

# FIELD WORKS :

explorations in the tall grass prairie landscape

by liz wreford

a practicum submitted to the faculty of graduate studies  
of the university of manitoba

master of landscape architecture

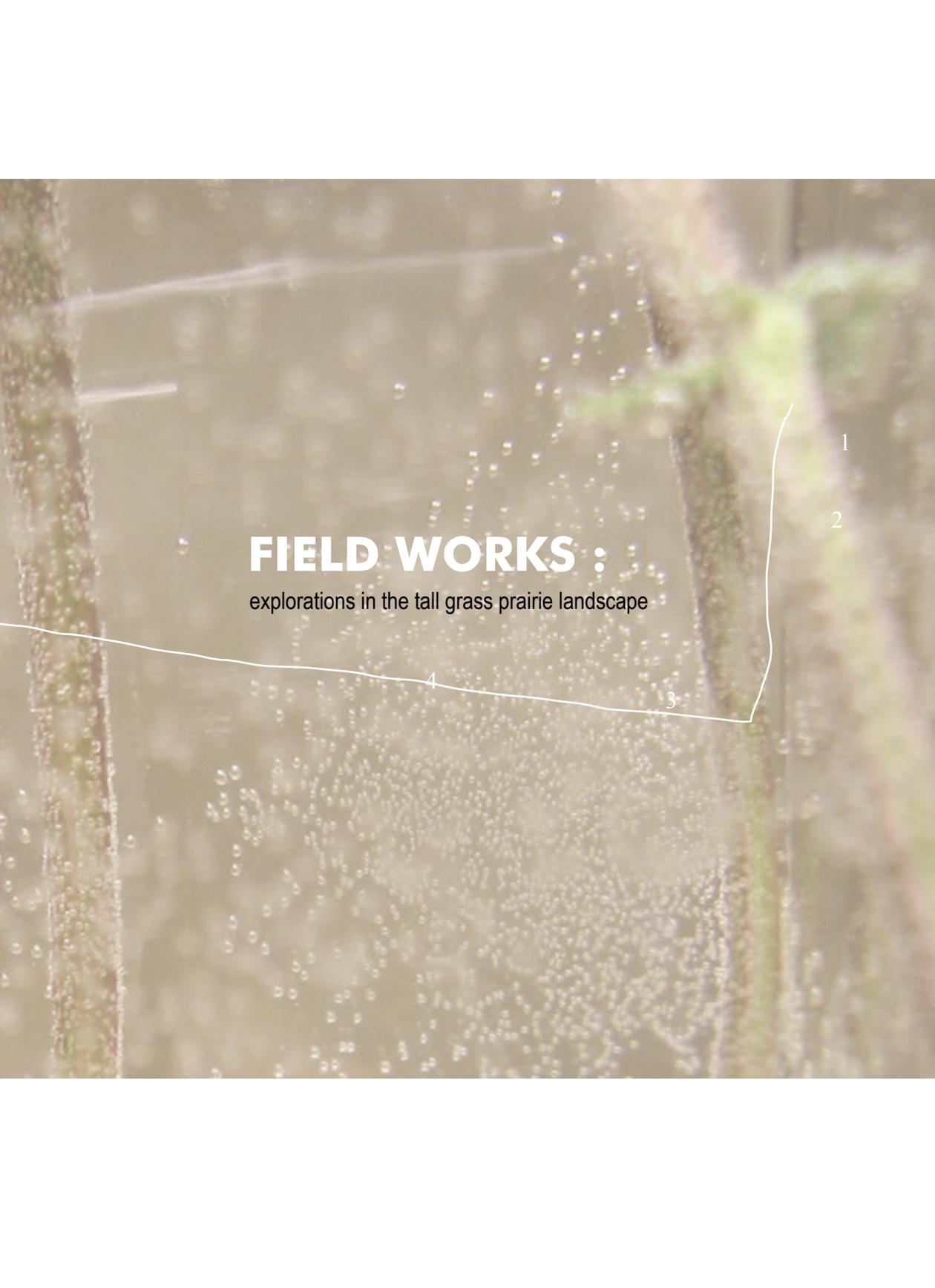
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For Professor Carl Nelson Jr., whose dedication to the prairie will never be forgotten.



**FIELD WORKS :**

explorations in the tall grass prairie landscape

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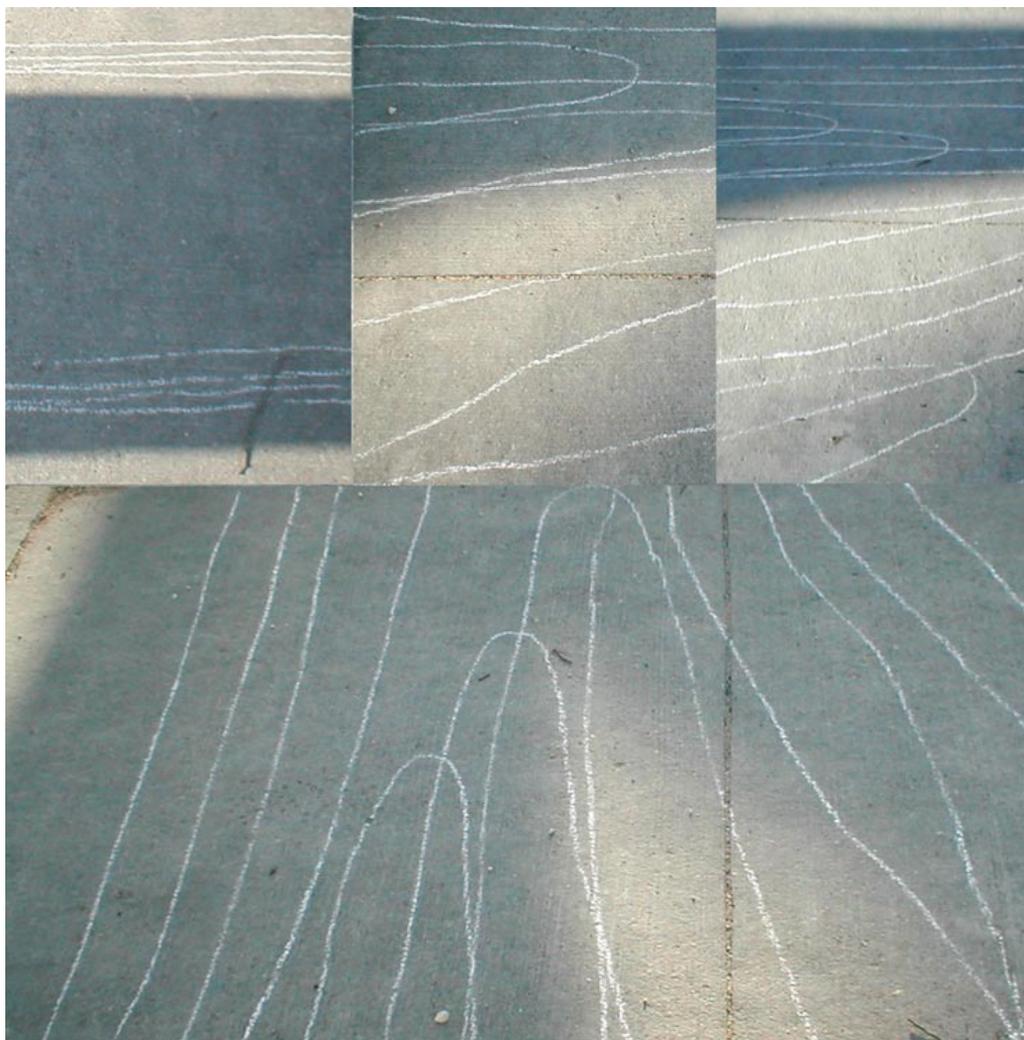
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## **ABSTRACT**

'FIELD WORKS' explores landscape experiences that were once common to the tall grass prairie region of Manitoba. The route through this project winds in and out of urban surfaces to reveal memories embedded in the land. It documents forgotten and dormant prairie events so that they might be woven back into the fabric of the city.

**The purpose of this project is to transfer explored and speculative experience into a physical route through the urban prairie landscape. It is an effort to expose the layers clinging to physical memories rooted in the prairie.**

**explore . expose . absorb**



'shadow tracing', winnipeg sidewalk, 2003



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8. ~~th~~ street junctions

24 Ness  
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university man  
glendale shopping centre  
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crestview school  
morgan community club  
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sturgeon creek village  
lpm \*  
sturgeon creek school  
moray village  
airport  
st james civic centre  
assiniboine golf club  
deer lodge tennis club  
truro creek

king edward park  
madison square  
(prairie dog centra  
polo park shopping  
Omand's Creek  
Omand Park  
Wolseley Rec Centr.  
Vimy Ridge Park  
Gordon Bell High Scho  
LBC  
University of Winnipe  
Colony Square  
Bus Depot  
The Bay  
Portage Place

## USING THIS BOOK

This book has been structured to correspond with the design process used throughout 'FIELD WORKS'.

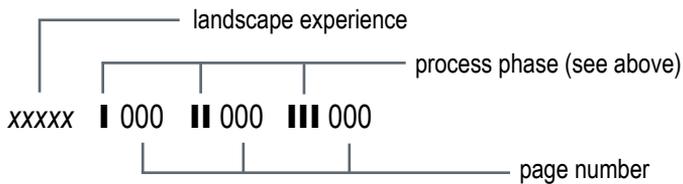
I Exploration

II Mapping

III Design

The process is not linear.

Sketches, photographs, collages, plans, animations and writing focussed on prairie landscape experiences are considered distinct steps in the process. The development of each experiential exploration can be tracked by clicking on the hyperlinks found below images using the following system:



This book is best viewed with the 'facing pages' setting in your .pdf viewer turned **on**.



# I : EXPLORATION

History and collective memory are layered in the landscape. Revealing the memories embedded in the land requires a combination of process and product. The process layers, reveals and discovers a product that exposes what has been lost and what has been found.

Everything is already there, the field just needs to be scratched.





'prairie souvenir' collage, 2002



## **METHODS**

(a) I will engage in the process of making. My work will focus on the prairie; the representation of the prairie, the understanding of the prairie, the language of the prairie. I will dig, Hoover up material, create, walk, observe, work the field and take inventory in an effort to truly understand place. I will notice things, take them and transfer them to something else. I will discover how these processes can influence and be incorporated into the process of landscape architecture.

*(b) The first few steps: the first few words: the first moment when a line crosses a line and suddenly you can never stop seeing.*

*The second step: to listen to the heart when we know, but we can't explain, that this set of circumstances is wrong, that we could be doing this better, that we could be moving forward instead of standing still. It's all a question of approach.*

*It's about moving, seeking out, involving, becoming. Not a journey along a line to a fixed point when it will all happen, when it will all be clear, but a journey within a circle that explores and maps the possibilities that arise along the way. We are here. We are not yet there, or there: this is what it is. Where are we going? From this moment to the next: from the centre to the perimeter and around, and back to where we came from, and then out again – finding, bringing back, showing, finding...*

(Tomato, 1996, p. 1)

These steps summarize the process for this project. This is where the circle appears.



'road signs', 2002

reference point ■ 081, 088 ■ 094 ■ 134



MANITOBA

winnipeg

TEXAS

*“Manitoba’s tall grass prairie ecosystem is truly Canada’s equivalent of a tropical rainforest. It is one of the most fascinating, one of the most dynamic natural plant systems in the world.”*

(Jones, R. n.d.)



## **A BRIEF HISTORY OF TALL GRASS PRAIRIE IN MANITOBA**

Prepared for the ‘landscape change: landscape loss’ Virtual Museum Canada website, ([www.livingprairie.ca](http://www.livingprairie.ca)) in conjunction with the Living Prairie Museum, 2003.

Before the Europeans entered the interior of North America, there was a vast open area rich with wildlife. This was one of the most diverse and productive ecosystems in the world. A large portion of this grassland was the tall grass prairie, which originally extended from southern Manitoba to the Texas border, occupying 1.5 million acres. In Canada, the main range of tall grass prairie was a 6000 square kilometer area in the Red River Valley. A 1200 square kilometer zone in southern Ontario was the only other area in which it could be found. The tall grass prairie ecosystem was dominated by grasses, many of which grew well over one metre in height, and many millions of large grazing mammals that migrated over the prairie. (Manitoba Conservation Wildlife and Ecosystem Protection Branch [MCEPB], n.d.).



The first inhabitants of the area were the First Nations people who had lived on the prairie for thousands of years before the Europeans arrived. These aboriginal people co-existed with the ecosystem, maintaining a complex relationship with the plants and animals they relied on for survival. (Reaume, 1993).

The prairie landscape was shaped by wildfire, drought, and grazing by mammals, all of which were essential to maintain the diversity of the area and to prevent trees and shrubs from becoming dominant. (Living Prairie Museum, n.d.).

All ecosystems experience natural change. Plant and animal species on the prairies flourished or declined, soil structure changed, and weathering and deposition altered the landscape long before Europeans arrived. However, when changes occur at a rate that does not allow the ecosystem to balance out over time, irreparable damage begins to occur. (Reaume, 1993).



By the mid-1700s, many Europeans had made contact with Aboriginal people living in the tall grass prairie region of Manitoba. At the same time, many small French trading posts were established in the area. Most European inhabitants were explorers and fur traders who remained largely in the northern part of the province. These traders were not interested in farming but as the bison population drastically declined due to widespread hunting, many Aboriginal people were forced to move west with the herds. (Living Prairie Museum, n.d.).

When European settlers arrived in the early 1800s, they were amazed by the amount of land available and began to cultivate small plots of

land, growing just enough for their family's survival. Although the land that was cultivated covered only a small area, it marked the beginning of a drastic change in the prairie landscape. (MCEPB, n.d.)

Tall grass prairie is the most productive type of prairie in North America. The extensive root systems of the tall grasses created extremely rich topsoil, ideal for farming. (Living Prairie Museum, n.d.).

Beginning in 1869, the land that is now Manitoba was surveyed and divided into townships, sections and quarter sections. Mapping the land in this way created a new perception of the landscape and allowed both governments and individuals to view the land as a commodity and to feel a sense of ownership. Settlers ploughed the native grasslands and planted cereal crops, quickly destroying the habitat of many plants and animals. Most tall grass prairie remnants remained only because the land was too wet or the soil was too rocky to easily cultivate. (Warkentin, 1970).



'winter', 2003

Railway lines were constructed throughout the west, permanently marking the landscape. By the early 1920s, many roads and highways were built along the section grid that began to connect regions of the province. Highways were constantly improved and relocated off the section grid throughout the mid-20th century, further altering the landscape and reducing remnants of tall grass prairie. (Warkentin, 1970).



By the mid-1900s, new agricultural technology had created a rapid increase in crop production, allowing fewer people to farm larger areas of land. This, along with increasing urbanization in towns and cities, caused Manitoba to experience a massive rural depopulation.

The remnants of native prairie that evaded the plough and grazing cattle were few and far between. Of the tall grass prairie that existed before European settlement, 99.9% had been destroyed by this time. Because the prairie ecosystem had been so completely altered, it would be impossible to ever restore the landscape to the expansive grassland it once was. (Living Prairie Museum, n.d.).

Most of the tall grass prairie in Manitoba slipped away, unknown to the majority of the population. Although not yet a common concern for many Manitobans, to some, the loss of biodiversity in the prairie was an issue that had to be quickly addressed.



From the late 1960s to the 1980s, remnants of tall grass prairie all over Manitoba were identified and protected from further decimation. Of sixty-four tall grass prairie remnants examined in 1968 by the International Biological Program, the Living Prairie Museum site was found to be the best example of tall grass prairie in the province.

City naturalists fought to stop the planned development of the area and save the remnant. In the early 1970s the land was set aside and an Interpretive Centre built. The creation of the museum played a major role in educating the public about the loss of this important ecosystem. (Living Prairie Museum, n.d.).



Recently, efforts have been made to identify all remaining tall grass prairie remnants in Manitoba. Some of the privately owned 81 hectares have now received protection under Manitoba's Critical Wildlife Habitat Program and the Manitoba Naturalists Society's Prairie Patron Program. Still, there are only four publicly protected sites in Manitoba totalling less than 100 hectares. (MCEPB, n.d.).

A highly productive agricultural economy has now been established on the prairie in Manitoba. It is impossible to ever re-establish the native prairie landscape. The continued protection of remaining native grasslands in Manitoba is extremely important so future generations are provided with, at the very least, a glimpse of what the prairie once was.

stuffed long tail weasel, coyote skull,  
stuffed prairie chicken, owl with  
shake, great grey owl, bear skull,  
Indian carving, piece of a wheel,  
bison skull, stuffed grouse, stuffed  
snowy owl, stuffed great horned owl,  
stuffed long eared owl, owl pellet,  
soil profiles, donations box, stuffed  
mallard, 'as tall as' chart, grasses  
and roots display, beaver pelt, rabbit  
pelt, bison, bear pelt, 7 or 8 bison  
bones, stuffed redwinged blackbird,  
stuffed pileated woodpecker, stuffed  
western meadowlark, stuffed  
mallards flying, stuffed bobolink,  
stuffed black billed cuckoo,

stuffed turkey, stuffed bufflehead, stuffed Canada goose, butterflies of Manitoba exhibit, butterfly life cycle costumes, butterfly boxes, sandbox, bison skull, horns, another big skull, bison bladders, bison bull scrotum, arrow, bison teeth and tails, bison foot bones, bison chips, antler, larvae box, butterfly in jar, vermicomposter, soil aquarium, soil poster, seeds poster, seedlings under light table, old desk and chair, night of the living prairie, amphibian box, snakes, snake skins, snake tank, stuffed fox chasing rabbit, wagon wheel, sewing machine,



road out of winnipeg 1 and 2, 2006

024

*time (movement)* ■ 038 ■■ 069, 086, 114 ■■■ 166

Many would say the prairie is not picturesque, but is it sublime? It is hard to take distinct pictures of the prairie. There is nothing to set the scene; nothing that frames a view.



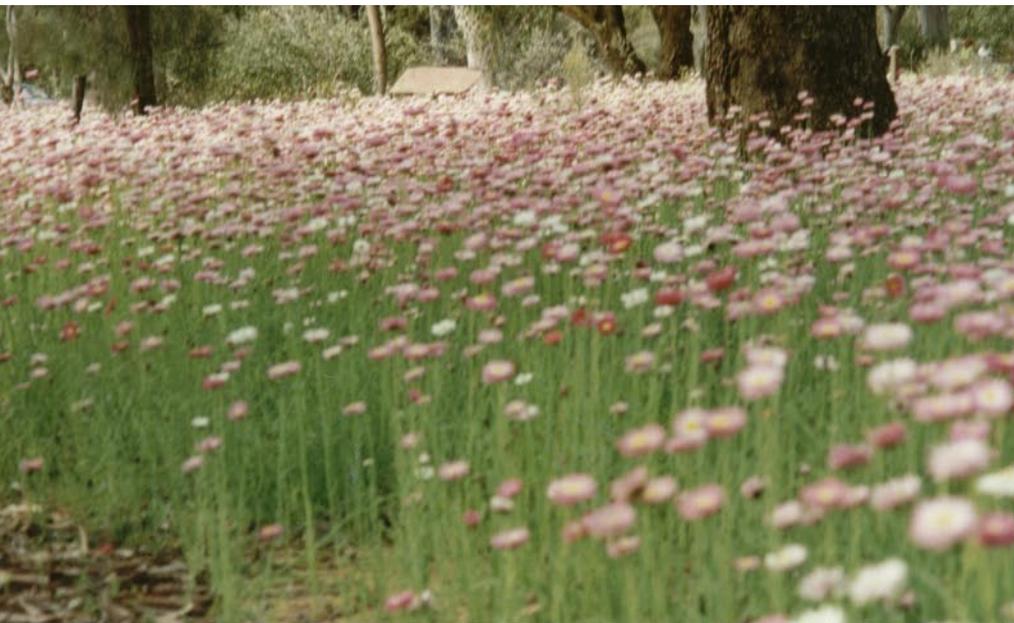


'nightlife', 2003

## HERITAGE

The prairie landscape has limited meaning when it is considered simply as a collection of physical and ecological features. It is when these features are “given meaning through a sense of beauty, a perspective of the past and an understanding of the economic and cultural forces that shape the present” (Uzzell, 1989, p. 184) that the true landscape emerges. The current general understanding of the prairie landscape is of what it has become not of what it once was.

The first National Heritage Conference held in Britain in 1983 defined heritage as “that which a past generation has preserved and handed on to the present and which a significant group of the population wishes to hand on to the future” (Uzzell, 1989, p. 16). In Manitoba, there is little awareness of the heritage, both social and ecological, of the tall grass prairie. If imaginations can be unlocked as people pass through the city streets, if moments of time past can be brought to the surface, the indefinable quality of time and space that the land possess can become part of the collective memory of the city.



top: wildflower festival, perth, 2000  
bottom: japanese pavilion, venice biennale, 2000

## MEMORY

### COLLECTIVE MEMORY

Popular memory is often different than official written history. As a result of this, it can be more important that our memories seem real than are real. Most of our memories lie between historical memory and imaginative construction.

Collective memories contain a strong spatial dimension and are linked to certain places in the landscape. Where landscape features are erased, the memory function is lost (Uzzell, 1989, p. 20) Then, only pictorial representations and records can tell what came before.

All memories are associated with place. So what has happened to the memories (stored in our society as a whole) of the nearly obliterated native landscape? Because the prairie landscape changed drastically within such a short amount of time, the collective memory base of the tall grass prairie is severely fragmented and in some areas lost.

This project tries to abstractly uncover the collective memory of the prairie in order to preserve and cultivate it before a significant portion of the memories attached to this place are gone. It tries to connect people with the landscape memory of Winnipeg as they move through urban layers that have now been deposited on what was originally there.

*"...the landscape is a collective memory device that maps stories of the past in actual space."*

(van Tijen, 1996)

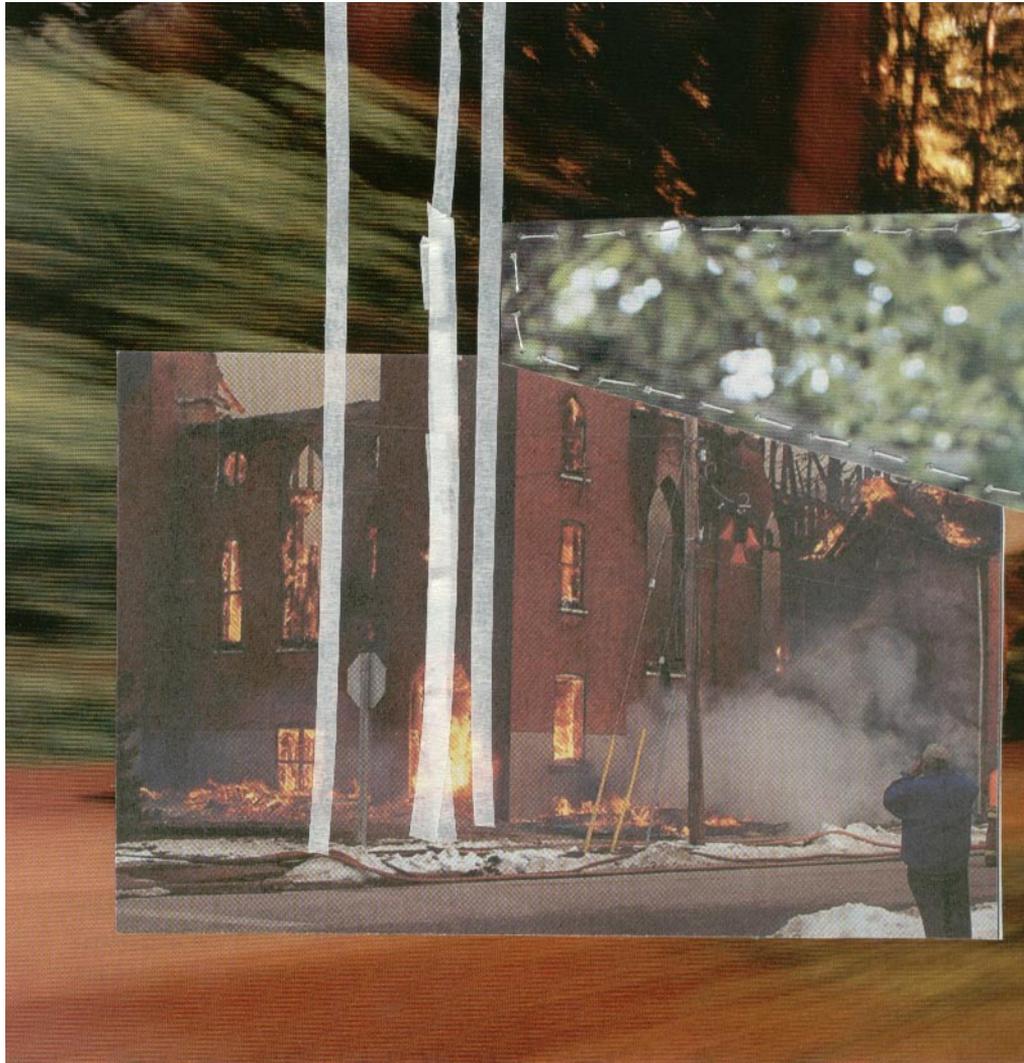
## PHYSICAL/COLLECTIVE MEMORY

There are two forms of collective memory – bodily and inscribed.

Both of these memory types have a certain physicality. Bodily memory is a memory stored in moving parts or actions while inscribed memory is a more innate reactional memory that is harder to observe. This project primarily focuses on bodily memory.

In bodily memory, the past gets passed down through how we do things (not just through what we think or do – but how we sit, sleep, move, walk, talk) Memory is a bodily experience. (van Tijen, 1996).

Memories can also be tied to physical images with stories attached to them. If the story is told often enough, it is hard to determine if you actually remember the time in the photograph or if you only think you do because you know the image and story attached to it so well. In this way, how we imagine the world now and how it once was determines how we live in it.



'memory patches', 2003

scent ■ 120 ■ 146

031

## TIME

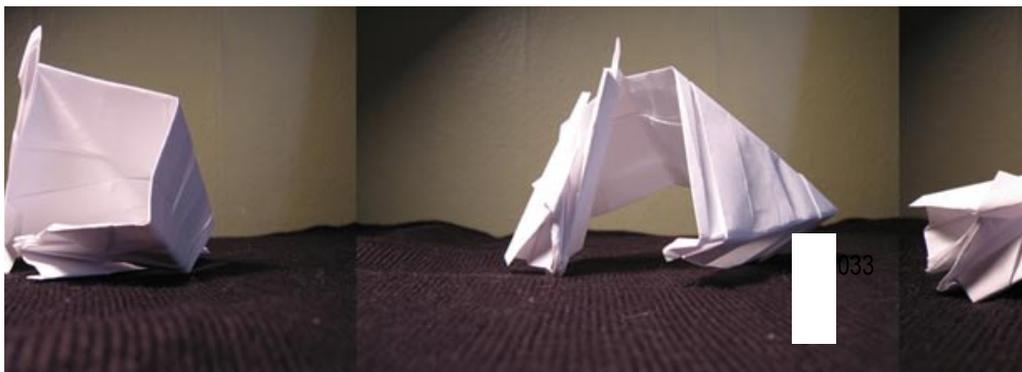
On the prairie it is easy to imagine a different flow of time. The following list, adapted from Alan Lightman's book 'Einstein's Dreams' (1993), describes possible conceptual alternatives that comprise part of this exploration of the prairie landscape.

Theories of time:

- x time is a circle, a loop. everything happens again and again and nothing can change it. So is the past the future or the future the past?
- o time has 3 dimensions – like space. An object can have 3 perpendicular futures, they all happen, an infinity of worlds.
- x there is no mechanical time, time moves in fits and starts – body time
- o mechanical time – bodies don't exist – body is a machine. Both of these times are true but the truths are not the same.
- x time flows more slowly the farther from the centre of the earth you go. Everyone lives on mountains and on stilts but over time they forgot why higher is better.
- o time is visible in all places. A scaffold of time over the universe lays down time equally for all. Time is absolute, a tribute to time. Time is clarity for seeing right and wrong.
- x cause and effect are erratic. Future and past are entwined. An acausal world-scientists are helpless. Predictions become post-dictions. No need to dwell on the past. Each act in an island of time.
- o everyone knows the day the world will end. Schools shut, businesses close, money loses value. Everyone is happy.
- x each section of a town is fastened to a different time. Texture of time is sticky. People get stuck. No one is happy if they are stuck alone.
- o No thing is out of place. When wind goes through the street, sweeps it clean, waves restore the shore. Time brings increasing order. Order is the cosmic direction. Future = pattern, union, organization. Past = randomness, confusion, disintegration. History is indistinct. In the spring, people sweep in dirt.
- x time stands still. As a person approaches an area – get slower and slower until she stops. This is the center of time. Time travels outward in circles. Light diminished to nothing but without time there is no life.
- o there is no time, only images.

right: 'unfolding', 2006

- x people have no memories. Everyone carries notebooks to record what they see and carry maps to know where they are going. A world of the present. Each person has a book of life. Some have abandoned the past.
- o time flows fitfully not evenly. Receive visions of the future. What is the sense living in the present if you can see the future. A world of successes but no risks.
- x all is in movement/motion. Houses on wheels, time passes more slowly for people in motion. A clock is in motion when viewed from a cloud.
- o time flows backward. They wait for a particular day in the future (which is actually the past).
- x people live just one day – a lifetime is lived in a day or the rotation of the earth slows – 1 revolution = 1 day = 1 lifetime. 1 sunset, 1 sunrise. Everyone only experiences 1 season. Time is too precious.
- o time is a sense. May be quick or slow depending on history of the viewer. Does time exist outside human perception? Aesthetics of time. Some people are born with no sense of time. Sense of place is heightened. They are time-deaf.
- x people live forever. Become the later and the nows. No one ever comes into his own. Life is tentative.
- o time is not a quantity but a quality. It cannot be measured. Events are triggered by other events. Events are recorded by the colour of the sky.
- x a world with no future. Time is a line that terminates at the present. Beyond the present is nothingness. Each moment is the end of the world.
- o time is a visible dimension.
- x time is not continuous – microscopic gaps – almost imperceptible. Sometimes displacement occurs.
- o time is a local phenomenon. Clocks tick at different rates different speeds at different locations. No traveller goes back to his city of origin. Life develops in a thousand different ways.
- x the future is fixed. Time is not fluid. Life is an infinite corridor of rooms. Spectators of our lives. Nothing is right or wrong.
- o time bounces back and forth. A world of countless copies.
- x a world of shifting pasts. The past is a kaleidoscope – a pattern of images that shift with the breeze. In time, the past never happened.





## EXPERIMENT 1 - WIND

JANUARY 26, 2006

Grasses don't blow gently in the winter. They have choppy, staccato movements, as though they are struggling to uproot. Frantic, frenetic. In the summer, the grass blows in waves. This is much different.

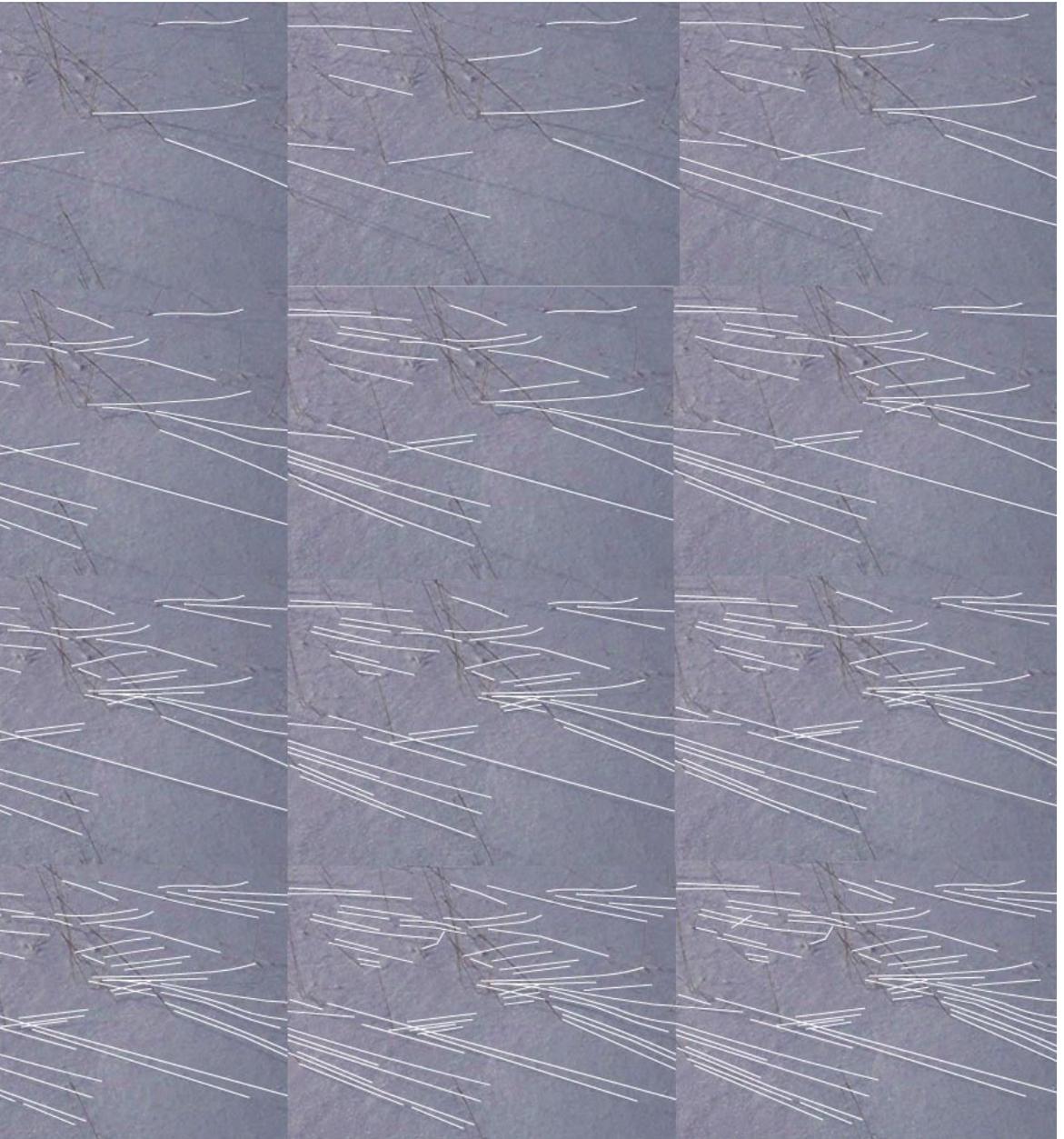
The wind blows the snow hard, makes it crisp and shiny. It sounds different to walk on windblown snow and if you are very careful, you can walk on top of it. One heavy step and you're through. The little wind waves in the snow are frozen in time. A mini ocean of ice.

The wind has complete control of your body when you are in the wide open. Tossing everything aside, snow flies up the bank. Everything is at an angle, leaning into the wind. It is better to work with the wind than against it, but grass does not have a choice.

Balance on the riverbank, try to keep still and watch the grasses blow. Huge gusts come over the lip of the bank to beat everything away, but the grass hangs on. It is stiff but sometimes corkscrew curly.

All you can hear is the wind. The sound is consuming and muffles the ambience. Wind becomes ambience. Birds mutely soar over the river turning the air into a series of planes. The grass whips my foot.

left: 'wind trace' (flash movie), 2006



## EXPERIMENT 2 - SHADOWS

JANUARY 30, 2006

A calm day makes such a difference. The prairie is still and the clouds are moving slowly. There are no shadows, only the indents made by snowshoes show a different tone of blue-white.

The snow is fresh and the animal trails are all around. Following the rabbit trail is easier than making my own. The snow is harder here. I wait for the sun to come out, checking the sky often for any movement. There are still no shadows.

Eventually the sun breaks through the dark cloud and the snow sparkles. Delicate shadows leave traces on the snow. They are subtle, thin, ephemeral but they add another dimension to the landscape.

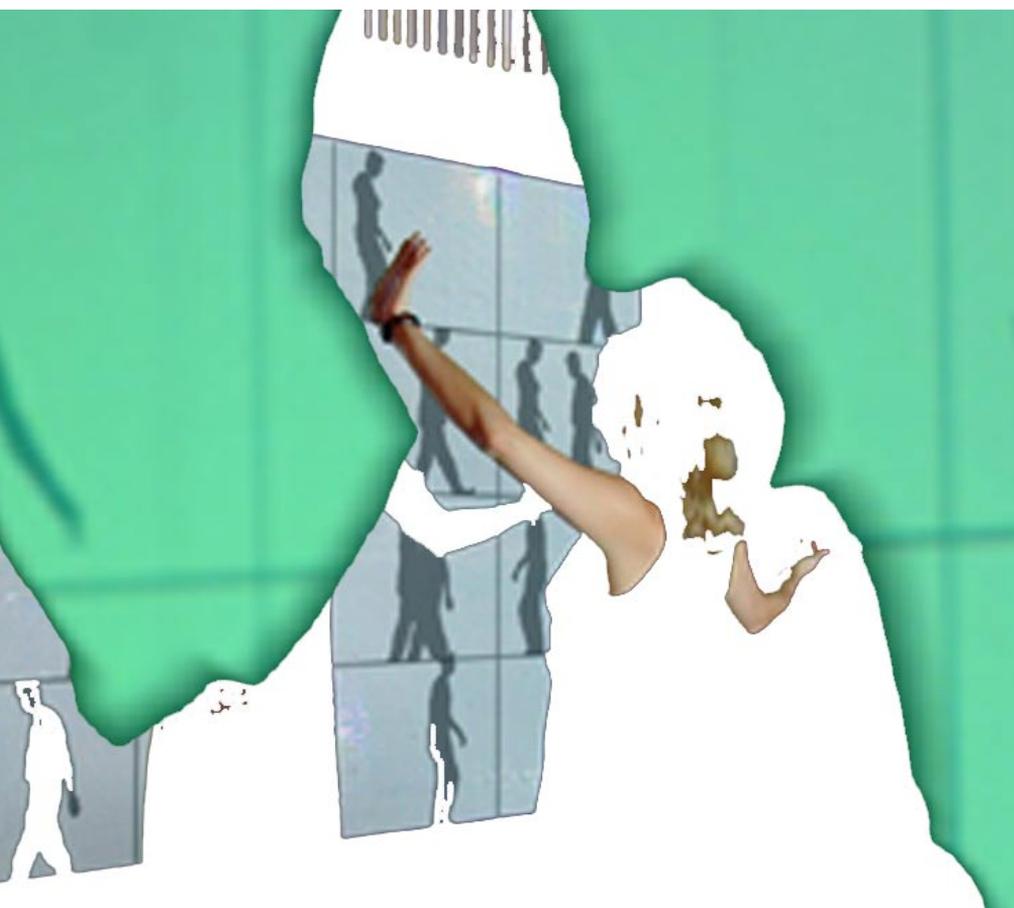
The shadows also makes me appear, pin me down on the prairie. Shadows glue the snow and the grasses and everything moving over the landscape together on one surface. The longer you look at the shadows, the more there are. Like staring at the stars. They are at the mercy of the sun and they come and go.

Waiting for shadows is painful but then when they come, the snow is so bright they are hard to see. Shadows on a winter prairie.

left: 'shadow trace' (flash movie), 2006

## CASE STUDIES

The following case studies form the practical and theoretical basis of 'FIELD WORKS'. Each project is briefly described followed by an outline of possible applications within speculative interventions at both the Living Prairie Museum and in urban areas of Winnipeg.



deep walls study collage, 2005  
[pieces of images from: (Snibbe, n.d.)]

## **DEEP WALLS - Scott Sona Snibbe**

*Deep Walls creates a projected cabinet of cinematic memories. Within each of 16 rectangles, the movements of different viewers within the space are projected, played back over-and-over, and reduced into the space of a small cupboard....the work presents memories of the space, organized and collected into a flat cinematic projection.*

(Snibbe, n.d.)

The temporal quality of 'Deep Walls' could be incorporated into the exhibits at the Living Prairie Museum. Capturing and storing memories of the prairie while connecting them to the amount of time people spend there or what day they visited could form a framework. Real-time events could be projected over recent history and then stored, compartmentalizing memory.

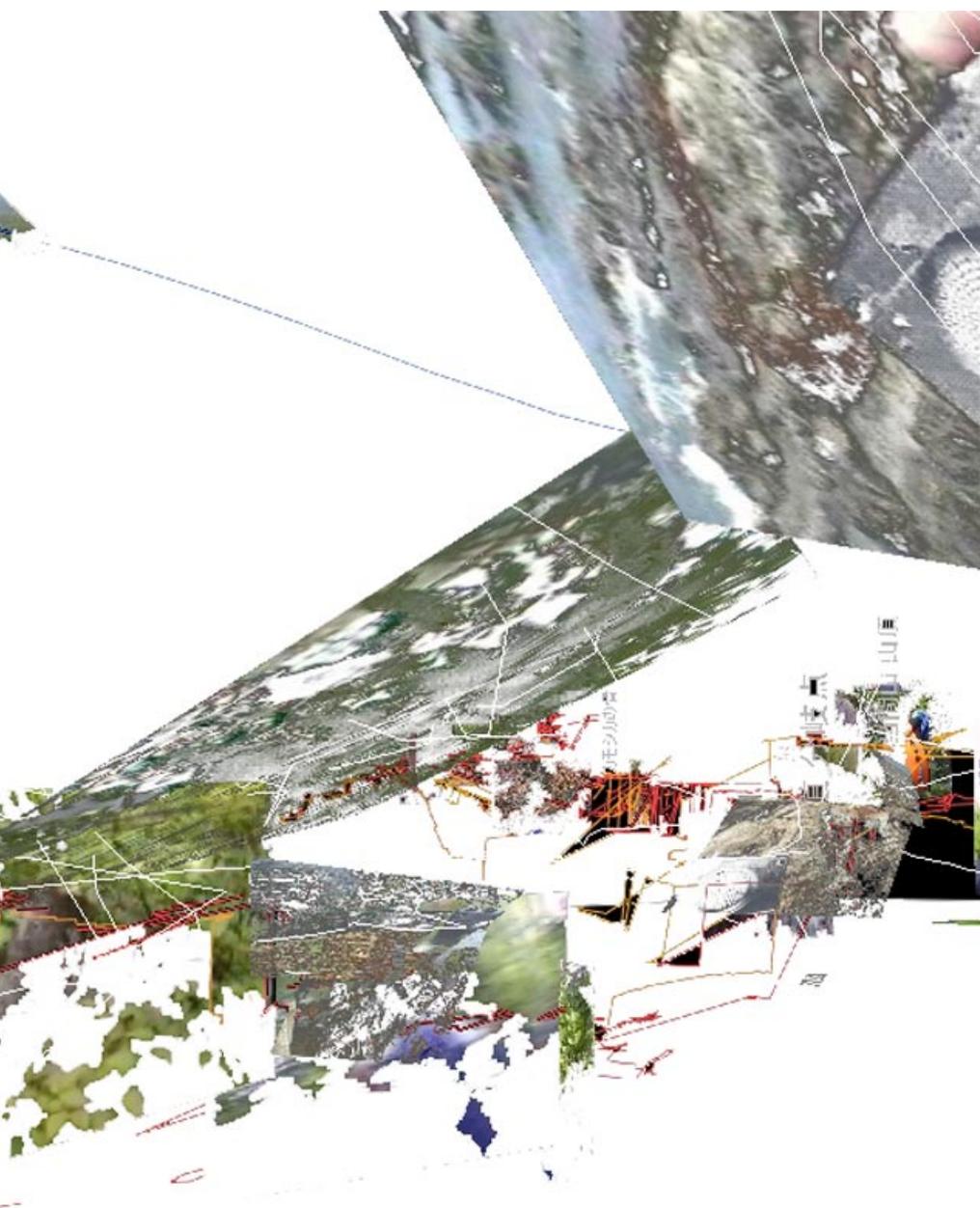
The central artefact at the Living Prairie Museum is the prairie. This case study could be useful as a method to trace and record the subtle changes in the prairie and how people interact with them.

Possible applications:

Existing webcams could store images of the prairie over time and send the information to an intervention site. This could be overlapped with the real-time condition. Because the webcam is controlled by anyone on the website (anyone, anywhere in the world), it would not only show what the prairie looks like at a certain time, but would also be a record of how the prairie is being explored.

Images could be projected on the window from inside the Living Prairie Museum interpretive centre so that the projections overlap what is actually happening.

The concept of storing information in compartments for a certain amount of time could serve as an organizational structure for the information stored in the experience database.



field-work study collage, 2005  
[pieces of images from: (Schopf, 2001, p. 72)]

## **FIELD-WORK - Masaka Fujihata**

*GPS technology and current digital video technology were combined to construct a pseudo-real space where one's view, captured by video would follow the position of its original movement. One's view is projected as a video frame and is moved following the wire frame GPS data with its original positions and orientations.*

(Schopf, 2001, p. 72)

'Field-Work' is essentially a mapping technique that places video stills on a wire-frame representing a path. Although it gives the illusion of movement and 3-dimensions, it is basically 2-dimensional. It only provides windows into space, allowing one direction of focus. It is floating in space.

The same technique could be used at the Living Prairie Museum and other sites in Winnipeg if it were grounded. Images and audio could be embedded into the land and visitors could constantly add to the map. It would allow visitors to compare their route with the movement of other visitors as well as walk the same path comparing changes over time.

Possible applications:

A map could be created by tracking visitor movement through GPS or by 'pinging' cell phones that people carry as they move through the prairie.

The interactive map could be accessed from out on the prairie or at intervention sites through radio frequencies or by exploring a portable database (downloaded to a cell phone or PDA).

Data maps could also be explored from inside the interpretive centre where visitors would also add their own collected data.



flower portraits study collage 2005  
[pieces of images from: (Fischli & Weiss, n.d.)]

## **FLOWER PORTRAITS - Peter Fischli and David Weiss**

*...the flower portraits employ the technique of double exposure to achieve dizzying layered effects. The process allowed the artists to exploit their collaborative approach: one would shoot an entire roll of film in a suburban rose garden; the other would rewind it and then shoot the same roll in a park in Zurich....The cumulative effect is one of abundance and kaleidoscopic visual pleasure.*

(Fischli & Weiss, n.d.)

The concept of 'Flower Portraits' allows two different views of a landscape to be layered on top of each other, exposing new relationships between landscape elements. Combining different views changes the perception of place.

If the images were all taken in a limited area (the prairie or the city of Winnipeg), a new understanding of the complete place would emerge. Some people naturally focus on the detail while others are drawn to the view, the horizon. This technique would show change in the landscape over time as well as allow the visitor to see the landscape through other visitors' eyes.

Possible applications:

Images could be taken on a digital camera or cell phone and sent back or downloaded to a database at an intervention site.

Instead of seeing only their own images, visitors could see them reconfigured with other visitors' images. They could be viewed on a computer screen, projected, or automatically reconfigured and sent back to the cell phone.

Visitors could be in control of the images by choosing which ones to combine. They could create their own composition and meaning of the prairie landscape. The combined exposures could be saved and stored in the database, printed or emailed back to the visitor.



## **GRIDIO - Coldcut and Headspace**

*...pressure-sensors on the grid-patterned floor detect movements of people within the installation and this triggers multiple simultaneous audiovisual clips. Video from the clips is mixed on a large projection screen, associated audio through a loudspeaker system.*

(Coldcut & Headspace, n.d.)

In 'Gridio', audio and video clips are triggered in relation to the location of a person in a room. The installation changes the interface between the person and the space. As people realize they control the room, they begin to act less self-consciously. Their focus shifts from inside their body to the walls around them.

If this concept could be taken out of a black isolated room and into the landscape (or at least a room with views of a landscape), the experience could be even more rich. The interface would become situated.

Possible applications:

Video and audio clips could be recorded by people on cell phones or other recording devices and sent or downloaded to a database.

Audio could be extracted from the video and attached to another clip. The video and audio of each clip would not correspond, allowing visitors to extract new information and create their own links and relationships.

Video and audio could be mixed together or constructed as a sequence in relation to the path the visitor took through the prairie or the city. This could be determined through GPS or the visitor could enter the information into a 'mixer'. Other information such as temperature, wind speed, time, etc. could be used as a trigger for sequence construction.

New clips could be sent back to a cell phone as people wander through the landscape.



## **LIFE: A USER'S MANUAL - Michelle Teran**

*'Life: a user's manual' focuses on the use of wireless surveillance cameras within public and private places that transmit on the 2.4 Ghz frequency band. Easily intercepted using a consumer model video scanner, the captured, live images create a sequence of readings and views of the city and its inhabitants which are observed while walking through the streets.*

(Teran, n.d.)

By intercepting surveillance videos, the everyday happenings of people are collected and mapped in 'Life: A User's Manual'. The map creates an interactive surface, providing peepholes into ordinary spaces. The 'big brother' aspect of 'Life: A User's Manual' is undesirable for this project, however, the way existing signals are picked up and the process of mapping them is useful.

There is already an abundance of signals running through the prairie and the city (radio, internet, etc.). They could be used to pick up on events, micro or macro, in the prairie landscape.

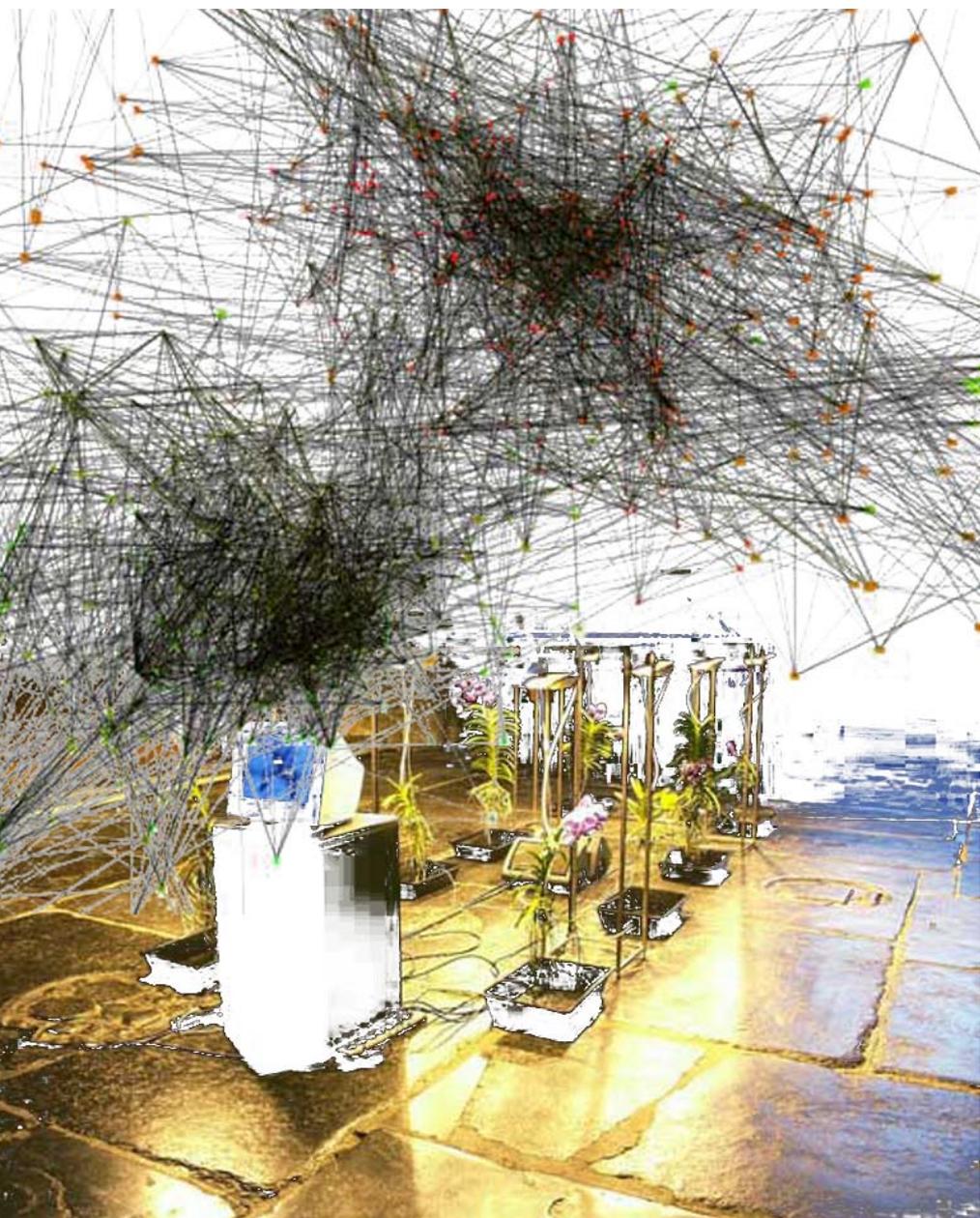
Possible applications:

Images taken on the prairie could be mapped at the interpretive centre and correspond to the location that they were taken. The maps could be downloaded onto PDAs or cell phones and used as a guide for other visitors as they move throughout the prairie.

A scanner, similar to the one used in 'Life: A User's Manual', could be carried through the city to collect the electronic signals running through the landscape. The signals could be used to trigger information about the prairie (video clips, audio, images) to show up on the scanner and could be viewed while exploring the land.

The number and type of signals picked up could trigger how interventions are reconstructed.

Visitors could carry a video camera or other recording device that is linked back to the exhibit at the Living Prairie Museum interpretive centre. Visitors inside could connect to the device and view what the person is seeing out on the prairie.



life support systems: vanda study collage, 2005  
[pieces of images from: (Herczka, n.d.)]

## **LIFE SUPPORT SYSTEMS:VANDA - Mateusz Herczka**

*Life Support Systems - Vanda is an attempt to analyze electrical signals from the vanda hybrida orchid, and apply language modeling techniques to these signals in a computer. The result is a virtual model, which continues to generate similar signals long after the original orchids are gone - a kind of computerized longevity.*

(Herczka, n.d.)

'Life Support Systems: Vanda' digitizes electrical signals from plants and provides a platform so that they can continue to develop and grow in the computer. The plants can be kept alive through their signals even after they have died or been taken away.

Similar techniques could be used to harness energy from prairie plants or from the elements on the prairie. Most plants on the prairie are only visible for part of the year and much of the action takes place underground. This concept would allow visitors to begin to understand the stored energy in the prairie.

Possible applications:

Sensors could be buried underground sending signals back to an intervention site or could be picked up with a portable scanning device then reconfigured as an image.

The sensors could be incorporated in measuring devices for wind, temperature, humidity, etc. The information gathered could be fed into a computer and displayed as a visual reconstruction of the elements. This would allow the intervention to be in flux even when there is no one controlling it.

Visitors could enter different variables or take real measurements on the prairie and enter them into the database to explore how the digitized intangible landscape might evolve.



listen study collage, 2005  
[pieces of images from: (LISTEN Project Consortium, n.d.)]

## **LISTEN - LISTEN Project Consortium**

*LISTEN will provide users with intuitive access to personalised and situated audio information spaces while they naturally explore everyday environments. A new form of multi-sensory content is proposed to enhance the sensual, emotional and pedagogical impact of a broad spectrum of applications ranging from art shows to marketing or entertainment events. This is achieved by augmenting the physical environment through a dynamic soundscape, which users experience over motion-tracked wireless headphones.*

(LISTEN Project Consortium, n.d.)

In 'Listen', motion-tracked wireless headphones allow people to hear personalized educational information as they approach certain objects or areas while remaining tuned in to the ambient sounds of the space.

The project lets people wear headphones and receive information without being isolated. It is important not to detach visitors from the sounds of the prairie, the elements, or other people around them.

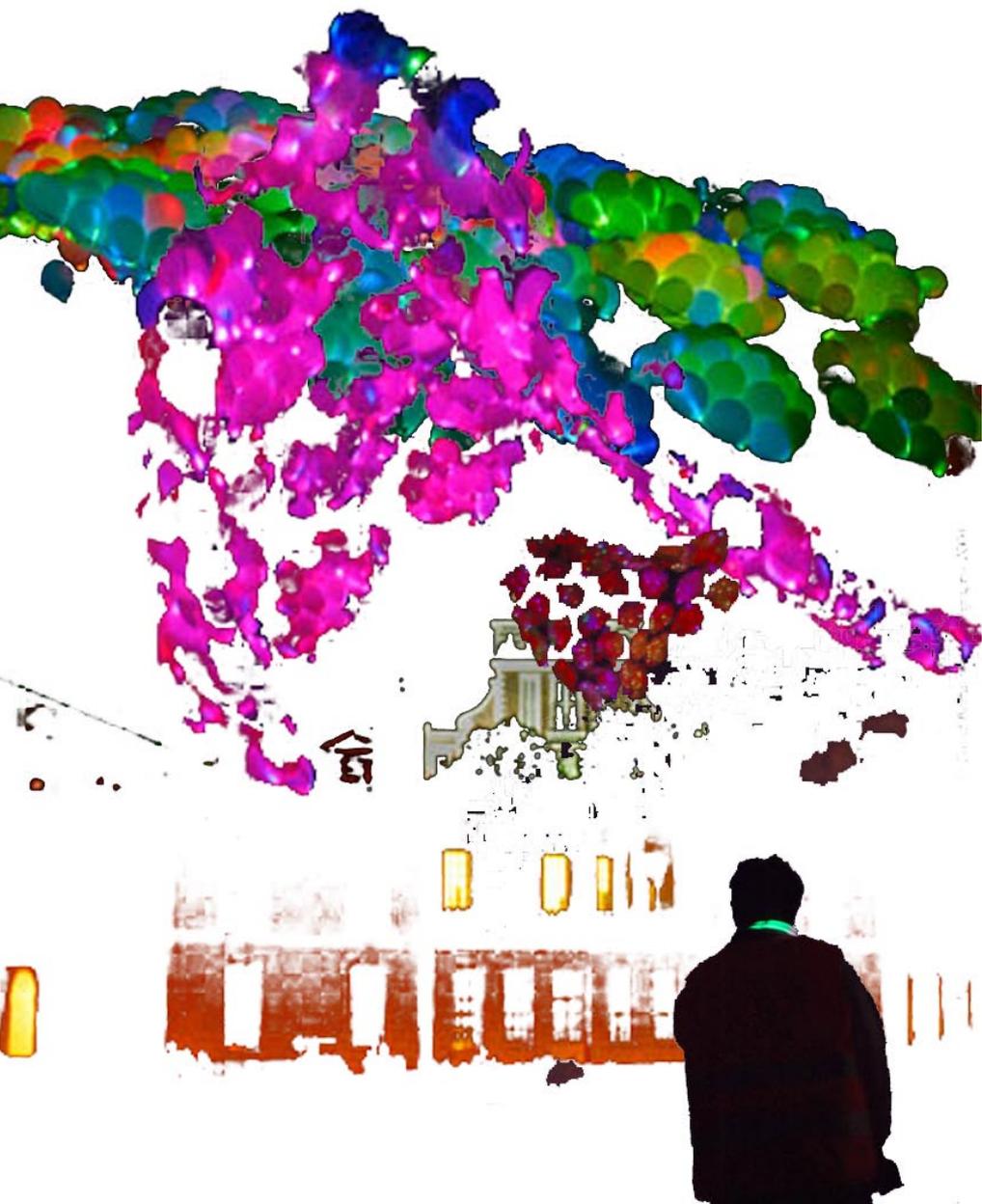
Possible applications:

A similar device that is triggered by sensors at self-guided trail stops or at sites throughout the city could be used for this project. Instead of wearing headphones, information, sounds, and stories could be heard over cell phones or a signal scanning device.

Ambient sounds like bird song and grass movement could trigger information or other sounds to be played over the headset or audio device.

Visitors could enter preferences and information about themselves into the database in the interpretive centre before exploring the prairie in order to hear personalized audio.

Motion-tracked headphones or another recording device could record sounds and send them back to intervention sites to be incorporated with other elements.



sky ear study collage, 2005  
[pieces of images from: (Haque, n.d.)]

## **SKY EAR - Usman Haque**

*Sky Ear is a one-night event in which a glowing “cloud” of mobile phones and helium balloons is released into the air so that people can dial into the cloud and listen to the sounds of the sky. The balloons contain miniature sensor circuits that respond to electromagnetic fields, particularly those of mobile phones. When activated, the sensor circuits coordinate to cause ultra-bright coloured LEDs to illuminate.*

(Haque, n.d.)

‘Sky Ear’ is a truly interactive event that allows people to dial into a floating object and listen to it. Their action is made visible through the changing colours of the object.

Similar concepts could be applied in this project to allow visitors to connect with unreachable or intangible aspects of the prairie.

Possible applications:

Visitors could dial into listening posts placed throughout the prairie from inside or outside the interpretive centre. They would be able to hear the sound of the wind, birds, grass growing, etc. Listening posts could also reach underground to allow visitors to dial into roots and burrowing animals.

The technique could be used as a wayfinding tool when walking through urban spaces. Using their cell phones, visitors could dial a certain number or choose from a series of numbers to light up a post or marker somewhere in the landscape. They would then be encouraged to walk towards it, creating a facilitated wandering.

Sensor posts/markers could light up when electromagnetic signals already traversing the prairie pass through the sensor. In this way, the electronic landscape could be visualized, adding another layer of complexity to an already complex landscape.



streetscape study collage, 2005  
[pieces of images from: (Nakai, n.d.)]

## **STREETSCAPE - Iori Nakai**

*Streetscape is a device that extracts environmental sounds and city form, and immerses you in them so that you can imagine your surroundings. By tracing a map where the roads have been cut away, you can listen to sounds from that particular location using headphones. This idea emerged from wondering what we can see in the scenery of a city imagined through sound, and what kinds of memories will be brought to the surface.*

(Nakai, n.d.)

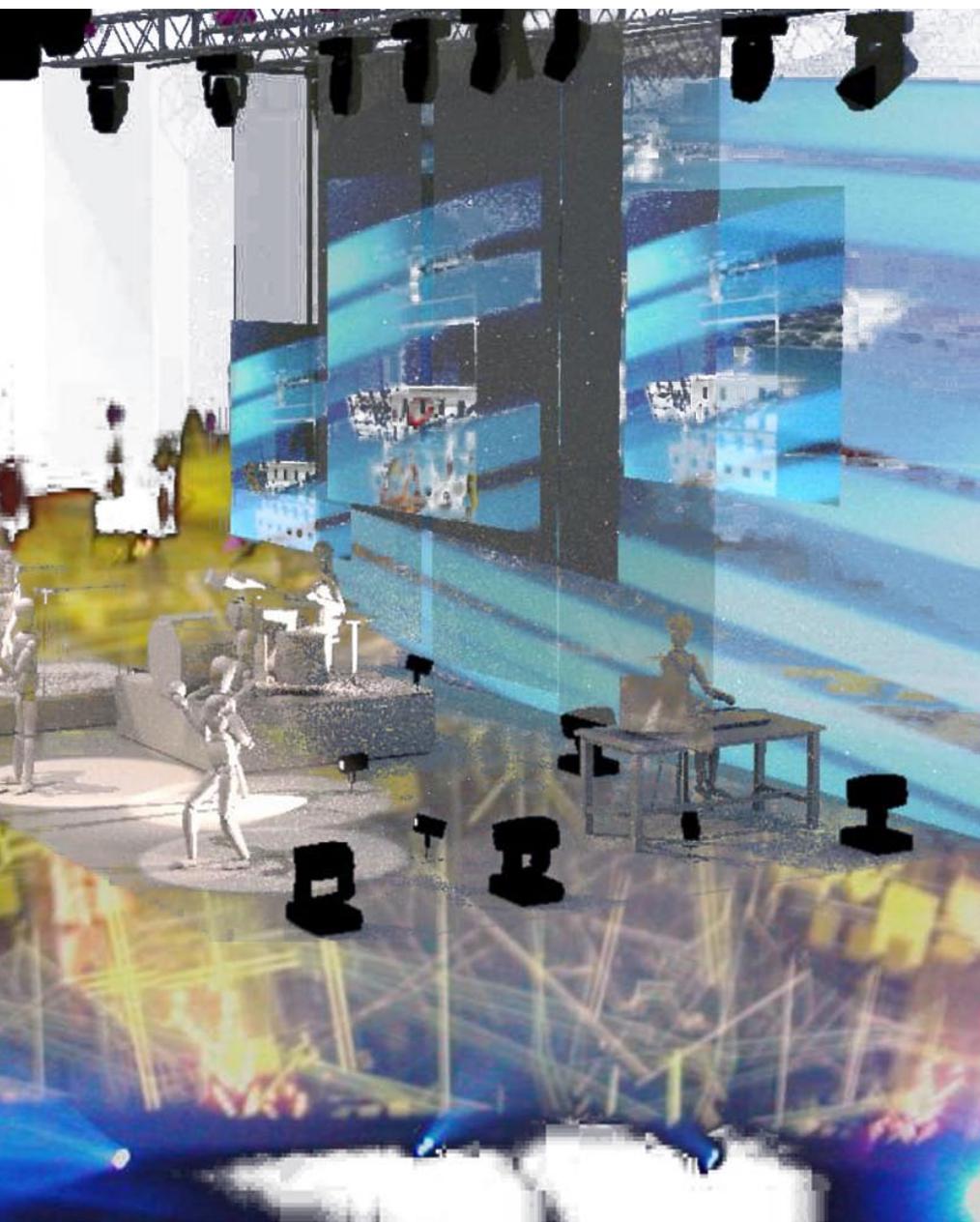
'Streetscape' extracts environmental sounds and amalgamates them in a two-dimensional surface. People can interactively explore the surface and hear the sounds by moving a digital pen over it.

This is a prescribed map that only allows exploration along one path. Because everyone filters sound in a different way, the project could be even more meaningful to the explorer if she/he could be involved in collecting the sounds and deciding which path to explore.

Possible applications:

After visitors have explored a space, they could make a map of their path that could then be overlaid on the sound board. By tracing over their path, they could hear sounds that they may or may not have heard. Extracting the sounds from the experience and mixing them up could result in visitors becoming more sensitive to environmental sounds.

Visitors could use their cell phones to dial into changing soundscapes as they walk through the prairie or an urban environment. One ear would hear magnified prairie sounds while the other would hear real sound. The sounds would blend together to provide a rich auditory experience. Here, the pen is the person tracing the landscape.



video mixing study collage, 2005  
[pieces of images from: (Beck, n.d.)]

## **VIDEO MIXING/SCRATCHING - Beck**

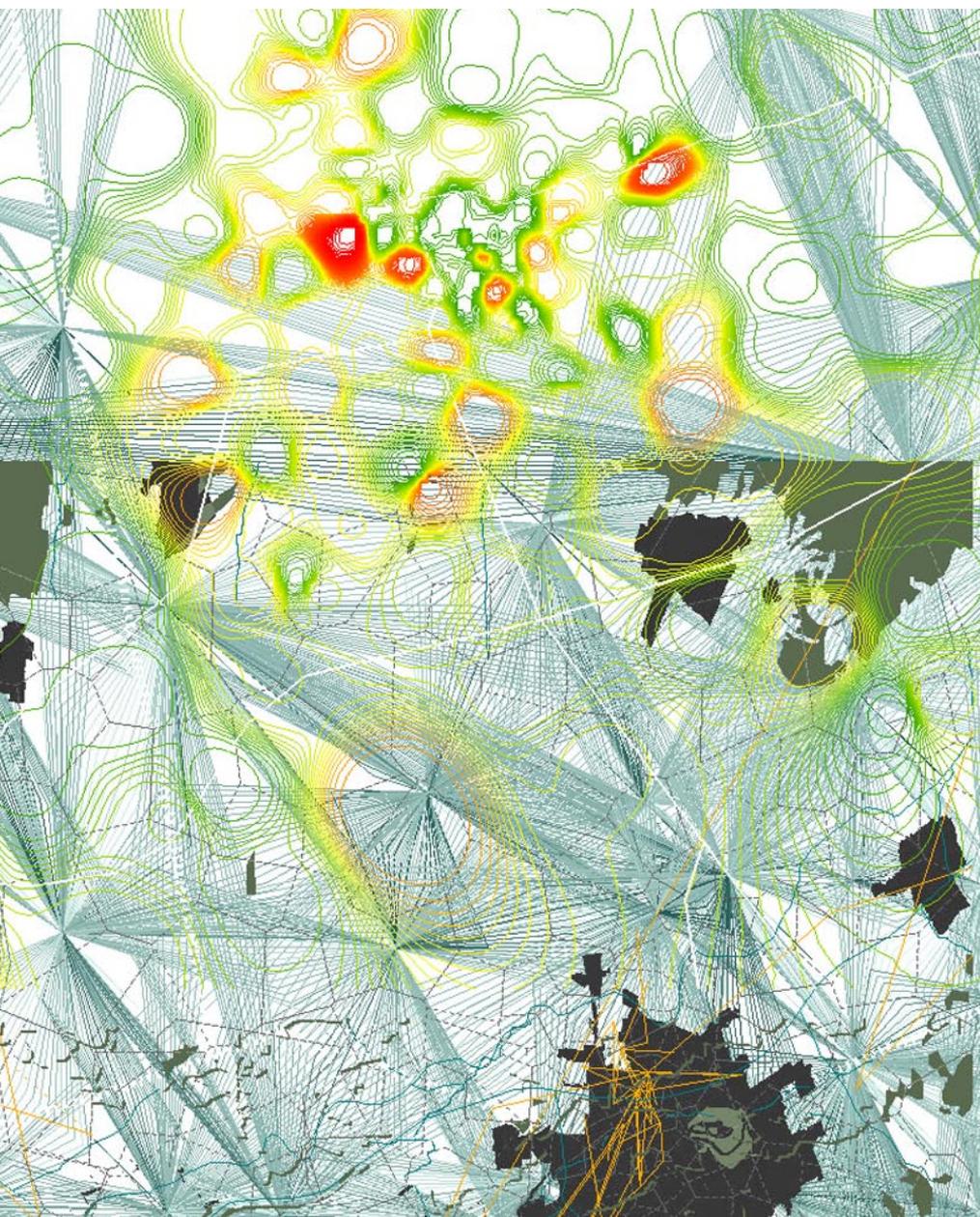
The band Beck uses a technique where a VJ on stage scratches DVDs just as a DJ would scratch records. They use about six different projections combining pre-recorded clips with real-time video of the band and audience to create fantastic altered landscapes.

Possible applications:

The same concepts that apply to the 'Flower Portraits' project could apply here but still images would be exchanged for video. Real-time video of the prairie or of other environments could be mixed with pre-recorded or visitor recorded clips.

Control over how the video clips are mixed together could be given to the explorer using a simple video mixing program on the computer. A rolling ball control could act as a flexible interface.

Clips could be mixed depending on the information visitors bring back to the experience database or based on conditions in the landscape. The video could be projected onto many surfaces at an intervention site.



mobile landscape study collage, 2005  
[pieces of images from: (SENSEable City Lab, n.d.)]

## MOBILE LANDSCAPE - GRAZ IN REAL-TIME

*Mobile Landscape Graz in Real Time harnesses the potential of mobile phones as an affordable, ready-made and ubiquitous medium that allows the city to be sensed and displayed in real-time as a complex, pulsating entity. Because it is possible to simultaneously 'ping' the cell phones of thousands of users - thereby establishing their precise location in space at a given moment in time - these devices can be used as a highly dynamic tracking tool that describes how the city is used and transformed by its citizens.*

(SENSEable City Lab, n.d.)

Possible applications:

Using this technology, visitors to the Living Prairie Museum could be tracked through their cell phones instead of having to rely on more expensive GPS. If they wished, they could continue to be part of the prairie map even after they left the prairie.



rfid tracking party study collage , 2005  
[pieces of images from: San Francisco Museum of Modern Art, 2005)]

## **RFID TRACKING PARTY - San Francisco Museum of Modern Art**

The MOMA hosted a RFID (radio frequency identification) party on October 27, 2005. Everyone was given a tag to put on their clothes so their movements could be tracked throughout the evening. RFID readers were placed around the room. Their location was shown on a large screen and updated every minute. Each vertical column was shown as a separate tag. The people whose RFID history was mostly blue or green spent most of their time near the bar while red indicated dancing and yellow indicated talking. Black means the person left the building.

Sticky radio frequency identification tags were placed on clothing as people entered the room. The movement of these tags was recorded throughout the evening. Although this seems to be a cheaper and more dispensable method of radio frequency tracking, the ability to read the tags is restricted to a certain area.

Possible applications:

RFID tags could be used to track where visitors move on the prairie if RFID readers were placed at various locations in the field.

Tags could be attached to plants or in the ground near trail markers or placed at intervention sites throughout the city. Visitors could carry a RFID reader as they explored landscapes and would pick up signals from the tags. This could be particularly interesting if the tags were attached to loose leaves or other parts of plants blowing around the area.

The signals could be transmitted back to a database to become part of a visual exploration/mapping.



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intra-terrestrial soundings study collage, 2005  
[pieces of images from: (Youngs, n.d.)]

## **INTRA-TERRESTRIAL SOUNDINGS - Amy Youngs**

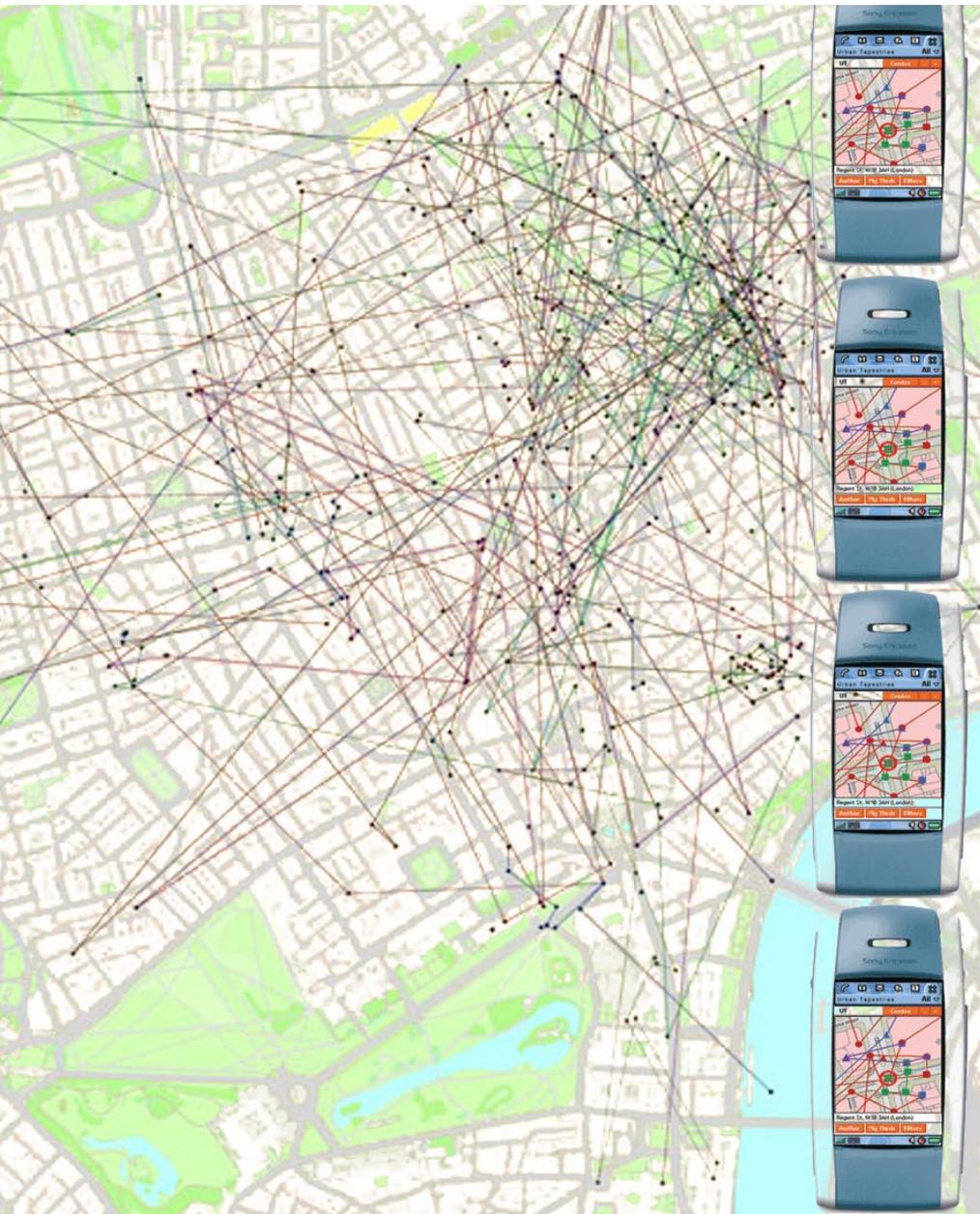
*Intra-terrestrial Soundings is an installation that offers human participants an opportunity to tune into - and bodily experience - the vibrations made by tiny, soil-dwelling beings. Humans continue to be interested in detecting signals of extra-terrestrial life in outer space, but have overlooked the intra-terrestrial signals of life – the worms and insects that sustain our own terrestrial existence. This highly amplified environment allows humans a chance to appreciate these extraordinary life forms through live, amplified sounds and infrared video. Hopefully this experience will give a viewer/participant a different sense of the life inside the earth; one that goes beyond the scientific and instead approaches something more akin to fellowship, communion or appreciation.*

(Youngs, n.d.)

Possible applications:

The technology this project uses could be easily incorporated into either an outdoor or indoor exhibit about the underground landscape of the prairie.

The facility achieved in 'Intra-terrestrial Soundings' allows the visitor to touch and hear common objects in an uncommon way. As a result, a higher level of appreciation and wonder for elements in an everyday landscape is developed. Each intervention around Winnipeg could awaken a sense in a similar way.



urban tapestries study collage, 2005  
[pieces of images retrieved from: (Proboscis, n.d.)]

## **URBAN TAPESTRIES - A Proboscis Project**

*The Urban Tapestries software platform allows people to author their own virtual annotations of the city, enabling a community's collective memory to grow organically, allowing ordinary citizens to embed social knowledge in the new wireless landscape of the city. People can add new locations, location content and the 'threads' which link individual locations to local contexts, which are accessed via handheld devices such as PDAs and mobile phones.*

(Proboscis, n.d.)

'Urban Tapestries' is a highly interactive piece of software designed specifically for cell phones and PDAs. It allows people to construct their own stories about place and to share their experiences and memories.

The metaphor of thread, pocket, etc. makes it easy to visualize the structure of information in the database.

Possible applications:

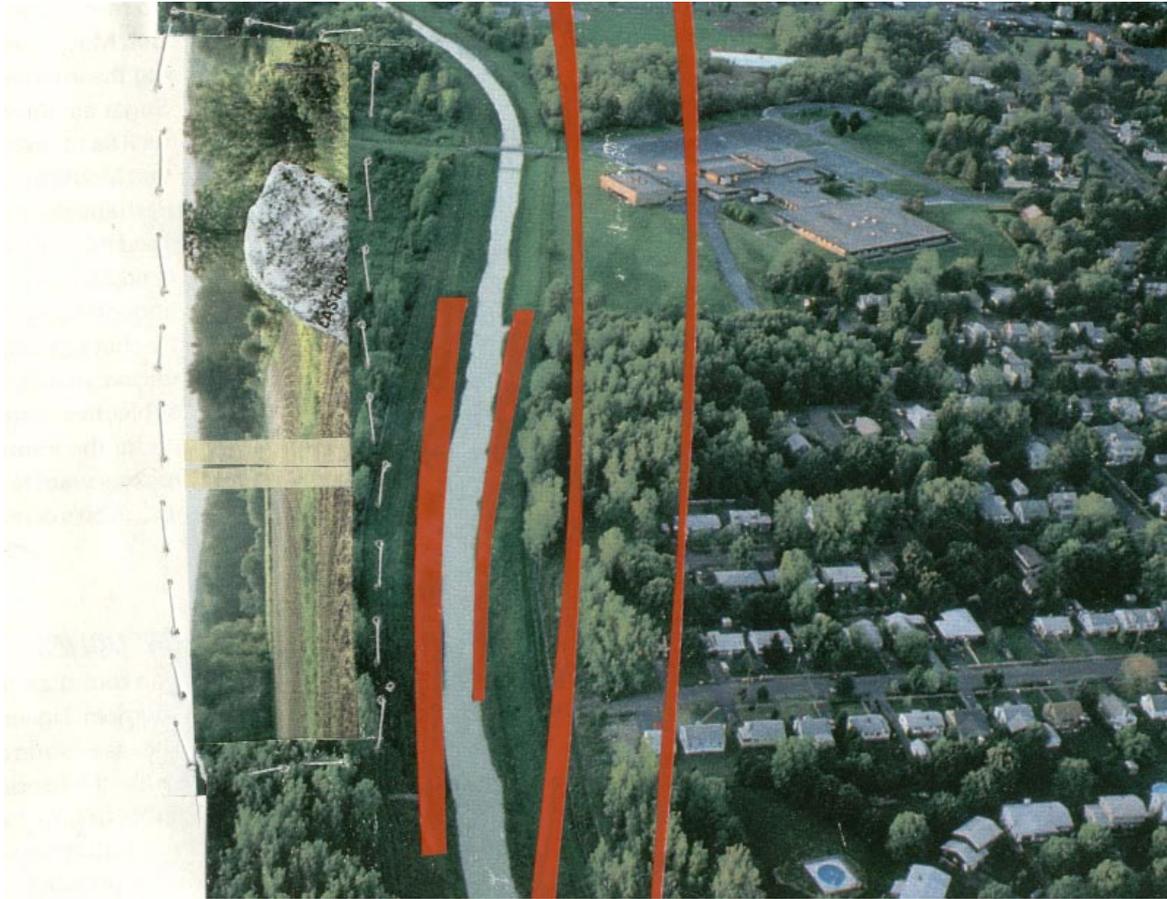
'Urban Tapestries' could serve as a precedent for an interactive database of prairie experience because it is portable, uses ubiquitous technology (people access it through their own cell phones) and it is intuitive. It allows information to be continuously layered so that, over time, a rich collective memory would be created and stored.

Text, images and video can easily be stored within the threads making it possible for the Living Prairie Museum to constantly update interventions as the seasons change. It could incorporate many images and videos that have already been created and are part of the existing virtual museum website.



# II : MAPPING

It is the human tendency to assume maps are true. Maps solidify landscape history. We are armed with many maps. We have stopped reading the land.



'river mapping', 2003

touch ■ 028 ■ 110 ■ 170



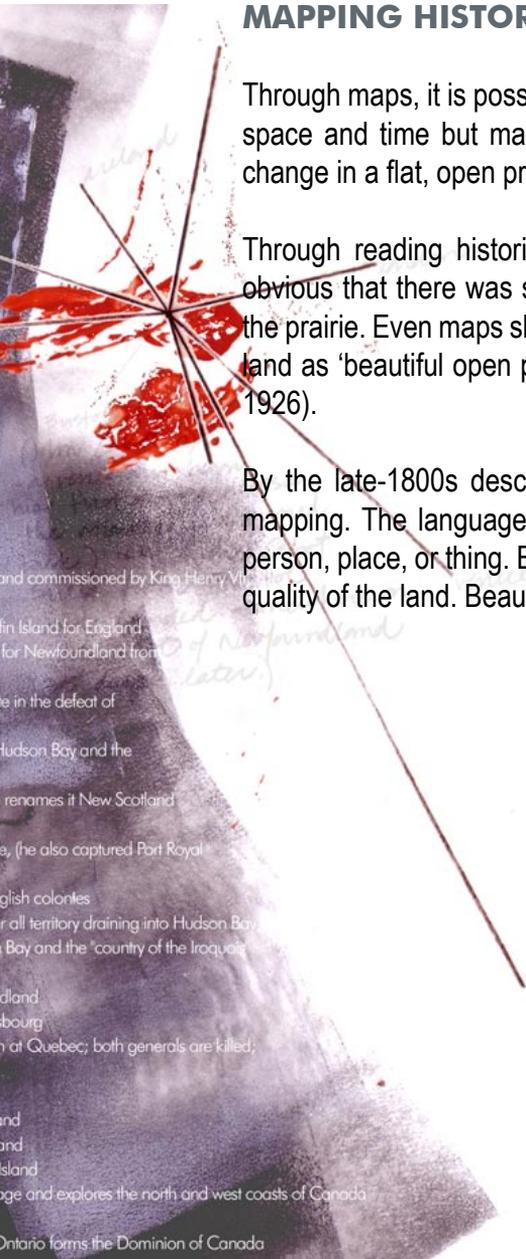
- 1497 Giovanni Caboto (John Cabot) sails from Bristol to Newfoundland, claiming Cape Breton Island for England
- 1576-78 Martin Frobisher makes three trips to Canada, claiming Baffin Island for England
- 1583 Sir Humphrey Gilbert, brother-in-law of Sir Walter Raleigh, sails from Plymouth, England to Newfoundland
- 1588 English fishing fleet delays sailing to Newfoundland to participate in the Spanish Armada
- 1610 Henry Hudson looks for the Northwest Passage and discovers the Hudson River
- 1621 James I of England grants Acadia to Sir William Alexander who founds the colony of Nova Scotia
- 1629 Quebec (the city) captured by an English fleet led by David Kirke (the year before)
- 1660 English Navigation Act prohibits foreigners from trading with England
- 1670 Hudson's Bay Company is formed and granted trade rights over the Hudson River basin
- 1713 Treaty of Utrecht cedes French Acadia, Newfoundland, Hudson's Bay, and the Ohio River Valley to England
- 1720 Lord Baltimore sponsors expedition to bring settlers to Newfoundland
- 1749 Halifax is founded by British to counter French presence at Louisbourg
- 1759 British troops under Wolfe defeat French forces under Montcalm at the Battle of the Plains of Abraham; Quebec falls
- 1760- Louisbourg Fortress demolished by the British
- 1763 Treaty of Paris gives Canada (New France and Acadia) to England
- 1778, Captain James Cook anchors in Nootka Sound, Vancouver Island
- 1792-94 George Vancouver explores the west coast and Vancouver Island
- 1819-27 Sir John Franklin proves the existence of the Northwest Passage
- 1857 Queen Victoria names Ottawa as Canada's capital
- 1867 Confederation of Nova Scotia, New Brunswick, Quebec and Ontario

## MAPPING HISTORY

Through maps, it is possible to record the shifting relationship between space and time but mapping landscape change is difficult. Mapping change in a flat, open prairie is especially complex.

Through reading historic maps of Manitoba in the mid-1800s, it is obvious that there was still some appreciation for the original state of the prairie. Even maps showing surveyed and divided fields marked the land as 'beautiful open prairie' and 'luxuriant grass' (Murchie & Grant, 1926).

By the late-1800s descriptive words were no longer used in prairie mapping. The language of the prairie became one based on nouns; person, place, or thing. By the 1930s there was never a mention of the quality of the land. Beautiful was replaced with barren.



movement from europe to north america, 2004

time (movement) ■ 024, 038 ■■ 086, 114 ■■■ 166

The grid of the prairie has been embedded in our visualization of the landscape we inhabit. "The endless rectilinearity of the [North American] survey was imposed maplike, as if from above, with little or no regard for local variations in topography and ecology"(Corner and McLean, 1996, p. 16). We must move on from seeing the land in compartments. The prairie is not a square, it is a circle.

An exploration of the shifting prairie landscape through mapping leads to a new understanding of the change that has occurred.



Around 1504, there were a small number of fishing

In 1518, two Portuguese colonies were established in Nova Scotia. The colonies failed but French explorers originally claimed the 'new world' in 1523. Their first settlement, 14 kilom

John Guy es

Canada gradually became the starting point for rivalry between England and France that continued for many years. After

Large numbers of British Loyalists moved into Canada in 1783 when the United States won its independence. They set

Upper Canada (Ontario) and Lower Canada (Quebec) with each territory having their

The Dominion of Canada was formed in 1867 under the terms of the British

Rupert's Land was sold to the

The new province of Manitoba was formed in 1870; British Columbia joined the Dominion in 1871 and the prairie

In 1931, Canada was granted constitu

Before World War II, most immigrants came from the British Isles or eastern Europe. Since French-speaking Canadians in Quebec continued to show their discontent. Two referendums were held in the last 2

Through historic mapping in 'FIELD WORKS', latent experiences of the tall grass prairie were uncovered and brought back to the surface. It is from this point that more intimate mappings of the prairie and of the route from the Living Prairie Museum to downtown Winnipeg developed.

gillages around St. John's Harbour. These settlements were used seasonally by Europeans fishing the Grand Banks.

The first world map to show the east coast of Canada and Hudson Bay was produced in 1507.

the horses that were taken there stayed and went wild. The Sable Island wild horses can be seen on the island today.

metres from present day Quebec City, was established in 1541. Charlesbourg Royal was abandoned within two years.

established the first British settlement in Canada in 1610 at Cuper's Cove, Newfoundland. It was abandoned by 1613.

day Annapolis, Nova Scotia. Three years after founding Port Royal, Champlain also established Kebec (Quebec City).

Quebec City fell to Britain in 1759, the Treaty of Paris was passed assigning all French land east of the Mississippi to Britain.

ttled in Nova Scotia, New Brunswick, and along the Great Lakes. This increase in population led to the creation of

own governing body. By 1848, rebellions had caused Britain to unite the two areas creating the Province of Canada.

ish North America Act. Canada, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland were joined.

osed by Canada from the Hudson's Bay Company had been granted the territory by the King of England in 1670.

of a rail link from the east. All other provinces were created by the early 1900's but it was not until 1949 that the last

British colony, Newfoundland, joined Canada.

1793 was the peak period of immigration in Canada with 400,000 people moving into the country that year.

tional autonomy from Britain. After a period of depression and hardship, Canada's economy has continued to grow.

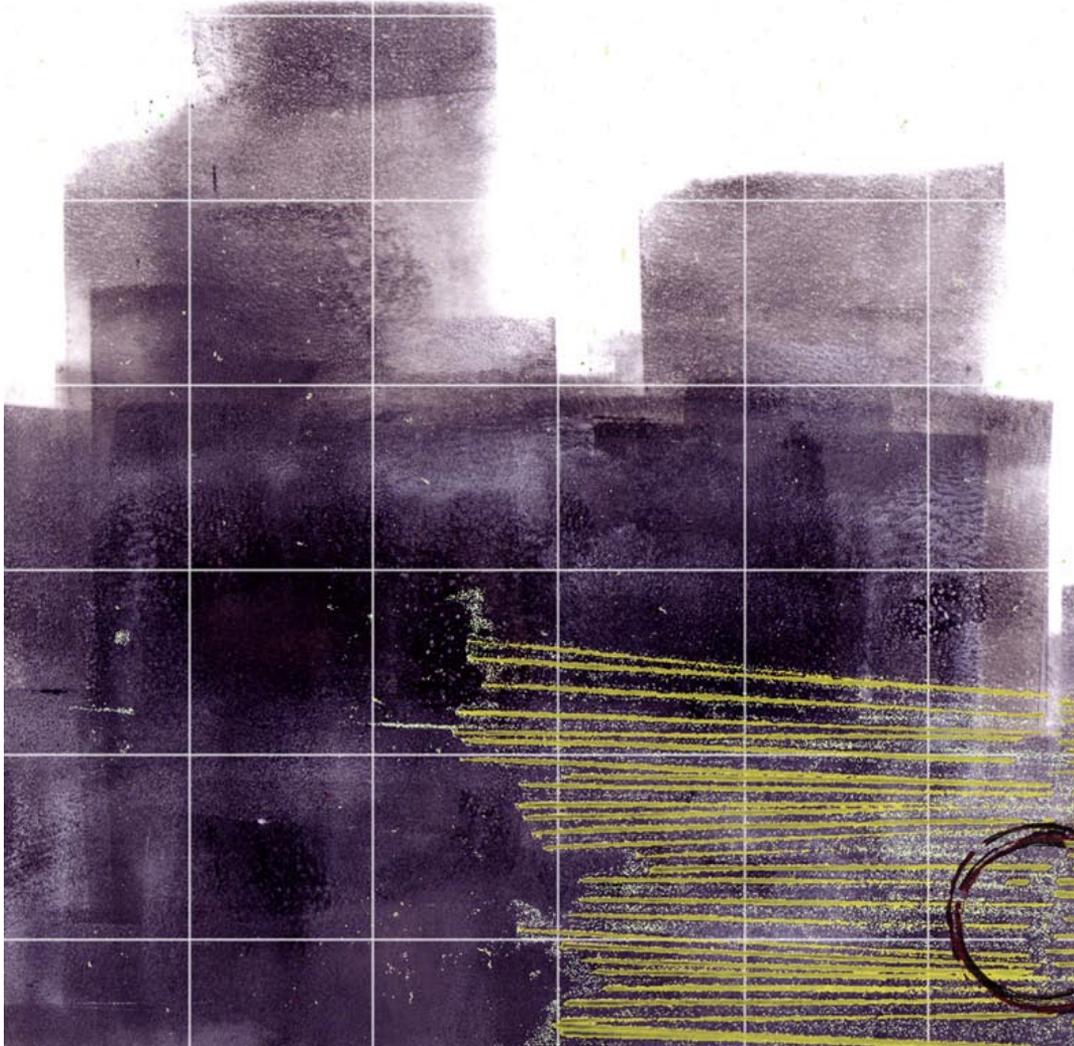
then, numbers of immigrants from southern Europe, Asia, South America, and the Caribbean islands have increased.

5 years questioning whether Quebec should become a sovereign nation. In both 1980 and 1995 most people voted

movement across canada, 2004

*“...no account can recover the past as it was, because the past was not an account, it was a set of events and situations. [History] is not a portrait of what happened but a story about what happened.”*

(Uzzell, 1989, p. 109)



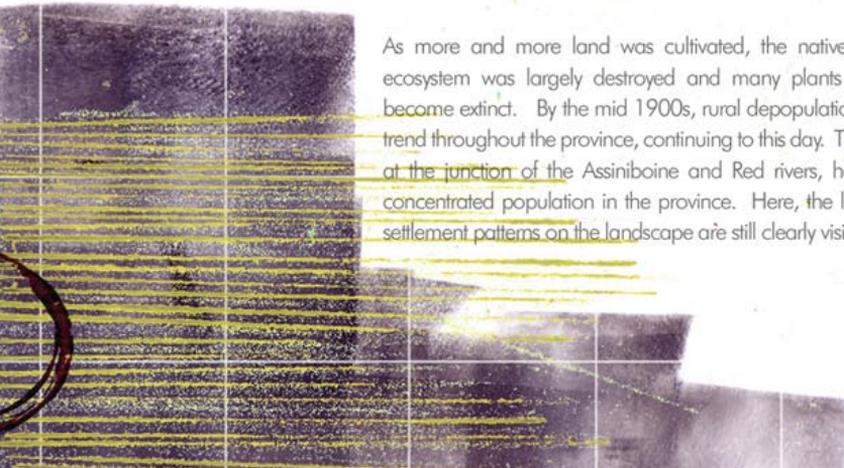
Prior to the 1800s, the population in what is now Manitoba was predominantly nomadic. Aboriginal and Metis people had a small number of farming settlements along the Red and Assiniboine rivers but these were never permanent. The population relied heavily on bison as a food source, following the herds throughout the prairie.

By the early 19th century, permanent settlements were beginning in Manitoba. French Canadian voyageurs, men working for the Hudson Bay Company and some Scotch and Irish who had followed Lord Selkirk were the first to divide the land into long, narrow lots along the river. These river lots were originally five hundred feet wide by two miles long but were later subdivided into narrower pieces of land as more settlers arrived.

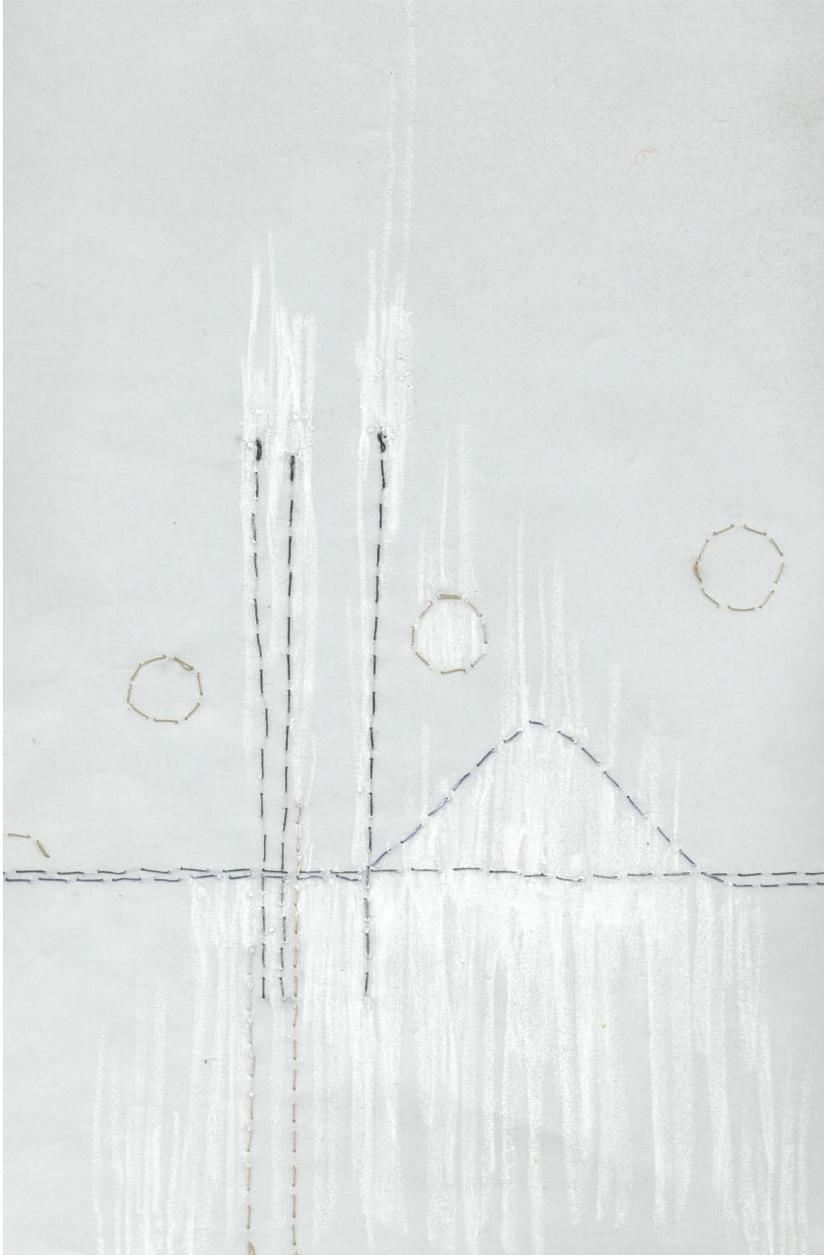
By 1870, all the land along the Red River, from Winnipeg to the United States border, had been settled. There were very few settlements west of the Red. Apart from the occasional homestead along the CPR line, the prairie was eerily empty. All the bison had been driven west and Aboriginal people had been forced onto reserves.

The 1869 Dominion Lands Act began the surveying process of the prairies. The land was divided into 160-acre quarter sections and granted freely to settlers. Separating the land into an almost perfect grid imposed isolation on many groups of people who came to the prairie. Instead of building houses close together as was the practice on the river lots, there were often many miles between homesteads.

Numerous groups of settlers arrived in the late 1800s and early 1900s. Icelanders, Ukrainians, Americans, and Ontarians were some of the major groups that sensed the isolation of the prairie. Not all people stayed and those who did experienced many hardships.



As more and more land was cultivated, the native Tall Grass Prairie ecosystem was largely destroyed and many plants and animals had become extinct. By the mid 1900s, rural depopulation had become the trend throughout the province, continuing to this day. The city of Winnipeg, at the junction of the Assiniboine and Red rivers, has by far the most concentrated population in the province. Here, the layerings of original settlement patterns on the landscape are still clearly visible.



stitch landscape, 2004

## TIMELINE OF HUMAN MOVEMENT AND LAND USAGE IN SOUTHERN MANITOBA

Prepared for the 'landscape change: landscape loss' Virtual Museum Canada website, ([www.livingprairie.ca](http://www.livingprairie.ca)) in conjunction with the Living Prairie Museum, 2003.

9500 BC

Based on archaeological evidence, it is believed the original First People entered the province from the southwest corner of what is now Manitoba at approximately this time. (Pettipas, 1994, p. 37).

8000 BC

The receding glaciers of the Ice Age had left rich grassland that induced groups of hunters and their families to move north into what is now southern Manitoba. Evidence of this stems from the 8000 to 10,000 year old spear points found throughout the plains of the United States. (Pettipas, 1994, p. 38).

5500 BC

The continental ice sheet had receded and Lake Agassiz had disappeared by this time, causing the grasslands to expand to the western edge of Lake Winnipeg. The area of habitable land in Manitoba became larger and larger. (Pettipas, 1994, p. 40).

5000 BC

As early as 5000 BC, people living in western Manitoba were in possession of copper spear points, indicating contact and possibly trade with people living on the shores of Lake Superior. (Pettipas, 1994, p. 40).

1500 BC

Over a 400 year period, beginning around 1500 BC, the early Algonquians moved from present day Utah and Idaho to the American plains. They arrived in the prairie region of North America in about 1100 BC and the Algonquian language began to diversify. Many indigenous nations began to trade with the Algonquian and eventually abandoned their own language for one of many Algonquian "daughter" languages. About 1000 years later, the Algonquian language was being spoken from the Midwest to the east coast. (Pettipas, 1994, p. 41).

500 BC

By this time, the climate in the prairie region began to change. Summers were cooler, there was more rainfall, and more snow fell in the winter. This caused the boreal forest to expand to the south pushing the edge of the grassland to the south and west. The range of bison and the people who hunted them adjusted as a result. (Pettipas, 1994, p. 42).

0

According to archaeologists, the bow and arrow came into common and widespread use around this time. (Pettipas, 1994, p. 42).

1000 AD

Beginning in the 11th century AD, the population of farming peoples in the prairie region experienced considerable growth. They farmed in the lower Red River valley, south of what is now Manitoba. In about 1200, there was a severe drought in this region that forced many of these people to migrate north into Manitoba and bring their process of food production with them. (Pettipas, 1994, 43).

1500-1600

Another climate change hampered the growth of native corn varieties resulting in a return to hunting, fishing, and trapping by First Nations people.

1612

The first European explorers arrived in Manitoba but remained in the north.

1670

King Charles II of England granted sovereignty over a large part of the continent to "the Governor & CO. of Adventures of England Trading into Hudson's Bay" or the Hudson's Bay Company.

1684

The first fur trade post in Manitoba was built in York Factory at the mouth of the Nelson River. Three trade zones were established in relation to this trading post. The prairie region of Manitoba was included in the Middleman Trade Area. Western Crees and Assiniboins who lived in this area trapped and transported furs, often having direct contact with European traders in York Factory. (Pettipas, 1994, p. 51).

1690

Henry Kelsey sets out for the prairies and sees the first buffalo in 1691.

1734-1738

The La Verendryes established a number of French trading posts on the Red and Assiniboine rivers intended to intercept the Western Cree and Assiniboins travelling to the English fort at York Factory. Consequently, many of the best furs from this region were traded to the French until the mid-1750s when the French left the area. (Pettipas, 1994, p. 52).

1740

At the height of the French regime, after one hundred years of European-Aboriginal contact, there were two large Aboriginal groups living in the tall grass prairie area of southern Manitoba. Both were part of the Siouan linguistic family. A group of 500-1000 people lived south of Lake Manitoba, while another larger group of 2000-4000 people lived close to the United States border.

1750s

Throughout the late pre-contact and early post-contact times, Western Cree and Assiniboin nations moved gradually northward and westward. With this expansion

they took control of most of the trade out of York Factory and displaced Blackfoot, Arapaho, Hidatsa and Dakota communities from southern Manitoba. (Pettipas, 1994, p. 53).

1763 – 1800

Soon after the French left southern Manitoba they were replaced by traders from Montreal who again began to intercept Native trade with the Hudson's Bay Company at York Factory. Competition increased in southern Manitoba and many new trading posts were established in this area, causing Western Cree and Assiniboin middlemen to compete with other Aboriginal groups of the forest and parklands in Manitoba and Saskatchewan. Their role in the fur trade was now to supply food to the trading posts, forcing them to move west with the major bison population. Further Western Cree and Assiniboin depopulation in the Manitoba prairie region can be attributed to a small pox epidemic that moved through the area at about the same time. (Pettipas, 1994, p. 56-57).

1779

With the establishment of the Montreal-based North West Company in 1779, increased numbers of European traders moved into the prairie region.

1780

Members of the Ojibway nation soon replaced the Assiniboin and Cree population in Manitoba as a result of a long-term migration (chibimodaywin) beginning on the east coast in the 1300s. The migration continued into Alberta during post-contact times. (Pettipas, 1994, p. 43).

1793

Cuthbert Grant Senior founded a trading post for the North West Company on the Assiniboine river.

1797

Chaboillez established the first post at Pembina for the North West Company.

1811

Lord Selkirk established the first agricultural settlement as settlers reached the "Forks".

1818

Representatives arrived from the Roman Catholic church and began to influence the Indigenous people of Manitoba.

1820

The Ojibway formed the most dominant Indigenous nation in southern Manitoba by this time, occupying almost the entire southern half of the province (Pettipas, 1994, p. 57). They began to be influenced by representatives of the Anglican church who came to Manitoba in 1820 and Roman Catholic missionaries who had arrived two years earlier.

1821

The North West Company and Hudson's Bay Company amalgamated and redundant and unprofitable posts were closed. This caused many Indigenous groups to align themselves with certain posts, ending their semi-nomadic lifestyle (Pettipas, 1994, p. 58). Many Metis that worked for the posts no longer had jobs and relocated to the Red River valley.

1823

At this time, groups of Aboriginal people in Manitoba were much smaller and more spread out than previously documented. Three main groups lived in the tall grass prairie area, mainly along the Red River. The largest was a Siouan group of 2000 to 4000 who lived just south of Winnipeg. Two Metis groups also lived along the Red. One had a population of about 500 to 1000 and lived just north of Winnipeg, while another 200 to 500 lived closer to the United States border.

1826

A great flood almost destroyed the Selkirk settlement. The population of southern Manitoba at this time was comprised of 57.7% Anglo Saxon, 14.5% Slav, 10.0% German, 7.2% French, 4.3% Scandinavian, and 6.5% 'other'. (Murchie and Grant, 1926, p. 2).

1832

Reverend William Cockran began an experimental farm in the lower Red River valley. This farm was created in an attempt to convert the Ojibway to Christianity. It was thought that if Indigenous people lived together in a permanent settlement, this could be more easily implemented. The Ojibway first rejected this proposal but after two years of unsuccessful fishing and trapping activities, a large number settled at Netley Creek. (Murchie and Grant, 1926, p. 62).

1833

The farming settlement at Netley Creek relocated to Cook's Creek. It prospered there from 1840 to 1860. (Murchie and Grant, 1926, p. 62).

1834

The Hudson's Bay Company purchased and took control of the colony of Assiniboia and the Selkirk settlement from the heirs of Lord Selkirk.

1852

Another severe flood damaged the settlement.

1859

The first steamboat arrived at Fort Garry.

1860

John Schultz travelled from the East to win the West for Canada. By this time, the Metis had taken control of the buffalo hunt, first from the Dakota then from the Plains

Cree. (Murchie and Grant, 1926, p. 62).

1862

A large number of Eastern Dakotas (Sioux) arrived in southern Manitoba after the Minnesota Uprising.

1864

The leadership of Peguis had to this point kept an alliance between the Cree and Ojibway. After his death in 1864, the two groups began to be alienated from one another, putting stress on the settlement at Cook's Creek (see '1832' above). Some Indigenous people sold their land to non-Native settlers and still more left the settlement when drought and insect infestations caused crop failures. Many left Cook's Creek throughout the 1860s to live as they had in the past. (Murchie and Grant, 1926, p. 63)

1869

The Hudson's Bay Company relinquished Western Canadian territory to the Canadian government for \$300,000. The lack of consideration to Metis concerns and the government's plan to annex the Northwest lead to the Red River Insurgence. Louis Riel established a provisional government in December of that year. (Manitoba Historical Society, 2002-03).

1870

Delegates from Riel's government negotiated with the federal government and Manitoba joined confederation. Called the "postage stamp" province, it was 1/18 of its current size. Many Metis left the province at this time as church-run residential schools were established and the federal government implemented a policy to eliminate traditional Native culture and values.

1871

The 1871 census reported 43 000 people living in the prairie region. The population of Manitoba was 25,228. This was the beginning of the main migration to Manitoba that would last until around 1910. Immigration pamphlets were distributed all over the world describing the merits of the prairie region. Most settlers came from eastern Canada, the United States, and Europe. (Warkentin, 1970, p. 307).

1871-1874

Treaties 1 to 4 were signed stipulating Indigenous nations would exchange certain areas of their land for promises and payments from the Canadian government. These included monetary payments, hunting and fishing rights, flags, medical aid, seed, implements and instruction in agricultural practices, tracts of land (reserves), and other assurances. (Pettipas, 1994, p. 65).

1872

The Dominion Lands Act was passed, granting 160 acres of free land on even-numbered lots to potential settlers who agreed to build a dwelling, plant crops, and

live on the land for at least three years. Farmers could also obtain an additional 160 acres for \$1.00 as long as good homestead lands were available. Odd-numbered lots were held for sale. (Warkentin, 1970, p. 308).

1874

The first party of Mennonites arrived from Russia. The government began to reserve whole townships for their settlement. (Manitoba Historical Society, 2002-03).

1875

The first Icelandic settlers arrived in Manitoba and wheat began to be shipped out of Manitoba.

1875 - 1876

Treaties 5 and 6 were passed bringing most of central Manitoba under ownership of the Crown. Land continued to be ceded to Canada until 1929.

1876

The federal government's Indian Act was passed.

1877

The first railway locomotive arrived in St.. Boniface.

1880

One million bushels of wheat were sown.

1881

The boundaries of Manitoba were extended and a contract to build the Canadian Pacific Railway was signed.

1884

The first block of pavement was laid in Winnipeg. (Manitoba Historical Society, 2002-03).

1885

Many areas of land in southern Manitoba that were too sandy for farming or had poor drainage remained unsettled. In an Act passed in 1885, the Dominion government gave poorly drained land, called 'Swamp Land', to the Province of Manitoba (Warkentin, 1970, p. 337). The Province then drained the land in order to sell it to settlers, further diminishing habitat for native plants and animals.

1892

The first two Ukrainians reached Winnipeg.

1901

63 million bushels of wheat were sown in 1901 making Canada a world leader in wheat production and export. The recorded population at this time was 414 000.

1906

Street cars began to run in Winnipeg on Sundays. (Manitoba Historical Society, 2002-03).

1911

The recorded population in the Prairie region was 1 328 000 people in 1911. The population of Manitoba at this time was 461,394.

1912

A final boundary change created the current provincial boundaries. (Manitoba Historical Society, 2002-03).

1913

Work began on a pipeline to bring drinking water to Winnipeg from Shoal Lake.

1915

300 million bushels of wheat were sown.

1936

Manitoba began the process of rural depopulation, experiencing a decrease from 260 000 to 162 0000 over 30 years. Greater urbanization gradually concentrated Manitoba's population in urban centres.

1946-1955

Manitoba received its largest share of immigrants within this time.

1971

The population of Manitoba was 988 242 comprised of 41.9% British, 12.5% German, 11.6% Ukrainian, 8.8% French, and 4.4% Native.

2001

The 2001 census indicated the population of Manitoba was 1,103,695, comprised of approximately 18.7% Canadian, 12.5% German, 12.3% Native, 9.1% Ukrainian,



horizon painting, 2002



prairie sky map, 2006

## **TIME AND MAPPING**

We have a very definite concept of time; linear, measured. In a culture where time is not such a quantity, maps become more flexible or even disappear.

On the prairie, Indigenous settlements were generally nomadic and few mappings were preserved. Time was a quality.

When Europeans arrived, they considered the land to be 'tabula rasa'. They found it hard to represent and commodify the prairie because there were no vistas and no existing settlement patterns. They quickly imposed new cultural landscapes and landscape values on the prairie. There was no time for a gradual layering of history. The grid became the only organizational structure in the landscape.

## LAYERS OF THE SITE

The 24 Ness Express takes 40 to 46 minutes from beginning to end in the morning, 50 minutes at lunch time, and 46 minutes in the early evening. This is what you pass:

unicity mall – glendale shopping centre – assiniboia west community club – john taylor collegiate – buchanan school – crestview school –morgan community club–sturgeon creek – moray village – airport – st. james civic centre – assiniboine golf club – deer lodge tennis club – truro creek – king edward park – madison square (prairie dog central steam train) – polo park shopping centre – omand’s creek – omand

park – wolesley rec centre – vimy  
ridge park – gorden bell high school  
– cbc – university of winnipeg –  
colony square – bus depot – the bay  
– portage place – newport centre  
– air canada park – mts centre –  
millennium library – winnipeg square  
– portage and main – old market  
square – pantages playhouse –  
city hall – centennial concert hall  
– manitoba museum – ukrainian  
cultural centre – manitoba museum  
– mtc warehouse – centennial  
concert hall – manitoba theatre  
centre – pantages playhouse.





6:44 6:59 7:10 7:29  
 6:58 7:14 7:25 7:44  
 7:10 7:26 7:37 7:56  
 7:22 7:38 7:49 8:08

7:34 7:50 8:01 8:20  
 7:46 8:02 8:13 8:32  
 7:58 8:14 8:25 8:44  
 8:10 8:26 8:37 8:56  
 8:24 8:40 8:51 9:11  
 8:34 8:50 9:01 9:21  
 8:46 9:02 9:15 9:35  
 8:57 9:14 9:27 9:47  
 9:10 9:27 9:40 10:00  
 9:26 9:43 9:56 10:16  
 9:44 10:01 10:14 10:34  
 10:05 10:22 10:35 10:55  
 10:26 10:43 10:56 11:16  
 10:47 11:04 11:17 11:37  
 11:08 11:25 11:38 11:58

11:50 12:07 12:20 12:40  
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 12:29 12:46 12:59 13:19  
 12:46 13:03 13:16 13:36  
 13:04 13:21 13:34 13:54

13:21 13:38 13:51 **14:11**

**13:39** **13:56** **14:09** **14:29**  
**13:56** **14:13** **14:26** **14:46**



'grass on horizon', manitoba highway, 2006

## THE PRAIRIE PLACE

*From the place where I am standing, the 1990s are invisible on this quiet morning: the present here is not made up of a perspective of late-20th century buildings, with their white-tiled facades, brand-new cars moving along the streets, people walking about in fashionable clothes; one sees this fiction only in museums. Right now, the present here is made up of a series of past durations that makes the present multi-temporal. The past is in the present, it is mainly the present. What will remain from this present instant is possibly an imperceptible layer of things, deposited on the surface of a huge accumulation of past temporalities, some of them relating to the most remote pasts: in the fields around, beside motorways and supermarkets, flakes of flint tools show through the surface, together with fossilised shells; down by the river, dark waters silently roll over rocks that came here millions of years ago. The present here is this imperceptible and continual process of increasing the unbelievable mass of the past.*

(Olivier, 2001, p. 61-70)





## **SITE ANALYSIS - MAPPING CHANGE**

### ***Height***

Throughout the season, time is measured by the height of plants. Focus shifts from beneath your feet to the horizon. As the prairie gets taller, it starts to move – sways in time. Then, abruptly, it is gone once again. The body senses grass in different ways as it grows. Ankles, knees, fingertips, elbow. Measurements against the body.

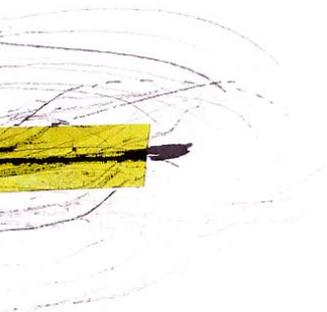




### ***Motion of the Prairie***

As the horizon is altered, the prairie grasses begin to move. Waves of air smooth and ripple through the grass. The prairie swirls, constant motion in itself. The land sways in a circular rhythm, tries to soften the rhythm of the people who visit. The counter motion makes the constant buzz of the prairie all the more true.





**Reference Point:**

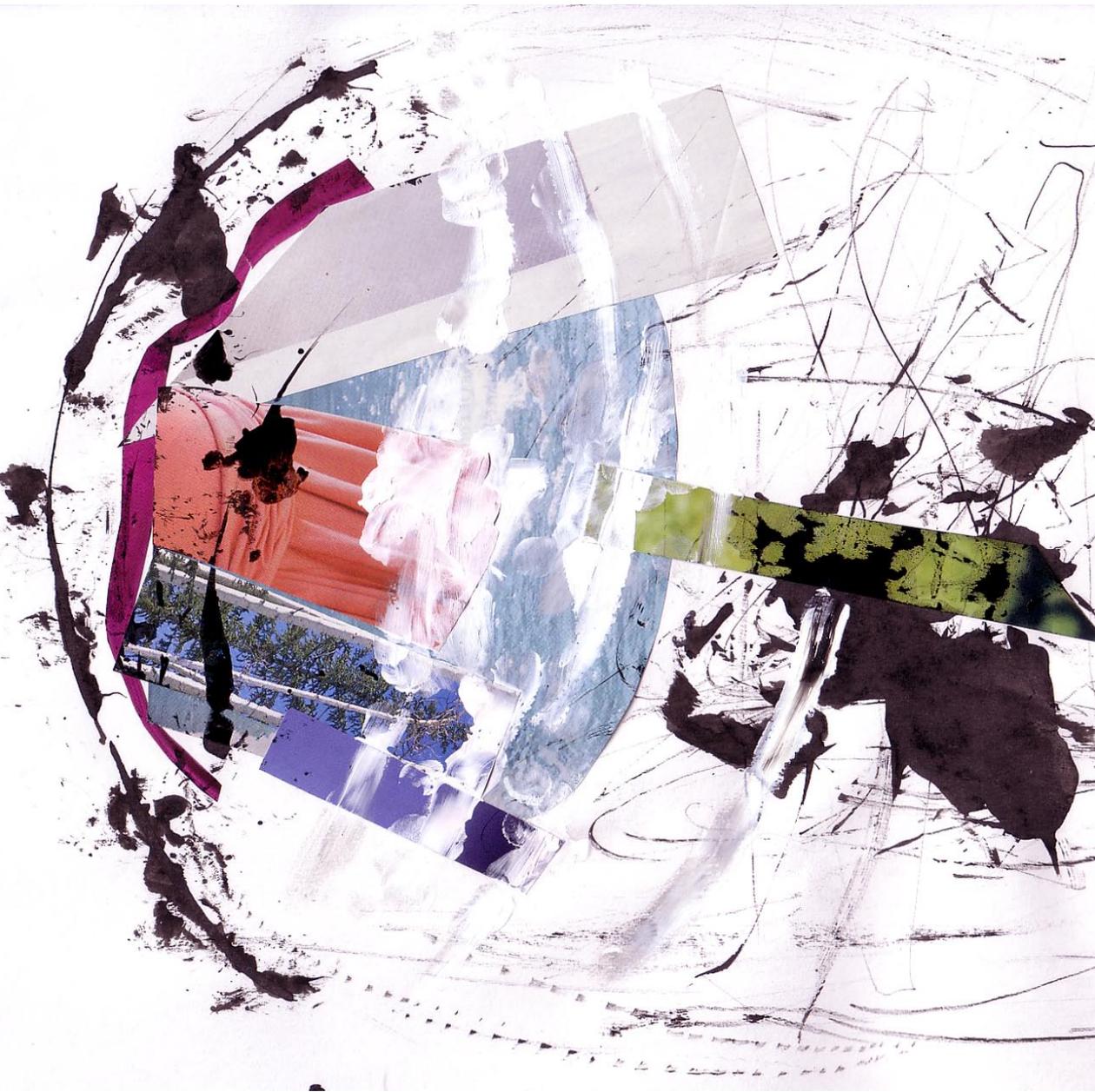
At first glance, there are no reference points on the prairie. There is nothing between you and the horizon. You become your own reference point. Scale is distorted. You begin to be intimate with the details of the land. There are no distractions. But then it is night and details are lost. Then you look to the sky.

reference point



### **Seasons:**

The prairie moves through an endless cycle of green, brown, white, taupe. But on a smaller scale, the land is more unpredictable. Month to month, season to season, year to year, it shifts. Perceptible only to those who are intimate with the land. Winter heals, summer bursts. In each season, the degree of change, changes.





***Sounds/Listen:***

To many, the sound of the prairie is a train whistle. But what is the true sound? It is quiet and detailed. Nothing like the prairie nothingness that is a lot of small things. Can you hold grass to your ear and hear the prairie like a seashell at the sea? The grass absorbs sound. Sound is in the air.



***Intangible Infrastructure:***

Lines of communication weave the prairie sky. The air is full. There is no more middle of nowhere. We are always somewhere. This makes the prairie different than what it once was. It is surrounded on all sides. A cell phone call, a radio, a computer stretch the fabric down toward the land. We are the connective tissue between signal and soil.

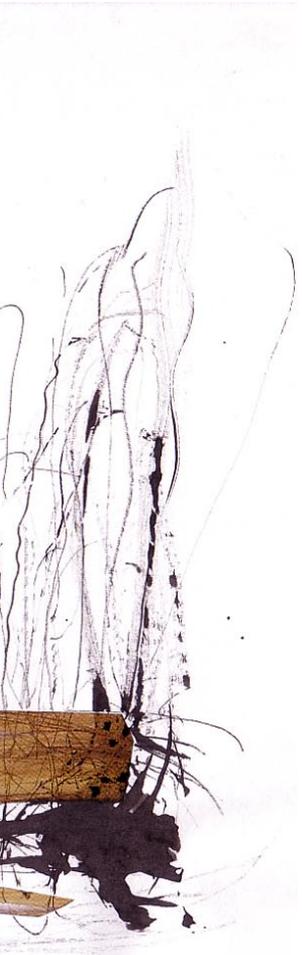




***Image Capture:***

What I see is not what you see. The awareness of place is directly related to the images of space we take with us. As soon as an image is taken from the prairie it loses its context. It loses its emotion. Would all the images ever taken of the prairie reconstruct the place? Piecing images together always leaves gaps. What is the difference between gap and image on the prairie?





***Shadows:***

Under the grass it is dark, on the rest of the prairie there is only light. You are the only shadow cast on the prairie. You are reflected in the land. The shadow of the horizon. The only things that cast a shadow are detached from the ground. High enough, straight enough, and strong enough to cast an edge.



***Walking Motion:***

The walking beat creates a framework for space and time. When a path is narrow and overgrown, the beat slows and is cautious. Here, there are deeper connections with the land. Feet take root in the ground. The straight open path has a fast beat that speeds up as it moves to the edge of the prairie. Feet float over the surface.





***Underground:***

The mysterious prairie place is underground. There is more under than over. No one will ever experience the under exactly as it is. Compact yet growing, silent but moving. It is cool, it is clever, it is teeming. An entire buried landscape like a submerged iceberg. Under is all.





***Touch:***

Fingertips can stretch out farther on the prairie. They test the wind. They become antennae collecting information. They are an important interface. Concentrate on the signals coming in through the pad, nail, tip. There is space to stretch. Gloves come off, hands open.



***Time of Day:***

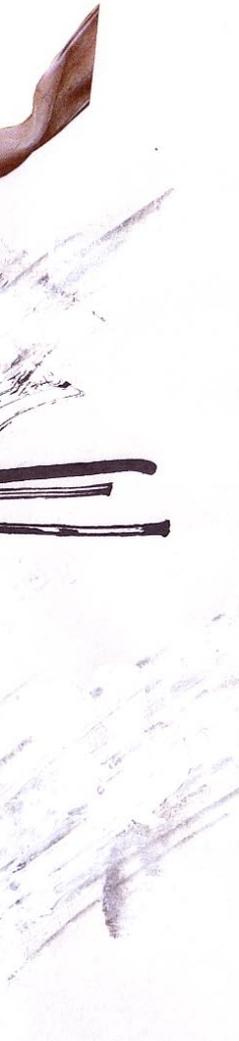
Or time of night. Time is told by the sky. Shadows are hard to come by. Activity levels shift in the summer as the sun plots across the land. Winter light is more constant. Blues only change to black. Stars come out, sun comes up. Time is slow, the horizon is long, the sky is aware.



***Time (Movement):***

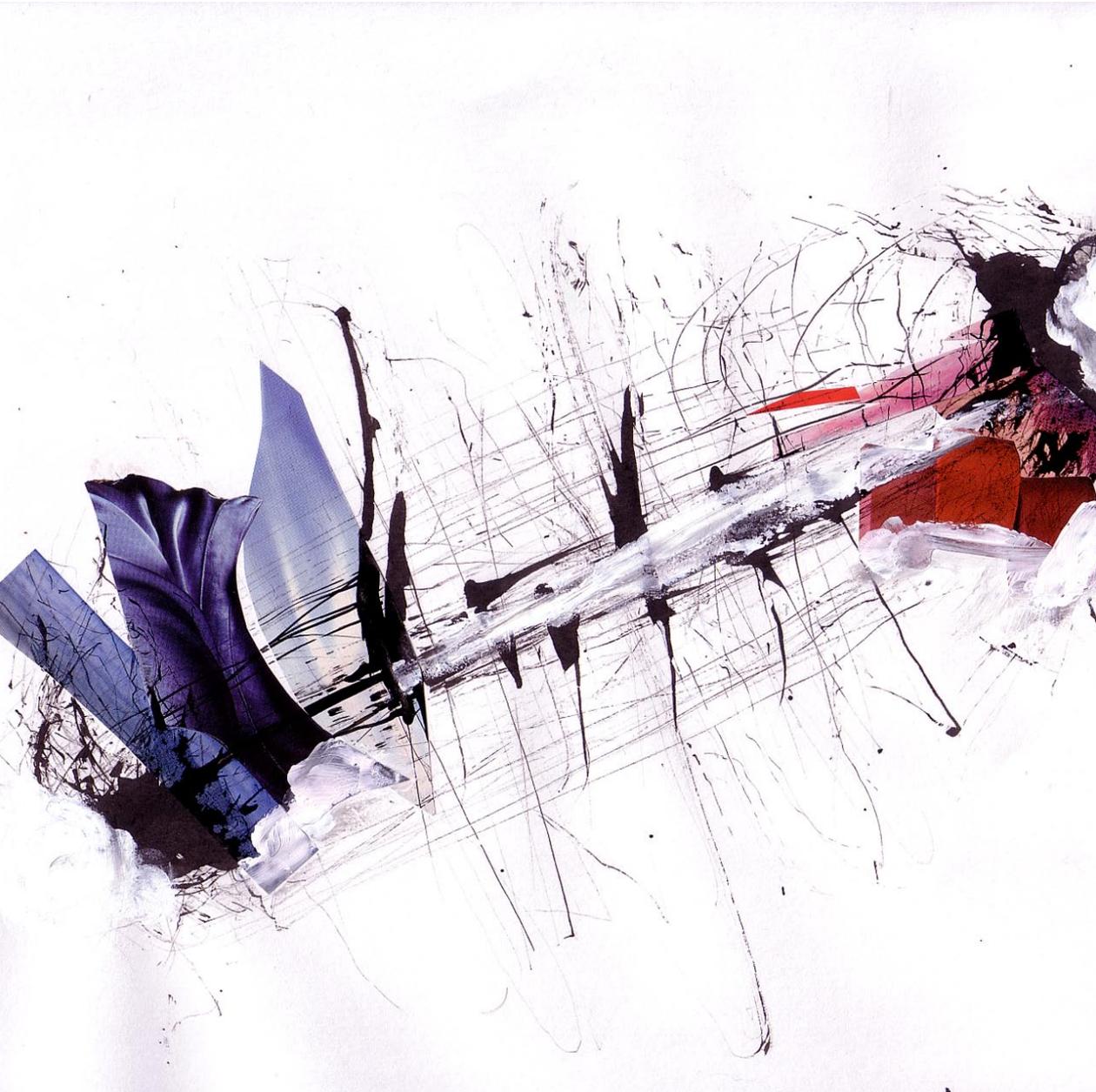
The time you are on the prairie is kept by the metronome of your step. How long it takes to move from one point to the next is exaggerated. On the prairie, it is hard to tell if someone is moving toward you or away from you. Personal time and perception are altered. The motion of everything fits in a sphere.





***Wind:***

Movement on the prairie is controlled by the wind. Picking up speed as it move across the plains, bringing scents of more of the same. Wind shapes the land, creates landforms in the grass. Wind warms and freezes. Fingertips comb through the air. Stories are read, stories are told.





***Temperature:***

Extremities are alive on the prairie. It is colder and hotter here. You feel the temperature as it was meant to be felt in Manitoba. The extremes lay a sense of calmness on the land. Everything waits. This is the prairie at its exotic best. Its essence. Nowhere else in the world can compare.

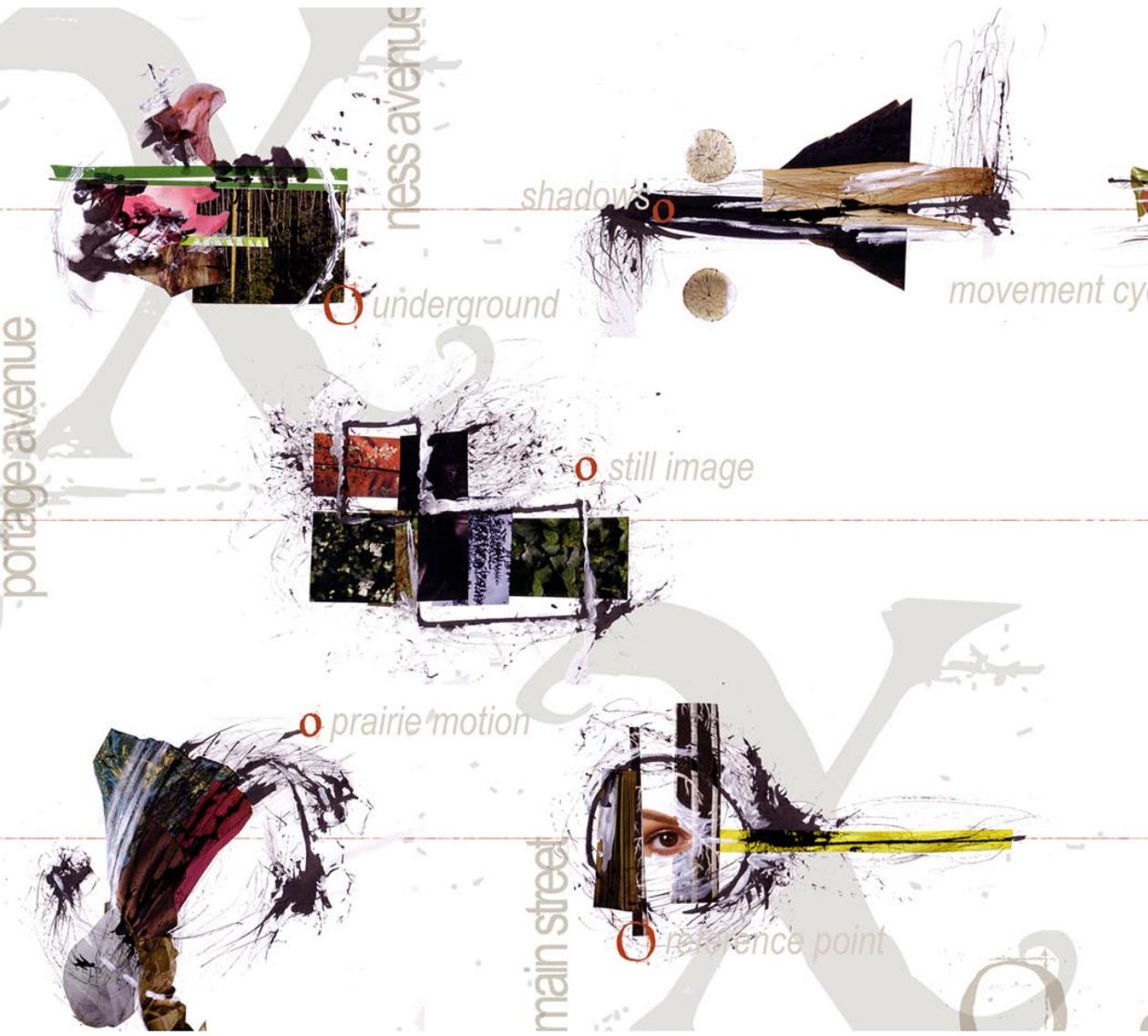


**Scent:**

Sage and smoke is the scent of the prairie. Sometimes it is so thick, you can drink it. It wafts over the land and into the city. It is one thing that can't be taken away or forgotten. It is a constant reminder of where we are and what used to be. It is let out of the ground when we dig, it roots us, we carry it with us as we move.







ness avenue

portage avenue

shadows

movement cy

underground

still image

prairie motion

main street

reference point



10<sup>2</sup> phenomena: living prairie museum to old market square

x to x

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 **winnipeg**  
living prairie museum

0.1% tall grass prairie

 **tolstoi**  
manitoba tall grass prairie preserve

10-parks: living prairie museum to old market square



living prairie museum

silver heights/airport park

wightman green

amherst park

king edward and ness park

omand park





# III : DESIGN

## DESIGN INTENTION

Representation and interpretation of the shifting prairie landscape requires a comprehensive and flexible approach centred around experiential investigation. Forming a meaningful understanding of place and communicating that understanding to others is a challenge faced by many designers.

Most people living in Winnipeg are unaware of the landscape that once stretched across the city they live in. The prairie place is now associated with symmetrical wheat fields and grain elevators.

Ten sites were chosen as interpretation/intervention areas along the Ness Avenue bus route that runs past the Living Prairie Museum to downtown Winnipeg. Each site is a City of Winnipeg park ranging in both size and character. Using the nine parks and the Living Prairie Museum as a string of sites, a series of speculative landscape interventions that deal with latent phenomena of the tall grass prairie landscape were developed.

The design intent of the ten interventions is to expose the physical memory of the landscape. Spoken and written stories are only one aspect of landscape memory or the memory of place. Tangible memories of the tall grass prairie landscape, the remembered sensations of being there, form the conceptual basis of the designed interventions. New ways of uncovering this kind of memory were explored in order to emphasize, abstract, and/or formalize the lost qualities of the landscape.

The connection between the ten sites is abstract. The intention is not that everyone would see or experience every intervention but that by experiencing a few interventions or a few glimpses of each, the urban dweller would begin to develop a partial understanding of prairie landscape memory. By beginning to see the layers embedded within the landscape, a stronger appreciation for the live memory remnant at the Living Prairie Museum might develop.

The intention of this work is to give prairie citizens a dynamic awareness of place and a meaningful understanding of the tall grass prairie landscape in which they live.



Cultural history is subjective. The more it is studied, the more obscure it seems. History is filtered through generations, twisted through stories, flipped through images, and squeezed into chronological sequences. Through this reinterpreting of events, a new history is created and eventually accepted as memories of actual occurrences fade away and disappear.

The history of the land is seen by many to be objective. It is often based on scientific fact and finding. Most of what constitutes this history can be proven. The history has been recorded in a way that can sometimes elude creative analysis.

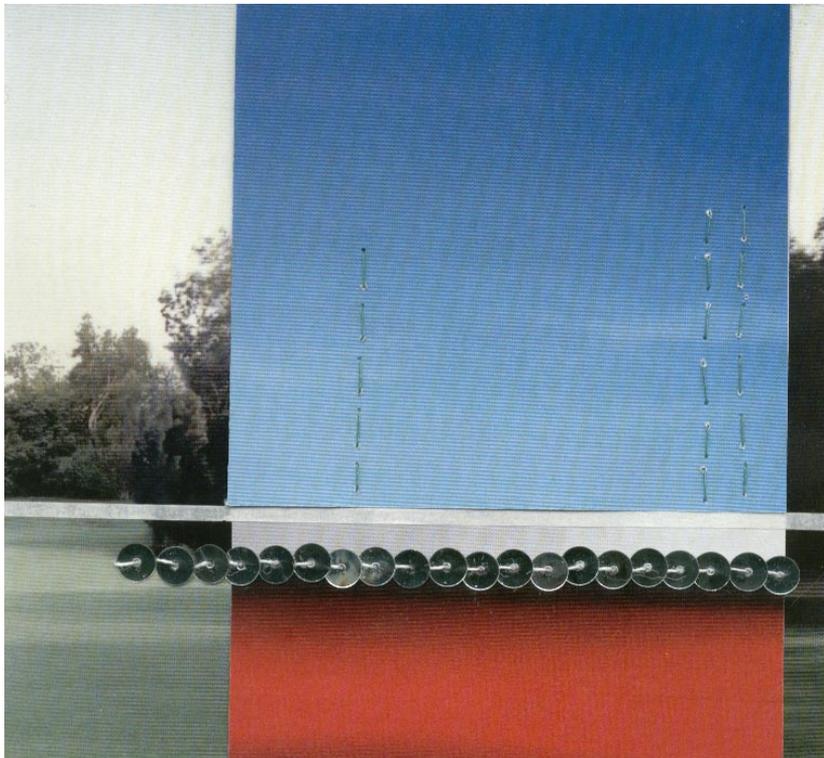
The speculative interventions along the Ness bus route are an attempt to interpret historical memory that bridges cultural and landscape history. This reading of history is based on the physical awareness of place corresponding to situated, tangible phenomena or landscape events. The phenomena studied have occurred within the tall grass prairie landscape at some time in history or still occur at a much smaller

sequin horizon, 2003

scale. They are phenomena embedded in the landscape under the city; occurrences that have faded from our collective memory. The phenomena have been personally interpreted to create a physical landscape history of the prairie.



The Living Prairie Museum is a link to the past, a link between the current prairie population and the land. It is one of the only places that is free of layers. A place where the land can breath. The speculative intervention sites are like holes in the layers of Winnipeg. Through these holes emerge tall grass prairie phenomena that gradually begin to interact with the established urban experience.



## INTERVENTIONS

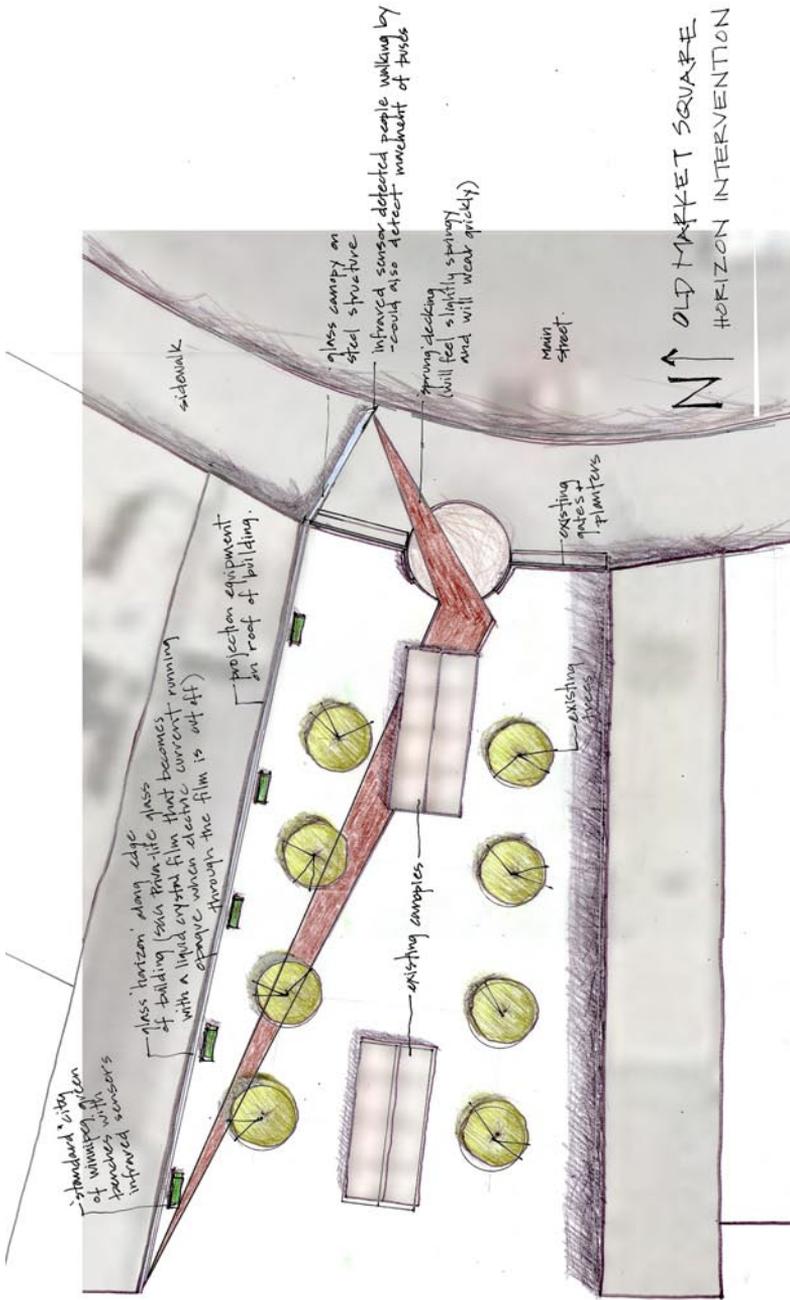
### 1: OLD MARKET SQUARE

Old Market Square is a public open space in the Exchange District that touches Main Street between William and Bannatyne Avenues.

When it is hot on the prairie, the horizon blurs. Sky becomes land and land becomes sky. In Old Market Square, as in much of downtown Winnipeg, the horizon is shifted up and out to the edges of the buildings. Here, a wall that is layered with histories becomes the land; its edge is as far as the eye can see.

The design of this installation uses glass that alternates between opaque and transparent when triggered by an electric current. It is used to create a changing horizon at the edges of the empty wall in Old Market Square.

As people walk under the glass canopy that continues over the sidewalk to Main Street, or as they sit on a bench at the base of the wall, an infrared sensor is triggered and the glass shifts from transparent to opaque. There is a constant projection of a prairie grass horizon onto the glass (from behind), but the image is only visible when the glass fogs. This creates a cycle of blurring horizon lines that dissolve into tall grass prairie as the heat of human beings comes and goes in and around the space. The prairie horizon haunts the urban horizon.





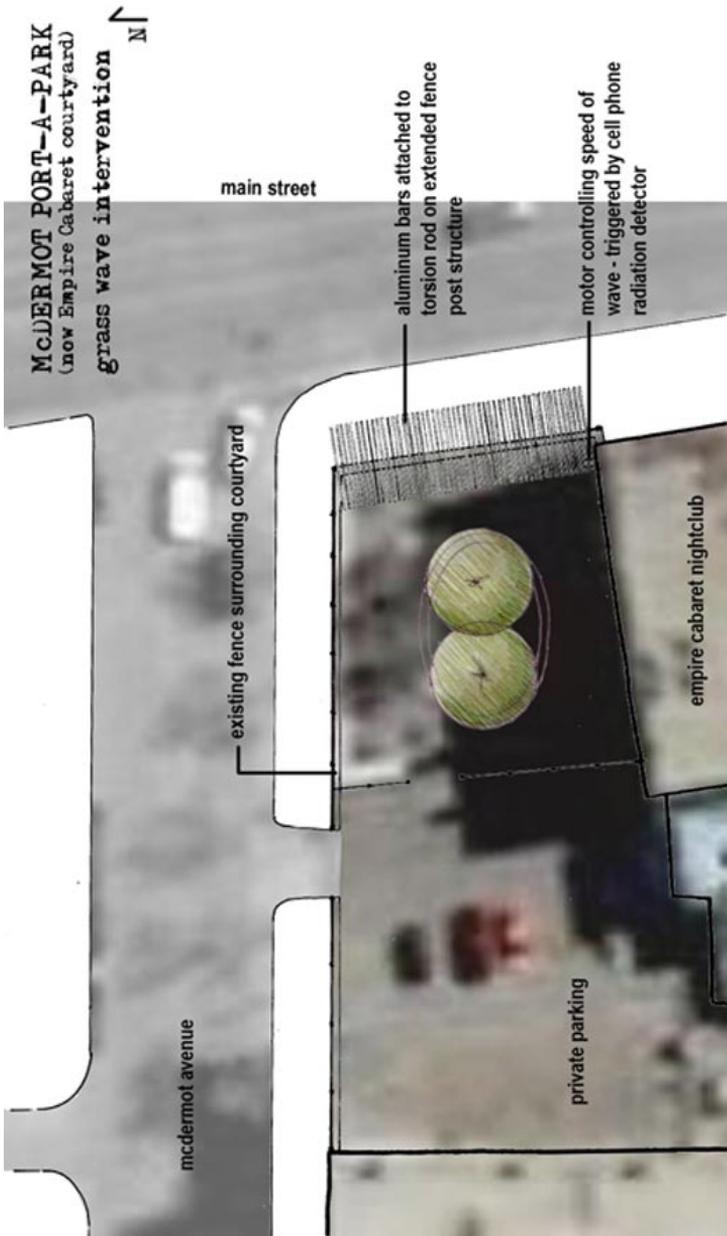


## 2: MCDERMOT PORT-A-PARK

McDermot Port-a-Park at McDermot Avenue and Main Street has disappeared. In its place is a nightclub courtyard where people gather late at night to talk, smoke and make calls on their cell phones. Here, the waving and flowing movement of the prairie becomes exposed.

This speculative intervention uses a cell phone radiation detector to trigger a wave structure that extends from the existing fence. The wave is a series of aluminum bars attached to a torsion wire supported by the structure. When someone makes or receives a call on his or her cell phone, a motor on the side of the building starts the wave motion by pushing down two of the bars. The rest follow.

The wave becomes bigger and more consistent as cell phone activity in the area increases. A phone number on the side of the structure connects people to a story about the flowing motion of the tall grass prairie.





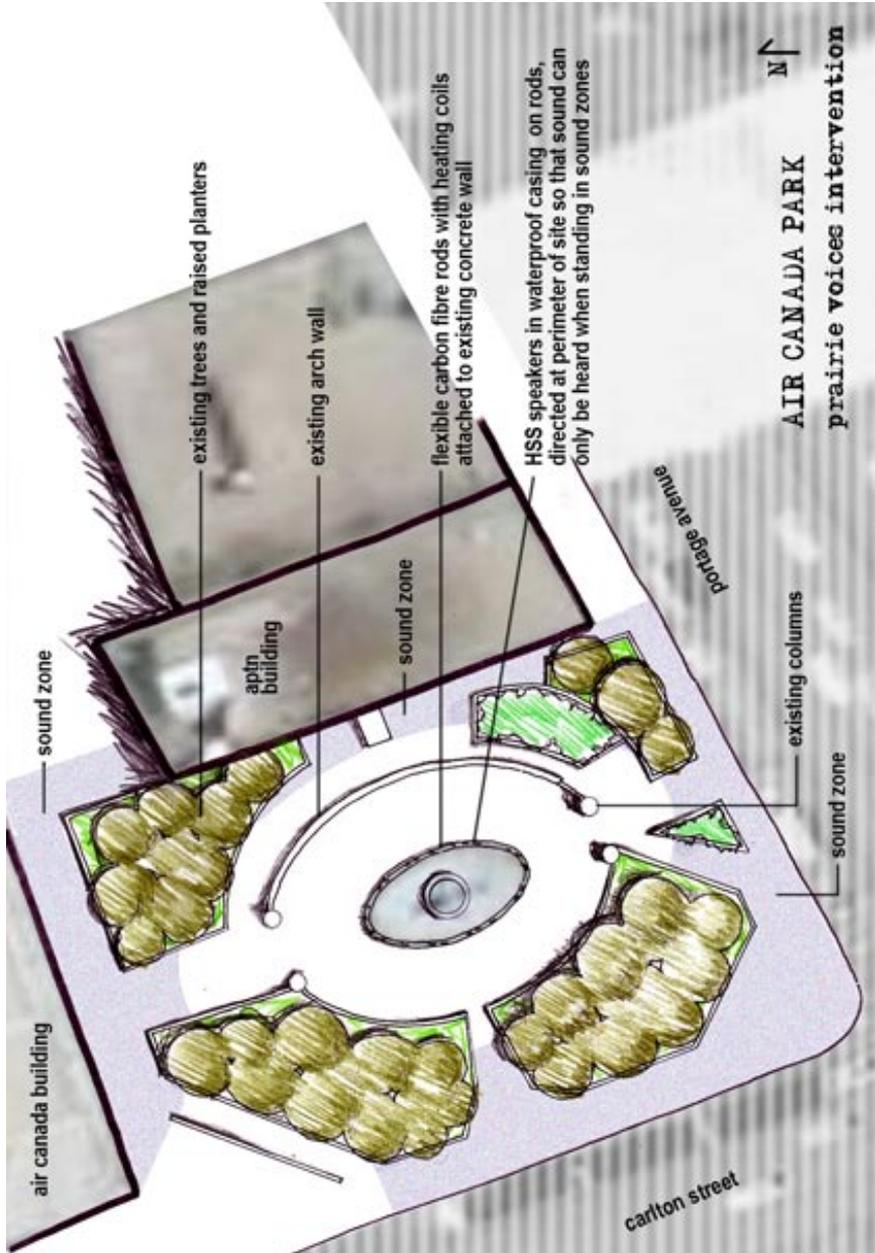


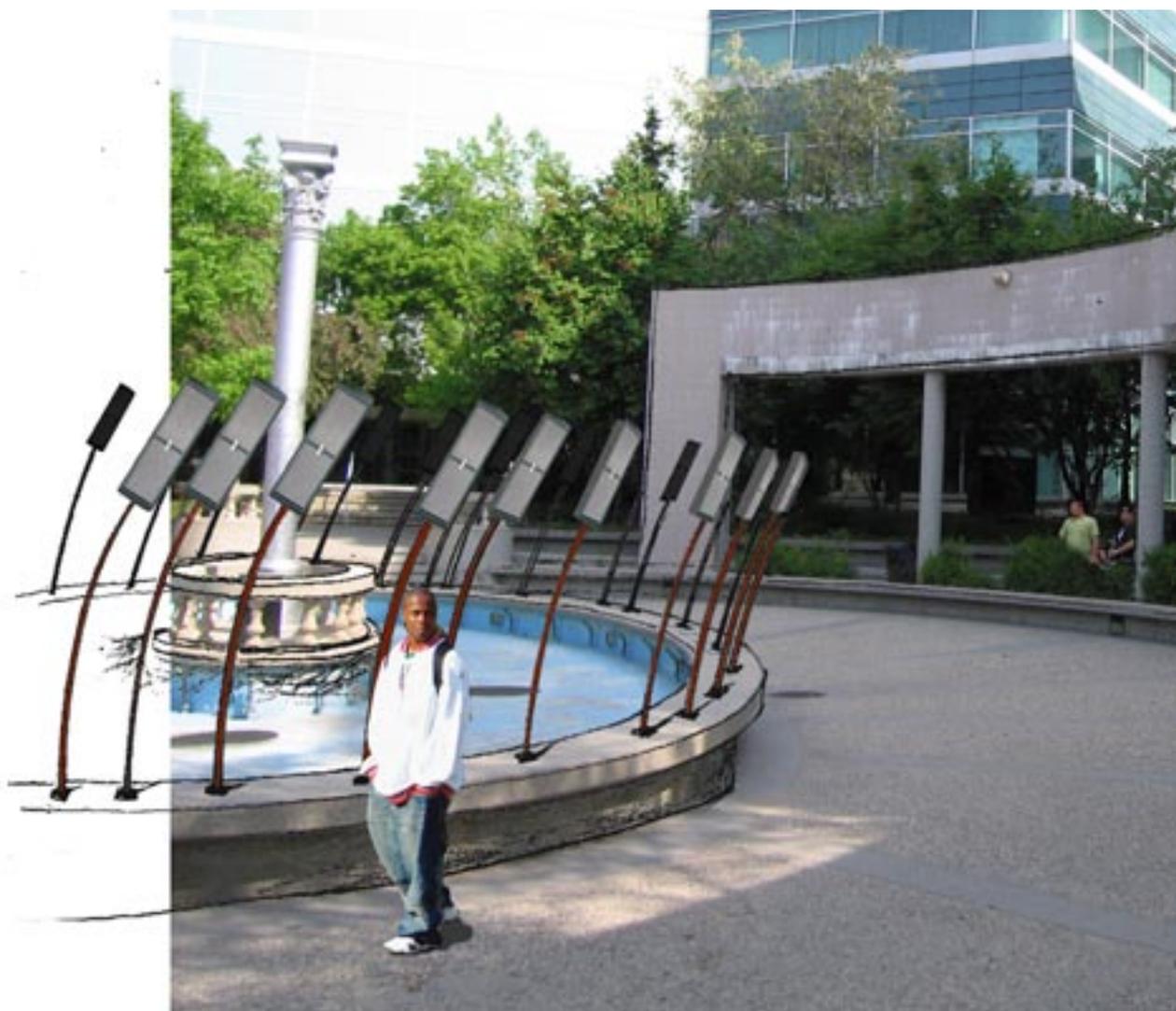
### 3: AIR CANADA PARK

Air Canada Park on Portage Avenue is a post-modern public plaza filled with classic columns and symmetrical 'architectural' elements meant to display Winnipeg's past. It is bordered by the Air Canada building to the north and the Aboriginal Peoples Television Network (APTN) building to the east. Although well used at its edges, the sunken centre of the space is usually deserted.

This speculative intervention brings sounds of prairie people into downtown Winnipeg. Conversations between people speaking Cree, Ojibway, Michif, English and French emanate from the centre of the park but can only be heard by people who are standing at its edges.

Carbon fibre rods are attached in 'conversing groups' to the existing fountain wall at the centre of the site. Each rod supports a Hyper Sonic Sound (HSS) speaker that creates a precise beam of sound only heard when the speaker is pointed directly at the listener's ear. The rods are flexible and move back and forth with the wind so that even someone standing in the same place will only hear snippets of the conversation coming from the speakers. Because the edges of the site are so much higher in elevation than the centre (1 to 2 metres), the speakers are placed high above the ear level of people standing near them. Heating coils in the rods allow people to feel the presence of others when they move toward the centre of the park but their voices can only be heard in the areas farthest away from where the conversations are coming from. Voices move through the park as though they are being carried in the wind.







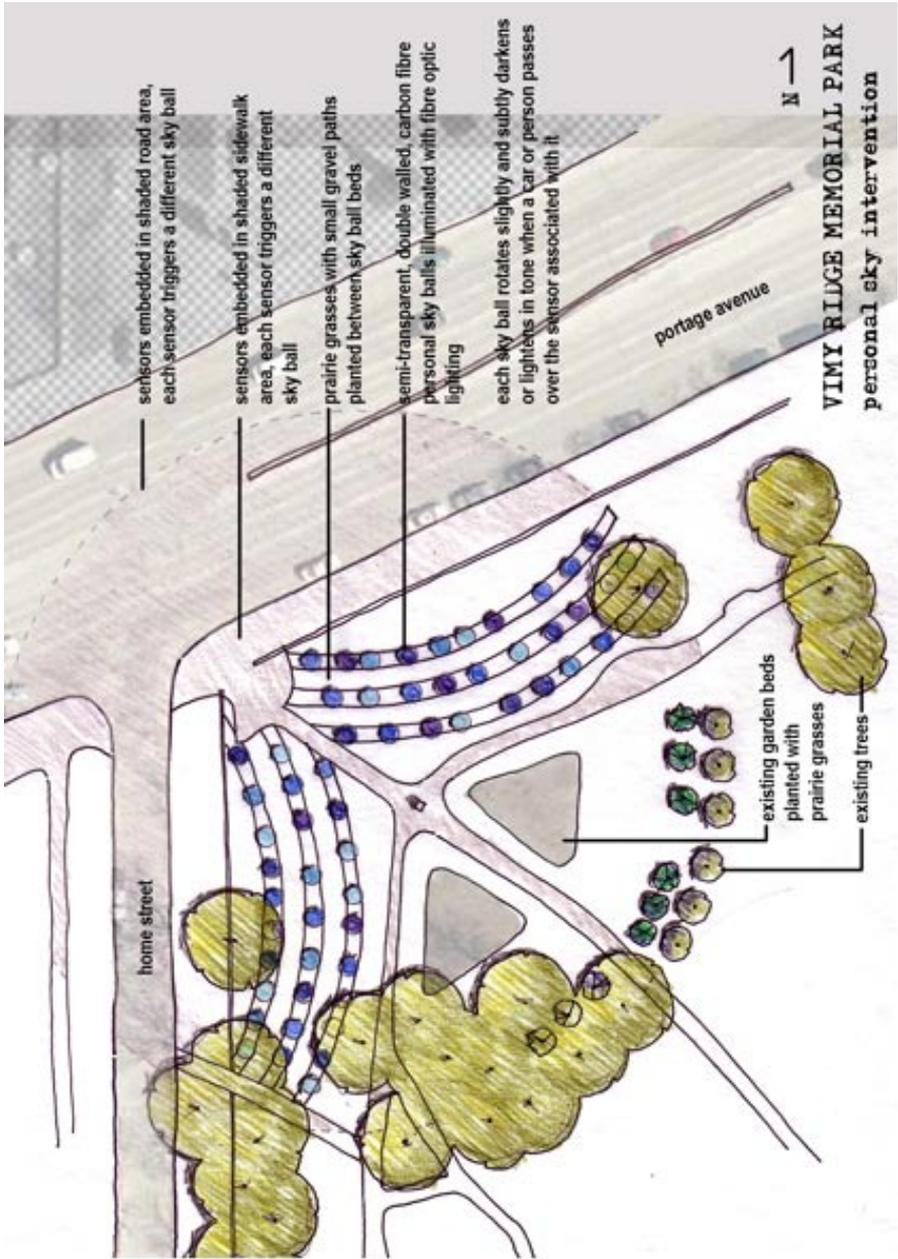
#### 4: VIMY RIDGE PARK

Vimy Ridge Memorial Park is a large, formally planned park on Portage Avenue. The area of the park that is closest to the busy thoroughfare consists of linear annual planting beds bordered by a semi-circle of coniferous trees.

In this speculative intervention, personal sky balls are 'planted' in the existing annual beds creating an intimate experience with the spherical prairie sky. Each ball is connected to a different sensor located in the roads and sidewalks within a circular area around the planting beds. When a sensor is triggered by a vehicle or a person passing over it, the corresponding ball rotates slightly and the light emanating from it becomes a little bit lighter or darker.

Each ball is made of semi-transparent double-walled thermoplastic that can withstand abuse and temperature change. Fibre optic lighting illuminates the space between the interior and exterior walls so that the balls glow from the ground up. Strips of prairie grasses run between the planting beds, obscuring the views out of each personal sky.

On the prairie, time is kept by the movement of people across the land, the changing light and the colour of the sky. Here, the intensity of vehicular and pedestrian traffic keeps time within the intervention. The more traffic, the faster the balls rotate and change colour (from early morning blue to midnight blue and back again). However, even at rush hour, like the sun moving across the prairie, movement and tonal shifts are only evident when the sky balls are watched closely for a long period of time. Leaning back inside a personal sky ball would almost be like lying in a field of grass, looking up at a clear prairie sky.





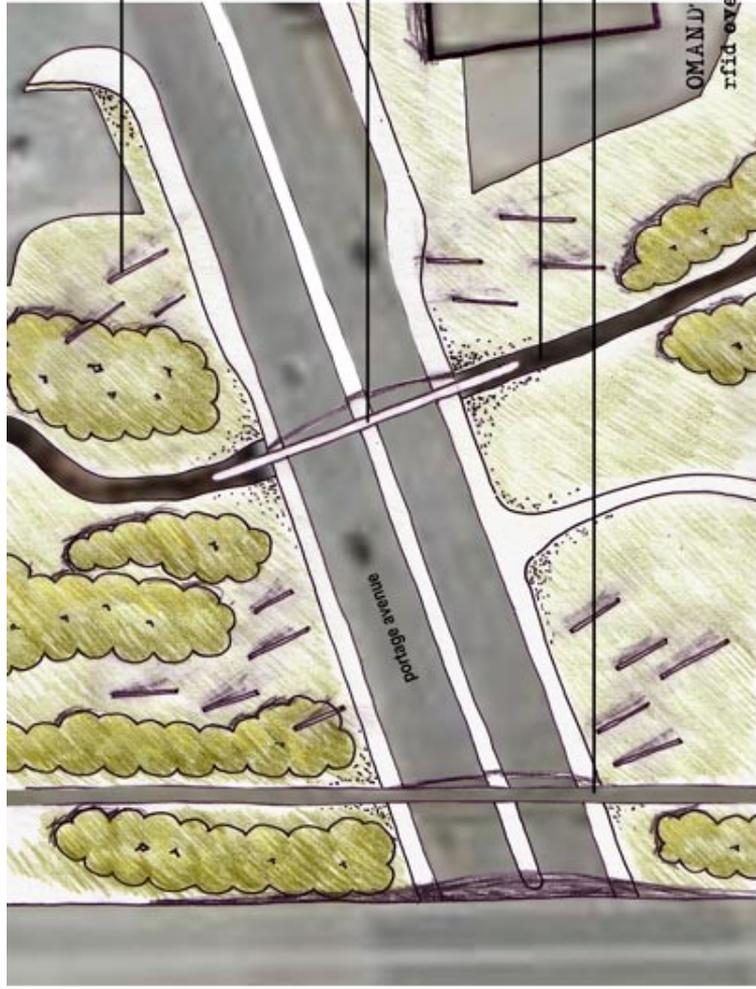


## 5: OMAND'S CREEK PARK

Omand's Creek flows from northwest Winnipeg into the Assiniboine River. Until recently, it was considered one of the city's most disturbed waterways. The Omand's Creek Revitalization project was successful in restoring water quality and wildlife habitat in the area. Omand's Creek crosses Portage Avenue just east of Polo Park Shopping Centre.

When in a vehicle crossing the bridge over Omand's Creek, the waterway is barely visible. This speculative intervention allows the abundance of wildlife living in and around Omand's Creek to become perceivable to both people driving over the bridge and to visitors in Omand's Creek Park. Two existing conditions are drawn upon in this design. The first is the ongoing study of wildlife in the area in which animals have been tagged and tracked, and the second is three of four large billboards that clutter the banks of the creek.

In this intervention, animals are tracked using passive RFID (radio frequency identification) tags. A steel mesh structure that circles the bridge, bringing the line of the creek to vehicle level, contains rfid receivers and cctv (surveillance) cameras. When an animal with a tag comes within a few metres of the structure, a receiver is activated and a stored photograph of that animal is displayed on the digital billboards that flank the creek around the bridge. Real-time video footage from the cctv cameras closest to the activated receiver are also displayed on the billboards giving people a bird's eye/snake's eye/squirrel's eye (etc.) view of the creek. The sound of the animal that last crossed the rfid overpass will interfere with car radios as people pass over the bridge. Everyone passing by Omand's Creek will be sensitized to the ebb and flow of a prairie waterway.



new and existing billboards on grass slopes beside creek

when an animal passes over, under, or through the rfid overpass, an image of that animal and video feeds from the cameras closest to where the animal crossed the overpass are displayed on the billboards

steel mesh structure (rfid overpass) encircling bridge

the structure is equipped with rfid readers and cctv cameras triggered by rfid tags on animals in the area

mandy's creek

existing railway bridge

OMANDY'S CREEK PARK   
rfid-overpass intervention



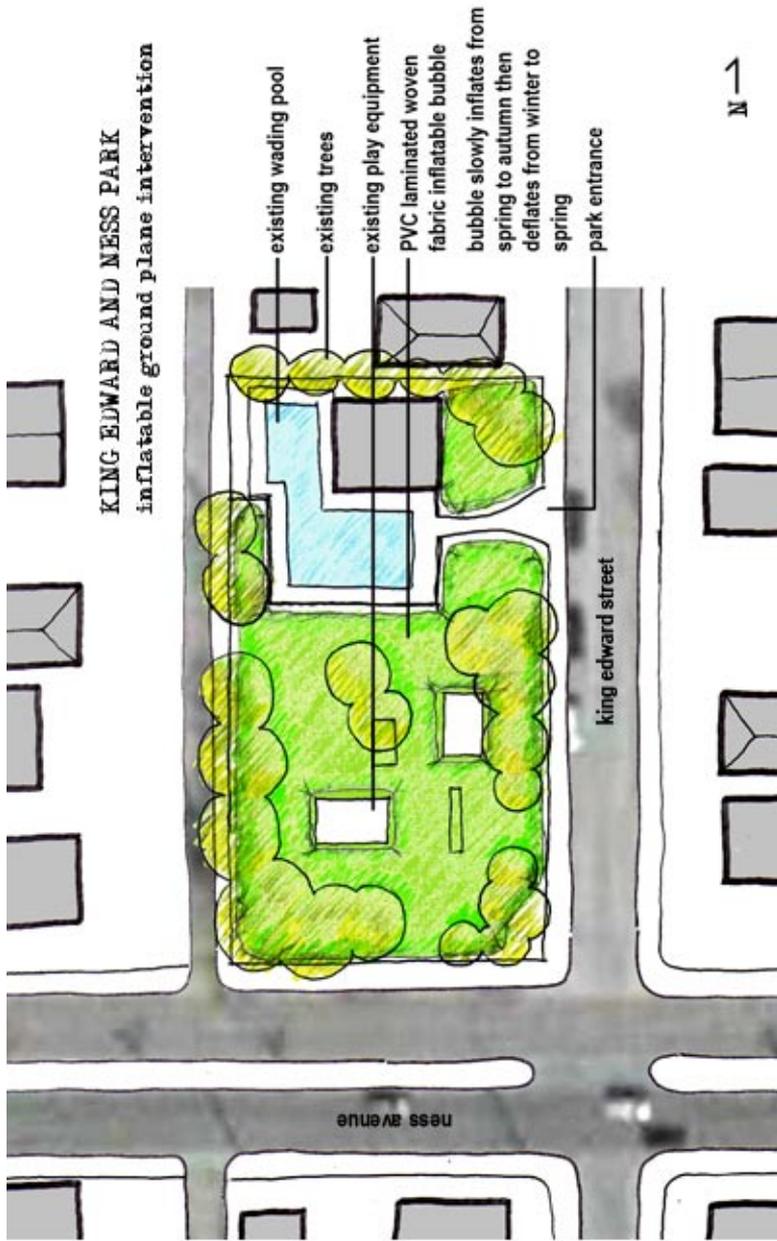


## 6: KING EDWARD PARK

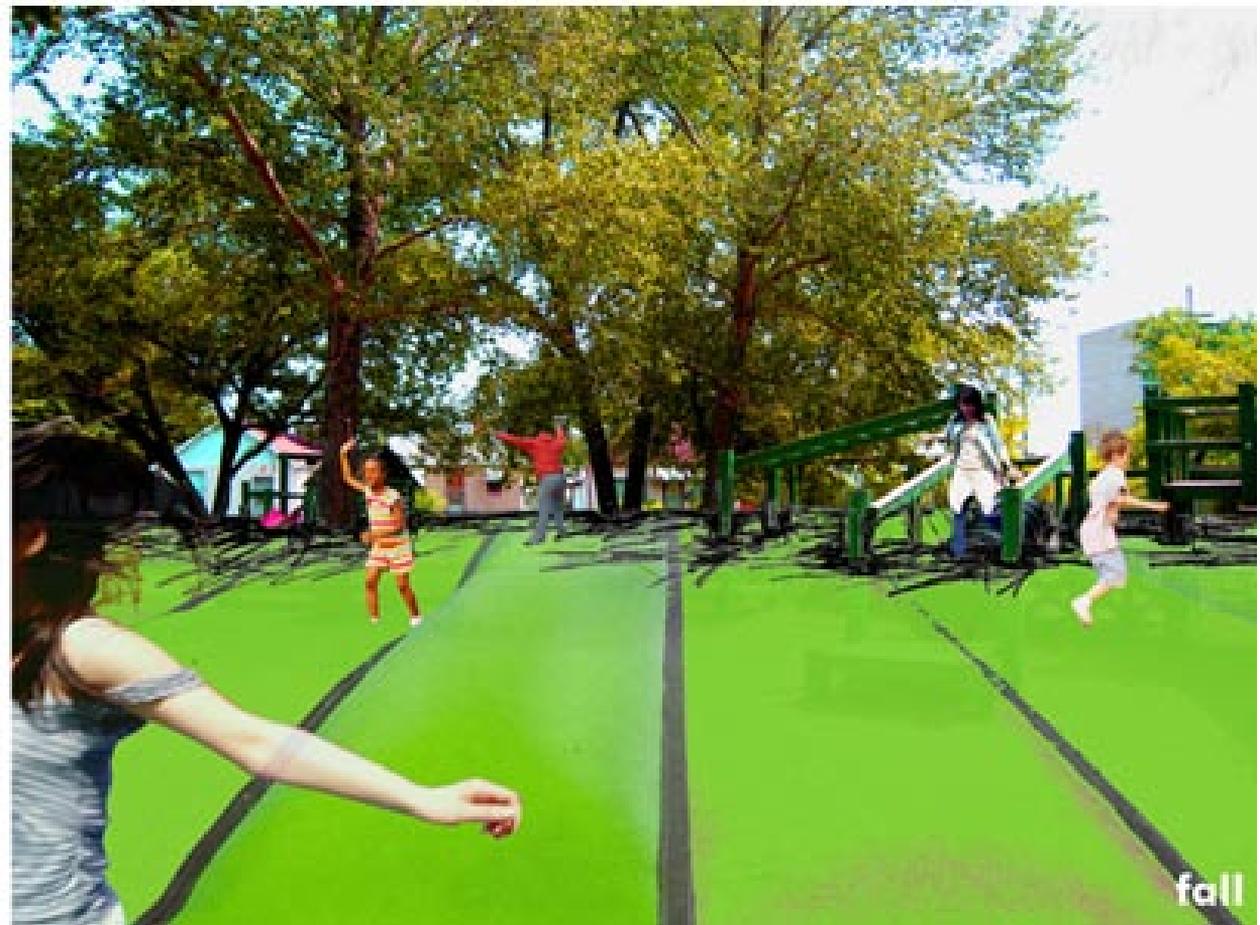
King Edward and Ness Park is located just west of Polo Park Shopping Centre on Ness Avenue. It is a small piece of land that contains play structures and a wading pool, all surrounded by a chain link fence. The ground plane is a constant surface of sand, worn down grass, and concrete.

The ground plane in the tall grass prairie changes dramatically throughout the year. Having been weighed down during the winter months, the spring ground surface is relatively flat and easy to walk over. From then on and into the winter, the prairie gets increasingly difficult to walk over and through. People begin to wade through the grasses as they would through an incoming tide. With this navigational shift comes a shift in the horizon. Everything is lifted slightly. Early in the winter, the conditions are similar. The snow is soft and you sink through until it packs down and the plants fade back to the underground.

In this speculative intervention, a bright green inflatable ground surface covers the park. In the spring, this PVC laminated woven cloth bubble begins to slowly inflate. The gradual inflation continues through the summer until it reaches full height (about 1.5-2 metres, the same as the height of big bluestem on the prairie) in the early autumn. During the winter, the bubble begins to slowly deflate until it is flat again and ready to begin its annual cycle. The bubble is constructed much like a 'bouncy castle' allowing it to slowly encase the play equipment and start to spill over the top of the fence. The gradually shifting ground plane of the prairie is brought into the park.





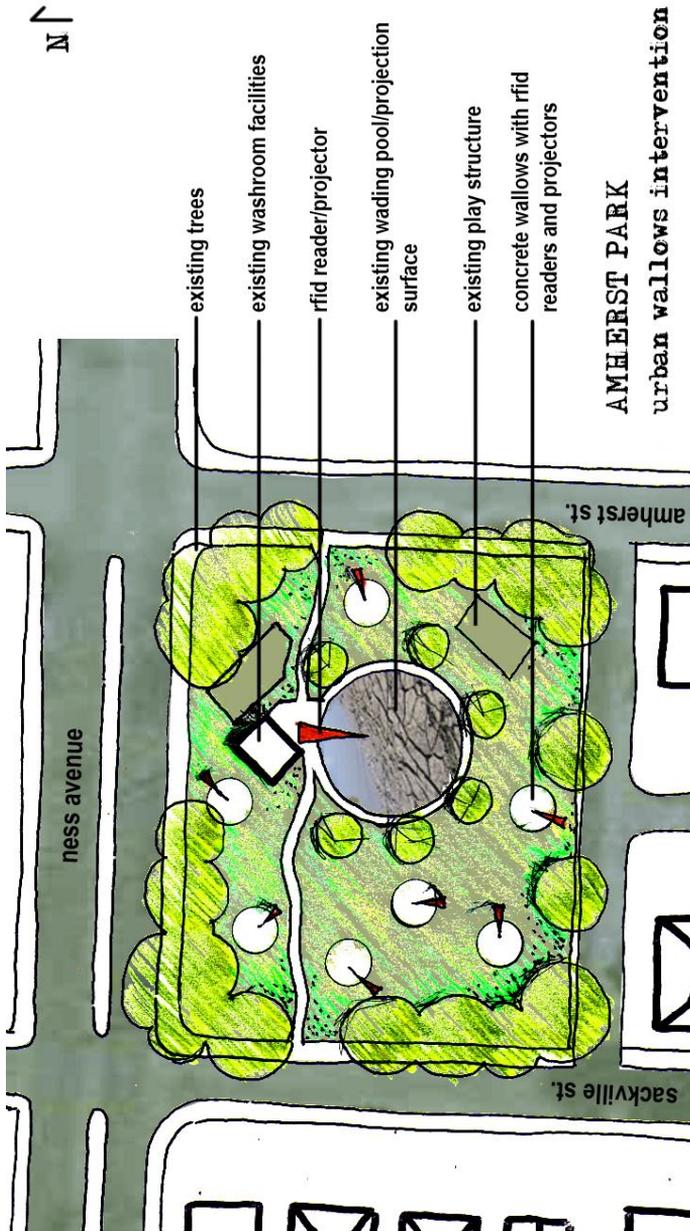


## 7: AMHERST PARK

Amherst Park is located on the south side of Ness Avenue between Sackville and Amherst Streets. This neighbourhood playground has an open grass field, a large play structure and a fenced-in, abandoned wading pool.

On the prairie, bison would come year after year to cool and clean themselves in small depressions in the land. As more bison rolled in a depression, the larger and more diverse the 'bison wallow' became. Plant species that struggled to live in the rest of the prairie flourished here because the dominant grasses were worn away. Bison also brought seeds on their coats from other areas of the prairie and deposited them as they rolled on the ground. These conditions allowed rich seed beds to form in each bison wallow.

In this speculative intervention, the ubiquitous concrete depression of the abandoned wading pool is 'seeded' with images of journeys and experiences that people have as they move through Winnipeg. Each journey begins at one of many outdoor gumball machines redesigned to dispense rfid shoe tags. A small tag similar to those worn by marathon runners can be attached to a shoe (or bag, belt, etc.). As the person wearing the tag comes close to a CCTV camera (surveillance camera) or a webcam, the tag communicates with the camera and a still image from the real-time video feed is sent to a central project database. The images stored can only be seen when the tag is read by the rfid readers at Amherst Park. When the tagged shoe is held under a reader, the stored images are projected onto the wading pool or one of the other circular concrete depressions in the park. Once a tag is read, it becomes obsolete but the images are saved and intermittently projected throughout the park. In this way, the urban wallows are seeded with random but recognizable images of what the prairie is today.







## 8: WIGHTMAN GREEN

Wightman Green is a formal park on Ness Avenue between Linwood Street and Lyle Street. The park is adjacent to Truro Creek, an intermittent stream that runs from the International Airport to the Assiniboine River. Many people driving down Ness Avenue speed by the creek without ever taking notice of it.

Truro Creek is one of the few prairie streams left in Winnipeg. As the city was settled, most of the streams were filled in and built over. The ephemeral nature of Truro Creek offers a glimpse of what the prairie landscape around Winnipeg once was.

In this speculative intervention, airport runway lights (a reference to the proximity to the airport and the origin of the stream) are placed along the side of the creek bank. The lights are raised on posts where the stream is visible and embedded in the road where the stream disappears underground. Five webcams placed on each bridge crossing allow people all over the world to view the entire length of the stream as it passes through the park. The runway lights can only be activated by the person that is controlling the webcam. Once the lights are turned on, they slowly begin to fade away. During the moments the lights are on, the existence of the stream becomes obvious to people passing through the area. When activated at night, the stream is further highlighted by water reflections projected onto the tree canopy from the top of the post lights.

The temporary quality of the lights creates a dependency between the existence of the intervention and the person watching the stream through the webcam (video) stream. This project expands the use of webcams by creating a tangible connection between the actions of internet users and the landscape they are visually exploring.







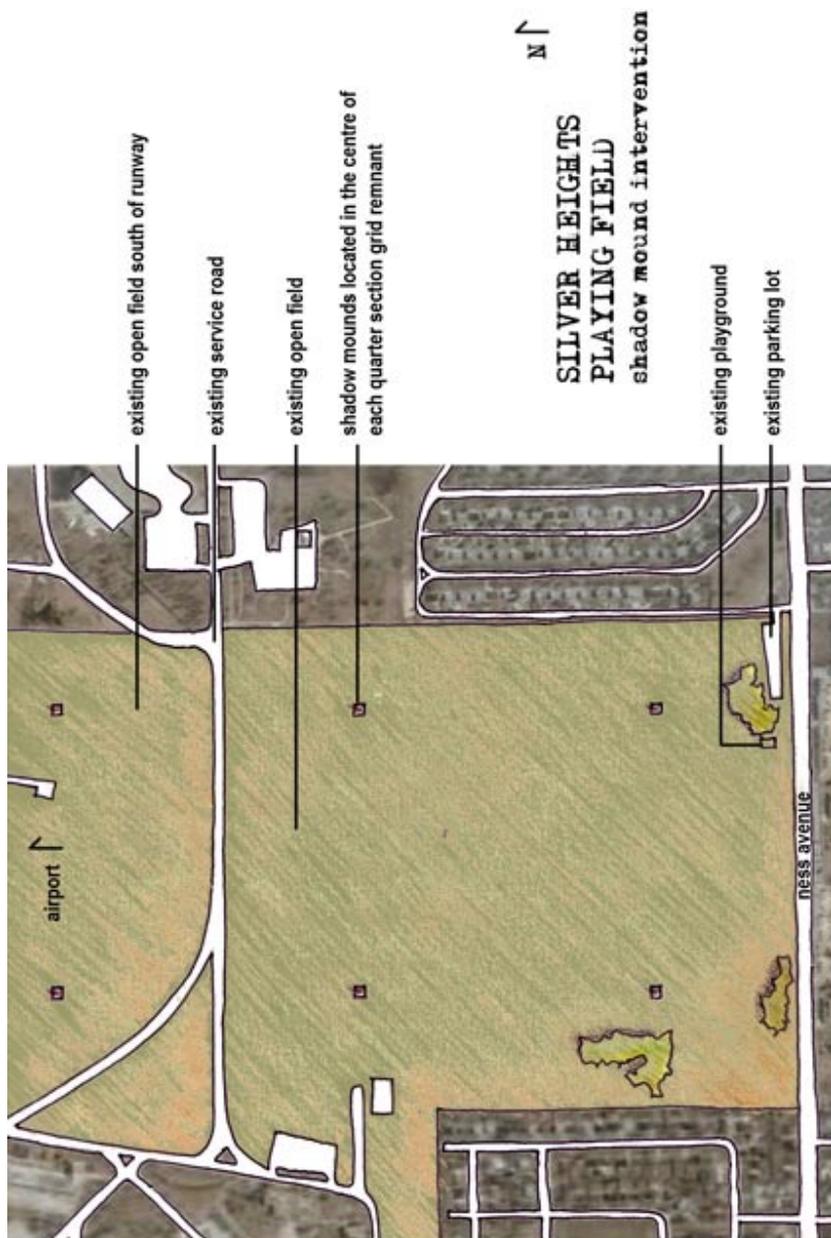
## 9: SILVER HEIGHTS/AIRPORT

Silver Heights Playing Field is on the north side of Ness Avenue across from the Silver Heights Community Centre. Directly north of the field is the Winnipeg International Airport. A series of soccer goal posts and baseball diamonds occupy most of the large open field, although a parking lot and a small playground are located in the southwest corner. This area is covered by oak trees that provide the only shade in the entire park.

With no trees or wind breaks, visitors to the playing field are exposed to the elements as they would be in the wide open prairie. Here, shadows become more intense because fewer are present. They are sharp and conspicuous.

*“Shadows are an inherently interactive phenomenon. In light’s path they follow us, we follow them, a re-doubling back and forth. Outside our body, they are nonetheless of our body—traces of our presence that simultaneously highlight our absence from the precise space they occupy.”* (Art Interactive, n.d.)

In this speculative intervention, six shadow mounds are located at the centre of existing quarter section prairie grid squares. The mounds are close enough to be visually connected but far enough apart to prevent direct interaction between visitors. Each shadow mound consists of a horizontal retroreflective screen that is activated when a visitor steps on the top of the mound. A digital video camera on an overhead post records the shadows cast by the visitor then transmits them to the other shadow mounds. When the visitor is finished recording, other shadows cast and digitally stored in the mounds are rear projected onto the screen. These shadows were either cast on the same mound at a different time or a different mound at the same time. As shadows are cast and re-cast, visitors leave their trace on the land while making connections between time and wide open space.







## 10: LIVING PRAIRIE MUSEUM ROOTED PODS

The Living Prairie Museum marks the end/beginning of the speculative intervention corridor that follows the Ness bus route from downtown Winnipeg. The speculative intervention site at the Living Prairie Museum is limited to the buffer of mown grass around the interpretive centre.

Many people drive past the museum each day but most see the prairie as only an empty field. The value of the prairie cannot be comprehended in a glance. The existing signage does not stimulate the imagination and does not draw people in.

In this speculative intervention, large pods are situated along the north and west sides of the interpretive centre. The pods are designed to increase interest in the prairie in two ways. The first is to act as glowing markers that grab the attention of drivers and propel them towards the prairie. The second is to pull visitors deep into the site as they begin their exploration of the land while directing them toward the start of the prairie path.

Each pod consists of a translucent carbon fibre shell on a perforated corten steel base that allows grass to grow through and into the pod. A bench dimensioned for people to lie on their sides while in the pod holds amplified speakers and is coated in a soft, malleable gel. Each bench wraps around a central light stem of led strips in a plastic casing powered by solar panels at its tip. A microphone is buried under each pod and picks up noise and vibrations from the underground. The noises are mixed with snippets of prairie stories told by people in the community and can be heard through the speakers only at close range (the visitor's ear must be on the bench in order to hear the sounds). The light stems dim and gets brighter in response to the vibrations being picked up by the microphone. The experience of lying in a pod would be a personal and sensual way of bringing the roots of the prairie to the surface.

*underground* ■ 048, 062, 074 ■■ 108

*touch* ■ 028 ■■ 067, 110













**FIELD WORKS :**

The importance of understanding what was once here is lost to so many people that live here now. Meanwhile, the collective memory bank of the tall grass prairie is rapidly disappearing. There are very few people still alive that truly remember or even think they truly remember what it was like to be surrounded by tall grass prairie. It is so important to preserve and communicate the memory that still exists.



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