

The Resonance of Place

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A Practicum submitted to the Faculty of Graduate Studies of
The University of Manitoba
in partial fulfilment of the requirements of the degree of

MASTER OF LANDSCAPE ARCHITECTURE

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Thank you to my advisors; Jen Southern, Marcy Eaton and Richard Perron for their input and support and thank you also to my parents Terry and Maria McDowell, my husband Richard Steinburg and my daughter Abbey for their patience and support.

XYZ - The Western view of space implements an order to everything. Our space vocabulary uses words like: here, there, this, that, plan, elevation, up, down, left, right. Char Davis tries to make us see how we tend to think space in terms of XYZ coordinates, and we think that the world is comprised of solid objects separated by the void of space.

In our culture, our ideas of physics have shaped our view of space as a kind of empty box. Such a space can be described geometrically as three dimensions or measured with its eight corners. But this is only one of many possible modes of description. For geometric space has no focus, as a person experiences it due to his particular location. For this reason, geometric space is less suited for orientation than subjective space is. This subjective space is a space that is seen and heard by a subjective individual. (De La Motte-Haber, p.35)

The western view of the world strives for clear divisions with categorizations that work to eliminate any uncertainty or fuzzy areas of classification. Our view of the world is always evolving, we were once not so concerned with logic and order in a space. One of the main themes of Jonathan Crary's *Techniques of the Observer* deals with the combination of factors (philosophical, scientific, and socioeconomic) that influenced the development of the observer in the 19th century. Crary discusses how these factors worked together to make the leap from an objective to a subjective observer. Crary explains how this discovery was used to discover new truths through a search to see objects in their "pure form", or to enable control of the masses by mechanizing and standardizing vision. Crary's main argument states a major change in the observer throughout the 19th century; his evidence shows a move from a holistic view of an objective observer, to an empirical view of a subjective observer.¹

Perhaps it is time for a new shift in our perception of space and time. With new technologies available, we have the capability of exploring our connections and perceptions of space in ways not possible before. Throughout the 19th century the observer had to adapt to new technologies such as photography, film, and various optical devices that presented abstractions of normal vision and asked the observer to accept them as a kind of reality.² We are still constantly being challenged by emerging technologies to change our reality. If we have been able to adapt to as much as we have so far, what new realities lie ahead?

Char Davies

Canadian new media artist Char Davies is best known for her work *Osmose*, a virtual reality based piece, and her work with digital imaging software. Char Davies has exhibited internationally in galleries such as the Musée d'art Contemporain de Montreal, the National Gallery of Canada, San Francisco's Museum of Modern Art, the Barbican Art Centre in London, and the Australian Center for the Moving Image. Originally Davies was mainly a painter and film maker; as a result of her own impaired vision, she gained an interest in exploring beyond the 2-dimensionality of painting which lead her to working with 3-D computer imaging.¹

Her research into embodied perception and non-Cartesian spatialities dates back to 1980, when she began exploring the effects of her own extreme myopic vision: a dramatically altered world in which hard edges, separate objects, and indeed all distinctions between things disappear, dissolved in light. (This work laid the foundation for her unique visual aesthetic of multilayered semi-transparency, as later seen in *Osmose* and *Ephémère*.) (Popper, 2007, para 8)

In 1987 Char Davies co-founded Softimage, a 3D software development company later bought out by Microsoft in the early 90's.² Afterwards she founded Immersence Inc. in which she continues to create new works of art through exploration of new technologies and software.³ Recently, Davies has acquired a doctorate of New Media Philosophy from the University of Plymouth in the UK. As well, she has received an honorary doctorate of Fine Arts from the University of Victoria in British Columbia. Currently, she resides both in San Francisco and rural Quebec where she is working on a large scale land-based project.⁴



Char Davis, *Forest Grid Osmose* (1995) -Digital still taken during immersive performance of the virtual space, *Osmose*. [image from: <http://www.immersence.com> (1995-2008)]

Osmose (1995) is an interactive multimedia installation which uses virtual reality technology to immerse people into Davies' imagined landscape. *Osmose* was put together in the years 1994 to 1995 in Montreal with the aid of a team at Softimage Inc. who brought Davies' concepts to life through graphics, animation, sound, and programming.⁵

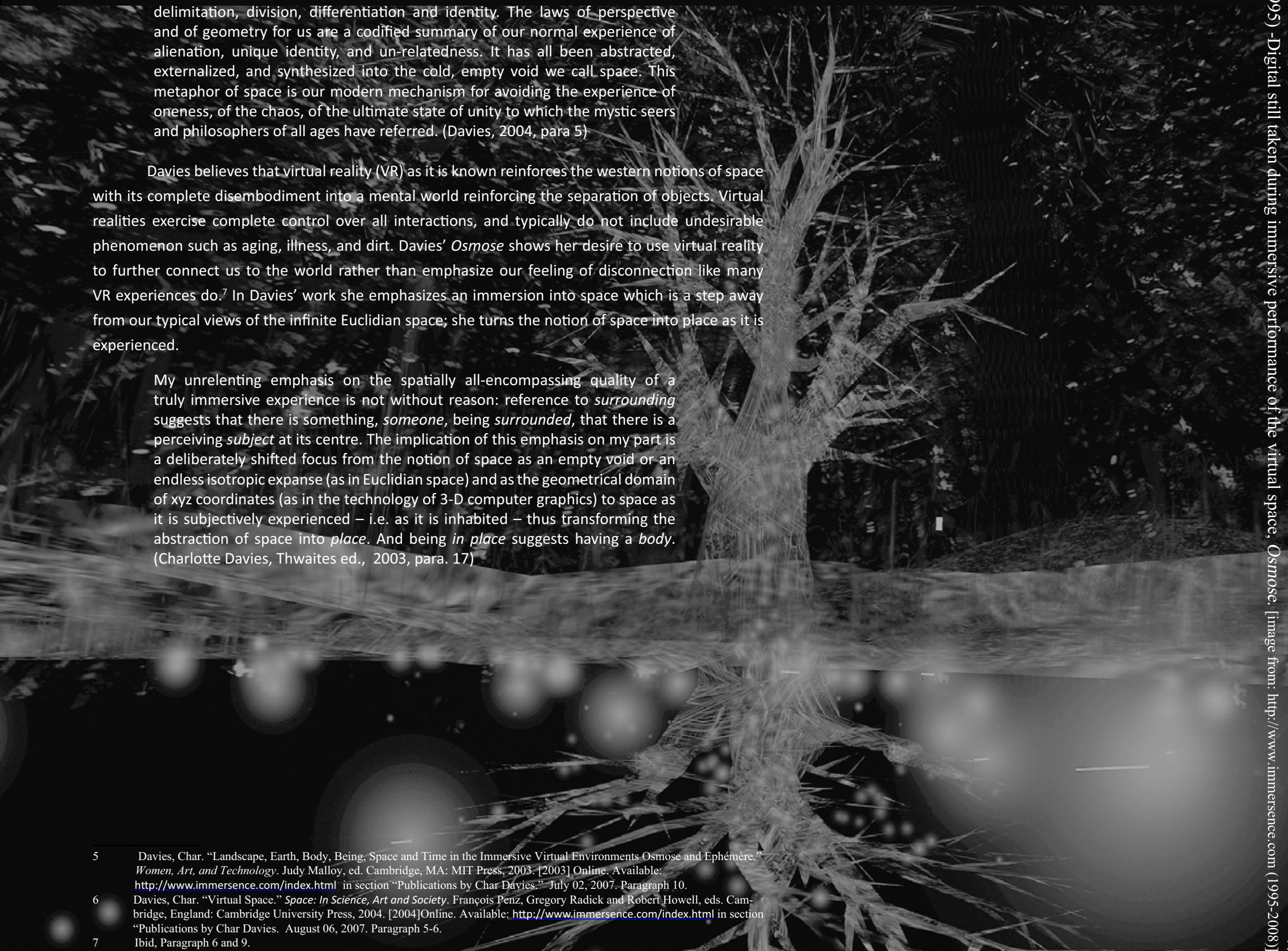
One of the main issues that Char Davies explores with *Osmose* is the typical Western perception of space. Cartesian/Newtonian philosophies have influenced us so much that we have lost a sense of connection with the world around us. We tend to think of space in terms of XYZ coordinates, and we think that the world is comprised of solid objects separated by the void of space.⁶ This mentality is explained best in Char Davies' *Virtual Space*:

As Roger Jones wrote in *Physics as Metaphor* (1982):

The modern notion of space is a compound metaphor that embodies all our concepts and experiences of separation, distinction, articulation, isolation, delimitation, division, differentiation and identity. The laws of perspective and of geometry for us are a codified summary of our normal experience of alienation, unique identity, and un-relatedness. It has all been abstracted, externalized, and synthesized into the cold, empty void we call space. This metaphor of space is our modern mechanism for avoiding the experience of oneness, of the chaos, of the ultimate state of unity to which the mystic seers and philosophers of all ages have referred. (Davies, 2004, para 5)

Davies believes that virtual reality (VR) as it is known reinforces the western notions of space with its complete disembodiment into a mental world reinforcing the separation of objects. Virtual realities exercise complete control over all interactions, and typically do not include undesirable phenomenon such as aging, illness, and dirt. Davies' *Osmose* shows her desire to use virtual reality to further connect us to the world rather than emphasize our feeling of disconnection like many VR experiences do.⁷ In Davies' work she emphasizes an immersion into space which is a step away from our typical views of the infinite Euclidian space; she turns the notion of space into place as it is experienced.

My unrelenting emphasis on the spatially all-encompassing quality of a truly immersive experience is not without reason: reference to *surrounding* suggests that there is something, *someone*, being *surrounded*, that there is a perceiving *subject* at its centre. The implication of this emphasis on my part is a deliberately shifted focus from the notion of space as an empty void or an endless isotropic expanse (as in Euclidian space) and as the geometrical domain of xyz coordinates (as in the technology of 3-D computer graphics) to space as it is subjectively experienced – i.e. as it is inhabited – thus transforming the abstraction of space into *place*. And being *in place* suggests having a *body*. (Charlotte Davies, Thwaites ed., 2003, para. 17)



¹ Crary, Jonathan. *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century*. Massachusetts: MIT Press, 1992. p.97-136.

² Crary, Jonathan. *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century*. Massachusetts: MIT Press, 1992. p.97-136.

¹ Biographical information in paragraph from: "Char Davies-Artists Biography." *Immersence*. [2007] Online. Available: <http://www.immersence.com/index.html> July 02, 2007.

² Ibid, Paragraph 2.

³ "About Immersence." *Immersence*. [2007] Online. Available: <http://www.immersence.com/index.html> July 02, 2007. Paragraph 1.

⁴ "Char Davies-Artists Biography." *Immersence*. [2007] Online. Available: <http://www.immersence.com/index.html> July 02, 2007. Paragraph 6-8.

⁵ Davies, Char. "Landscape, Earth, Body, Being, Space and Time in the Immersive Virtual Environments *Osmose* and *Ephémère*." *Women, Art, and Technology*. Judy Malloy, ed. Cambridge, MA: MIT Press, 2003. [2003] Online. Available: <http://www.immersence.com/index.html> in section "Publications by Char Davies." July 02, 2007. Paragraph 10.

⁶ Davies, Char. "Virtual Space." *Space: In Science, Art and Society*. François Penz, Gregory Radick and Robert Howell, eds. Cambridge, England: Cambridge University Press, 2004. [2004] Online. Available: <http://www.immersence.com/index.html> in section "Publications by Char Davies. August 06, 2007. Paragraph 5-6.

⁷ Ibid, Paragraph 6 and 9.

is a reflection of how Davies remembers and thinks of this landscape; it is an interplay of real and virtual, real and imaginative. As Davies sees her landscape being harmed by the affects of humanity on nature, she wonders if virtual landscapes could replace nature as quickly as the real nature is lost. She sees a danger in virtual spaces, as they could be the only thing left in a society that lost its connection with the real world. On a positive note, she wonders if virtual spaces could somehow bring our attention back to nature and recreate this connection.⁸ Davies sees a fault in virtual spaces; that the whole complexity and infinite possibilities of nature could never be recreated by the human mind:

...I sit at the roots of a solitary maple tree among its crumpled ochre leaves, in the gathering violet light and tranquillity of dusk broken only by the sound of the international flight path of trans-atlantic jets—watching for the deer to venture from the safe shadows of the woods into the soft evening meadows of the orchard. I wait for the deer and all the other creatures who pass through here, strands of multichanneled life, life as a river with infinite rivulets pouring through time. These are the living presences who are so absent in the human-made virtual environments of *Osmose* and *Ephémère*. (Char Davies quoted by Malloy ed.,2003,para 22)

How are we going to respond to the affects of technology with virtual experiences replacing reality, with expansionist ideology, and with a shrinking world resulting in a loss of diversity? In *Osmose*, Davies shows concern over these issues, and makes attempts to get participants out of this Western mode of thinking. For Davies, the goal is to use VR technology to change peoples' perception and their connection with the real world, rather than take away the human experience.⁹

The impulse behind this project has been to communicate an intensified experience of being embodied in the space-time of the living world. *Osmose* and *Ephémère* are my attempts to distill and amplify the sensations and emotions of being conscious, embodied, and mortal—that is, how it feels to be alive here now among all this, immersed in the vast, multichanneled flow of life through space and time. In these works, I seek to remind people of their biological, spiritual, and psychological connections to the natural (rather than human-made) environment and of the regenerative source and mythological ground of those connections. (Char Daves quoted. Davies, Malloy ed., 2003, para 2)

To enter the virtual environment of *Osmose*, the participant puts on a head-mounted visual display with audio and a vest that monitors their breathing and balance. The program provides a 360 degree virtual environment where the participant can view and navigate in all directions.¹⁰ The participant navigates with their breathing and balance; breathing controls up and down motion, and balance controls horizontal motion.¹¹ When the program begins, the participant is guided out of Cartesian space into a virtual world unbound by our habitual views of space.

The first virtual space encountered is a three-dimensional Cartesian Grid which functions as an orientation space. With the immersant's first breaths, the grid gives way to a clearing in a forest. There are a dozen world-spaces in *Osmose*, most based on metaphorical aspects of nature. These include Clearing, Forest, Tree, Leaf, Cloud, Pond, Subterranean Earth, and Abyss. There is also a substratum, Code, which contains much of the actual software used to create the work, and a superstratum, Text, a space consisting of quotes from the artist and excerpts of relevant texts on technology, the body and nature. Code and Text function as conceptual parentheses around the worlds within. (<http://www.immersence.com/index.html>, "Osmose", para 2)

⁸ Davies, Char. "Landscape, Earth, Body, Being, Space and Time in the Immersive Virtual Environments *Osmose* and *Ephémère*." *Women, Art, and Technology*. Judy Malloy, ed. Cambridge, MA: MIT Press, 2003. [2003] Online. Available: <http://www.immersence.com/index.html> in section "Publications by Char Davies." July 02, 2007. Paragraph 19-20.

⁹ Davies, Char. "Changing Space: Virtual Reality as an Arena of Embodied Being" (1997). *Multimedia: From Wagner to Virtual Reality*. Randall Packer and Ken Jordan, eds. New York, N.Y.: W.W. Norton & Company, 2002. [2002] Online. Available: <http://www.immersence.com/index.html> in section "Publications by Char Davies." July 02, 2007. Paragraph 16-19.

¹⁰ "Osmose." *Immersence*. [2007] Online. Available: <http://www.immersence.com/index.html> July 02, 2007. Paragraph 2 & 6.

¹¹ Davies, Char. "Virtual Space." *Space: In Science, Art and Society*. François Penz, Gregory Radick and Robert Howell, eds. Cambridge, England: Cambridge University Press, 2004. [2004] Online. Available: <http://www.immersence.com/index.html> in section "Publications by Char Davies." August 06, 2007. Paragraph 24.

has no hard edges, is blurred, but has some degree of transparency. One of the effects of this is that the participant begins to use the senses other than sight more to navigate. Without solid objects and no clear boundaries a sense of perspective is difficult to obtain, and the subject-object relationship with the world is removed.¹² The environment was inspired by a scuba diver's experience in the water where one feels the space around them and has an alternative sense of connection to the space.¹³ Only one person at a time can experience *Osmose*'s virtual environment, the goal is to connect people to their own thoughts and actions. The individual drives the experience and makes it their own because the experience is not driven from a narrative.¹⁴

Osmose's absence of clear boundaries, hard edges, distinctions between inside and outside, solid and fluid make the participant lose their typical grounding to the environment around them. The mechanism that works to change or challenge habitual modes of perception is the degree of the unexpected within the familiar in the environment of *Osmose*.¹⁵ The main catalysts Davies uses to break the participant's dualist views and immerse them into her virtual space are breathing, balance, vision and sound. All of these phenomenon speak to the fuzzy or blurred differentiation between voluntary/involuntary, inside/outside and subject/object. Breathing is both voluntary and involuntary, it crosses the boundary between our body and the space around us creating a connection. Balance relates to a whole body equilibrium that would include our dualist notions of the mind/body. When we are off-balance our mind/body is focused on the issue that is the cause of the imbalance. When our mind/body is balanced there are no distractions, and we are more open to new experiences.¹⁶ Visually, the landscape of *Osmose* relates to the natural environment with trees, rocks, and rivers but there are no definite edges/boundaries to the "objects" and all things have a degree of transparency. As well, the participant has the ability to pass through elements in the virtual space normally thought of as solid.¹⁷

The immersant will realize she has entered a non-Cartesian place, very unlike the "real world": here, everything is dematerialized and semi-transparent—there are no solid surfaces, no hard-edges, no separate objects in empty space. Instead, the immersant can see through everything—through the body of the tree, the ground, the roots below. (Davies, 2004, para 37)

Because the boundaries between objects and space are visually blurred in the environment of *Osmose*, one's sense of hearing becomes heightened, and the transcendence of sound between boundaries is emphasized.

When visual acuity is decreased, one also becomes more aware of sound: and sound, as an all-encompassing flux which penetrates the boundary of the skin, further erodes the distinctions between inside and outside. As the Australian sound theoretician Frances Dyson said at a conference in 1994, "metaphysically, sound has an ontology that challenges the solid world. Sound, like soft vision, also returns us to what I have come to call the 'presence of the present'". In this perceptual state, rather than being mentally focused on the future and thus inattentive, even absent, to the present, one becomes acutely aware of one's own embodied presence inhabiting space, in relation to a myriad of other presences as well. (Davies, 2004, para 15)

¹² Davies, Char. "Landscape, Earth, Body, Being, Space and Time in the Immersive Virtual Environments *Osmose* and *Ephémère*." *Women, Art, and Technology*. Judy Malloy, ed. Cambridge, MA: MIT Press, 2003. [2003] Online. Available: <http://www.immersence.com/index.html> in section "Publications by Char Davies." July 02, 2007. Paragraph 3.

¹³ Davies, Char. "Changing Space: Virtual Reality as an Arena of Embodied Being" (1997). *Multimedia: From Wagner to Virtual Reality*. Randall Packer and Ken Jordan, eds. New York, N.Y.: W.W. Norton & Company, 2002. [2002] Online. Available: <http://www.immersence.com/index.html> in section "Publications by Char Davies." July 02, 2007. Paragraph 13.

¹⁴ Davies, Char. "Virtual Space." *Space: In Science, Art and Society*. François Penz, Gregory Radick and Robert Howell, eds. Cambridge, England: Cambridge University Press, 2004. [2004] Online. Available: <http://www.immersence.com/index.html> in section "Publications by Char Davies." August 06, 2007. Paragraph 32.

¹⁵ Davies, Char. "Changing Space: Virtual Reality as an Arena of Embodied Being" (1997). *Multimedia: From Wagner to Virtual Reality*. Randall Packer and Ken Jordan, eds. New York, N.Y.: W.W. Norton & Company, 2002. [2002] Online. Available: <http://www.immersence.com/index.html> in section "Publications by Char Davies." July 02, 2007. Paragraph 11-12.

¹⁶ Davies, Char. "Virtual Space." *Space: In Science, Art and Society*. François Penz, Gregory Radick and Robert Howell, eds. Cambridge, England: Cambridge University Press, 2004. [2004] Online. Available: <http://www.immersence.com/index.html> in section "Publications by Char Davies." August 06, 2007. Paragraph 26-27.

¹⁷ Davies, Char. "Virtual Space." *Space: In Science, Art and Society*. François Penz, Gregory Radick and Robert Howell, eds. Cambridge, England: Cambridge University Press, 2004. [2004] Online. Available: <http://www.immersence.com/index.html> in section "Publications by Char Davies." August 06, 2007. Paragraph 28.

WHOSE REALITY?

Immanuel Kant in *Critique of Pure Reason* (1787), talks of how we do not see 'pure objects' but how everything is seen through the lens of our eye and mind: " 'our representation of things, as they are given, does not conform to these things as they are in themselves, but that these objects as appearances, conform to our mode of representation.'" (Crary quoting Kant, 69-70)

Johann Wolfgang von Goethe in the 19th century was one of the first theorists to explore subjective vision. Contrary to the classical model of vision, Goethe's work showed that one can not study vision by only examining a machine that replicates the function of the eye, he showed that every person looks at things and interprets them based on their own experiences. An interesting continuation to Goethe's work came from Arthur Schopenhauer. Schopenhauer believed in an entirely subjective vision and he proposed that the subject informs itself about the object by sensation and interpretation; for example, colour is a function of the brain only and is not inherent to the object.³

Pierre Huyghe's works explore how the media and society create our experience of reality; we are following rules and conventions that were made up by other people. For example, we all measure time with a clock, but we are free to follow any measurement of time we like. One of the key themes Huyghe works with is the idea of real experience and representation. The expression "to live vicariously through someone else" comes to mind; there are many experiences and notions of reality that only come second hand. Huyghe reminds us that we are free to see things through our own representation.

...the artist intervenes in familiar narrative structures to investigate the construction of collective and individual identities in relationship to various forms of cultural production. Huyghe is interested in both reading and making possible multiple, subjective reinterpretations of incidents and images that shape our realities. Through such retractions, Huyghe offers a way for his characters and his viewers to take back control of their own images, their own stories. (Cross, Para 1)

Char Davies shows the same interest; her works explore the shift from an objective

³ Crary, Jonathan. *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century*. Massachusetts: MIT Press, 1992. p.71-75.

While the participant experiences the virtual environment of *Osmose*, gallery visitors are able to see what the participant sees by a real time video projection. At the same time, a shadow of the participant is also projected separately¹⁸ so gallery visitors can witness "...the relationship between the immersant body and the work, drawing attention to the body's role as ground and medium for the experience." (Davies, Malloy ed., 2003, para 11)

The responses from some of the thousands of people who have experienced the virtual environment of *Osmose* have been recorded.¹⁹ While experiencing the virtual environment, participants have been known to act as if they are in an altered state of consciousness much like meditation. Because of this, the participants appear to be open to new modes of perception.²⁰ Other responses have revealed that participants gain a higher sense of self-awareness. The participants have a sense of being in the body as well as being freed from it.²¹ "... the after-effect of immersion in *Osmose* can be quite profound. Immersants often feel as if they have rediscovered an aspect of themselves, of being alive in the world, which they had forgotten, an experience which many find surprising, and some very emotional." (<http://www.immersence.com/index.html> , "*Osmose* ", para 5)

To help explain what is happening in *Osmose*, Davies quotes French philosopher Gaston Bachelard:

By changing space,
by leaving the space of one's usual sensibilities,
one enters into communication with a space
that is psychically innovating. ...
For we do not change place, we change our nature.
(Gaston Bachelard, *The Poetics of Space*) (Davies, 2004, para 61)



Char Davies, *Osmose* (1995) -gallery installation. [Image from: <http://www.immersence.com> (1995-2008)]

In her book *Contemporary Landscapes of Contemplation*, Rebecca Krinke looks at *Osmose* in the terms of a contemplative space. She explores how the idea of a contemplative space may have changed with the influence of technology. Krinke discusses contemplative spaces in general; traditionally a contemplative space is known to be found in nature. It seems natural that contemplative spaces are found in nature, because it has been proven that interaction with nature is beneficial to your health. Even a back yard has been known to have the same effect as the natural wilderness. Krinke asks what a contemplative site could be in modern times? Does beauty have to be in a contemplative space? Could a site with environmental damage be a contemplative site? Is this what we should be contemplating? Krinke asks if it is impossible to have a contemplative space with technology? And if it is possible to have a contemplative space in modern times without technology. Technology has had such an impact on us that if we see something in nature, we have a tendency to compare it to what we have seen in the media.²²

Krinke wonders if we can create landscapes of contemplation that take us out of our thinking as it has been affected by our own technology. Char Davies' *Osmose* tries to make us have a direct experience. People who experience *Osmose* typically start by trying to take control, looking to experience as much of the environment as they can. After some time, the participant begins to relax and just experience the space, control is both voluntary and involuntary through breathing navigation. Char Davies' hope is to break the user from their Cartesian patterns of thinking, and using breathing allows her to do this. Cartesian thought is about domination of a space and all objects within it, we put so much focus on itemizing and spatializing things that it becomes difficult to view ourselves as an equal in a larger system. Char takes one of the things that we have the most control over, our movement, and makes us question how we move around by making our movement partially involuntary (you can only control your breathing to a certain degree). "This makes room for other modes of perception; instead of the mind running on automatic, it begins to pay attention in the present." (Krinke, 2005, para 8) It seems that technology has made it difficult for us to find spaces of contemplation. Krinke believes that Char Davies seems have found one solution; she uses technology itself to reconnect us to nature.²³

²² Ideas of contemplative spaces and *Osmose* in this paragraph from: Krinke, Rebecca. *Contemporary Landscapes of Contemplation*. Oxon, UK: Routledge, Taylor & Francis Group, 2005. [2005] Online. Available: <http://www.immersence.com/index.html> in section "Publications by other authors." September 14, 2007.

²³ Ibid.

view that separates all objects by an empty void we call space, to an all encompassing body better defined as place rather than space.⁴ (Charlotte Davies, Thwaites ed., 2003, para. 17) As well, Hamilton & Southern's work looks at real experiences as they apply to us with attention to the social and personal experiences and connections we have to a space. In their work recording peoples' walks in an urban setting, the walks are surprisingly organic in nature. Perhaps we do not expect this result because of the rules and conventions that we have adopted from society; maybe we expect to see something similar to a road map. In this way, Hamilton & Southern show how we are free to make an experience our own.

KNOWLEDGE of the world around us. What is there to learn about perception and space? How did we learn how to experience a space? Many people learn the rules that are followed by all, and never question them. Richard P. Feynman, a Nobel Prize winning physicist discusses this in the book *The Pleasure of Finding Things Out*. "It is our responsibility not to give the answer today as to what it is all about, to drive everybody down in that direction and to say: 'This is a solution to it all.' Because we will be chained then to the limits of our present imagination. We will only be able to do those things that we think today are the things to do." (Feynman, p.115)

Pierre Huyghe, Char Davies and Hamilton & Southern are all interested in questioning what we feel is known about what is real and how our world works. Huyghe questions how experiences are represented to us, he explores the difference between

⁴ Davies, Char. "Rethinking VR: Key Concepts and Concerns." *Hybrid Reality: Art, Technology and the Human Factor*. Thwaites, Hal, ed. [2003] Online. Available: <http://www.immersence.com/index.html> in section "Publications by Char Davies." January, 2007.

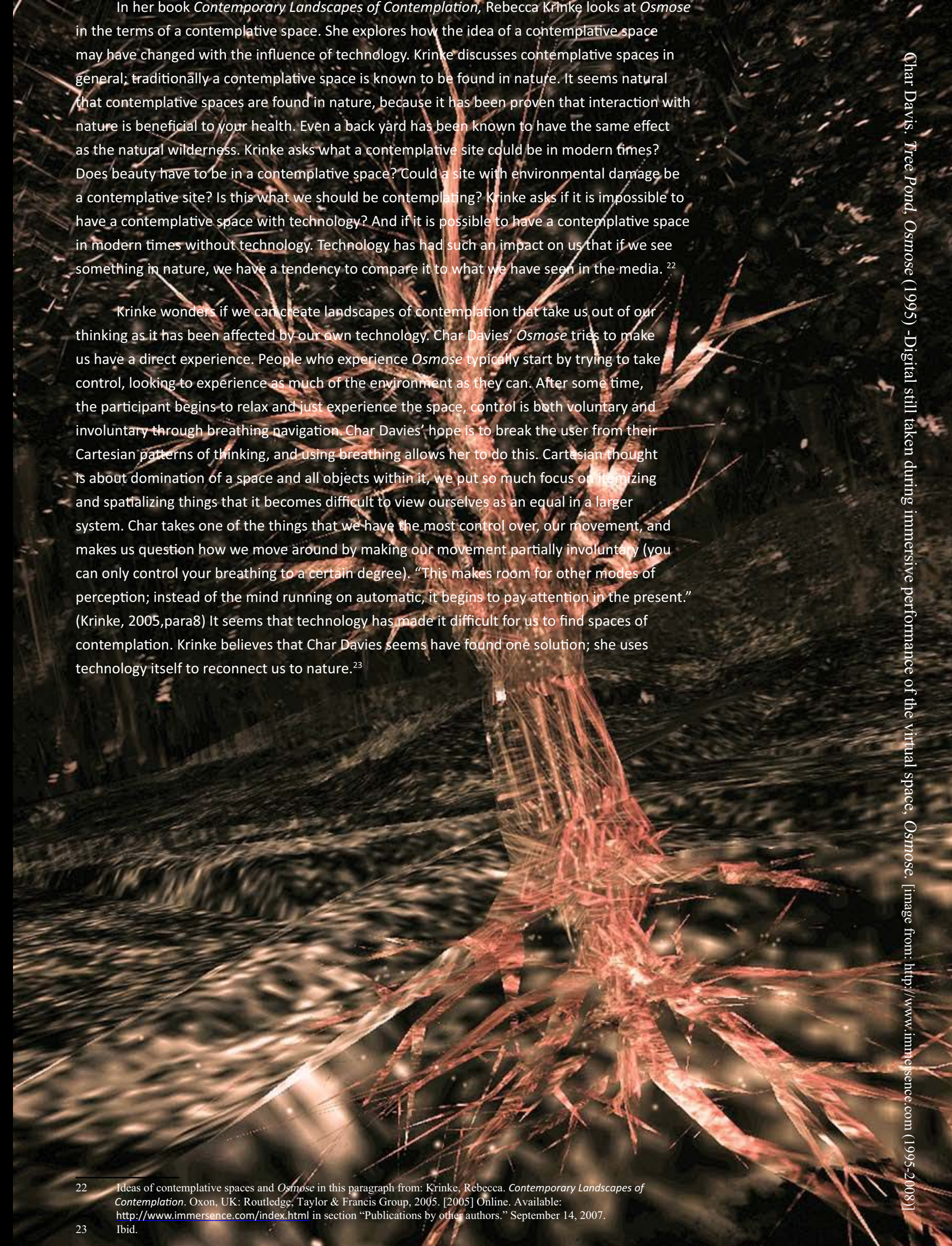
¹⁸ Davies, Char. "Landscape, Earth, Body, Being, Space and Time in the Immersive Virtual Environments *Osmose* and *Ephémère*." *Women, Art, and Technology*. Judy Malloy, ed. Cambridge, MA: MIT Press, 2003. [2003] Online. Available: <http://www.immersence.com/index.html> in section "Publications by Char Davies." July 02, 2007. Paragraph 11.

¹⁹ "Osmose." *Immersence*. [2007] Online. Available: <http://www.immersence.com/index.html> July 02, 2007. Paragraph 5.

²⁰ Davies, Char. "Landscape, Earth, Body, Being, Space and Time in the Immersive Virtual Environments *Osmose* and *Ephémère*." *Women, Art, and Technology*. Judy Malloy, ed. Cambridge, MA: MIT Press, 2003. [2003] Online. Available: <http://www.immersence.com/index.html> in section "Publications by Char Davies." July 02, 2007. Paragraph 18.

²¹ Davies, Char. "Virtual Space." *Space: In Science, Art and Society*. François Penz, Gregory Radick and Robert Howell, eds. Cambridge, England: Cambridge University Press, 2004. Online. Available: <http://www.immersence.com/index.html> in section "Publications by Char Davies." August 06, 2007. Paragraph 61.

Char Davies, *Tree Pond, Osmose* (1995) -Digital still taken during immersive performance of the virtual space, *Osmose*. [Image from: <http://www.immersence.com> (1995-2008)]



Jen Southern

Jen Southern is a new media artist whose work has mainly been exhibited in England and Canada. She currently lives in Huddersfield, UK and works at the University of Huddersfield as a lecturer of multimedia and virtual reality design in the Department of Art. She completed her undergraduate studies in the UK, and she received a Master's Degree of Fine Arts at Concordia University in Montreal.²⁴ Her artistic practice involves exploring new technologies and mapping techniques, using them to capture the sense of place of select locations.

Jen Southern's individual practice is process based and participatory, exploring art practice as a social process. Technologies such as mobile phones and videogames are ubiquitous, and have added a layer of virtual space to our internal atlas of remembered places. In collaboration with other artists, technologists or members of the public she works with these hybrid places as lived environments. (website theportable.tv / home para.3)

One project of interest by Jen Southern is *Roam*. In *Roam* she worked with participants in the project to go to their favorite place in a video game. When there, she would get images of the space so she could create a piece of clothing to their specification with the images imprinted on them. She would then ask the participant to wear the clothes while they take her along on their favorite walk through a place in the real world. The walk would be recorded by a GPS tracking device, and the path would later be sewn on the piece of clothing. The end result is a record of both journeys in physical and virtual space; images of the clothes are then displayed on a website made to look like an online clothing store.²⁵

In the past few years, Southern has been involved in a series of works in a collaboration with artist Jen Hamilton under the name Hamilton & Southern. Hamilton is a new media artist who has a Master's Degree in Fine Arts from the University of Concordia in Montreal.²⁶ This collaborative work involved tracking people walking through their cities or towns, and mapping this movement. In order to do this, they formed a collaboration with Onteca Ltd. in 2002 to create new software that takes advantage of technology available in GPS enabled cell phones.²⁷ This software was named Landlines: "Landlines is an online multi-user collaborative drawing tool for GPS enabled mobile phones, in which users draw by moving in real space." (<http://www.landlines.org/>, landlines, para 1)

In *Distance made good: Flow Lines*, 34 people local to the areas of Lancaster and Morecambe were given the opportunity to take part in creating a new maps that showed their movements in the local community. They were given a cell phone with GPS capability and were asked to take the artists (either Jen Hamilton or Jen Southern) on a walk that lead to a "landmark" of their choice; the landmark and the route taken was to show their connection to their city in some way.²⁸ The participants in this project were people of all ages; the landmarks visited included favorite trees, first apartments, the ocean, a favorite house, a bridge, a canal, etc.²⁹

All GPS data collected from the project was translated by Hamilton & Southern's Landlines software into lines representing the exact paths of the walks. Hamilton & Southern used this to create a gallery exhibit which showed two maps created by the walks (one from Lancaster, and one from Morecambe). The two maps were made of wooden panels, and placed facing each other creating a path or walking space in between them. The sides facing each other highlighted the "landmarks" of each walk using wooden pegs, the other sides of the panels showed the paths recorded using thread, each path was marked with a different color of thread. All sides of the display did not show anything conventional for a typical map, only the collected data to give a sense of place recorded in the walks.³⁰ "In this way each side of the two maps is both an abstraction and evocative of the lived landscape." (<http://www.theportable.tv/folly/gallerytext.html>, para 6)

²⁴ Biographical information in paragraph from: Southern, Jen. "C.V." *Portable T.V.* [2007] Online. Available: <http://www.theportable.tv/cv.html> September 08, 2007.

²⁵ Southern, Jen. "Roam." *Imagined Landscapes*. [2006] Online. Available: <http://www.imaginedlandscapes.co.uk/?q=node/48> December 11, 2006. Paragraph 5-6.

²⁶ Biographical information in paragraph from: Hamilton, Jen. "Bio Jen Hamilton," *Jen Hamilton*. Online. Available: http://www.24elements.net/24assets/_bio.html September 08, 2007.

²⁷ Hamilton & Southern. *About Landlines*. [2006] Online. Available: <http://www.landlines.org/about.html> September 08, 2007. Paragraph 1.

²⁸ Hamilton & Southern. "Distance Made Good: Flow Lines." *theportable.tv*. [2004] Online. Available: <http://www.theportable.tv/folly/gallerytext.html> September 08, 2007. Paragraph 1-2.

²⁹ Hamilton & Southern. "8 Walks." *theportable.tv*. [2004] Online. Available: <http://www.theportable.tv/folly/gallerytext.html> September 08, 2007.

³⁰ Hamilton & Southern. "Distance Made Good: Flow Lines." *theportable.tv*. [2004] Online. Available: <http://www.theportable.tv/folly/gallerytext.html> September 08, 2007. Paragraph 4-8.

knowing an experience, and actually experiencing it. Char Davies's works show that there are different ways to perceive the world, she questions our convention that we are bound to the XYZ grid and the laws of science as we move throughout a space. Hamilton & Southern show that a space can have many different experiences, and there is a beauty that can be found in all of the connections between them. We are free to explore the boundaries of space and perception, to discover the beauty of our connections to a space that often goes unnoticed.

Like Feynman, Wolfgang Laib also has a background in the sciences, specifically in medicine. He chose not to practice because of the limitations imposed in the practice of western medicine. "It was shocking for me to see doctors knowing everything about the material body, knowing and being able to do things which mankind could never do before, but then knowing nothing about what goes beyond that, and, in many cases, being more primitive than ever." (Farrow, 1994, p. 28)

It is important to remember that there is a difference between knowing a label, and experiencing the thing. Searching for experiences that drive us to question our perception will bring a better understanding of how we interact with space. Feynman explains this while recalling what his father taught him as a young boy:

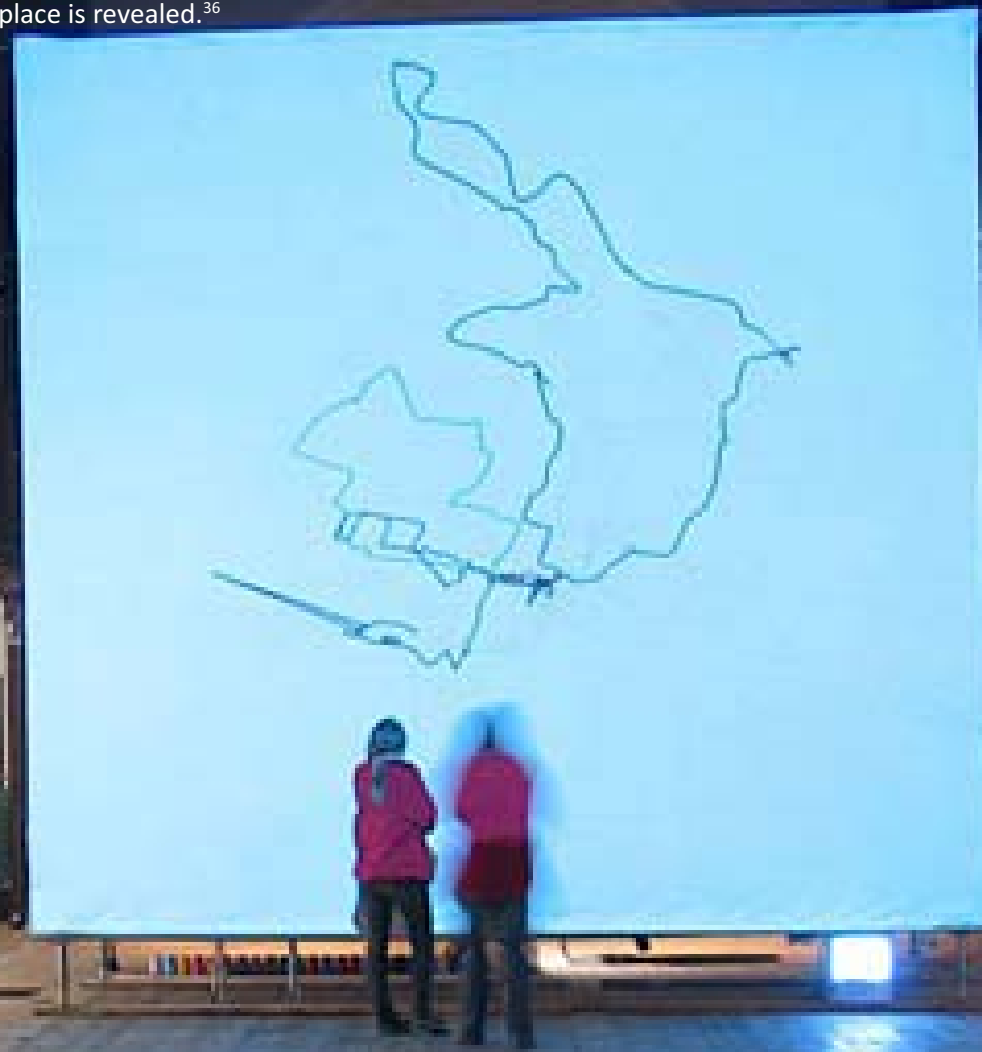
...all the kids were playing in the field and one kid said to me, 'see that bird, what kind of bird is that?' And I said, 'I haven't the slightest idea what kind of bird it is.' He says, 'It's a brown throated thrush,' or something, 'Your father doesn't tell you anything.' But it was the opposite: my father had taught me. Looking at a bird he says, 'Do you know what that bird is? It's a brown throated thrush; but in Portuguese, it's a ... in Italian a ...,' he says 'in Chinese, it's a ... , in Japanese a ...,' etcetera. 'Now,' he says, 'you know in all the languages you want to know what the name of that bird is, and when you've finished with all that,' he says, 'you'll know absolutely nothing whatever about the bird. You only know about humans in different places and what they call the bird. Now,' he says, 'lets look at the bird.' (Feynman, p.4)

Hamilton & Southern's maps break with the traditions of mapping a place, they are not concerned with material objects (roads, buildings, bridges...) but rather the physical journeys of moving and living in the space including the social and personal experiences and connections to the space.³¹

Southern And Hamilton have conducted similar mapping projects in different areas of the United Kingdom. One of these projects is *Satellite Bureau* (2005) which was based in Cardigan. This project was similar to the last project with the exception that the walkers were not accompanied by the artists and the walkers were allowed to walk where ever they wanted (this includes everyday activities).³² As well the participants were filmed telling the artists about their walks.³³ The walks were compiled into one map with different coloured lines representing each walk.³⁴

In 2006 Hamilton & Southern created another similar project but this time in Brighton, the project is called *Running Stitch*. In this case the walk lines were seen live, projected in the gallery as the participants walked through the city and the lines of these walks were stitched on to canvas fabric creating³⁵ "an evolving tapestry that reveals a sense of place and interconnection." (<http://www.theportable.tv/runningstitch/index.html> , para 2)

Hamilton & Southern's work explores how we make a place out of a location; how we take memory and experiences and use them to define a place from our own point of view. "GPS is an objective device, determining co-ordinates to denote a location. Co-ordinates present locations as if they are uninhabited - their configuration eludes an individual's perception and recollection associated with locations. Such is the distinction between location and place which is usefully illustrated by the terms 'house' and 'home'. A house is mapped using co-ordinate points or postal addresses and yet home, though alluding to house, is a perception and recollection." (Posey, para 4) Hamilton & Southern show a pure form of peoples' movements in their pieces, each individual's experiences of a place is revealed.³⁶



Hamilton & Southern. *Running Stitch* (2006) -tapestry in gallery space. [image from: Hamilton & Southern, <http://hamiltonandsouthern.net/p8.php#gallery> (2007)]

"... it is often the differences in our perceptions as individuals that are greater than the geography." (Hamilton & Southern, *Unfeasible Symmetry*, para 8) We tend to concentrate on our own experiences and points of view. Hamilton & Southern's works remind us that everyone has their unique experiences and perspective of the same place. Hamilton & Southern do not want their representations to be looked at like a map or travel route, they want the threads to reflect the social spaces of a site; it is interesting to see how these spaces/ experiences can be different, and how they cross. Hamilton & Southern's work also explores our persistence to anticipate the future as we move through a space. "Distance made good"... The phrase suggests that the route first exists imaginatively, as a potential that is projected from an imagined future point of having already covered it, and that's what one does when one walks..." (Cohen, para 7). Kris Cohen, in his article *Beside Ourselves, Sometimes* looks at Hamilton & Southern's works, and questions if an experience of a walk is drawn or traced. Cohen's arguments lean towards a traced experience as he argues that we have imagined images of ourselves and versions of walks that make the experience re-visited. Our perception of space is always affected by our past experience, the present, and our knowledge that we use to anticipate the future. "Imagine that you're walking home late at night and something about the scene spooks you; if at some point during or after, you remember a film with a dark street, an ominous walk, an appropriate soundtrack, then was it the scene that spooked you or the memory of the film? Was your walk that night drawn or traced?" (Cohen, para 7).

This approach of exploring the journeys of individuals steps away from all of the sensory and emotional experience of each person. We get a bird's eye view of their experience and are able to focus on the peoples' movements as they navigate the paths that connect them to their place. "Yet these walks ... were by no means walks for walks' sake. They represent peoples' habits. They mark the routes workers use on their daily travels to and from the factory. They correspond to the pleasant and necessary walkies taken with beloved pets. They trace a woman's meditative course involving favorite places collected over forty years of living in the same locale. These routes constitute threads that sustain the cultural fabric of these ... cities..." (Gerin, para 7)



Hamilton & Southern. *Running Stitch* (2006) -thread used. [image from: Hamilton & Southern, <http://hamiltonandsouthern.net/p8.php#gallery> (2007)]

THE LIVED LANDSCAPE

Because of how western thinking has developed our world view, there is a feeling of detachment from the 'real world'. Hamilton & Southern, Huyghe, Davies, and Laib explore the 'lived landscape', that is, real experiences that provide a sense of connection with the landscape. The use of the term 'lived landscape' reflects the nature of the work of these artists, they are exploring experiences that we all can relate to, but are not quite able to put into words.

...there are many things that cannot, or don't require verbal communication in order to communicate the idea. "...how meanings are transmitted and experienced through sensual modes of communication and of how perceptual relations are also social relations, making culture a lived, multisensory experience.(Howes, p.40)

Wolfgang Laib and Hamilton & Southern explore the lived landscape by removing small elemental pieces of an experience (isolated movement and isolated natural materials) and revealing them in a way that shows the beauty and importance of these fundamental aspects of experience. Even though Davies' work takes place in a virtual world, her work relates to the lived landscape by providing people with real experiences that are removed from the conventions we use to understand and interact with our surroundings.

With the desire to reveal the lived landscape, these artists provide a sense of wonder and reflection of the bigger picture of the world; they show elements of experience that we can all connect with and respond by saying "I am part of this".

TO BREAK AWAY FROM OUR PERCEPTUAL AUTO-PILOT

- There are so many demands on our senses in everyday life that we have become accustomed to choosing (consciously or not) which things to focus on, while tuning out from others. While growing up and learning about the physical world we become less interested in experiencing things with "new eyes" and a sense of wonder is lost. We learn what is possible and impossible; we become able to categorize the things we hear, feel, smell, and see in such a way that we no longer need to look at things with an open mind and a sense of wonder. "Our eye finds it more comfortable to respond to a given stimulus by reproducing once more an image that it has produced

³¹ Hamilton & Southern. "Distance Made Good: Flow Lines." *theportable.tv*. [2004] Online. Available: <http://www.theportable.tv/foly/gallerytext.html> September 08, 2007. Paragraph 3.

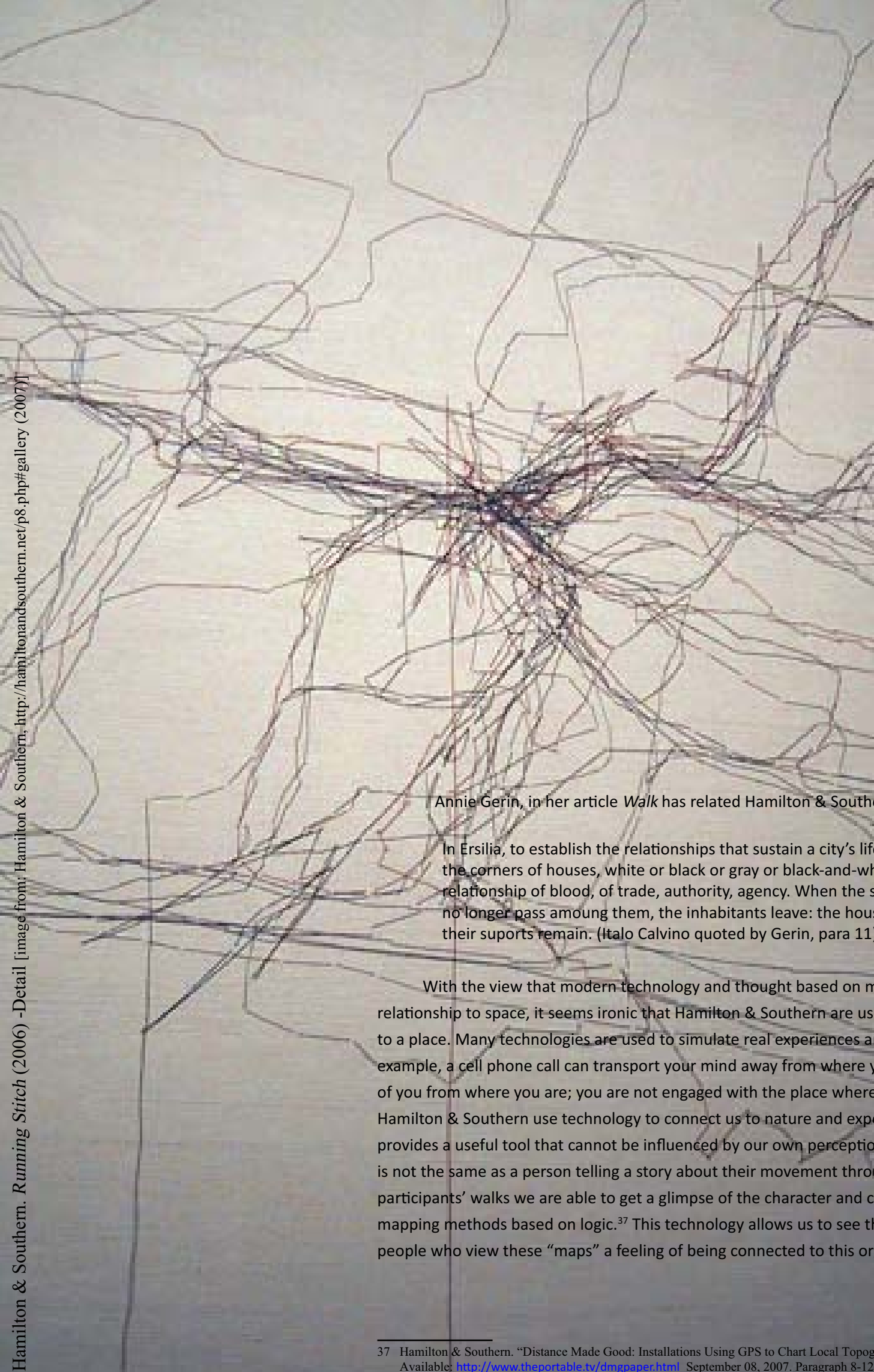
³² Hamilton & Southern. *Satellite Bureau*. [2005] Online. Available: <http://www.satellitebureau.net> September 10, 2007. Paragraph 1-2.

³³ Hamilton & Southern. *Satellite Bureau*. [2005] Online. Available: <http://www.satellitebureau.net> September 10, 2007. Paragraph 9.

³⁴ Hamilton & Southern. "Map Index." *Satellite Bureau*. [2005] Online. Available: <http://www.satellitebureau.net/mapindex.html> September 10, 2007.

³⁵ Hamilton & Southern. "Running Stitch." *theportable.tv*. [2006] Online. Available: <http://www.theportable.tv/runningstitch/index.html> September 08, 2007. Paragraph 2.

³⁶ Hales, Derek. *Satellites*. [2007] Online. Available: <http://www.hamiltonandsouthern.net/t3.php> March 26, 2008.



Annie Gerin, in her article *Walk* has related Hamilton & Southern's work to Italo Calvino's imaginary city "Ersilia".

In Ersilia, to establish the relationships that sustain a city's life, the inhabitants stretch strings from the corners of houses, white or black or gray or black-and-white according to whether they mark a relationship of blood, of trade, authority, agency. When the strings become so numerous that you can no longer pass among them, the inhabitants leave: the houses are dismantled; only the strings and their supports remain. (Italo Calvino quoted by Gerin, para 11)

With the view that modern technology and thought based on materialistic concerns has made us loose touch with our relationship to space, it seems ironic that Hamilton & Southern are using GPS technology to remind us of our connections to a place. Many technologies are used to simulate real experiences and are considered a substitute for the real thing. For example, a cell phone call can transport your mind away from where you are to another place far away. It takes a piece of you from where you are; you are not engaged with the place where you are, in the same way. Similar to Char Davies, Hamilton & Southern use technology to connect us to nature and experience. The GPS system Hamilton & Southern use provides a useful tool that cannot be influenced by our own perceptions and points of view; it only records locations, this is not the same as a person telling a story about their movement through the space. By superimposing all the lines of the participants' walks we are able to get a glimpse of the character and culture of the city that is not revealed in traditional mapping methods based on logic.³⁷ This technology allows us to see the beauty of pure movement through space, and gives people who view these "maps" a feeling of being connected to this organic movement.

³⁷ Hamilton & Southern. "Distance Made Good: Installations Using GPS to Chart Local Topographies." *theportable.tv*. [2004] Online. Available: <http://www.theportable.tv/dmcpaper.html> September 08, 2007. Paragraph 8-12.

many times before, instead of registering what is different and new in an impression." (Crary quoting Friedrich Nietzsche, p.97) Artists Southern & Hamilton, and Char Davies examine virtual worlds to challenge our automatic perceptions of the landscape.

By changing space,
by leaving the space of one's usual sensibilities,
one enters into communication with a space
that is psychically innovating. ...
For we do not change place, we change our nature.
(Gaston Bachelard, *The Poetics of Space*)
(Char Davies quotes Gaston Bachelard, 2004, para 61)

ALTERNATE PERCEPTIONS:

SLAUGHTERHOUSE-FIVE - In the movie *Slaughterhouse-Five* (1972) the main character, Billy Pilgrim, seemed to be in his own world, not as concerned about issues of the moment in the same way as the others around him. In one scene he is being marched through the streets as a prisoner of war, but this is not his main concern, he is only interested in watching the children's reaction to his funny jacket. Billy Pilgrim does not seem concerned about the gravity of his situation. Billy sees the world differently. Because he is unstuck in time he never knows when he will leap through time, and what period of his life he will find himself in. But wherever he ended up in the film, he likely knew what was going to happen, having lived through his experiences many times before. He appears to have a child-like innocence, but he knows what is going to happen and makes sure he enjoys the good in every situation.⁵

Billy Pilgrim: "I don't need a doctor, Stanley. On Trelfamador you learn that the world is just a collection of moments all strung together in beautiful random order." (Vonnegot, 1972)

Billy Pilgrim became unstuck from time, and time is such a fixed thing. What if other fixed experiences could be unstuck? What if sound became unstuck? I find it hard to watch a movie when the sound is slightly out of sync with the picture. I have to look away and just listen to the dialogue. If I do not turn away, I start to read what I can from the characters' lips, and at the same time hear it echoed back when the sound comes in. There are experiences we see as possible and impossible, and when we have an experience that challenges our ideas of what is possible our perceptions are challenged. We are so trained in how to perceive the world we see the story of Billy Pilgrim as fiction and we are comfortable in thinking that it is something that could never happen. When we have an experience like watching a movie with the sound out of sync, it lies closer to the border between real and impossible and our mind strains to fix the problem.

⁵ Reference to Billy Pilgrim's experiences from: Vonnegot, Kurt Jr., writer. *Slaughterhouse-Five*. Dir. George Roy Hill. Perfs. Michael Sacks, Ron Leibman, Eugene Roche, Sharon Gans 1972. DVD. Universal Studios Home Video, 2004.

CONNECTION - A common theme among artists Hamilton & Southern, Huyghe, Davies and Laib is re-discovering our lost connections to space, the ‘real world’, and our experiences. Hamilton & Southern’s *Flow Lines* explores the social and personal experiences and connections to a space with a new representation of peoples’ journeys to their personal landmarks in an urban setting. In Char Davies’ *Osmose* her virtual environment was inspired by a scuba diver’s experience in the water, where one feels the space around them and has an alternative sense of connection to the space. Wolfgang Laib’s work with pollen came from his desire to show us that we have connections to the world around us that are often overlooked.

I have been amazed to meet people whose only connection to pollen is hay fever! They have nothing else to say. They have no connection to the simplest things. They are so far away from seeing these important things. The more the situation is like that, the more I feel it is important to do this work, to try to change this situation. (Farrow quoting Laib, p.27)

Laib’s large pieces that are made entirely of pollen work to show a connection, a realization of the energy that flows through the material, and the beauty of the material that seems unreal. Pierre Huyghe’s work comes from a reflection on the impact of society on our experience; he explores the ways in which we let the collective views and formalities of society take control over our experiences and our view of what is real.

Propelling his scenarios forward, he endeavours to move us past a manneristic, at times suffocating landscape, past the myriad formats of false communication, in order to identify, reveal and recognize the genuine connections always hidden therein. (David Robins on Pierre Huyghe, *Le Chateau de Turing*, p 177)

Forming connections to a landscape is an obvious goal in Landscape Architecture, but what can we learn from the works of Huyghe, Davies, Laib, Southern and Hamilton? Perhaps it is time for a shift in our perceptions.

... If you believe only in the individual, in what you are, then life is a tragedy that ends in death. But if you feel part of a whole, that what you are doing is not just you, the individual, but something bigger, then all these problems are not there anymore. Everything is totally different. There is no beginning and no ending. (Farrow quoting Laib,p 31)



Wolfgang Laib. -Sifting pollen. [image from: Firestone, John. Iridescent Art News (April 25, 2007).
http://blog.pennlive.com/iridescentartnews/rhymes/]

Wolf Gang Laib

Wolf Gang Laib is an artist from Metzingen, Germany whose works have shown in prestigious galleries all over the world for over 30 years. His education does not include Fine Arts, he has a background in Medicine. Laib works with natural organic materials that he collects himself from the surrounding area of a small village in southern Germany where he lives. The materials he works with are pollen, beeswax, milk, and stone. Laib performs simple acts with these natural materials in order to create his art; this includes sifting, pouring, polishing, melting.³⁸ What interests Laib about natural materials is their beauty along with the realization that we could never create these materials ourselves. In his words:

The pollen, the milk, the beeswax, they have a beauty that is incredible, that is beyond the imagination, something which you cannot believe is reality - and it is the most real. The beauty is there and you have to be ready for it. I could not make it myself, I could create it myself, but I can participate in it. Trying to create it yourself is only a tragedy, participating in it is a big chance. (Farrow quoting Liab, 1994, p.29)

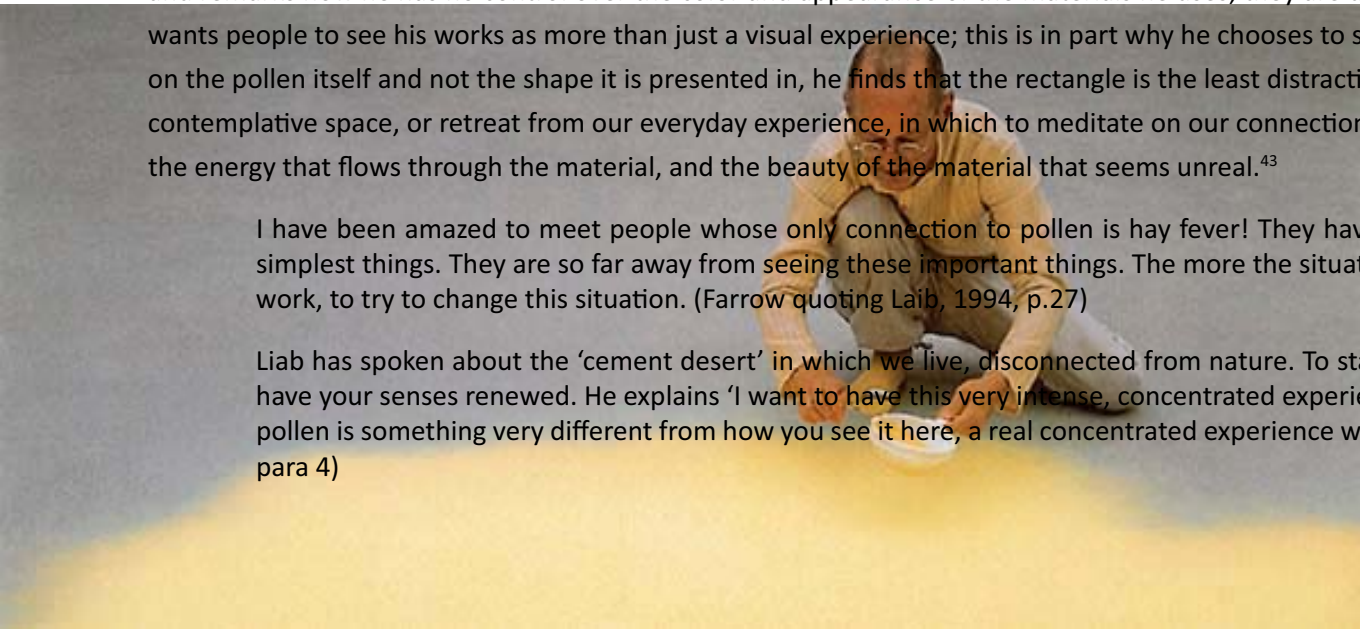
Laib chose not to practice medicine because of his disappointment over the practice of western medicine. He was mainly concerned over the thought that governs western medicine, where the body is objectified and logic is applied to nature. “It was shocking for me to see doctors knowing everything about the material body, knowing and being able to do things which mankind could never do before, but then knowing nothing about what goes beyond that, and, in many cases, being more primitive than ever.” (Farrow quoting Laib, 1994, p. 28) Laib claims that he is unsatisfied with western thinking since the Renaissance and he believes that we are due for a change: “It is now 500 years after the Renaissance and I believe it is time for a change, for a complete change in our thinking, in what we do, think and feel, in what we find important and not important.” (Farrow quoting Laib, 1994, p.28) He is influenced by eastern cultures and western culture as it was before the Renaissance, and he attempts to focus on the present and future in his work.³⁹ Laib takes a holistic view of the world and disagrees with Western individualistic thinking:

... If you believe only in the individual, in what you are, then life is a tragedy that ends in death. But if you feel part of a whole, that what you are doing is not just you, the individual, but something bigger, then all these problems are not there anymore. Everything is totally different. There is no beginning and no ending. (Farrow quoting Laib, 1994, p. 31)

Laib is a process-based artist; that is, his art is not simply the final product, but the process that is used to develop the final product. For example, many of his works involve gathering pollen and sifting it to form a rectangular shape on a gallery floor. He collects the pollen from local plants by shaking the pollen off of the plants into a jar. He views his work as a meditative process where he can get lost in his actions; he says he feels a closeness and a connection to the natural environment and he feels like he is at the same level as nature. He wants to share his experience and will sometimes invite others to sift the pollen with him.⁴⁰ He finds beauty in natural objects and remarks how he has no control over the color and appearance of the materials he uses; they are unique with a natural beauty that he could never create himself. He wants people to see his works as more than just a visual experience; this is in part why he chooses to sift his pollen into rectangular shapes. Laib wants people to focus on the pollen itself and not the shape it is presented in, he finds that the rectangle is the least distracting shape to use in order to achieve this.⁴¹ His pieces provide a contemplative space, or retreat from our everyday experience, in which to meditate on our connection with nature.⁴² Laib wants to create a connection, a realization of the energy that flows through the material, and the beauty of the material that seems unreal.⁴³

I have been amazed to meet people whose only connection to pollen is hay fever! They have nothing else to say. They have no connection to the simplest things. They are so far away from seeing these important things. The more the situation is like that, the more I feel it is important to do this work, to try to change this situation. (Farrow quoting Laib, 1994, p.27)

Liab has spoken about the ‘cement desert’ in which we live, disconnected from nature. To stand before one of his pollen pieces is to reconnect and have your senses renewed. He explains ‘I want to have this very intense, concentrated experience... So, the meadow with flowers where I collect the pollen is something very different from how you see it here, a real concentrated experience without distractions, nothing else.’ (Auckland Art Gallery, para 4)



Wolfgang Laib. -Installing pollen from pine, 1999.
[image from: The University of Western Australia. Lawrence Wilson Art Gallery.
Wolfgang Laib: Passageway-Overgoing. (2005). http://lwgallery.uwa.edu.au/?p=63410]

38 All Biographical information in paragraph. Farrow, Clare (interviewer). “Wolf Gang Laib: Beyond The Imagination.” *Art + Design*, vol. 9, iss. May/June. 1994. p.25.
39 Ibid, p.28.
40 Ibid, p.25.
41 Ibid, p.29.
42 Lawrence Wilson Art Gallery, University of Western Australia. Wolfgang Liab: Passageway-Overgoing. [2005] Online. Available: <http://lwgallery.uwa.edu.au/?p=63410> April 26, 2008.
43 Farrow, Clare (interviewer). “Wolf Gang Laib: Beyond The Imagination.” *Art + Design*, vol. 9, iss. May/June. 1994. p.27.

MATERIAL... ENERGY, MEMORY, CONNECTION

- Ceramic artist Paulus Berensohn writes about his belief in how contact with a primary element such as clay can help us gain a deeper understanding of our connection with the environment. In *Whatever We Touch Is Touching Us* Berensohn mentions "... a geologist at San Jose University, Leila Coyne, whose work has demonstrated how, if you strike a one-pound ball of clay with a hammer, it will glow ultraviolet light for a month! Light is energy. Whenever and however we touch clay-stroking, pinching, coiling or throwing—we are releasing energy." (Berensohn, p 12) If this phenomenon were true then could the clay be releasing other things that we can not easily sense? Could this not be applied to other materials too?

As a ceramic artist, Berensohn has a very close relationship with clay; in his teachings he stresses the experience of working with the material and encourages his students to be receptive to it. He recalls that the first texts he studied from considered clay to be an inert, lifeless material, but through the years new theories and discoveries have supported the idea that clay has life within it. "We are formed from clay – are souls in clay form. From stardust we come and to stardust we shall return." (Berensohn, p 12) Berensohn wonders how this knowledge can help us form connections to a way of being that has been lost, a true nature. Wolfgang Laib's work comes out of the same questioning, where his material is pollen, he tries to allow people to form connections to it, and experience the energy that flows through it.

The common root here is the argument against the assumption that we have no real connections to the physical world around us. Space is not an empty void, pollen is not a lifeless dust, clay is a living material, and energy flows through everything. What about memory then? Could memory be stored in a material? We see that living things have a memory, but why do we limit memory to things that are living? What if materials simply release or express their memories in a different way than us? Could we release these memories and experience them ourselves?

Pierre Huyghe

Pierre Huyghe is a multimedia artist from Paris, France. Huyghe was born in 1962, and between the years 1981 to 1985 he studied at École Supérieure d'Arts Graphiques and the École Nationale Supérieure des Arts Décoratifs. His work has been exhibited around the world in places such as Europe, Canada, the United States, Brazil, and Japan. Much of his work has focused on the mass media and the fuzzy area bordering fiction and reality.⁴⁴ "Huyghe has gained international prominence for works that explore reality and fiction, memory and history. Incorporating film, sculpture, sound, and architecture in his diverse works, the artist intervenes in familiar narrative structures to investigate the construction of collective and individual identities." (Dia Art Foundation, para 4) Huyghe's work considers the pressure from the media to continuously change our daily habits/rituals and he focuses on these habitual actions and interactions with a "desire to introduce pleasure, play, and childhood fantasy into the experience of art." (Huyghe, 2004, 399) Huyghe points out that reality and our society's representations of reality are different: the representations we see are from other people and we are free to develop our own reality and representation. Huyghe has a "... commitment to celebrating daily experience and to exploring how fiction can generate a new reality, rather than disempowering and alienating individuals in the realm of virtuality." (Huyghe, 2004, 397)

For example, in his project *The Third Memory* (1999), Huyghe takes a look at the story of John Wojtowicz. Wojtowicz took part in a 1972 hostage taking, his story was used for the film *Dog Day Afternoon*. In this project Huyghe makes a short film in which he gets John Wojtowicz to act out scenes from the movie. This work looks at the relationship between fiction and reality, and asks who really owns the story of John Wojtowicz.⁴⁵

Another project of Pierre Huyghe's is *La Toison d'or (The Golden Fleece)*. This project focused on a medieval order in France called La Toison d'or whose coat of arms depicted figures with the heads of animals. The coat of arms was adopted by the town of Dijon, France. An amusement park and shopping center in town also adopted this name (La Toison d'or); the amusement park had closed long before Huyghe began this project. In Huyghe's project, he hired teenagers to walk the streets in the area wearing animal heads. He made it an event held around a low income housing area, where people could watch the characters make a play of urban history and hang around.⁴⁶

Streamside Day Celebration (2003) is another project similar to *La Toison d'or*. This time in the United States, Huyghe focused on a new community that was being built in Streamside Knolls, a town north of New York. Huyghe used his interest in the creation of customs and traditions to develop a new tradition for this town that had only just began to exist. He created a new celebration for the town, an event that would occur every year to celebrate the journey the people made to find a new home in Streamside. With the aid of the Dia Art Foundation in New York, Huyghe sent out a press release to invite members of the community to the celebration. The first annual celebration would allow Huyghe to film the activities in order to create the installation: *Streamside Day Follies*. The festivities began with tree planting, then a parade where children could wear animal costumes, music, and a barbeque dinner with desserts typical of a carnival.⁴⁷

⁴⁴ Biographical information from: Sollins, Susan. "Biography." *Art: 21*. [2001-2007] Online. Available: <http://www.pbs.org/art21/artists/huyghe/index.html> Para. 1 (October, 2007)

⁴⁵ Bourriaud, Nicolas. "The Reversibility of the Real." *TATE ETC.* [2006] online. Available: <http://www.tate.org.uk/tateetc/issue7/pierrehuyghe.htm> (October, 2007) Para 3 & 4.

⁴⁶ Huyghe, Pierre. *Pierre Huyghe*. Milano: Skira, 2004. p. 116.

⁴⁷ Information in this paragraph about *Streamside Day* is from: Dia Art Foundation. "Dia Art Foundation Invites Public to Streamside Day Celebration, 10/2/2003." *Dia Art Foundation*. [1995-2008] online. Available: <http://www.diacenter.org/dia/press/huyghe.html> (October, 2007)

Pierre Huyghe. *Streamside Day* (2004).
(image from: Huyghe, Pierre. *Pierre Huyghe*. Milano: Sirka, 2004. p 129)

I tried to find a story within the context of the local situation, looking for what the people there had in common. I found something basic: they all came from somewhere else and encountered nature. I invented a kind of score, a scripted program, and I filmed that—all these people traveling to experience what they think is wilderness. In fact, it's a wilderness that's a total construct—rebuilt by man for four hundred years. So I started the film with a re-enactment of the beginning of *Bambi*, with the deer going from nature to this new town. And then you have two little girls who go from the town to nature. It's the same movement, once by an animal and once by humans—a simple crossing—two migrations. And that is the basis of the tradition I created. But that's not what really interested me. I was interested in creating a ritual that the people in the town would actually celebrate because it's based on what they share. (Pierre Huyghe as interviewed by Susan Sollins, para 4)

Some of the rituals Huyghe created in the celebration are a welcoming speech by the mayor, a meal with a birthday cake, having the children dress up as animals and build cardboard houses, a folk song for the event, and a balloon lit up to look like the moon.⁴⁸

After holding *Streamside Day Celebration* Huyghe put a short film together for an exhibit of the project and presentation for a community center; this was called *Streamside Day Follies*. The exhibition was held in an open "empty" gallery. At the beginning of the exhibition the walls within the gallery slowly move into the centre space and come together in a form that represents a new community centre proposed for Streamside Knolls. The walls also form a backdrop for Huyghe's film and remain in position for as long as the film is running. The film starts as a wildlife documentary and shows animals re-enacting the roles of the *bambi* story. Just as *bambi* comes out of the forest and sees this new housing development, the film shows a family making their way to their new home in Streamside Knolls. This is the story behind Huyghe's new celebration, the rest of the film shows footage from the first annual Streamside Day celebration. When the film is done, the walls move back to their original position.⁴⁹

Through projects like *La Toison d'or*, and *Streamside Day Follies*, Huyghe explores how our reality is formed: the creation process. He looks at real events and explores the possibilities of reality. Huyghe works to regain our connections to the world around us with events that could be real, but lie on the border between fiction and reality. "Propelling his scenarios forward, he endeavours to move us past a manneristic, at times suffocating landscape, past the myriad formats of false communication, in order to identify, reveal and recognize the genuine connections always hidden therein." (David Robins in *Pierre Huyghe – Le Chateau de Turing*, p.177)



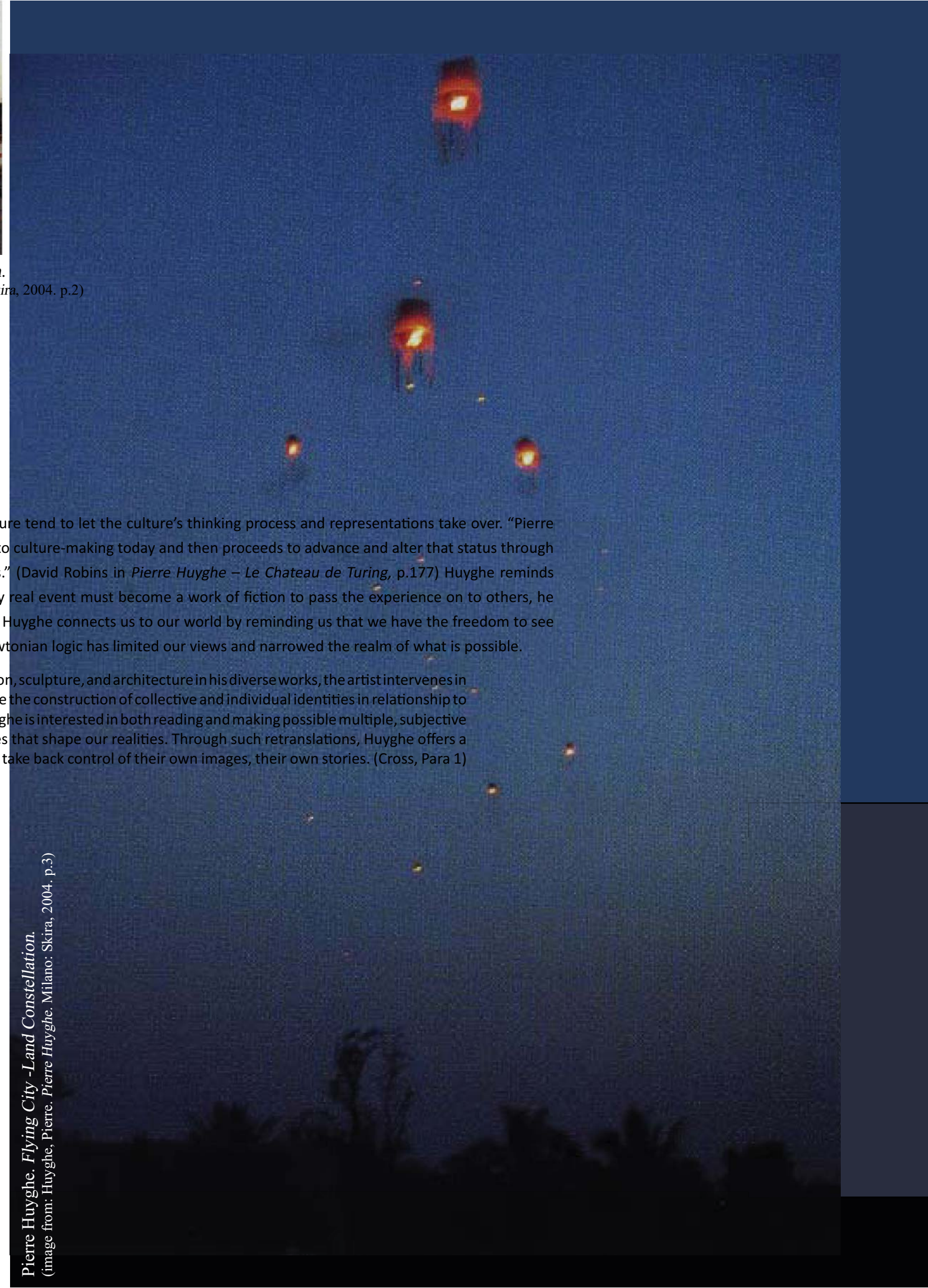
⁴⁸ Huyghe, Pierre. *Pierre Huyghe*. Milano: Sirka, 2004. p 147.

⁴⁹ Information about Streamside Day Follies in this paragraph is from: Huyghe, Pierre. *Pierre Huyghe*. Milano: Sirka, 2004. p 147.

Pierre Huyghe. *Streamside Day* (2004).
(image from: Huyghe, Pierre. *Pierre Huyghe*. Milano: Sirka, 2004. p 141)



Pierre Huyghe. *Flying City -Land Constellation*.
(image from: Huyghe, Pierre. *Pierre Huyghe*. Milano: Skira, 2004. p.2)



Pierre Huyghe. *Flying City -Land Constellation*.
(image from: Huyghe, Pierre. *Pierre Huyghe*. Milano: Skira, 2004. p.3)

Huyghe is interested in how people within a culture tend to let the culture's thinking process and representations take over. "Pierre Huyghe accepts the comedic condition inherent to culture-making today and then proceeds to advance and alter that status through the creation of ambitious, responsible comedies." (David Robins in *Pierre Huyghe – Le Chateau de Turing*, p.177) Huyghe reminds us that our version of reality is our own, that any real event must become a work of fiction to pass the experience on to others, he reminds us that we have control over our reality. Huyghe connects us to our world by reminding us that we have the freedom to see the world as it appears to us in a time where Newtonian logic has limited our views and narrowed the realm of what is possible.

Incorporating film, video, sound, animation, sculpture, and architecture in his diverse works, the artist intervenes in familiar narrative structures to investigate the construction of collective and individual identities in relationship to various forms of cultural production. Huyghe is interested in both reading and making possible multiple, subjective reinterpretations of incidents and images that shape our realities. Through such retranslations, Huyghe offers a way for his characters and his viewers to take back control of their own images, their own stories. (Cross, Para 1)

SENSE - Over time the western world has developed its views of how we perceive the environment around us, and much of this has been influenced by the technologies that have been developed. After WWII sight and sound had become controllable and recordable with new technologies like the camera and phonograph; this technology affected the way the western world saw themselves and other cultures. "As these technologies necessarily excluded all other sensory phenomena, they also presented cultures as purely visual or auditory manifestations. Thus what seemed to be real was a world devoid of scents, savors, temperatures, and textures." (Howes,p.7) An examination of how western anthropologists have studied other cultures can provide insights of how the western world perceives the world. When technologies allowed the disembodiment of sight and sound in a mechanical form, the output of anthropologists' investigations could now be controlled by the observer; still allowing a biased viewpoint. With a biased viewpoint and without a study of all the senses, many anthropologists missed out on the evidence that some cultures put priority on certain senses more than others. Due to the western emphasis on sight and sound, a part of the whole sensory experience was left missing in many culture studies. Anthropologists who look at a culture's complete sensory perception have made remarkable discoveries about how we perceive the world. An interesting development came from anthropologist Edward T. Hall. Hall proposed that 'people from different cultures not only speak different languages but, what is possibly more important, inhabit different sensory worlds' He was led to this insight by his studies of proxemics, or how people experience and model the spatial world. These studies revealed that there is not one space, but many: thermal space, acoustic space, olfactory space, and so on, and that the overall mix, as well as how each of these spaces is experienced in its own right by the individual, depends on cultural norms.⁶

TRAINING OF THE SENSES - Alexander Gottlieb Baumgarten (1717-1762) has been titled the founder of the philosophical discipline of esthetics. In his work he tried to develop an understanding of our perceptions in terms of esthetics, that is, in terms of how we understand or perceive the world with our senses. Baumgarten rejected the logical and rational theories of our perceptions; he saw a value in examining the experiences that are difficult or impossible to quantify and examine scientifically, for example, the concept of beauty and feeling of being happy.⁷

⁶ Information on western anthropologists from: Howes, David. *Sensual Relations: Engaging the Senses in Culture & Social Theory*. Ann Arbor: University of Michigan Press, 2003. p.6-17

⁷ De La Motte-Harber, Helga. "Aspects-Hypotheses-Unfinished Thoughts." *Resonances*. Schulz, Bernd ed. Heidelberg, Germany: Kehrer, 2002. p.29-30.

As scientists and theorists in the western world studied the senses they developed new technologies and new devices over time to further their explorations. One well known such device is the camera obscura. When light passes through a very small hole into a dark enclosed room, an inverted image of what is seen outside is projected on the opposite wall of the room. This phenomenon was captured by the development of the camera obscura, and the device was used to explain the workings of the human eye. With a focus on the sense of sight, many other new devices were developed. Thaumatrope for example, are spinning discs with an image on either side that were developed to explore the phenomenon of afterimages in the eye. When the disc is spun, like in the flipping of a coin, both images appear together. Panoramas, dioramas, and kaleidoscopes are also early examples of new developments used to explore the workings of the eye. Throughout the development of these new technologies the optical experience was becoming more and more abstracted, and so, the observer learned to adapt to these abstractions.⁸

The Bauhaus (1919 to 1933) was a school for crafts and fine arts in Germany that became well known for its influence on modernist art and architecture. One of the school’s lecturers, Lazlo Moholy-Nagy taught that perception of the world was something that could be learned with proper training. He viewed that our reality is based upon the basic or primary feelings or senses that we experience. “ Moholy –Nagy concluded that, through art, the sense organs had to gain practice in properly perceiving the world and that this training would best be pursued through the elementary sensations of light, sound, surface, volume, time, and space.” (De La Motte-Harber, p.31) Moholy Nagy developed a machine called the *Light - Space - Modulator* (1922-1930) to be used in sense training. It was a device that attempted to capture the affect of light on space and material, as well as explore the relationship between light and motion. Moholy-Nagy also had special disks and drums made which were meant to be turned and touched while being blindfolded. These tools were developed to explore the relationship between the sense of touch and the sense of sight, as well as the link between touch and our feeling of space.⁹

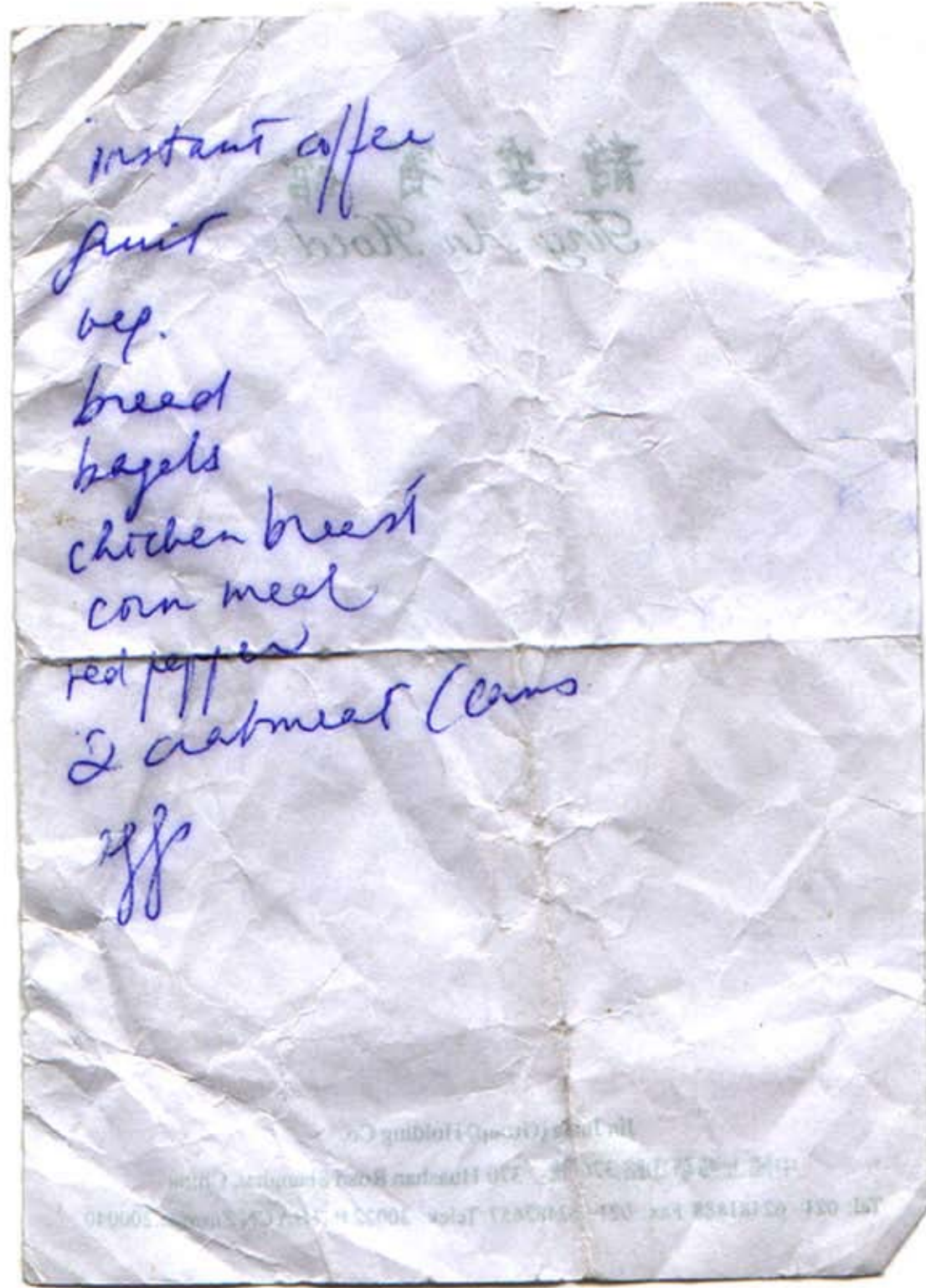
John Cage has shown us too that our perception of the world is something that can be trained. Through his work with sound, he has challenged the views of what sounds we identify as noise and what sounds are music. “He tried to show that, under certain perceptual conditions, an everyday experience is possible through other avenues than by means of a work of art complete in itself.” (De La Motte-Harber, p.32)

Hamilton & Southern’s Distance Made Good also shows how we experience the world with a pre-conceived idea of experience yet to come. Our beliefs, imagination, and past experiences all come into play in any new experience. In a way, no experience is new, as it has been experienced before within our imagination. That is, our previous experience has trained us to view the world a certain way before the experience has even occurred.

⁸ Information in this paragraph on the camera obscura and other optical devices mentioned is from: Crary, Jonathan. *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century*. Massachusetts: MIT Press, 1992. p. 27-30 and p.105-106.

⁹ Information in this paragraph about Moholy-Nagy and his work is from: De La Motte-Harber, Helga. “Aspects-Hypotheses-Unfinished Thoughts.” *Resonances*. Schulz, Bernd ed.

²⁰ Heidelberg, Germany: Kehrer, 2002. p.30.



EXERCISES IN PERCEPTION - As a part of the analysis for this practicum, I decided to explore what experiences I could have with inspiration from the work of the artists in my analysis. I decided to go to the Assiniboine forest in Winnipeg to experience this space and see how it could be perceived in a different way.

GROCERY LIST: This grocery list was something I found while exploring a pathway in the Assiniboine forest. I imagined that this note was something that came from the landscape, as if the landscape had memories embedded in it and the note was a window looking into the energy and experience absorbed into the space. While the list seems to have ordinary grocery items on it, these items all had connections to the experience of the forest.

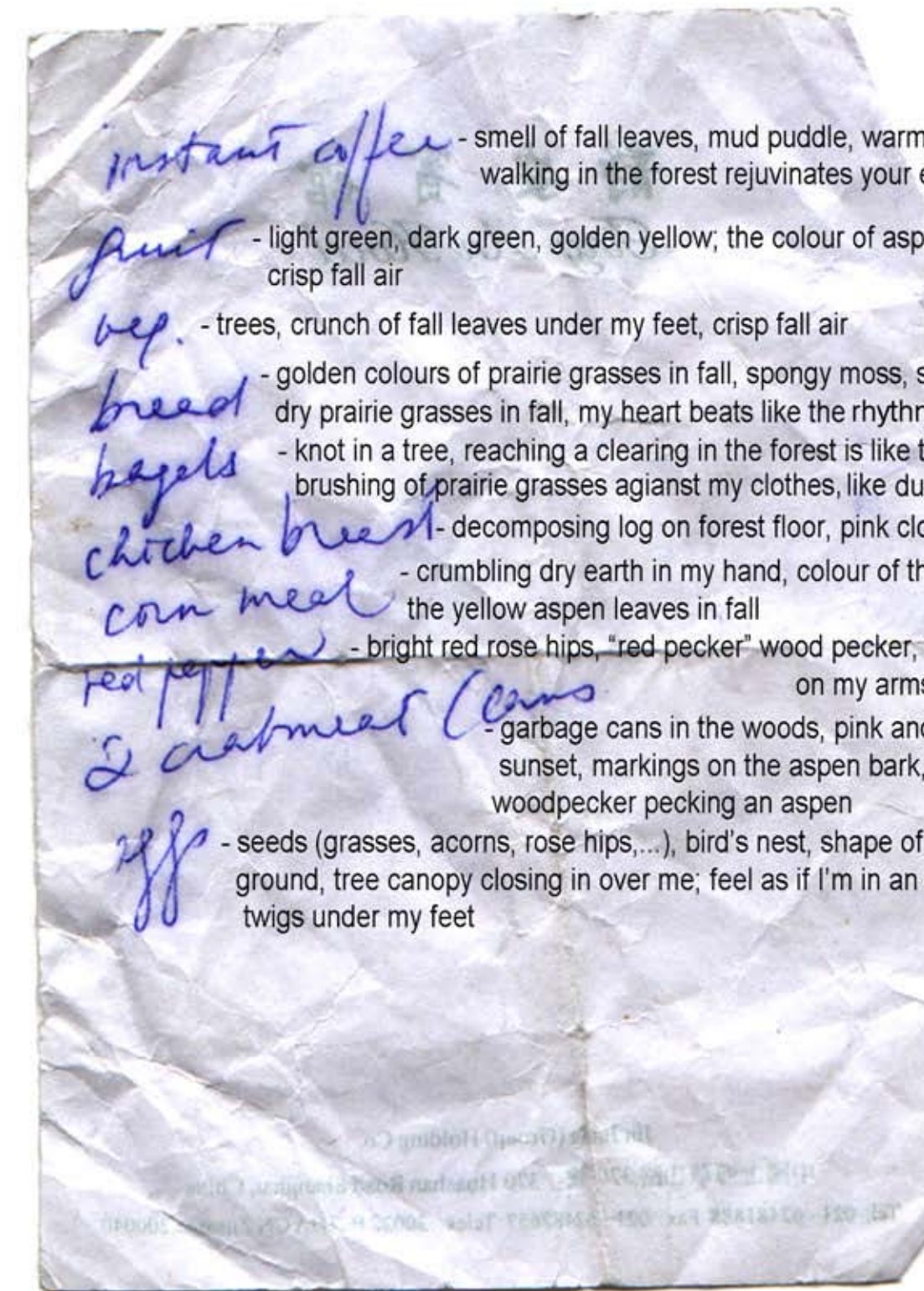
This is not a grocery list.
(Found in the Assiniboine Forest)

In Hamilton & Southern’s work, a walk is a drawing that is haunted by a tracing. What is relentless here is our insistence on producing and experiencing the present tense as a drawing and not a trace – as if for the first time. To find our place in this present, however, is to exist within a reverberant space where a faint but busy “re-“ haunts almost every experience... and might or might not overwhelm that experience. (Cohen, para 9)

If how we sense and perceive the world can be trained, what impact would this have on us? Or for that matter, how has this affected us already? With developing technologies in the past century we can see that our world has become much smaller, it runs at a faster pace, and it now includes virtual spaces with the development of virtual reality and the internet. Technology has demanded that people perceive the world in a different way, and we have adapted. Our separation from the physical world has in part been blamed on technology, but with technology as a tool to train our senses to a new kind of perception, could it potentially reconnect us?

SOUND -We are a very visual society that often overlooks sounds. Sound is very much a part of the sensed experience, but perhaps there is less focus on sounds because we are so used to tuning them out. This is something we may do more often with sound than with vision, after all, the ear cannot be shut like the eye, nor can the ear “look” in another direction. When comparing sound experience to visual experience though, sound has different qualities that allow us to sense our environment in a much different way. Sound affects more than one’s ears, it has the ability to immerse you in a sensory experience as well. Sound is a powerful medium; unlike visual perception, sound resonates through us breaking visual and physical borders. Bernd Schulz is the director of Stadtgalerie Saarbrücken, an art gallery in Germany that has a strong focus on Sound Art. He contributed to an edited the publication *Resonances* which focuses on a series of sound art exhibitions that were held in his gallery under the same name.¹⁰ Here he talks about the sound-space experience. “The sound-space confronts us not only with the objective qualities of the physical objects and spaces, but also with the resonance of our own bodies and the perception of our own selves.”(Schulz, p.16) I remember standing on the sidewalk as a child of maybe 5 years old as a marching band went by and being amazed at how the sound of the drums resonated through my body; I could feel it reverberating inside of me. “Do you feel that?” I remember asking my grandparents.

When visual acuity is decreased, one also becomes more aware of sound: and sound, as an all-encompassing flux which penetrates the boundary of the skin, further erodes the distinctions between inside and outside. As the Australian sound theoretician Frances Dyson said at a conference in 1994, “metaphysically, sound has an ontology that challenges the solid world. Sound, like soft vision, also returns us to what I have come to call the ‘presence of the present’”. In this perceptual state, rather than being mentally focused on the future and thus inattentive, even absent, to the present, one becomes acutely aware of one’s own embodied presence inhabiting space, in relation to a myriad of other presences as well. (Davies, 2004, para 15)



instant coffee - smell of fall leaves, mud puddle, warm my hands, walking in the forest rejuvenates your energy

fruit - light green, dark green, golden yellow; the colour of aspen leaves, crisp fall air

veg. - trees, crunch of fall leaves under my feet, crisp fall air

bread - golden colours of prairie grasses in fall, spongy moss, sweet smell of dry prairie grasses in fall, my heart beats like the rhythm of sliced bread

bagels - knot in a tree, reaching a clearing in the forest is like the centre of a bagel, brushing of prairie grasses against my clothes, like dusting off the crumbs

chicken breast - decomposing log on forest floor, pink cloud at dusk

corn meal - crumbling dry earth in my hand, colour of the fall prairie grasses, the yellow aspen leaves in fall

red pepper - bright red rose hips, “red pecker” wood pecker, the tingling of the skin on my arms from the cold breeze

2 crabmeat cans - garbage cans in the woods, pink and white sky at sunset, markings on the aspen bark, sound of woodpecker pecking an aspen

eggs - seeds (grasses, acorns, rose hips,...), bird's nest, shape of a depression in the ground, tree canopy closing in over me; feel as if I'm in an egg, the cracking of twigs under my feet

An Experience.

(Found in the Assiniboine Forest)

¹⁰ Schulz, Bernd, ed. "Introduction" and "Authors." *Resonances: Aspects of Sound Art*. Germany: Kehrer Verlag: 2003. p.16 and p.172.



String Walk: Another experiment in the perception of this space was the 'string walk' in which I moved around a small area of the forest leaving a string behind as I went. The process of this exercise became important, as it revealed how we can see ourselves as being connected to a space, and immersed by it. In the end the "empty voids" of the space were given a materiality with the string; I had to move over, under, and through the voids that had a physical presence and could be interacted with. (Stills from *String Walk* video on previous page.)

Tonkiss believes that the western cultures place a strong emphasis on vision's link to memory; it seems that in doing this we overlook the unique relationship of sound to memory. Walter Benjamin wondered if we should be using the term "echo" instead of "deja-vu". (Tonkiss,p.307)

Another inspiration came from *Open Ears* by Murray Schafer. One of the things that Schafer talks about in this essay is how the western world's sound perception differs from those in the east. When comparing sound perception by those in the west to those in the east, westerners tend to pay attention to focused sounds seen in a structured environment, and Asian people pay more attention to peripheral sounds. We in the west tend to have an immunity to the sounds of nature because of our attention to focused sounds.¹⁵ With this in mind, perhaps an exercise in sound perception could help to change our attention on focused sounds and train our senses to accept a "new" kind of connection to the landscape.

As mentioned before, sound has the ability to break through physical barriers that light cannot. It comes from deep within the body, and it can be received by any part of the body. The book edited by Schulz; *Resonances* discusses thermovision, which shows the affect of sound on the body. "The interesting thing is that with thermovision photography you can determine precisely where the sound enters the body. Over a certain period of time, there is an increase in temperature in this area, just as the temperature of the entire body rises due to the flow of sound in it. It's very fascinating to see the degree to which acoustics, or sound waves, in the terminology of physics, can induce changes in our body." (Schulz quoting Bernhard Leitner, p.83) With a knowledge that sound is something that can be seen and absorbed, perhaps this can be used to view the space around us in a different way. Can we be trained to see sounds? What effect would this have on our experience of the world? One can imagine that being able to experience sound in this way would provide the feeling of being immersed within a space. In Char Davies' virtual worlds the environment was inspired by a scuba diver's experience in the water where one feels the space around them and has an alternative sense of connection to the space.¹⁶ Perhaps with a known connection between sound and the sense of touch and potentially the sense of sight, a multi-sensory experience is worth exploring: "Surprisingly, the ear acoustically directs the glance. Where does the sound come from? Acoustic and optical eventfulness and sensations of warmth are closely interwoven. But don't all the instruction manuals say that the eye is our dominant organ of orientation? Don't they try to teach us that intersensory perceptions have little importance?" (Helga De La Motte-Haber, p.33)

¹⁵ Information on eastern and western focus on sound from: Schafer, Murray. "Open Ears." *The Auditory Reader*. Micheal Bull and Les Black, eds. New York: Berg, 2003. p.36-39.

¹⁶ Davies, Char. "Changing Space: Virtual Reality as an Arena of Embodied Being" (1997). *Multimedia: From Wagner to Virtual Reality*. Randall Packer and Ken Jordan, eds. New York, N.Y.: W.W. Norton & Company, 2002. [2002] Online. Available: <http://www.immersence.com/index.html> in section "Publications by Char Davies." July 02, 2007. Paragraph 13.

Max Neuhaus (b. 1939) is a sound artist from Beaumont, Texas. As a young teenager, he lived just outside of New York City where he was influenced by the jazz music scene and decided to learn to be a drummer. Eventually, he attended the Manhattan School of Music where he was inspired by the school’s composers who were developing new works in contemporary music.⁵⁰ Initially, he was involved in the art community as a solo percussion artist, but at age 28 he decided not to perform anymore. Neuhaus’ interests led him to creating works of sound art. Early in his career as a sound artist, Neuhaus believed that our perception of where we are depends on the sounds as well as what we see. Over the years Neuhaus has become a multifaceted artist who designs and builds his own equipment for his sound installations, who has published works and drawings, and who is known to consider the social, psychological, and spatial aspects of sound experience.⁵¹ To describe the direction of Neuhaus’ art over the last 40 years, Neuhaus divides his work into eight categories: performance, networks, walks, passage, sensation, invention, place, and moment.

Performance – Max Neuhaus became involved in the art community as a percussionist. Until the age of 28 Neuhaus was a performer, exploring with contemporary music and sound art installations / performances.⁵²

Networks - Neuhaus has made several permanent sound installations throughout his career; one of Neuhaus’ earlier works in sound art was *Public Supply* (1966) where he combined radio and the telephone system to create an open sound space that was 20 miles in diameter. In this open soundscape, people were able to listen and take part in the experience through a connection by phone. Neuhaus later developed this further in a project called *Radio Net* (1977) where he was able to connect 190 radio stations across the country for this network. A current project of Neuhaus’ is *Auracle* (2004 - present), which creates an interactive sound space on a global scale over the internet. Auracle itself is a software instrument that is linked to the internet to allow people from around the globe to create sounds / music together.⁵³

Walks – Inspired by the idea of bringing ordinary street sounds into a concert hall, Neuhaus held a series of walks where he would take a group of people on a tour to listen to the sounds of the city. Before beginning the walks, he would instruct the people to remain quiet and simply listen to the sounds of the city as they took their tour.⁵⁴

Passage - Neuhaus’ first sound installation where he placed a series of sound transmitters along a stretch of Lincoln Parkway in Buffalo, NY. The installation was a half of a mile long, and was set up so that people driving south down Lincoln Parkway from the main entrance of the Albright-Knox Art Gallery could hear this series of sounds with their radio.⁵⁵

Sensation-Refers to Neuhaus’ Water Whistle Series where he explored new sense experiences of sound under water. For this series, Neuhaus created installations in several pools in the United States and Canada where people (with their ears in the water) could listen to the sounds created by his custom hydraulic sound generator.⁵⁶

Invention – During the 1980’s Neuhaus focused on sirens used for emergency vehicles. His work helped to improve the sirens by considering how people could determine where they were coming from, the affect they had on the people, and the emergency crew’s ability to hear an alarm from another vehicle while theirs is on.⁵⁷

Place and Moment – Neuhaus describes sound as something directly linked with time, he explains this by remarking how we are only able to put meaning into the sounds around us at the moment the sounds are created. Neuhaus explores our perception of sound by producing works that remove sound from time and instead give it a place, and use sound

50 Liner notes for the CD *Max Neuhaus, The New York School (nine realizations of Cage, Feldman, Brown)*, Alga Marghen (plana-N 22NMN.053), released in 2004. Online. Available: <http://www.max-neuhaus.info/soundworks/vectors/performance/background/> June 2008.

51 Neuhaus, Max “Sound Works” *Max Neuhaus* (2004) Online. Available: <http://www.max-neuhaus.info/soundworks/> June, 2008. Para 1-7.

52 Neuhaus, Max. “Performance” *Max Neuhaus* (2004) Online. Available: <http://www.max-neuhaus.info/soundworks/vectors/performance/> June, 2008. Para. 1.

53 Neuhaus, Max. “Networks” *Max Neuhaus*.(2004) Online. Available: <http://www.max-neuhaus.info/soundworks/vectors/networks/> June, 2008. Para. 1-7.

54 Neuhaus, Max. “Listen” *Max Neuhaus* (1988 - 2004) Online. Available: <http://www.max-neuhaus.info/soundworks/vectors/walks/LISTEN/> June, 2008. Para. 1-13.

55 Neuhaus, Max. “Modus Operandi” Previously published in *Artforum* (New York), January 1980. Online. Available: <http://www.mas-neuhaus.info/soundworks/vectors/passage/modusoperandi/> June, 2008. Para. 1-5.

56 Neuhaus, Max. “Sensation: Water Whistle series” *Max Neuhaus* (2004) Online. Available: <http://www.max-neuhaus.info/soundworks/vectors/sensation/> June, 2008. Para. 3-5.

57 Neuhaus, Max. “Invention” *Max Neuhaus*.(2004) Online. Available: <http://www.max-neuhaus.info/soundworks/vectors/invention/> June, 2008. Para. 1.

to generate a sense of place or a moment in time. In his installations, Neuhaus also creates a sound space through a somewhat subtle technique where his sounds lie close to the boundary between ambient sounds and prevalent sounds that demand attention. When his sounds are discovered, many people experience a shift of perception.

In these imaginary places that I build, often the moment the listener first walks into the space, it is not clear that a sound is there. But as you begin to focus, a shift of scale happens. At first you hear what could almost be a room sound, which then suddenly becomes huge. As you enter into it, you move into another perception of space because of the change of scale. (Neuhaus, 1993, para. 6)

Neuhaus relates sound experiences to visual experience through our concept of scale. When focusing on a painting for example, the scale of our vision changes to examine the fine details of the work. Neuhaus explores our aural sense of scale by making the sounds in his installations almost real, as if the sounds belonged in the space. When people discover the sound after entering the space, their sense of scale for sound changes drastically in a shift of focus and perception. By introducing an area of different aural scale within a space, Neuhaus creates a sense of place with sound.⁵⁸

Times Square is an example of one of Neuhaus’ installations that provides this shift in perception and an aural sense of place. Neuhaus’ Times Square sound installation is located in a triangle shaped “island” where Broadway and 7th Ave. join together in New York City. The island is mainly a steel grate that covers a cavity below which holds city infrastructure, it is part of a common walkway and is passed over by thousands of people a day. The installation was originally set up in the 1970’s, but was turned off when Neuhaus left the country to live in Europe. In 2002, Neuhaus revived the Times Square installation.⁵⁹ What inspired Neuhaus to create a sound installation in Times square was the scale of sensory experience identified with a public urban space. Neuhaus describes Times Square as “the epitome of a public place both in fact and in image” (Neuhaus interview, 1982)

The sound in Neuhaus’ design is deceptively subtle, it is a continuous sound that is played inside of the cavity and as been described as the after ring of a large bell. “The piece isn’t meant to startle, it’s meant for people who are ready to discover. In fact, I never do a work where everybody stops and notices it in a public place. I want at least 50% of the people to walk through it without noticing it.” (Neuhaus interview, 2002) Neuhaus arrived at the sound through a lengthy process of experimenting with many sound possibilities within the cavity under the steel grate, and the chaotic sounds of the city in Times Square. The sound he uses is intuitive from his experience with the space and also a result of his experimentations. Neuhaus explains that he does this for his permanent installations; without being able to simply take a photograph of the acoustic properties of a space, he learns about the space by putting sounds in it.⁶⁰ For the Times Square piece Neuhaus was able to introduce sounds within it the cavity below that are a result of the cavity’s acoustic properties; the sound he introduced resonates within the cavity and the result is that the sound appears to have a material quality, passing through the grate equally as if it were a column of sound.⁶¹ Amongst the hectic atmosphere of this city, more likely to cause a sensory overload, Neuhaus’ Times Square piece shows how sound can define a space and create a sense of place. He shows how sound experience can form connections to a space in even the most unlikely situations.

Another phenomenon that Neuhaus explores in his place and monment works are the afterimages of sound. While discussing one of his projects at the Kunsthalle Basel, a contemporary art institute in Germany, he explains: “It was a strange piece to build because I was building a sound for its afterimage. The sound I was building is not the thing I was building; I was building the thing that happens when the sound disappears.” (Neuhaus, 1993, para. 32) Neuhaus explains the afterimage of sounds in his place pieces as well, he notes how some of the sounds in these pieces can be heard later in everyday experiences. He explains that because he tries to create sounds that lie in the realm of those sounds that are possible or realistic within their place, outside sounds can later trigger a memory of the place piece, and bring his piece outside its original context. These are a different kind of afterimage, more closely linked to memory.⁶²

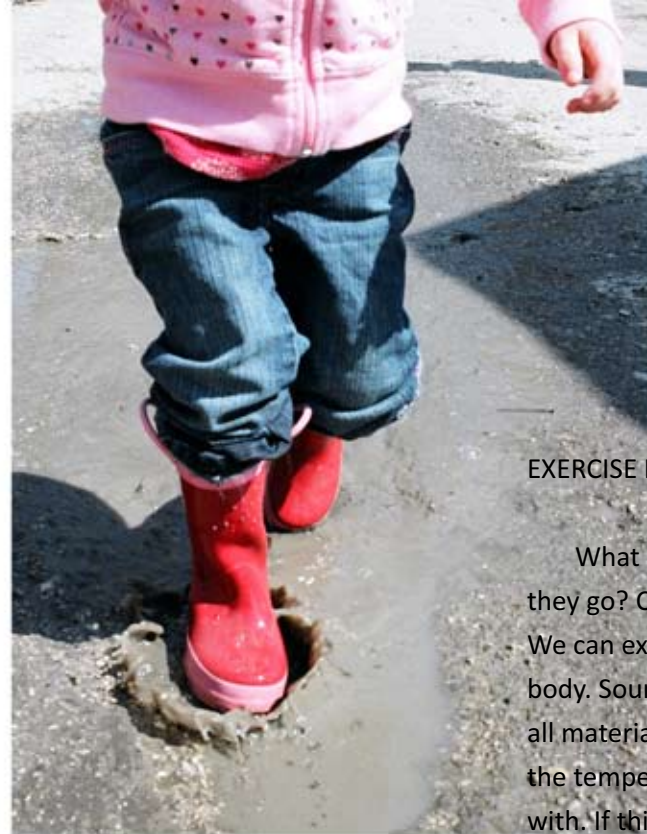
58 Neuhaus, Max. “Notes on Place and Moment” *Max Neuhaus* (1993). Online. Available: <http://www.max-neuhaus.info/soundworks/vectors/place/notes/> June, 2008. Para. 1-36.

59 *Max Neuhaus – Times Square*. 2008. June 2008. <<http://www.max-neuhaus.info/audio-video/>>

60 *Max Neuhaus – Times Square*. 2002. June 2008. <<http://www.max-neuhaus.info/audio-video/>>

61 *Max Neuhaus interviewed in Times Square and his studio demonstrating an early digital sound synthesis system*, 1982. June 2008. <<http://www.max-neuhaus.info/audio-video/>>

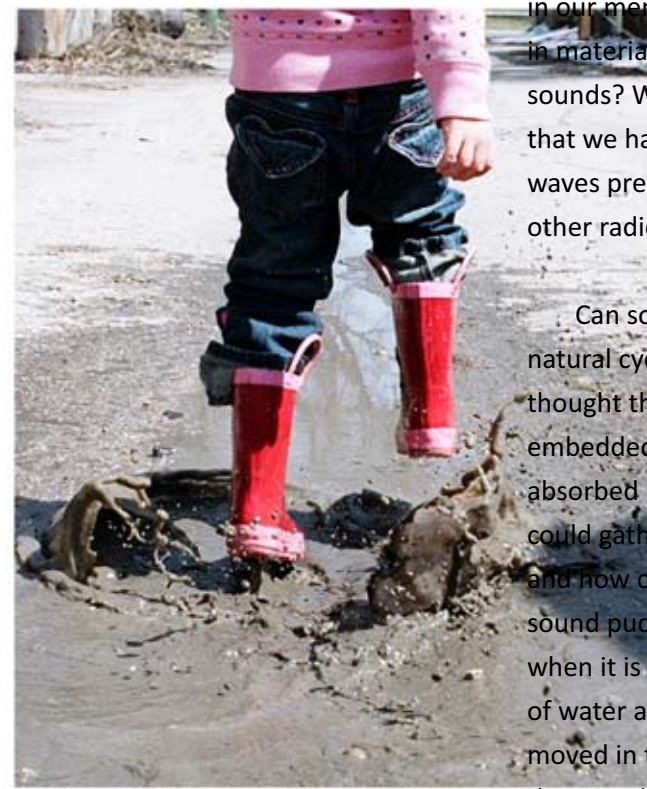
62 Neuhaus, Max. “Notes on Place and Moment” *Max Neuhaus* (1993). Online. Available: <http://www.max-neuhaus.info/soundworks/vectors/place/notes/> June, 2008. Para. 32-34.



EXERCISE IN PERCEPTION OF SOUND

What if every sound ever made does still exist? Where would they go? Can sounds truly embed into, or be absorbed by materials? We can experience this when we feel a sound resonating through our body. Sounds can penetrate into us, so why wouldn't this be true for all materials? It has been found that sounds are capable of changing the temperature of our body, especially in the local areas they interact with. If this physical change is true for us, we could potentially see it in other materials. Just as we are able to reveal the sounds embedded in our memory, there must be a way to release the sounds embedded in materials. What would it be like to experience a release of these sounds? What kinds of sounds could we reveal? There may be sounds that we have been unable to hear, the sounds may be from energy waves present in data transmissions by cell phones, communication, and other radio waves.

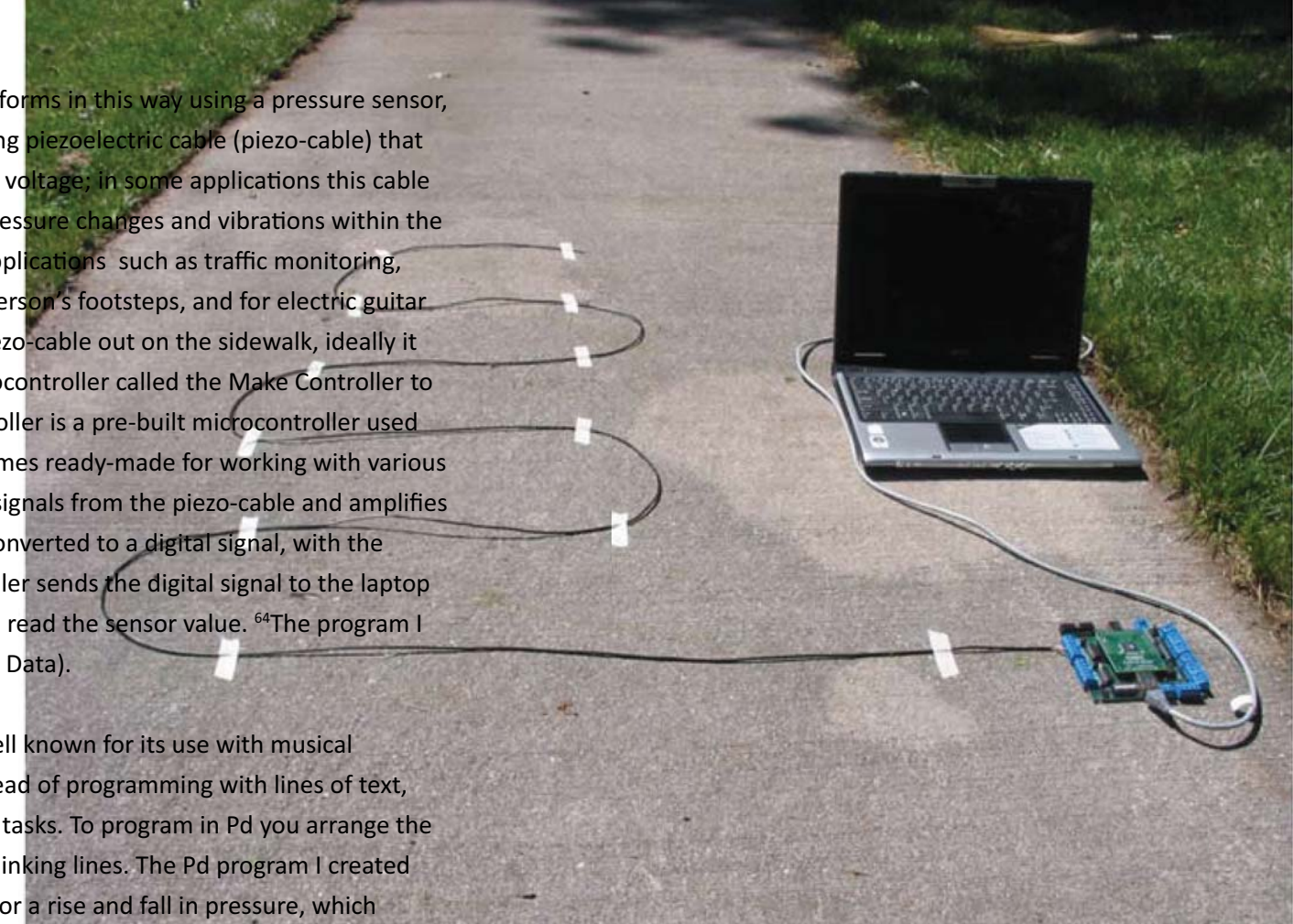
Can sounds gather or group, and disperse? Do sounds have a natural cycle like the water cycle? When comparing sound to water, I thought that maybe I could make an installation that released sounds embedded in the landscape. The idea was that sounds that have been absorbed by surfaces and have seeped into the cracks of the landscape could gather to form a puddle. What would a sound puddle sound like; and how could we interact with it? Could a child go out and play in the sound puddles? Would a sound puddle react like a puddle of water when it is disturbed? I took pictures of my daughter playing in a puddle of water and examined the different ways the water splashed as she moved in the puddle. These images were used to help me imagine how the sounds in a sound puddle would react. From light steps and ripples to big jumps and bursts of water the sounds I imagined would react in the same way. The sounds released would depend on the amount of pressure the person puts on the ground. As a child jumping through a puddle would get a splash, the sounds would burst or splash out when someone jumps in. When someone steps in or walks through the puddle lightly, the sound will only react slightly.



I was able to make a sound puddle installation that performs in this way using a pressure sensor, a microcontroller, and a laptop. The pressure sensor is a long piezoelectric cable (piezo-cable) that responds to changes in pressure by generating a very small voltage; in some applications this cable is embedded in concrete and is still able to pick up small pressure changes and vibrations within the concrete. The wire is very sensitive and is used for many applications such as traffic monitoring, security systems that can detect the small vibrations of a person's footsteps, and for electric guitar pick-up's.⁶³ For this exercise I was able to simply lay the piezo-cable out on the sidewalk, ideally it would be embedded into a concrete surface. I used a microcontroller called the Make Controller to interpret the signals from the piezo-cable. The Make Controller is a pre-built microcontroller used by many artists working with electronics installations; it comes ready-made for working with various sensors and motors. The Make Controller reads in voltage signals from the piezo-cable and amplifies them. The amplified voltage from the piezo-cable is then converted to a digital signal, with the signal strength shown on a scale from 0 to 256. The controller sends the digital signal to the laptop computer over a network connection where a program can read the sensor value.⁶⁴ The program I used to play the sounds that are revealed is called Pd (Pure Data).

Pure Data is a graphic programming software that is well known for its use with musical instruments, it is called graphic programming because instead of programming with lines of text, you program with graphic objects that can perform certain tasks. To program in Pd you arrange the objects in the workspace and connect them together with linking lines. The Pd program I created reads in the pressure sensed by the piezo-cable and waits for a rise and fall in pressure, which represents somebody stepping in the sound puddle. When it sees that somebody has stepped in the sound puddle, it uses the sensor values to see how hard the puddle was stepped in and determines what sounds to play. Light steps in the puddle will make a small amount of sound play, hard stepping in the puddle will make several sounds play at once with some sounds lingering on, and a jump into the sound puddle will make even more sounds play at once and linger on for even longer.⁶⁵

The sounds that are released by the sound puddle were chosen because they are sounds that we can't hear or see as they are transmitted through the landscape. The sounds come from the soundscape of transmission that we are immersed in. With the changes in technology, the soundscape of transmission has grown dramatically. We are interacting with this soundscape of transmission all of the time, we just can't hear or see the interaction. What if this sound puddle could be used as a tool to train the senses like Moholy-Nagy's *Light-Space-Modulator*. There are many sounds that lie within the soundscape of transmission; they are busy signals, beeps, and computer generated tones for communication. As people explore the sound puddle, they will be able to experience our interaction with these sounds of transmission that we are immersed in every day without realizing it. Just as clay has been found to release ultraviolet light when put under pressure, I imagined the surfaces of the landscape releasing embedded sounds as we interact with them. I was able to explore the sound puddle with my daughter; a video of our interaction with the sound puddle has been included in the disk included with this document. I was also able to have some people try out the sound puddle; their reactions were positive and the kids who tried it liked jumping in it. In the end I decided not to get any in-depth responses to the sound puddle because I think that any shift in perception should be from a personal reflection on the experience. Like with Neuhaus' work, the change in perception should be a personal discovery, that is, if the person discovers it at all.

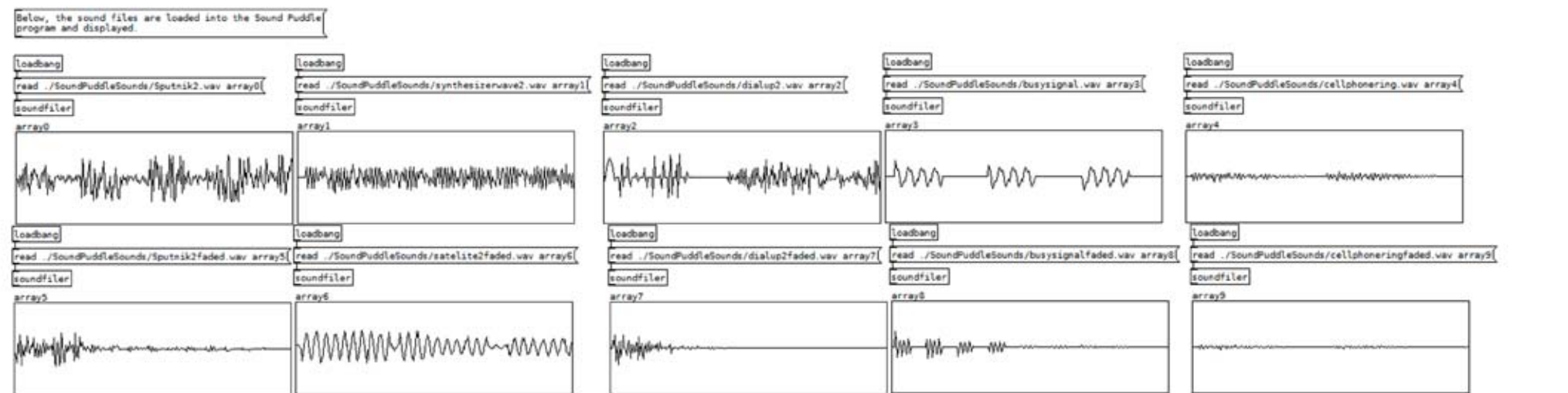
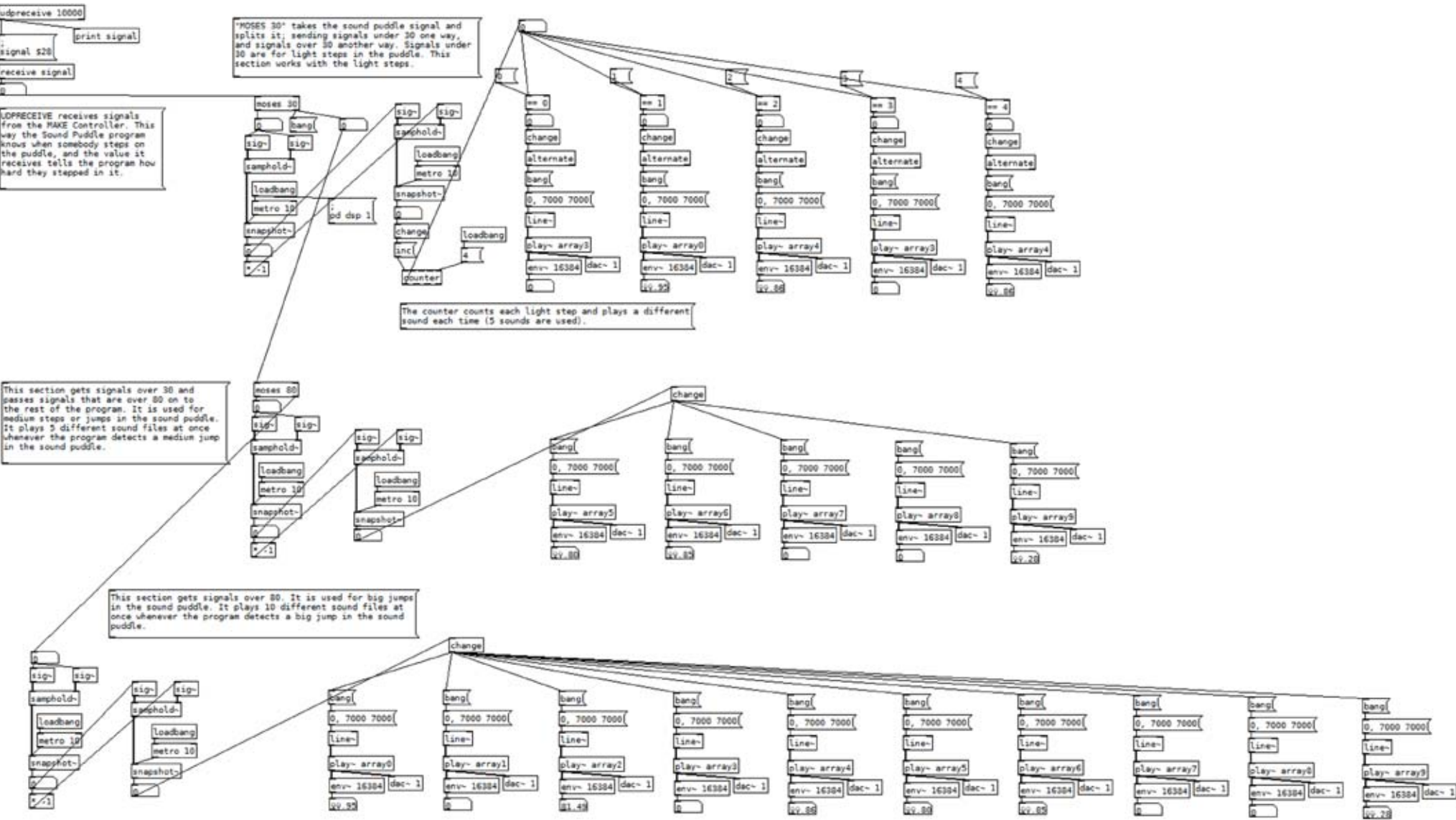


50 Piezocable application notes: Measurement Specialties. *Piezo Film Sensors Technical Manual*. (2006) Online. Available: <http://www.meas-spec.com/myMeas/download/pdf/english/piezo/techman.pdf> Feb. 2008.

51 All information relating to the Make Controller is from: Making Things. *Make Controller Kit*. (1998-2008) Online. Available: <http://www.makingthings.com/products/KIT-MAKE-CTRL> Feb. 2008.

52 All information relating to Pure Data is from: IOhannes m zmoelnig. *Pure Data*. (2008) Online. Available: <http://puredata.org/> Feb. 2008. Pure Data program was originally developed by Miller Puckette and Company at IRCAM, a centre for musical research in Paris, France.

Pd program for *Sound Puddle*



Video stills from *Sound Puddle* video

What if every sound ever made still exists?

what if materials can absorb sound like memories?

What if these memories could be released?

Clay releases ultraviolet light when it is hit, on a cool evening brick walls release heat they absorbed during the day; just like this energy is absorbed and released, **could this be true for sound and memory?**

With the concept of afterimages, could there be after-sounds that are embedded in the landscape? With our attention typically on sounds at the forefront with a logical representation and purpose, can we be trained to change our focus to the peripheral sounds around us? What impact will this have on our sense of connection to a space?

Are we truly separate from the space and objects around us, or do we have a connection with everything?

If everything is made from the same basic elements, **why do we believe we are so different from the rest of the world?**

Is there a connection that we have lost?

Can our senses be trained to perceive the connections we have?

What could we learn from what materials have witnessed?

What would a place like downtown Winnipeg have to say?

What has been absorbed there?

Installations

What would downtown Winnipeg say?

After many events, including corruption in the building of the Manitoba Legislature in 1914, the relations between the government and employers with the labour class of Winnipeg had suffered greatly. And with the rising cost of living and unfair treatment by employers the setting for the events of the spring of 1919 in Winnipeg was set.

In the spring of 1919, the Winnipeg Building Trades Council (who represented the Building Trades Union) took on the responsibility of dealing with the Builders Exchange (representing the employers) regarding working agreements. The Building Trades Council soon demanded a 20 cent per hour pay raise for all employees. “The Building Trades Council knew their demands were high, but believed them justified under the circumstances. They claimed that the cost of living had increased at least 75 per cent since 1913, while their wages had only gone up 18 per cent in the same period.” (Bercuson, 110) The Builders Exchange would only offer 10 cents, claiming that the increase of 20 cents would put them at risk of bankruptcy; the Building Trades Union officially declared a strike on **May 1, 1919**.⁶⁶

The Metal Trades Union in Winnipeg declared a strike the next day, **May 2** marking their third strike in three years. Just prior to the strike, the Union had sent out schedules to all contract shops all asking for higher wages, equal pay for positions in each shop, union recognition, and an eight hour day. While some small shops agreed to the demands, the three major shops in Winnipeg refused to recognize the Union and provided no response.⁶⁷

Other unions in the city were facing the same problems with their employers; all groups were asking for a living wage to reflect the increased cost of living. At this time, union leaders became aware that union membership in the city had reached a point where a general strike among union members would effectively shut the city down. Union leaders gathered at the Labour Temple on James St. on **May 6**, and decided to call a vote for a general strike. On **May 13** they revealed that the members supported the strike 8667 to 645 and a general strike was called to begin on **May 15** at 11:00 am in 1919.⁶⁸

May 15, 11:00 am Strike begins

People walk off, walk down to Portage & Main. Streetcars made their way to their barns.⁶⁹

The police and typographers were the only unions that remained at work during the beginning of the strike. Operators, telegraphers, and postal service workers went on strike cutting off communication services. Commercial establishments such as restaurants and movie theaters closed.⁷⁰ Garbage collection, elevators, and all production ceased: “Inside the many factories, machine shops, slaughter houses, street car barns, garages, all was silence. No one ran the lathes or the boring mills, no one tended sewing machines or band saws.” (Bercuson, 117)

Many war veterans were returning to Winnipeg in the midst of the strike. “Most of the veterans were former workers and were themselves affected by the same conditions which had brought on the strike. They were ready to lend their support...” (Bercuson, 143) And on **May 15** the veterans held their own vote and voted to support the striking workers.⁷¹ While the majority of the veterans supported the strike there were others that did not, and both sides formed their own group. The pro-strike veterans vowed to march every day until the provincial government passed legislation to make collective bargaining compulsory; they marched to confront Premier Norris and Mayor Gray at the Legislative Building and City Hall. The anti-strike veterans also marched to the same locations to show their support, often nearly clashing with pro-strike veterans.

⁶⁶ Bercuson, David Jay. *Confrontation at Winnipeg: Labour, Industrial Relations, and the General Strike*. Montreal: McGill-Queen’s University Press, 1990. 109-110.

⁶⁷ Ibid, p.110-111.

⁶⁸ Ibid, p.111-114.

⁶⁹ Ibid, p.115-116.

⁷⁰ Ibid, p.116.

⁷¹ Berkowski, Gerry and Reilly, Nolan. *1919, The Winnipeg General Strike: A Driving and Walking Tour*. Manitoba Culture, Heritage and Recreation, 1986. p. 9.

⁷² Bercuson, David Jay. *Confrontation at Winnipeg: Labour, Industrial Relations, and the General Strike*. Montreal: McGill-Queen’s University Press, 1990. p.142-148.

Victoria Park became the place to be for striking labourers at the beginning and throughout the strike. It was a place where they could keep informed of developments in the strike by going to meetings held almost daily. Because of their large numbers, the park became an ideal location for bringing the strikers together. Victoria Park’s location was also key, it was downtown close to City Hall and the Labour Temple. It was a central spot to gather, and a good location to start or end marches and demonstrations. “This desire to keep up with the latest developments and to meet and talk with their friends proved a boon to Ivens’ Labor Church which moved outside, to Victoria Park, to minister to its suddenly swollen following. On Sunday afternoons throughout the strike Ivens led services, mixing labour-orientated hymns and sermons with speeches from strike leaders or supporters... Crowds sometimes numbered up to ten thousand and the proceeds of collections were used to further the strikers’ cause.” (Bercuson, 141) Reverend William Ivens, a member of the Central Strike Committee, was a British immigrant to Canada who practiced as a Methodist minister in Winnipeg until he was dismissed from the Church because he had issues with their authority. He then founded the Labour Church that was non-denominational, where followers were asked to support “an independent and creedless Church based on the Fatherhood of God and the Brotherhood of Man. Its aim shall be the establishment of justice and righteousness among men of all nations.” (Bumsted, p.100) The Church was run out of the Dominion Theatre which was located on Louis St. which used to run just to the east of Main St. between Market and Rupert Ave., but during the strike with a great increase in followers Victoria Park became the Labour Church.⁷³ Victoria Park gatherings became important instruments in the strike because they brought the workers together in one place to meet and socialize helped to build the feelings of unity and strength that gave them the power to believe that they could succeed in their fight.

On **May 16** the day after the General Strike began many influential citizens in Winnipeg decided to form a group to fight the strike, this group became known as The Committee of 1000. The critics in this group were from the wealthy south-side suburb of Crescentwood and many served as councilors in City Hall.⁷⁴ Throughout the strike the Committee of 1000 blamed minority groups with leftist ties for causing the strike and with this the Committee not only added to the sense of panic in the city, they hindered the settlement of the strike by encouraging the managers of the city’s three main metal shops to not enter into negotiations with the unions.⁷⁵ The speculation that the strike was part of a leftist revolution was actually a wrong conclusion. “There were probably thousands of Russians, Poles, and Ukrainians participating in the strike but they played almost no role in its leadership or direction. The Winnipeg labour movement, like that of western Canada generally, was guided almost exclusively by Britons or Canadians.” (Bercuson,125) The strike was an effort to gain justice, equality, to be aloud the right to collective bargaining and a living wage, not a leftist revolution.

On **May 17** the Strike Committee and City Council meet and talk about bringing back essential services to the citizens. The Strike Committee agreed to issue cards to essential service workers to allow items such as milk, bread and ice to be delivered while ensuring the workers would not be viewed as anti-strike.⁷⁶ Some critics today, like author David Bercuson believed this was a major mistake on the part of the Strike Committee and if they had held back on essential services that the strike would have ended quickly.

In the next few days the typographers joined the strike and forced the closure of the city’s newspapers; at the same time they agreed to produce the Strike Committee’s paper: *Western Labour News* which was used to publish the views of those siding with the labourers. When one of the City’s papers, *Free Press* returned it was clearly against the strike, accusing strike leaders of being radical leftists with ties to the Soviets.⁷⁷

Throughout this period, the federal government was pressured to resolve the issues at hand to end the strike. Prime Minister Borden wanted to work towards ending the strike, but the main issues of the strike: collective bargaining, wages, and working conditions fell under provincial legislation. Premier Norris saw that if he were to make collective bargaining mandatory he was at risk of losing support; his stance was that the issue was in the hands of the federal government. With opportunities to negotiate with the strikers, he claimed that he would not negotiate until the strike was called off. The strikers’ argument was the opposite to Norris’ where they would not end the strike until their issues were resolved. By **May 25** all three levels of government called out to sympathetic strikers and threatened to have them fired unless they came back to work. Many of the sympathetic strikers were given deadlines to come back to work (postal employees, telephone operators). After a mass meeting at Victoria Park, it was agreed that the sympathetic strikers would refuse any ultimatums and not return to work.⁷⁸

⁷³ Information on Ivens and the Labour Church in this paragraph from: Bumsted, J.M. *Winnipeg General Strike of 1919: An Illustrated History*. Watson Dwyer Publishing Ltd, 1994. p.98 and 100.

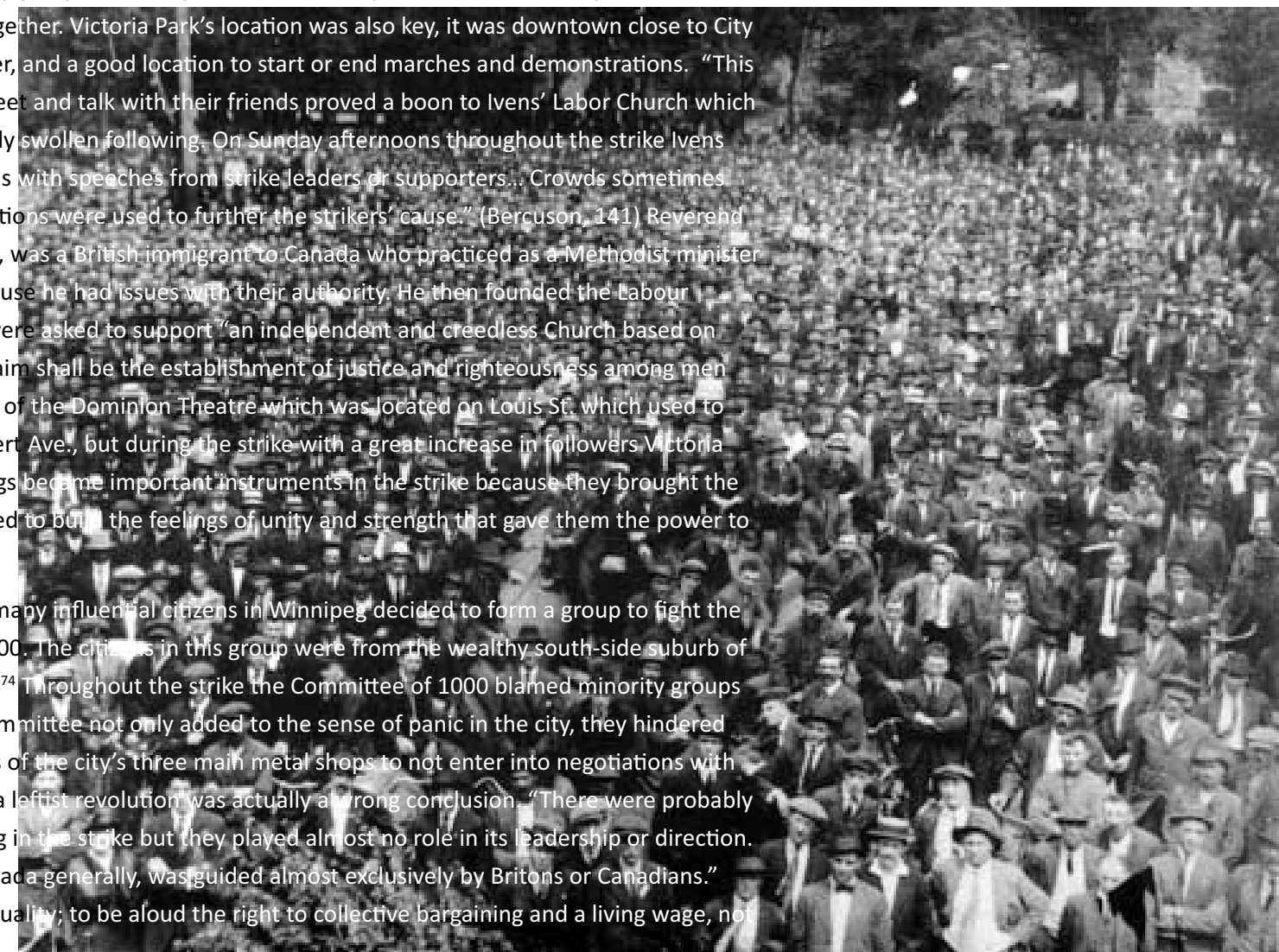
⁷⁴ Berkowski, Gerry and Reilly, Nolan. *1919, The Winnipeg General Strike: A Driving and Walking Tour*. Manitoba Culture, Heritage and Recreation, 1986. p. 9 and 26-27.

⁷⁵ Bercuson, David Jay. *Confrontation at Winnipeg: Labour, Industrial Relations, and the General Strike*. Montreal: McGill-Queen’s University Press, 1990. 124.

⁷⁶ Berkowski, Gerry and Reilly, Nolan. *1919, The Winnipeg General Strike: A Driving and Walking Tour*. Manitoba Culture, Heritage and Recreation, 1986. p. 9.

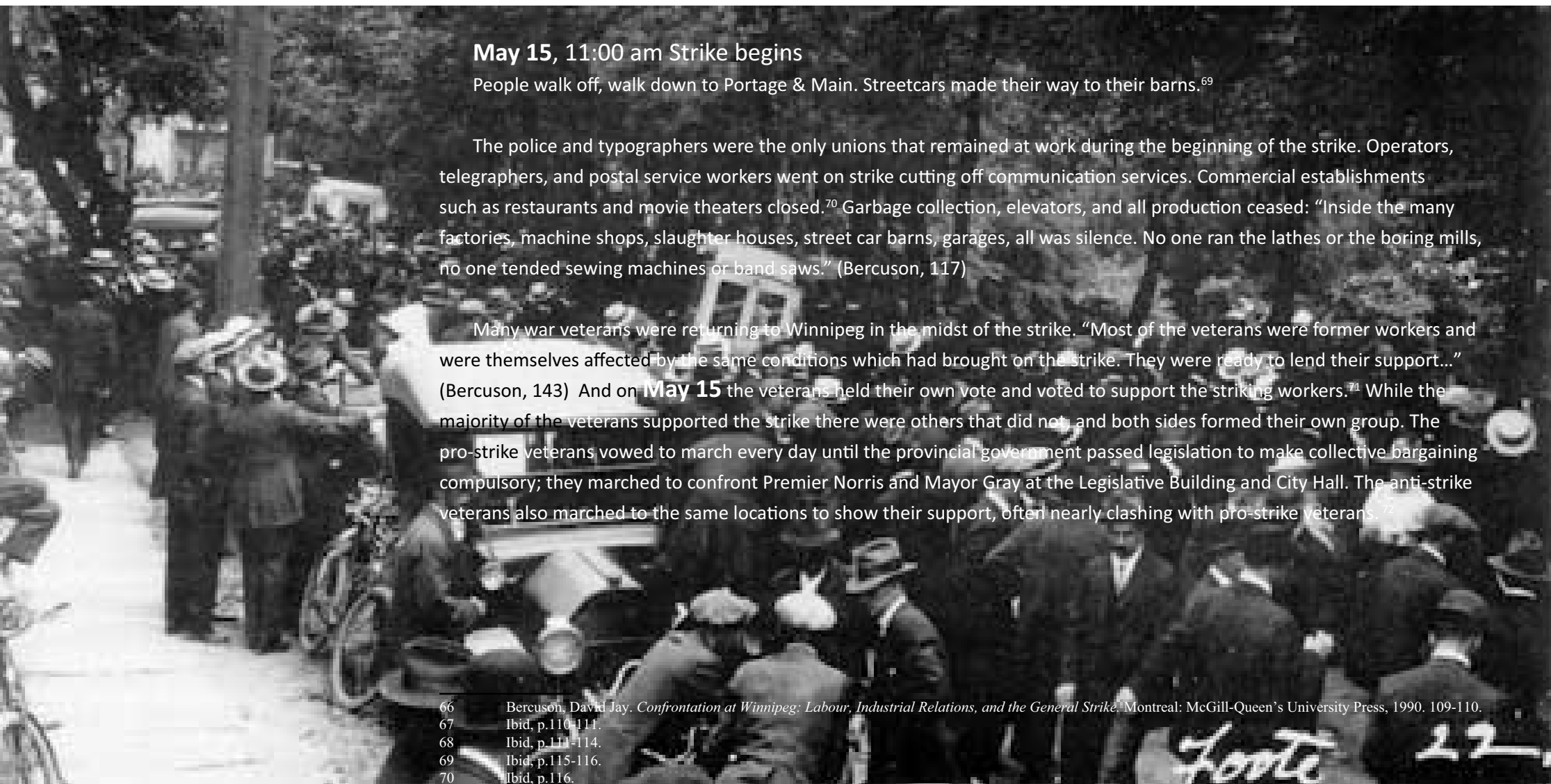
⁷⁷ Bercuson, David Jay. *Confrontation at Winnipeg: Labour, Industrial Relations, and the General Strike*. Montreal: McGill-Queen’s University Press, 1990. 118-119.

⁷⁸ Information in this paragraph about the strike is from: Bercuson, David Jay. *Confrontation at Winnipeg: Labour, Industrial Relations, and the General Strike*. Montreal: McGill-Queen’s University Press, 1990. 130-140. The information about Victoria Park in this paragraph is from: Berkowski, Gerry and Reilly, Nolan. *1919, The Winnipeg General Strike: A Driving and Walking Tour*. Manitoba Culture, Heritage and Recreation, 1986. p. 8.



Gathering at Victoria Park, 1919. (image from: Lewis Foote Collection. Provincial Archives of Manitoba. Winnipeg, Manitoba)

Gathering at Victoria Park, 1919. (image from: Lewis Foote Collection. Provincial Archives of Manitoba. Winnipeg, Manitoba)



On **May 26**, the *Western Labour News* urged those on strike to remain calm and avoid confrontation: “No matter how great the provocation, do not quarrel. Do not say an angry word. Walk away from the fellow who tries to draw you. Take everything to the Central Strike Committee. If you are hungry go to them. We will share our last crust together. If one starves we will all starve. We will fight on, and on, and on. We will never surrender.” (Bercuson,119)

News of the strike in Winnipeg had its influence on organized labour in Toronto and cities in western Canada (Calgary, Edmonton, and Vancouver), and by **June 3** many sympathetic strikes were called in support of what was going on in Winnipeg.⁷⁹

On **June 6** Mayor Gray, when addressing the strikers in Victoria Park, proclaimed that there could not be any more public marches for fear of potential rioting on the streets. This put an end to the march for the time being most likely because of the Strike Committee’s original desire to hold a peaceful strike.⁸⁰

As the Strike went on, the civic government began to question the loyalty of Winnipeg’s police. After all, the police had originally voted to join the strike, but were urged to stay on duty by the Strike Committee and the government. On **June 9** Mayor Grey demanded that those on the police force claim their loyalty to the government or lose their job. After the majority of officers refused to sign the ultimatum (proclaiming that they will never affiliate themselves with any union) Mayor Grey released the officers of their duties.⁸¹ In order to maintain a loyal police force Mayor Grey began to create a new force of about 1800 Special Officers mounted and on foot, comprised mostly of loyalist veterans. The tension in the city had increased; now the strikers who were most likely to riot knew the officers there to keep the peace were officially not on their side. The Special Officers weren’t trained in policing and their incompetence showed as they proved to be unorganized and quick to use aggressive tactics which only caused more problems.⁸²

Representatives of the six local railway brotherhoods met with Gray and Norris and offered to act as mediators to settle the strike. Both the strikers and the employers agreed, and the groups later released a report claiming that the trades unions should have a right to collective bargaining. The employers’ response to this was that they would not negotiate with the unions until the strike was called off. At the same time, fear was mounting that this strike would have a big impact on the country if the Strike Committee was successful in convincing the members of the running trades (railway services) to join the strike. By Thursday, **June 12** many of the workers from the Canadian National Railway (CNR) left their positions in sympathetic strike. The federal Minister of Labour, Senator Gideon Robertson was in Winnipeg attempting to solve the issues of the strike; seeing that a strike of railway services would be a national issue he concentrated on solving their disputes. By **June 14**, the employers agreed to collective bargaining with the traditional craft unions, but not the larger collective unions like the Metal Trades Union. This compromise was presented to the strikers by Robertson on take it or leave it condition; the strikers chose to leave it, and at that point Robertson saw that the *One Big Union* was behind the strikers’ decisions. On **June 17** he made orders to arrest the most radical leaders of the strike. Plans to arrest the strike leaders had begun as early as the end of May; as soon as Robertson gave the word, the leaders were arrested at their homes and sent to Stony Mountain Federal Penitentiary north of the city. Eventually six of the most well known leaders were released on bail under the condition that they could no longer participate in the strike.⁸³



Trying to tip a streetcar - June 21, 1919. (image from: Lewis Foote Collection. Provincial Archives of Manitoba. Winnipeg, Manitoba)

On **June 18** the streetcars began operating, which caused an uproar from some of the pro-strike veterans who were eager to respond with a show of violence. These pro-strike veterans were held at bay while the remaining strike leaders attempted to salvage some kind of victory by getting the strikers to agree to the employers’ proposal for collective bargaining. On **June 20**, the pro-strike veterans went against earlier advice and gathered at City Hall, demanding that the street cars be put back in their barns within 48 hours⁸⁴ and stating that they intended to march the next day to protest the arrests of strike leaders.⁸⁵ Mayor Gray once again released a proclamation for no public demonstrations, but the veterans decided to march anyway.

At 2:30 on **June 21** the march was scheduled to start. The crowd (including men, women, and children) outside City Hall on Main St. had grown to a size unmanageable to the special police force and the Royal Mounted Police were called in. The crowd grew angry and attacked a streetcar as it was driving past City Hall; the driver was an anti-strike volunteer. The crowd broke the glass of the streetcar, and set it on fire. The Mounties soon arrived on horseback, and rode up and down Main St. in attempt to break up the crowd; these attempts were met with a backlash of the pro-strike veterans who began throwing bricks and stones at the officers, some of whom were loyal veterans. By the third attempt to break up the crowd, the officers charged through the crowd with cut off wagon neck-yokes and revolvers. Shots were fired and one man was killed (another man died later of his injuries). As the crowd dispersed, approximately 200 people tried to leave the scene by moving through an alley-way later referred to as ‘Hell’s Alley.’ This alley was once located between Market and James Ave. just off Main St.; today the Centennial Concert Hall stands in its place. These strike supporters were met by the ‘Special Officers’ who trapped the crowd in the alley and attacked them from both sides with their guns and cut off wagon neck -yokes. The strike supporters were unarmed and could only fight back physically or with stones and bottles they found on the ground. Twenty-seven people were wounded in ‘Hells Alley’ that day. In the end, the conflict lasted only about one hour, but left thirty-four people in total injured and one dead. After successfully dispersing the crowd the officers remained on the street throughout the rest of the afternoon, and through most of the night. Because of the events that took place this day became known as Bloody Saturday, the most violent day of the strike.⁸⁶

The next day **June 22**, a mass meeting was held at Victoria Park where the strikers gathered to pray for the man who was fatally shot and for all who were wounded. The feeling that the strike was over was in the air and the striking workers slowly in the days to come began returning to work to a less than significant wage increase.⁸⁷

J.S. Woodsworth was a former Methodist Missionary who came to Winnipeg during the Strike and performed sermons to the Ivens’ Labour Church in Victoria Park. When Ivens was arrested with the other prominent Strike Committee Members, Woodsworth took over Ivens’ position as the editor of the *Western Labour News*. By **June 23**, he was arrested for holding this position as well.⁸⁸

On **June 25**, the six members of the Strike Committee out on bail, met with Premier T.C. Norris amidst rumors of another protest march in the city. Norris agreed to have a committee put together to examine local labour conditions and the causes of the strike. The Strike Committee then decided to declare the official end to the strike. The strike officially ended at 11:00 am on **June 26**.⁸⁹

The General Strike played a great role in uniting the labour class of Winnipeg. At the end of the strike, the Strike Committee called on the people to continue the labour cause by voting for labour in elections of all levels of government. Their call was answered when they saw more representation at the civic level, and provincial level. “... in the 1920 Provincial Election, labour elected eleven members to the Legislature, four of them strike leaders, three of whom were still in the penitentiary.” (Berkowski & Reilly, 45) As well, in 1921 the labour class in Winnipeg elected J.S. Woodsworth as the MP to represent Winnipeg’s North Centre in the Ottawa. He retained this position in the House of Commons until his death in 1942.⁹⁰

Many people believe that the Winnipeg General Strike had an affect on labour groups across Canada, and thus marked what eventually lead to the Canadian Labour Movement of the 1940’s.

⁷⁹ Berkowski, Gerry and Reilly, Nolan. 1919.*The Winnipeg General Strike: A Driving and Walking Tour*. Manitoba Culture, Heritage and Recreation, 1986. p. 8. and
⁸⁰ Ibid, p. 40.
⁸¹ Berkowski, Gerry and Reilly, Nolan. 1919.*The Winnipeg General Strike: A Driving and Walking Tour*. Manitoba Culture, Heritage and Recreation, 1986. p. 8. and
⁸² Bercuson, David Jay. *Confrontation at Winnipeg: Labour, Industrial Relations, and the General Strike*. Montreal: McGill-Queen’s University Press, 1990. 167-169.
⁸³ Bercuson, David Jay. *Confrontation at Winnipeg: Labour, Industrial Relations, and the General Strike*. Montreal: McGill-Queen’s University Press, 1990. 150-155.
⁸⁴ Information on the strike in this paragraph is from: Bercuson, David Jay. *Confrontation at Winnipeg: Labour, Industrial Relations, and the General Strike*. Montreal: McGill-Queen’s University Press, 1990. 157-166.
⁸⁵ Bercuson, David Jay. *Confrontation at Winnipeg: Labour, Industrial Relations, and the General Strike*. Montreal: McGill-Queen’s University Press, 1990. 170.
⁸⁶ Berkowski, Gerry and Reilly, Nolan. 1919.*The Winnipeg General Strike: A Driving and Walking Tour*. Manitoba Culture, Heritage and Recreation, 1986. p. 46.
⁸⁷ Information on ‘Bloody Saturday’ in this paragraph is from: Berkowski, Gerry and Reilly, Nolan. 1919.*The Winnipeg General Strike: A Driving and Walking Tour*. Manitoba Culture, Heritage and Recreation, 1986. p. 46. and Bumsted, J.M. *The Winnipeg General Strike of 1919: An illustrated History*. Watson Dwyer Publishing Limited, 1994. p. 50-51, 57. and National Film Board of Canada. *On Strike: The Winnipeg General Strike*, 1919. Montreal: National Film Board of Canada Production, 1991. 19min, 46 sec.
⁸⁸ National Film Board of Canada. *On Strike: The Winnipeg General Strike*, 1919. Montreal: National Film Board of Canada Production, 1991. 19min, 46 sec.
⁸⁹ Bumsted, J.M. *The Winnipeg General Strike of 1919: An illustrated History*. Watson Dwyer Publishing Limited, 1994. p. 128.
⁹⁰ Berkowski, Gerry and Reilly, Nolan. 1919.*The Winnipeg General Strike: A Driving and Walking Tour*. Manitoba Culture, Heritage and Recreation, 1986. p. 9, 45. Bumsted, J.M. *The Winnipeg General Strike of 1919: An illustrated History*. Watson Dwyer Publishing Limited, 1994. p. 128.



- 1 FORMERLY MARKET SQUARE
- 2 LOCATION OF THE OLD CITY HALL BUILDING (CURRENT CITY HALL LOCATION)
- 3 LOCATION OF 'HELL'S ALLEY'
- 4 LOCATION OF THE OLD LABOUR TEMPLE
- 5 FORMERLY VICTORIA PARK
- 6 CORNER OF PORTAGE AVE. AND MAIN ST.
- 7 LOCATION OF THE OLD PROVINCIAL LEGISLATURE BUILDING
- PARADE AND MARCH ROUTES USED DURING THE STRIKE

Important Sites During The Winnipeg General Strike



- BUILDINGS PRESENT IN 1919
- BUILDINGS WITH CONSTRUCTION ACTIVITY (1910 TO 1919)
- CORD WOOD AND COAL YARD (1919)

Winnipeg 1919 - A View Of Buildings and Construction



- a** PORTAGE AVE AND MAIN ST
- b** FORMER VICTORIA PARK
- c** CITY HALL
- d** PANTAGES THEATRE
- e** ALLEY FIRE ESCAPE
- f** TRAIN BRIDGE
- g** 110 JAMES AVE.
- h** TIPPED COCA-COLA TRUCK
- i** WW1 MONUMENT

Strike Walk Intervention Sites



- Large, solid pink circle:** HIGH LEVEL OF AMBIENT SOUND (TRAFFIC)
- Medium, semi-transparent pink circle:** LOW LEVEL OF AMBIENT SOUND WITH PERIODS OF HIGH LEVELS
- Large, solid pink circle:** HIGH-MEDIUM LEVEL OF AMBIENT SOUND (TRAFFIC)
- Small, semi-transparent pink circle:** MEDIUM-LOW LEVELS OF AMBIENT SOUND
- Very small, semi-transparent pink circle:** LOW LEVELS OF AMBIENT SOUND

Ambient Sound Levels

Strike Walk

The Strike walk will begin May 15 every year to coincide with the beginning of the Winnipeg General Strike, all electrical equipment for the installations will be removed in late fall, but any other elements of the installations will remain in place all year. A pamphlet explaining the walk and the installations can be picked up at the Human Rights Museum (once this building has finished being constructed).

These installations were inspired by the history of the strike, the artists' concepts of perception, and the analysis of the sites themselves (including existing ambient sound levels at peak times during the day).

Portage Ave. and Main St.

When the general strike initially started on May 15, 1919 at 11:00 am, the intersection of Portage & Main was a place where people naturally gathered after leaving their work. It must have been strange for these people to gather and witness the day to day activity of the city come to a halt. Seeing the trolleys in the area leaving to be parked in their barns would have provided a silencing in the public space that would make the reality of the strike hit the people. While people are free to visit all of the installations of the strike walk in any order, this installation is marked as the first site to visit. This site will set the tone for all of the installations, explaining the common idea that all materials can absorb and release the sounds they have witnessed. A device inspired by the idea of a gramophone will be located on the southeast corner of Portage and Main at the Bank of Montreal (which was standing during the period of the general strike). The device will be capable of picking up the sounds that are embedded in the materials around it, and it will allow people to hear those sounds again, for the first time. A plaque will be installed close by that will read:

“This materiaphone has been placed here with funding by the Province of Manitoba, the City of Winnipeg, and through a project undertaken at the University of Manitoba. The materiaphone has made it possible to capture sounds embedded in the materials at this spot, and hear them as if they were new. This device has been tuned to pick up what is believed to be the sounds of dingling trolley gongs that have been absorbed by the materials in this area. From the research conducted on these sounds, a long period of silence was encountered that would correspond with the time of the Winnipeg general strike of 1919. It is believed that the sound revealed here is that of the last ding of one of the trolley gongs as the trolley was leaving to be parked at the beginning of the Winnipeg general strike on May 15, 1919.”

The materiaphone will be installed at the Bank of Montreal, mounted on the column at the northeast corner of the building. People will be able to read the plaque and hear the faint sound of the trolley bell by putting their ear close to the materiaphone. A speaker and associated electronics will be located in an enclosure mounted at the base of the column. It will appear as if the materiaphone is a true functioning device capable of retrieving sound memories of the past. The electrical enclosure will have an audio player with a speaker and a rechargeable battery. A cable will come out of the top of the enclosure and lead up to a long flat ribbon-like material which is fixed to the column. The band will travel up the column following the profile (going in and over caved details). The material will look as if it is picking up the sounds embedded in the material of the column; it will be translucent with flat strands of wiring embedded inside. It will be red in colour to reflect the energy picked up from within the material. One of the inspirations for this installation comes from the work of Pierre Huyghe. Many of his works question our reality by providing us with scenarios, or stories that could be true, or are re-creations of true events. Huyghe shows us that our world view is our own, and we are free to see the world in new and different ways. Hopefully, some of the people who interact with this installation will believe in the materiaphone on some level, and try to imagine all of the sounds that are embedded within our landscape.

Portage Ave. And Main St.

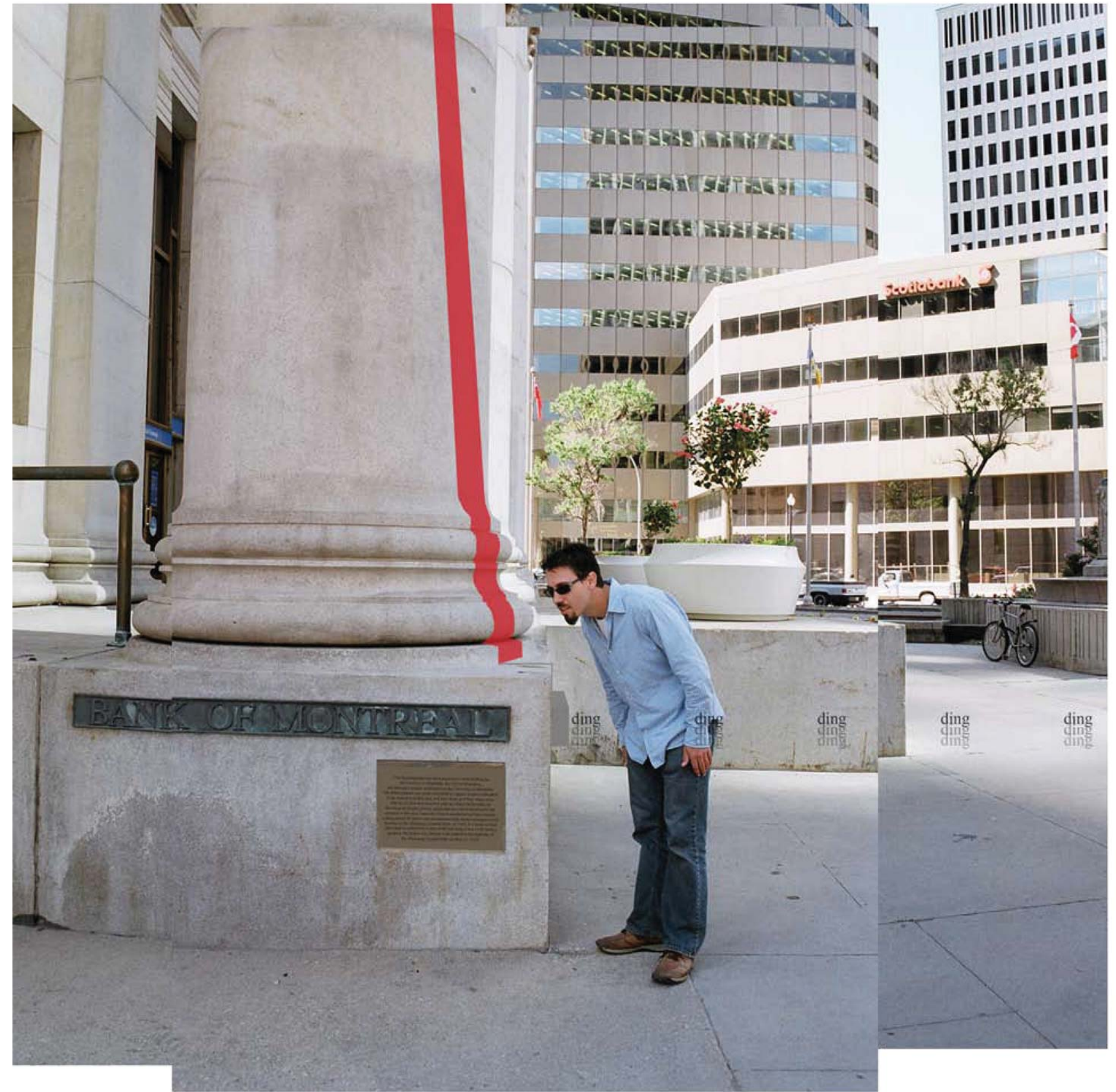


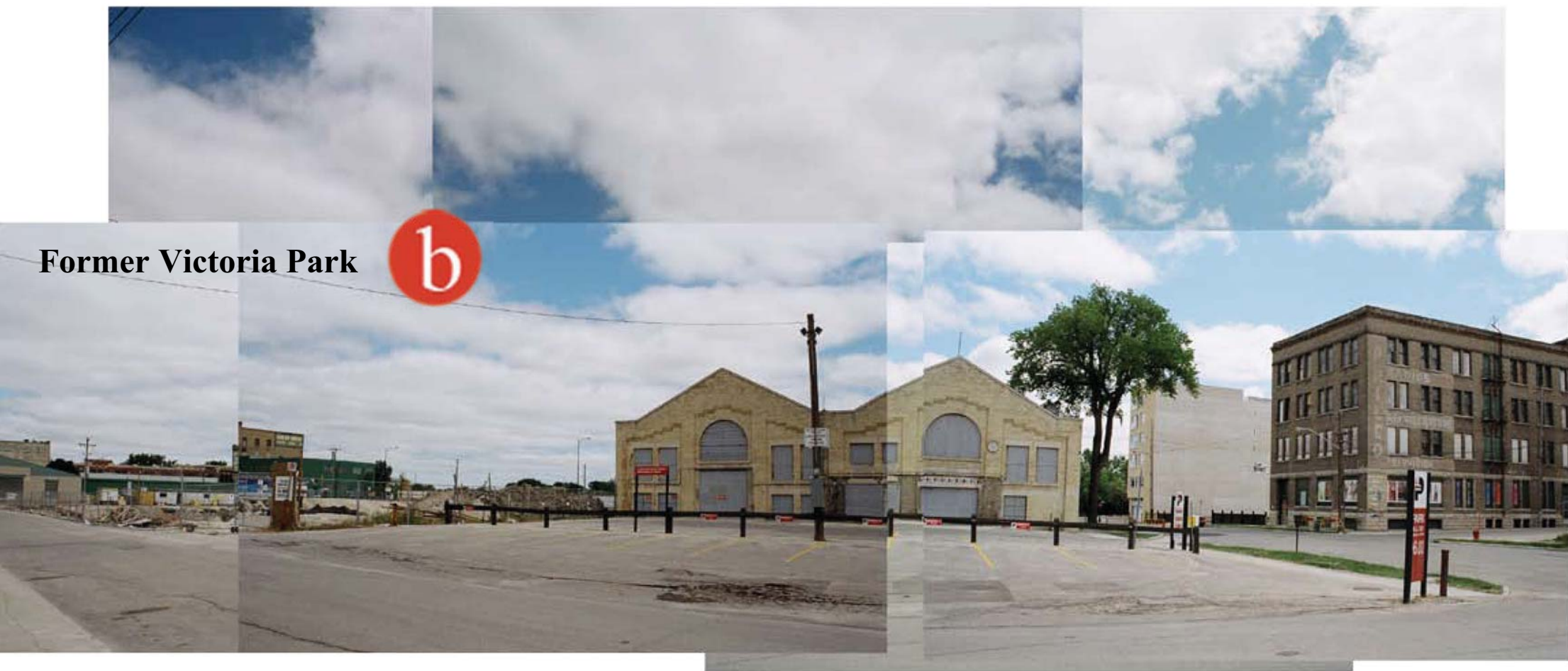
HIGH LEVEL OF AMBIENT
SOUND (TRAFFIC)



WISCONSIN

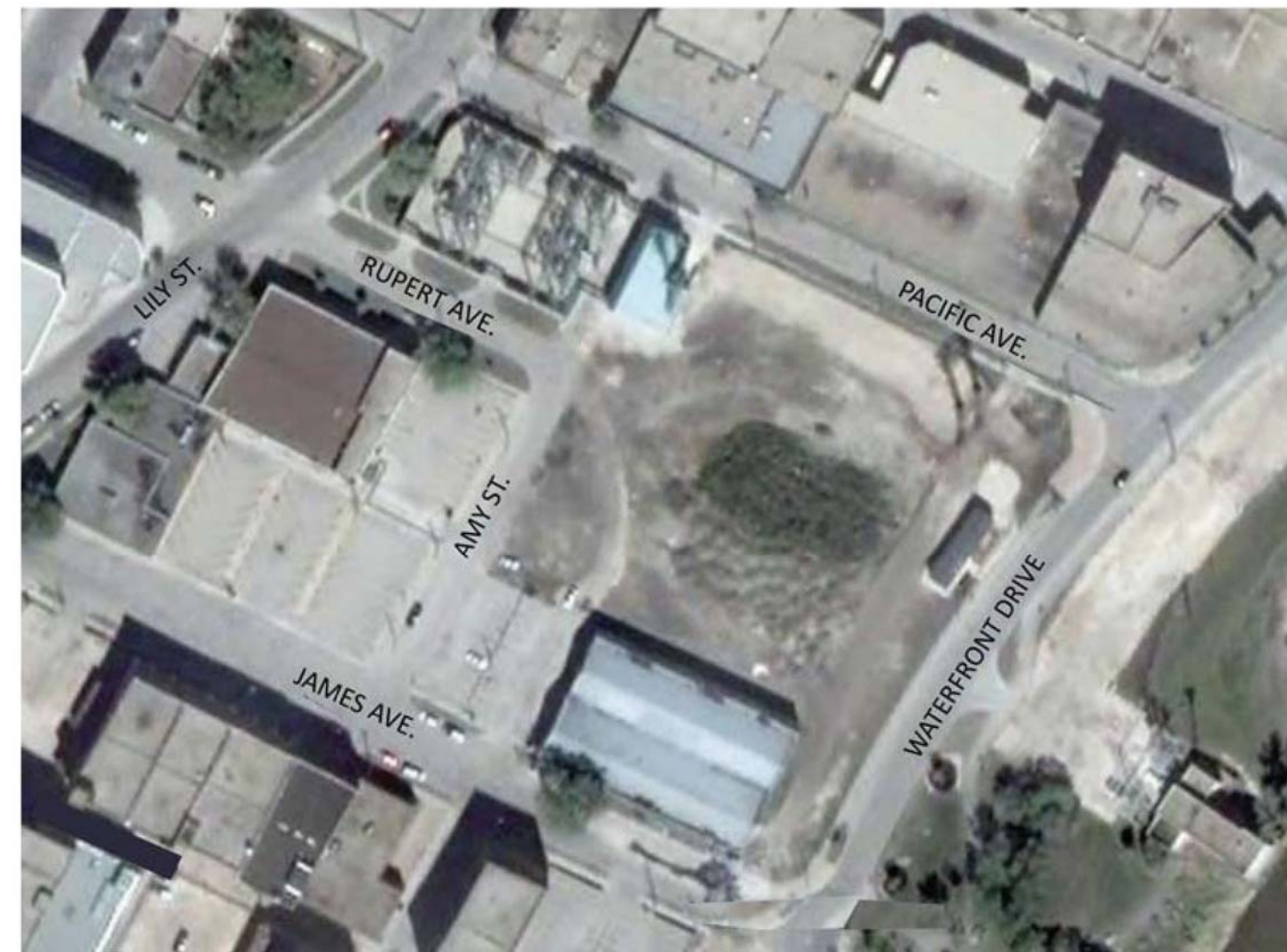
This Materiaphone has been placed here with funding by the Province of Manitoba, the City of Winnipeg, and through a project undertaken at the University of Manitoba. The Materiaphone has made it possible to capture sounds embedded in the materials at this spot, and here them as if they were new. This device has been tuned to pick up what is believed to be the sound of dinging trolley gongs that have been absorbed by the material in this area. From the research conducted on these sounds, a long period of silence was encountered that would correspond with the time of the Winnipeg General Strike of 1919. It is believed that the sound revealed here is that of the last ding of one of the trolley gongs as the trolley was leaving to be parked at the beginning of the Winnipeg General Strike on May 15, 1919.





Former Victoria Park

Victoria Park, named after Queen Victoria and established in 1900, was the gathering place for the laborers in the General Strike where they would hold meetings, make announcements, gather, and hold labour church sermons. This park was either the starting or ending point to many of the marches and demonstrations during the strike. After the strike the park was renamed Liberty Park, but soon after it was demolished and the space was used for a steam plant. Currently condos are being developed in the area around the old park site, and there are plans for a new condo to be built in the area that was once Victoria Park. This installation will be considered an alternative to what is planned for the site.



Aerial view of former Victoria Park - within the borders of James and Pacific Ave./ Amy St. and Waterfront Dr. (which was rail lines at the time of the Winnipeg General Strike)

For this installation I decided to look at the footprint of Victoria Park and have tall prairie grass planted within the footprint of the park as it was before it was demolished. I wanted to reveal the energy and history embedded in the landscape, so tall grass seemed appropriate. The grass is used as a symbol of the deep rooted connections people have with a landscape; prairie grasses in particular have deep roots which go down far to tap into the embedded energy and memory in the landscape. The one thing I decided to keep on the site is a vacant building that was built for the old steam plant; this will be used as a new community building for the recent influx of people moving into the areas new condos.

With the history of this site, you can imagine the sounds of people that the park would have experienced. To reflect this, poles equipped with tilt sensors will be placed in the grass.

Tilt Sensor – This sensor is able to detect when it has been taken out of equilibrium. When the wind, person, animal etcetera makes the metal poles in this installation move the tilt sensor inside the pole will be thrown out of equilibrium, and will send a voltage to a chip that converts the voltage to a digital number signal. This signal is then sent to the controller that uses the signal to tell the audio output to play. The sensor used in this installation will be WiTilt v3, a wireless tilt sensor powered by a rechargeable battery.⁹¹

When a strong wind blows, each pole will be able to bend in the wind along with the grass. Any pole that moves in the wind will play a sound recording from a speaker placed in the base of the pole where it will play the sound into the grass where it will interact with the sounds of the moving grass. The sounds for this installation will be low, like whispers in the wind; they will be sounds that were heard during the strike at the park. The sounds will be a murmuring crowd, and some of the lyrics of the labour hymn *Save the People*: “When wilt thou save the people, Lord; O God of mercy, when?; the people, Lord, the people; Not crowns and thrones, but men.” People visiting the site will be able to walk through the field and make their own path to experience the sounds. The feeling of being immersed within the sound and memory of the space will be at it’s most when the grasses have grown to their full height. Likely, people in the park would have felt the same way when the park was filled with thousands of strikers and on-lookers. The sensors used for this installation will be installed in spring, to coincide with the beginning of the strike, and removed in fall with only the poles remaining.

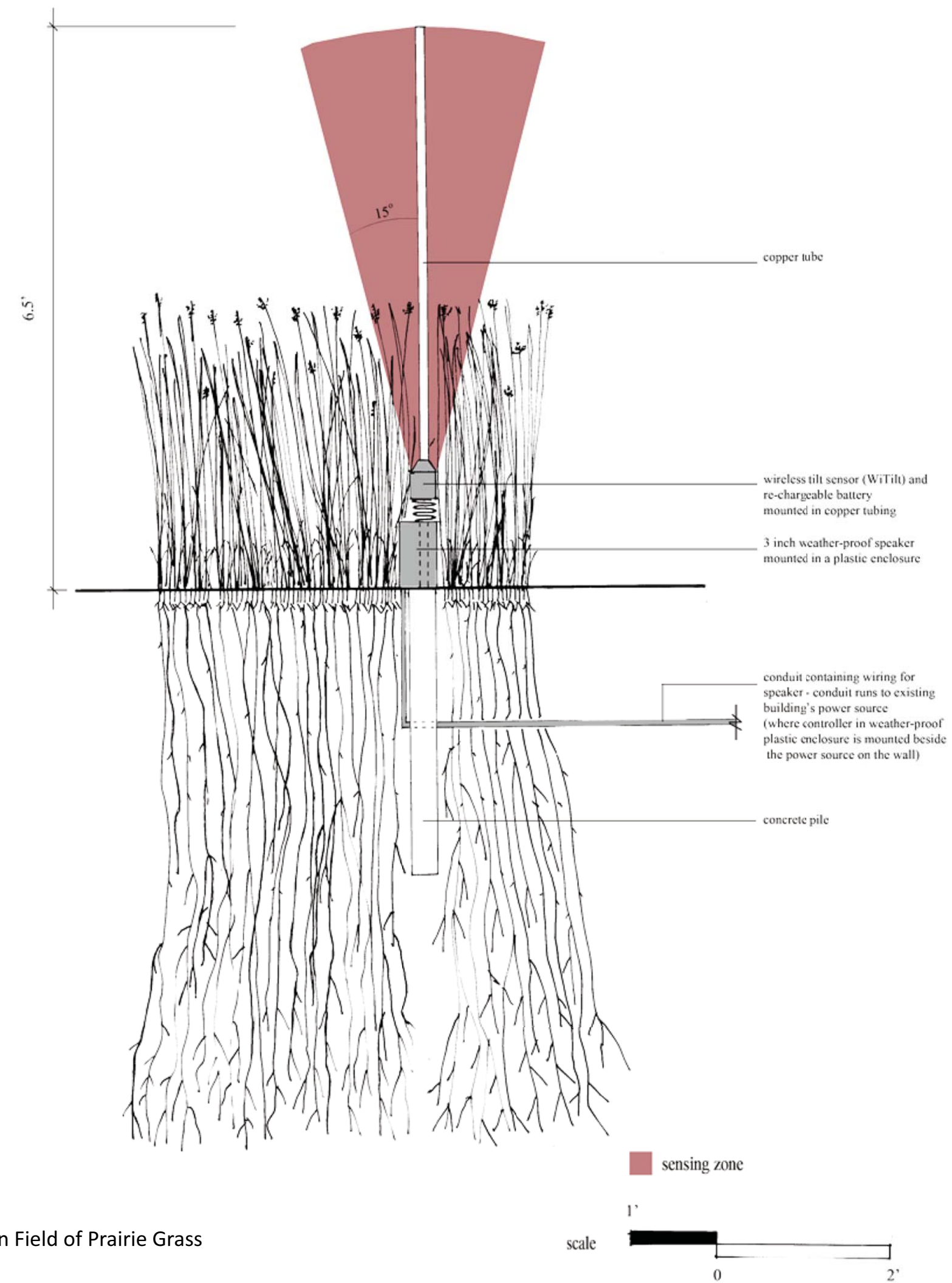
The poles placed in the field will be made of copper tubing; as they weather, their color will become a dull brown/red and green. These colors will blend in with the prairie grasses, which are mainly little bluestem. The height of the poles will reflect the depth of the little bluestem’s roots, showing the deep rooted memories embedded in the space.



⁹¹ Information on Tilt Sensor from: SparkFun: Electronics. “WiTilt v3.0” *SparkFun: Electronics*. [2005] Online. Available: http://www.sparkfun.com/commerce/product_info.php?products_id=8563 Feburary, 2008. and SparkFun: Electronics. “Couch Controlled Roomba.” *SparkFun: Electronics*. [2006] Online. Available: <http://www.sparkfun.com/commerce/present.php?p=RooTilt> Feburary, 2008. para 7.



Plan view of proposed Victoria Park Installation



Detail of Copper Poles in Field of Prairie Grass

City Hall



HIGH-MEDIUM LEVEL
OF AMBIENT
SOUND (TRAFFIC)

City Hall

During the strike, the protesters and the city government met in front of the old City Hall many times. One can imagine that the site has many memories from the events that happened there, and of the people who were there. The old City Hall has since been demolished and a new one built in its place, but the energy and spirit embedded in this landscape still exists and can be revealed. The installation will be footprints representing a crowd of protesters from the General Strike. The footprints will be from those whose relatives took part in the strike; they will be embedded in front of City Hall, in the cement of the sidewalk and overflowing onto Main St. The footprints will be of men, women, and children to represent everyone who gathered to support the strikers. The imprints in the cement are meant to reveal the history of the site and to encourage people to feel immersed in a crowd that remains as a memory in the landscape. The imprints will also create a sound experience for the vehicles driving by on Main St., as the wheels roll over the embedded footprints. The effect will be similar to driving over a cobblestone road, but the footprints will make a more irregular pattern of sound as people drive by. A sign at the site will tell visitors that they can call a phone number for details. When someone calls this number they will hear a recording that tells more about the installation and the events that occurred at the old City Hall. Callers will also have the option of learning about any local groups that are planning a protest in the city; making this installation a link to the 'strikers' of today.



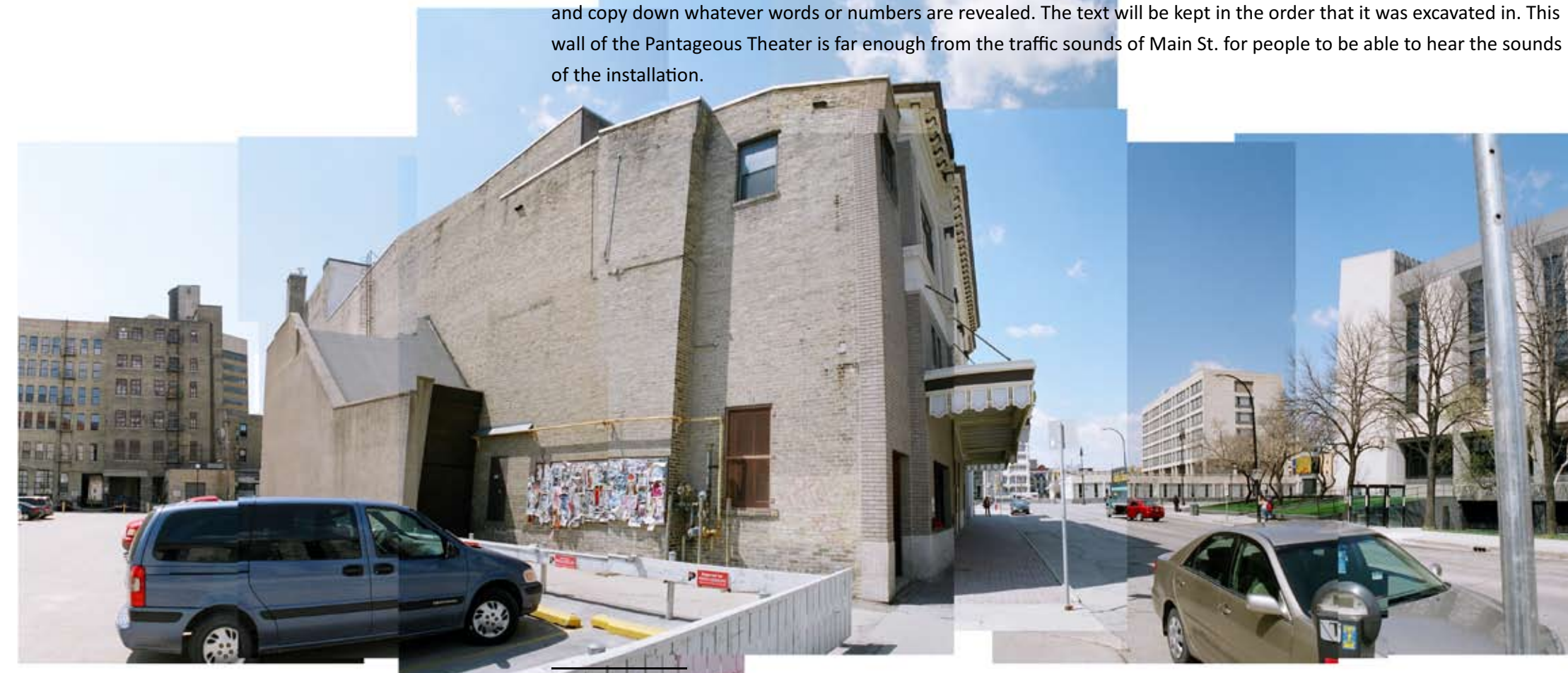


Pantages Theatre 

The Pantageous Playhouse Theater in Winnipeg was established in 1913 and was built as a theatre for Vaudeville performances. After WWII the Pantageous Playhouse was used for amateur theater, and provided the roots for the Manitoba Theater Center. Today it is a national historic site, and it continues to be used for community productions and events, concerts from well known artists and professional theatre productions. This venue is known for holding performances from well known acts as well as holding community-based events. Likely many of the people who built this venue later took part in the General Strike. On the east side of the building there is a wall used by the community to put up posters for shows, concerts, seminars, events, etc. The layers of posters have accumulated on this wall for such a long time that the posters seem to form a new material, a stratified material of compressed events over time. This reminded me of Hamilton & Southern's work *Running stitch*, where many peoples' experiences were placed together on one canvas, showing individual experiences as well as the connections we have, marking a social fabric in the city. During the General Strike, each worker grew to be conscious of their connections to all working class people; collectively they formed a new layer in the social fabric of Winnipeg. Community events like the gatherings at Victoria Park were important to unite the laborers as a community during the strike. I wanted to create something that would show our connections within a layered social landscape. For this installation an infrared light will be attached to the wall on the right side of the poster board and an infrared light sensor would be attached to the wall on the left.

Infrared sensor- Infrared light is an energy wave that lies just outside of the range of vision of humans. This sensor uses infrared light and works in pairs: an infrared detector and an infrared emitter, which detect and emit a specific wavelength of infrared light. The emitters give out a beam of infrared light that the detectors sense. The emitter and detector pairs are placed directly across from each other so that when anything breaks the beam of light from the emitter, the infrared detector will no longer sense infrared light. The infrared detector will signal the controller to play the audio output whenever the detector doesn't sense the infrared light from the emitter; this will happen whenever someone blocks the beam of infrared light.⁹²

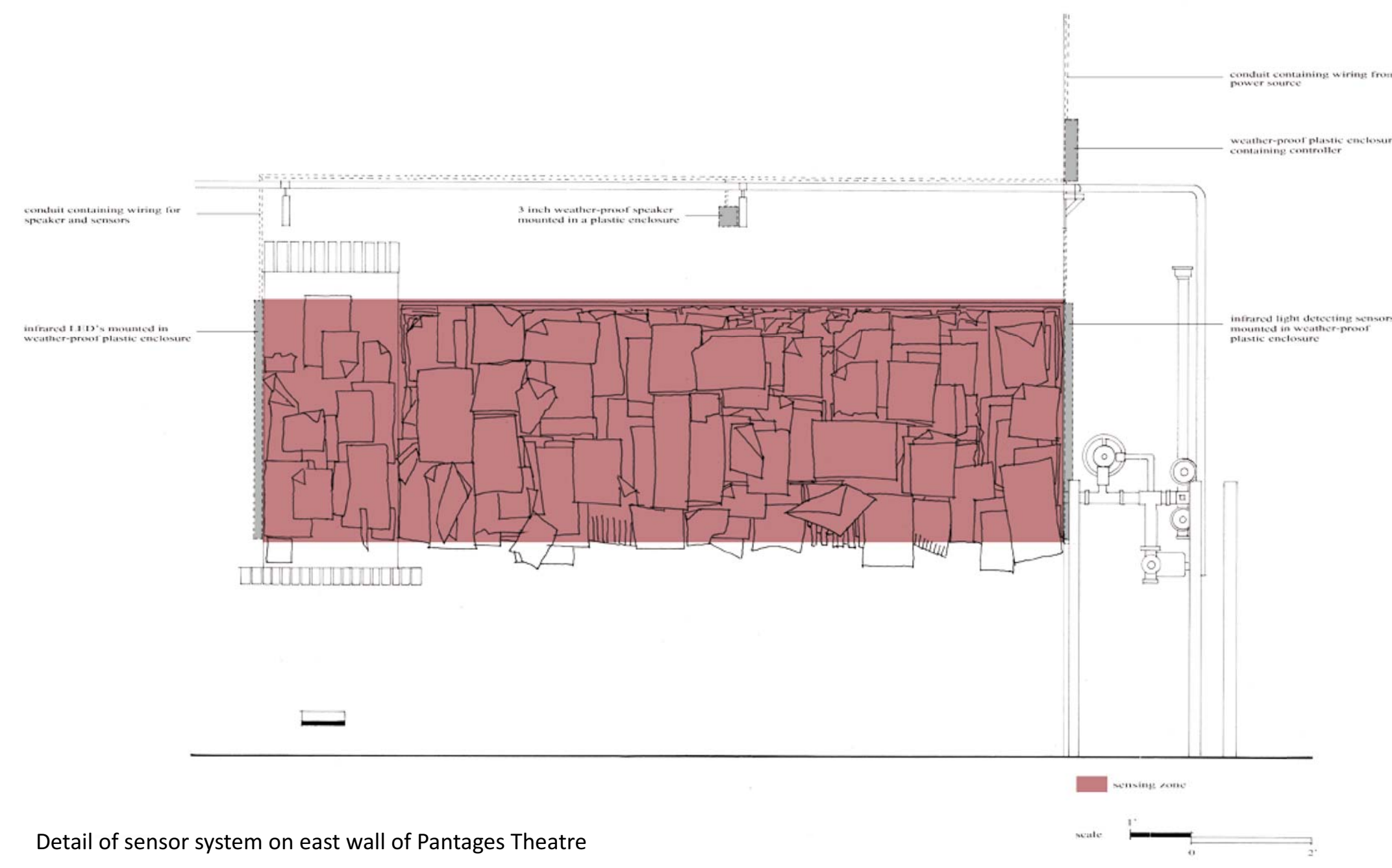
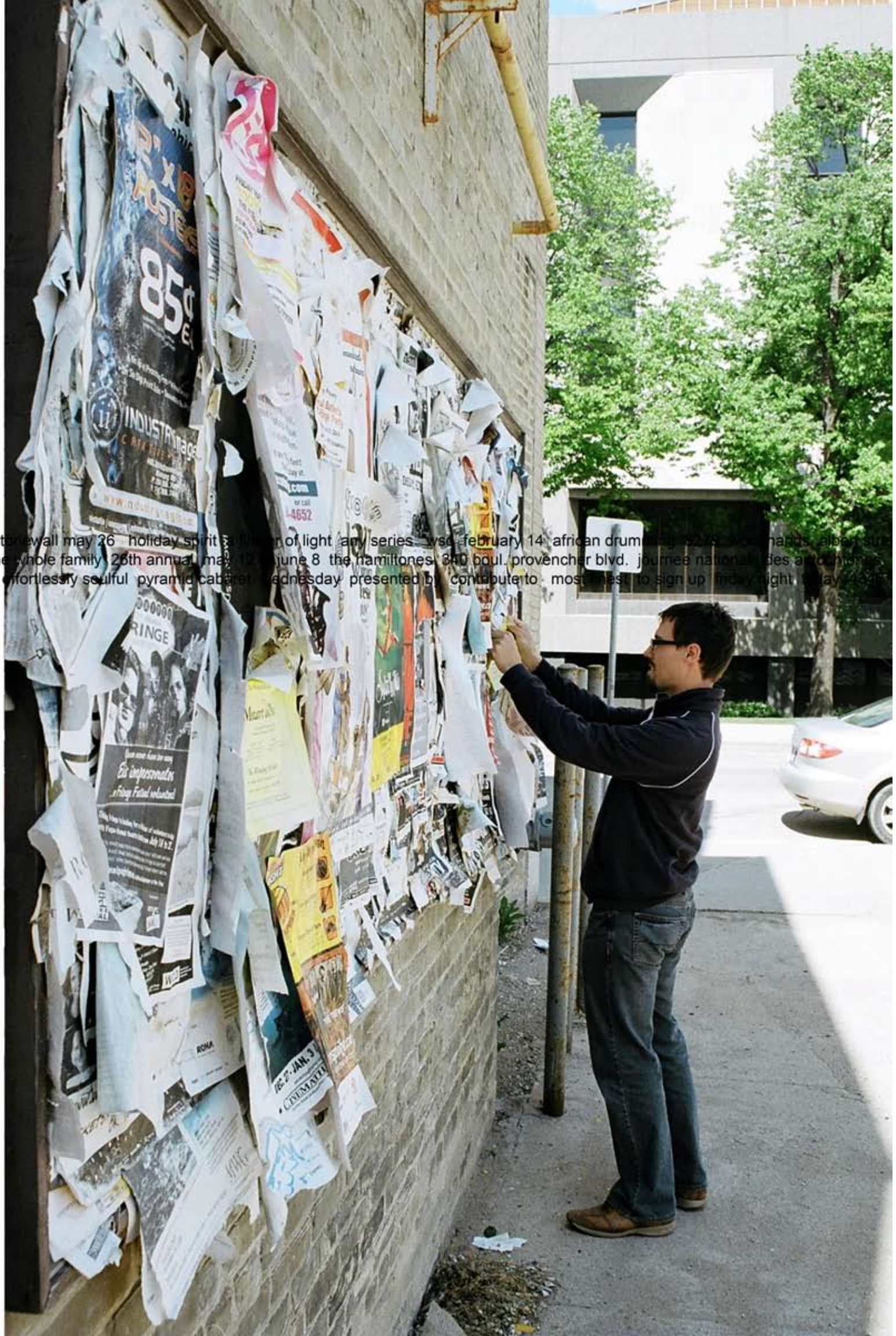
When someone adds a new poster or touches the posters for any reason, the beam of light is broken and a short voice recording will be played. The recordings will be taken from the messages on the posters layered on the theater wall. In order to get the information I need for the recordings, I will go to the site and peel back portions of the posters and copy down whatever words or numbers are revealed. The text will be kept in the order that it was excavated in. This wall of the Pantageous Theater is far enough from the traffic sounds of Main St. for people to be able to hear the sounds of the installation.



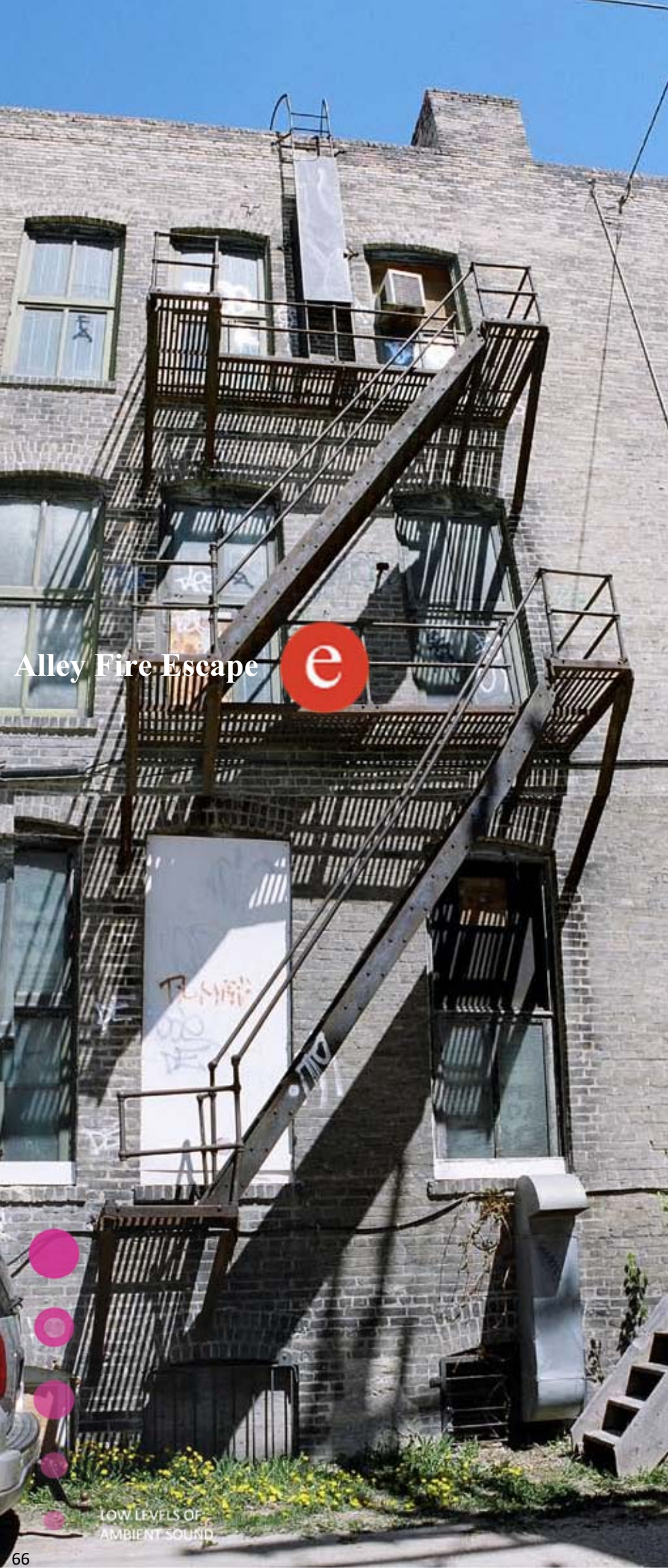
⁹² Information on Infrared light sensors from: HowStuffWorks. "How Do Motion Sensing Lights And Burglar Alarms Work?" *HowStuffWorks*. [1998-2008] Online. Available: <http://www.howstuffworks.com/questions238.htm> February, 2008. para 3-5 and SparkFun: Electronics. "Infrared Emitters and Detectors." *Sparkfun: Electronics*. [2005] Online. Available: http://www.sparkfun.com/commerce/product_info.php?products_id=241 February, 2008. para 1.



ld contemporary dancers tickets philippine women centre street wall may 26 holiday spirit... of light any series... ysd february 14 african drumming... hands...
 anitoba poets it's your chance 10:00 to 4:00 flavours for the whole family 26th annual... june 8 the hamiltones 340 boul. provencher blvd. j'ornee nationale des arts...
 zzwinnipeg.com 4656 rock full line-up tickets at charming, effortlessly soulful pyramid cabaret... wednesday presented by... contribute to... most... to sign up... right... day...



Detail of sensor system on east wall of Pantages Theatre



Alley Fire Escape



Alley Fire Escape -Elgin Ave between Lily and Bertha St.(this avenue appears to be a back alley)

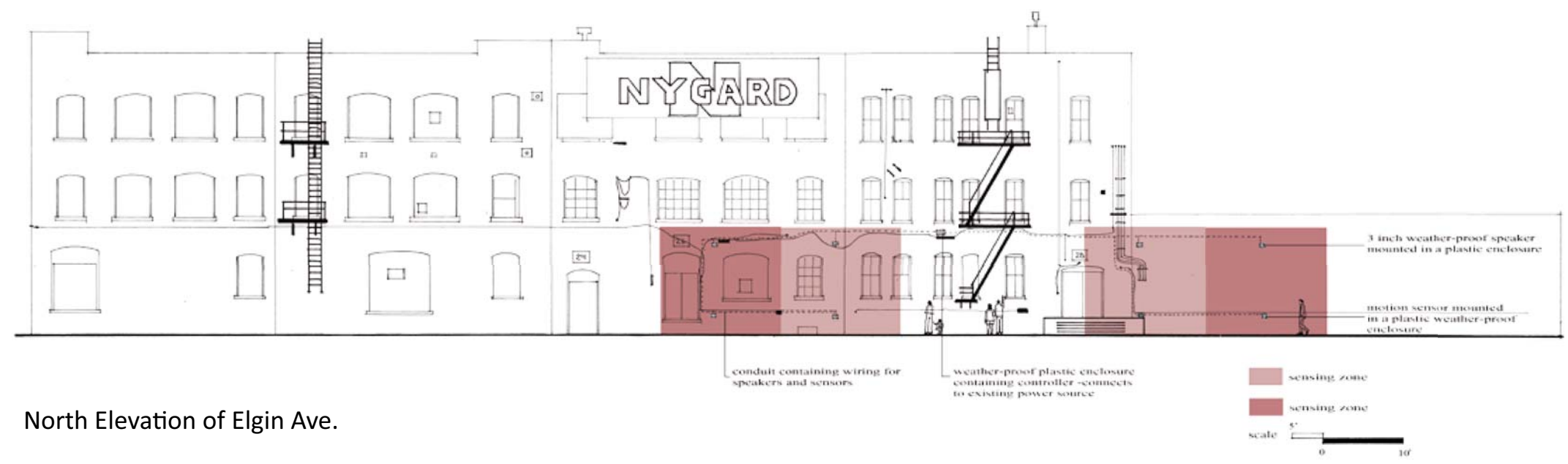
Elgin Ave. downtown, between Lily and Bertha St. is a continuation of what was 'Hell's Alley,' where the Centennial Concert Hall now stands. This back alley type street still has many strike-era materials from that time: brick, iron work, wood timbers, and rail road track running through that had been covered with gravel... some parts of the rail were still exposed. The metalworkers were one of the main labour unions on strike in 1919. I chose to look at the metalwork of the fire escapes, and thought that the metal itself could have energy and memories embedded in it. It was the metalworkers of the strike era who made these metal pieces and their spirit and actions that are embedded into the material could be released in the form of sound. The alleyway will have motion sensors mounted on the side of the alley on the walls of the buildings, they will be set up so that as you walk through, the sound of a hammer working on metal begins to play.

Motion Sensors- The motion sensors used here are infrared detecting sensors. These sensors are used for detecting motion because every living thing and conductive inert object emits infrared light (energy). Motion sensors are made to detect any rapid changes in infrared light; they focus on the range of wavelengths commonly given off by humans, which allows them to not be affected by inert non moving objects that also radiate infrared energy.⁹³ "You do not want the sensor detecting slower changes, like the sidewalk cooling of at night." (HowStuffWorks, para 5)

Speakers will be placed by each motion sensor. As you walk closer to a fire escape that appears to be making the sound, the volume of the hammering rhythm gets quieter and eventually stops when you are under the fire escape. As you walk away, the hammering begins again, and gets louder the further you walk away. This installation is meant to give people a different experience, the changing levels of sound will get people to start to see the space with their ears as they walk around to interact with the fire escape sounds. This installation will allow people to explore this space and think about the energy of the workers that is embedded in this space.

⁹³ Information on Infrared light sensors from: HowStuffWorks. "How Do Motion Sensing Lights And Burglar Alarms Work?" *HowStuffWorks*. [1998-2008] Online. Available: <http://www.howstuffworks.com/questions238.htm> February, 2008. para 3-5.





North Elevation of Elgin Ave.



Bastille Train Bridge



LOW LEVEL OF AMBIENT
SOUND WITH PERIODS
OF HIGH LEVELS



Inspired by Wolfgang Liab, I chose to focus on a single element and explore its beauty. Wolfgang works with pollen in large amounts, which is out of reach to most people because of the extraordinary amount of work needed to collect the pollen, and the fact that we don't see pollen in this scale every day. I wanted to look at something that related to the strikers, and chose rivets to reflect the metalworkers of the era. Like Wolfgang's pollen, much of this rivet work is physically out of reach for most people. The rivets show a human element or input because of the fact that they have each been put in one by one and formed in place manually. Because the rivets are formed, the workers have made a direct influence on the material; the energy from the workers is encompassed in the formation of each rivet. This installation will be at the railroad overpass / bridge on Waterfront Drive nearby the Goldeyes' Baseball Park. This is a single-leaf bascule bridge which is a bridge that has a span that pivots on a hinge, assisted by a motor and a counterweight mounted above the bridge's deck. The bridge is still used today, but does not pivot. The counterweight and motor have been removed. Determining when the bridge was built was difficult, however I found a similar bascule bridge at the Forks Market that crosses the Assiniboine River. This bridge at the Forks is now used as a walking bridge; a plaque at the bridge explains that it was built for the Canadian Northern Railway, and was finished in 1914. By comparing both bridges, it seems likely that both bridges were built around the same time. Also because both bridges are very close to the Union Station, which was built in 1911, it is likely that the bridge in this installation was built around that time. This bridge has many rivets in it, and numbers will be placed on several of the rivets on the bridge to show this. These numbers will be placed on all sides (north, south, and underside) of the bridge in the area where a sidewalk passes underneath. On the south side of the bridge a section of the metal structure will be highlighted with a shade of paint similar to the bridge. A sign, "1113" will be visible on the highlighted structure to show how many rivets are in that one section. By using the sidewalk to go under the bridge, people will be able to look at the numbered rivets closely, touch them, and see the sheer number of rivets. By being able to see the structure so closely, people will see the slight variations of each rivet that expose a human quality. People could then relate the amount of work involved to build this one piece of the bridge, to the scale of the work for the entire bridge.

Another influence for this site came from Max Neuhaus, a sound will be placed within this space to get people to focus on the resonance of the movement and energy that was put into building this structure. The bridge would have been resonating like a bell as each rivet was hit and formed in place. The sound will be what was heard after each rivet was hit, it will be a continuous resonating of the bridge heard in the piece. The sound will be played by a speaker installed under the bridge where people pass by on the walkway. The sound itself will be at a volume that could make it get lost within the ambient sounds in the area if you aren't listening for it. Neuhaus uses this technique, where the sounds he uses are meant to act as a catalyst to getting people in a different frame of mind.⁹⁴



UM HUM7 HUM HUM7 HUM HUM7 HUM HUM HUM7 HUM HUM HUM HUM HUM HUM HUM HUM HUM HUM

[metal resonating just after rivet is hit in place]



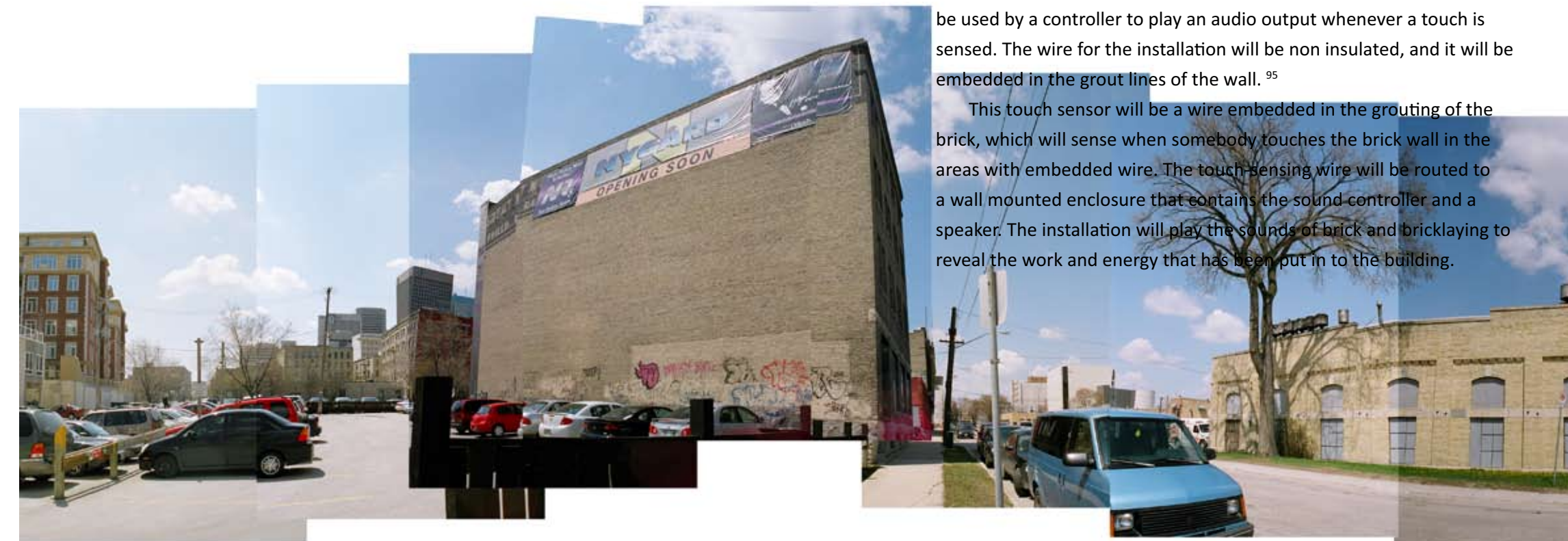
⁹⁴ Neuhaus, Max. "Notes on Place and Moment" *Max Neuhaus* (1993). Online. Available: <http://www.max-neuhaus.info/soundworks/vectors/place/notes/> June, 2008.



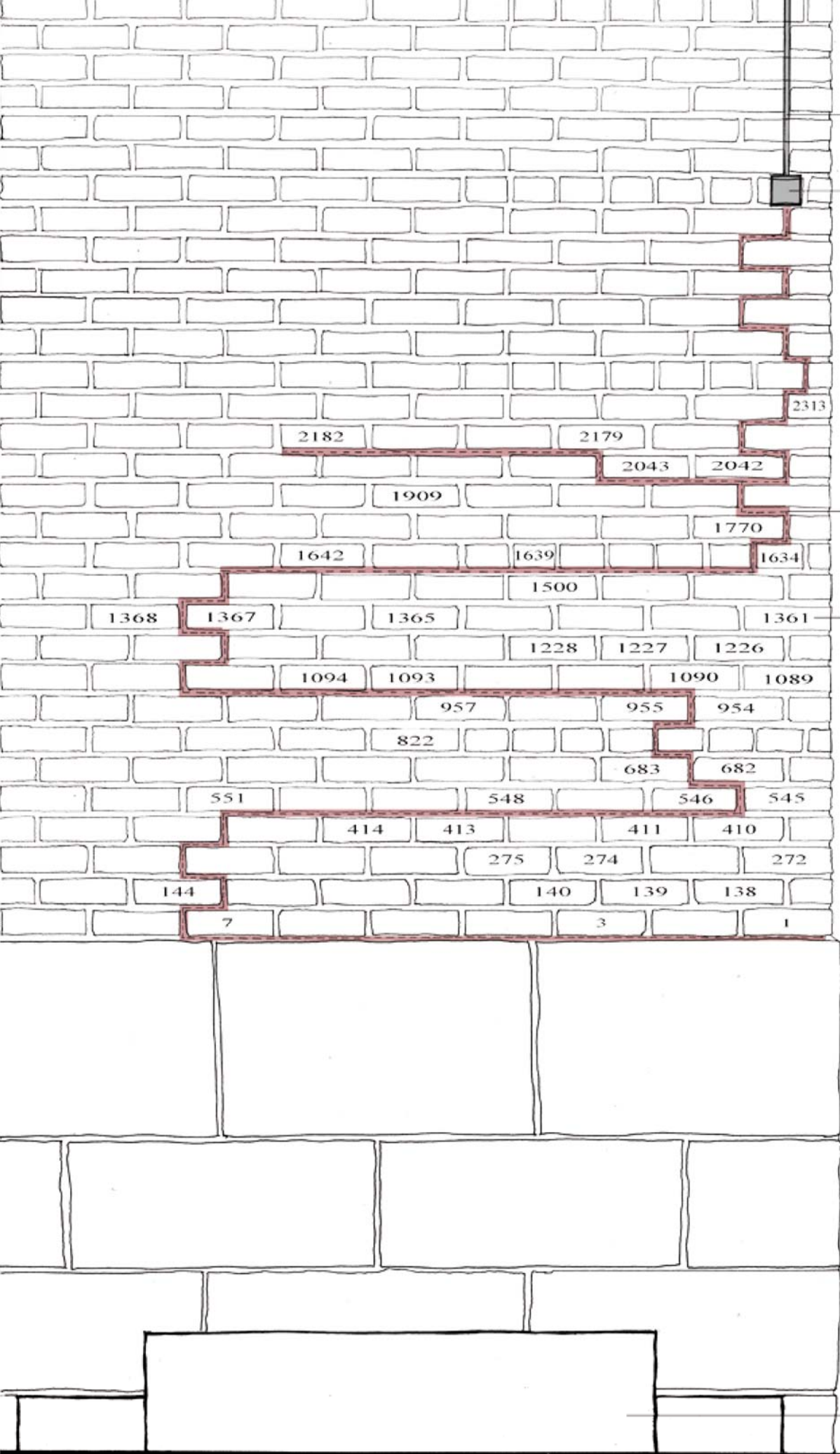
The brick has a unique quality compared to other building materials. Bricks are made to fit in your hand in order to make them easier to handle. Because bricks are made of earth, we have a close connection to the material. This material is all around us, it is what we walk on, what sustains us, the earth has many spiritual ties, it represents the cycle of life. Most buildings from the era of the General Strike are made using bricks, or have brick facades. In a way, the bricks are a representation of the people who laid them. Each brick has been handled and placed by the person who laid it, the bricks are at a human scale where each piece has been held by the worker. Knowing how much movement and energy goes into every brick; a brick wall for example can exude a spirit and energy representative of the workers and the people of the time. This installation will be on the east side of the building on the corner of James St. and Bertha Ave. In order to allow people to appreciate the amount of work involved in building this brick wall, a group of bricks will be numbered. The numbering will be etched into this group of bricks in a way that assumes all bricks are numbered, and you are only seeing the numbers on some of the bricks. A touch sensor will be used to trigger recordings when people place their hand on a certain area of the etched bricks.

Touch Sensor- This sensor responds to touch based on the fact that every person has a capacitance. This sensor works with two parts: a 'touch sensor' integrated circuit (IC) microchip [Qprox IC (QT113G)], and a wire connected to one of the pins on the microchip. The IC monitors the capacitance of the wire, when someone touches or comes close enough to the wire, the capacitance changes and the circuit can sense this. The touch sensor microchip has a pin that sends out a signal whenever it senses that someone is touching the wire. This signal can be used by a controller to play an audio output whenever a touch is sensed. The wire for the installation will be non insulated, and it will be embedded in the grout lines of the wall.⁹⁵

This touch sensor will be a wire embedded in the grouting of the brick, which will sense when somebody touches the brick wall in the areas with embedded wire. The touch-sensing wire will be routed to a wall mounted enclosure that contains the sound controller and a speaker. The installation will play the sounds of brick and bricklaying to reveal the work and energy that has been put in to the building.



⁹⁵ Information on Touch Sensors is from: instructables. "DIY Touch Sensor." *instructables*. [2008] Online. Available: <http://www.instructables.com/id/DIY-Touch-Sensor/> Feburary, 2008. para 1, 4-5.



weather-proof plastic enclosure containing controller and power source -located on roof

conduit containing wiring for power source, speaker and sensors

3 inch weather-proof speaker mounted in a plastic enclosure

touch sensing wire embedded in grout

numbers etched into brick face

steps-limestone block

sensing zone



Detail of east wall of 110 James Ave. showing sensor installation

Tipped Coca-Cola Truck



MEDIUM-LOW LEVELS
OF AMBIENT SOUND

Tipped Coke-a-Cola Truck - Centennial Concert Hall / Market Ave.

On May 31st during the Winnipeg General Strike, a group of around 12,000 strikers took part in a march for protest. The march was organized by the pro-labour veterans; the focus of the march was to rally to make collective bargaining compulsory. The group marched from Market Square close to City Hall to the Provincial Legislative Building and met with the Premier, and then marched to City Hall and met Mayor Grey, both meetings proved unsuccessful. On their way back to Victoria Park the crowd flipped a Coke-a-Cola wagon over.⁹⁶ This happened at the Eaton's Warehouse (where the Centennial Concert Hall now stands) across from City Hall on Market Ave. between Main and Lily St.; it was the only incident in an otherwise peaceful protest. I imagined that the place where this happened has the sound memory still embedded in the area, and thought of ways to release these sounds. For this installation, a pressure sensing piezo-cable could be embedded in the concrete sidewalk to sense people walking around the area where this occurred.

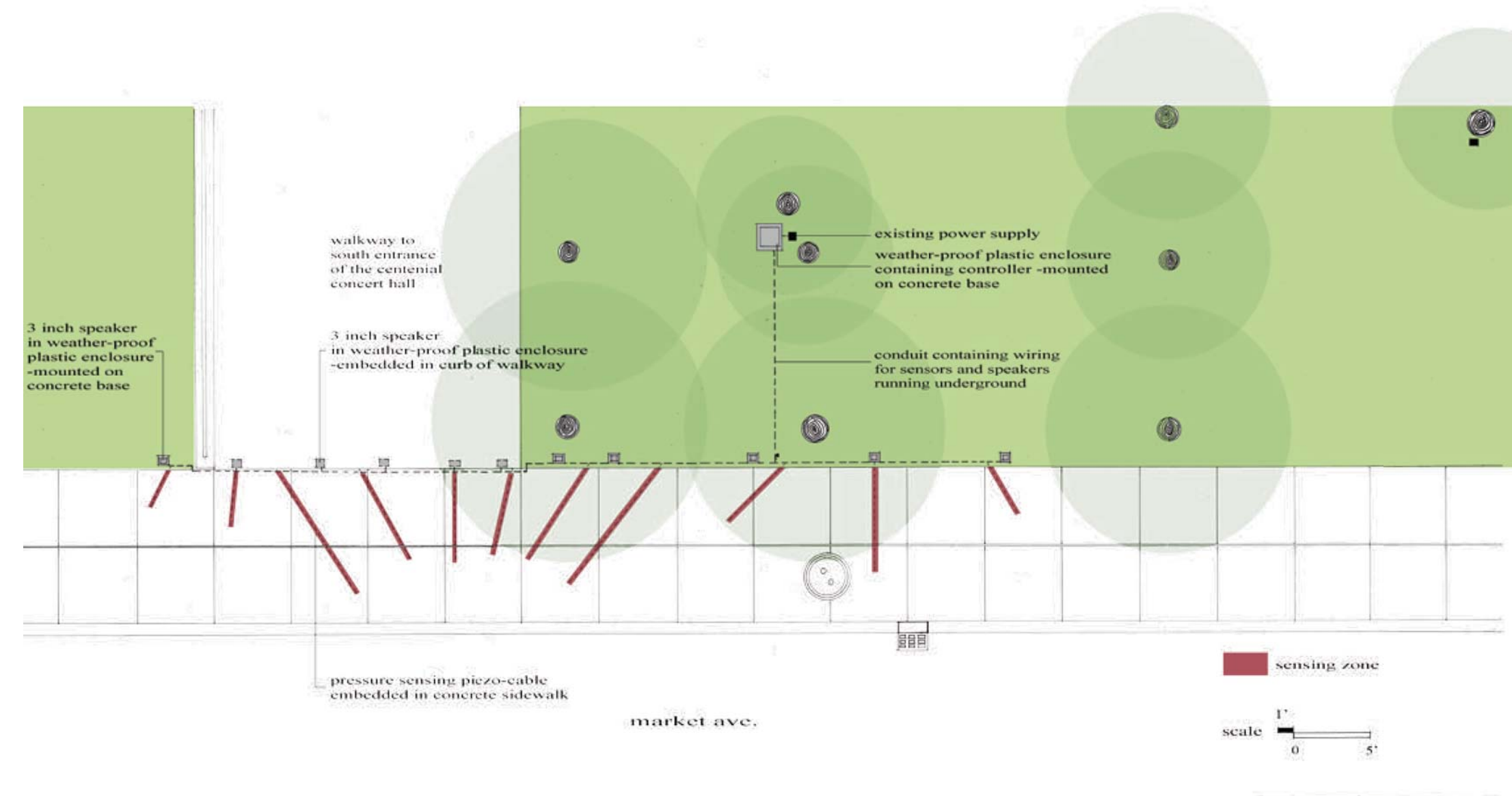
Piezo-cable – Piezoelectric materials are those which can produce a small voltage when deformed in any way. The piezo-cable is a coaxial cable: it has an inner wire surrounded by a piezoelectric polymer, which is surrounded by an outer wire mesh. When the cable is deformed in any way a small voltage is produced between the inner and outer wires; this phenomenon is used to detect any forces (including vibrations) that are put on the wire. The voltage signal created by somebody walking on the sidewalk can be used to tell a controller to play the sounds for this installation.⁹⁷

The installation will be located on the sidewalk running down Market Ave. between Main and Lily St. The traffic noise of Main St. is greatly reduced as you walk down Market Ave, so the sounds of the installation will be audible. As people walk through the location they will trigger sounds of glass bottles crashing and spilling, as if they are releasing the sounds of this event that are embedded in the landscape as they walk. There will be more than one sensor embedded in the ground and each sensor will have an accompanying speaker; this will allow many people to trigger sounds and hear them separately. Like the 'sound puddle,' the amount of force picked up by the sensor will determine what sounds are played, the number of sounds played and how loud they are played.

⁹⁶ Bumsted, J.M. *Winnipeg General Strike of 1919: An Illustrated History*. Watson Dwyer Publishing Ltd, 1994, p.44.

⁹⁷ Piezocable application notes: Measurement Specialties. *Piezo Film Sensors Technical Manual*. (2006) Online. Available: <http://www.meas-spec.com/myMeas/download/pdf/english/piezo/techman.pdf> Feb. 2008.





Plan view of sensor installation on north sidewalk of Market Ave. (between Main St. and Lily St.)

WWI Memorial

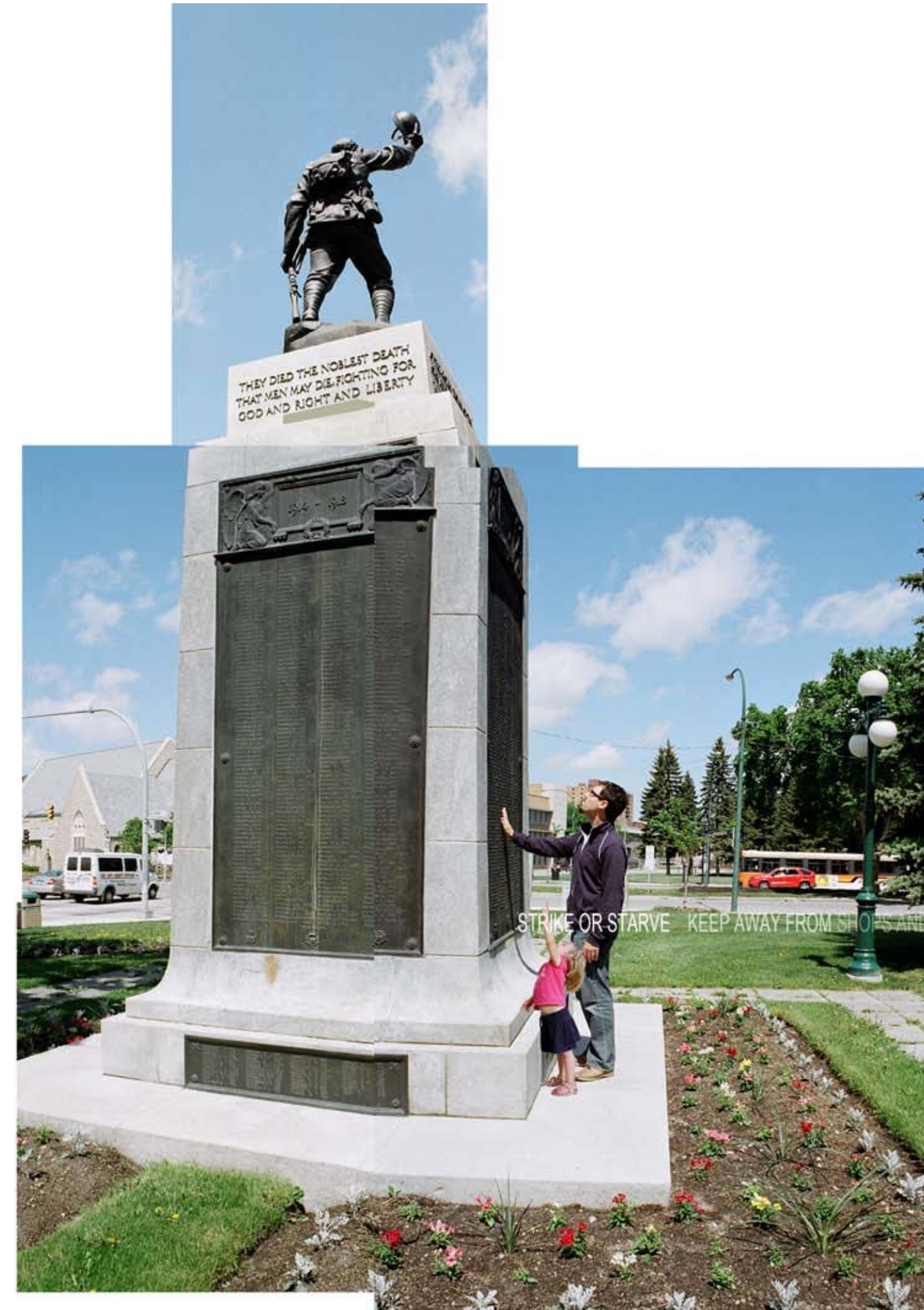


HIGH-MEDIUM LEVEL
OF AMBIENT
SOUND (TRAFFIC)

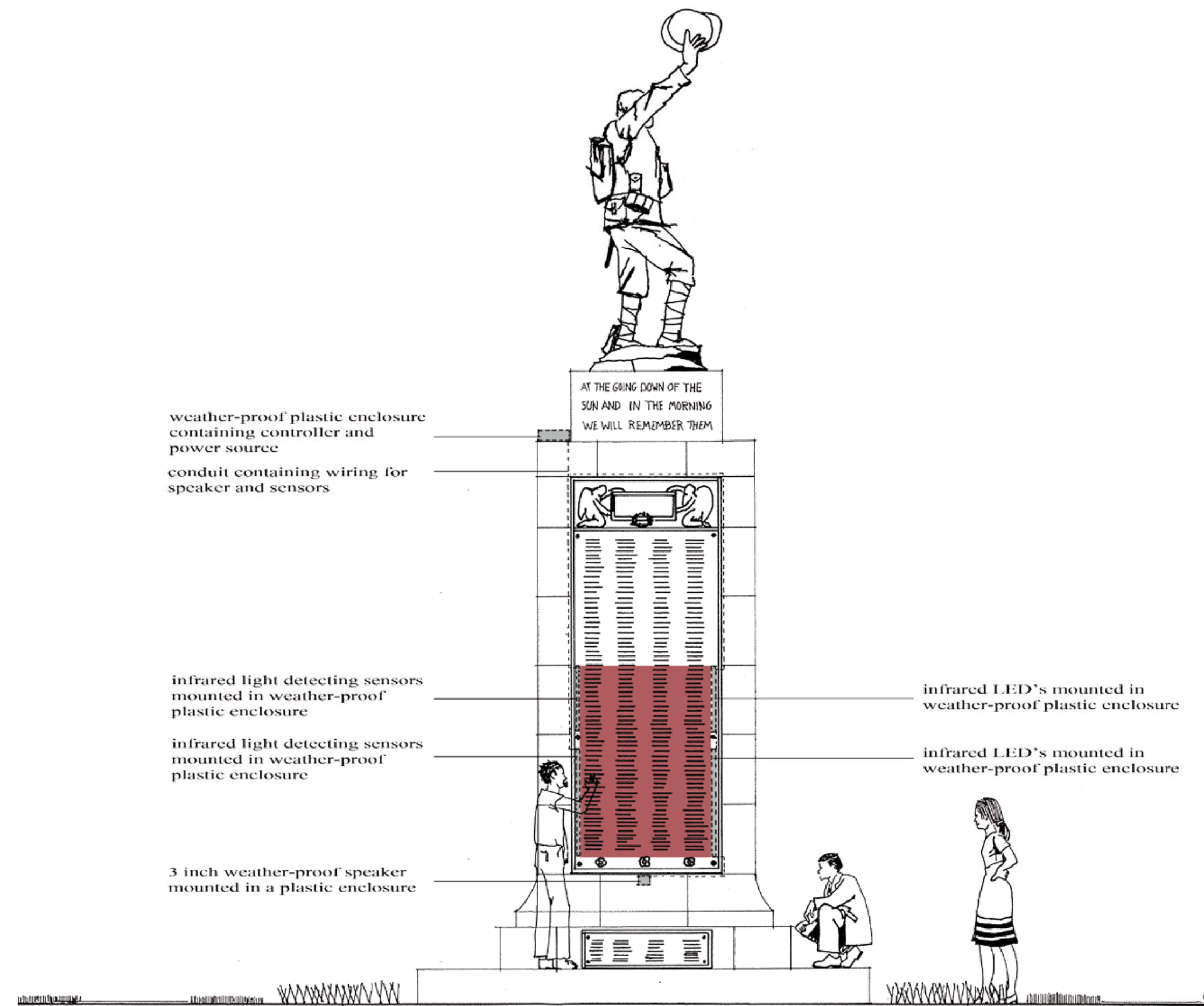
Many of the strikers in 1919 were war veterans, and their marches caused a stir during the strike. It is interesting that there are many war monuments at the Manitoba Legislature now, when in the past WWI veterans were struggling to be recognized by the government. In the legislative grounds, an existing WWI monument will be fitted with a sensor to play recorded sounds. The ambient sound level for this site is fairly high with the volume of traffic passing this monument on two main traffic routes. Considering this, it did not seem appropriate to have a sound installation that would try to compete with the traffic sounds of the site. The installation had to be made more intimate, in order for any sound to be heard over the traffic the person would have to be close to the source of the sound. By using a sensor that is triggered by a person touching the monument, I could get the person close enough for them to hear the sounds played by a speaker mounted close to the sensor. The installation will use infrared light sensors: where a beam of infrared light will be emitted over the surface of one side of the monument and received by a sensor on the other side.

Infrared sensor- Infrared light is an energy wave that lies just outside of the range of vision of humans. This sensor uses infrared light and works in pairs: an infrared detector and an infrared emitter, which detect and emit a specific wavelength of infrared light. The emitters give out a beam of infrared light that the detectors sense. The emitter and detector pairs are placed directly across from each other so that when anything breaks the beam of light from the emitter, the infrared detector will no longer sense infrared light. The infrared detector will signal the controller to play the audio output whenever the detector doesn't sense the infrared light from the emitter; this will happen whenever someone blocks the beam of infrared light.⁹⁸

When somebody touches the monument in a way that blocks the beam of light, a sound recording will be triggered. The light sensing switches will be at a height that is easily accessible. The recordings will play the sounds of the war veterans, words from the banners that they held in their protests throughout the strike. The installation will have two sensors mounted on the monument: one on the left side, and one on the right reflecting the two positions of the war veterans at the time of the strike. The Pro-Strike Veteran sensor will be on the left side reflecting their politically left position, and the Anti-Strike Veteran sensor will be on the right side to reflect their political position.



⁹⁸ Information on Infrared light sensors from: HowStuffWorks. "How Do Motion Sensing Lights And Burglar Alarms Work?" *HowStuffWorks*. [1998-2008] Online. Available: <http://www.howstuffworks.com/questions238.htm> February, 2008. para 3-5 and SparkFun: Electronics. "Infrared Emitters and Detectors." *Sparkfun: Electronics*. [2005] Online. Available: http://www.sparkfun.com/commerce/product_info.php?products_id=241 February, 2008. para 1.



East Elevation of WW1 Monument at the Provincial Legislative grounds
-showing sensor installation

As a child your mind must struggle hard to make sense of the world... it seems that as we grow up, and through our lifetime we are constantly reducing our experience to the lowest common denominator. And why not? It is hard to look at everything as if it were for the first time, our rules and logic give our minds a rest and tame the imagination. Yet the unknown, the virtual and the imaginary are always present; and really, our logic depends on the them in order to function.

We have lost a connection with the world around us; we have become accustomed to looking inward to navigate through our everyday experiences. We tend to only respond to those things that scream out for our attention, and have become reliant on these things to call attention to themselves, rather than have us seeking a connection with them.

By examining the works and ideas of the artists I looked at along the way, I was inspired to explore many ideas. The ideas that really stood out for me dealt with changing the way we sense the space around us.

Exploring the possibilities of our perception.

Abandoning the conventions that say “this is how it is”.

Taking a look at our personal perceptions of reality and beauty, and embracing a sense of wonder of the world around us.

Changing our sense of scale... removing it entirely to discover new elements and interactions with the landscape.

Removing boundaries and distinctions to view the connections we have with the world around us.

Exploring the unknown, the virtual, the imaginary, and the things we are not capable of perceiving with our own senses.

Forming connections with the world around us is what brings a sense of beauty and wonder, and changes the scale of our world completely.

Within each of these installations, the idea of the afterimages of sound comes into play. After people explore these installations, perhaps they will walk away with these sounds in their head. Maybe they will hear these sounds in an everyday experience, or see or touch something that triggers one of the sounds in their head and they will try to imagine the energy and memory of a different space, and the connections they have to that space.

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