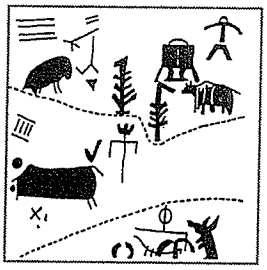
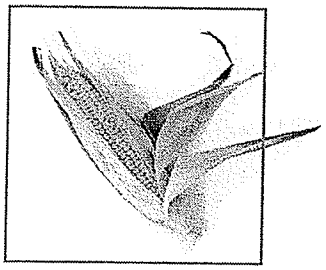
P R A I R I E Park:

History as a Design Tool





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PRAIRIE PARK:

HISTORY AS A DESIGN TOOL

BY

JAMES A. VEITCH

A Thesis/Practicum submitted to the Faculty of Graduate Studies of the University of Manitoba in partial fulfillment of the requirements for the degree of

MASTER OF LANDSCAPE ARCHITECTURE

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Dedicated to James Anderson Veitch I.

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1.0 Introduction

"The protection of natural and cultural history - the reuse and integration of the old into the new without fanfare while avoiding the temptation to turn everything into a museum because it is old- lies at the heart of maintaining a continuing link with the past and a place's identity." (Hough, 1990)

The site selected for this practicum was once occupied by river lot 684. The lot was granted to Jean-Baptiste Lagimodiere, the grandfather of Louis Riel, by Lord Selkirk in 1816. The area is a secluded, undeveloped parcel approximately 12 hectares, (30 acres), in size located in North St. Boniface. Roughly triangular, the site is virtually enclosed; the Red River to the north, a CNR spur line to the west and south, and the Seine River to the east. The Canadian National Railway main line runs through the site dividing it into two segments. Its history, like that of the surrounding context, is remarkable and serves as the impetus for this investigation.

Whittier Park runs along the Red River on the north side of the CNR main line berm, immediately adjacent to the study site. A high maintenance urban park of sod, artificially constructed berms, a baseball diamond, and a replica fur trade post, it provides the perfect antithesis for this practicum. This park requires regular weekly mowing, constant irrigation and intensive weed control. The post, Fort Gibraltar, was never located on this side of the river, thus its historical reference is somewhat confusing and lacks any real integrity.

1.1 Goal

The goal of this practicum is to create a public park which promotes a deep understanding and strong connection to the land through physical and cerebral interaction between visitor and landscape.

1.2 Objective

"The process of dwelling, an irreducible fact of every culture, is an aesthetic act, entailing being and doing, a correspondence between nature and culture. Through cultivation and construction, individuals and societies forge a place within nature that reflects their own identities - their needs, values and dreams." (Spirn, 1989)

The objective of this development proposal is to create a sustainable landscape born primarily from the history of the site and context.

This objective is accomplished in two phases;

1. An examination of the cultural and physical history of the site and context establishes a series of developmental episodes.

2. Physical and non-physical components extracted from these episodes are transformed into a design language and applied to the site.

1.3 Methodology

"Design based on the culture and land patterns can express social as well as physical elements intrinsic to the region. This design approach explores and reveals the meaning, memory and power of yesterday's and today's landscape. It is based on the idea that the common cultural-physical landscape is a container and reflector of diverse, diffuse and often ambiguous cultural meanings." (Francis, 1990)

The methodology used to achieve the practicum objective is as follows;

1. Conduct a detailed historical study of the site and the surrounding context.

2. Identify a series of developmental episodes which have impacted the landscape.

3. Examine these episodes, illustrating the cultural group(s) involved, their subsistence, economy, settlement, and repercussion on the landscape.

4. Highlight certain physical and nonphysical elements which will be modified to provide a design vocabulary of abstracted parts and transformed patterns.

5. Apply a refined version of this vocabulary fitting it to the site, creating a public park anchored in the essence of the place.

2.0 Site

During the site planning process the study site will be examined on two levels. The main focus is on the physical and cultural history of the site and surrounding context. A series of historical episodes are identified and analysed, each revealing dominant cultural groups with specific impacts on the landscape. It is these physical land patterns which provide the framework of form and circulation around which the design evolves.

Secondly, the existing conditions of the site provide the parameters within which the design takes shape. Factors such as topography, climate, vegetation, hydrology, land use, and view sheds are considered and effect the design process.

2.1 Location

The practicum site is located on the east bank of the Red River at its confluence with the Seine River. Approximately 12 hectares, (30 acres), in size, this triangular parcel is a part of the North St. Boniface urban residential district.

The site is defined by a very specific set of boundaries; to the north is the Red River, the Sprague spur line cuts diagonally from south to west, the Seine River forms the eastern boundary, and the CNR main line runs through the site. These boundaries combine to impart a strong feeling of enclosure within the site, while at the same time concealing it from without.

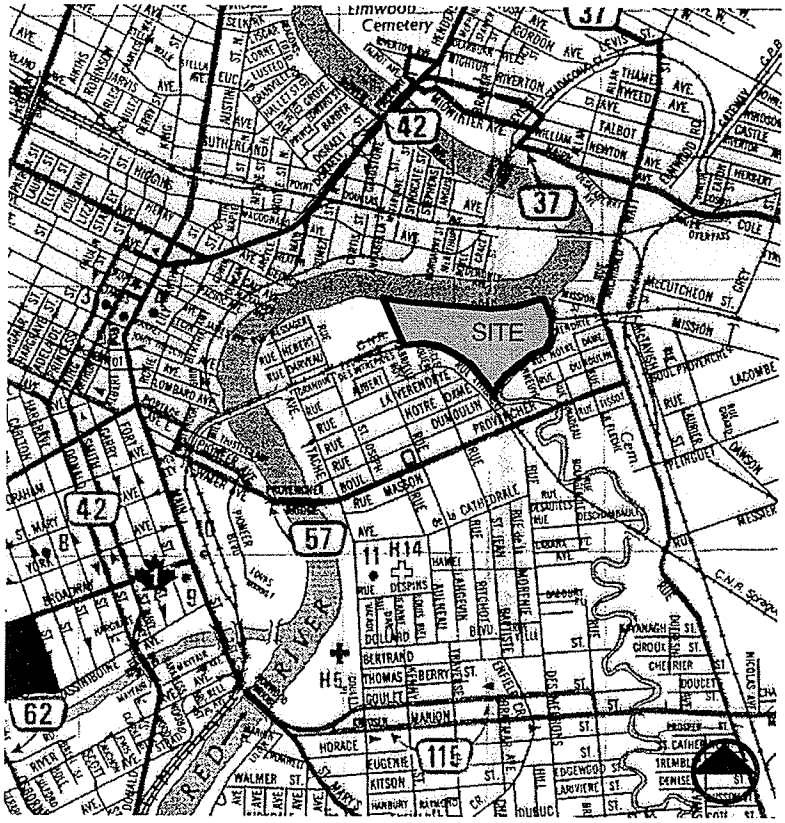


Fig.1: Site location; North St. Boniface.

2.2 Existing conditions

There are only two ways to enter the site each is specific and each is memorable. Entry at the northern edge is by way of an underpass from Whittier Park through the CNR berm. The dirt path is wide enough for a large vehicle and is often impassible during wet weather. Above is an industrial, heavy iron girder bridge. Access at the southern end of the site is achieved by passing over the CNR Sprague spur line from Rue Notre Dame. The rest of the site perimeter is walled off by a combination of natural and artificial barriers. Physical, as well as visual, penetration is difficult from all directions. This virtually impermeable character with masses of overgrown vegetation creates a sombre mood which in turn evokes a strong sense of mystery.

The site's dominant sensory qualities are those of contrasts; dark vs. light, natural vs. artificial. The light quality within the site is one of muted grey tones. Dark shadows from the woods and uncontrolled undergrowth along the river contradict the bright, reflective edifices of downtown Winnipeg. Cut off from the immediate context, an awareness of isolation and seclusion overcomes the visitor. The dumping of fill and other assorted debris has been a typical practice on the site over the past few years, resulting in an uneven, poorly drained ground plane. Several informal roads and paths cross the site which become very muddy and difficult to use during wet weather. The site is overgrown with thick scrub vegetation inhibiting movement. Informal activities characterise the existing use. Some use the site for garbage disposal. While others frequent the site to walk dogs, ride bicycles, or access the rivers for fishing. The site is composed of a combination of natural and artificial boundaries. To the north is the Red River and the CNR main line berm which is 35 feet above grade passing from east to west across the site.

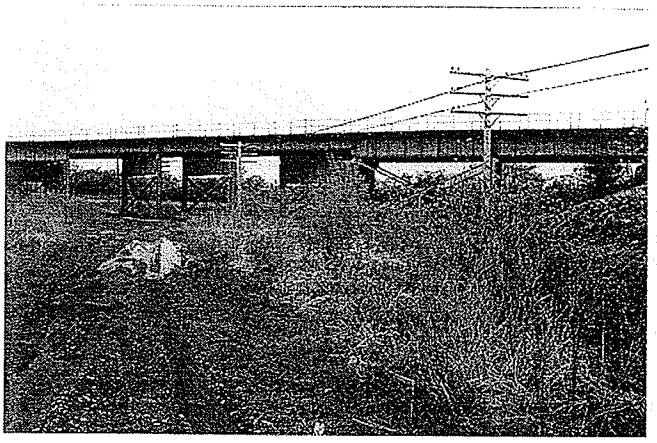


Fig.2: Looking northwest; CNR underpass.

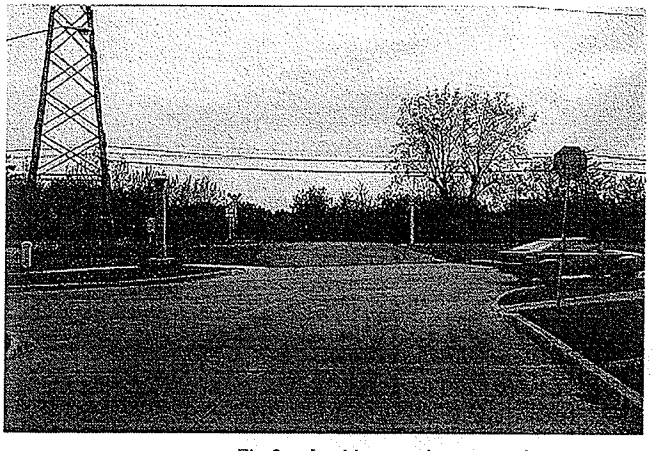


Fig.3: Looking northeast; southern access.

Fig.4: Looking southwest; debris, new subdivision & CBD.

The berm dominates the site acting as a great fortress protecting the interior. Its height and slope make it very difficult to ascend or descend. The west and south edges of the site are defined by another set of rail tracks; the Sprague spur line. The spur line is not as massive and imposing as the main line and because of its arced form has a more dynamic feel. However its raised elevation does create another wall on the site. The Seine River forms the eastern boundary of the site, it's semi-forested banks provide a soft natural edge which contrasts with the artificial edges of the rail lines. These strips of forest provide important cover and habitat for the animals of the region. Wildlife finds refuge in these green corridors in the search for food and shelter within the urban landscape.

The vegetation of the site is dominated by a thick herbaceous layer of Burdock, Thistle and Nettle. The flood plain forest of the Seine River is made up of Bur Oak, Trembling Aspen, and Poplar. Remnant tall grass prairie has been documented along the southern edge of the main line berm, (Morgan, 1983).

Fig.5: Looking southeast; uneven terrain.

Fig.6: Looking northwest; existing road.

Fig.7: Looking northwest; confluence of the Red & Seine Rivers.

The berm and the floor of the site are spotted with small trees and shrubs such as Dogwood, Willow, Green Ash, and Poplar. River bottom forest grows along the bank of the Red River giving way to perennial grasses.

The views from the site vary. Most views are fractured and blocked. The skyline of downtown Winnipeg dominates the view to the west. The structures are imposing and overpower the site. Their glazing reflects the sun, sky, and other buildings which compounds the effect. The view northward terminates at the CNR main line, a large 35 foot 'wall' covered with scrub vegetation. Potential views to the Red River and its river bottom forest are blocked, emphasising the enclosed feeling. The view south is of the North St. Boniface residential area; small single family houses accompanied by notable historic landmarks; St. Boniface Basilica, City Hall, Fire Station, and the College St. Boniface. The high voltage tower structures and power lines that follow the south side of the Sprague spur line punctuate the horizon. Eastward one captures glimpses of the Seine River penetrating the curtain of flood plain forest. The east horizon presents a massive industrial structure known as the Central Grain Plant. The burnished greys of the tangled pipes paint a surreal image on the backdrop of the distant sky with the flood plain forest of the Seine River as the foreground. The definite, powerful edges and boundaries control the views to and from the site.

RED RIVER

Point Douglas

fishing point

river bottom forest

scrub grasses

Whittier Park

power lines

CNR main line
33.5' high, 120' wide

underpass

Fig.4

Fig.5

Fig.7

remnant concrete foundation

dumped garbage

CBD dominates view

Fig.2

scrub vegetation burdock, thistle, nettle

CNR Sprague spur line

power lines

exist. dirt roads

low wet areas-
irregular topography

river bottom forest

newer subdivision

high voltage towers

southern access to site

Fig.6

Seine River Parkway

exist. ped. bridge

Fig.3

SEINE RIVER

PROMENADE DES INTREPIDES

PLACE GABRIELLE ROY

CERCLE MOLIERE

AUBERT

LA VERENDRYE

NOTRE DAME

ST JEAN BAPTISTE

DUMOULIN

TACHE

TURENNE

TIBEAULT

PROVENCHER

RUE

SCALE 1"=300'

25 125 500 ft

0 50 275

PRAIRIE Park: Existing Conditions

2.3 Context

A dominant component of North St. Boniface is the large amount of green space owing to the Red and Seine river corridors which slash through the hard urban landscape. These green linear oases provide abundant cover for animal habitat and migration as well as scenic natural areas for public enjoyment. This green belt also acts as an effective barrier filtering out both noise and pollution. Unlike much of the city's riverbanks, the majority of the river banks of St. Boniface are city-owned and for the most part accessible to the public. This results in a positive impact on recreation and, in the less accessible areas, animal habitat needs.

North St. Boniface consists of an eclectic mix of urban fabric. The residential construction spans 70 years from the 1920's to the 1990's. A diverse combination of light industrial, commercial and civic institutions make up the rest of the neighbourhood.

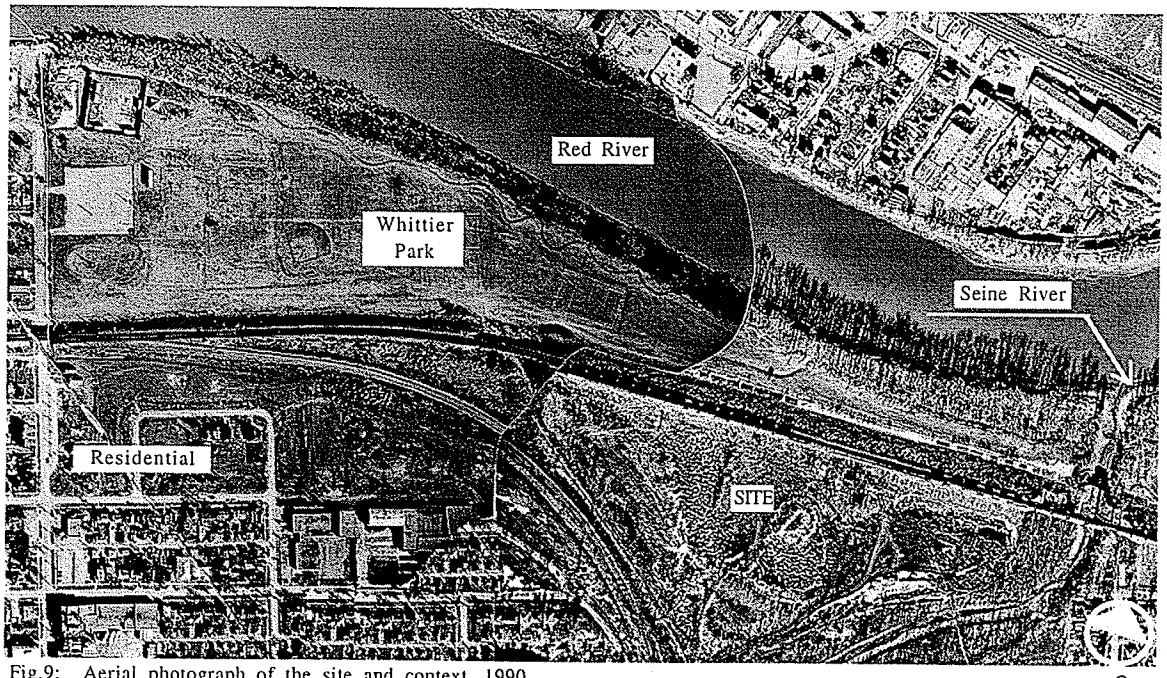


Fig.9: Aerial photograph of the site and context, 1990.

Existing immediately adjacent to downtown Winnipeg, North St. Boniface is effectively cut off and buffered from the Central Business District by the Red River. Visually this buffer is not as apparent because Winnipeg's skyline dominates the western horizon imposing itself on the community. Regular train traffic along the CNR main line provides the area with a certain atmosphere and feel. The main line also serves as a corridor for cyclists and pedestrians, an extremely dangerous route to risk travel on. Over 10 meters, (30 feet), above the ground plane it provides a clear path with a good vantage point, however the two sets of tracks employ frequent train traffic and there is not much room for the pedestrian when the two meet.

2.4 Historical development

"European visitors often remarked upon the 'natural' character of the landscape. By this, they meant that the environment bore little evidence of human occupancy." (Friesen, 1987)

The European's impact on the land and the indigenous peoples was immediate. While thousands of years of First Nation's habitation had little visible effect on the land, the Europeans radically altered the face of the landscape within decades. Rapid deforestation for construction, fuel, and cultivation was followed by deep scars plowed into the pristine prairie. Swamps were drained, streams filled, and creeks were built over. The land was efficiently re-sculpted to offer the least resistance to the settlement process.

"Perhaps the most profound of all changes that occurred in the Western interior in the last half of the nineteenth century was that thereafter the landscape would be dominated and moulded by humans rather than by forces of nature, except in those rare moments - a flood, a blizzard, a forest or prairie fire - when nature reasserted its power." (Friesen, 1987)

On September 24, 1738, a small party of voyageurs led by La Vérendrye landed their canoes on the south bank of the Assiniboine River near its junction with the Red River. Here the French explorer encountered a Cree encampment and over the council fire persuaded them to forsake the British and trade with the French. La Vérendrye constructed Fort Rouge at this site confirming his commitment to the local tribes.

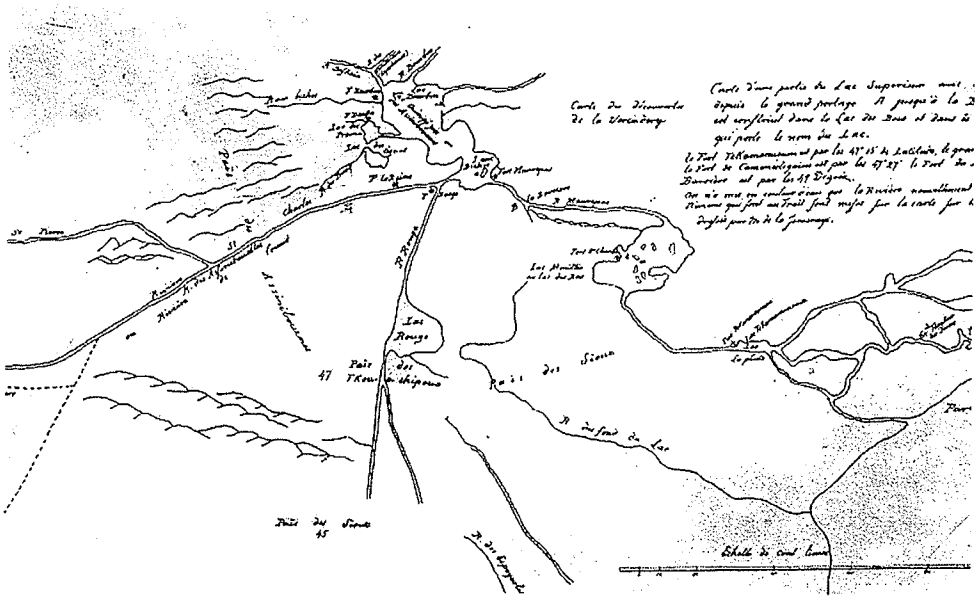


Fig.10: Map by the La Vérendrye Expedition, 1741-42. Note Lac Oinipegon, (Lake Winnipeg), & Fort Rouge. (Warkentin & Ruggles, 1970)

When Canada fell to the English in 1759, the western trading posts of New France were abandoned. The loss of furs in the interior to the

French traders had ceased and the Hudson's Bay men prepared to fully exploit their monopoly at last. The monopoly did not last very long as a new consortium of Canadian merchants and traders based in Montreal formed the North West Trading Company in 1779.

While the Hudson's Bay Company preferred to trade from the periphery, the North West Company established a foothold in the interior on the northwest bank of the confluence of the Red and Assiniboine Rivers, a place known as The Forks.

"Official occupation of this river junction can be considered to date from 1810. In the summer of 1807 North West Company partner John McDonald (of Garth) was sent from the Rockies to The Forks to arrange for the construction of a large complex there to be known as Fort Gibraltar. The site was to be on the high bank of the Assiniboine where it enters the Red, opposite to or north of where the second La Vérendrye group erected Fort Rouge in 1738." (Green, 1974)

Fierce competition for control of the fur trade heated up between the HBC and the NWC. Hudson's Bay Company posts began appearing overnight directly across a trade route from the North West Company post. Yet in the trader's minds the most dangerous threat came, not from each other but from the colonists.

On May 30, 1811, Lord Selkirk obtained a tract of land larger than the British Isles, over 116,000 square miles, known as Rupert's Land. He established the Red River Settlement along its west bank 1 mile north of the point where the Assiniboine enters the Red. Peter Findler, Selkirk's surveyor, sectioned out a series of river lots 6 chains wide, (396 feet), by 2 miles long for

the colonists. These long strips of land, each approximately 90 - 100 acres in size, were administered to a chosen group of settlers.

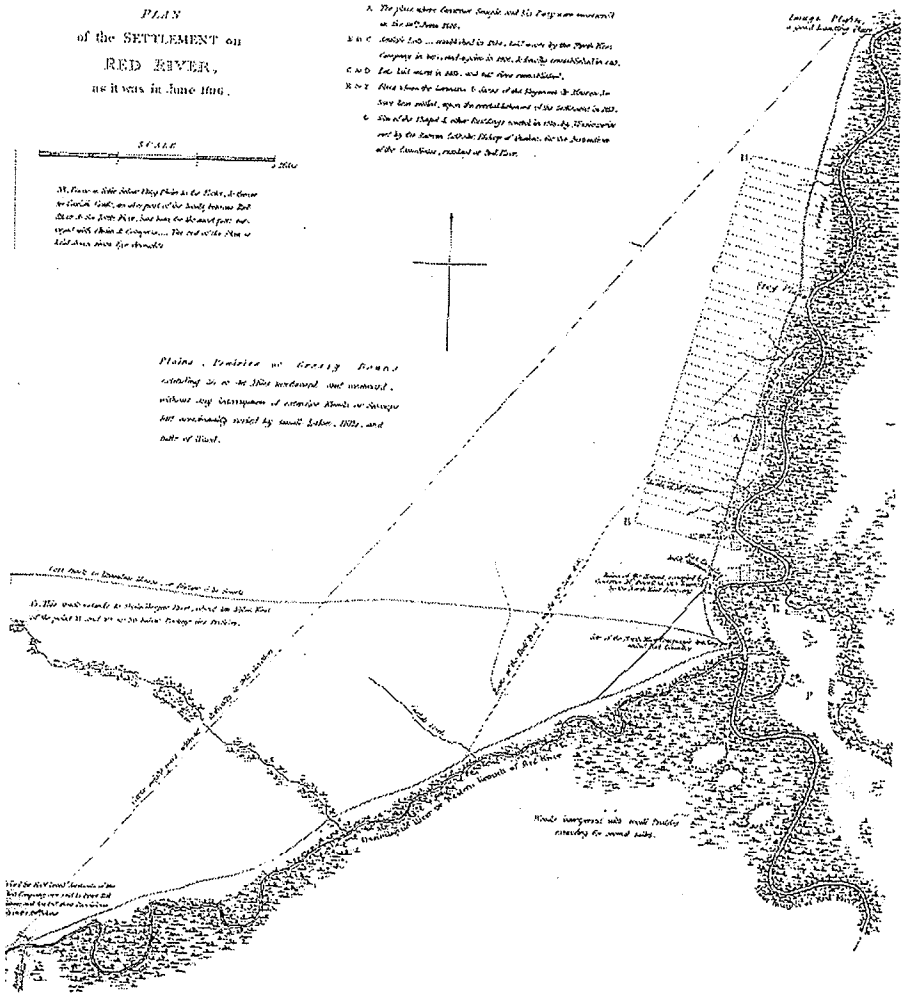


Fig.11: Aaron Arrowsmith's map of Red River Settlement, 1816. (Warkentin & Ruggles, 1970)

All had frontage on the river, a part of a wood lot, and a section of the fertile prairie. The rationale behind the river lot method of land division was the equal provision of these three different landscapes as well as a dependable escape route via the river.

"The NWC was livid, as this allegedly independent venture was going to be placed smack in the middle of their trade routes. Worse, the Selkirk

Settlement would constitute a blatant threat to the NWC's supply of pemmican from the Assiniboia, a threat not to be taken lightly given that the Company had 78 posts in the Northwest at the time. As Simon McGillivray of the NWC stated of the settlement plans, 'He (Selkirk) must be driven to abandon it, for his success would drive at the very heart of the trade.'" (Shilliday, 1993)

The harsh climate and lack of food forced the settlers to winter at the Métis settlement in Pembina returning to the Red River Settlement in the spring of 1813. The first few years proved to be a precarious existence between farming at the Selkirk Settlement during the summer and winters at Pembina until the Colony Gardens could yield enough of a harvest to sustain a permanent stay.

On the opposite side of the Red River St. Boniface came into being in 1818 when the Reverend Fathers Provencher and Dumoulin built a Roman Catholic Mission on land given to the Church by Lord Selkirk. The Parish was established directly across from Fort Gibraltar. The purpose of this Mission was to serve the religious and educational needs of the local Métis and French Canadians.

In 1844 the Grey Nuns arrived and solidified the existence of St. Boniface. They established critical institutions needed to guarantee a future for the small settlement; two schools, a hospital, and an orphanage.

The area was inhabited predominantly by the Métis. Most worked for the Hudson Bay and Northwest Trading Companies and had begun to farm the banks of the Red and Assiniboine. The development of the east side of the Red River

followed a separate, yet sometimes connected history from that of the west side.

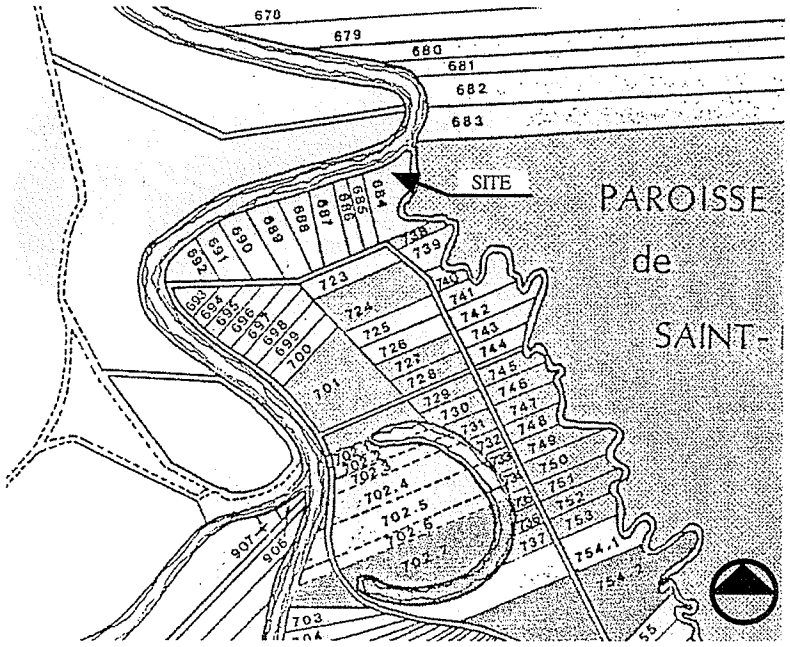


Fig.12: St. Boniface river lots ca.1845. (Lise Brémault, S.H.S.B.)

The Meurons; German and Swiss mercenaries who fought for Selkirk in one of the many Red River conflicts, received land grants on the east side of the Red River along the west side of the Seine River.

"A total of about 200 English-speaking people were spaced out along the west bank, north of the Assiniboine. A slightly larger number of non-English were living on the opposite side. Most Des Meurons soldiers were allotted land past the French along the Seine River to the Southeast." (Green, 1974)

The North West Company's fears regarding the Selkirk Settlement were realised when the governor of Rupert's Land, Miles McDonnell, proclaimed that Pemmican and other provisions could not be exported from the Colony. Adding fuel to the fire, Peter Findler, the surveyor for Selkirk began staking out river lots

along the east side of the Red further infuriating the Métis that had been farming that land for decades. This and the Pemmican Proclamation eventually lead to the famous battle of Seven Oaks on June 19, 1816. Usually referred to as a massacre, the battle was rather a convincing victory by the Métis.

The amalgamation of the two fur companies resulted in a period of slowed economy and many lost their contracts as guides and boat brigade labourers forcing them to settle in the area and try their hand at farming. From 1821 to 1871 the settlement changed from a Scottish colony with a few French Canadians and some Métis to a colony of Métis. The census from 1871 reads; French Métis - 5,720, English Métis - 4,080, and White settlers - 1,600.

In 1869, the Red River inhabitants learned that the Hudson's Bay Company was going to sell its territorial rights to the Dominion of Canada. The locals were justifiably nervous; how was this takeover going to happen? What would become of the aboriginal title and old land patents? What about those with no patents at all? The Métis and other locals were right to be nervous because the Canadians did have their eyes on the land of the Red River Settlement as well as the political jobs.

When survey crews arrived in the settlement and began staking out the new survey the boiling point was reached. Louis Riel elected leader by the Métis stood upon the surveyors chain and demanded they leave the settlement. *"Then, on 11 October, as the Canadian survey party reached the Métis river lots near St. Vital, Louis Riel and a few followers rode up from the river to join the owner of the farm, André Nault, in challenging the right of the Canadian*

Fig.13: The Buffalo Hunt, by Henri Julien, 1904. (Blay, 1991)

Government to cross their lands or, more important, to conduct any survey in the northwest. It was considered a political act, symbolic of the Métis determination to stand up for their rights." (Friesen, 1987)

Under the direction of Louis Riel, a Provisional Government occupied Upper Fort Garry. The Red River Settlement was in the hands of the Métis by the close of 1869. This exercise led to the founding of the Province of Manitoba and the recognition of the established river lots preserving their mark on the city of Winnipeg and the surrounding countryside.

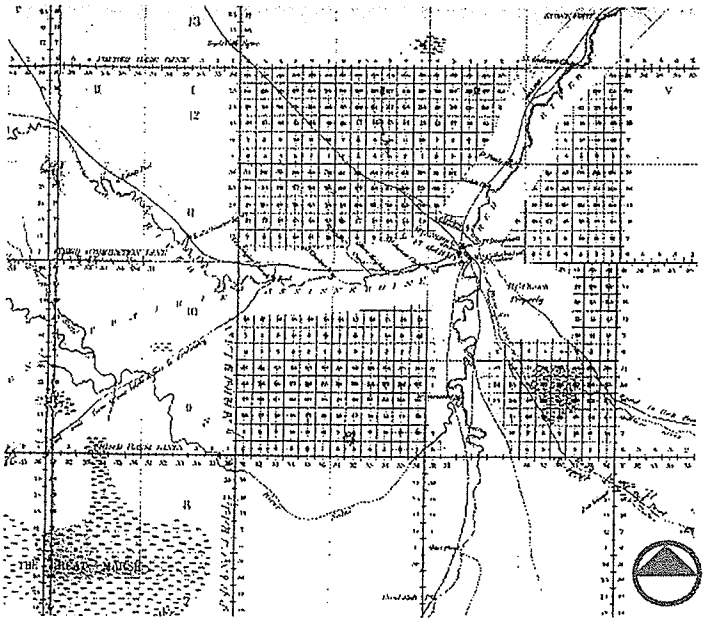


Fig.14: A section from a map of Manitoba showing land surveys completed to 1871. (Warkentin & Ruggles, 1970)

"The new province of Manitoba was created by the Manitoba Act, which received royal assent on 12 May and came into effect when proclaimed on 15 July 1870. It embodied most of the rights demanded by the Métis, including responsible government and provincial status, bilingual institutions, denominational schools, and

guarantees of land titles and of federal respect for Indian title." (Friesen, 1987)

A detailed report by K. David McLeod traces the history of the Lagimodiere river lot and follows changes in ownership down through the Lagimodieres. Jean-Baptiste Lagimodiere was granted land by Lord Selkirk in 1816 as a reward for his efforts during the conflict between the Hudson's Bay and the North West Companies. The land was located on the east side of the Red River encompassing both sides of the confluence with the Seine. A legal description of river lot 684 taken from the Hudson Bay Archives describes its boundaries:

"At a post planted on the east bank of the Red River and running thence 12 degrees east eighteen chains or thereby then north 75 degrees east to the River La Seine thence along its course to the junction with the Red and from thence along the bank of the same to the place of the beginning." (McLeod, 1993)

Many historians believe that Louis Riel was born on this site. His mother Julie Riel (nee Lagimodiere), was living with her father Jean-Baptiste Lagimodiere Jr. who held title to the lot when Louis Riel was born. If this is the case then the site holds a historical value on a national scale. Records show that Louis Riel Senior constructed mills at a couple of different locations along the Seine River. The mills and their operation add another important layer of historical and cultural value to the site. Those farming on this side of the river would have repeatedly come to get their grains milled. The area would act as a sort of town square where information and ideas of the day would be exchanged.

"...it is reasonable to assume that Riel's first milling venture in the 1840's was located on or near an in-law's property, (the Lagimodiere's), *such as the west or east bank of the Seine River close to its junction with the Red River."* (McLeod, 1993)

After one particularly devastating flood in the spring of the year 1852 the river lots of North St. Boniface were abandoned by their owners. The Archdiocese Corporation purchased the lots at very low prices with an eye on the future. Archbishop Taché had the point surveyed into blocks and right-of-ways anticipating a period of prosperity due to the eventual arrival of the railway and to Manitoba joining confederation. On September 29, 1877, silver spikes were driven into the first ties to cross the Dawson Route in St. Boniface.

In order to secure Winnipeg's future the elite of the city initiated the building of a train bridge across the Red at Point Douglas to entice the CPR to extend its tracks through the fledgling city.

"Winnipeg businessmen decided to force the hand of the CPR. They would build a bridge across the Red River with the city's resources. The effects of the policies of the commercial elite on the urban geography of the region were striking. By defeating Selkirk in its bid for the railway, by winning freight rate and other concessions from the CPR, and by attaining control of the grain trade, merchant wholesalers and traders made possible the emergence of Winnipeg as the Primate [sic] city of the eastern prairies." (Friesen, 1987)

With the arrival of the twentieth century the town of St. Boniface, the fifth largest in the West, began to transform from a church-dominated rural-agricultural society into an urban-industrial society. The Northern Pacific Railway connected St. Boniface with St. Paul in 1878. The Canadian National Railroad connected St. Boniface with towns in southeastern Manitoba and all the way to St. Paul resulting in more industry, prosperity and growth drawn into the area.

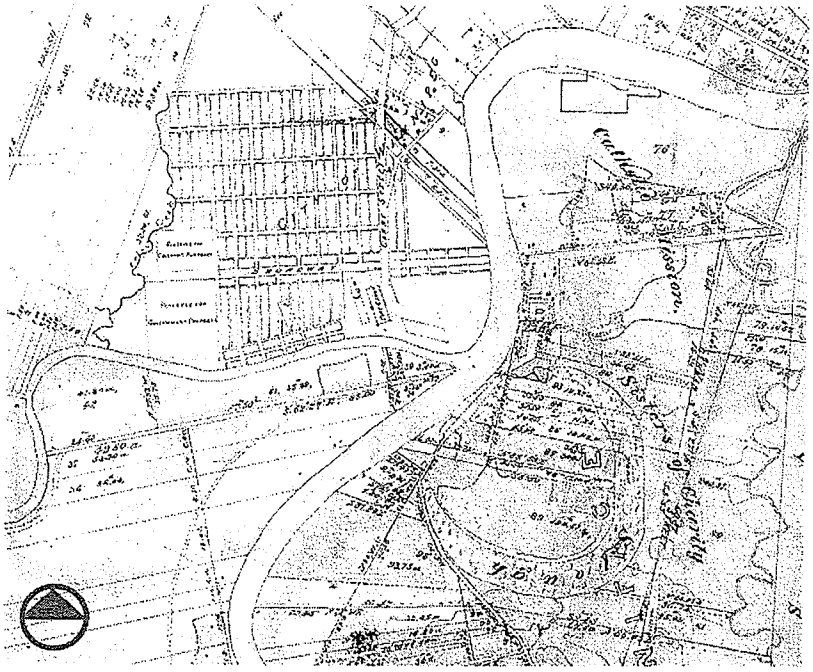


Fig.15: A section from Duncan Sinclair's and George McPhillips' survey of Winnipeg, 1873. (Warkentin & Ruggles, 1970)

The river lots of North St. Boniface eventually gave way to the newly surveyed rights-of-way and blocks ordered by Archbishop Alexander Taché - the first step in its transformation to an urban-industrial society.

In the early 1900's the CNR crossed the Red River into Winnipeg coming first through the study site setting up its yards there.

The northern half was developed into Whittier Park and functioned as a race track with horse stables and a large grandstand for over 40 years.

After years of continual growth and prosperity the end of the 1950's witnessed the beginning of a slow decline. The constant out-migration of the residents, the closing of industries and commercial establishments, and the continual deterioration of the local architecture left North St. Boniface in a state of stagnation and disrepair. Very little has changed in the community despite the efforts of the Neighbourhood Improvement Programme, the Core Area Initiative, and the City of Winnipeg Environmental Planning Branch.

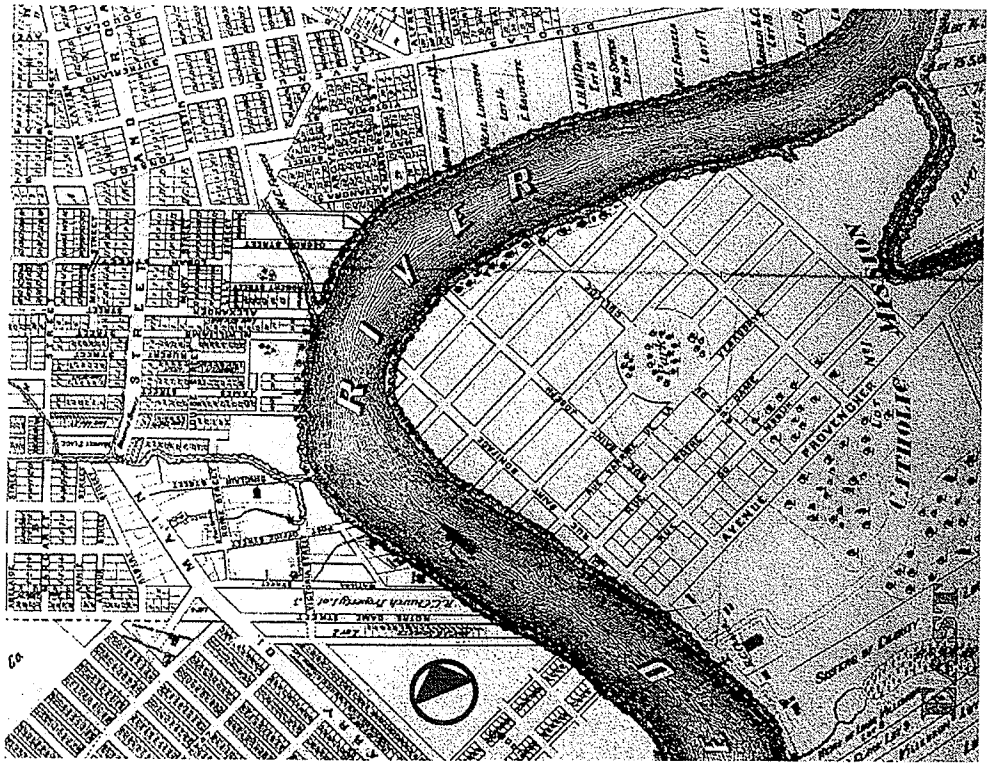


Fig.16: A section from John Parr's plan of Winnipeg, 1874. (Warkentin & Ruggles, 1970)

A working farm occupied the site from the early 1900's' to the 1980's, (see Fig.26, p.37). A market garden also operated on the site ceasing operation in 1987 with a large clientele coming from all parts of the city.

In the late 1980's a local company; *La Compagnie de Developpment Voyageur Ltee.*, bought a portion of the Lagimodiere river lot south of the CNR main line. The developer proposed building a small subdivision on the site. Immediate local protest resulted in a freeze on the project pending the results of an environmental and historical impact assessment of the area. The strong historical importance coupled with adamant local opposition forced the cancellation of the project and the eventual sale of the land to the City. Today the area is quietly becoming another of the City's forgotten tracts of land.

3.0 Conceptual development

The notion of a site's historical layers can be considered literally, figuratively or as a combination of the two. Literal layers can be seen and experienced such as during an archaeological dig. Various levels of occupation exhibit distinct cultural artifacts which mix with layers of natural events such as floods or fires creating explicit soil stratification. These artifacts and soil strata can yield detailed, accurate information regarding the peoples involved, their time period and cultural profile.

A more figurative reference to layers is one which stresses the cultural and physical changes to the landscape over a larger context surrounding a site. A layer that might be characterised as the transition from agriculture to urbanization is not one that can be physically dug, inspected, and measured. These social layers effect the site either directly or indirectly depending on the variables and parameters involved. Population, subsistence and cultural beliefs also have an effect on the landscape that yet may not be physically evident. Episode is a more accurate description of the sections of time that are being extracted and analysed for this investigation.

3.1 Users

The anticipated users are from three general groups;

- Local community: Those who reside within the St. Boniface residential area. The park provides a connection to their past. Elements incorporated within the design furnish a

personal link to the local history allowing celebration of their roots. Arriving for a walk around the site, tending a garden, fishing at the mouth of the Seine River or participating in one of the many festivals, permits the local residents to feel the spirit of the land and the power of memory as they retrace a river lot or read a historical panel about the Lagimodiere family.

- School groups: Field trips to the site can provide important lessons on the development of Winnipeg and ecological cycles of an urban river or the composition and care of the river bottom forest. Participation in classroom gardens and a harvest celebration will result in a closer more meaningful connection and understanding of the prairie landscape, its plant communities and ecosystems.
- Others: Tour groups from the city and out of town can discover Winnipeg's remarkable heritage. Visitors may attend a celebration marking the summer solstice or become familiar with a Red River ox or a Selkirk Colony chicken.

3.2 Episodes

Driving the methodology is a thorough investigation of the rich history of the site and surrounding context. An extensive literature review of the historical records of the site and context was undertaken. From that, a set of land patterns of the various cultures that inhabited the landscape was extracted. These patterns are in turn applied to the site and serve as the organising principles of the design. The design elements and underlying theory are then combined with a contemporary vocabulary of uses and philosophies such as an

environmentally sensitive, sustainable theme. The educational aspect of the proposal lies in the potential to learn about the formation of this area, the cultures involved, the prairie and the agricultural landscape.

The episodes which had an effect on the site and the surrounding context are numerous, complex, and interrelated. For the purpose of this exercise four separate periods have been set-up to act as a starting point.

- PRE-CONTACT
- FUR TRADE
- AGRARIAN SETTLEMENT
- URBANIZATION

Each episode relates to a certain period in time yet all are interrelated and flow into each other resulting in contact and interaction between various peoples, economies, religions, and land uses. For the most part, each of the above episodes encompass a dominant philosophy and effect on the landscape. It is through the investigation of these episodes that the development of the programme and the design for this historic site evolves.

Pre-contact

"The Indians saw themselves as at one with nature, all their traditions agree on this, nature is the larger whole of which mankind is only a part. People stand within the natural world, not separate from it; and are dependent on it, not dominant over it. The world, in Indians eyes, exists in intricate balance in all its parts. As male is balanced by female and the cardinal directions are in harmony with one another. Human beings must stay in harmony with it, and

constantly strive to maintain the balance. Ceremonies are conducted to maintain or right the balance." (Hughes, 1983)

It is from this ethic that this design builds its foundation. The Pre-contact episode provides the core essence of the project; its components, organisation, and fabrication are governed by the First Nations ecological philosophy. The recurring theme being interrelationships; everything is connected to everything else, human beings are a part of the natural systems not dominant over them.

RIVER BOTTOM FOREST - The reestablishment of the river bottom forest community is a major component in this development proposal. The areas to be reforested occur along the Red and Seine River corridors; in-filling areas lost and reinforcing existing stands. The proposed method is referred to as Ripping Technique Reforestation and has been used successfully in Europe over the past decade as a low cost, minimum maintenance method to reintroduce lost forest communities. The overall intent is to duplicate as closely as possible the river bottom plant community. The various species used will eventually be grown on site at the native tree nursery and will be available to the public for purchase.

The ecological benefits of this reforestation effort include species diversity, strengthened plant communities, erosion control as well as providing green corridors for the safe movement of wildlife through the site. Information panels will provide details on planting technique, species, and benefits.

EPISODE

Pre-contact

(1000 AD - 1670 AD)

"Man is not the lord of the universe. The forests and fields have not been given to him to despoil. He is equal in the world with the rabbit and the deer and the young corn plant.
O Mother Earth from who we receive our food, you care for our growth as do our own mothers. Every step that we take upon you should be done in a sacred manner; each step should be as a prayer." (Hughes, 1983)

CULTURAL GROUP(S)
Plains Cree, Assiniboine and Saulteaux Ojibway.

SUBSISTENCE
Hunting and Gathering, including some small scale cultivation. Small semi-nomadic bands, a deep knowledge and clear understanding of the plants and animals they depended on for survival.

SETTLEMENT
Portable lodges of bark or animal skin stretched over a sapling frame. Organised in a sporadic circular form adjacent to a water supply.

LANDSCAPE EFFECT
Camp site, trails, ceremonial sites and horticultural plots.

TALL GRASS PRAIRIE - Select areas are designated through-out the site for the reintroduction of tall grass prairie. While the reestablishment of tall grass prairie on the site continues the concept of restoring lost plant communities and repairing damaged ecological systems, the presence of the tall grass prairie will also provide and important resource. The reintroduced species will also serve as a seed bank for future prairie restoration projects and an opportunity to be used as an educational tool for the general public. The area of tall grass prairie will become a research project within the scope of the overall design. Different sections of the prairie will be managed with different techniques. Documentation will provide future research with base information. An example of management techniques to be incorporated are; herbicides and mowing, burning and mowing, or mowing in the summer and burning in the fall. By examining the biomass, canopy coverage, existence of weeds and other relevant information, the best suited maintenance schedule can be implemented on other prairie restoration sites.

THE OAK GROVE - A small stand of Bur Oak adjacent to a waterway may indicate the presence of a historical First Nations camp site. The acorn of the Bur Oak provided the early travellers with a non-perishable and easily transported source of protein. Over the centuries while travelling the waterways during hunting, seasonal migration or trade forays, these river and lakeside campsites would be revisited time and again. A residue of frequent

occupation many acorns took root, both accidentally and aided by the hand of man leaving stands of Oak which remain to this day hundreds of years later. Bur Oak saplings will be planted at to the mouth of the Seine River next to the outlook and fishing area and in a semi-circle around the picnic area as a symbolic reference to the First Nations, their camp sites, and the great distances they travelled.

THE MEDICINAL GARDEN - The First Nations developed an extensive natural medicine chest. They gathered both herbaceous and woody plants providing remedies for treating a variety of inflictions from infection to gastrointestinal illness. This medicinal knowledge, these secrets of the plant world, were handed down orally from generation to generation. Many of these plants exist on the site, others will be reintroduced when the original plant communities are reestablished. Interpretive signage installed through out the site will identify these plants, their uses and their preparation.

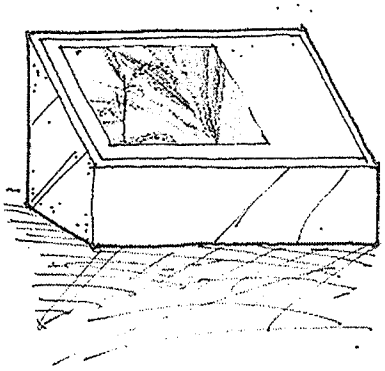


Fig.17: Plant species interpretive sign.

THE CEREMONIAL CENTRE - *"When they* [the First Nations] *wanted to make a picture of the universe, they drew a great endless circle, perhaps adding the lines of the four directions inside. To them everything was connected, everything partook of the roundness, everything shared the same life."* (Hughes, 1983).

The focal point of the design is the Ceremonial Centre. Conceptually it is a physical manifestation of the First Nation's world view, 'the endless circle'. As a meeting place it can accommodate exhibitions, celebrations and

information panels. A competition may be held for the design of the kiosk. The surfacing around the structure would be a raw, untreated material such as compacted red shale with random sized inlaid limestone tracing the cardinal directions and the perimeter. Larger, rough hewn limestone blocks will extend into the landscape serving to anchor this focal point to the entire site. The element of fire must be somehow incorporated into the Ceremonial Centre, harking the power of the council hearth thus completing the four elements of nature within the park; land, air, water, and fire.

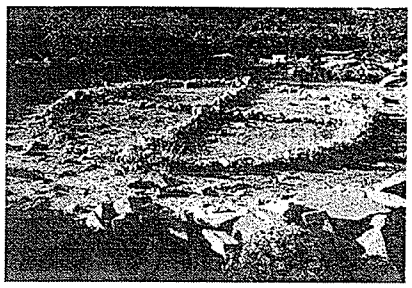


Fig.18: Medicine Wheel. (Milne, 1994)

Fur Trade

The era of the Western Canadian fur trade extended over 240 years beginning with the formation of the Hudson Bay Company in 1670 to the arrival of the Selkirk Settlers and the first agricultural colony at the Forks in 1812. The birth of the Red River Colony did not result in the immediate termination of the fur trade. The pursuit of these two economies continued together and was by no means separate and distinct. There was much interplay creating a complex relationship of interdependence.

Without the supreme effort of the Métis the Red River Settlement would never have survived. During the early 1800's when the first settlers made the trek from York Factory to their land of promise they arrived in a harsh desolate environment with little chance of survival. Their early attempts at farming met with disaster. More often than not the crops failed, food reserves were inadequate, and there was not any protection from the bitterly cold winters.

EPISODE

Fur Trade (1670 - 1812)

The land around the posts began to take on an altered appearance. Trees were cut for fuel, cabins and forts. Well travelled trails cut into the soil, eroded banks marked the launch and landing of the York Boat.

CULTURAL GROUP(S)
British, French, First Nations and Métis.

SUBSISTENCE
Supplies from Europe and Upper Canada. Food stuffs from local tribes and Métis. Kitchen gardens and small scale animal husbandry.

ECONOMY
Trade; furs for European goods.

SETTLEMENT
Wood outbuildings within log palisade. Combination stone and wood, later years.

LANDSCAPE EFFECT
Deforestation, trail network compaction and erosion.

It was the Métis who supplied the settlers with food and provisions from the buffalo hunt and it was the Métis who often transported them and their families down to Pembina to winter safely. *"Between 1821 and 1849 the colony remained largely dependent on the buffalo hunt for its major supply of food. Provisions of the hunt were traded to the HBC in exchange for goods to enable the colony to survive."* (Artibise, 1977)

The Fur Trade episode is characterised by some of the most dramatic events in human history. The contact between cultural groups at completely different stages of technological development has happened through-out history each producing a unique script. The relationship between the First Nations and the Europeans began on fairly equal terms but slowly progressed to the domination and near extinction of the aboriginal cultures.

The effect of the fur trade on the landscape was minor, mainly due to the fact that the area exploited was so enormous. The removal of trees for the construction of fortified posts and winter fuel, the erosion caused by increased use of the trails and waterways was for the most part negligible. The dramatic effect of the fur trade was on the human beings and animals of this new land. Physical contact with the First Nations initiated the seeds of a new nation - The Métis. The spread of European disease such as smallpox and influenza decimated entire First Nations tribes. The pressure of the harvest on the wildlife was also quick to show negative returns; York factory had 30,000 beaver pelts in 1757-58 drop to 8,00 by 1773. As a whole this episode heralded the clash of two contrasting world perspectives. The First Nations felt that all

that is a part of the land is interrelated and equal, each respecting the other's existence and purpose; the European view held that man has sole dominion over all of nature as ordained by God, to lay claim, to occupy, and to buy and sell.

The essence of this episode is that it marks the beginning of the European influence on western Canada; the peoples and the landscape. The polarity of two diametrically opposed world views; wholesale exploitation of the land, animals, and indigenous peoples. That is not to say the First Nations did not benefit from this relationship in the early going. Trade was nothing new to the North Americans. This process of barter and exchange had been in place as long as there were tribes making contact. The First Nations were expert traders and fared well in their dealings with the Whites. However treaties, diseases, loss of game, and reservations transformed this once equal partnership to a very one-sided affair.

The translation of this episode into design will be in the form of information and education. Historical panels discussing the Métis culture and contribution to the development of Winnipeg and Western Canada. Barter might be considered for the exchange of goods at the park. For example used clothing may be traded for fresh vegetables and toys in exchange for nursery stock. All the proceeds, including food stuffs generated by the park will be directed to the appropriate organisations that help the less fortunate of Winnipeg and Manitoba.

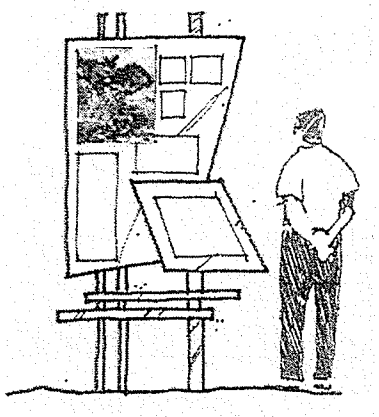


Fig.19: Information panel.

Agrarian Settlement

This was not the beginning of agriculture in this area, archeological digs in the Lockport region have uncovered grinding stones, storage pits and agricultural tools linked to the production of corn in the span from 800 A.D. to 1500 A.D. Nevertheless the arrival of the Selkirk Settlers to the Red River Valley on August 30th, 1812 marked a new beginning in the evolution of Western Canada; the agricultural revolution. Thousands of people were to converge on the Canadian prairie from all parts of the world; staking claims, fencing land and turning up a layer of the earth's history that had been intact since the glaciers receded. Land was surveyed, maps were drafted, ownership was established and a new way of life supplanted the old.

Many Métis retired from the life of the voyageur and employed horticulture to supplement the annual buffalo hunt. Hardy stains of wheat, flax, and barley that provided the best yield for the Red River Settlers were developed by the Métis. Most of the land in what is today St. Boniface prior to the first official river lot survey of 1851 was occupied and farmed by Métis families.

RIVER LOTS - The river lot that occupied most of the practicum site was HBC lot 684 belonging to Jean-Baptiste Lagimodiere. Many historians believe it to be the birth place of Louis Riel, (McLeod, 1993). The boundaries of this lot reemerge on the site as a series of light standards placed every 66 feet, (1 chain). The chain was the unit of measurement used by the government surveyors when laying the 1 mile

EPISODE

Agrarian Settlement

(1812-1873)

"...horseback, in company with Mr. Ballintine, (Bannatyne?), *to see a portion of the lower settlement, down the Red River. We rode over a good road, about 100 yards in width, which extends to the rear of the line of houses, a row of 5 acre fields lying in between; while on the river bank, in front, there is nothing but a foot path. Each farmer has a frontage of six chains upon the river, which extends back 2 miles."* (Bond, 1853)

CULTURAL GROUP(S)
British, Scottish, French, Métis, Des Meurons.

SUBSISTENCE
Farming, Supplies from trading posts. Kitchen gardens, animal husbandry.

ECONOMY
Trade; furs for European goods. Agricultural produce for supplies and credit.

SETTLEMENT
Sod and/or wood homes strung along river lots.

LANDSCAPE EFFECT
River lots, deforestation, cart trails, and erosion. One mile Canada survey grid, large acreage farms. Loss of majority of original tall grass prairie.

square grid over Canada. It was also used by Selkirk's surveyors in all the river lot surveys. The other river lots which cross the site are delineated by two light poles, one at the bank of the Red River where the lot begins and one on the side of the spur line berm where the lots exit the site.

CROPS - To the south of the Ceremonial Centre a circular fragment of approximately 3 - 6 acres will be cultivated.

"As W.L. Morton observed, the result was more like horticulture than agriculture, HBC census statistics show that in 1835 the average family farm had only about 6 acres under cultivation." (Flanagan, 1991)

The field contains heritage strains of wheat, flax and barley which will be cultivated, sown, and harvested using methods from the 1800's.

"Crops were sown by the broadcast method, harvested with scythes, and threshed with hand flails or the trampling of farm animals." (Spector, 1985)

Festivals could accompany the planting and harvest emphasising public involvement celebrating Winnipeg's agrarian history. Again, as with all produce from the park the harvest could go towards feeding the disadvantaged. During these festivals heritage breeds of period livestock can be brought to the site to participate in the exhibitions. Providing an excellent opportunity for school children to experience these breeds in a real life setting.

"The livestock of the Settlement consists of horses, oxen, cattle, pigs and sheep." (Hargrave, 1851)

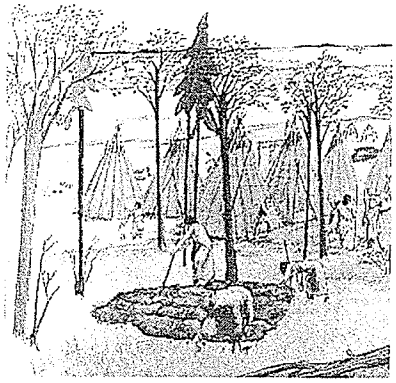


Fig.20: First Nations horticulture. (Shilliday, 1993)

Fig.21: Contemporary farm. (PFRA)

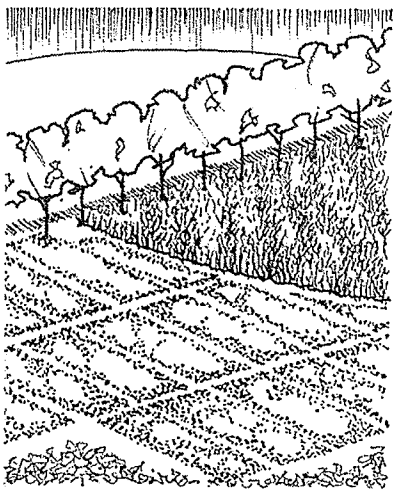


Fig.22: Community gardens and crops - design proposal.

SHELTERBELT - In 1871 The Canadian Government survey of the West began. The purpose was to divide the country into equal 1 mile squares granting 160 acre sections to eager homesteaders. Eastern politicians knew that Western Canada had to be populated if the country was going to become a nation. Before the 1900's much of the land suitable to agriculture in Manitoba was treeless prairie. Many of the settlers would claim the more favourable sections with a wood lot and water source, but these were few and far between.

"In 1901 the Canada Department of the Interior made trees available to farmers at no cost from a nursery at the Brandon Experimental Farm, and later from Indian Head." (Warkentin and Ruggles, 1970)

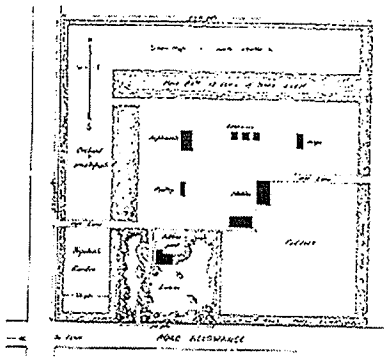


Fig.23: Can. Dept. of Interior, 1915, sugg. homestead. (Warkentin & Ruggles, 1970)

The shelterbelt in the design recalls this dominant rural component. The tree rows of the design relate more closely to rows of street trees as they trace a boundary of one of the river lots that once existed on the site. This abstraction then extends off the site into the neighbourhood following the old lot line as it passes over a vacant corner of land. In other cases the row will turn to follow a walkway - historical references are combined and blurred.

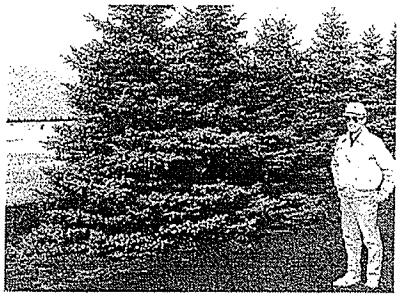


Fig.24: Contemporary shelterbelt. (PFRA)

COMMUNITY GARDENS - A derivative of the Colony Gardens of the Selkirk Settlers and a more recent reference to the market garden that was operated on the site up to 1987. The gardens would be set aside for individuals, organised groups, and schools. A good example of the potential of community gardening is the Children's Garden in New York City established in 1914 by the Brooklyn Botanic Garden.

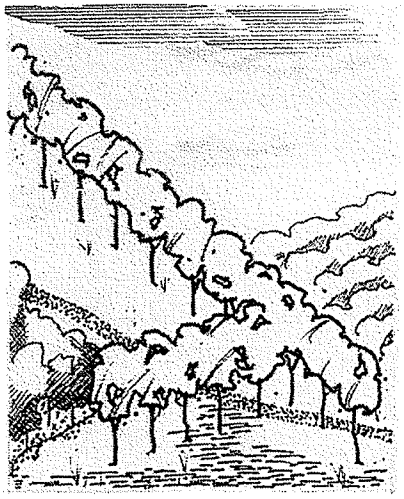


Fig.25: Shelterbelt - design proposal.

"With 100 individual plots, it was designed to be a 'classroom' for city children, where they could experience first hand the pleasures of tilling, planting, and harvesting their own crops." (Bellamy, 1992)

Urbanization

In 1862 Henry McKenney built his store on a flat treeless site where the fur-runners' trail, paralleling the Assiniboine, intersected the Red River trail, (Shilliday, 1993). Within 10 years a prairie town sprung up around the McKenney site. Thus began the genesis of Winnipeg at this historic corner of Portage and Main.

"On November 8, 1873, the old fur trading station known as The Forks and part of the Red River Colony merged under an Act of Incorporation to become officially the new City of Winnipeg." (Shilliday, 1993)

The process of Winnipeg's transformation from a rural-agricultural to an urban-industrial landscape resulted in a complicated set of streets and blocks. Reviewing the numerous maps illustrates a series of developmental stages. Each stage is unique and separate, however they share a commonality in that the river lot boundaries generate the orientation of the various blocks.

Many of the existing trails are respected, for example Portage Avenue which evolved from Portage Trail cuts a wide swath through the downtown grid. Its generous right-of-way is not a result of thoughtful foresight but is due to the ox carts avoiding the frequent quagmire of gumbo in order to travel on dryer land. The urban grid, held up by the civic authorities to be

EPISODE

urbanization

(1873 - present)

"The textured landscape of bluffs, barns, fences, hayfields and oat fields made by the pioneers was quickly reduced to one of large, unbroken wheat fields worked by combine and tractor.
For the realist, the new landscape is simply the most recent phase in a process of landscape rationalisation that began with the rectangular survey and the mechanical planning and placement of towns." (Rees, 1988)

CULTURAL GROUP(S)
English, French, European immigrants.

SUBSISTENCE
Paid labour, Store bought goods.

ECONOMY
Commercial cash and credit.

SETTLEMENT
Wood, stone, steel and glass buildings. Dense concentration within the urban grid.

LANDSCAPE EFFECT
Loss of river bottom forest. Transplanted non-native vegetation, altered hydrology, rail lines, power lines, bridges and the urban grid.

the most effective way to organise a city, ignored the majority of the natural features of the landscape. Many of the smaller creeks, streams and other wet areas remain only on maps, systematically filled in and built over.

John Parr's map of 1873, (see Fig.16, p.21), is the first to show a residential grid over North St. Boniface. Interestingly the grid lines extend northwest to the Red River and continue right to the bank which was in keeping with surveys of the day. However, the streets extending eastward stop abruptly before reaching the Seine River. This eastern edge fits closely to the Lagimodiere river lot boundary and suggests that this parcel of land was still occupied and under cultivation hence stopping the grid.

On George McPhillips' map of 1881, (Fig.27, p.38), the Pembina branch of the Northern Pacific Railway from Minnesota runs westward down Boulevard Provencher, previously Dawson Trail, terminating at the Red River and a ferry crossing at the spot where the Provencher Bridge sits today. The arrival of the railway initiated an economic boom for St. Boniface. Hotels, merchants and factories sprang up along Boulevard Provencher and the community rivalled Winnipeg for prosperity. As more companies put their tracks over the landscape of North St. Boniface the Lagimodiere river lot is effectively sectioned up and hemmed in saving it from becoming a part of the 'gridscape'.

Development continued to flourish around the secluded parcel that seemed to be trapped in an earlier time. An air photo from 1927, (see Fig.26, p.37), shows a substantial urban landscape; rail lines, bridges, factories, hotels, skyscrapers and the like.

Yet within the modern city of the twentieth century a small farm continues to operate unnoticed. Furrowed fields run parallel to the CNR main line under the watchful eye of the downtown edifices.

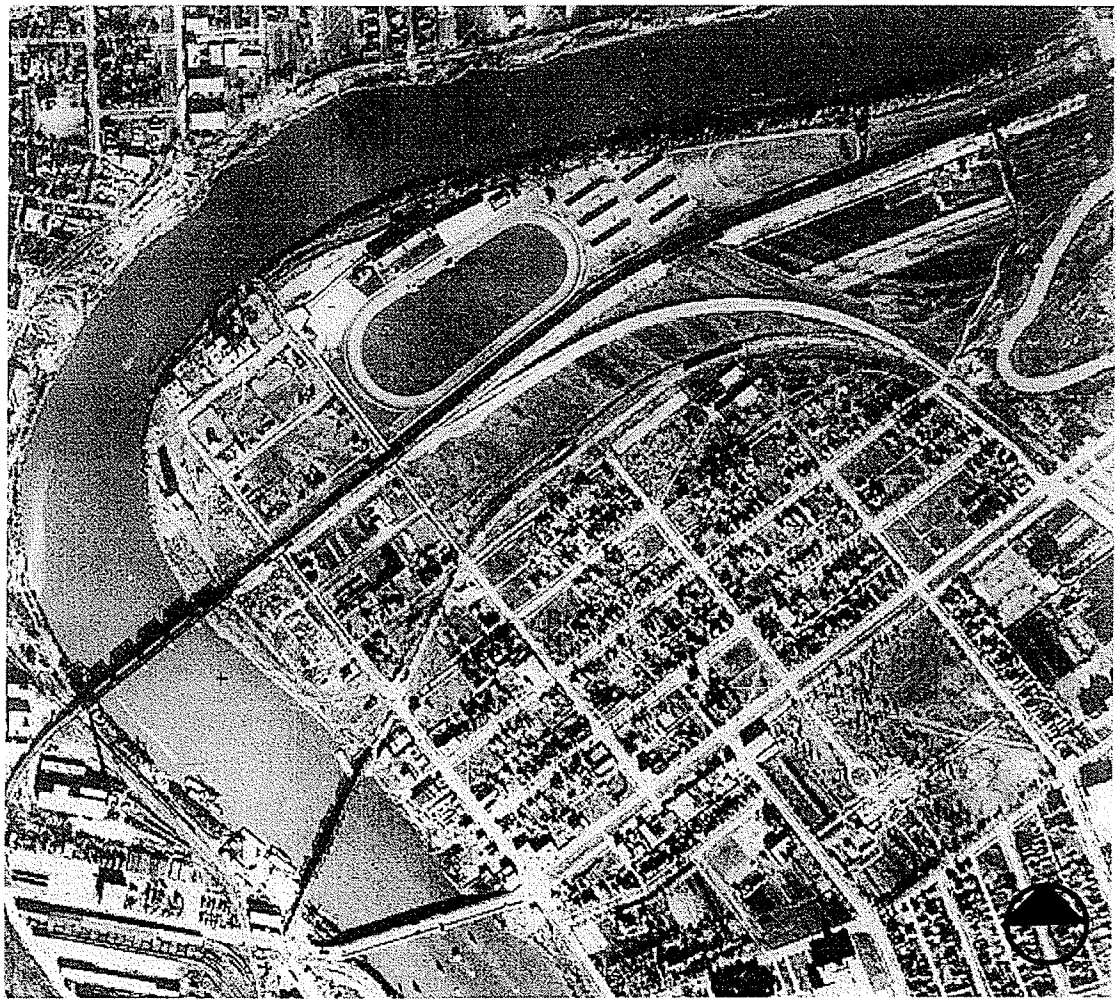


Fig.26: Aerial photograph, 1927. Note cultivation on site and lack of trees along the Seine River.

THE GRID - A portion of the North St. Boniface grid once proposed on George McPhillips' map dated 1881, (see Fig.27, p.38), reemerges in the design. It serves as the organisational framework locating various focal points while providing form for the walkways.

species and the river bottom forest. The Ceremonial Centre is the spiritual heart of the park. It is a meeting place and exhibition space exhibiting works of art and the focal point for celebrations and performances. From this point a pedestrian tunnel penetrates the main line berm to a barbecue and picnic area taking advantage of the scenic setting of the Red River and its majestic river bottom forest.

3.1 Summary

"The elimination of our natural and historical heritage is one of the consequences of urbanization and accounts for much of the featureless development at the urban edge... History links us with the pre-development landscape, and with past interactions of man and environment." (Hough, 1989)

This practicum is an investigation into an alternative method of site planning and analysis from the more traditional, pragmatic approach. By emphasising the history of the site and context as the primary generator of the conceptual design process, physical and cultural land patterns emerge and take precedence. The proposed design communicates historical and ecological information forging a link between the user and the landscape.

Distilling a series of episodes from the area's history in conjunction with a cartographic analysis, exposed certain physical and cultural land patterns. These are then transformed into a design vocabulary and applied to the site. The result is a tapestry of interactive components such as; community gardens, agricultural crops, ecological restoration areas and historical/environmental information each affording people a variety of alternatives to interact with the landscape.

Exploration of alternative techniques and notions is the basis by which all professions flourish. Pushing the critical envelope by experimenting within a discipline results in a deeper understanding of that discipline.

Using the cultural and physical history of a site to nourish the design process reestablishes the site's true being - a connection with the past is built and fortified. A public open space with meaning and message promotes a respect and understanding of the physical and cultural landscape of which we are a part. Society is reminded it is but a part of nature, not dominant over it.

"Did you know that trees talk? Well they do. They talk to each other, and they'll talk to you if you listen. Trouble is white people don't listen. They never learned to listen to the Indians so I don't suppose they'll listen to other voices in nature. But I have learned a lot from trees: Sometimes about the weather, sometimes about animals, sometimes about the Great Spirit." (Walking Buffalo, First Nations, Stoney Tribe; Hughes, 1983)

RED RIVER

689

688

687

686

685

684

737

738

739

723

724

697

697

SEINE RIVER

SCALE 1"=300'

25 125 500 ft

0 50 275

The River Lots:

Beginning in the late Fur Trade episode, spanning the Agrarian Settlement episode, and continuing into the Urbanization episode St. Boniface operated as a farming community. The area was inhabited predominantly by Métis, French Canadians and Des Meurons - separate from the Selkirk Settlement on the west side of the Red River.

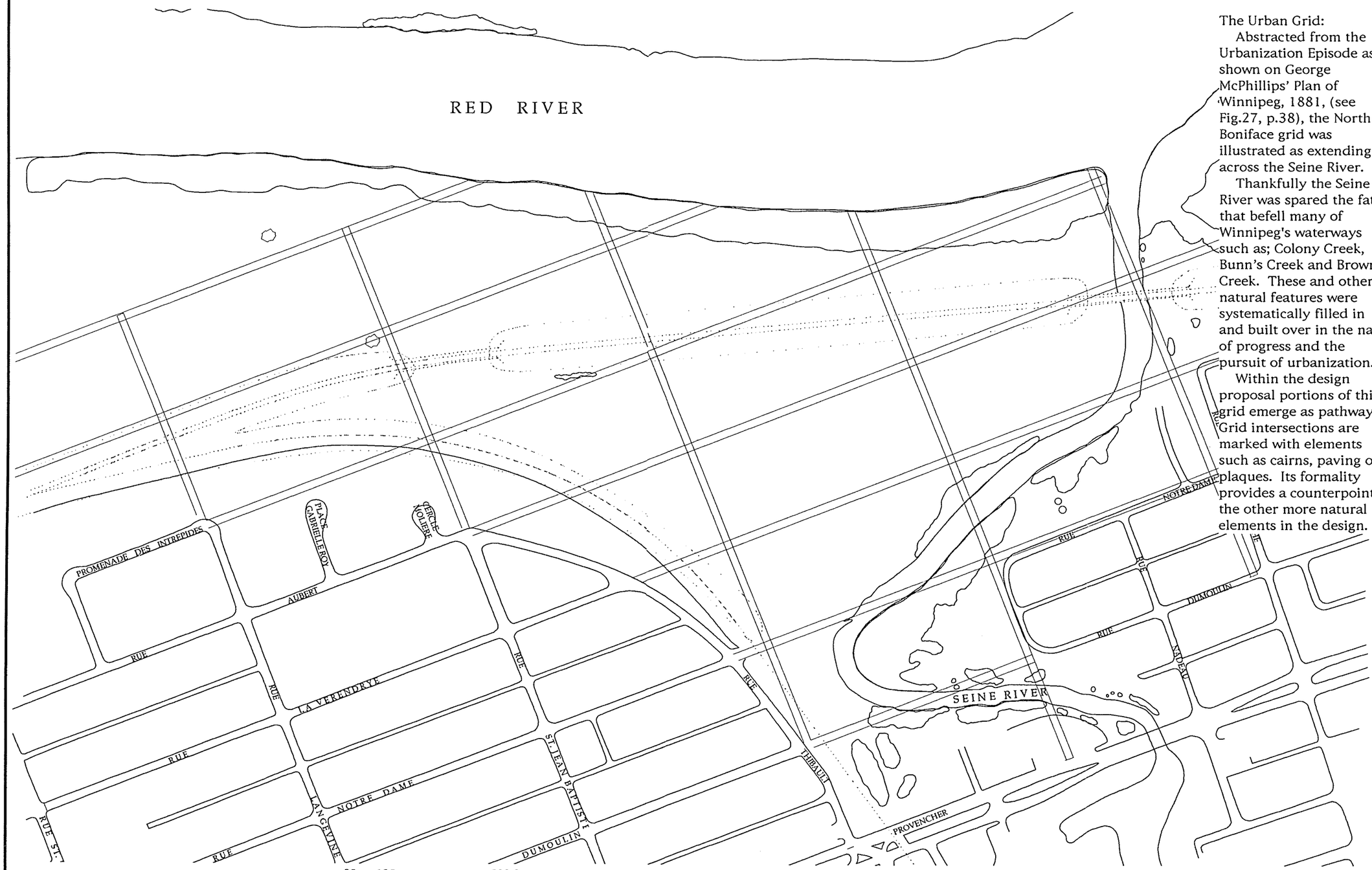
The St. Boniface river lots were generally shorter and wider than the typical Red River lot due to three main factors;

a) a restricted land area.
b) existing trade routes.
c) occupied land that had to be accommodated within the 'chain' dimension when the area was first surveyed.

Some of these lots are expressed within the design proposal to recognize their past existence and celebrate their importance. Light poles, tree rows, and site element orientation provide clues to the visitor.

HBC lot 684, owned by Jean-Baptiste Lagimodiere, occupied most of the site and is said to be the birth place of Louis Riel, (McLeod, 1993). Because of its powerful historical significance its boundaries are retraced on the site by a series of lights, one every chain, (66 feet).

PRAIRIE Park: River Lots



The Urban Grid:

Abstracted from the Urbanization Episode as shown on George McPhillips' Plan of Winnipeg, 1881, (see Fig.27, p.38), the North St. Boniface grid was illustrated as extending across the Seine River.

Thankfully the Seine River was spared the fate that befell many of Winnipeg's waterways such as; Colony Creek, Bunn's Creek and Brown's Creek. These and other natural features were systematically filled in and built over in the name of progress and the pursuit of urbanization.

Within the design proposal portions of this grid emerge as pathways. Grid intersections are marked with elements such as cairns, paving or plaques. Its formality provides a counterpoint to the other more natural elements in the design.

PRAIRIE Park: Urban Grid

RED RIVER

obelisk

light poles @ river lots

deciduous trees mark river lot boundary

light pole every 66 ft.- lagmodiere river lot boundaries

water taxi dock

fishing dock

ripping area

tall grass prairie

barbeque / picnic area

ripping area

articulate grid points

tall grass prairie

limestone marking cardinal points

ripping area

native berry shrubs / trees

Bur Oak

pedestrian tunnel

grotto

wall

ripping area

plaza

kiosk

tall grass prairie

dock

native tree nursery

ripping area

heritage crops wheat, flax, barley

sales/maintenance building

community gardens

limestone marking cardinal points

light poles @ river lots (typ.)

parking

gazebo

ripping area

foot bridge

RUE LAVERENDRYE

reinforce street trees

NOTRE DAME

RUE LA PERCHE

RUE DUMOULIN

RUE LARIVIERE

PROMENADE DES INTREPIDES

PLACE GABRIELLE ROY

CERCLE MOLIERE

AUBERT

reinforce street trees

continue river lot trees

reinforce street trees

reinforce street trees

paths

ripping area

view deck

Bur Oak

dock

pedestrian entry

RUE

LA VERENDRYE

RUE

RUE

ST. JEAN BAPTISTE

RUE

THIBAULT

SEINE RIVER

RUE ST. J

LANGEVINE

NOTRE DAME

RUE

DUMOULIN

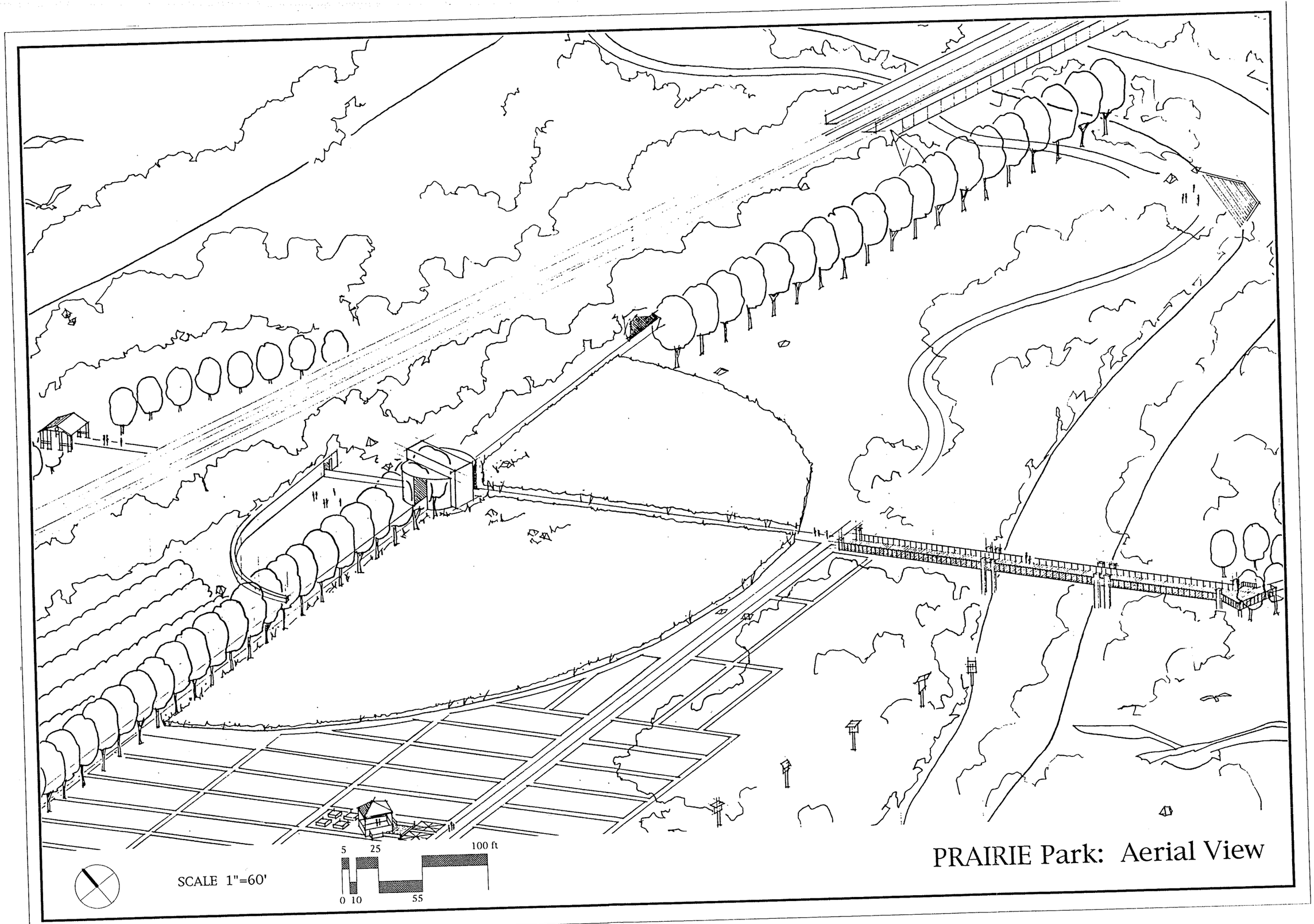
PROVENCHER

SCALE 1"=300'

25 125 500 ft

0 50 275

PRAIRIE Park: Design Proposal



PRAIRIE Park: Aerial View

match line

Section AA

match line

Section AA

match line

Section BB

match line

Section BB

SCALE 1"=50'

5 25 100 ft

0 10 55

PRAIRIE Park: Sections

4.0 Appendix; Design drawings

5.0 Bibliography

Anderson, Stanford, Ed. *On Streets.* Cambridge, Massachusetts, London, England: The MIT Press, 1978.

Artibise, Alan. *Winnipeg an Illustrated History.* Toronto: James Lorimer and Company Publishers, 1977.

Baines, Chris. *The Wild Side of Town.* London: BBC Publications and Elm Tree Books, 1986.

Beer, Anne R. *Environmental Planning for Site Development.* London, N.Y., Tokyo: E. & F.N. Spon, Chapman and Hall, 1990.

Bellamy, Linda. "Brooklyn Beckons", Garden Design, pp.68-70, September/October 1992.

Betsky, Aaron. *Violated Perfection.* New York: Rizzoli, 1990.

Blay, Jacqueline, Ed. *Bienvenue A St. Boniface.* Winnipeg, Manitoba: Société historique de Saint-Boniface, 1991.

Bond, Wesley T. *Sketches by a Campfire.* P.A.M. 1853.

Brush, Robert O. "Branching Out", Landscape Architecture V74, pp.54-59, May/June 1984.

Bryce, George Dr. *Lord Selkirk's Colonists.* London: Sampson Low, Marston & Co. Ltd., 1901.

Caldwell, Lee. *North St. Boniface; A Community Planning Study.* Thesis, Master of Landscape Architecture, University of Manitoba, 1987.

Calvino, Italo. *Invisible Cities.* New York: Harcourt, Brace, Jovanovich, 1972.

Calvino, Italo. *Six Memos for the Past Millennium.* Cambridge, Massachusetts: Harvard University Press, 1988.

City of Winnipeg. *Neighbourhood Improvement Programme Progress Report. 1975-1978 North St. Boniface.* Department of Environmental Planning, 1978.

City of Winnipeg. *The North St. Boniface District Plan.* Department of Environmental Planning, 1976.

City Planning Commission of Cincinnati. *Riverfront Redevelopment.* November 1946.

City Planning Department, University of Manitoba. *North St. Boniface Rehabilitation Study.* University of Manitoba City Planning Department, 1971.

City Planning Department, University of Manitoba. *Proposed St. Boniface Centre District Plan.* University of Manitoba City Planning Department, 1975.

City Planning Department, University of Manitoba. *St. Boniface Redevelopment Study.* University of Manitoba City Planning Department, 1965.

Clay, Grady. "Future Farming: Whose Hand Draws the Plan?", Landscape Architecture V73, p.47, January/February 1983.

Deelstra, Tjeerd. "An Ecological Approach to Planning Cities", TCPA pp.105-107, April 1988.

Doll, Maurice F. V., Robert S. Kidd and John P. Day. *The Buffalo Lake Métis Site: A Late Nineteenth Century Settlement in the Parkland of Central Alberta.* Published by Alberta Culture and Multiculturalism, Historic Resources Division, 1988.

Eckbo, Garrett. "Urban Nature", The Town Planning Review, V56, pp.222-44, April 1985.

Emery, Malcolm. *Promoting Nature in Cities and Towns.* London, Sydney: Croom Helm, 1986.

Flanagan, Thomas. *Métis Lands in Manitoba.* Calgary, Alberta: University of Calgary Press, 1991.

Francis, Mark and Randolf T. Hester Jr. *The Meaning of Gardens.* Cambridge, Massachusetts, London, England: The MIT Press, 1990.

Francis, R. Douglas. *Images of the West.* Saskatoon, Saskatchewan: Western Producer Prairie Books, 1989.

Friesen, Gerald and B. Potyondi. *A Guide to the Study of Manitoba Local History.* Winnipeg, Manitoba: University of Manitoba Press, 1981.

Friesen, Gerald. *The Canadian Prairies; A History.* Toronto and London: University of Toronto Press, 1987.

Gandelsonas, Mario. *The Urban Text.* Cambridge, Massachusetts: The MIT Press, 1991.

Gilbert, O. L. *The Ecology of Urban Habitats.* London: Chapman and Hall, 1989.

Graham, Robert M.W. *The Surface Waters of Winnipeg.* Landscape Architecture Practicum, University of Manitoba, 1984.

Greater London Council, Department of Transportation and Development. *Thames-side Guidelines, 1986.*

Green, Wilson F. *Red River Revelations.* Winnipeg: Hignell Printing Ltd., 1974.

Hargrave, Joseph James. *Red River.* Altona, Manitoba: Friesen Printers, 1977, (1st printing 1851).

Harper, J. Russell. *Paul Kane's Frontier.* Fort Worth, Texas: Amon Carter Museum, 1971.

Helphand, Kenneth I. "Agriculture's Art, The Garden", Landscape Architecture V74, pp.60-63, May/June 1984.

Hilderman, Feir, Witty and Associates. *Canada - Manitoba Agreement for Recreation and Conservation on the Red River Corridor.* 1980.

Hough, Michael. *City Form and Natural Processes.* New Haven, London: Yale University Press, 1990.

Hough, Michael. "Metro Homestead; Tapping the City's Agricultural Resources", Landscape Architecture V73, pp.54-58, January/February 1983.

Hough, Michael. "Nature and the City", Landscape Architecture V79, pp.40-45, September 1989.

Hough, Michael. *Out of Place.* New Haven, London: Yale University Press, 1990.

Hughes, Donald J. *American Indian Ecology.* University of Texas at El Paso: Texas Western Press, 1983.

Huyda, Richard J. *Camera in the Interior: 1858 H. L. Hime Photographer.* Toronto: The Coach House Press,1979.

Jackson, John Brinkerhoff. *Discovering the Vernacular Landscape.* New Haven and London: Yale University Press, 1984.

Jakle, John A. *The Visual Elements of Landscape.* Amherst: The University of Massachusetts Press, 1987.

Josephy, Alvin M. Jr. *The Artist Was a Young Man; Peter Rindisbacher.* Fort Worth, Texas: Amon Carter Museum, 1970.

Kaplan, Rachel and Steve Kaplan. *The Experience of Nature.* Cambridge, Massachusetts, N.Y.: Cambridge University Press, 1989.

Kerr, Kathleen. "Timing Prairie Maintenance", Landscape Architecture V72, pp.95-96, January 1982.

Lynch, Kevin and Gary Hack. *Site Planning.* New Haven and London: Third Edition, The MIT Press, 1986.

Maldonado, Thomås. *Design, Nature, and Revolution.* London: Harper & Row Publishers, N.Y., Evanston, San Francisco, 1972.

Manitoba Department of Urban Affairs. *Red River Corridor, Master Development Plan.* Arc Management Board, 1981.

Mann, Roy. *Rivers in the City.* New York: Praeger Publishers, 1973.

Marsh, William M. *Environmental Analysis for Land Use and Site Planning.* New York: McGraw-Hill Book Company, 1978.

Mathur, Brijesh and M. Beavis. *Towards Stewardship of Winnipeg's River Corridors: Conference Proceedings.* Institute of Urban Studies, University of Winnipeg, 1989.

McLeod, David. *Lot 76, Parish of St. Boniface: A Land Use History With Emphasis on the Landholdings of Jean-Baptiste Lagimodiere Senior Along the Seine and Red Rivers.* Winnipeg: Manitoba Culture, Heritage and Citizenship, 1993.

Meinig, D. W. Ed. *The Interpretation of Ordinary Landscapes.* N.Y., Oxford: Oxford University Press, 1979.

Milne, Courtney. *Spirit of the Land.* Toronto, Ontario: Penguin Group, 1994.

Morgan, John. *Riverbank Enhancement: Winnipeg: Time and the River, Vol. III, 1983.*

Morphot, Janice. "Urban Green Space - An Issue for the 1990s", Town and Country Planning, July/August 1990.

Morrison, Darrel G. "Tallgrass Prairie in the Landscape", Landscape Architectural Review, Vol.6, No.2, Pp.5-11, May 1985.

Murray, John. *The Last Buffalo.* Toronto: Pagurian Press, 1984.

National Capital Planning Commission Executive Staff. *The Urban River: A Staff Proposal for Waterfront Development in the District of Columbia.* Washington, D.C.: National Capital Planning Commission, 1972.

Norberg-Schulz, Christian. *Genius Loci.* New York: Rizzoli, 1979.

Oppen, William A. *The Riel Rebellions: A Cartographic History.* Toronto: University of Toronto Press, 1979.

Payment, Diane. *Riel Family: Home and Lifestyle at St. Vital, 1860-1910.* Winnipeg: Canadian Parks Service, 1977.

Proshansky, Harold and William H. Ittelson, Leanne G. Rivlin, Eds. *Environmental Psychology People and Their Physical Settings.* New York: Holt Rinehart Winston, 1976.

Quatrill, Malcolm. *Ritual and Response in Architecture.* London: Lund Humphries, 1974.

Quayle, Moura. "Canadian Community Gardens; A Sustainable Landscape Legacy", Landscape Architectural Review, Vol.10, pp.17-20, March 1989.

Quayle, Moura. "The Changing Community Garden; Legitimizing Non-traditional Open Space", Landscape Architectural Review, Vol.10, pp.23-27, May 1989.

Raymond Moriyama Architects and Planners. *The Meewasin Valley Project.* 1978.

Rees, Ronald. *New and Naked Land: Making the Prairies Home.* Saskatoon: Western Producer Prairie Books, 1988.

Robertson, Heather. *Salt of the Earth.* Toronto, Ontario: James Lorimer & Company Publishers, 1974.

Rodiek, John and K. Steavenson. "Cooperation in Ecosystem Design", Landscape Architecture V77, pp.68-73, May/June 1987.

Rubenstein, Harvey M. *A Guide to Site and Environmental Planning.* N.Y., London, Sydney, Toronto: John Wiley & Sons, Inc., 1969.

San Antonio River Walk Advisory Commission. *San Antonio River Walk Development Guidance System.* Texas A&M University, Center for Urban Affairs, 1987.

Schonbak, Judith. "Factoryfarm", Landscape Architecture V73, pp.48-53, January/February 1983.

Shilliday, Gregg, Ed. *A History Manitoba 125; Gateway to the West, Vol. Two.* Winnipeg, Manitoba: Great Plains Publications, 1994.

Shilliday, Gregg, Ed. *A History Manitoba 125; Ruperts land to Riel, Vol. One.* Winnipeg, Manitoba: Great Plains Publications, 1993.

Short, John Rennie. *Imagined Country, Society, Culture and Environment.* London and N.Y.: Routledge, 1991.

Solomon, Barbara Stauffacher. *Green Architecture and the Agrarian Garden.* New York: Rizzoli, 1988.

Spector, David. *Agriculture on the Prairies; 1870-1940.* National Historic Parks and Sites Branch, Ottawa, 1983.

Spirn, Anne Whiston. *The Granite Garden.* New York: Basic Books Inc. Publishers, 1984.

Stanley, George F. G. *Louis Riel.* Toronto, Montreal, N.Y.: McGraw-Hill Ryerson Limited, 1972.

Steele, Fritz. *Sense of Place.* Boston, Massachusetts: CBI Publishing Co., 1981.

Steiner, Frederick and T. Johnson. "Fitness, Adaptability, Delight", Landscape Architecture V80, pp.96-101, March 1990.

Thacker, Christopher. *The History of Gardens.* Berkeley & Los Angeles, California: University of California Press, 1979.

The River Corridor Committee, City of Dayton Ohio. *River Design Dayton.* Ohio: Brown & Kroger Publishers, 1977.

Trancik, Roger. *Finding Lost Space.* New York: Van Nostrand Reinhold Co., 1986.

Tuan Yi-Fu. *Topophilia.* Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1974.

Urban, James, Moderator. "Tree Summit", Landscape Architecture V79, pp.52-68, September 1989.

Vecsey, Christopher and R.W. Venables. *American Indian Environments.* Syracuse University Press, 1980.
Warkentin, J. and R. Ruggles. *Historical Atlas of Manitoba.* Winnipeg, Manitoba: Manitoba Historical Society, 1970.
Wells, Eric. *Winnipeg Where the New West Begins.* Burlington: Windsor Publications Ltd., 1982.

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