

Dimensions:
Variable depending on the shape of the space, Minimal Space 28' x 28' and larger

Credits:
Date of Creation: 2010
Concept/Creation: Lenka Nováková
Choreography/Direction: Lenka Nováková
Performer 1: Katia-Marie Germain (Thames Art Gallery)
Performer 2: Karijn de Jong (Hamilton Artist Centre)
Performer 3: Elizabeth Rose Bowman (University of Wisconsin)
Performance 1: La Chambre Blanche (students of Ecole de Danse, Quebec) 2010
Performance 2: University of Wisconsin, La Crosse (UW students) 2012
Performance 3: SESC Pinheiros 2010
photo/video credit © Lenka Nováková

Selected Exhibitions:

2013
Thames Art Gallery – Chatham Kent, Chatham, ON, Canada
Have I been here before, Curator Carl Levoy, publication Kasia Basta
https://www.chatham-kent.ca

2012
University of Wisconsin, Gallery La Crosse, La Crosse, Wisconsin, USA
Have I been here before/Déjà vu, Exhibition, Artist Lecture
and performance in collaboration with UW students, Curated by Binod Shrestha
http://www.uwlax.edu/art/gallery/past.html

2011
Hamilton Artist, Inc., Hamilton, ON, Canada
Have I been here before Exhibition, Performance and Artist talk, Curated by Irene Laughlin
Performance in collaboration with Karijn Dejong, interview: Kristina deMelo
http://theinc.ca/2012/02/29/february-exhibition-openings-in-the-cannon-st-gallery-have-i-been-
here-before-an-interactive-video-installation-by-lenka-novak/
http://hamiltonartistsinc.files.wordpress.com/2012/01/download-exhibition-brochure1.pdf
http://theinc.ca/

2010
SESC Pinheiros, et l'Atelie NOVO – Integracao Action Sao Paulo: Quebec
Echange artistique entre la ville de Quebec et Sao Paulo
Ce project est le fruit d'un partenariat entre Le Lieu, centre en art
Actuel, Avatar, La bande Video, La Chambre Blanche et L'oeil de poisson
http://www.sescsp.org.br/sesc
http://projetointegracao.wordpress.com/echange-2011/
http://www.chambreblanche.qc.ca/fr/

2010

La Chambre Blanche, QC, Canada
Fragments of Light, Have I been here before, Project & Exhibition Residency
Production, Exhibition and Artist Talk, Part of Sao Paulo – Quebec exchange
http://www.chambreblanche.qc.ca/EN/, http://projetointegracao.wordpress.com/echange-

Reviews:
Have I been here before - Hamilton Artist Inc.
Lenka Nováková - Chatham Kent Performance and Exhibition
http://levadrouilleururbain.wordpress.com/2011/04/13/la-chambre-blanche-le-lieu-et-le-sesc-pinheiros-presente
http://www.rcaaq.org/html/en/actualites/expositions_details.php?id=11312
http://www.chambreblanche.qc.ca/MEDIA/Prog/PDF/0813713092_PDFcommunique.pdf
http://www.punctum-qc.com/article_lenka_novakova.html
http://lizrosebowman.com/artwork/2737944_Have_I_been_here_before.html
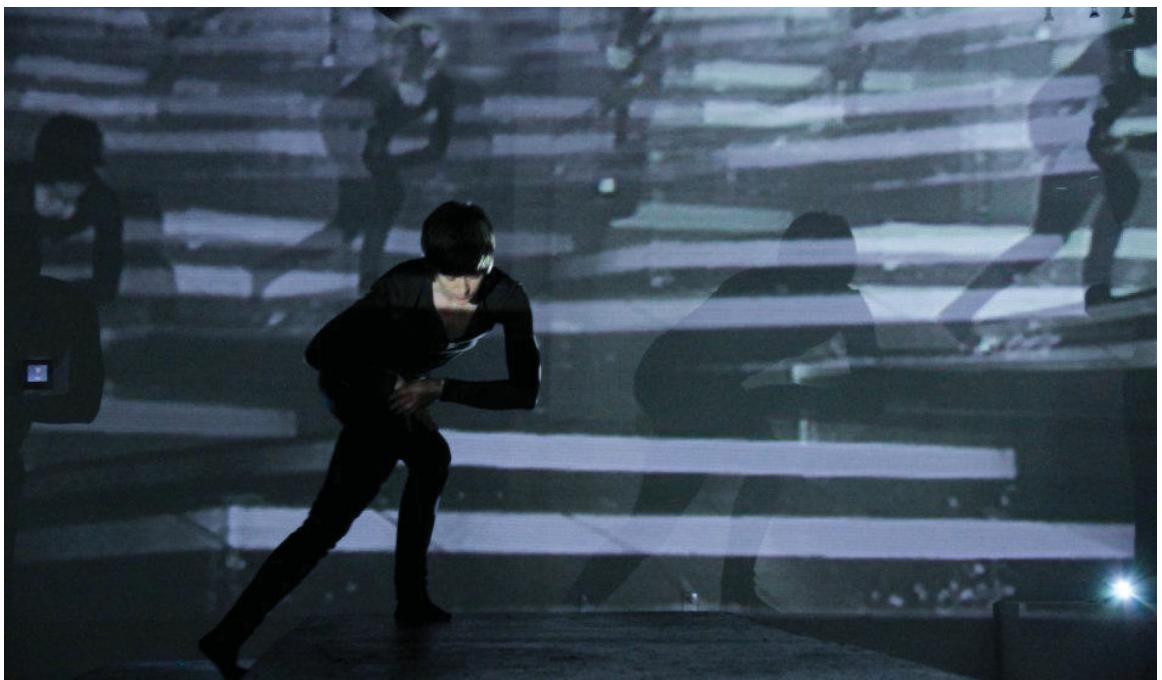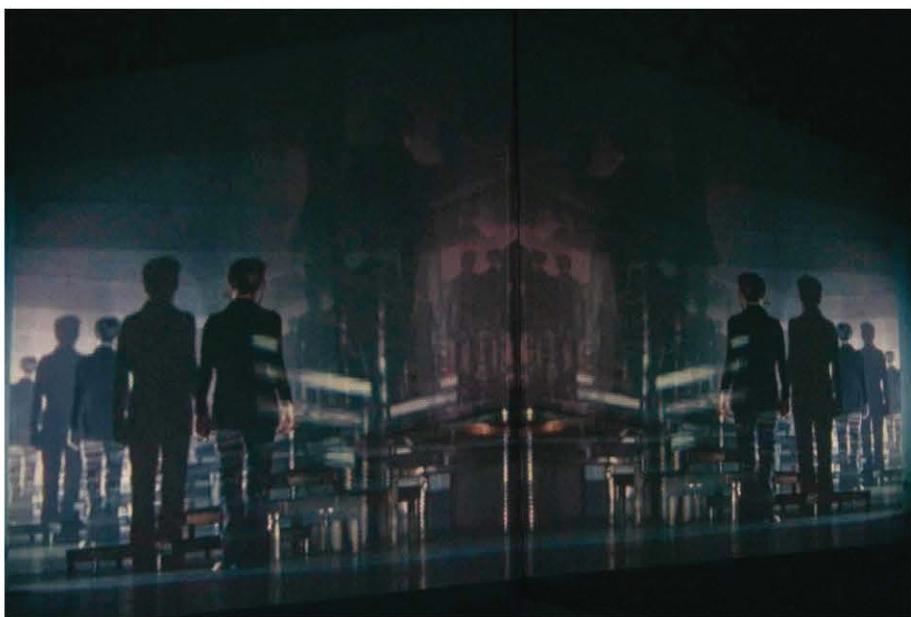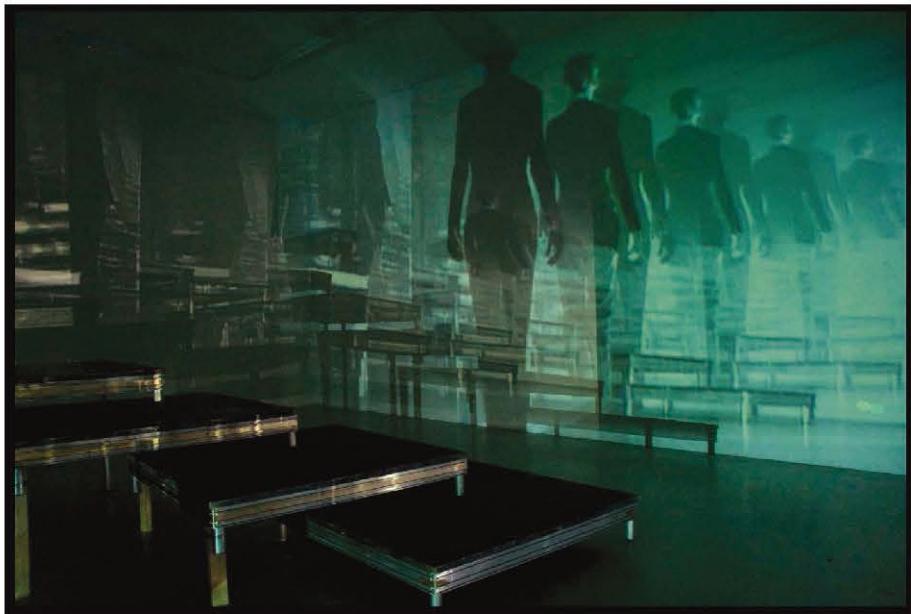
Have I been here before?

An interactive video installation by Lenka Novakova

February 9th – March 17, 2012
Reception: Thursday, February 9th
7–10 pm the artist will be in attendance

Installation image: Lenka Novakova, 2010

Art Crawl: Friday, February 10th 7–11 pm

Performances by Lenka Novakova and Karijn de Jong:
Thursday, February 9th at 7:30 pm
Friday, February 10th at 8 pm

HAMILTON ARTISTS INC
ARTIST RUN CENTRE

Interview with Lenka Nováková by Christina de Melo

Hamilton artist and McMaster University student Christina de Melo interviewed Lenka Nováková in Montreal on January 20, 2012 regarding her work.

Christina de Melo: *You've expressed an interest in transforming viewers' understanding of the screen as a two-dimensional experience. How does your piece at the Inc. subvert conventions of the screen?*

Lenka Nováková*: Currently, my work, in terms of its own theory, has to do with thinking through ideas of theatre and ideas of cinema. And so in this installation, both of these things are happening simultaneously. So we have a space here, and theatre is something that is happening now and it is real - so we have the real architecture and we have the real person in the middle of the installation. I also like to think of work in terms of an auditorium and in terms of a space, so I'm really shifting these spaces within the gallery. In relation to theatre, I simply take the spectator out of the auditorium and place them right onto the stage – I turn the spectator into the performer. I like to think about these divisions of spaces in terms of who is actually performing and who is observing. In regards to the division of space in cinema, there is the auditorium and there is the screen.*

The screen is creating the illusion of a three-dimensional space or the illusion of time. In this installation, I like to think that the principles of theatre and cinema are really coming together to redefine traditions of space, and question who is the performer here and who is the spectator. Let's say the spectator comes in and is put right in the middle of this whole thing - he is creating his own reflection in a minimal and simple way, and creating his own comprehension of what is happening. That self-reflective state of the spectator is really my interest here. It's not necessarily

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the experience of the spectator, which has more to do with my own thinking and research behind the work. In terms of the spectator, I'd like for them to just come in the space and explore it, and enjoy the experience.

CdM: *Your earlier works seemed to focus more tightly on water and its movement through light, but your more recent installations involve the body more directly; that is, live human bodies are themselves the projection in I Am the Light and Where Are You Going Ray? Can you speak to this shift?*

LN: *It's an interesting dynamic in my work, though it doesn't mean that I've abandoned the idea of water and landscape – I still work very much with these themes. But I think I have been tempted recently to bring the figure back into my work. One possible explanation for this shift is that I was trained as a traditional sculptor in Europe, and I worked with the human figure for a number of years before I went through my more recent training and started to work in installation, projection and light, and with phenomenological issues. My background in figurative art is really extensive. For a number of years I was working with the human form, and the expression of figures within that classical state. In terms of my own personal reflection, it had to do with questioning where all those years went, and how to reintroduce the figure into my work. Now that I am starting to work with choreographers and dancers and their bodies in play almost as objects also, the element of performance simply re-introduces the body and its participatory effect on the installation, particularly through movement and light. In the future developments of my practice, the body, its choreography, and the elements of performance will become more apparent and complex.*

CdM: *What does the title of the work refer to?*

LN: *This work was created in Quebec City at La Chambre Blanche, as part of the residency program, and that's where the title also was chosen. When the spectator sits down on the steps, and then looks to the left and to the right and sees nothing but these steps and their own image repeating, I think I'm just trying to introduce this kind of question where they wonder – what is it that they are looking at? Why are they looking at it? And at the end, my experience is that they do sit there and observe themselves in that reflective way, and are thinking, 'What is this all about?' So I think it has to do with that moment where we all stop in a certain time and space and we are not really sure why, but there is something that prompts a certain reflection of the past and the present.*

CdM: *How did you conceive of this work? Was it something that came to you in an immediate way, or did you have to work through the idea and plan for a longer period of time?*

LN*: My residency at La Chambre Blanche was site-specific, so I had three weeks where I was working in the gallery with the space and the concept that I chose, and another three weeks to finish the work. So I spent lots of time in Quebec City. It's an old city, and there is a division of the old and new town, in a way, and the older town is higher up, so there are always steps to go up in Quebec City -- these stairways that you have to walk up to get to the old part of the town. I did a number of works about the steps, just recording people going up and down the steps. When the three weeks came together, there was also a column in the gallery and I wanted to work with the vertical space of the gallery and the horizontal space of the gallery and recreate this kind of*

experience of forming an opinion in Quebec City. So when I look back and ask myself where this work is coming from, it's really quite obvious for me that it emerged from this period of time in Quebec City.

CdM: What advice would you give to emerging artists working in installation, video and site-specific arts?

LN: Travelling with the work is the most rewarding experience. I brought this installation to Wisconsin and when people look at it they would say "I've never seen anything like that before." It's a whole different experience. I think that's why exhibitions should travel, and sometimes you reach people who have a great experience. It's worthwhile to explore this and bring the work to people.

Lenka Novakova was born in the Czech Republic and lives and works in Canada. In 2010, she completed her MFA at Concordia University, Montreal. Recent residencies include the Kunstnarhuset Messen, Alvik, Norway and the Santa Fe Art Institute, Santa Fe, New Mexico. She has exhibited throughout Canada and internationally, including exhibitions at Bain Saint-Michel, Montreal, QC, 'Aqua Ephemere' and at the 11th DMZ Art Festival, Seokjang-Ri Art Gallery, Republic of Korea.

Christina de Melo works in the mediums of photography and mixed media sculpture to create images and objects that reveal the irony and irreconcilability of our attempts to distance ourselves from nature. She moved to Hamilton in 2005, and is presently working towards a Masters of Arts degree at McMaster University.

Karijn de Jong is a Hamilton-based artist who started showing her work locally in 2005. Not formerly trained in any particular medium she enjoys variety, working with: installation, written word, and has recently taken interest in performance art and music. She draws from a history working in picture framing, the use of found objects, contemplations of society, obscurity and synchronicity, often touching on environmental/social and philosophical themes.

Appendix E

Déjà vu (Short films at Faboroug Staircase: Time is Walking By…)

Time is Walking By… is a video installation which employs double mirrors as projection screens to alter the projected video into an optical illusion, confusing the direction of the projected moving image through its reflection and refraction. The projected image represents short films, which I shot by the Faubourg Staircase in Quebec City in the early spring of 2010. The video is a recording of daily changes of a moving shadow of this staircase projected on the opposite building, the sidewalk and the road below, depending on the angle of the light at each specific hour. The different time of the day changes the shape of the projected shadows but also the dynamics and the flow of passers-by who either rush to work, walk leisurely with a friend, or stop at the top and look over the city…The final installation and the projection on the double mirror, however, makes the direction, the movement and time ambiguous.

Link to work description: http://www.lenkanovak.com/works/time-is-walking-by
Link to video 1.: https://www.youtube.com/watch?v=tk6hL1f-K84
Link to video 2.: https://www.youtube.com/watch?v=8mNtR2Cj9BA
Duration of video 1.: 2:13 min.
Duration of video 2.: 1:56 min.

Technical Information:
2 mirrors
2 CCTV high res. cameras
2 mini projectors
4 channel DVD (8 min. looped)

Credits
Lenka Nováková: Concept/Creation
Photo/Video Credit © Lenka Nováková
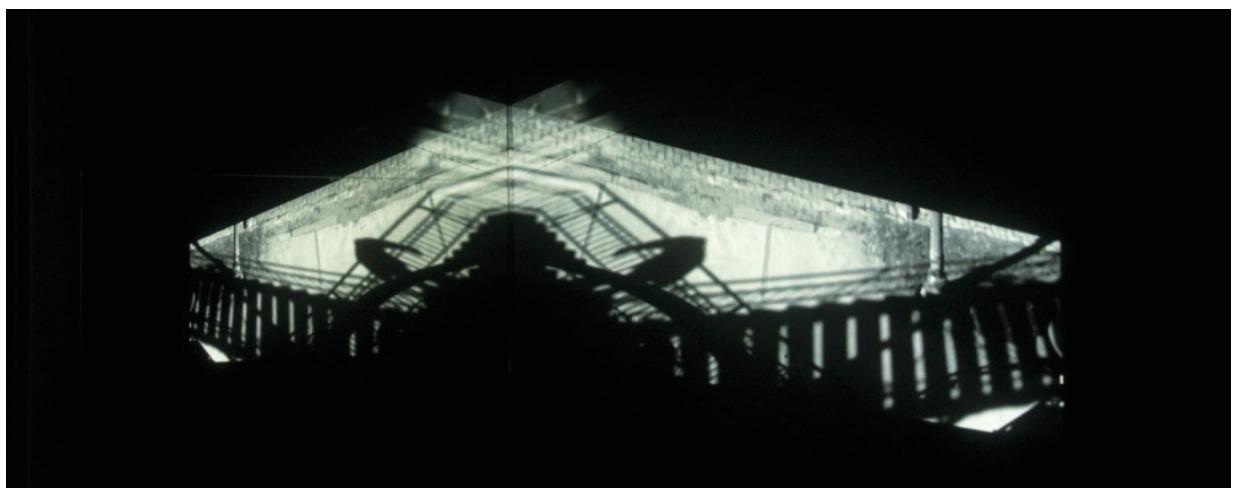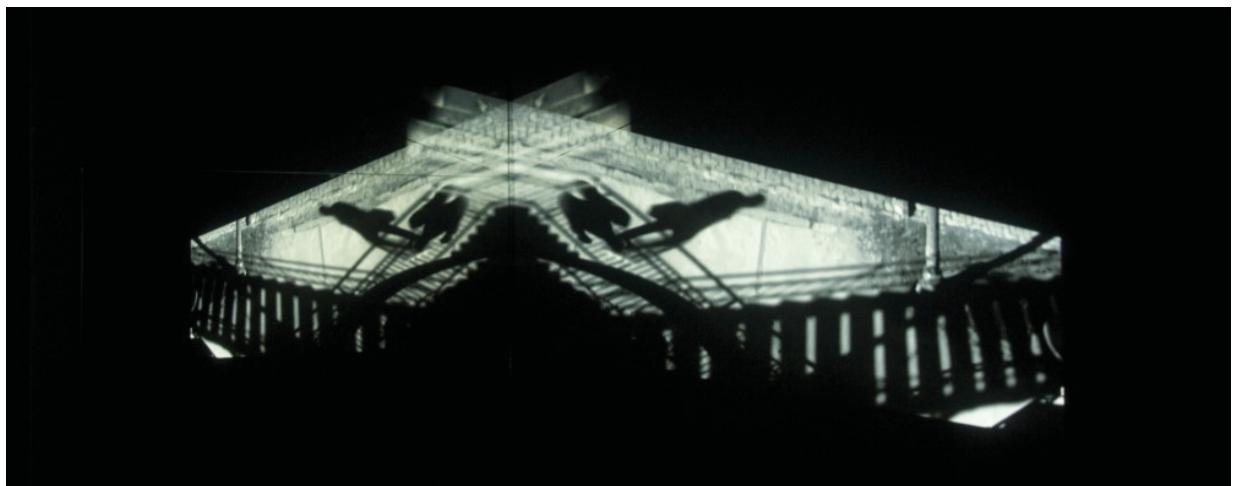
Selected Exhibitions
2010 La Chambre Blanche Quebec, Quebec, Canada
Production and Exhibition Residency
http://www.chambreblanche.qc.ca/EN/
http://www.chambreblanche.qc.ca/EN/event_detail.asp?cleLangue=2&cleProgType=1&cleProg=813713092&CurrentPer=Future

Appendix F

Déjà vu (Experiments: Eastern Penitentiary)
Experiments: Eastern Penitentiary is an interactive environment employing real-time media to create a 360-degree illusion of an architectural surround formed by a repetition of a projected image. The image represents long hallways of the Eastern Penitentiary in Philadelphia[20] and invites the audience to engage and explore the projection and movement of their own body within this landscape composed by layering the image. This installation was created during my residency at La Chambre Blanche in Quebec City and served as an experiment and first step in the formation of a later installation created in the same space, titled *Déjà vu.*

Link to work description: http://www.lenkanovak.com/works/deja-vu-ii
Link to video: https://www.youtube.com/watch?time_continue=5&v=EnUATjSgIjI
Duration of video: 0:52 min.

Technical Information:
4 projectors
2 CCTV high res. cameras
Theatre platforms
 2 mirrors

Dimensions:
Variable depending on the space available, Minimal dimension 28' x 28' and larger.

Credits: Date of Creation: 2010
Concept/Creation: Lenka Nováková

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[20] http://www.easternstate.org

Appendix G

O V A L

O V A L 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. *O V A L* 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 cameraq1a
2   projectors
5   amplifiers
Motu interface
Mac mini (Max MSP)

Credits: Year of creation: 2013 – 2014
Concept/Creation: Lenka Nováková & Otso Lãhdeoja
Lenka Nováková - Visual Artist
Otso Lahdeoja - Composer
Omar Faleh - Computer Design
Photo/Video credit: © Lenka Novakova
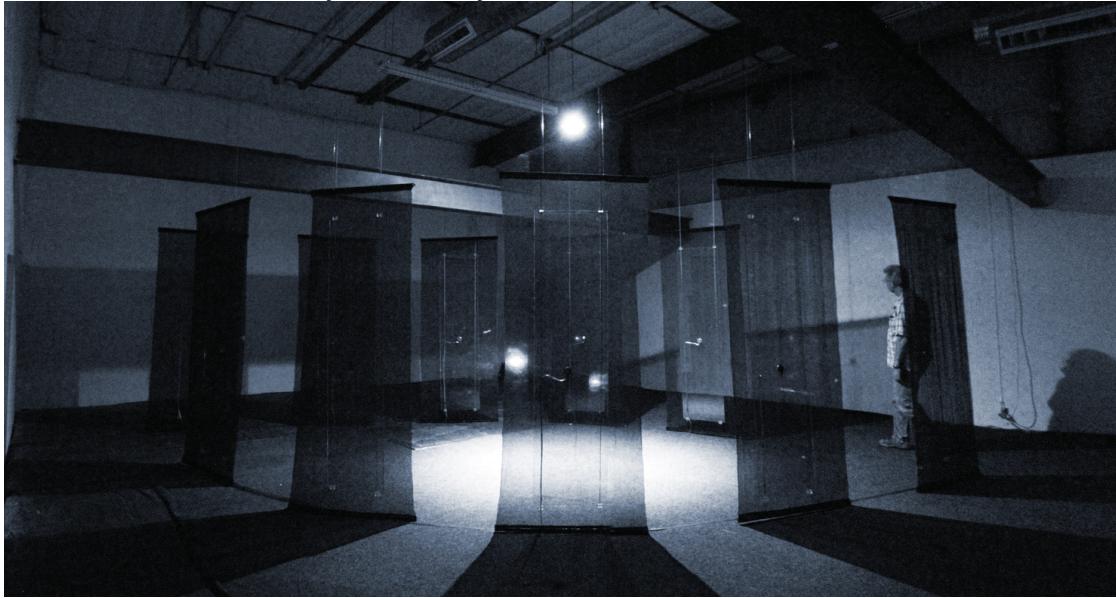
Special Thanks to:
Frank Ragano & Mariannah Amster
Co-Executive Directors at Parallel Studios
Quebec Art Council, CIAM – Hexagram
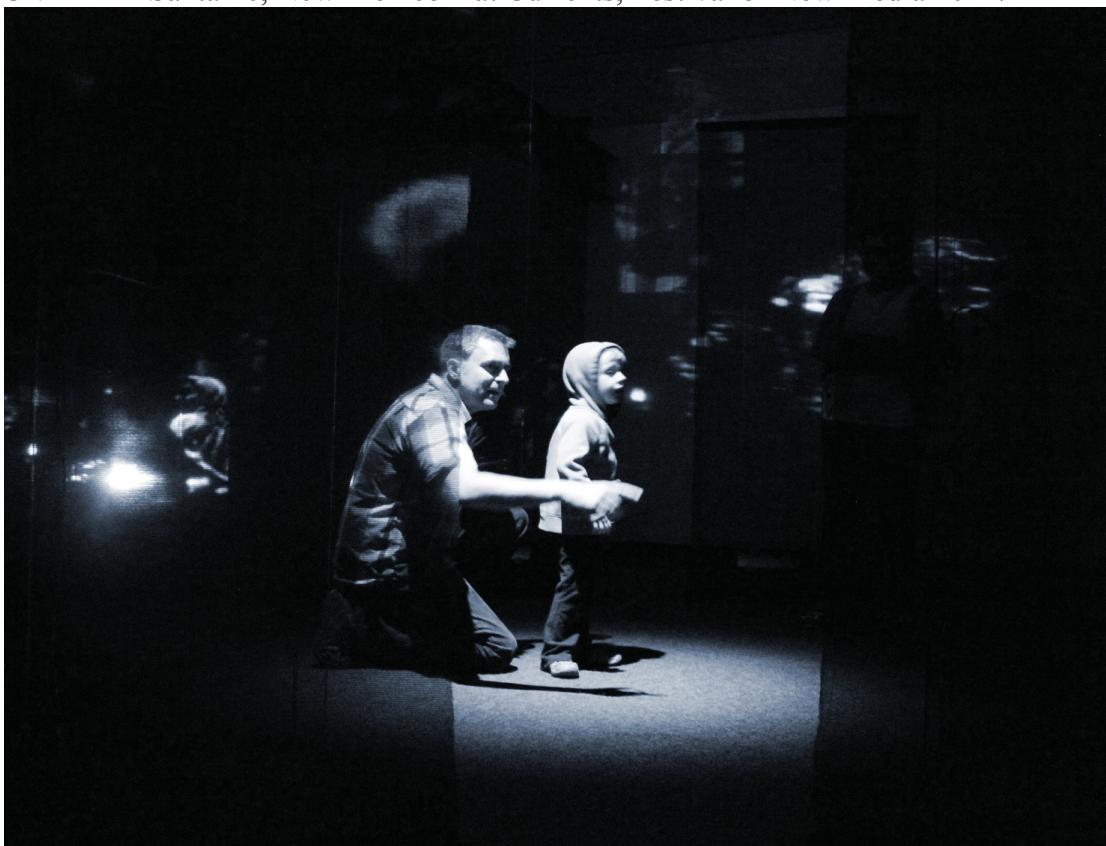
Selected Exhibitions
2013 Black Box Hexagram, Concordia University, Montreal, QC,
Canada   http://hexagram.concordia.ca

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

O V A L in Santa Fe, New Mexico – at Currents, Festival of New Media 2014.

O V A L in Santa Fe, New Mexico – at Currents, Festival of New Media 2014.

O V A L

Lenka Novakova   &   Otso Lähdeoja

Audiovisual installation

Open doors:
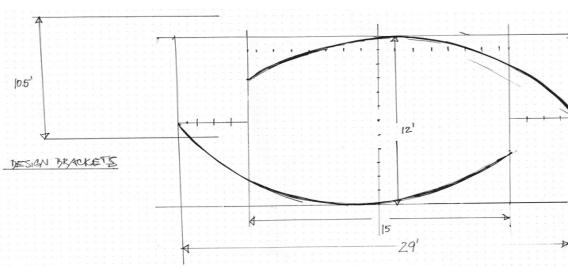
Friday September 13, 5 pm - 8 pm
Saturday September 14, 5 pm - 8 pm

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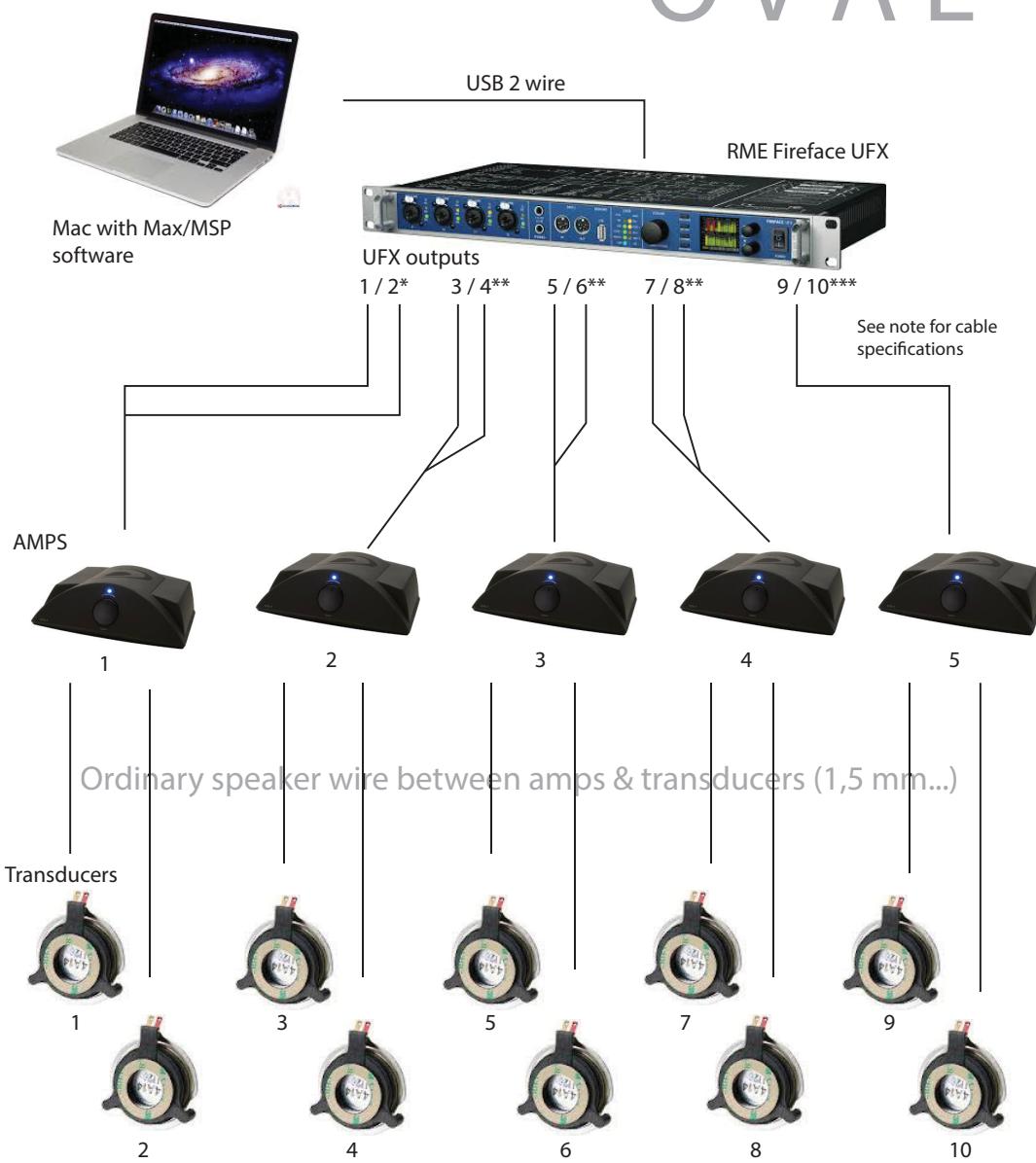
Hexagram Black Box, Concordia University bâtiment EV, 1515 Ste. Catherine O., étage -3

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.

O V A L

USB 2 wire

RME Fireface UFX

Mac with Max/MSP
software

UFX outputs

1 / 2*   3 / 4**   5 / 6**   7 / 8**   9 / 10***

See note for cable
specifications

AMPS

1   2   3   4   5

Ordinary speaker wire between amps & transducers (1,5 mm...)

Transducers

1   3   5   7   9

2   4   6   8   10
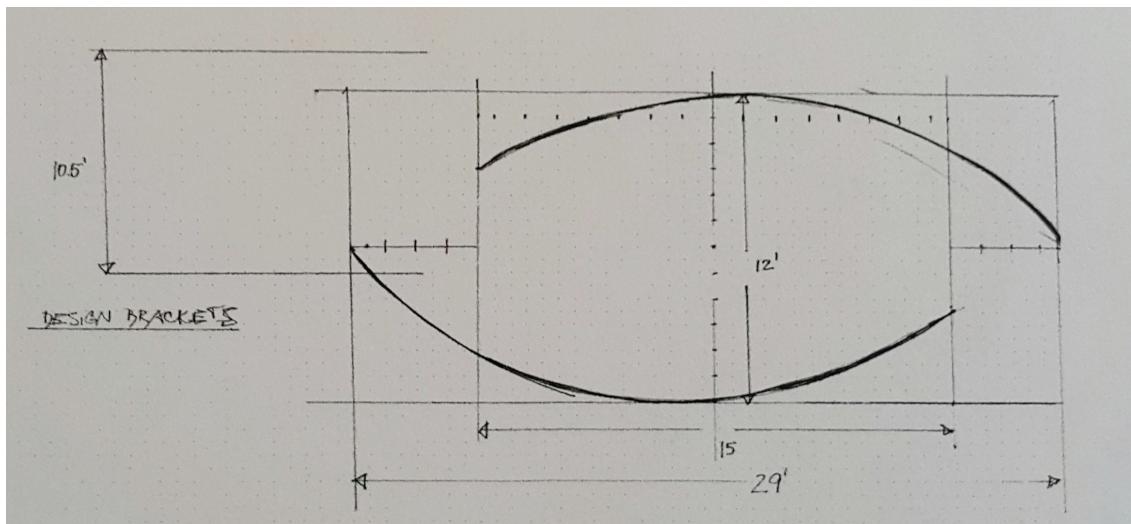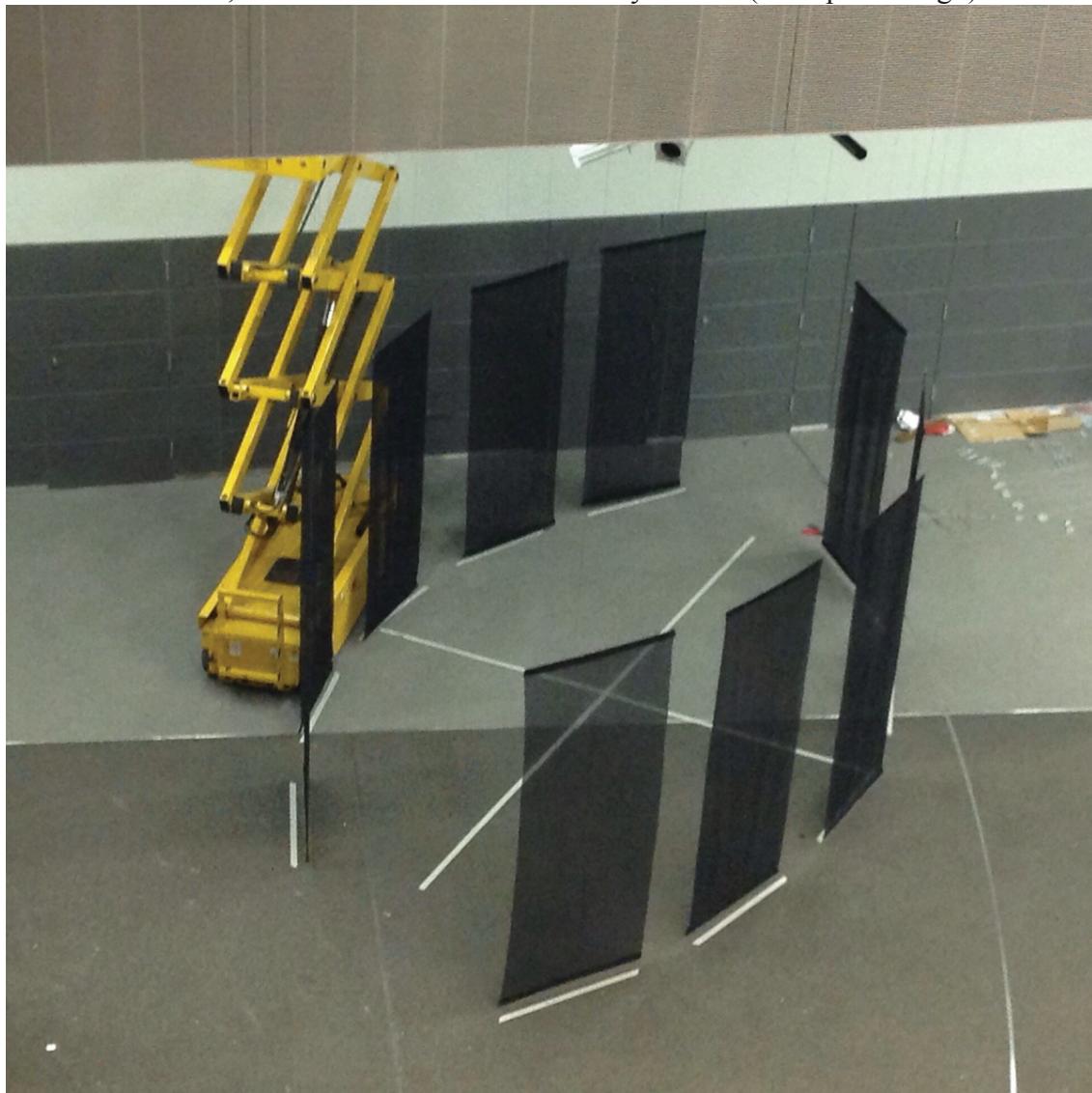
* Cable required (outputs 1 & 2): 2 Female mono XLRs to male stereo mini jack

** 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

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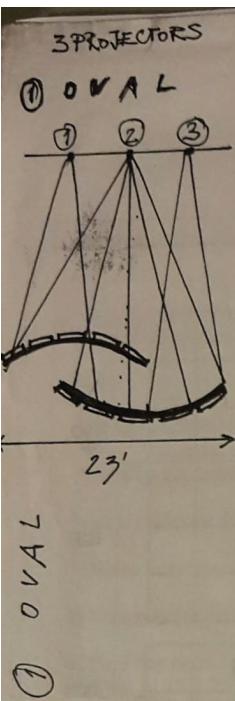
We are looking forward to having you in Santa Fe and to presenting "OVAL" which will certainly be one of the highlights of the Festival.

All my best,
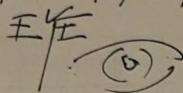
Frank Ragano
Co-Executive Director
Parallel Studios

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

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3 PROJECTORS

① O V A L

23'

① O V A L
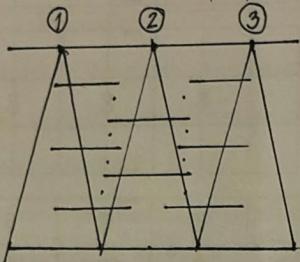
QUESTIONS:
— CAN WE GENERATE OPTICAL IMAGE?
— HOW DO WE TREAT THE GLASS AS A PROJECTION SURFACE
— HOW DO WE DEVELOP THIS/S AS A SCENOGRAPHY?

— CONCEPT — AN OPTICAL EYE

EYE
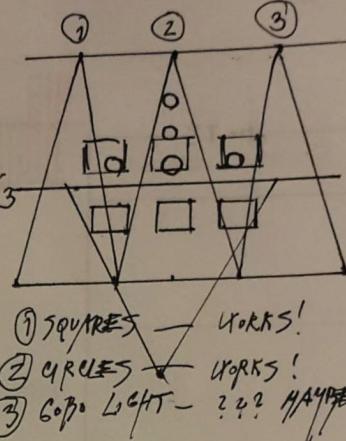
② FIELD OF SHEETS
→ HOLOGRAM IMAGES

8 SCREENS
8 SHEETS OF GLASS

④ ?

SCREENS SHARK TOOTH ∝ GLASS
— HOW DO WE TREAT THE GLASS?
— HOW DOES IT WORK IN COMPOSITION?
— WHAT SHOULD OTSO COMPOSE?
— IS THERE ANOTHER COMPOSITION?

③ — WHAT DO WE
— HOW DO WE WORK WITH

① SQUARES — WORKS!
② CIRCLES — WORKS!
③ GOBO LIGHT — ?·? MAYBE

④ FOG → MAKE ANIMATION FOR FOG DRIVEN SCREENS
HOW DO YOU DO THAT?
HOW DOES THIS COMBINE WITH THE SHARKTOOTH COMPOSITION?
CONCEPT

SATURDAY: ① GO OVER SETTINGS WITH
② DOCUMENT FOR WEBSITE
③ NAVID ⓐ HOW DO WE DEAL THE IMAGES WITHOUT 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

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

M Gmail   Lenka Novakova <lenkanovak30@gmail.com>

Hospital project, lighting rquipmens.
4 messages

Omar Faleh <omar@morscad.com>   Mon, Jul 8, 2013 at 12:18 AM
To: Eva Novakova <avenovak@gmail.com>
Cc: Lenka Novakova <lenkanovak30@gmail.com>

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 boxed)
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 convertor

please let me know what is accessible an 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>   Mon, Jul 8, 2013 at 5:18 AM
To: Omar Faleh <omar@morscad.com>
Cc: Eva Novakova <avenovak@gmail.com>

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.

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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
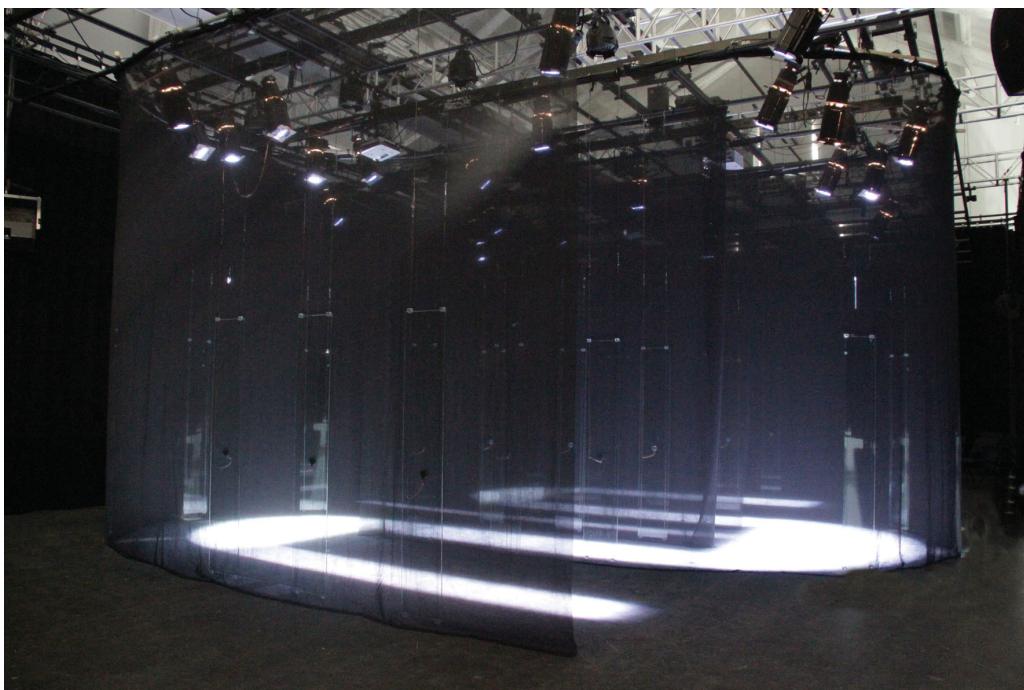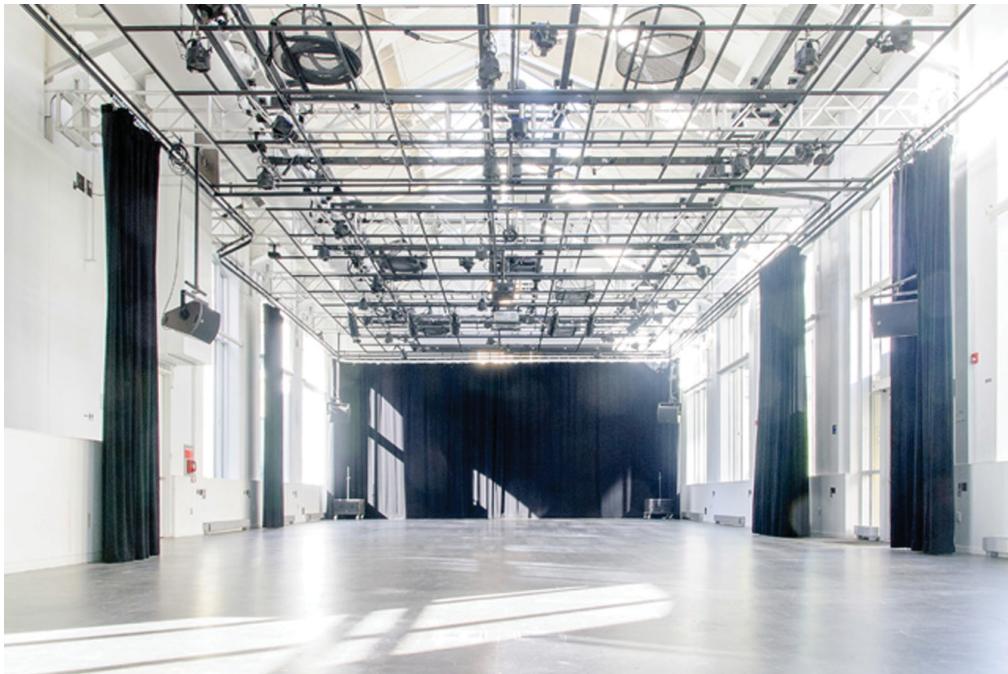
Navid is a Montreal-based media-artist, composer, interaction and sound designer. Navid studied music performance and composition for many years. Since 2005, he has been studying Electroacoustics and Computational Arts at Concordia University and Music Technology at McGill University. Currently he works 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…
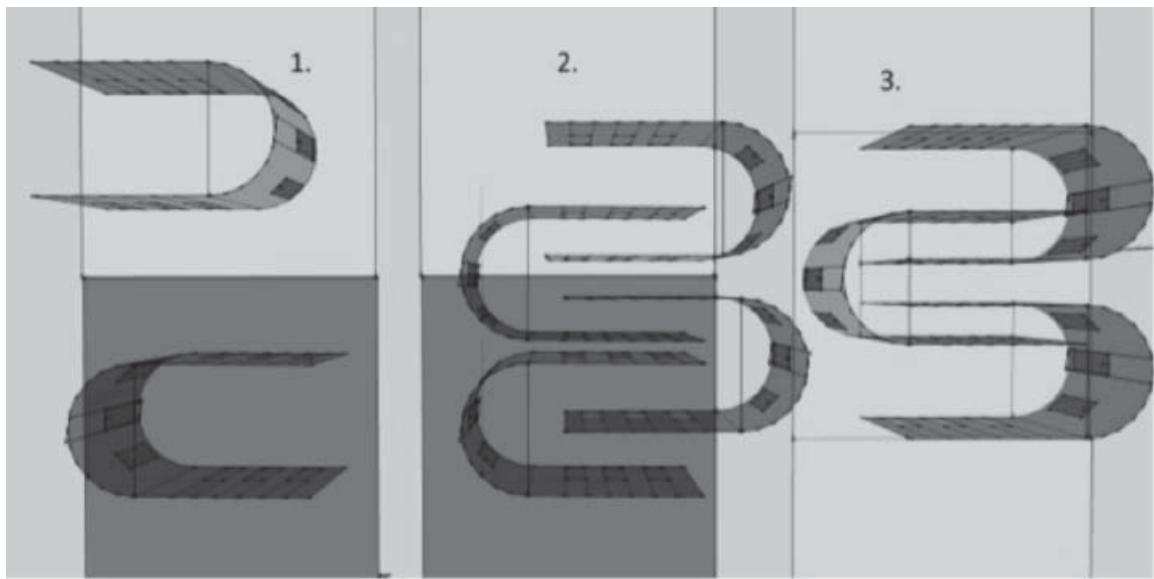
Installation: Documentation
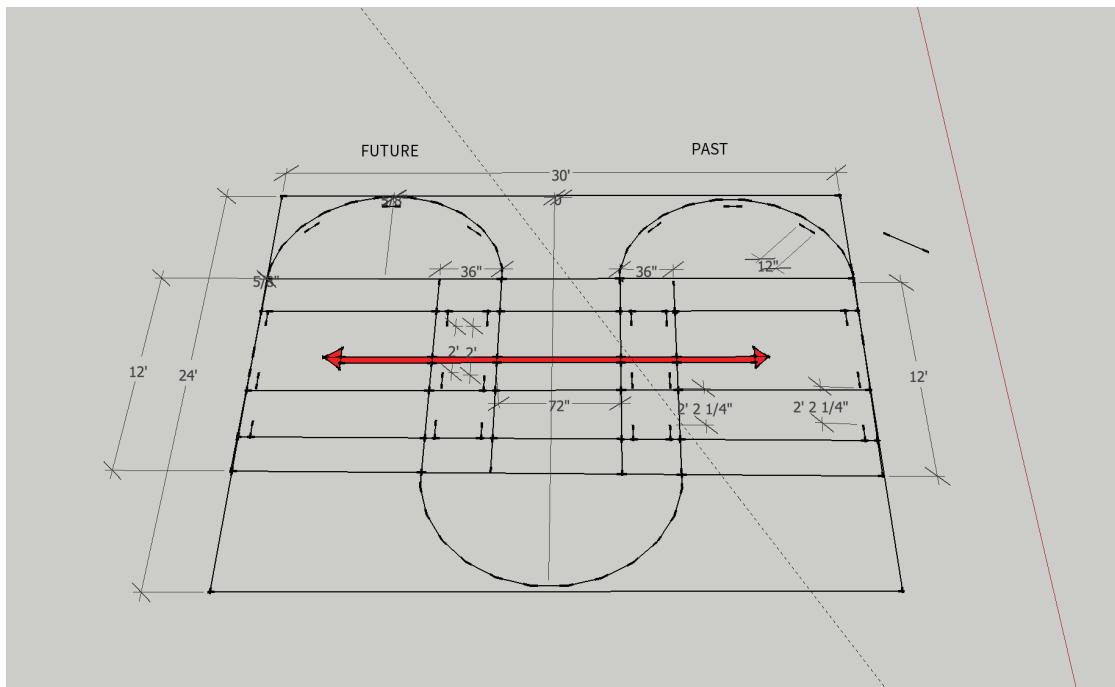
Figure 56. *F O L D* Design element of time delay.
If a person stood in front of the first mirror, she would be observing her face in the mirror (provided she exposed her face to the light). This situation expresses the present. However, as soon as the camera registered the face in the light, it would start projecting delayed images back into the environment of the folds…
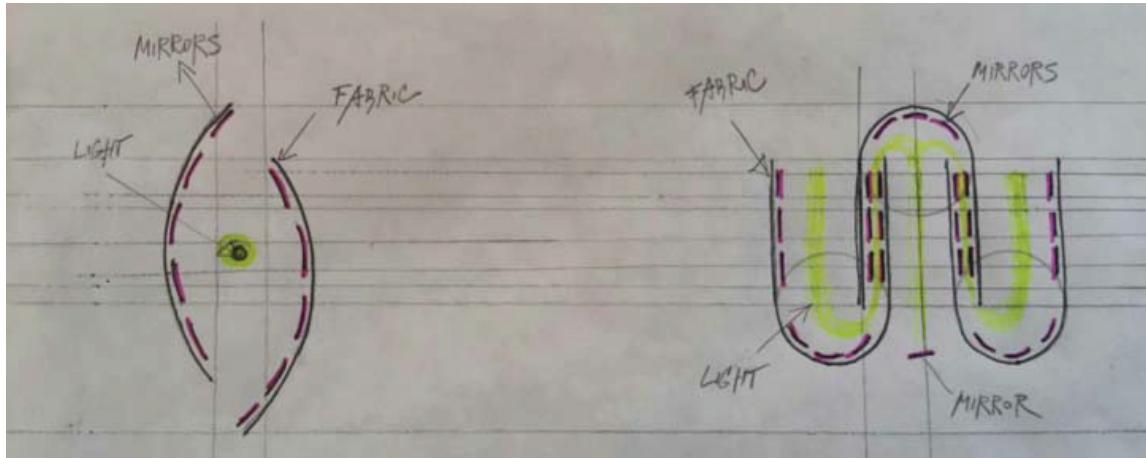

Figure 57. Statue of Wisdom – In between two mirrors. *Wisdom caught in between two mirrors, creating the infinite time and space between the future and the past.*

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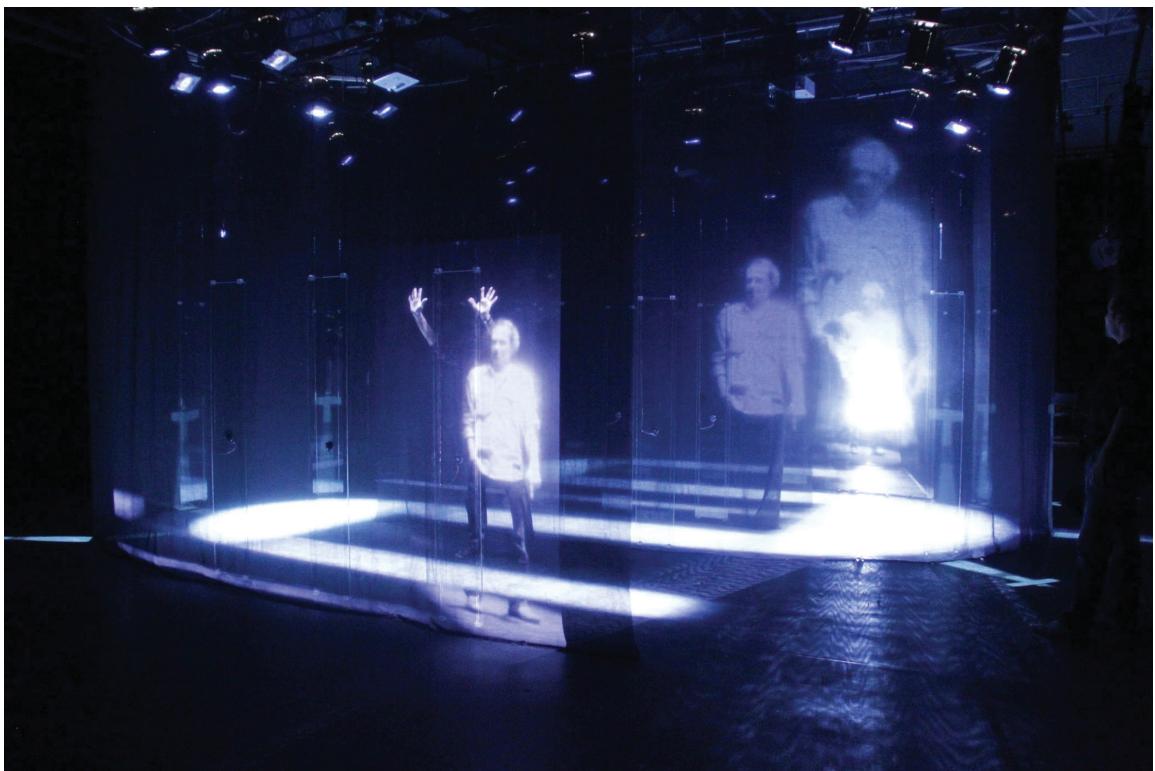
O V A L and *F O L D* – comparing the design elements.
The design of the optical architectures for the performative environment F O L D is a direct continuation from the previous project O V A L, which also built on the combined optical qualities of fabric, mirrors and light.

Figure 53. *O V A L* – Installation view at Currents, International Festival of New Media in Santa Fe, NM, (2014).
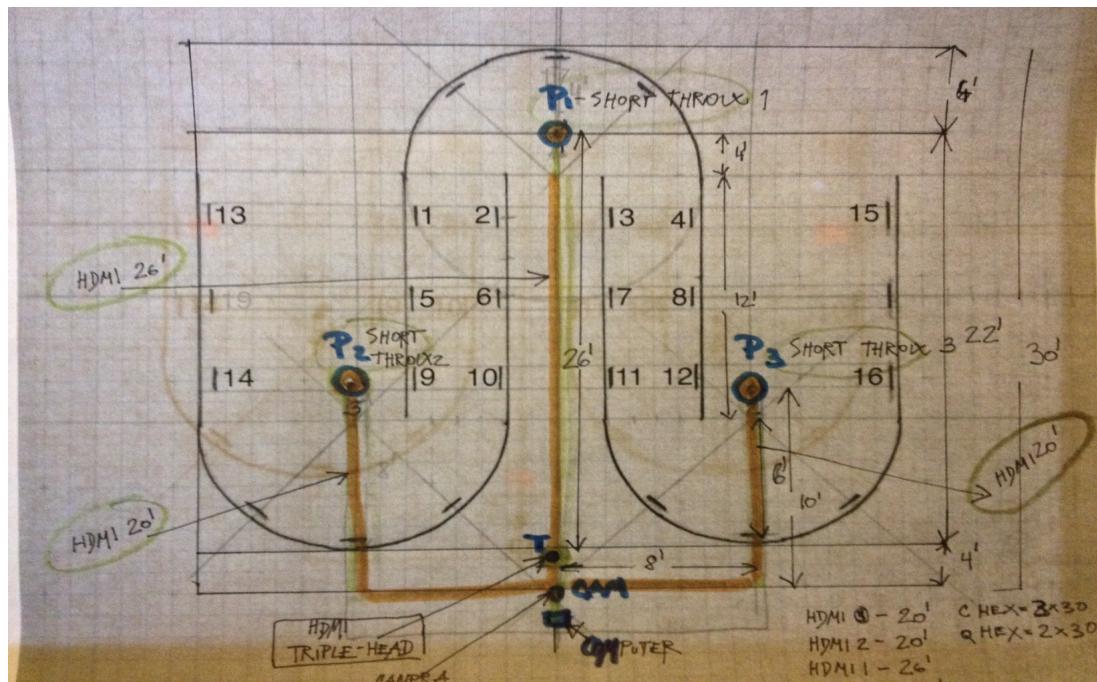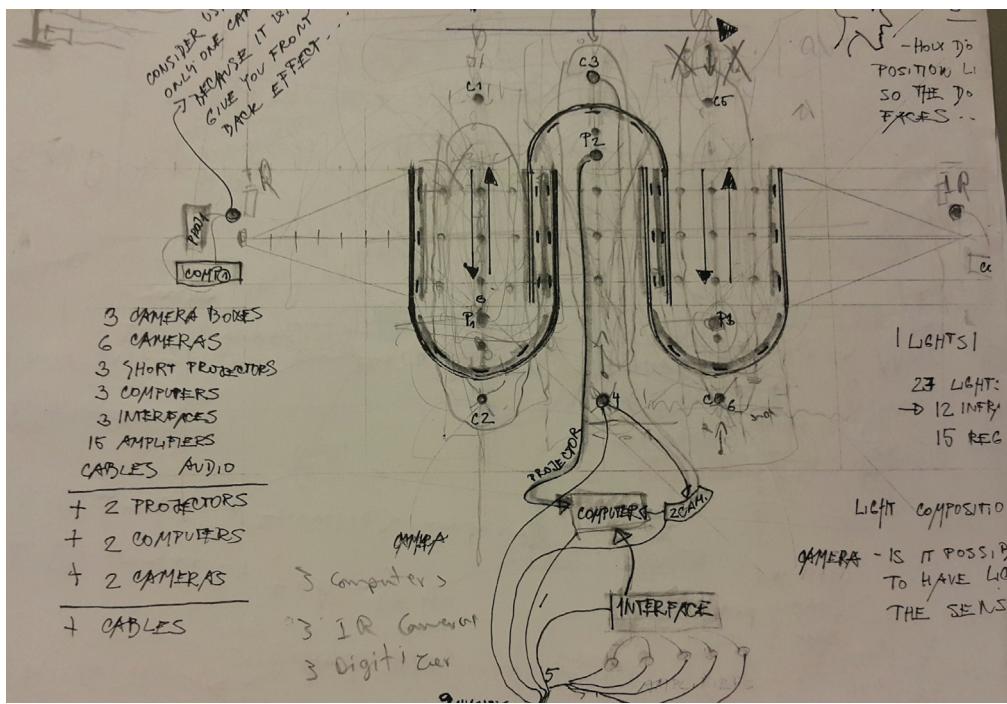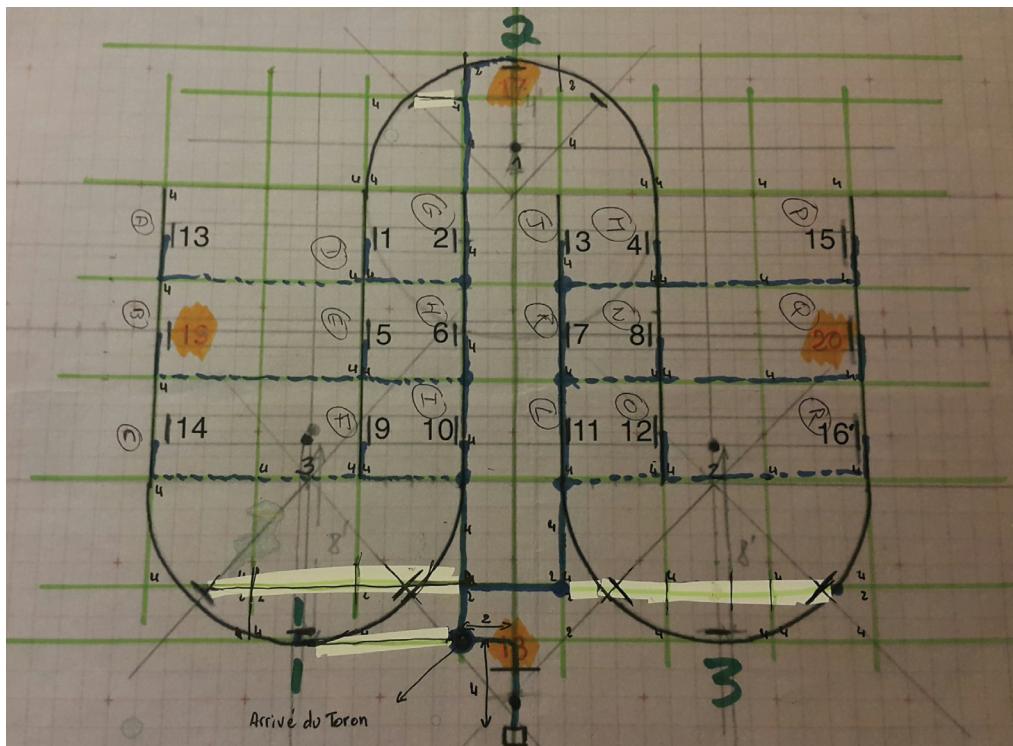
F O L D: Performance view of the front stage (from the entrance view).

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

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-agora.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 Fme at the Agora, I am oKen present and can make myself available if you require a few minutes of my Fme here and there. If you require Carl's services, we ask that you book him for a minimum of three hours at a Fme.

- 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
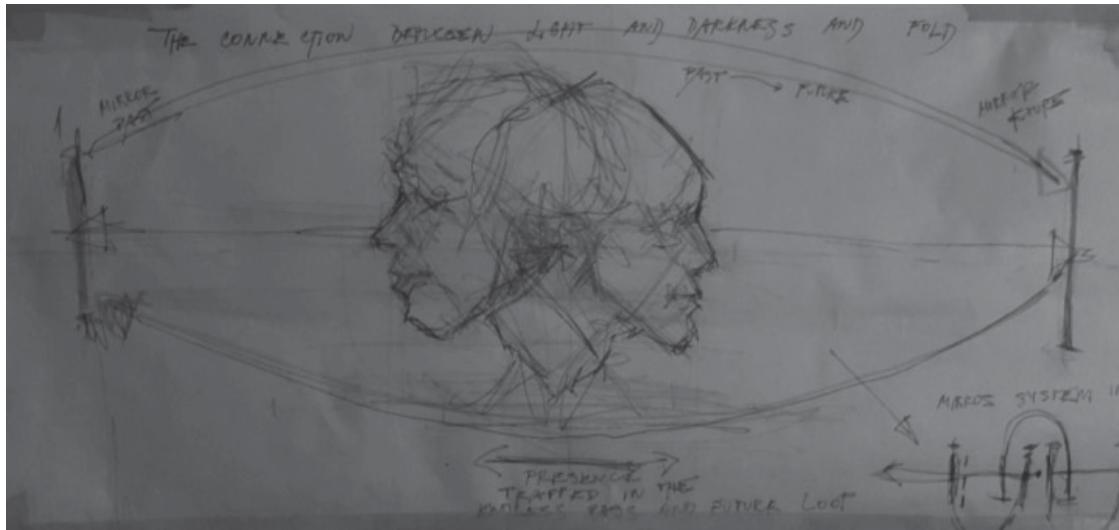
- two mac pro (ideally with max map installed)

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

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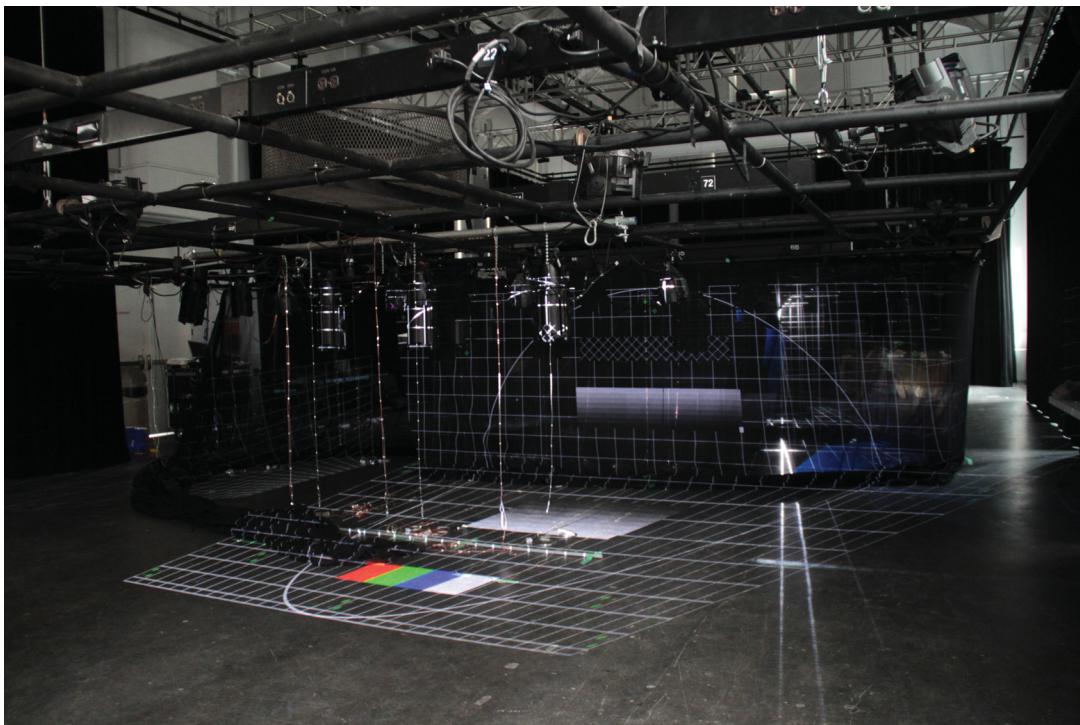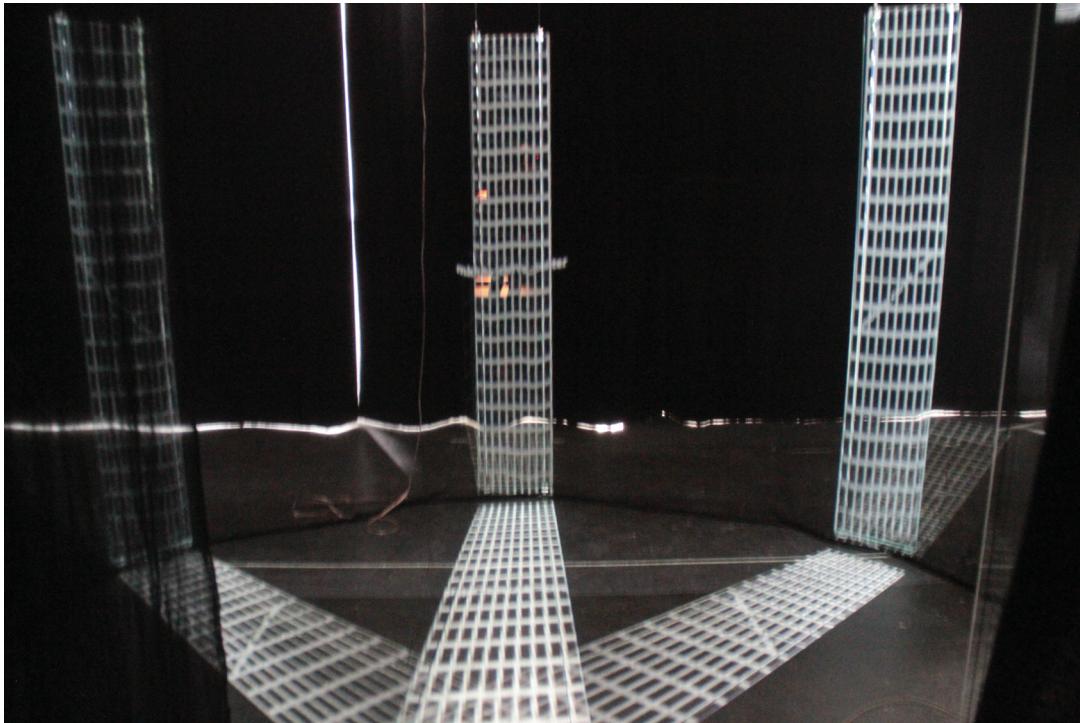
From left: Navid Navab, Joe Browne, Lenka Novakova and Vladko from Ostrava

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

Mapping design by Omar Faleh.