The University of Manitoba

AN EXPLORATION INTO THE CHANGING FORM OF THE LANDSCAPE OF THE RED RIVER VALLEY IN RESPONSE TO THE EVOLVING CULTURES OF THE PEOPLE OF THE PARISH OF ST. NORBERT UP TO 1870

A Practicum submitted to the Faculty of Graduate Studies
in partial fulfilment of the requirements for the degree
of Masters of Landscape Architecture

by Richard D. Hurst

Department of Landscape Architecture
Winnipeg, Manitoba
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abstract

A landscape influences and is influenced by the human cultures which live as a part of it. In the Red River Valley in the last several hundred years, historical accounts are available which allow this relationship between culture and landscape to be examined. Through the descriptions provided by chroniclers, an exploration is undertaken of the evolution of this landscape until about 1870, when a new era of forces established themselves in the valley. This study is not meant to provide a detailed history or ethnology of the peoples of the Red River Valley, but is an examination of the form of the landscape and of man's forms on the landscape.

The gleanings of this exploration form the basis for the design of the St. Norbert Heritage Park. This park celebrates the contributions of the French-speaking inhabitants of Red River in the development of the Province of Manitoba.

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1 Introduction

1. The Red River Settlement in 1860
[Manitoba Archives - sketch by A. J. Russell]

I INTRODUCTION

The relationship between a landscape and a human culture is elementally fascinating. In order to understand the form of a landscape it is necessary to study the zone of contact between a human group and its physical environment. Each shaped and in turn was shaped by the others. [Ballas 1978].

A culture is the product of a previous culture and the responses of that culture in dealing with a new environmental situation. In the Red River Valley of southern Manitoba, several cultures emerged or evolved on that landscape in the last several hundred years. A number of Indian societies responded to the fur trade and the horse, reorienting their lives and their cultures to these technologies. Fur company voyageurs developed a society which was at home in the north-west as well as in the east. Their offspring, the mixed-blood children of voyageur fathers and Indian mothers, were products of the north-west and their culture became a bridge between the two peoples out of which it grew.

This culture which developed on the banks of the Red, Assiniboine, and Sale Rivers, was tied intricately to the landscape of the prairie and the river bottom. As it evolved, so did these landscapes. During the short time of its tenure of the land at Red River, this unique human society laid the foundations for a massive change in the form of the landscape of the western plain, a transformation which swept the north-west after 1870. A study of the early landscapes and cultures of the Red River Valley is elemental, therefore, in the understanding of the present form of the landscape of southern Manitoba.

The conservation of artifacts and the presentation of the history of the French-speaking peoples of the Red River Valley and specifically of the Parish of St. Norbert have been the goal of a number of individuals and organizations in both the private community and government for some years. The idea of preserving some of the heritage of St. Norbert was sparked initially when, after the 1950 flood, the Charette House, then the oldest known structure in Manitoba, was earmarked for restoration. However, the house was in such poor condition that the costs of restoration were considered too great by the government of the day. Since the house had been condemned after the flood and could not be lived in, the owner had it demolished in 1952.

The Fort Garry Historical Society was formed in order to save the historic Turenne House from demolition during the building of the St. Norbert Nursing Home. Mrs. G. Wilson Rattray and a group of dedicated friends gathered into this organization in 1970 in order to accept the donated structure. The house was moved to a foundation at the La Barrière Historic Site where it was to be restored by the Society. However, with no resources and a lack of expertise, the restoration floundered. When it became necessary to move the house from La Barrière a search was begun to find a suitable site.

In 1973 the Society acquired a second house, the Bohèmier House, which had been slated for destruction to make way for apartment blocks on Pembina Highway. The developer protected the house during the construction of the apartments until the spring of 1974, when the

structure was moved to a temporary site behind the firehall at Pembina Highway and Dalhousie Street. At this time the Provincial Government acquired the house at Mrs. Rattray's insistence and agreed to restore the dwelling. Some work was done on the building while it remained behind the fire hall. The Historic Resources Branch began looking for a suitable site to permanently locate the structure.

In 1976 the Province bought river lots 78 and 79 from H.H.G. Moody. He had wished his property to become a public park and had managed to convince the Premier of Manitoba of the soundness of this idea. Parks Branch saw a multi-purpose use for the property, but reserved a small corner of the property for a historic presentation which included the Bohèmier House. A site plan was developed by Hilderman, Feir, Witty, and Associates and the Bohèmier House was moved onto the property in the summer of 1976. The Turenne House, acquired by the Province in the intervening years, was also moved to the site in June of 1977. Neither house was put on foundations at that time. From 1977 until 1980, through the efforts of the Director of Historic Resources Branch and his staff, the Moody property came to be associated in its entirety with a Heritage Park honouring the contributions of the early inhabitants of St. Norbert.

The house of Pierre Delorme was acquired in 1979, almost through coincidence, from a woman who wished this old historic log building to be preserved. Historic Resources Branch was at the time searching for such a building to portray that aspect of St. Norbert history. Another coincidence occurred in the acquisition of some of the few remaining logs of the Charette House. A summer student of the Branch, hearing a lament

at the loss of the Charette House while at work, knew of the remains of the house, and about a half dozen of the original oak logs were salvaged from where they had been dumped. They are presently in storage.

A number of studies have been carried out by the Historic Resources Branch in the last few years, researching the various aspects of St. Norbert which are to be represented by the Park. These studies, many ongoing, include a history of St. Norbert, a history of the activities of the church in the parish, archaeological investigations of the original sites of some of the structures, research into the history of these structures and the families who built and occupied them, architectural studies into the restoration of the buildings, and an engineering investigation of the St. Norbert property. Funds are now in existence to begin to put the story into a presentable package for public display. This public display, the St. Norbert Heritage Park, will be the story of a people and a landscape, both intricately entwined, each changing and adjusting to the other, as landscapes and cultures do.

A number of preliminary site plans for this park had been prepared within the Historic Resources Branch of the Manitoba Government. The author had been invited to review and analyse these plans. In doing so it became apparent that a more comprehensive understanding of the history of the landscape of the Parish of St. Norbert was required in order to develop a site plan for the park.

Due to an intense and ongoing interest in the landscape and history of the Red River Valley and because of a desire to become involved in the development of a comprehensive plan for St. Norbert Heritage Park, this

study was undertaken.

Through a study of the history of the landscape of the Red River Valley, the ability to re-create parts of that landscape becomes possible. When a specific date is being discussed, the landscape architect will be able to put in his mind an image of the landscape at that time. By understanding the processes which generated that landscape, he will be able to more accurately reconstruct the scene in his mind and then upon the ground.

One possible way to see into the past is to look through the eyes of the people who lived there, be they painters, photographers, or chroniclers of events which occurred in their everyday lives. Many such sources exist. Fur company traders such as the two Alexander Henrys, David Thompson, La Vérendrye, John McDonnell, and many others, left vivid descriptions of the countryside in which they worked and of the people who lived with them. John Tanner, who lived in the Red River Valley, confirms some of the events of these gentlemen from the Indian perspective. It is interesting that Tanner, a white man who was kidnapped when a child and adopted by an Ojibway tribe [Tanner 1830], virtually ignores the landscape in his narrative. He rarely describes it, perhaps because of his familiarity with the natural environment.

This is not the case with the people from whom probably the most comprehensive and poetic descriptions of the Red River Valley came, those who saw this landscape for the first time as travellers and explorers, people such as John Palliser, Henry Youle Hind, John Fleming, Simon Dawson, the Earl of Southesk, the Marchioness of Dufferin and others.

The third group are those who lived in the valley, having settled at Red River. They saw the landscape in terms of its potential for themselves or as the cause of their troubles. This group includes Alexander Ross and Joseph Hargrave.

Quotes have been heavily relied upon in the study because the vivid descriptions of the landscape should be heard in the language of the person viewing the event. To adjust the words, or to summarize the descriptions would do nothing to enhance the scene being observed and would be considered a disservice to both the reader and the landscape.

This can be a problem in that we then see a landscape which has been sifted through the original viewer's cultural perspective [Rees 1976]. However, such prejudices can usually be perceived in these writings and adjustments can be made within the reader's mind. This also applies to visual imagery. Paul Kane's paintings had a romantic quality to them [Rees 1976] while H. L. Hime included a human skull in the foregound of one of his photographs of the flat prairie landscape at Red River. These are valid representations of the landscape, however, because the viewer is able to understand the feelings evoked by that original landscape in the painter, photographer, or writer. Note the desolation in the mind of J. G. Donkin, a corporal in the North West Mounted Police, in describing the plains environment.

> There is the hush of an eternal silence hanging over these far stretching plains. In early summer, for a brief space, the prairie is green, with shooting threads of gold, scarlet, and blue, while the odour of wolf willow and wild rose floats through the clear air. But, by and by, the sun gains power, and scorches, and withers, with a furnace heat; and through the shimmering haze the grass lies gray and dead. And, under the merciless glare, a great silence broods

> over all... No tree or bush relieves the aching eye; there is nothing but the dim fading ring of the horizon all around... You may blindfold a man in places, and take him to another spot a hundred miles away; removing his bandage I would wager he would think he had travelled around to his starting point. [Rees 1976, p. 267]

His perception of the landscape was probably quite different from Hind's, but each provides an accurate picture of the plains at that time.

The amount of information available is substantial. In this study the sources used were limited by language and by time. It is hoped, however, that the reader will be able to envision the landscape as it was through the sources which are quoted.

The history of the landscape of the Red River Valley is broken in this study into three periods: pre-1800, 1800 to 1870, and post 1870.

The study of the pre-1800 landscape and the descriptions of the native utilization of the early Manitoba landscape have been included for several reasons. Firstly, by understanding how these people interacted and cropped the land, we are able to perceive what the land had to offer, and how it looked. Secondly, as the Métis often lived in much the same kind of relationship that their Indian ancestors had with the land, we can get a feeling for why the Métis did as they did. Thirdly, an exploration into the lives and landscape forms of the earliest peoples is necessary in order to present a complete picture of the St. Norbert Heritage Park.

The year 1800 or thereabouts was a significant turning point in the landscape of the valley. The land was in a reasonably pristine state. The native population was in a state of flux. Disease, the horse, warfare, and trade had caused a number of changes to the traditional utilization of the valley's resources. The landscape, however, both

floral and faunal, was generally intact. Within 12 years of this date the powerful forces which eventually transformed the western Canadian landscape had established themselves at Red River in the form of the Selkirk Settlers.

Canadian "freemen" and their families had begun to collect at Red River about 1800 [Coues 1897], people such as Jean Baptiste Charette who built a house near Rivière Sale about 1811 [Tellier 1977]. With him and others like him the story of white and Métis settlement at Rivière Sale begins.

At this time as well, Alexander Henry the Younger, a North West Company fur trader, was residing in the Valley. He kept a fairly meticulous journal of events between 1800 and 1808 and "by using his descriptions for source material, it is possible to reconstruct the geography of at least one region of the Canadian West, southern Manitoba, as it was when Henry lived there" [Warkentin 1964, pp. 67-68]. By adding to this the descriptions of the valley by other fur traders, explorers, and travellers, a fairly good understanding of the landscape can be determined.

Although some of the descriptions quoted were written well after 1800, they describe an aspect of the landscape which changed little prior to 1870. La Vérendrye would have viewed similar images to those seen by Henry Youle Hind in certain situations, those being where the forms on the landscape had not yet been disrupted by the changes wrought by the white man.

From 1800, then, it is possible to extrapolate back in time since it can be assumed the landscape had changed little prior to Henry's stay in the valley. From this point also it is possible to go forward since the landscape of the Red River Valley was fairly well documented after 1800.

The next major crisis in the Red River Valley and all across the north-west occurred in 1870. Manitoba's entry into Confederation and the transfer of the north-west to Canada had grave consequences to both the landscape of the plains and parkland and to her native and adopted people. The drive to modernization, to the landscape as it exists today, had its fundamental beginnings prior to 1870.

The second part of this study, then, is to design a plan for St. Norbert Heritage Park, a setting for the proposed buildings which is historically accurate in terms of plant materials, landscape details, and relationships to important features, both within the site and external to it, and a landscape which has a mood reminiscent of the 19th Century. Into this setting, then, the modern public facilities will be introduced without intrusion on the goal of the park, that being the historical interpretation of a people on a landscape.

This study will look at the land, at the people who lived on the land, and at the changes wrought in the outward appearance of the landscape through time. This exploration will provide the framework and the basis for design decisions made in the development of a site plan for St. Norbert Heritage Park.

11 The Landscape of the Red River Valley to 1800

2. Tents of the prairie, west of the Red River Settlement
[Manitoba Archives - Hime Collection 1858]

II THE LANDSCAPE OF THE RED RIVER VALLEY TO 1800

The landscape of the Red River Valley, like any landscape, developed through the influence of a number of factors acting upon the underlying foundation of bedrock upon which the landscape formed. The influences of climate over time and results of changes in climate, released such forces as glaciation, flooding, drought, and fire. The soils which developed, the flora and fauna which grew and lived on the land and, finally, man, whose various cultures and living processes were perhaps most disruptive, or perhaps most influential, all acted to produce the landscape seen in the present. Landscapes are constantly changing as each of the factors which influence the landscape changes, and are thus extremely transitory.

Processes vary greatly in both the amount of influence they exert at any one time and the rate with which that influence is felt. The depositing of the calcareous organic materials in Ordovician seas, for instance, went on for 80 million years more than 360 million years ago, whereas less than a century ago the change from a nature-dominated to a highly contrived man-dominated landscape in southern Manitoba occurred in the space of 20 years.

It is through an exploration of these physical and natural processes which created the pristine landscape of the valley and the historical and cultural forces exerted on that landscape by man that we are able to understand the form of the Red River Valley. Understanding leads to appreciation. Similarly, by exploring the forces of the landscape

which acted upon man to create unique human cultures on that landscape, we are able to understand, appreciate, and respect those societies, and their roles in the development of the Province of Manitoba.

THE FOUNDATIONS OF THE LANDSCAPE

> From the summits of the swells, the eye became fatigued with the sameness and chilling dreariness of the landscape. The earth was not unlike the ocean when its restless waters are heaving heavily after the agitation and fury of the tempest have begun to lessen. There was the same waving and regular surface, the same absence of foreign objects, and the same boundless extent to the view. Indeed so very striking was the resemblence between the water and the land that however much the geologist might sneer at so simple a theory, it would have been difficult for a poet not to have felt that the formation of the one had been produced by the subsiding dominion of the other. [James Fenimore Cooper, The Prairie, 1859, p. 14]

Although Cooper was discussing the prairie landscape well to the south of the Red River Valley, his poetry is apt. The landscape of the valley was a product of water action. The underlying bedrock was formed under warm ancient seas, the material lying on top of this bedrock was carried and deposited by a vast ocean of ice, and the level clay blanket on which the soils developed was laid under an immense freshwater lake. The foundations upon which the landscape of the Red River Valley was fashioned had a great deal of influence on the final configuration of that landscape. In order to properly appreciate this configuration, a study of the processes and evolution of the Valley's foundations are necessary.

The Underlying Geology

The foundation upon which the Manitoba landscape developed is the eroded peneplain of Precambrian mountain systems of volcanic, sedimentary, metamorphic, and granitic intrusive rocks. This ancient plate, some of which is at least 2.6 billion years old [Davies et al 1962] lies at the surface of much of eastern and parts of northern Manitoba, but is buried in the south-west corner of the Province under about 7,500 feet of other materials [Manitoba Mineral Resources Division 1979], mostly the sedimentary deposits of ancient seas. In the Red River Valley this granitic plate exerts very little influence upon the landscape, as the processes coming after the formation and eventual erosion of this plate have insulated it from the present surface. Below Winnipeg, for instance, the Precambrian shield lies at a depth of about 700 feet [Manitoba Mineral Resources Division 1979].

Over this shield, about 450 million years ago, washed warm seas teeming with life. These seas, over the course of the next 400 million years, were sometimes present, at other times absent. In the seas, the organic remains of this life were deposited in thick beds which, in dry periods, were eroded down. In either event, the sediments of this era resulted in a layered blanket overlying the shield.

The first layers of such sediments were laid down during the Ordovician Period, between 440 and 360 million years ago, and consist of sandstones, dolomitic limestones, dolomites, dolomitic conglomerates, calcareous shales, and limestones. The materials of these Ordovician formations form the bedrock of much of the northern half of the Red River

Valley in Manitoba. Any subsequent layers which shall be discussed have been eroded away in this part of the valley so that Ordovician forms lie at the bedrock surface. Along the western side of the Valley the surface bedrock is dolomite, formed under the seas of the Silurian Period between 360 and 320 million years ago. In the southern reaches of the valley in Manitoba the underlying surface of bedrock was formed in the Jurassic Period, between 155 and 130 million years ago. This rock consists of grey and varicoloured shales, calcareous shales, sandstone, and limestone. The south-west corner of the valley in Manitoba has a base of sand, sandstone, shale, and clays laid down during the Cretaceous Period, 130 to 60 million years ago [Davies et al 1962, Manitoba Mineral Resources Division 1979].

These layers of sedimentary rock have been in turn covered with a thick blanket of overburden since their deposition. The materials overlying these flat sedimentary beds, however, are largely products of these beds and have, to a great extent, been influenced chemically by the parent material from which they have been derived.

Glaciation

The great climatic upheaval which so vastly influenced the form of the Red River landscape was merely the dropping of mean annual world temperatures by 6° C [Teller 1975]. This set in motion the processes of glaciation which covered southern Manitoba under continental ice sheets at least six times during the several million years of the Pleistocene epoch [Teller 1975]. The most recent ice age, called the Wisconsinan glaciation, began about 75,000 years ago. The last southward advance of ice removed most of the evidence of the previous three advances [Wyder 1971] of Wisconsinan ice, having invaded southern Manitoba between 22,000 and 24,000 years ago. This glacier, the Laurentide, ground over the Red River lowland, then retreated into eastern Manitoba as glacial ice of the Keewatin sheet advanced south from its centre west of Hudson Bay. This mass of ice, grinding over and freezing surface materials into itself, eroded the carbonate-rich Palaeozoic beds of dolomites, limestones, and calcareous shales. It deposited these materials, called the glacial tills of the Roseau Formation [Teller et al 1980], after a rapid retreat of the ice sheet some 8,000 years later. The water left from this rapid melting formed Lake Agassiz, which covered southern Manitoba by 13,000 years B.P., depositing a bed of clays. These clays were mixed with the tills of the Whitemouth Lake Formation when the glaciers advanced 200 years later to just beyond the 49th parallel. By 12,400 B.P. the Red River lowland was once again inundated, but a further advance of Keewatin ice into the basin by 12,000 B.P. deposited a carbonate-rich sandy till known as the Marchand Formation. Lake waters again covered much of southern Manitoba by 11,000

years B.P. as the ice retreated, making short advances as it melted back, none which again reached as far south as the Red River area. One advance, however, of the Laurentide ice sheet in Ontario blocked the eastern outlets of Lake Agassiz about 9,900 years B.P., causing the lake to back-up over the previously dried lake bed of the southern areas of the Red River Valley in Minnesota and North Dakota [Teller et al 1980].

These continental glaciers were thought to have had in Manitoba a thickness of over 5,000 feet [Teller 1975]. Such weight depressed the earth's crust in the Red River Valley by between about 160 feet at the International Boundary to 330 feet in the south basin of Lake Winnipeg [Kupsch 1967]. The rebounding of the crust is still in progress, although at a rate much reduced from what it was when the glaciers first melted.

The tills left by the glaciers in the Red River area in the various formations vary in thickness, texture, and materials, and have influenced the makeup of overlying tills, just as they have been influenced by the bedrock upon which they lie. This mixing of materials has occurred through the physical action of the advancing glaciers as well as through the reworking of these materials by the succeeding lake process of terracing and sorting through wave action, sedimentation, and beach formation or by the addition of alluvium from other areas by glacial rivers through siltation and delta formation.

The Lacustrine Processes

The most overriding determinant of the present landscape of the Red River Valley occurred during the final stages of Lake Agassiz after the retreat of the Keewatin glacier shortly after 12,000 years B.P. A series of lake levels occurred from that time until about 8,500 B.P. when the glacial ice lying across the Nelson River channel finally melted away [Elson 1971]. During these successive stages, the wave action working upon the various calcareous till shorelines and the introduction of river-born sediments derived from other tills and transported generally from the west resulted in the suspension of vast offshore quantities of calcareous clays and silts in the waters of Lake Agassiz. The lake reached maximum depths of from 200 feet near Fargo to about 700 feet over Winnipeg during the initial Herman phase about 12,000 years ago [Elson 1967], which can be considered the first period of remaining lacustrine deposition of Lake Agassiz [Teller 1976 a]. It was this lower Red River basin area that became the main depositional centre of the deep-water lake sediments during the life of Lake Agassiz over the following 3,000 years. As the lake fluctuated in extent a number of layers of clays, silty clays, and, during the lake's initial phases, ice-rafted sediments settled out onto what became the floor of the Red River Valley. As these materials settled over the previously laid tills, and as the lake retreated over them, any irregularities in the surface of the lake bed were smoothed over. The eventual plain that was left between the valley walls was almost perfectly flat, a blanket of fine-grained sediments 50 feet thick under Winnipeg to over 100 feet thick at the border [Teller 1976 b].

This flat, calcareous clay plain, the product of boundless, eternal forces acting upon the planet, is the most definitive element controlling the present form of the landscape in the Red River Valley. The workings of climate, vegetation, animals, and finally man upon this lacustrine foundation over the last 8,500 years has produced the landscape which is seen today.

The Riparian Processes

As Lake Agassiz retreated, the land left uncovered was some of the flattest upon the face of the earth, yet it sloped imperceptibly northward from one of the least noticeable continental divides anywhere - that between the Hudson Bay and the Gulf of Mexico drainage basins. As the water drained away from the high points of the flat lake beds it collected into pools which, when full, began to overflow and collect in larger pools. As pool upon pool collected together and overflowed, they spilled downhill. This flow wandered over the clay surface of the plain, searching for the lowest points, and eventually formed a channel which wormed its way to the north. As more and more rivulets found their way to this channel, it deepened, broadened, and meandered, eventually emptying into the last vestiges of the great Lake Agassiz, forming in the process the vast delta of Netley Marsh.

The Red River and its tributaries are unlike other rivers in that they are really the remains of a lake and "when weather conditions conspire, the Red River reverts atavistically to the behavior of the lake which fathered it" [MacLennan 1974, p. 177]. In recorded history Lake Agassiz has reappeared a number of times. In 1861 the water was two feet higher than in the 1950 flood, in 1852 four feet higher, in 1826 six feet higher, and in 1776 the waters were so high that they became legend to the Indians of the area [MacLennan 1974]. Of course, there were lesser floods. The Red River is expected to spill over its natural levees every 36 years; then Lake Agassiz is reborn.

To the Indians who lived in the valley, with their nomadic lifestyles and transient dwellings, the flooding of the river and its inundation of the landscape was an inconvenience perhaps, little more. To the land hungry settler who came after, the flood was a disaster. Possessions which could not be saved were swept away by the relentless movement of the waters towards the north. The land was washed clean. A thick layer of silt was laid over the prairie grasses which soon poked up through it. The water remained, trapped behind the natural dykes along the river banks, sometimes taking years to escape. The flat plain of the valley was sodden, but relatively unchanged. The river may have adjusted itself to its sediment load and formed a new channel, however, cutting off an old channel, which formed an oxbow lake. The process of meandering was ongoing, and not unusual, given the circumstances.

The gradients of the rivers of southern Manitoba are extremely gentle, more so than in their upper reaches. Yet the velocity of the river or the water pushing from behind must remain relatively constant over its length. By meandering, a river increases its length, providing itself with a greater distance to travel, thereby keeping its speed the same along its length.

Put another way, as the river gradient levels out, the suspended sediments drop out of suspension because the river loses velocity and cannot carry as large a load. In doing so it begins to block itself and must cut a channel around the blockage. This is accomplished because as the water is forced around its deposits it must travel faster, and thus is able to pick up more sediments, which it does by eroding laterally into

the banks [Lammers 1971]. Once the process of meandering commences, it can continue easily, through the following process.

The clay plain is extremely erodable and even a sluggish slow-moving stream like the Red carries immense quantities of clay and other materials within itself as it wanders along. On the outside edge of a curve the water must travel more quickly than in the centre of the channel. It can carry more material because of its speed so it erodes the outer bank making the curve more pronounced. On the inner side the water moves more slowly, cannot carry as much in suspension, and sediments drop out, forming a shallow clay and silt bank which the river must then go around. At some point the loop of the river catches up to itself and during the next flood, cuts through the isthmus remaining, forms a new channel and new levees, and begins the process all over.

As a consequence, a Red River valley river is:

> one of the most crooked that fancy can conceive. A man on foot, who marches straight through the plain, in three hours can go as far as the canoes in a day. [McDonnell 1889, p. 268]

> An Indian compared the devious course of the river to a spy, who went here and there and everywhere to see what was going on in the country. [Hopwood 1971, p. 175]

THE CLIMATIC PROCESSES

On the prairie, on a flat plate of seemingly endless plain, the sky itself becomes infinite. It is always on the horizon 360 degrees around, and 180 degrees above. It is dominating, its form ever present, and the processes which affect the land, but emerge from the sky, are equally as dominating. The sun, clouds, and lightning are visual representations of the climate, while rain, hail, snow, wind and fire are its physical manifestations.

The climatic processes are responsible to a great extent for the present form of the Red River Valley. Glaciation and drought are brought on by fluctuations in world mean temperatures, and changes in flora and fauna are often the results of such climatic upheavals. Death and destruction as a result of floods, blizzards, lightning, and heavy snow continue to have serious consequences to those who inhabit the Red River Valley to this day.

The Summer and Autumn

A black billowing wall of air rolls up the azure sky from the sharp line of the horizon, folding upon itself as it grows and rumbles forward, stabbing at the green plate of the earth with its golden, jagged spears. The earth, the birds, the atmosphere become oppressively quiet, the air is a charged, still calm. The black mass rolls forward. A dark giant of awesome fury and omnipotent power is sweeping across the sky, stalking the infinite landscape.

After a poised quiet, the bright green grass is suddenly lashed into gray waves as the oppressive shadow crosses the plain. The fury of air exploding from the calm is released by a blinding flash and a thunderous clap. The sun is consumed, the world becomes black, and a gray, smokey screen sweeps across the land, following in the path of the shadow, enveloping all before it in its torrential water and ice-laden blanket.

Such an image of a prairie storm to modern man is electrifyingly beautiful, a magnificent exposition of nature's glorious might; disturbing perhaps, but not life-threatening - a landscape in motion, an image to be enjoyed. To a man in a tipi, the tallest form for miles, the prairie storm took on a different meaning. To him the storm was a passing of Pe-ya-siw (Cree), the thunderbirds,

> the Great Birds that are usually invisible; enormous in size, the rulers of the universe, from whose eyes come the flashes of lightning, and from whose throats the thunder that rumbles or tears the firmament... Sometimes in their anger with a mortal, they slay him with the fire of their eyes; but that is only in the summer, for they migrate south in wintertime, like birds of lesser worth. [Ahenakew 1973]

John Palliser recalls such an incident:

> Thunder storms are of frequent occurrence here, and though apparently not severe, yet frequently fatal to human life. While I was writing the above a flash of lightning has fallen on an Indian tent, and killed one man and three women. I found two of them fearfully burnt, but the remaining two, though quite dead, are seemingly untouched. [Palliser 1859, p. 8]

Alexander Ross describes the destruction caused by the passing of a prairie storm during a buffalo hunt on the plain in 1840:

> ...one of the reverses so common in these parts darkened the sunshine of our happiness. In the morning of the 22nd, the atmosphere became suddenly overcast; the lightning flashed in vivid gleams, and presently two of our horses were struck dead. There was then a lull until about 2 o'clock in the afternoon, when suddenly one of the most terrific storms ever witnessed, perhaps, burst upon the camp. Thunder, lightning, wind and rain, contended violently for the mastery. Our camp was pitched on a high rocky ground, and yet, in the course of ten minutes' time, the deluge of rain that fell set everything afloat. The camp was literally swimming. Several children were with difficulty saved from drowning; and so fierce and overwhelming was the wind, that the tents were either flattened to the ground, or fluttering like ribbons in the air. During this distressing scene, three of the lodges were struck by lightning, in one of which a Canadian named Courchaine was killed, and a gun which stood by him melted in several parts like lead; in the second, an Indian, his wife, and two children, being all that were in the tent, shared the same fate; two dogs were also killed. The inmates of the third tent escaped. Thunder-storms are of common occurrence at this spot, and we heard that two Indians were killed there the year before.
>
> Storms of hail of uncommon size are often experienced in the plains: one of these passed over our camp on the Missouri heights, in which the hailstones were composed of solid angular pieces of ice, measuring from four to five inches in circumference, and wounded several of our people who had been exposed to their violence. [Ross 1856, p. 268]

The thunderbird still sweeps across the sky and rains down destruction upon the land, and the prairie storm remains one of the most

awesome and inspiring aspects of the prairie landscape. The sky's rule over the land is very diminished, however. Hail destroys crops, excessive rain causes isolated incidents of minor flooding, and the odd gleam of the thunderbird's eye may catch a careless golfer or fisherman now and then, but these are insignificant compared to the conflagrations caused by lightning on the prairie prior to white settlement.

Before 1870 and for a number of years after, fire was the most pervasive determinant of landscape change. According to the journals of fur traders and explorers on the plain, it would seem that the land was often on fire, both summer and winter but especially during the autumn. Henry Youle Hind describes this spectacle in 1860.

> In the afternoon we arrived at a part of the prairie where the fire had run; as far as the eye could see westward the country looked brown, or black, and desolate. The strong north-westerly wind which had been blowing during the day drove the smoke from the burning prairies beyond Red River, in the form of a massive wall toward us; a sight more marvelously grand, and at the same time gloomy and imposing, could scarcely be conceived than that approaching wall of smoke over the burnt expanse of prairie stretching far away to the west. The upper edge was fringed with rose-colour by the rays of the sun it had just obscured; and as it swept slowly on, the rich rose tints faded into a burnt sienna hue, which gradually died away as the obscuration became more complete, until, although early in the afternoon, with a bright cloudless sky towards the east, a twilight gloom began to settle around us, and the rolling folds of smoke sweeping over the prairie, rapidly enveloped all things in thin but impenetrable haze. When the sun was still some degrees above the horizon the light was that of dim twilight; the prairie hens flew wildly across the trail, and without, as is usual with them, any determined and uniform direction; our horses appeared to be uneasy or alarmed, and the whole scene began to wear an aspect of singular solemnity and gloom. [Hind 1860 p. 259]

In his journal of 1800, Alexander Henry the Younger describes a similar sight, one common to the plain since the waters of Lake Agassiz receded:

Dec. 1st... At sunset I saw a thick smoke rising at the foot of the mountain toward the Indians' camp, and soon after perceived the plains on fire. The weather was cloudy at dusk, and the wind blew strong from the N., causing the flame to make a rapid progress; at ten o'clock it had extended as far as Salt River, presenting a dismal and lurid appearance. We could plainly distinguish the flames, which at intervals rose to an extraordinary height, as they passed through low spots of long grass or reeds. They then would cease their ravages for a few moments, soon afterward to rise again with redoubled fury, and then die away to their usual height. The sight was awful, indeed, but as the wind was from us, and the fire was on the S. side of Park River, we had nothing to dread. If this fire spreads all over the country, we shall be hard up for provisions, as there will be no buffalo; nothing can stop its fury but snow or rain. [Coues 1897, p.158]

Henry goes on to describe the landscape after such a fire has passed; the destruction is both awesome and gruesome.

Feb. 6th... The grass has been burned here the same as all over the plains of Red river; what little snow falls is instantly drifted off, and the bare ground is so much exposed to the frosts that the earth is cracked in a surprising manner. We met with crevices in the portage half a foot wide, and some few near a foot. These rents run in serpentine directions as they are of a great depth, and a person getting his foot or legs into one would be in danger. The ground was so dry that our dogs and cariole raised a thick dust, blackening our faces, so that when we arived at Portage la Prairie we looked as if we had been working in a coal pit. Riding is out of the question in the burned plains. [Coues 1897, p. 238]

Plains burned in every direction and blind buffalo seen every moment wandering about. The poor beasts have all the hair singed off; even the skin in many places is shrivelled up and terribly burned, and their eyes are swollen and closed fast. It was really pitiful to see them staggering about, sometimes running afoul of a large stone, at other times tumbling down hill and falling into creeks not yet frozen over. [Coues 1897, p. 254]

Other more serious consequences of fire are described by Ross:

These conflagrations, once kindled, march before the winds, it may be for weeks together, encircling at last the whole colony in an ocean of flame. These natives frequently relate that whole families have been overtaken by these irresistable fires while travelling through the plains, and burnt to death. Indeed we have seen a fatal instance of the kind ourselves, even on the colonized lands, and within three miles of the settlement. In this instance, three whites and two Indians lost their lives, besides seventeen horses, and numbers of horned cattle, while many others had a very narrow escape.

> The only chance for the traveller, unless some lake or river is at hand, is to burn the grass around him, and occupy the centre of the little clearing thus formed; in which case he will have only the smoke and ashes to contend with. At times, however, the fire advances with such fearful rapidity, as to baffle any attempt of this kind; it has been known to overtake and destroy the fleetest horse. [Ross 1860, p. 14]

However, destruction is not all that fire on the plain caused. Fire was the rejuvenation of the prairie and was used as such by the natives of the country to improve their landscape. David Thompson in his journey down the Red River in 1798 describes the process with eloquence:

> Along the Great Plains, there are very many places where large groves of Aspins have been burnt, the charred stumps remaining; and no further production of trees have taken place, the grass of the Plains covers them: and from this cause the Great Plains are constantly increasing in length and breadth, and the Deer give place to the Bison. But the mercy of Providence has given a productive power to the roots of the grass of the Plains and of the Meadows, on which the fire has no effect. The fire passes in flame and smoke, what was a lovely green is now a deep black; the Rains descent, and this odious colour disappears, and is replaced by a still brighter green; if these grasses had not this wonderful productive power on which fire has no effects, these Great Plains would many centuries ago, have been without Man, Bird or Beast... [Tyrrell 1916, p. 248]

Fires, although a threat to man and beast on the prairie landscape, protected that landscape, keeping it young and vital. Fur traders and early settlers had to consider fires a common and very dangerous part of the prairie landscape and a serious impediment to settlement out on the plain. Some of the earliest legislation enacted in western Canada dealt with the control of fire [Nelson et al 1976]. With the extension of settlement, prairie fires were suppressed and no longer were a common sight in the summer and autumn. With no fires to protect them, the native grasses of the prairie were quickly consumed by the expansion of aspen parkland or buried by the plough.

The Winter

The blinding fury of a prairie blizzard, where the winds sweep across countless miles of flat plain unimpeded, is a killing aspect of the prairie landscape. The land disappears into a grey world of swirling, stinging particles, the air becomes clogged with them so that seeing becomes impossible, and the clawing, tearing wind howling through the bleakness enters the very soul of the traveller exposed to such forces. To survive a prairie blizzard without shelter is almost impossible. For those who lived on the plain in the 19th Century and earlier, a sudden storm could mean death, as there was no shelter. David Thompson suggests the state of mind of those travelling on the open plain in winter:

> December 5... all before and around us a boundless plain... The weather appeared threatening and preparing for a storm; our situation was alarming, and anxiety (was) in the face of every man, for we did not know which hand to turn ourselves for shelter. I mounted my horse and went to the highest ground near us, and with my telescope viewed the horizon all around, but not the least vestige of woods appeared but at due northwest of us, where there appeared the tops of a few trees like oaks. They anxiously enquired if I saw woods. [Hopwood 1971, p. 164]

For those who were unable to find shelter, the effects of a prairie blizzard were devastating. Alexander Ross describes such a situation during the disastrous winter of 1825-26:

> About the 20th of the month (December), there was a fearful snow-storm, such as had not been witnessed for years. This storm, which lasted several days, drove the buffalo beyond the hunters' reach, and killed most of their horses; but what greatly increased the evil, was the suddenness of the visitation... Families here, and families there, despairing of life, huddled themselves together for warmth, and, in too many cases, their shelter proved their grave. At first, the heat of their body melted the snow; they became wet, and being without food or fuel, the cold soon penetrated, and in several

> instances, froze the whole into a body of solid ice. Some, again, were found in a state of wild delerium, frantic, mad; while others were picked up, one here, and one there, frozen to death, in their fruitless attempts to reach Pembina - some half way, some more, some less; one woman was found with an infant on her back within a quarter mile of Pembina. This poor creature must have travelled, at the least, 125 miles, in three days and nights, till she sunk at last in the too unequal struggle for life. [Ross 1856, p. 100]

John Tanner, travelling in a mixed war party of Saulteaux, Cree, and Assiniboine against the Sioux about 1800, gives us an idea of the difference between death and survival on the prairie at that time.

> It was now late in the fall, and we had travelled only two days from Turtle Mountain, when there came on a cold and violent storm of rain and snow. Two horses perished, and many men were near sharing the same fate, but most or all of the Ojibbeways, carrying each man on his back a puk-kwi of birch bark, large enough to afford a partial covering for three men, and all being disposed to extend to the destitute all possible assistance and relief, many of them were sheltered. [Tanner 1830, p. 199]

Such rages of wind and snow were fairly common on the plain and, if prepared for it, most survived. Lack of shelter in the prairie of the Red River valley was responsible to some extent for those shaggy beasts, the buffaloes, to frequent the wooded area of the parkland prior to 1800. Even such heavy-coated creatures required the refuge provided by the aspen and the river-bottom forest in order to survive the prairie blizzard. Once the cold had passed, however, the buffaloes returned to the plain. F. C. Roe, in his monumental study of the buffalo, cites snow and blizzards as an agencies destructive to the animal on the plains [Roe 1957]. The fierceness of the unimpeded wind must have been truly devastating.

The cold then was as bitter as it is today. The difference between the cold of the past and that of the present is, perhaps, that it had a voice; in the silence of the past that voice could be heard. Today the

noise of civilization obliterates it. Alexander Henry describes it:

> Jan. 22nd... The cold was severe; weather cloudy and calm. The oaks made a continual cracking noise as they split with the frost, sometimes like the report of a gun. [Coues 1897, p. 163]

We can still hear the oaks if we listen. There are other aspects of the winter landscape prior to civilization which we can only read about. Between then and today what was different about the landscape was the lack of shelter, of distinguishing features, the markings of a cultivated landscape. The Earl of Southesk, travelling in the west out of Red River in 1859 gives us a vivid picture of winter in the plain:

> It is astonishing how winter transforms an uncultivated country. There are no houses and fences to serve as landmarks, and divide the snowy waste; all that lovely colouring of trees, grass, and water, which in the genial months of the year lends charm and variety to the same, is hidden and obliterated under a garment of weary whiteness. The plains are mere heaps of snow, dotted with brown spots where naked clumps of poplar brush uplift their heads, and the lakes are only distinguishable by the absence of bushes, and by the greater smoothness of their surface...
>
> ...I think it was on this day that the setting sun shed wild and wonderful hues over a snow covered range of hills directly in front of us. They seemed to be all aglow with fire; not in soft roseate or golden tints, but with a supernatural, lurid glare of cold combustion, a hellish light, hateful though beautiful to behold. One other day, about the same time, I was more than commonly struck with the exquisite beauty of the contrast, where the glittering white intensity of the snowy, boundless plains, cut sharp against the clear azure intensity of the boundless sky, unsullied by the slightest speck of cloud. It was the very type of 'light without sweetness' - of a pure passionless angel of judgement, to whom error and mercy were alike unknown. [Southesk 1969, pp. 294-297]

The Spring

In the spring there are two conditions in the Red River Valley, flooded or not flooded. In a country with a history of such flooding it is astonishing that a metropolis of 600,000 people should establish itself in the middle of the flood plain. The land certainly provided enough warning to the people settling in the valley. Floods occurred in the valley in 1776, 1790 and 1809; the first flood to seriously affect the colony occurring in 1826. Vivid descriptions of both this flood and the flood of 1852 are to be found in Alexander Ross's account of these periods in his history, The Red River Settlement, published in 1856.

Flooding occurs in the valley from a rapid melt due to a late spring combined with a heavy winter snowfall and possibly due to a great deal of rain at the same time. The effects of such climatic coincidences are devastating to a settled land. To a land of nomadic wanderers a flood is merely an inconvenience.

THE FLORAL LANDSCAPE

During glaciation the Manitoba landscape was one of cold snowy wastes. However, the warming climatic trends of 15,000 years ago melted down the glaciers, exposing the accumulated debris which concentrated on the surface of the glacier, forming a blanket of exposed soil which insulated the ice from further rapid melting. This soil was colonized by plants, probably at first low tundra-like vegetation [Shay 1976], and then a forest dominated by spruce and lacking pine [Ritchie 1976].

This forest dominated the landscape of southern Manitoba as the ice eventually melted, living on both the tills of the stagnant glacier as well as upon the land which the ice had vacated. About 12,000 B.P. the lands not inundated in southern Manitoba, those west of the Manitoba Escarpment, were clothed in a spruce forest with other species such as birch, poplar, ash, juniper, hazel, willow and soapberry, along with herbs such as sage, pigweed, ragweed, and grasses [Shay 1976]. This forest, between 12,000 and 10,500 years ago, gradually became more deciduous with the appearance of elm and of oak which worked their way up into the area from the south-east [Shay 1976], although Ritchie [1976] states that oak did not arrive until 6,500 B.P. In any event the spruce-dominated forest remained until about 10,500 B.P. in southern Manitoba.

At that time a marked and dramatic change occurred in climatic conditions and a period of warmer and drier environments ensued. With the aid of fire, grasslands spread northward replacing the spruce forest to the west and south of Lake Agassiz. In the north, pine had begun to

invade the spruce forest from the north-west. There and to the east the forest was evolving toward the mixed spruce, pine, birch, and poplar community of today [Ritchie 1976].

By the time Lake Agassiz had receded from the Red River Valley between 8,000 and 7,300 years B.P. [Teller 1976a], grasslands dominated the landscape of southern Manitoba and thus spread into the newly emerged lake bed. Grasslands also spread northward, reaching a maximum expansion about 6,000 years ago north of the Porcupine Mountains and south of The Pas [Shay 1976]. A cooler and wetter period followed allowing the expansion of boreal forest to the south, with the aspen parkland preceding it, and the development of modern deciduous river-bottom communities along the streams and rivers of the area. By about 2,500 years B.P. grassland and parkland reached a state of equilibrium in southern Manitoba [Ritchie 1976], the alignment of the zones remaining fairly stable until settlement of the prairie extinguished the prairie fires, giving an advantage to the aspen.

In the Red River Valley four plant communities existed. On the open flat plain to the west of the Red River where drainage was moderate-to-poor, the tall grass prairie developed as an extension of the lush true prairie to the south. On the edges of the prairie, surrounding it on the west, north and east, the aspen bluffs grew, mixed with the meadows. Called the aspen parkland, this was the transition zone between the prairie and the deciduous forest. Along the well drained levees of the serpentine river channels of the valley, heavily crowned stands of river-bottom forest clothed the banks. In old oxbows, poorly drained

depressions, and on the broad delta of the Red River, rich productive marshlands dominated. These communities lived in a dynamic balance, adjusting themselves to changes surrounding them through time.

From Alexander Henry the Younger's journal of 1800 we are able to glean a fairly good description of the vegetation and the landscape of the northern parts of the Red River Valley at that time:

> Sunday, Aug. 17th... At three o'clock we arrived at the entrance of Red River. This river empties into Lake Winipic by three large channels; the middle one is that by which we generally pass, as there is a tolerably good camp at its mouth; the land is low, and may be said to consist of one continued marais; what little dry land is to be found is covered with low willows and high grass and reeds...
>
> Aug. 18th... At twelve o'clock we got safely to the head of the rapid (St. Andrew's Rapids), where we put ashore to gum. The chain of rocks which intercepts the channel appears to come from the N.W.; and having crossed the river, soon ends on the E. side, where the land is low and marshy. At a short distance there is a beautiful plain on the W., more elevated than on the E.... and here we may say the meadow country commences. The grass is long, but there is no wood on the west... in a short time we arrived at the Forks...
>
> Aug. 20th... I embarked and proceeded about six miles... The beach along this river being black mud, the last rain turned it into a kind of mortar which adheres to the foot like tar, so that at every step we raise several pounds of it, and everything that touches it receives a share... The S. side of the Assiniboine, particularly near the Forks, is a woody country, overgrown with poplars so thickly as scarcely to allow a man to pass on foot; this extends some miles W., when the wood is intersected by small meadows. This woody country continues S. up Red river to Rivière la Sale. On the E. Side the land is low, overgrown with poplars and willows, frequently intersected by marshes, stagnant ponds, and small rivulets. Moose, red deer, and bears are numerous. The banks are covered on both sides with willows, which grow so thick and close as scarcely to admit going through; adjoining these is commonly a second bank of no great height. This is covered with very large wood, such as laird, bois blanc, elm, ash, and oak; some of these trees are of enormous size. In the rear of this are oaks along; then poplars and willows, as mentioned above...
>
> August 21st... The current is not very strong. The course of the river is very winding, with deep water and not a stone to be seen...

The Indians passed on; at three o'clock we followed, and found them all camped at the entrance to Rivière la Sale. This small river comes in from the W.,... forming the N. boundary of the great meadows of this river. The country which lies between the Sale and Assiniboine is low and forms in many places marshy meadows, thickly intersected with poplars and willows, which never grow to any height. Moose and red deer are very numerous at all seasons, and in the winter buffaloes resort here, for shelter from storms and cold... I went over the river for a walk on the plains, but soon returned, as I found the walking too bad in the long grass, stunted poplars, willows, and rosebushes. No large wood was to be seen, excepting along the river...

Aug. 22nd... The river continues very crooked... Having come three leagues, we put ashore to wait for the Indians. We crossed our horses over to the W. side, the country being more favourable for them than the E., which continues to be thick woods. After the rain the men began fishing as usual, while others went in search of fruit, of which they found great plenty, such as red plums, panbinas, and grapes. The plums are just now ripe and very good; they appear to be of three different sorts - large yellow speckled, large red, and small red. There are also two other kinds - small gray speckled and small yellow speckles. The panbina is fine and large, of a beautiful red, but requires the frost to ripen it. The same is the case with the grapes, which are of a small sort, when ripe perfectly blue; the vines are bending to the ground with them.

Aug. 25th... We are now past the stones, and have a gentle current, deep water, and an ugly muddy beach; but beautiful encampments on the edge of the meadows which, at the turn of every two or three points, come down to within a few yards of the water's edge. I examined the salt pit, which lies on the W. side, only a few yards from the river, where it issues out of the ground...

Aug. 26th... passed the great salt pit on the W. side; it lies about 200 paces from the water, at the edge of the plains... came on to the Rivière aux Gratias (Morris River)... We have reached the commencement of the great plains of Red river, where the eye is lost in one continuous level westward. Not a tree or rising ground interrupts the view. But on the E. woody country continues. [Coues 1897, pp. 40 - 64]

The Tall Grass Prairie

The most evident form of the landscape of the area south of the Forks in the Red River Valley in Manitoba is the absolute flatness of the land. This intriguing form, or lack of form, was enhanced by the lack of trees, by the fact that the land was clothed only in prairie grasses and herbs, and low-growing prairie forbs. The Earl of Southesk was struck by this:

> ...we had been traversing in rich but bare and level prairie of many miles extent. - It is strange to find oneself on an apparantly flat disc of grass, nothing but grass meeting the plain horizon-line all around. One feels as if crawling about in view of high heaven on a circular table punched out from the world and struck on a spike. [Southesk 1969, p. 26]

The beauty of the prairie was in its intricacy in its blending of many species of plants into a subtle, varied mat of textures and colours which changed with the seasons. The composition of the flora of the prairie at any one place varied according to the slope, exposure, soil texture, and drainage [Shay 1967]. Infinitesimal changes in any condition would suit one species more than another and it would dominate in that particular spot. The tall grass prairie was a mosaic of various species. Its luxuriance was due in part to the impeded drainage of the flat clay plain upon which it grew; the spring run off was available to the plants well into the growing season.

This extension of the true prairie of Minnesota, North Dakota, and the mid-western states to the south and east was dominated by the perennial grasses, big bluestem, little bluestem, Canada wild rye, wheat grasses, porcupine-grass, and June grass. Associated with the grasses were a number of forb species such as northern bedstraw, Canada anenome,

Canada goldenrod, prairie lily, and prairie rose [Cohlmeyer 1977]. In wetter sites the prairie cord grass would dominate species less suited to that moisture regime, in drier areas the upland communities would be made up of porcupine-grass and associates requiring less moisture [Cohlmeyer 1977].

The various species of grass did not seem to interest the early explorers much. They rarely wrote about them except in certain cases, such as in Henry's experience with porcupine-grass.

> The short, pointed grass (Coues identified it as porcupine-grass), annoyed us very much as we crawled along in great misery and pain, almost every third step being upon a blade of this grass, which grows all over these level meadows. It is not more than two inches high, about the thickness of an awl, and fully as sharp; it even penetrates strong leather and socks, and when it pierces the skin the point breaks off and remains in the flesh... The walking was very ugly and tedious for persons whose feet were stuck full of this pointed grass...they left me quiet to pluck the painful grass-blades out of my feet. [Coues 1897, pp. 115-117]

The descriptions of the prairie by travellers tended more to the drama of the open plain. Lady Dufferin gives us a delightful look at the landscape:

> We went through Winnipeg...and so onto the illimitable prairie. It is covered with long grasses and wild flowers, and is flat as the sea, parts of it so swampy that our horses seemed to have difficulty in pulling us through it. It has a peculiar smell; and there is a delightful air upon it, and one begins to feel the freedom-of-the-savage raising one's spirits. [Dufferin 1891, p. 326]

In the same vein, the Earl of Southesk adds:

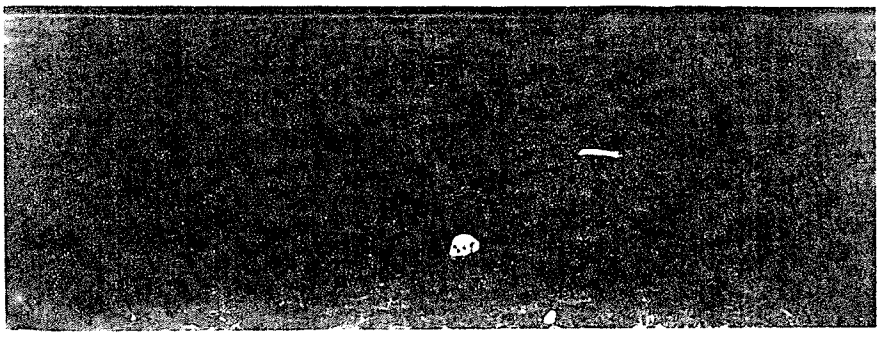
> ...a wide, bare, sandy expanse lay before us...thickly strewn with dry buffalo dung - bois des prairies I believe the French voyageurs call it, it is sometimes also spoken of as buffalo chips. We frequently used it in our camp fires. I rather liked to burn it, as it throws out a very pleasant strongly aromatic smell redolent of wild thyme and other herbs of the prairie. [Southesk 1969, p. 67]

The prairie was more than flat grassland with a pleasant air. The incessant fires which kept the forest back helped to create under the thick fibrous mat of prairie sod a rich black soil. It was a land untapped, with a potential for those who loved the earth. Yet, as it was, the land exhibited a rare beauty which has long since been lost, having succumbed to the men who came to release the energy of that earth. A few vestiges of tall grass prairie remain in Manitoba, the rest are blanketed in plants foreign to its soil. None of us have ever seen or ever will see what the prairie of southern Manitoba was. We must rely on the descriptions of the past, a glimpse here and there by a person in passing, who may or may not have felt anything for that which he or she describes. Henry Youle Hind, however, whose enchanting words must have come from a deep love of the prairie and a genuine feeling for all land, helps us to truly see this landscape:

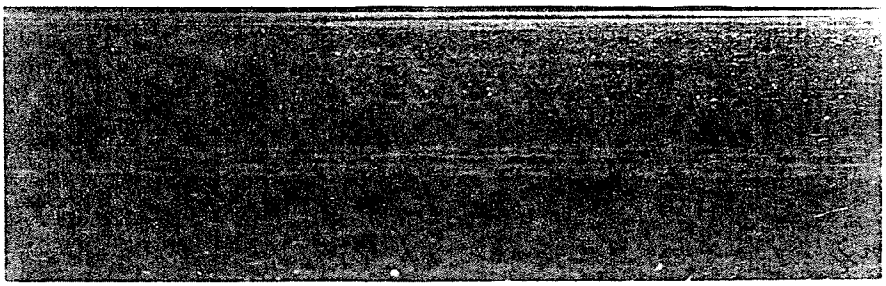
> The vast ocean of level prairie which lies to the west of Red River must be seen in its extraordinary aspects, before it can be rightly valued and understood in reference to its future occupation by an energetic and civilized race, able to improve its vast capabilities and appreciate its marvellous beauties. It must be seen at sunrise, when the boundless plain suddenly flashes with rose-coloured light, as the first rays of the sun sparkle in the dew on the long rich grass, gently stirred by the unfailing morning breeze. It must be seen at noon-day, when refraction swells into the forms of distant hill ranges the ancient beaches and ridges of Lake Winnipeg, which mark its former extension; when each willow bush is magnified into a grove, each distant clump of aspens, not seen before, into wide forests, and the outline of wooded river banks, far beyond unassisted vision, rise into view. It must be seen at sunset, when, just as the huge ball of fire is dipping below the horizon, he throws a flood of red light, indescribably magnificent, upon the illimatable waving green, the colours blending and separating with the gentle roll of the long grass in the evening breeze, and seemingly magnified towards the horizon into the distant heaving swell of a parti-coloured sea. It must be seen, too, by moonlight, when the summits of the low green grass waves are tipped in silver,

and the stars in the west disappear suddenly as they touch the earth. Finally, it must be seen at night, when the distant prairies are in a blaze, thirty, fifty, or seventy miles away; when the fire reaches clumps of aspen, and the forked tips of the flames, magnified by refraction, flash and quiver in the horizon, and the reflected lights from rolling clouds of smoke above tell of the havoc which is raging below.

These are some of the scenes which must be witnessed and felt before the mind forms a true conception of the Red River prairies in that unrelieved immensity which belongs to them in common with the ocean, but which, unlike the ever-changing and unstable sea, seem to promise a bountiful recompense to millions of our fellow-men. [Hind 1860, volume 1, pp. 134-135]



3. The prairie on the banks of Red River looking south
[Manitoba Archives - Hime Collection 1858]



4. The prairie looking west
[Manitoba Archives - Hime Collection 1858]

The Aspen Parkland

The zone of conflict, where the dominion of the grasses warred with that of the deciduous aspen forest, makes up much of the landscape of southern Manitoba, surrounding the area formerly occupied by the tall grass prairie. Here the prairie meadow and the aspen bluff competed for the land, and over a front of hundreds of miles across the northern plains reached a sort of tense equilibrium where rainfall favoured the growth of aspen but where periodic dry spells and prairie fires favoured the grasses.

Each of these combatants had adapted to the conditions, with grasses forming dense mats into which little could seed itself and survive. The aspen pushed its roots through this mat laterally and trees sprang up from the roots, far out into the grasses. Fire swept over the land, killing these suckers and burning into the aspen bluff, to be stopped against the corky bark of the oak, if there was oak. The grass immediately pushed new shoots up through the ashes from its rhizomatous mat. The buffalo ravaged the woods, rubbing against and thrashing down trees and opening the woods to light. The buffalo also wallowed in the grasses, leaving bare holes for invading seeds of tree or shrub. The grasses took advantage when they could, the aspen also, and a dymanic edge existed until man changed the rules by eliminating fire and animals, and introducing what he wanted to grow.

The aspen parkland interested the early explorers, many of whom commented on its form. John McDonnell in 1797, describes the landscape thus:

> From the Forks of the Assiniboil and Red Rivers, the plains are quite near the banks, and so extensive that a man may travel from here to Fort des Prairies, Rocky Mountain House, Missouri, Mississippi and many other places without passing a wood a mile long. All the wood here, as in the rest of the plains, being only small tufts, here and there, called by the French, Flêts de bois, surrounded by the plains the same as the island is encompassed by water. [McDonnell 1889, p. 269]

A later visitor from Toronto, J. C. Hamilton, also admired the parkland in almost the same terms as McDonnell:

> Before us was here seen a narrow line of vapour hugging the ground, isolating the trees, and making them leap fantastically from the ground. This is the mirage of the prairie.
>
> We were never on this drive without the sight of trees, mostly poplars, with tufts of willows, hazelwood, and vines. They line the river's edge, and that of every stream that runs into it; in the prairie, too, little green clumps appear every half mile, and in some places an undergrowth of young trees has sprung up thickly. Old settlers say, that not long ago the prairie grass and flowers were the only green things visible. [Hamilton 1876, p. 171]

The wooded component of the aspen parkland consists primarily of aspen with oak in the drier bluffs and balsam poplar occurring in wetter areas. The shrubs associated with an aspen bluff include hazelnut, red-osier dogwood, high-bush cranberry, speckled alder, roses, chokecherry, pincherry, saskatoon and wolfberry [Cohlmeyer 1977]. Two levels of herbs are also present. Species differ due to a number of factors, the moisture available to the community being the overriding one. Cohlmeyer discusses a number of successional communities which border the aspen forest, each having a related group of plant species which bleed from the forest into the adjoining community, be it a freshwater slough, wet meadow, river-bottom forest, or tall grass prairie.

> Plum trees and pear bushes begin to blossom; appearance of much fruit this season. The blossoms of various kinds emit a most agreeable smell on the border of the plains, where they grow sumptuously. [Coues 1897, p. 244]

The River-Bottom Forest

> The direct course of Red river, from Otter Tail lake to Lake Winipec, may be said to run due N., or rather W. of N., through as pleasant a country as there is in America, with plenty of water for navigation, an excellent, fertile soil, and the best of wood for every purpose. Tall oaks are to be found, as straight as a reed, without a branch for 30 to 50 feet from the ground. The laird is of extraordinary size; I must have measured them of seven fathoms circumference, at five feet from the ground. The elm and bois blanc are also very large, and so are many of the ashes. There is abundance of wood on the banks of the river to answer every purpose for ages to come. [Coues 1897, p. 149]

The "bois blanc" Henry is referring to is the basswood, the "laird" is the eastern cottonwood. The abundance of wood along the rivers of the Red River lowland varied in extent, but other observers agree with him that there was plenty of it. However, he was very optimistic in his forecasts as shortages of wood in the Red River Settlement were felt within fifty years. The incredible amount of oak, for instance, which Henry himself used in the construction of his posts and as fuel foreshadowed this condition.

Away from the settlements, however, the problem was not severe, as we see from J. C. Hamilton's description of his river-boat journey north from Fargo in the 1870's:

> Beautiful is the scene as the vessel winds along. Willows sweep our side as she creeps on, hugging the bank for deeper water or to get room for the next turn. Nature has with lavish hand studded the banks for half our way with clusters of stately elms, ash, oak, maple, basswood, poplar and cotton-wood, that spread their branches over a rich vegetation - long grass, wild plum and cherries, prairie roses, the white blossum of the wild hop, wild ivy and grape vines hang from the trunks; clusters of the pink squaw berries, Scotch thistles of great size; beautiful flowers of many varieties - purple, white and yellow - dot the green carpet.
>
> This lining of the prairie is of various depths, from fifty or one hundred yards to a mile, and through it we may see the sky. The upper deck is generally on level with the land, but sometimes, as at

Frog Point, the banks rise as high as the top of the smoke-stack. [Hamilton 1876, p. 20]

The river-bottom forest was not limited to the Red but all the rivers of the Valley. Hind finds, for instance:

> In the valley of La Rivière Sale, and along both sides, grow oak and elm and some fine ash, many of the trees being two feet in diameter; this narrow forest extends the whole way up the river on the north bank. [Hind 1860, Vol. 1, p. 155]

A fairly representative forest community still exists in the town of St. Norbert along certain areas of the Sale River. A great deal of selective cutting of desirable trees certainly has occurred, but a study of this community done in 1975 by the author and others found a diverse and healthy forest. The average number of trees per acre was 385, the forest composed mostly of bur oak, with elm and green ash, some Manitoba maple, cottonwood, aspen, and basswood. The understory was dominated by hazelnut, saskatoon, and downy arrow-wood. Chokecherry, pincherry, red-osier dogwood, currant, high-bush cranberry, and other shrubs were also present, as well as a varied representation of herbs and vines.

On a terraced site up the Sale River at La Barrière Park, green ash, Manitoba maple, elm, and some oak dominated the lower terrace. The oak dominated the middle terrace although there were green ash and Manitoba maple in some abundance. The upper terrace was composed of an oak-aspen community, with the oak dominating. It is apparent that the communities may not have changed substantially from when Hind viewed them in 1857.

5. Sketch of the banks of the Red River about 1880 [Manitoba Archives]

6. The Sale River in St. Norbert about 1900 [Manitoba Archives - E. R. James Collection]

The Wetlands

The extensive marshes of the delta of the Red River still exist much as Henry would have found them in 1800. Many of the river oxbows also remain. Both these forms of wetland were insignificant in terms of area when considering the valley as a whole.

Wetlands were not confined to those of the river deltas and oxbows. At certain times, especially after heavy snows or floods, the prairie away from the river would assume the aspect of a vast marsh, with some fairly extensive areas remaining perpetually in that condition. In many of the early accounts of travel on the open prairie there are references to the west and marshy nature of the Red River Valley and the difficulty of movement by foot, horse, cart or wagon. This limited not only travel but also agriculture on the plain. However, few of the wetlands of the more southerly areas of the Red River Valley are left.

> Now there is no region in the world where agricultural drainage is so intensive as within the prairie watershed of Glacial Lake Agassiz. This move to break through the lips, the rims and the seals holding back the shallow prairie waters has been followed in nearly every portion of this region and in some localities all of the original lakes and marshes are now permanently removed. [Hochbaum 1967]

THE FAUNAL LANDSCAPE

The landscape of southern Manitoba in 1800 appears to have been in motion most of the time, according to the accounts of the early chroniclers. Henry's journals are laced with descriptions of the animal life responsible for this movement. The plain, the forest, the sky and the waters all teemed with an abundance of fauna.

Yet this abundance was much reduced from what had once occupied the land. Dinosaurs at one time roamed the land mass of western Canada, but died out, the theories of their extinction as numerous probably as the number of species themselves. Many different species of mammals lived here as well, killed off by either climatic variations or competition with other species, and/or man. Birds, the lower vertebrates, the invertebrates, and the lower forms of animal life have all been through similar processes, as species develop and then die off.

The story of the change in the faunal landscape of southern Manitoba to the present is common the world over, and the consequences of that change are equally as common, yet such loss can not be viewed without some sense of regret. If put into proper perspective, that of the gene pool of the world as a whole, the loss of even one species, whether it be high on the faunal order or very low, may have consequences to man more catastrophic than he can yet imagine. An enzyme produced by a lowly extinct slug may have been the cure for a disease which rises up in the future to extinguish mankind.

On a less melodramatic note, the removal of such creatures as the buffalo, the pronghorn, the mule deer, the passenger pigeon, and other species deprives us and our children of the joy of knowing these creatures as a part of the present Manitoba landscape.

The Mammals

Descriptions of the mammalian fauna seem to have dominated many of the accounts of early fur traders who saw the Red River Valley prior to the great destructions of animal life which occurred after 1800. Alexander Henry the Younger provides, perhaps, the most vivid accounts of the immensity of mammalian life in the valley at that time. At his Park River Post just south of the 49th parallel he writes on January 14th of 1801:

> At daybreak I was awakened by the bellowing of buffaloes. I got up and was astonished when I climbed into the S.W. bastion. On my right the plains were black, and appeared as if in motion, S. to N. Opposite the fort the ice was covered; and on my left, to the utmost extent of the reach below us, the river was covered with buffalo moving northward. Our dogs were confined within the fort, which allowed the buffalo to pass within a few paces. I dressed and climbed my oak for a better view. I had seen almost incredible numbers of buffalo in the fall, but nothing in comparison to what I now beheld. The ground was covered at every point of the compass, as far as the eye could reach, and every animal was in motion. All hands soon attacked them with a tremendous firing, which put them to a greater pace, but had no effect in altering their course. [Coues 1897, p. 167]

Such vast numbers of animals had a tremendous effect upon the landscape. Henry mentions at one point that buffalo had destroyed all the grass and that his horses were starving. Buffalo grazing, wallowing and fertilizing altered the physical form of the landscape as well as the species, types, numbers, and distribution of both flora and other fauna on the prairie [Nelson 1976]. Their trampled paths led to erosion, their urine and manure changed vegetation regimes and quality, their wallowing broke the ground creating dry pock marks over the prairie, an invitation to invading plant species, as did their grazing in such immense numbers. Henry describes the ravages done by the buffalo at the mouth of

the Rivière aux Gratias (later called Scratching River, then Morris River).

> The Indians had found the ground on which we tented covered with buffaloes and shot several, the carcasses of which lay near us, only lacking the choice bits. The ravages of buffaloes at this place are astonishing to a person unaccustomed to these meadows. The beach, once a soft, black mud into which a man would sink knee-deep, is now made hard as pavement by the numerous herds coming to drink. The willows are entirely trampled and torn to pieces; even the bark of the smaller trees is rubbed off in many places. The grass on the first bank of the river is entirely worn away. Numerous paths, some of which are a foot deep in the hard turf, come from the plains to the brink of the river, and the vast quantity of dung gives this place the appearance of a cattle yard. [Coues 1897, p. 64]

At the Park River several days later he describes further the damaged landscape.

> This afternoon I rode a few miles up Park River. The few spots of wood along it have been ravaged by buffaloes; none but the large trees are standing, the bark of which is rubbed perfectly smooth, and heaps of wool and hair lie at the foot of the trees. The small wood and brush are entirely destroyed, and even the grass is not permitted to grow in the points of wood. The bare ground is more trampled by these cattle than the gate of a farm-yard. [Coues 1897, p. 99]

Although these images hint at the incredible numbers of buffalo in the Red River Valley in 1800, their numbers in death are even more staggering, as Henry recounts in his description of spring break-up on the Red River:

> March 30th. Rain broke up the ice; it drifted in large masses... It continued to drift on the 31st, bearing great numbers of dead buffalo from above, which must have been drowned in attempting to cross while the ice was weak... Wednesday, Apr: 1st. The river clear of ice, but drowned buffalo continue to drift by entire herds... It really is astonishing what vast numbers have perished; they form one continuous line in the current for two days and nights. One of my men found a herd that had fallen through the ice in Park river and all had been drowned; they were sticking in the ice, which had not yet moved in that part...18th. Rain; drowned buffalo still drifting down the river, but not in such vast numbers as before, many having lodged on the banks and along the beach...25th... Drowned buffalo

> drift down river night and day...30th... Drowned buffalo drift as usual...May 1st. The stench from the vast numbers of drowned buffalo along the river was intolerable...2nd. Two hunters arrived...from Grandes Fourches...they tell me the number of buffalo lying along the beach and on the banks above passes all imagination; they form one continuous line, and emit a horrid stench. I am informed that every spring it is about the same...4th. Encamped at Bois Percé with my people, I was actually prevented from taking supper by the stench of drowned buffalo that lay on the banks in a state of putrefaction. [Coues 1897, pp. 174-178]

A similar situation was seen by John McDonnell about the same time on the Assiniboine River below the forks of the Qu'appelle:

> Observing a good many carcasses of buffaloes in the river and along its banks, I was taken up the whole day with counting them and, to my surprise, found I had numbered when we put up at night, 7360, drowned and mired along the river and in it. It is true, in one or two places, I went on shore and walked from one carcass to the other, where they lay from three to five files deep. [McDonnell 1889, p. 294]

With such vast numbers of animals living and dying on the plain it must have been impossible for Henry, McDonnell, or the Indians living on the buffalo to contemplate their disappearance within a century. Yet, in 1867 the last large herd in the Red River area was sighted in the Souris River country, where the last wild Manitoba bison was killed in 1883 [Ray 1974]. The disappearance of such numerous grazers had serious consequences to the ecology of the plain and to its peoples, whose cultures had grown so dependent upon the bison during the century of its virtual extinction.

On his arrival at the Red River in 1800 and during his journey down to the Park River, Henry constantly mentions the numbers of moose, red deer, (the elk or wapiti) and bears along the river. On viewing the land between the Assiniboine and Sale Rivers he states, "Moose and red deer are very numerous at all seasons, and in the winter buffaloes resort here, for shelter from storms and cold." When his party reached the Rat River,

Henry concluded, "Fresh tracks of moose, red deer, and bears are now so frequent that we pay no attention to them." At the Pembina River he continues:

> For three miles beyond Panbian River the ground is overgrown with willows, which are twisted and torn up by red deer in many places. We saw several droves at the end of these willows...the Indians went hunting red deer, which, being now in the rutting season, are heard in every direction excepting toward the plain... My men told me they had seen a great many red deer and bears crossing the river; large herds were seen at every turn of the river... I found the Indians waiting for me. They had killed four bears and eight red deer... We observed, also, on the opposite beach no fewer than seven bears drinking all at the same time... I had climbed up a tall oak, which I had trimmed for that purpose, at the entrance of the plain, at the top of which I had an extensive view of the country. Buffalo and red deer were everywhere in sight, passing to and fro... Everything was quiet during the rest of the night, except the bellowing of buffaloes in every direction and the whistling of red deer. [Coues 1897, pp. 83-94]

The numbers of large animals along the valley forests were evident also in their effect on the landscape, through grazing, browsing, tearing, and trampling as Henry noted above, and at the Snake River in Minnesota where, "Red deer were very numerous here not long ago, as the tops of the oak along this little river are all broken and twisted." Bears, both the black and the grizzly, residing in the valley, had similar effects on the landscape:

> Bears make prodigious ravages in the brush and willows; the plum trees are torn to pieces, and every tree that bears fruit has shared the same fate; the tops of the oaks are also very roughly handled, broken, and torn down, to get the acorns. The havoc they commit is astonishing; their dung lies about in the woods as bountiful as that of the buffalo in the meadow. [Coues 1897, pp. 101-102]

The mule deer was a part of the woodland ecosystem in the valley [Nelson 1976] as was the moose, and in the southern reaches of the valley, the white-tailed deer. Henry observes them at the Red Lake River in Minnesota:

> For the first time we saw numerous tracks and roads of the fallow deer or chevrevil, which we soon perceived jumping in every direction". [Coues 1897, p. 127]

He later tells of them at the Pembina River, "the first of their kind ever seen in this quarter." They did not become common in the northern areas of the valley until farming came to dominate the landscape. By that time the elk, mule deer, moose, buffalo, and bear had virtually disappeared from the parkland and plain of southern Manitoba.

The pronghorn antelope, although present in the Red River Valley prior to white settlement, appears to have had a fairly insignificant effect upon the landscape. It has been suggested, however, that the antelope may have enjoyed the environment created by other prairie grazers. As antelopes eat forbs and shrubs especially in winter, the absence of heavy grasses, reduced by buffalo and other prairie grazers such as prairie dogs, encouraged the growth of such antelope browse and quite possibly resulted in fairly significant populations of pronghorn [Nelson 1976, England 1972].

The burrowing-rodent populations may have also been helped by heavy grazing by buffalo which allowed animals such as the prairie dog, ground squirrel, and gopher better vision. These animals themselves acted upon the landscape in a number of ways, aerating the soil, decreasing runoff, opening the prairie to invading vegetable species, and providing an abundant food source for predators, and an attractive habitat for less aggressive creatures [Nelson 1976].

One of the more abundant and troublesome mammals of the plain was the wolf. With the tremendous amount of food species at the wolf's disposal

on the plains and in the bordering woods, it is not surprising that wolf populations would be substantial. Henry mentions them at the Park River:

> Wolves are numerous and insolent... they go in large droves and keep up a terrible howling, day and night...
>
> Last night the wolves were very troublesome; they kept up a terrible howling about the fort, and even attempted to enter Maymiuckh's tent. A large white one came boldly into the door and was advancing toward a young child, when he was shot dead. Some of them are very audacious. I have known them to follow people for several days, attempt to seize a person or a dog, and to be kept off only by fire-arms. It does not appear that hunger makes them so ferocious, as they have been known to pass carcasses of animals, which they might have eaten to their fill, but they would not touch flesh; their object seeming to be that of biting. The Canadians swear that these are mad wolves, and are much afraid of them. [Coues 1897, pp. 90/112/133]

John Tanner about the same time was troubled by wolves:

> In the ensuing fall when we went to our hunting grounds, the wolves were unusually numerous and troublesome. They attacked and killed my horse, and several of my dogs. One day, when I had killed a moose, and gone with all my family to bring in the meat, I found on my return, the wolves had pulled down my lodge, carried off many skins, carrying-straps, and, in fine, whatever articles of skin, or other they could come at. I killed great numbers, but they still continued to trouble me.... [Tanner 1830, p. 171]

Palliser in his travels in the late 1850's was troubled by wolves, as was the Red River Settlement. Wolves were the cause of serious destruction to hogs, calves, and sheep. They even killed full-grown cattle and horses about the colony [Ross 1856]. Despite a campaign of trapping, hunting, poisoning, and bounties they continued to be numerous and a threat to the livestock at Red River. Alexander Ross places the blame for their numbers at the settlement on the buffalo hunts. "At every trip, the carts on their return are followed by a train of these unwelcome visitors." [Ross 1856, p. 16]

The Earl of Southesk, however, saw the wolf in a different light. Not having to live with them for any time, he was able to appreciate their presence on the landscape. He considered the howling of the wolves "doleful music" and, although he may be referring to coyotes, describes it thus:

> The little wolves kept up a chorus all night long, beginning each fresh strain with mewing whines, like a family of peevish kittens, then bursting into tremulous, melancholy howls. The effect was very pleasing; it harmonized so well with the savage lonliness of the scene, that I should have been sorry to miss this wild, wolfish music. [Southesk 1969, p. 70]

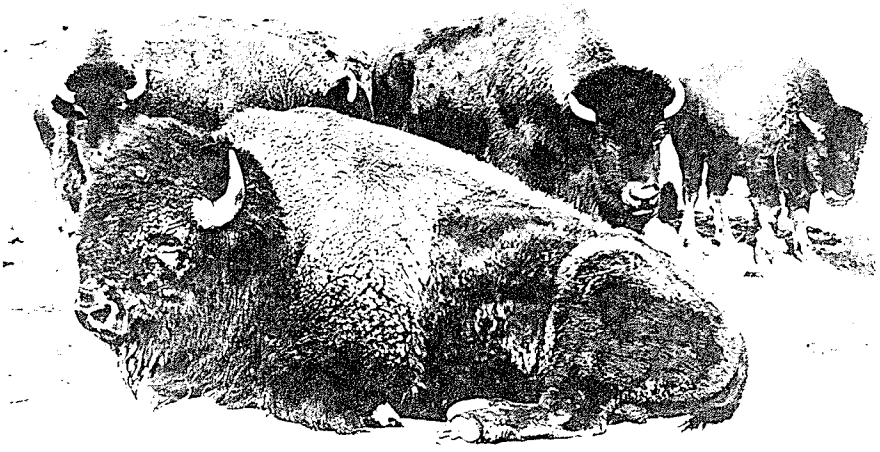
Not only were larger mammals evident, but fur bearers and rodents were numerous as well, as they still are. Henry mentions raccoon, otter, beaver, muskrat, fox, fisher, and a host of other creatures. Mice were also fairly evident in Henry's time, in Ross's time in the Red River Settlement, and today.

> We are plagued by great numbers of mice, which destroy almost everything but metals; our strouds and blankets are nearly all damaged, and they even carry off our beads. At night we see them running in droves over the floor; they are not shy in the least. They often awake us by scampering over our faces and playing in our beds. [Coues 1897, p. 135]

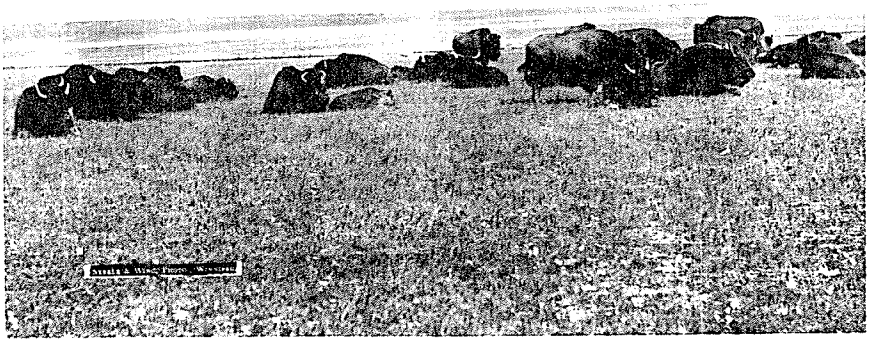
> During the autumn of this year, the colony became infested with a new enemy, hitherto unnoticed. The mice, like the grasshoppers, devoured everything; the grain after being stacked, was almost totally destroyed by them. The straw, the very stubble itself, was cut to atoms; the fields, the woods, and the plains, seemed literally alive with the new and troublesome visitors, whose appearance threatened the settlement with another great calamity. [Ross 1856, p. 97]

The plain and parkland of the Red River valley in 1800 must have rivalled the landscapes of the African savannahs of this century in terms of the visual impact of the mammals living and dying upon it. The mammals

were a part of the landscape and exerted their influences upon the land and upon the other creatures, plants, and man who lived with them. This vast symbiosis in 1800 was in a relative state of balance, by 1810 this balance was upset and the landscape was on the road to irrevocable change.



7. Buffalo c. 1890
[Manitoba Archives - Steele and Wing Photographers]



8. Last of the Manitoba buffalo, 1888
[Manitoba Archives - Steele and Wing Photographers]

The Birds

Although not having the visual impact of the mammals on the plain, bird life was still very evident in the Red River valley in 1800. The journals of the traders and travellers are full of descriptions of bird life, especially those species which provided sport and food. Alexander Henry found ducks and geese numerous in the marshes at the mouth of the Red River, and pelicans in great abundance at Sault à la Biche (St. Andrews Rapids) and at the Forks. "Pigeons were in great numbers; the trees were every moment covered with them, and the continual firing of our people did not appear to diminish their numbers" [Coues 1897, p. 46]. Further down the valley he found "two small lakes, which were covered with swans, geese and ducks of various kinds; white and grey cranes were also numerous" [Coues 1897, p. 84]. In other areas of his narrative he mentions:

> Great numbers of swans were passing S. - almost one continuous flock the whole day; I was astonished to see so many [p. 154]... Bald eagles we have seen the whole winter, but now they are numerous, feeding on the buffalo carcasses. [Coues 1897, p. 172]

Some of these images we can still see today although the pigeons have been lost forever, the bald eagles and swans are greatly diminished, and the whooping (white) crane is almost extinct. We can get glimpses as to what happened to the birds by looking at the journals of the residents of Red River or the travellers to the country.

Hind was fairly observant of bird life in his travels. One day he mentions "grey cranes, duck, and plover were very numerous on the marshy areas," he goes on to mention the yellow-headed blackbird, cliff swallow, rice birds, bittern, grackles, ducks, cinnamon thrush, "but most common of

all was the tyrant flycatcher." Later he noticed "pigeons were flying in vast numbers across the Assiniboine, and the blacktern... was numerous in the prairies near the settlement" [Hind 1860, Vol. 1, pp. 279-283].

Pigeons apparently were a common problem at Red River as Ross notes:

> Every spring, we may observe, myriads of blackbirds and wild pigeons pass the colony in their migration to the north, and return again on their way to the south, during the time of harvest, and that in such clouds as to threaten the little patches of grain with total destruction, more particularly in years when there are no berries. On these occasions, bird-nets, guns, and scare-crows, are all in active operation, and also, men, women, and children going constantly about their little parterres, from morning till night, and yet all often proves ineffectual to repel the formidable enemy. Fortunately, however, this evil is diminishing every year. [Ross 1856, p. 24]

Hind also describes the use of nets, baited with grain, and stuffed pigeon decoys which "sometimes succeeded in trapping a score or more of pigeons in one fall" [Hind 1860, Vol. 1, p. 278]. Pigeons were obviously extremely numerous. John Palliser mentions "small flocks of wild pigeons also continually passed over our heads, and afforded us excellent sport." Sport appeared to be the common thread of most mentions of birds in the journals. Palliser goes on to say:

> Our course during the early part of the day was through some splendid meadows of natural hay, and many mowers were busily engaged cutting and saving it. We also saw some newly built houses. At 1:15 p.m. we stopped for dinner at a lake which has been, at one time, a bend of the river, but which is now converted into a lagoon; found ducks very plentiful, and killed nine brace for dinner. While here, we shot a brace of woodcocks in some alders which skirt the lake. This bird, although very common in Canada, is said to be only a rare visitor in this quarter.
>
> We got pretty good shooting at coveys of pheasants, as they are called here, although in reality they are the shart-tailed grouse of Richardson, and are also called prairie hens. [Palliser 1863, pp. 38/39]

The sharp-tailed grouse is still common today, but certainly not in

the numbers it used to be. In travelling on the road to St. Paul in 1865, Joseph Hargrave says:

> Numerous prairie chickens flew about our tracks, some of which we shot and used for food. The quantity of game on the prairie is so great that an ordinary expert traveller may provision his party with his gun as he goes along. [Hargrave 1977, p. 380]

Where bird life got in the way of the settler it was eradicated. Where birds were easy to shoot, but their reproductive capacities could not keep up with the destruction, their numbers were sharply reduced. The attitude to nature on the plains during the days of settlement is exemplified by the previous quotes. One of the best passages, perhaps, to illustrate this attitude is that of J. C. Hamilton, a Toronto lawyer, who journeyed to Red River in the 1870's. His rather poetic journal contains a passage about his steamboat journey up the Red River at that time.

> Hard indeed was it at once to realize the vastness of the prairie - a sea of waving grass extending from us to the Missouri - measured by miles not acres, coursed through by numerous rivers, of which the Red River of the North with its tributaries is but one, for ages the home of the red man and the bison; its soil enriched and enriching year by year with the ashes of the prairie grass; its verdant outskirts only yet touched by civilization, destined to be the happy home of millions of the Saxon race. As we run over it, coveys of prairie chickens start up or run chirping to the parent birds. Our feet scatter the little mounds of the gophers or ground squirrels; but the air is hot as it sweeps over the broad level, and we return to the bushes that skirt the river, to be thence soon escorted to the boat's deck by a lively band of mosquitoes.
>
> On board again, we lie in wait for the chance hawk or pair of ducks, which we pop at with revolvers. [Hamilton 1876, pp. 20-21]

The Lower Vertebrates

Little mention is made of the reptiles and amphibians by the early chroniclers although these creatures obviously were present on the landscape. Henry talks of the snakes inhabiting the graves of the Cree settlement wiped out by smallpox at the Forks [Ross 1897] and the croaking of the frogs is alluded to by others. The reptiles and amphibians were rarely eaten, not often seen, not hunted for sport, and therefore essentially ignored by the journalists.

The fish of the lakes and rivers were not ignored, however. The number of fish teeming in the waters of the Red River must have been truly remarkable. Henry finds Indians fishing almost everywhere he goes and his men certainly enjoyed the sport. On his arrival at Red River he describes the resources of the river:

> Sunday, Aug. 17th... At three o'clock we arrived at the entrance of Red river... We found some Indians, who had many sturgeon and various kinds of small fishes, such as catfish, piccanan, male achegan, brim, pois d'oèle, etc... We proceeded to the foot of the Sault à la Biche where we encamped. All hands were soon busy with the hook and line; they caught a great many lacaishe, a small fish about a foot long, with some catfish, pike, pois d'once, and male achegan.
>
> Aug. 18th... Pelicans are very numerous in this rapid, attracted, as I suppose, to the shoals of fish which frequent it... we arrived at the Forks...
>
> Aug. 19th... Our people found amusement in fishing with hook and line, and were well recompensed for their trouble, as they took a great many of different kinds.
>
> Aug. 20th... I embarked and proceeded about six miles... My men caught upward of 300 lacaishe and some catfish. [Coues 1897, pp. 40-48]

While camped at the mouth of the Sale River he says, "My men caught upward of 200 lacaishe and about 30 catfish... Many sturgeons were jumping night and day" [Coues 1897, p. 57]. At Pembina River he states "we take from 10 to 20 sturgeon per day; one weighed 145 pounds." He later mentions taking "sturgeon in abundance in our nets... In the course of 24 hours we caught in one net 120 sturgeon, weighing 60 to 150 lbs. each." [Coues 1897, pp. 242/429]

At Lake Manitoba Henry finds one of the traders, Desjarlaix, fishing:

> He takes daily a number of fine large whitefish in his nets. This fishery is abundant the whole year, but more particularly in the autumn, when almost any number may be caught; they generally weigh from 12 to 20 pounds. [Coues 1897, p. 237]

Henry's people lived on fish a great deal, sometimes having trouble adjusting from a winter diet of meat to a summer one of oily sturgeon. This reliance on the fish resources of the Valley's rivers and lakes continued although at some loss to the resources. In 1870 there appeared to be little loss in the numbers of some species, but a substantial change in the abundance of sturgeon, as Joseph Hargrave notes:

> The autumn fisheries of the settlement supply it usually with a copious source of food. They take place in autumn from the neighbouring lakes of Winnipeg and Manitoba. These lakes abound in fish of various kinds, chiefly whitefish and sturgeon... During summer the Red River and Assiniboine abound with the species of fish known as 'gold eyes' and 'cat fish', and occasionally yield a few sturgeon. [Hargrave 1977, p. 177]

The Invertebrates

The insects of the prairie and woods of Red River were the cause of some of the most derogatory comments about the landscape by early travellers as well as some of the most beautiful written images. Anyone who ventures out of doors on a warm sultry day in the summer or who wanders through an oak and aspen bluff in the spring knows the ire of the female mosquito and the wanton craving for blood of the wood tick. Modern man has repellents, screen doors, pesticides, and yet we continue to be plagued. The wretchedness of travel in the undrained wet meadows and along the rivers of the valley in the early days must have been considerable.

Henry's journal is full of references to the mosquito: being "tormented by mosquitoes," "plagued by mosquitoes," "troubled with mosquitoes," and this in the course of three days during a drought. He also mentions:

> We have been plagued with wood ticks, and now that we are daily in the woods and grass, our clothes swarm with those troublesome and dangerous insects, which often get into the ear and cause inflammation. [Coues 1897, p. 180]

The journals of later travellers are also full of references to troublesome insects. John Palliser describes the problems of camping on the plain:

> The spot in which our men had chosen abounded in excellent grass for the horses, but the myraids of musquitoes and flies quite prevented their feeding or resting, until we were obliged to light fires, supplied with green wood, in the dense smoke of which they instinctively sought refuge from their tormentors.
>
> ... Since the shower, millions of insects have infested our tents. The interior of the canvas is literally black with musquitoes, and if we could preserve the many species of moths which our candles have

attracted we should have a large collection. Travelling here is more like passing through a tropical country, so numerous and plentiful is insect life. [Palliser 1863, pp. 38, 39]

Alexander Ross, however, describes best the torments of the insects in the Red River Valley:

> The summer picture of this colony is truly delightful and enchanting... For this pleasure, indeed, the traveller must sometimes pay dearly; for should he deviate ever so little from the public road, or saunter from the path, he is beset and tormented with the blood-thirsty musquetoes, rising in clouds at every step; surely the most unconquerable and fiercest people on earth, for though you kill a million, and but one remain alive, the fearless enemy never retreats, but advances either to conquer or die. In July also, the horse-fly - called in Red River, bull-dog - are very numerous, and annoying to cattle in particular. In August, both musquetoes and bull-dogs disappear; and then the black house-fly takes their place, filling the dwelling-houses with their swarms, till the month of October, or the cold, removes them. Picture-frames, windows, tables, victuals, are not here the only objects of attack, but the owner's face and hands suffer also; while his ears are stunned with the perpetual hum, which can only be compared to the buzz of a disturbed bee-hive. These unwelcome visitors are destructive of all peace and comfort, whether sleeping or waking, during their continuance in the colony. [Ross 1856, pp. 189-190]

Insects continue to be a bother but not to such an extent as in the past, only because we are able to protect ourselves. One plague, however, which has been eradicated for the present is that of the locust, which often destroyed the vegetation of the valley and transformed the landscape. Henry describes their descent and provides hints of the awesome destruction they were to later cause at the Red River Settlement.

> June 25th, 1808... Swarms of grasshoppers have destroyed the greater part of the vegetables in my kitchen garden - onions, cabbages, melons, cucumbers, carrots, parsnips, and beets. They also attacked the potatoes and corn, but these were strong enough at the root to sprout again. The swarms appear about the 15th of June, generally in clouds from the S., and spread destruction, the very trees are stripped of their leaves. Grasshoppers pass northward until millions are drowned in Lake Winipic and cause a horrid stench, as I have already observed [Aug. 17th, 1800]. They do not make such a formidible appearance every year. [pp. 430-431]

> Aug. 17th, 1800... The beach was covered with grasshoppers, which had been thrown up by the waves and formed one continuous line as far as the eye could reach; in some places they lay from six to nine inches deep, and in a state of putrefaction, which occasioned a horrid stench. [Coues 1897, p. 39]

Such outbreaks occurred fairly frequently. Joseph Hargrave mentions plagues of such creatures in 1818-19, 1857-58, and 1864-68. Alexander Ross describes the 1818 visitation where "crops, gardens, and every green herb in the settlement had perished, with the exception of a few ears of the barley, half ripe, gleaned in the women's aprons" [Ross 1856, p. 48]. As was usual after the first visitation, the following year brought:

> The countless swarms were produced in the ground itself, where their larva had been deposited. As early as the latter end of June, the fields were overrun by this sickening and destructive plague; nay; they were produced in masses, two, three, and in places, near water, four inches deep. The water was poisoned with them. Along the riverthey were to be found in heaps, like sea-weed, and might be shovelled with a spade. It is impossible to describe, adequately, the desolation this caused. Every vegetable substance was either eaten up or stripped to the bare stalk; the leaves of the bushes, and the bark of the trees, shared the same fate; and the grain vanished as fast as it appeared above ground, leaving no hope either of "seed to the sower, or bread to the eater". Even fires, if kindled out of doors, were immediately extinguished by them, and the decomposition of their bodies when dead, was still more offensive than their presence when alive. [Ross 1856, pp. 49-50]

Their ability to consume is attested to by Henry Youle Hind:

> ...the grasshoppers were in countless numbers, and so voracious as to attack and destroy every article of clothing left for a few minutes on the grass. Saddles, girths, leather bags, and clothing of every description was devoured without destinction. Ten minutes sufficed them, as our half-breeds found to their cost, to destroy three pairs of woolen trousers, which had been carelessly thrown on the grass. The only way to protect our property from the depredators was to pile it on the waggons and carts out of reach. [Hind 1860, Vol. 1, p. 288]

Such vivid descriptions of the destruction by these swarms are remarkable. Even more so are the terrifying yet beautiful images of these

outbreaks captured in the writings of the early travellers to the plains. The landscape of the plain was transformed. John Palliser describes the phenomenon:

> Along with this wind came what seemed at first to be a low cloud of brownish black colour, but soon we discovered it by aid of a telescope to consist of myraids of grasshoppers. A breeze springing up from the east met this cloud, and suddenly the insects began to fall as thickly as snow. They soon covered the ground, giving everything a greyish aspect from the colour of their bodies. When we started the fall of grasshoppers was still continuing, though to a less amount, but still sufficient to cause us much discomfort from the blows they gave us on the face, as they came down with great rapidity before the wind. [Palliser 1863, p. 42]

It is Hind's description, however, that hauntingly beautiful image of the grasshoppers on the landscape, which brings up the question as to whether all the destruction caused by these creatures is not worth the vision of their flights.

> On the 2nd of July we observed the grasshoppers in full flight towards the north, the air as far as the eye could penetrate appeared to be filled with them. They commenced their flight about nine in the morning, and continued until half-past three or four o'clock in the afternoon. About that hour they settled around us in countless multitudes, and immediately clung to the leaves of grass and rested after their journey. On subsequent days... the hosts of grasshoppers were beyond all calculation; they appeared to be infinite in number. Early in the morning they fed upon the prairie grass, being always found most numerous in low, wet places where the grass was long. As soon as the sun had evaporated the dew, they took short flights, and as the hour of nine approached, cloud after cloud would rise from the prairie and pursue their flight in the direction of the wind, which was generally S.S.W. The number in the air seemed to be greatest about noon, and at times they appeared in such infinite swarms as to lessen perceptibly the light of the sun. The whole horizon wore an unearthly ashen hue from the light reflected by their transparent wings. The air was filled as with flakes of snow, and time after time clouds of these insects forming a dense body casting a glimmering silvery light, flew swiftly towards the north-north-east, at altitudes varying from 500 to 1000 feet and upwards.
>
> Lying on my back and looking upwards as near to the sun as the light would permit, I saw the sky continually changing colour from

blue to silver white, ash grey and lead colour, according to the numbers in the passing clouds of insects. Opposite to the sun the prevailing hue was a silver white, perceptibly flashing. On one occasion the whole heavens towards the south-east and west appeared to radiate a soft grey tinted light with a quivering motion, and the day being calm, the hum produced by the vibration of so many millions of wings was quite indescribable, and more resembled the noise popularly termed "a ringing in one's ears," than any other sound. The aspect of the heavens during the greatest flight we observed was singularly striking. It produced a feeling of uneasiness, amazement and awe in our minds, as if some terrible, unforseen calamity were about to happen. It recalled more vividly than words could express the devastating ravages of the Egyptian scourges, as it seemed to bring us face to face with one of the most striking and wonderful exhibitions of Almighty power in the creation and sustenance of this infinite army of insects.

In the evening, when the grasshoppers were resting from their long journeys, or in the morning, when feeding on the grass leaves, they rose in clouds around us as we marched through the prairie; if a strong wind blew they became very troublesome, flying with force against our faces, in the nostrils and eyes of the horses, and filling every crevice in the carts. But fortunately, comparatively few flew on a windy day, otherwise it would have been almost impossible to have made headway against such an infinite host in rapid motion before the wind, although composed individually of such insignficant members.

Those portions of the prairie which had been visited by the grasshoppers wore a curious appearance; the grass was cut uniformly to one inch from the ground, and the whole surface was covered with the small, round, green exuviae of these destructive invaders. [Hind 1860, Vol. 1, pp. 296-298]

The beauty of the landscape was visible in many ways, whether in the grand workings of the grasshopper swarms or in the gentle movements of the less obtrusive creatures, where myth heightened the appreciation of all things, even the insects.

The sheet lightning continued playing in the northern sky, while the fire-fly, with its feeble efforts, lit up the surrounding coppice. This little insect is an object of superstitious veneration with all the tribes of North America that we have seen. They regard them as the spirits of their departed friends holding their great feast on the plain, when the nights are quiet and warm, and the buffalo are in the best condition. [Palliser 1863, p. 86]

THE MAN-INFLUENCED LANDSCAPE

The landscape of southern Manitoba, as has been seen, was exceedingly rich in both faunal and floral resources. As Henry states: "This is a delightful country, and were it not for perpetual wars, the natives might be the happiest people upon earth." [Coues 1897, p.99]. Certainly the area supported fairly large numbers of people at times, as shall be seen.

Man arrived in North America some time between 12,000 and 60,000 years ago, probably between 28,000 and 35,000 years ago [Wrigley 1979]. It can be assumed that man entered southern Manitoba on the retreat of the Wisconsinan glaciation and lived along the shores of Lake Agassiz, which were dominated by grasslands from about 10,000 years B.P. [McAndrews 1967]. Here he must have survived by gathering and hunting such creatures as the mammoth, mastodon, giant beaver, camel, horse, bear, shrub ox, and woodland musk-ox, as well as four bison species. About 8,000 years B.P. most of these creatures had disappeared due to pressure from man [Lammers 1976], from habitat and climatic fluctuations, and from competition from other species [Wrigley 1979]. A severe drought between 7,500 and 5,000 years B.P., at the time Lake Agassiz was retreating to its present refuges in Lake Winnipeg and Lake Manitoba, was also believed to have sharply reduced animal and human populations on the plain [Gryba 1980].

The Red River region could have been inhabited between 7,000 and 5,000 years B.P. when the present prairie plant communities established themselves in the valley [Gryba 1980]. However, the earliest Plains Archaic sites which have been found presently date to about 5,000 years B.P. [Gryba 1980]. From this date, a similar native lifestyle to what

the explorers found upon their arrival would have begun to develop. Animal resources would have stabilized along with the vegetation. Fish resources, wiped away by glaciation to a large extent, were replaced by species moving up the glacial meltwater channels of Lake Agassiz from the south and east [Lindsay 1978].

The Hunting, Gathering, Trading, and Warfare Tradition

By about 1,000 A.D. the utilization of the landscape of the Red River area had developed into well-defined patterns. The Selkirk peoples (possibly Cree) had large seasonal fishing camps, used knotless dip nets as well as gill nets, and depended on clams, wild fruits and seeds. They broke into smaller bands and utilized the boreal forest and the parkland area [Mayer-Oakes 1967]. The Blackduck or Manitoba peoples (Assiniboine) [Hlady 1964] depended upon fish, fowl, and clams in their parkland and woodland component, but also used the fauna of the grassland. They collected in fairly large camps for fishing and hunting [Mayer-Oakes 1967]. These adaptive strategies parallel those of the historic Cree and Assiniboine, where both met on the parkland in the winter. In the summer the Assiniboine utilized the plain while the Cree retreated to the woodland for fishing and hunting [Syms 1980, Pettipas 1980].

The first traders in the Red River Valley who documented their observations of the resident peoples were the French, trading out of New France under the leadership of Pierre Gaultier de Varennes, Sieur de La Vérendrye. He and his sons first established a post in the valley near the mouth of the Red River in 1833, the post being named Fort Maurepas [Burpee 1927]. The people they encountered living on or about the Red River at that time were the Assiniboine or Stoney Indians. The Cree remained to the north and east of the Red River, living in the boreal forest during the summers, moving into the parkland in the winter. Both the Cree and Assiniboine were hunters, gatherers, fishermen, traders and warriors, and their exploitation of the fruits of the landscape followed

seasonal cycles, as did their wanderings. From archaeological evidence it appears that prior to white contact these seasonal patterns had been fairly well established and that certain bands probably exploited the resources of several ecological zones [Ray 1974].

The Assiniboine year, during La Vérendrye's stay, consisted of gathering in small groups in the sheltered parkland region to the east of the Red River in the winter. Here the population of moose was apparently quite high, and the bison and elk frequented the woods to seek shelter. The Indians also hunted fur bearing animals at this time of year when they were in prime and made expeditions to more distant areas, the wooded valleys of the escarpment for instance. In the spring or early summer, after gathering at favoured fishing areas and establishing their families, the warriors went south and east to make war on the Sioux. Fishing was generally very successful, nets and weirs being used, and, as the fish of the rivers and lakes were very plentiful, there was no fear of starving while the young men were absent. Upon the warriors' return the entire camp moved south to trade with the tribes on the Missouri River. La Vérendrye describes this trade, the Assiniboine intending

> a stay to be made with the Mandan, who knew well how the profit by it in selling their grains, tobacco, skins, and coloured plumes which they know the Assiniboine prize highly. The latter brought them in exchange guns, axes, kettles, powder, bullets, knives, awls. The Mandan are much more crafty than the Assiniboine in their commerce and in everything, and always dupe them. [Burpee 1927, p. 323]

On their return in the fall they would frequent the edge of the parkland to hunt, trap, and gather rice. This was not necessarily a strict routine as mass buffalo hunts were carried out at times in the

summer and trading expeditions to Hudson Bay had been made in the spring and summer as well. This changed to some extent with the arrival of the French, as La Vérendrye notes:

> Provided there are Frenchman on the road they travel the savages will not go to the English, whom they do not like and even despise, saying that they are not men like the French and that they are afraid of them, only allowing a few of their old men to enter their fort; the French they say are very different as they fear nothing and are kindly. [Burpee 1927, p. 98]

Such traditional pursuits had changed little by about 1800 when Alexander Henry the Younger, John McDonnell, and John Tanner were living in the Red River Valley, although the Saulteaux and Ottawa Ojibway had displaced the Assiniboine and the Cree [Coues 1897]. Tanner mentions that about 1790:

> After a few days, we started up the Red River, and in two days came to the mouth of the Assiniboine, where we found great numbers of Ojibeways and Ottawwaws encamped....the Ottawwaws who had come from Lake Huron several years before. [Tanner 1830, pp. 30/34]

In 1800 the upper reaches of the Red River as far north as the Sale River was a no man's land due to the wars being carried on between the Sioux to the south and the Cree, Assiniboine, and newly arrived Saulteaux to the north, and therefore had become somewhat of a game refuge [Ray 1974]. The Assiniboine had abandoned the lower parts of the Red River where La Vérendrye had encountered them in 1736, and now lived on the plain and in the parkland region along the river which bears their name, as far west as present-day Alberta [Coues 1897]. The Cree, who had lost their role as middlemen in the fur trade due to traders moving directly into the area after 1863, disdained such work as trapping. When provisioning the trading posts became more important, the Western Cree abandoned their lands to better exploit the bison in the parklands to the west and north.

To some extent, however, the Cree in the area still felt the Red River Valley to be their own when Selkirk, in 1813, negotiated with the natives of the area to secure lands for his settlement. Alexander Ross in his history of the Red River Settlement states that the Cree claimed the Red River region and that the Saulteaux were newcomers who had made their way into the area after 1780 [Ross 1856]. This abandonment may have been further precipitated by smallpox which, in 1781-82, ravaged and killed nearly an entire camp of Cree, some 230 lodges at the confluence of the Red and Assiniboine Rivers. The burial mound at the junction of the rivers became a place of bad medicine for many years for the native population [Ewers 1961, Coues 1897].

Alexander Henry the Younger, on the return of the Red River Brigade in 1800, was advised by the Saulteaux:

> To be on my guard against the Sioux, who they said we had every reason to suppose would fall upon us before many days, as they had been at war during the past summer on the upper part of this river (the Red) and had found the vestiges of the Sioux camp. They were certainly in a state of great alarm when we arrived at the Forks. [Coues 1897, p. 55]

Tanner bears this out:

> The mouth of the Assiniboine is a place much frequented by the Sioux war-parties, where they lie concealed and fire upon such as are passing. [Tanner 1830, p. 39]

It appears, however, that the northern reaches of the Red River Valley were fairly safe from the Sioux after 1800 despite the fears expressed to Henry. The last scourge of the Sioux appears to have occurred about 1790 at Rivière aux Morts (now Netley Creek).

> Here a large camp of Assiniboils, Crees and Sauteux were massacred by the Sioux or Naudawesis, the most powerful nation in all

the interior country. Ever since this slaughter, the river has been called with propriety, Rivière aux morts. [McDonnell 1889, p. 268]

The southern reaches of the Red River, however, remained a no man's land, "it being a warlike route between the Sauteux and their enemies the Sioux, who are ever at variance" [McDonnell 1889, p. 269].

The lower part of the Red River valley and the surrounding area appears to have been utilized in much the same manner that La Vérendrye described although it was now the Ojibway who lived there. The Indians of the valley appear to have been more heavily dependent upon the trading post, however. John Tanner, who was raised by the Ojibway and, during his years in southern Manitoba, lived as an Ojibway, needed an advance from the posts on a number of occasions so that he and his family could survive the winter. The blanket had replaced animal skins in terms of clothing, the gun had replaced the bow and arrow for warfare and largely for hunting, the kettle had replaced the birch-bark basket for boiling water and cooking, and tea, tobacco, and alcohol had become more important to the people than, at times, life itself.

Trade had become a means of survival for these peoples, rather than just a way to obtain luxuries. Trade meant the further exploitation of the valley's resources with the very effective methods of harvesting introduced by the fur trade, the steel trap and the gun. The pelts of the fur-bearers and the meat of the buffalo were what the Indians needed, and these they obtained in order to trade for what they had come to rely on as necessities.

With the arrival of the Saulteaux and Ottawa, who were encouraged into the area by the traders to trap since the Assiniboine and Cree

preferred hunting and trading as middlemen and thus had begun a migration west, the valley's rich faunal resources began to be tapped again after 1800. Tanner describes several instances of such activity.

> I went with a large party of Indians to some of the upper branches of the Red River to hunt beaver. I know not whether it was that we were emboldened by the promise of the profit, that we should be invisible to the Sioux, but we went much nearer than we had formerly ventured to their country. It was here, in a border region, where both they and ourselves had been afraid to hunt, that we now found beaver in the greatest abundence. Here, without the aid of my gun, I took one hundred large beavers in a single month, by trapping merely....
>
> When I ascertained that it would be some time before Mr. Hanie would arrive, I went down to Dead River, and while I was waiting there, killed four hundred muskrats. [Tanner 1830, p.p. 148/176]

Such exploitation of the fur-bearing resources quickly depleted what had been a vast store of available animals. Henry observes of the Rat River as he passed its mouth in 1800, "A few years ago, beavers were plenty on the upper part of these forks, but now they are nearly destroyed" [Coues 1897, p. 61]. Thompson further describes the process:

> The Nipissings, the Algonquins and Iroquois Indians, having exhausted their own countries, now spread themselves over these countries, and as they destroyed the beaver, moved forwards to the northward and westward; the Natives, the Nahathaways, did not in the least molest them; the Chippaways and other tribes made use of traps of steel; and of the Castorum. For several years all these Indians were rich, the Women and Children, as well as the Men, were covered with silver brooches, Ear Rings, Wampum Beads and other trinkets. Their mantles were of fire scarlet cloth, and all was finery and dress. The Canoes of the Fur Traders were loaded with packs of Beaver, the abundance of the article lowered the London prices. Every intelligent man saw the poverty that would follow the destruction of the Beaver, but there were no Chiefs to controul it; all was perfect liberty and equality. Four years afterwards [1797] almost the whole of these extensive countries were denuded of Beaver, the Natives became poor, and with difficulty procured the first necessaries of life, and in this state remain, and probably forever. A worn out field may be manured, and again made fertile; but the

> Beaver, once destroyed cannot be replaced: they were the gold coin of the country, with which the necessaries of life were purchased. [Tyrrel 1916, p. 205]

With this disastrous overuse of the resource base, coupled with disease which Tanner says caused great destruction among the beaver [Tanner 1830], the Red River Valley soon became useful only as a provisioning base for the harvest of the fur trade's last frontier, the Athabaska country. The Indians of the valley were forced into the role of buffalo hunters as provisioning became more important, or they turned to agriculture and the more traditional pursuits of rice gathering, sugar making, berry gathering, and fishing in order to obtain trade goods.

Such traditional pursuits were highly effective in food gathering. The resources of the valley were extremely rich, and harvesting techniques easily gathered these riches with a minimum of tools. Perhaps the most permanent or lasting indication of man on the landscape was his buffalo surrounds, pounds or parks, as many areas are identified as such by the circular fences remaining after the slaughter had occurred. Henry's first Red River post was on the Park River for instance. The Assiniboine, according to Henry in 1809,

> are the most expert and dexterous nation of the plains in constructing pounds and driving buffalo into them. The pounds are of different dimensions, according to the number of tents in one camp. The common size is from 60 to 100 paces or yards in circumference, and about five feet in height. Trees are cut down, laid upon one another, and interwoven with branches and green twigs; small openings are left to admit the dogs to feed upon the carcasses of the bulls which are generally left as useless. This enclosure is commonly made between two hummocks, on the declivity or at the foot of rising ground. The entrance is about ten paces wide and always fronts the plains. On each side of this entrance commences a thick range of fascines, the two ranges spreading asunder as they extend, to the distance of 100 yards, beyond which openings are left at intervals; but the fascines soon become more thinly planted, and continue to

> spread apart to the right and left, until each range has been extended about 300 yards from the pound. The labour is then diminished by only placing at intervals three or four cross-sticks, in imitation of a dog or other animal (sometimes called "dead men"); these extend on the plain for about two miles, and double rows of them are planted in several other directions to a still greater distance. [Coues 1897, p. 518]

Although Henry goes on to describe the actual taking of buffalo, Hind in 1858 provides a more vivid picture of the results of harvesting game in a pound during his visit to a Cree camp in Saskatchewan:

> With a ready compliance I accompanied the guide to a little valley between sand hills, through a lane of branches of trees, which are called "dead men" to the gate or trap of the pound. A sight most horrible and disgusting broke upon us as we ascended a small dune overhanging the little dell in which the pound was built. Within a circular fence 120 feet broad, constructed of the trunks of trees, laced with withes together, and braced by outside supports, lay tossed in every conceivable position over two hundred dead buffalo. From old bulls to calves of three months old, animals of every age were huddled together in all the forced attitudes of violent death. Some lay on their backs, with eyes starting from their heads, and tongue thrust out through clotted gore. Others were impaled on the horns of the old and strong bulls. Others again, which had been tossed, were lying with broken backs two or three deep. One little calf hung suspended on the horns of a bull which had impaled it in the wild race round and round the pound.
>
> The Indians looked upon the dreadful and sickening scene with evident delight, and told how such and such a bull or cow exhibited feats of wonderful strength in the death-struggle. The flesh of many of the cows had been taken from them, and was drying in the sun on stages near the tents. It is needless to say that the odour was overpowering, and millions of large blue flesh flies, humming and buzzing over the putrefying bodies was not the least disgusting part of the spectacle. [Hind 1860, pp. 356-57]

Thus, gathering of game, despite a certain amount of work involved initially in pound construction and a fairly careful ritual to drive the game into the pound, was usually easy and rewarding. Pounds were also used to capture and kill antelope on the plain. This type of trapping and killing appears to have developed over centuries of living on the edge of

the plain, its methods passed on from tribe to tribe as each emerged from the woodlands to the north and east. James Bird, for instance, mentions in his journals of 1795 that some "Bungees" or Plains Ojibway built a buffalo pound in January in the parklands to the south of the Swan River country, so that while at war with the Gros Ventres their families would have sufficient food for survival [Ray 1974]. The buffalo pound to the Ojibway, Cree, and Assiniboine of the forest edge became a winter meeting ground where large concentrations of people could gather, and travel to certain pounds became a yearly event.

This affinity for the parkland and plain, however, was not strong among the dominant group of Indians in the Red River Valley after 1800. Because of the abundance of fur-bearing game the Ojibway largely remained attached to the forest-type exploitation from which they emerged. The buffalo, which had formerly sustained large winter concentrations of Assiniboine in the area of the Forks, no longer frequented the area in any number by 1820 [Ray 1974]. The Ojibway were forced to continue their woodland ways, which they did with great success.

This included the hunting of the buffalo, the elk, the moose, the bear, waterfowl and upland game, and all of the other food species which the bountiful landscape could provide. As the horse was traded into the valley, however, hunting of the buffalo from horseback was taken up by some of the Ojibway, as it had been by the Assiniboine and the Plains Cree, and they moved out into the plain. However, other traditional pursuits of food procurement continued to be practised in the Red River Valley.

Fishing was an especially important aspect of Ojibway life in southern Manitoba in 1800 as it had been to Assiniboine life in La Vérendrye's time. It allowed concentrations of people to gather during the summer into small villages which were frequented from year to year. On Henry's arrival at Red River in 1800, he

> ...found some Indians, who had many sturgeon and various kinds of fishes, such as catfish, piccanan, male achegan, brim, pois d'oile, etc. They use a seine about five fathoms in length, hauled between two canoes. We purchased some fish for liquor and proceeded up Red river..... and soon came to Rivière aux Morts.... Here was another small camp of Indians, who had plenty of fish, some dried meat, and a few beaver skins which I traded. [Coues 1897, pp. 40-41]

They were also adept at making weirs. "The Indians made a barrier in Panbian river to take sturgeon on their return down the current" [Coues 1837, p. 211]. It appears that the fish resources of the Red River allowed large Indian camps to stay in one place for some time. At St. Andrews rapids, Henry states, "The Cree and Assiniboine formerly assembled here in large camps, to await the arrival of the traders" [Coues 1897, p. 43]. Archaeological evidence at the Lockport site clearly shows that for centuries the site had been used by large groups who fed themselves largely on fish [MacNeish 1958], and it would therefore be a logical place to wait for the traders. On the Roseau River, close to the Red, Henry Youle Hind found in 1858:

> On the bank at the crossing place the skeletons of Indian wigwams and sweating houses were grouped in a prominent position, just above a fishing wier where the Ojibways of this region take large quantities of fish in the spring. The framework of a large medicine wigwam measured twenty-five feet in length by fifteen feet in breadth. [Hind 1860, Vol. 1, p. 163]

Such structures imply that a fairly leisurely, comfortable life could be enjoyed at certain times of the year and that, despite the temporary nature of Indian structures, vestiges of their presence on the landscape remained through time.

Henry describes typical lodges, those which would have been found in the Red River valley at that time in use by the Ojibway.

> Saturday, Nov. 1st. At twelve o'clock two young men came in from Bois Percé. I enquired what the Indians were doing. They told me the principal men were preparing for war, whilst the women were making mats for the winter. These mats are made with long rushes, which are laid parallel on smooth, level ground; threads of the inside bark of bois blanc, of the thickness of sturgeon twine, are then passed through each rush, and all are drawn so close together as to shed rain. They are made from 12 to 18 feet long, and 5 or 6 wide. With these mats the Saulteurs construct their winter tents and cabins. They are warm, yet airy, and far more comfortable than the birch bark covering on the leather tents of the Meadow Indians. The Saulteurs use bark for the summer only, as it makes a cooler cabin than the rush mats, and is much lighter and less bulky. [Coues 1897, p. 133]

Other transitory remains of Indian food gathering tools reminded travellers of a presence other than their own on the land. Hind, while travelling in the plain, states:

> We frequently met with a ring of sticks, placed in a circle about ten feet in diameter, to each of which a noose of sinew was attached. Our half-breeds inform us that they were snares which the Indians set to catch the prairie hens. In the spring the males congregate on dry gravelly ridges, frequenting the same spot year after year, and march round and round, with feathers erect and wings rubbing the ground as a preliminary to general combat. The Indians observe the spot where the birds congregate, and after night-fall set their snares on the edge of the ring, which the male birds have selected to try their strength, and to attest their claims to the favour of the females who are perched on the neighbouring bushes. In the battle which ensues, or during their solemn march, some of them are caught and strangled. [Hind 1860, Vol. 1, p. 160]

Such elaborate measures to harvest the bountiful resources of the Red

River region were not always necessary. In many cases, the Indians simply had to gather that which the landscape offered, as Henry implies:

> At the season when swans and other birds shed their feathers, the Indians destroy great numbers by pursuing them in canoes and killing them with sticks. Eggs of all sorts they also collect in abundance - even canoe loads. [Coues 1897, p. 291]

The beach marshes of the Red River delta are among the largest and most famous in the world for gathering and as moulting places for migratory waterfowl [Hochbaum 1967]. The Indians certainly made use of this aspect of the land.

The vegetation of the valley was also highly utilized by the Indians, offering a great variety of foods and medicines. (For a comprehensive understanding of the various native food plants in Manitoba, see Shay 1980 and Alderman 1962; for medicines, see Pettipas 1977.) According to Shay, the tall grass prairie offered five to eight food plants such as rose, goldenrod, bedstraw, sunflower; the aspen groves of the parkland provided 10 plants including nannyberry, cranberry, pincherry, chokecherry, raspberry, hazel, plum and others; the marshes provided tubers, greens, and seeds of such plants as cattail, wild rice, and arrowhead; and the river-bottom forests were rich in such food species as Manitoba maple, from which sugar was made, oak, wild grape, and a variety of other plants providing greens, roots, seeds, and nuts.

Many of these food sources were utilized during different times of the year. In the early spring a great deal of maple sugar was made by the Saulteaux, for instance. Henry bought it often in trade from the Indians and used it as a sweetener and "made a nine gallon keg of pickles having

plenty of excellent vinegar from maple sap, little inferior to that imported." [Coues 1897, p. 250] Wild rice was gathered extensively in the fall during Henry's time by the Indians, just as it is today. Fruits and berries were collected during the summer. Henry mentions throughout his journal Indians collecting rattail (cattail), hazel nuts, plums, grape, panbinas (Saskatoons), chokecherries, wild red cherries (pincherry) and eating when necessary the esquebois (wild potato) and the bois tors (climbing bittersweet). [Coues 1897].

The Red River valley, rich in both animal and vegetable resources provided abundant harvests to the people who resided there. Each area of the valley, the river-bottom forest, the tall grass prairie, the marshland and the aspen parkland offered the Indians of the region a variety of crops, and different traditions of utilization grew up among the peoples to harvest these. The land at certain times of the year was rich enough to allow warfare to be carried on with the Sioux to the south but at other times the land held back her gifts.

Despite what appears to be an extremely bountiful land, life could be very difficult. Due to the seasonal aspects of the resource harvest, the lack of adequate facilities for long-term food storage, and the vagaries of animal movement, climate and natural crops, the Indians of the Red River Valley could be feasting in one season and starving in the next. Henry mentions one or several of the posts at certain times being without food or the Indians starving.

> No news from Assiniboine river, expect that they are starving at Portage la Prairie, and exist only on esquebois [Psoralea esculenta], a root about the thickness and length of a man's finger, which may be

> termed the wild potato or pomme de terre of this country; it has a thin skin of a yellowish colour, the inside perfectly white, and when boiled is tolerably good eating. [Coues 1897, p. 183]

Sometimes, however, not even the wild potato was available to the people and many often died, especially in winter.

Henry sums up life on the prairie and in the parkland at that time by saying, "Although I killed enough provisions yesterday to last us a month, to-day we are without a mouthful, so very improvident are people in this country." [Coues 1897, p. 114]

This fear of starvation was apparently not a new or recent fear among the Indians who came into the Red River area. Both the Cree and the Saulteaux had legends of the wendigo ("wetiko" and other spellings), a creature which, once human, had become somewhat evilly supernatural through its consumption of human flesh. Ahenakew describes the creation of such creatures, as told by Old Keyam, the Cree elder he created in Voices of the Plains Cree:

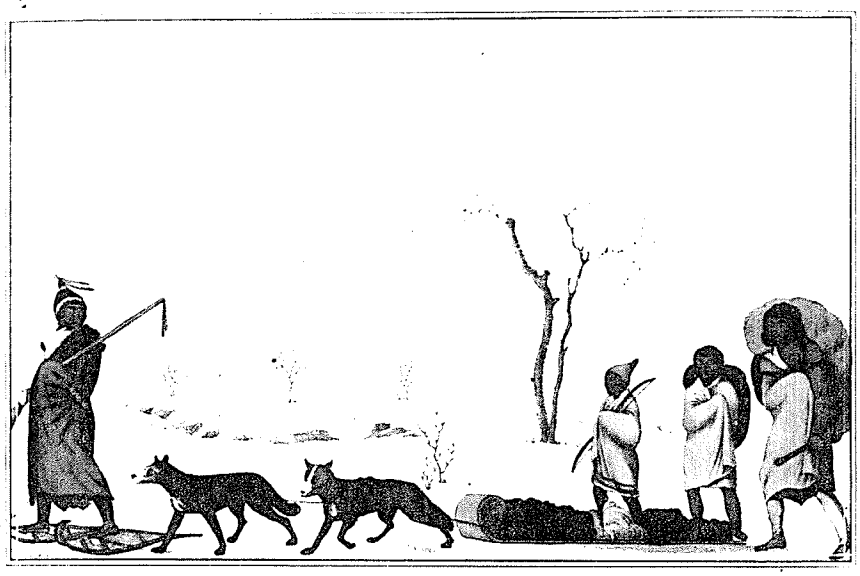
> There seems little doubt that We-ti-kos, or cannibals, have existed - especially in the forest areas where people live in small groups. There would be seasons when game became scarce, when rabbits would disappear, when larger animals left no tracks - when, as the people believed, someone who hated them had enough spirit power to bring a curse upon them, and they would starve. Then one of the group could be tempted to kill and eat a weaker one. [Ahenakew 1973, p. 93]

Such beliefs were obviously born out of both a fear of starvation and the fear of what starvation could do to the individual. Several journals of early explorers contain stories of persons asking to be killed because they feared themselves becoming wendigos. As late as 1855, one of the Cree tried after the Northwest Rebellion was accused of murder for having killed a woman for that reason [Ahenakew 1973].

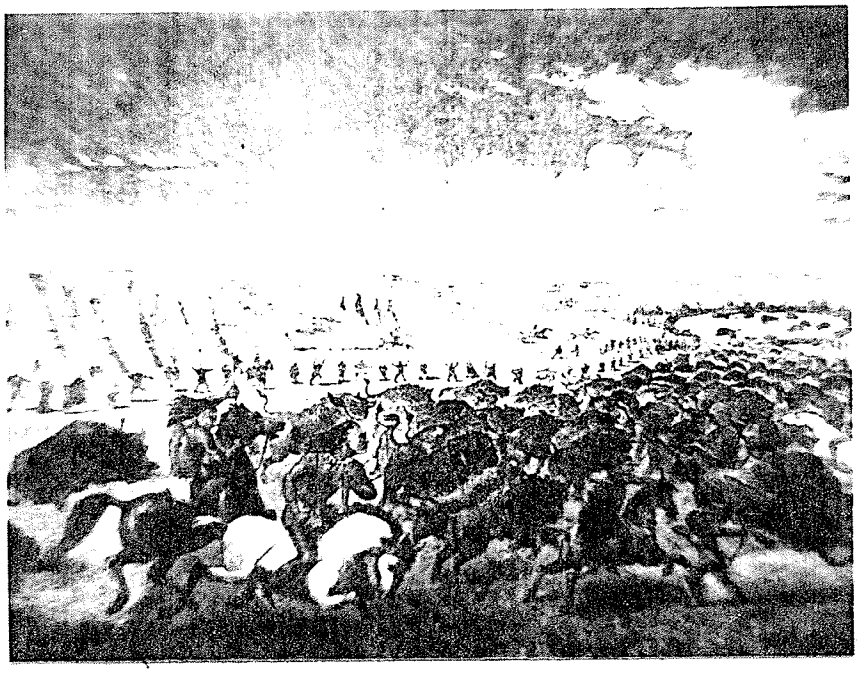
John Tanner remembers the negative aspects of life in the region in his journal written years later:

> The Ojibways of the north... their barren and inhospitable country affords them so scantily the means of subsistence, that it is only with the utmost exertion and activity that life can be sustained, and it not unfrequently happens that the strongest men, and the best hunters, perish of absolute hunger. [Tanner 1830, p. 222]

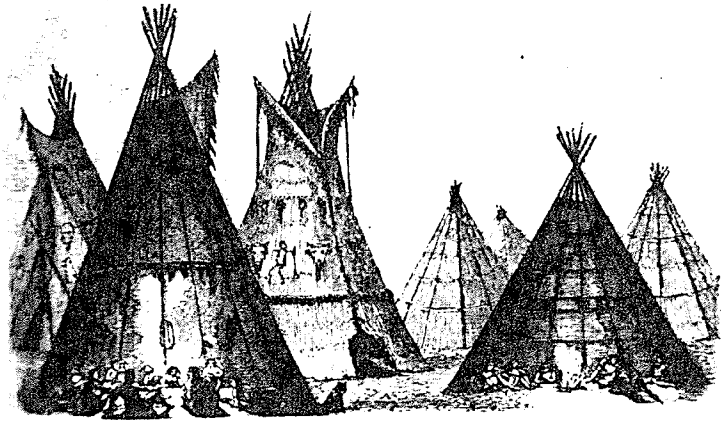
Thus, it seems the plains and parkland offered a duality of life, with its times of plenty and its times of hardship. This duality became more pronounced as the Indian became more dependent upon the goods and services of the white man and the trader. The rifle, the trap, as well as household utensils of iron and copper, made life for the Indian far easier in that the food resources and the pelts necessary for trade could be more effectively collected. However, it was the horse which freed the Indian of the constant spectre of starvation and allowed a fairly easy life on the plain for so short a time.



9. "A Souteaux Indian travelling with his family in winter near Lake Winnipeg c. 1825"
[Manitoba Archives - lithograph from painting by H. Jones after Rindisbacher]

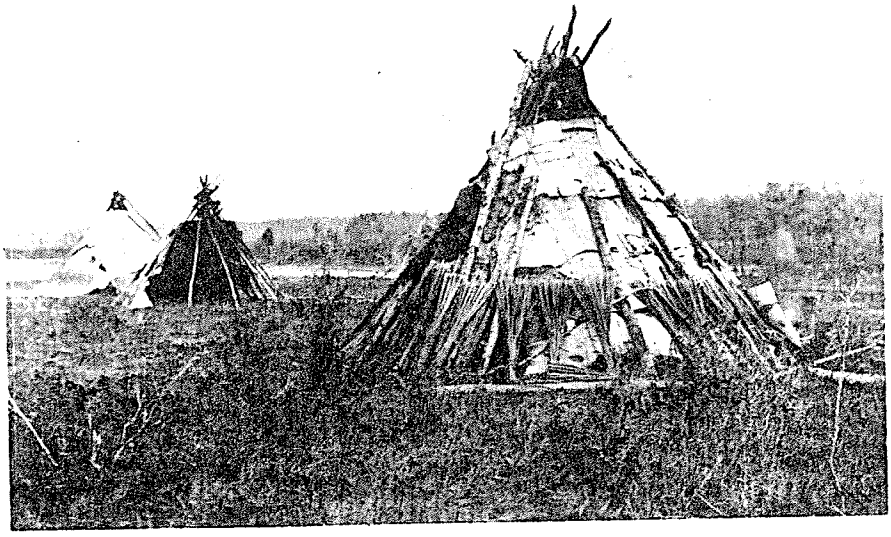


10. Plains Cree driving buffalo into a pound
[in Hind 1860 volume 1, p. 358]

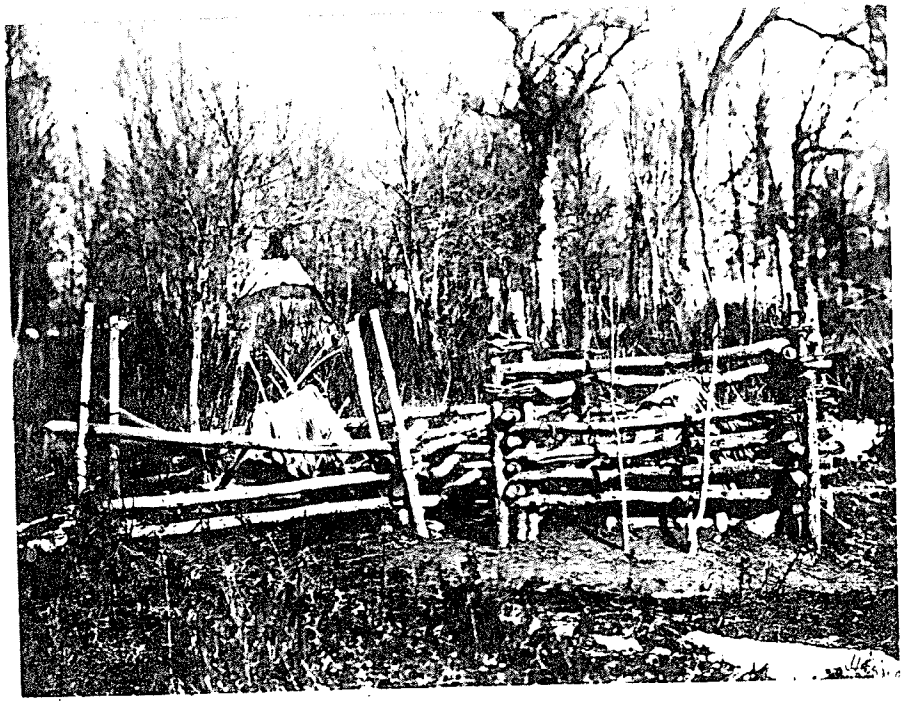


11. Cree skin tents and Ojibway Bark tents
[in Hind 1860 volume 2, p. 63]

12. Chippewa (Ojibway) tipis
[Manitoba Archives Boundary Commission 1872-1984]



13. Birch tents on the west bank of the Red River at the Middle Settlement
[Manitoba Archives - Hime Collection 1858]



14. Indian graves covered with birch bark
[Manitoba Archives - Hime Collection 1858]

The Horse and Buffalo Tradition

> The Plains Indian had horses, and with them endless quantities of buffalo robes and leather for his clothing and his dwelling, as well as abundant food. He was skillful in the chase and in warfare. The Bush Indian had only his canoe, and when he ventured onto the prairie, he seemed awkward to us, for he was quite unused to the horse. He was timid too, and that we could never accept. When he showed nervousness in time of danger, he brought ridicule upon himself; and no Indian can live that down. Yet I insist that we are brothers. It is the nature of one's country, its effect through many generations, that makes the difference in man.
>
> - Old Kenyam from Voices of the Plains Cree [Ahenakew 1973, p. 85]

The horse, a native North American mammal, roamed the great plains until about 11,000 years ago, when, for a number of reasons, it disappeared [Lammers 1976]. Prior to that, it had, along with a number of other natives, crossed the Pleistocene land bridge at the Bering Strait and become established in Asia and Europe. It did not return to North America until the 16th century, when the conquering Spanish in their lust for gold and a Christian world brought large numbers of horses to the Americas. From the conquistadores and settlements, many of these horses escaped or were stolen by Indians. Thus a great cultural tradition developed and spread northward from Mexico, based on the utilization of the horse and the ease with which the bison could be followed and harvested using this beast of burden [Spencer et al 1965]. The cultures which rose up around the horse on the great plains were varied to some extent; many of the vestiges of the previous culture remained. Still there seemed to be a commonality to most of them - a need to acquire more horses through breeding, trade or, more often, through warfare and stealing [Spencer et al 1965]. Horses were wealth in the plains and it was through these mechanisms that the horse spread north. By 1740 the

horse had reached the parkland area of Alberta. Henday found them among the Blackfoot and Gros Ventre in Saskatchewan in 1754 [Ray 1974].

La Vérendrye first mentions horses in the west when his sons travelled to the Mandan villages and beyond in 1742. The Assiniboine at that time did not possess horses and the Mandan, although they were quite familiar with the animal, had none either [Burpee 1927].

By the time Alexander Henry the Younger made his way into the Red River Valley, horses were just being brought into the area. Henry mentions a western tribe called the Snakes, who lived on the Assiniboine River and had horses, two of which he purchased on his arrival at the Forks. He states that "... the Saulteurs had none, but always used canoes" [Coues 1897, p. 47], and that Canadians had horses, and that all horses in the country are kept in "a shocking condition." Tanner confirms this lack of understanding about horse care:

> My three horses which, before starting, I had fettered and turned out that they might become accustomed to the place, had been neglected, and were now dead; notwithstanding I had given very particular charge to Net-no-kwa to take off their fetters at the commencement of winter. She had neglected it! [Tanner 1930, p. 80]

As the Ojibway were newcomers to the parkland and plain it took them a number of years to accustom themselves to horse use, but as early as 1808, when Henry left the Red River area, horses were becoming fairly well known, although not as yet common. Fidler's census of 1815 suggested that the horse, even among the Assiniboine in western Manitoba, was scarce; among the Ojibway even more so [Ray 1974]. The Sioux to the south appear to have become rich in horses; the amount of horse dung Henry saw around their abandoned war camps attests to this. This never became the case in

the lower Red River Valley. Certainly the Saulteaux took up the horse as they moved out into the parkland and plains of western Manitoba on the heels of the Cree, where they became the buffer group between the Dakota and the Cree and Assiniboine [Hlady 1964]. However, they appear to have arrived too late to have developed as serious a commitment to the horse as previous valley inhabitants: the Cree, the Assiniboine, and further west the Blackfoot tribes and the Gros Ventres. By the time they ventured out onto the plain en masse most of the bison had been pushed west or south, out of the Valley.

The Cree and the Assiniboine did continue to frequent the Red River area after 1800, however. Selkirk negotiated with both the Saulteaux and the Cree when he needed for land in the Valley for his settlement in 1813 [Ross 1856]. By 1817, however, the Cree had vacated the Valley as permanent residents [Hlady 1964]. Henry mentions the Assiniboine coming to trade at Pembina in 1802, although they were very suspicious of the Saulteaux, and preferred trading in their own country to the west. Thus, after 1817 the only permanent Indian residents of the valley were the Saulteaux and the Ottawas. Other groups often visited the area, however, after this date. The Sioux made several friendly visits to Red River in the 1830's and 1840's and Ross further states of the Red River area:

> The chief Indian tribes who inhabit this quarter, and who occassionally visit, and sometimes annoy the colony, are the Crees and Assiniboines on the west, the Saulteaux on the east, the Swampy Crees on the north, and the proud and haughty Sioux on the south. All these are more or less friendly. [Ross 1856, p. 158]

Ross, of course, is speaking of the situation in 1856. He later goes on to mention these tribes again, as those who "hover about this

settlement." It can, therefore, be assumed that the forms of the plains Indians with their horse-buffalo traditions were often evident in the Red River Valley, from just slightly before 1790 until well beyond 1870. The many drawings and paintings of this period confirm this.

Man on horseback is one of the most transient yet pervading images of this tradition. On the level plain a man on horseback was extremely obvious; Henry's Saulteaux were always flying into great states of alarm upon seeing a man on a horse, fearing presence of the Sioux. It was man on his horse who opened up the vast stretches of plain. The horse provided for the Plains Indian the easy life through the enjoyable and exciting pursuits of buffalo running and ease of movement over the plain.

The horse made a timely appearance for the Assiniboine and Cree who, as middlemen in the fur trade to Hudson Bay, refused to trap when their services were no longer needed [Ray 1974]. With the need to provision the Athabaska route, however, the bison became all important to the fur companies and the Red River posts became major suppliers of pemmican, although certainly not the sole sources [Jackson 1970]. The Indians could thus trade pemmican, obtained from their hunts, for trade goods, and the fur trade became quite dependent upon both the Cree and Assiniboine for provisions. The Assiniboine would often set fire to the prairie around a post in the autumn, forcing the buffalo away and creating a market for their goods [Ray 1974]. There was, however, a fairly limited market and not all Plains Indians were needed for provisions, as Henry makes clear when discussing the Plains Cree of the parkland area around Fort Vermillion in 1808 in Alberta. He also demonstrates the insatiable desire

by the Plains people to acquire the horse:

> They are fully as much addicted to spiritous liquors as the Saulteurs, but generally have no means of obtaining it. Those only who frequent the strong wood country can purchase liquor and tobacco. Those who inhabit these plains are the useless set of lazy fellows - a nuisance both to us and their neighbours, and much addicted to horse stealing. They are generally found in large camps winter and summer, idle throughout the year. Buffalo is their only object. Although passionately fond of liquor and tobacco, still they will not resort to the woods where they could procure furs to purchase those articles. In winter they take to the bow and arrows; firearms are scarce among them, and they use but little ammunition. If they procure a gun, it is instantly exchanged with an Assiniboine for a horse. [Coues 1897, pp. 512-13]

Traders in the Red River area prior to 1800 appear to have had similar sentiments about the Cree there, which prompted their invitations to the Saulteaux and Ottawa to relocate in the valley about that time.

As the Cree and Assiniboine moved into the plain and developed a plains tradition, they also absorbed the typical shelters and forms of living which the buffalo provided. The tipi became probably the most distinguishable symbol of the plain and its inhabitants, and was certainly a form common to the Red River landscape about 1800. Henry provides us with a good description of Cree lodges which he finds in northern Alberta in 1808. Such a description could be considered acceptable to those tipis in the Red River area as the tipi was a typical plains form:

> Their tents, like those of all other tribes of the plains, are of dressed leather, erected with poles, generally 17 in number, of which two are tied together about three feet from the top. These being erected and set apart at the base, the others are placed against them in a slanting position, meeting at the top, so that they form nearly a circle, which is then covered with the leather. This consists of 10 to 15 dressed skins of the buffalo, moose, or red deer, well sewed together and nicely cut to fit the conical figure of the poles, with an opening above, to let out smoke and admit the light. From this opening down to the door the two edges of the tent are brought close

together and well secured with wooden pegs about six inches long, leaving for the door an oval aperture about two feet wide and three feet high, below which the edges are secured with similar pegs. This small entrance does well enough for the natives, who are brought up to it from infancy, but a European is puzzled to get through, as a piece of hide stretched upon a frame of the same shape as the door, but somewhat larger, hangs outside, and must be raised by hand to pass. These tents are spacious, measuring 20 feet in diameter. The fire is always made in the center, around which they generally place a range of stones to prevent the ashes from scattering and keep the fire compact. New tents are perfectly white; some of them are painted with red and black figures. These devices are generally derived from their dreams, being some sea-monster or other hideous animal, whose description has been handed down from their ancestors. A large camp of such tents, pitched regularly on a level plain, has a fine effect at a distance, especially when numerous bands of horses are seen feeding in all directions. [Coues 1897, pp. 513-514]

The vestiges of such camps remained a part of the landscape even after the people had departed, as can be seen by Henry's descriptions of old war camps he found along the Red River near Grand Forks in North Dakota:

> We saw several old war camps, and a range of elm-bark cabins, which our guide tells me were erected last summer by the Sioux, who remained nearly a month. We found also a camp of this summer, of about 100 men.... Near this last camp was a great quantity of horse dung, and stakes driven into the ground to fasten their horses.
>
> ...we had seen several war camps during the day, and here we found the sign of 30 tents of last year, which our guide assured me was a Sioux camp. We saw also poles on which they had stretched beaver skins, old broken horse-travailles, some tent-poles and plenty of horse dung. [Coues 1897, pp. 140-142]
>
> ...we found upward of 100 pairs of old shoes, some scalps, remnants of the leather and buffalo skins, saddle-cloths made of buffalo robes, whips, pieces of old saddles, rolls of bark containing war caps, bark and willow dishes; also paunches and bladders of water for a journey. Upward of 100 willows, about six feet long, with a fork about the middle, were stripped of their bark, and stuck in the ground. This, I am told, is for the purpose of hanging up their war-caps before attacking an ememy. We also observed some places where they had seated themselves in the long grass by twos, threes, and fours, to adjust their war-dresses. At every seat we found a quantity of swan's down, coloured with red earth, under which we found from one to four small stones, about the size of an egg, also

daubed over with red earth; and near by were stuck in the ground the same number of willows, about two feet long, stripped of their bark, and daubed with the same red earth. such a place is called by the Indians "the spot of the last sacrifice", as it is here that they adjust themselves for the battle, and generally make a sacrifice of different articles they have brought with them for that purpose, to insure the protection of the Supreme Being, or, as they term him, the Master of Life." [Coues 1897, p. 435]

Old camps were a common phenomenon on the prairie landscape. Hind in his travels in Saskatchewan describes such remains:

> On the high banks of the valley the remains of ancient encampments in the form of rings of stones to hold down the skin tents are everywhere visable... It may have been a camping ground for centuries, as some circles of stones are partially covered with grass and embedded in the soil. [Hind 1860, p. 340]

Such rings of stone would be all that remained of old prairie camps, if stones were available, as prairie fires would soon obliterate all vestiges of man on the plain.

Fires were often set by the Plains Indian, this being perhaps the only real manipulation of the landscape they could make in order to alter their environment or that of their quarry, be it buffalo or man. Fire was used by plains tribes in ceremony, in war, for signalling, hunting, and for large scale control of wildlife movements [Nelson et al 1976]. Henry mentions in his journal:

> ...the Sioux, who have killed the Indians that are gone to the hills, and on their way homeward set fire to the meadows. This is the custom with both the Sioux and the Saulteaurs when they are out to war, and a party turns homeward. Should it be in winter, they seek high reeds or rubbish, and if there is none to be found, they collect a great quantity of dry wood and brush and set fire to the piles. [Coues 1897, p. 123]

> Indians came in from the camp below, and even from the upper part of Two Rivers, to inquire into the cause of the conflagration. They supposed that the Souix had destroyed this fort, and set fire to the grass, as is their custom when they return from war. I was uneasy for some time, fearing the Indians' camp at the hills was destroyed.

> But the Crees came in with a few skins, and informed us the fire had been lighted at their tents by accident. [Coues 1897, p. 159]

John Palliser in his journals of 1863 confirms what Henry has said and expands on the consequences of such actions by the Indians.

> From our camp we saw the prairie on fire towards the north and east. In autumn these fires are very common, when the grass is like tinder, and a spark from a pipe may be sufficient to set 200 square miles of prairie in a blaze. The Indians are very careless about the consequences of such an occurrence, and frequently fire the prairie for the most trivial reasons; frequently for signals to telegraph to one another concerning a successful horse-stealing exploit, or in order to proclaim the safe return of a war party. The disastrous effects of these fires consist principally in denuding the land of all useful trees, such as spruce, pine, birch, fir, and all soft-wood timber which are among the most valuable for settlement, but not reproductive. Another serious misfortune likewise frequently results from these wanton fires, and from which the authors are themselves frequently punished, viz., they cut off the buffalo sometimes from a whole district of country, and thus often are the cause of great privation and distress. [Palliser 1863, p. 57]

The Indians' impact on the prairie landscape even in starting fires, however, was quite ethereal. Camps were not permanent although they may have been used from year to year. The presence or absence of the buffalo in a particular quarter appears to have been a major determining factor in their location, and certainly in their length of use. The buffalo was the lifeblood of these peoples, providing them with shelter, food, trade goods, and sport. The horse was the means to this life of relative ease. The societies which grew up on the plain, supported by the buffalo, with their hunters and warriors on horseback, their war bonnets, bows and arrows, travois, dogs, and tipis, were a colourful part of both the landscape and the history of southern Manitoba and the Red River valley. Such societies were extremely short-lived, however, contributing with zeal to their own destruction, and yet virtually powerless to alter the onrushing fate which was destined for them.

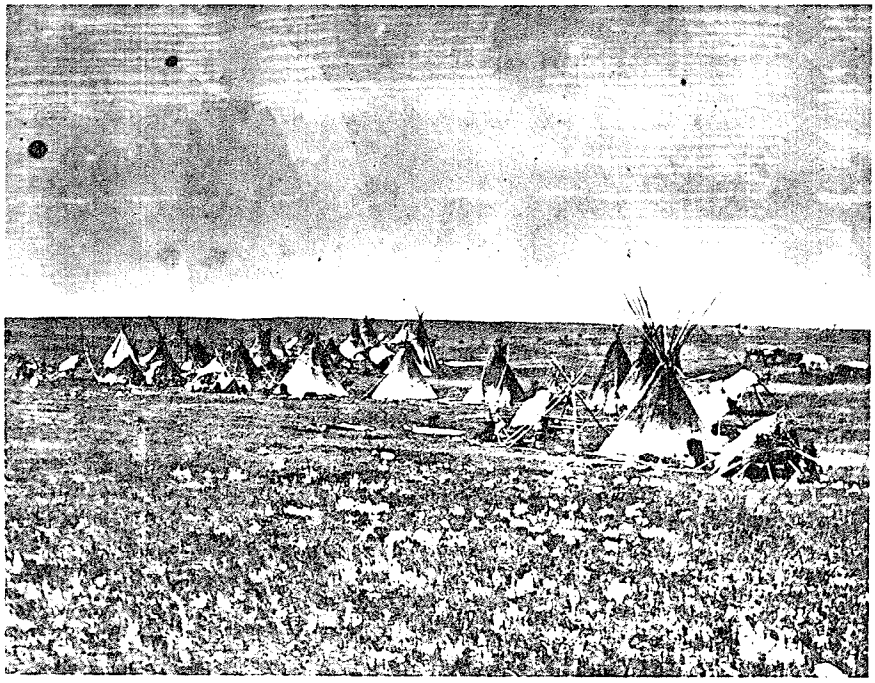
They depended upon both the buffalo and trade for survival, yet these two vehicles for the sustenance of life of the plains peoples were in direct conflict. One destroyed the other. The plains hunters remained major provisioners for the fur trade until well into the 1830's, when the Plains Assiniboine and Cree began to feel the effects of a declining pemmican market [Ray 1974]. There were several reasons for this decline. It was never a particularly large market in the first place. With the development of a plains hunt by the Métis at Red River, based on the organization of the Indian hunts, the Métis by 1840 were supplying more pemmican to the colony at the Forks than the settlement or the Hudson Bay Company required [Ray 1974]. By this time also an agricultural surplus had developed in the colony which further reduced the demand for pemmican by the fur trade. The fur trade itself was declining in importance with every year that passed.

However, buffalo were still fairly numerous on the plain. The provisioning trade did not cause the destruction to the herds which the robe and hide market later caused. The robe market in the United States began on a large scale early in the 19th century but, due to transportation costs in British North America, a similar boom did not occur there until later [Ray 1974]. With the initiation of the cart trade from Red River to St. Paul by the Métis in 1844, robes, and later, hides began to flow south. The Indians marketed robes and hides at Red River but usually dealt directly with Missouri traders [Ray 1974]. The destruction of the buffalo herds quickly followed, especially with the influx of the Métis and white buffalo hunters. By the 1860's southern

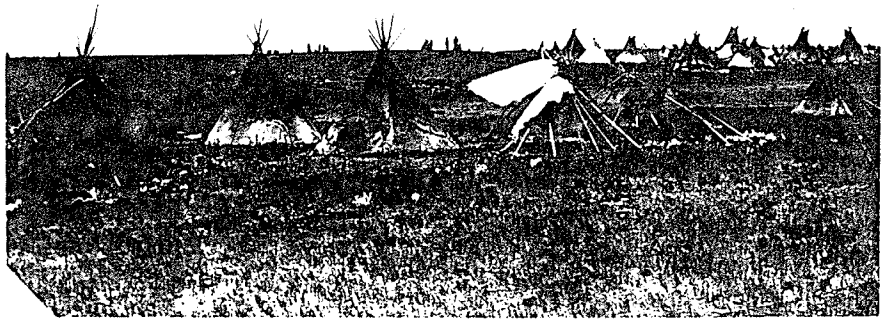
Manitoba was almost devoid of buffalo; the last wild buffalo was killed in 1883 in the Souris River country [Ray 1974]. With that killing the most visible form of the 1800 landscape, its huge herds, had truly died. The plains cultures dependent upon buffalo ceased to exist in theory; in fact, the herds had been reduced to memories many years earlier and the plains societies to a dependent status shortly thereafter.

> We amused ourselves by lying in wait close under the bank for the buffaloes which came to drink. When the poor brutes came to within about 10 yards of us, on a sudden we would fire a volley of 25 guns at them, killing and wounding many, of which we only took the tongues... The Indians enjoyed this sport highly - it is true the ammunition cost them nothing.
>
> Alexander Henry the Younger. [Coues 1897, p. 67]

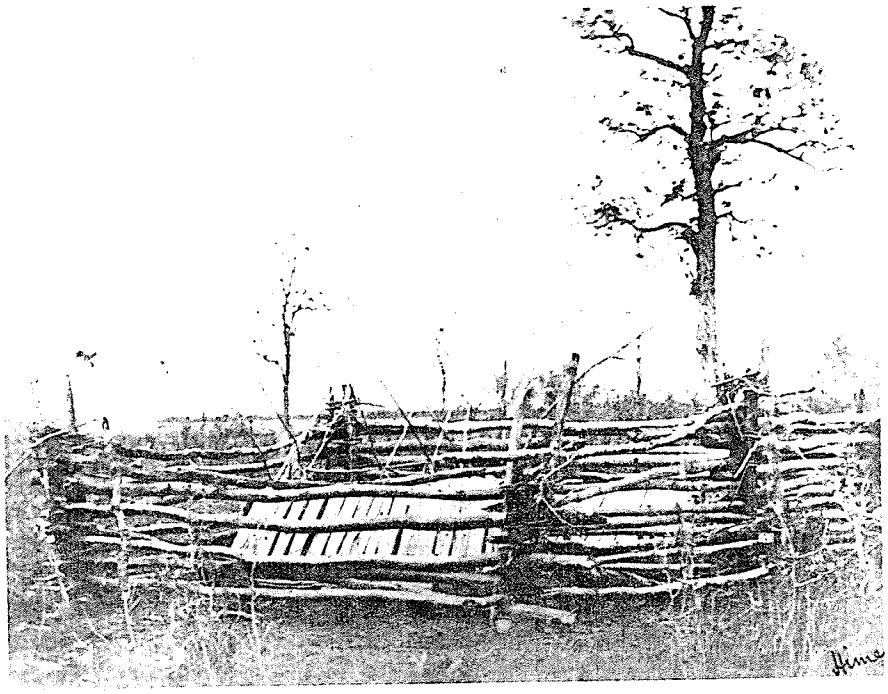
> For twelve wolf-skins or three good buffalo-hides we got one blanket in trade. Chiefs who were chosen by the Hudson Bay Company were given more than that, and their men brought them their furs to trade. Traders came to our encampments too, and it was always buffalo hides and pemmican they wanted. Hides. Hides. Shoot. Shoot. See who can shoot most. A curse upon man's greed and on the Crees for that inordinate slaughter.
>
> Chief Thunderchild of the Plains Cree. [Ahenakew 1973, p. 58]



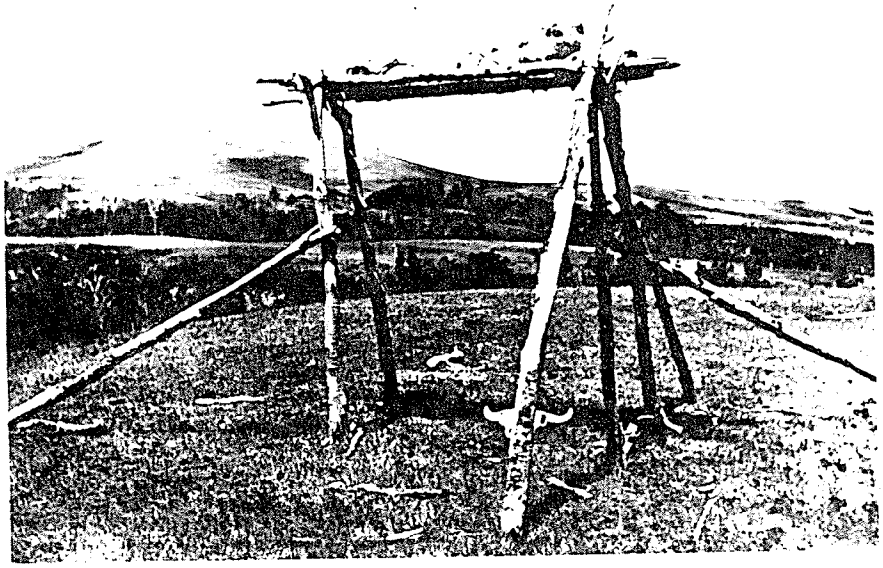
15. Assiniboine Indian camp
[Manitoba Archives - Boundary Commission 1872-1874]



16. Sioux Indian camp
[Manitoba Archives - Boundary Commission 1872-1874]



17. Indian graves
[Manitoba Archives - Hime Collection 1858]



18. Sioux grave
[Manitoba Archives - Boundary Commission 1872-1874]

The Native Agricultural Tradition

The domestication and cultivation of plants may or may not have been practised in the Red River Valley prior to Indian and white contact although it is suspected that it was. The influence of European society on Western American cultures was so vast prior to contact, due to the rippling effect of both the fur trade and disease, that knowledge of Indian movements, populations, and culture is limited. There were, however, some glimpses into the past. David Thompson in his journal of 1797 discusses a French Canadian living among the Mandan in a village along the Missouri River.

> As Manoah (the French Canadian) was as a native with them, I enquired if they had any traditions of ancient times. He said he knew of none beyond the days of their great-great-grandfathers, who formerly possessed all the streams of the Red River and head of the Mississippi, where the wild rice and the deer were plenty, but then the bison and the horses were not known to them. On all these streams they had villages and cultivated the ground as now; they lived many years this way, how many they did not know. At length the Indians of the woods, armed with guns which killed and frightened them and iron weapons, frequently attacked them, and against these they had no defense, but were obliged to quit their villages, and to move from place to place, until they came to the Missouri River...
>
> The produce they raise is mostly maize (Indian Corn) of the small red kind, with other varieties, all of which come to perfection, with pumpkins and a variety of small beans. Melons have been raised to their full size and flavour. Every article in their villages was in clean good order, but the want of iron implements limits their industry, yet they raise, not only enough for themselves, but also for trade with their neighbours. We brought away upwards of 300 pounds weight. [Hopwood 1971, pp. 172-173]

The preceding quotes suggest that at some time fairly extensive agriculture was practised by native inhabitants of the Red River Valley, although this may have occurred only in the southern reaches of the area, if at all. Syms (1980) mentions that the Hidatsa (an agricultural tribe

visited by Henry on the Missouri in 1806) lived, prior to their taking up residence on the Missouri, north of Devil's Lake in North Dakota which is close to the Red River Valley. He goes on to say:

> During the early historic period, at least the Western Cree (including Woodland and Plains groups), Western Ojibwa (including Bungi), Ottawa, Gros Ventre, Assiniboine, Teton, Santee, Awaxami Hidatsa, Crow and Mandan, and possibly other Hidatsa, Omaha and Ponca, Cheyenne and Suhtai may have occupied southern Manitoba to varying degrees ranging from seasonal homeland to seasonal bison procurement to occasional warring and trading expeditions. [Syms 1980, p. 128]

During the recorded period of the history of southern Manitoba it is striking the amount of travelling done by the native population. Tanner, while living among the Indians, for instance, travelled from Detroit far out into the western plains, and did so not infrequently [Tanner 1830]. During prerecorded times, wanderings of Indians have been documented by archaeological research, which suggests considerable movements of people occurred frequently and that spheres of influence of various peoples could be quite extensive. Documentations of Indian trade articles from all over the continent, for instance Gulf coast shells found in a site in south-western Manitoba [Syms 1980], indicate that the spread of knowledge from one group to another, paralleling the trade goods, was the norm. An extensive agricultural tradition could possibly have occurred in the Red River Valley prior to displacement of agricultural peoples by others. The discovery of what appears to be bark-lined food storage pits and scapula hoes at Lockport [MacNeish 1958], although not alluded to as such by their discoverer, may in fact point to an agricultural tradition in the lower Red River Valley [Pettipas, personal communication]. This may be borne

out by further archaeological investigation to be conducted at Lockport in the near future.

The Blackfoot and the Gros Ventres, well before 1600, may have been cultivating land in the Red River Valley [Hlady 1964] prior to their movement out into the western plains. No serious commitment to agriculture, however, was displayed by the native peoples who displaced or followed these groups in the Red River Valley.

These peoples were hunters, gatherers, and traders. Had the horse not appeared on the plains, making the harvest of buffalo a fairly simple matter for them, perhaps a culture based on a combination of agricultural toil and hunting skills would have been more highly developed in these tribes. As it was, there appears to have been rudimentary cultivation of tobacco and corn, as well as beans and squash by the four tribal groups frequenting the Red River Valley in the late 18th Century - the Saulteaux (or Ojibway or Chippewa), the Cree, the Assiniboine, and the Sioux [Ellis 1970].

Even such plains tribes as the Blackfoot and the Peigans planted tobacco for ceremonial and ritual purposes. However, as they became less sendentary and more dependent upon the buffalo, the horse, and traders' tobacco, which they came to judge as better than their own, such tribes gave up cultivation and supplemented their needs through trade [Ellis 1970]. This trade developed on the plain to the extent where some tribes specialized in certain types of food production. The Sioux, for instance, carried on a symbiotic existence with the Arikaras of the upper Missouri; one people supplying meat, the other vegetables. This relationship was

described by Edwin Denig, a fur trader on the upper Missouri between 1833 and 1856:

> Frequently some of these bands of Sioux pass the winter within a few miles of the Arickara village and a running trade is kept up between them all the time, each endeavouring to derive as much advantage as possible out of the other. When the Sioux have failed in their hunt, are not well provided with skins, and are suffering for provisions - and at the same time the Rees have a good crop of corn, the latter are obliged to give considerable quantities to preserve peaceful relations. [Ewers 1961, p. 147]

A similar situation was described by La Vérendrye in his accounts of Assiniboine living on the lower Red River who made autumn trading expenditions to the Missouri River in the 1730's to buy Indian corn and beans from the Mandan [Ray 1974]. Such relationships between hunters and farmers foreshadow a similar state of affairs which developed on the Red River between the Métis and Scottish settlers in the middle years of the 19th Century.

During Henry's stay on the Red River he encountered a fair amount of agricultural activity practiced by the Ojibway who resided in the valley at the time. Bands of Ottawa Ojibway, the Courtes Oreilles as traders called them, had moved into the area about 1790 [Tanner 1830] following the Saulteaux and by 1808 a group had established summer congregations at Dead River (Netley Creek). An agricultural tradition was established there as Tanner notes:

> In the spring went to Ne-bo-wese-be (Dead River), where we planted corn and spent the summer. In the fall, after the corn was gathered, we went to our fishing grounds. [Tanner 1830, p. 168]

The next year he states:

> We went down to Dead River, planted corn, and spent the summer there. Sha-gwaw-koo-sink, an Ottawwaw, a friend of mine, first

introduced the cultivation of corn among the Ojibways of the Red River Country. [Tanner 1830, p. 171]

They had initially procured their seed in 1805 from Henry [Coues 1897] although with the amount of trade in foods, as previously described, and with the amount of travel it appears that the procurement of seed would not have been a problem. In 1812 they abandoned the Netley Creek site due to pilfering of their fields by other Indians [Moodie et al 1969], and

> We started to come to an island called Me-nau-zhe-taw-naun, in the Lake of the Woods, where we concluded to plant corn, instead of our old fields at Dead River. [Tanner 1830, p. 190]

Here they developed extensive fields and sold a great deal of corn to the fur trade posts. A group of Saulteaux under Chief Peguis continued to cultivate corn and potatoes at Netley Creek, however, and agricultural activity spread to other Saulteaux bands and to other areas. By 1820 Indians were cultivating a variety of crops on the White Mud, Assiniboine, Red and Roseau Rivers. Such crops included potatoes, Indian corn, pumpkins, carrots and onions [Moodie et al 1969]. However, agriculture generally remained a small part of Ojibway life at Red River. Most of the Indians remained firmly attached to the more traditional pursuits of hunting, fishing, gathering and trading, with perhaps some cultivating during the summer. One group, however, who established a fairly serious commitment to an agrarian lifestyle was Peguis's band.

Henry Youle Hind gives us a description of the garden at the Indian mission where Peguis's people had settled by 1858. The band attended St. Peter's Church several miles north of lower Fort Garry and lived on the river opposite the Church. Hind considered this band an ideal example of

the Christian influence in "a wilderness still inhabited by roving bands of Indians, who, as of old, occupy themselves in barbarous warfare, hunt for daily food, or submit with abject humility to the conjurer's malignant influence" [Hind 1860, p. 205]. He lists species planted and although he describes the garden at the church it can be assumed the Saulteaux were engaged in similar activities as the garden was a seed source for the parishioners. Crops cultivated included "Scotch" wheat, common wheat, barley, Indian corn, potatoes, asparagus, beets, cabbages, broccoli, shallots, and other vegetables. A number of flowering shrubs were in evidence, as well as some annuals. Hind mentions mignonette, eschscholtzia, asters, and sweet peas. Although the bushes did not grow in the yard, preserves had been made from the wild fruits of "red and black currants, high- and low-bush cranberries, two kinds of raspberries, two kinds of gooseberries, mossberries, blueberrries, summer berry, choke cherry, stone cherry, etc." [Hind 1860, p. 204] which the Indians apparently relished.

Although somewhat inconclusive, it appears that an agricultural tradition did exist in the Red River Valley, at least on the river's upper reaches, among peoples who vacated the valley by the time of white contact. Those tribes who followed had an understanding of horticulture which, although perhaps abandoned for several generations, was easily re-established when conditions were right. However, it is apparent that the excitement and ease of the hunt on the open plains was far more attractive than agriculture for the Red River natives, a condition to which the Métis were equally compliant.

The Trading Post

The first Europeans to reach western Canada brought with them their gardening tradition. By 1674 the nuture and cultivation of domesticated plants was attempted at the trading posts at Hudson Bay [Parks Canada 1979]. The Hudson Bay Company pushed the development of agriculture at their posts on the Bay as it was to their advantage to provide some of the provisions for their people at the posts. To this end "a bushel of wheat and of rye, barley, and oats, or a barrel of each in casks, such sorts of seeds as the Governor shall advise" was sent out to the Hudson Bay in 1674 [Morton 1938, p. 5]. Further mention is made of goats, pigs, and cattle "and at the factories, are tolerable Gardens, especially at York-Fort, Albany, and Moose-River, where most kinds of English Garden stuff grow very well, such as Pease, Beans, Cabbage, turnips, and many kinds of sallads..." [Warkentin 1964, p. 36]. However, the commitment of the Hudson Bay Company to agriculture was fairly limited, and no actual agricultural settlements were established in the north-west until Selkirk's in 1812. This marriage of trading post and garden was continued throughout the fur trade era, a desire for fresh vegetables and grains appears to have been acute in most of the traders. Agricultural success varied, however, between posts and between traders.

The first documented evidence of horticultural activity in the Red River area is found in the journals of La Vérendrye, who sowed fields of wheat, Indian corn, and peas at Lake of the Woods in the 1730's [Burpee 1927]. By the 1860's French fur trading establishments along the Souris and Assiniboine Rivers had gardens as a matter of course [Murray 1967].

Alexander Henry the Younger found in 1808 the remains of agricultural implements at the old site of a post established by the Chevalier de la Corne in Saskatchewan in 1753 [Morton 1938]. We must assume that the French traders at the posts in the Red River Valley also practised at least a rudimentary horticulture.

By 1800 the cultivation of kitchen gardens at the posts of the various fur trading companies was common and the varieties of crops planted was substantial. One of the best sources of information on the agricultural activity in the Red River valley at this time was Alexander Henry the Younger, who was the instigator of much of this activity. By following Henry's gardening from the time of his arrival at Red River, a fairly good understanding of the types of crops and of horticultural practices at that time can be derived.

> 1801. May 17th... I went up to Panbian river on horseback to find a proper spot for building. I got there at twelve o'clock, crossed Red river with Demarais, planted my potatoes and sowed a few garden seeds where Mr. Grant's fort stood.... (Sept) 27th. Hard frost last night; melons and cucumbers frozen. Oct. 6th. A heavy fall of snow. I took my potatoes out of the ground, 1 1/2 bushels; the horses had destroyed my other vegetables.
>
> 1802. May 15th... I began to sow garden seeds... 21st. A small canoe arrived from Portage la Prairie, bringing nearly a bushel of potatoes for seed... planted my potatoes... 24th. Cabbage appeared above ground...
>
> 1803. April 14th... Men working at the new ground, and manuring the garden... May 7th. I planted potatoes, turnips, carrots, beets, parsnips, onions, and cabbage-stalks for seeds. Sowed cabbage seed. 10th. We finished planting eight kegs of potatoes... June 1st... The leaves are at full size, and all vegetables are out of the ground; the men are weeding, hoeing potatoes, and repairing canoes... Sept. 30th. Indian women and children stealing potatoes; obliged to set a watch day and night... Oct. 12th... Collected garden seeds, of which I have a great quantity... 17th. Snow. I took my vegetables up - 300 large heads of cabbage, 8 bushels of carrots, 16 bushels of onions,

10 bushels of turnips, some beets, parsnips, etc. 20th. I took in my potatoes - 420 bushels, the produce of 7 bushels, exclusive of the quantity we have roasted since our arrival, and what the Indians have stolen, which must be at least 200 bushels more. I measured an onion, 22 inches in circumference; a carrot, 18 inches long, and, at the thick end, 14 inches in circumference; a turnip with its leaves weighed 25 pounds, and the leaves alone weighed 15 pounds. The common weight is from 9 to 12 pounds, without the leaves... Dec. 9... My men... began to cut 3,000 stockades, eight feet in length, to inclose my potato field.

1804. April 16th... My men began to inclose our potato field... 26th... I began to sow potatoes, 21 bags; corn, one pint; and some cabbage seed. 28th. Working at our garden... 30th... I sowed garden seeds. May 4th. Indian women preparing ground, sowing potatoes, corn, and squash, burning brush etc... 10th... Cabbages and radishes are out of the ground; peas and turnips also appear... Sept. 13th. We are much plagued in watching our potatoes day and night, to prevent the Indian women and children from stealing them... 19th. I gathered my cucumbers and made a nine-gallon keg of pickles, having plenty of excellent vinegar from maple sap, little inferior to that imported... Oct. 27th... The men had gathered the following crops: 1,000 bushels potatoes (produce of 21 bushels); 40 bushels turnips; 25 bushels parsnips; 10 bushels cucumbers; 2 bushels melons; 5 bushels squashes; 10 bushels Indian corn; 200 large heads of cabbage; 300 small and savoy cabbages. All these vegetables are exclusive of what have been eaten and destroyed since my arrival... Nov. 1st... X.Y. ladies busy stealing the gleanings of my potato field.

1805. Oct. 8th... Men finished gathering potatoes, but the crop has failed owing to the excessive heat, which scorched everything early in the season. I had only 400 bushels.

At this time Henry's interest in gardening, or at least in writing about it at Pembina River, appears to have waned, although later in his journals he discusses his horticultural enterprises at Fort Vermillion on the North Saskatchewan River, at White Earth House, and at Fort Augustus where Edmonton now stands. All of these agricultural forays were less successful than his Pembina River gardens and foreshadow the differences settlers found in utilizing land of the first prairie level with that of the upper two levels of the plain [Morton 1938].

Perhaps the most notable landscape form associated with gardening in

the north-west was the need to palisade the garden in order to protect it from horses, wildlife, and Indians. Harmon records similar palisades to those described by Henry around the garden at Fort Alexandria on the Upper Assiniboine in 1802 [Ellis 1971].

Associated with the forms of agriculture of the trading posts, besides some palisaded gardens, were the structures of the posts themselves. Permanent man-made forms on the landscape of the Red River Valley were extremely few about 1800. The most lasting and dominating was the fur trade post with its rectangular log buildings. John McDonnell, in his account of the Red River about 1797, states:

> At the Forks, the remains of several old posts are still to be seen, some of which were built as far back as the time of the French Government. This place, as well as Rivière aux morts, is a favourite Indian encampment. [McDonnell 1889]

Henry's narrative also mentions the remains at the Forks.

> In French times there was a trading establishment on this spot, traces of which are still to be seen where the chimneys and cellars stood. I am also informed there was a chapel and a missionary here for several years... [Coues 1897, p. 46]

Such spots, where Indians traditionally camped or at the confluence of two rivers, attracted traders to them. When one post was established by a company the others often built there as well, and thus a cluster of posts resulted. For instance, Henry built a post for the North West Company at Pembina River in 1801. The X.Y. Company and the Hudson Bay Company established posts there soon after. Prior to Henry's building, however, two posts had existed at the site, although abandoned, that of a Mr. Chaboillez built in 1797 and, opposite, an old post of Peter Grant of the North West Company built some time in the early 1890's [Coues 1897].

Similar situations occurred at the Forks, at the Souris River mouth, and elsewhere in the north-west. Despite the amount of work and lumber involved, these forts were often occupied for a very short time. Henry, for instance, occupied his post at Park River only eight months although it took over a month to build. It consisted of a stockade of about 12 feet enclosing a dwelling house, storehouse, and shop. The entire enterprise utilized 3,114 pieces of wood, mostly oak. When Henry built his post at Pembina it was more substantial in nature. Over the years of his residence there he built an oak storehouse 100 feet long by 20 feet wide; he had a range of men's quarters, blockhouses for defense, an ice-house, a watch house, a stable large enough for 50 horses, his own house (which was two storey and contained a library), a blacksmith's shop, a small cannon and battery, and a chicken coop. All of this was surrounded by a palisade of poplar, which was replaced by oak after one year of use [Coues 1897].

Surrounding such a post or group of posts was, at various times, the long or round birch or rush lodges of the Saulteaux, the skin tents of the Cree and Assiniboine, a number of horses, a garden, possibly palisaded, and great quantities of hay. (Henry mentions his men making 3,000 bundles in 1807.) [Coues 1897].

Henry's buildings were also apparently whitewashed.

> I sent to the Hair hills for earth to whitewash my houses, there being none near Red river. This white earth generally lies in the open plain, covered with about a foot of black soil and sand, and, again, is simply covered with the black soil, under which it is pure and white, like lime, and answers the same purpose in setting our buildings. [Coues 1897, p. 190]

Thus it appears that the fur-trading posts, although only marginally

associated with agriculture, were fairly significant forms on the Red River landscape.

By the time the Selkirk Settlers arrived at the Forks in 1812, small-scale agriculture was thus fairly common in the Red River Valley region. Besides the activity associated with the fur-trading posts and that of the Indians of the area, a small enclave of Canadians working for or retired from the fur-trading companies had settled around the Forks with their native families and were farming small plots [Ellis 1971]. For instance, a Jean Baptiste Roi had begun cultivating a small plot of land opposite the mouth of the Assiniboine River in 1808 and sold his produce to the fur-trading companies [Ellis 1971]. In 1813, 100 bushels of potatoes were purchased by the Hudson Bay Company from the free Canadians at the Forks [Ellis 1971]. This type of farming, however, remained secondary to the more important pursuits of trading and hunting among these people. It was not until the arrival of Selkirk's people that a serious commitment to agriculture was truly made in the north-west and wheat, that golden grain which offered a productive future to the western plains, was introduced into the Red River Valley [Morton 1949].

Montreal, 4th October, 1814.

Sir,

> In answer to your queries, concerning the climate and natural productions of Red River, I have the honour to present you with the following Statement:
>
> I have resided thirteen years on Red River, and have always been in the habit of cultivating its soil; and from experience can take upon myself to say, that the climate is much the same as in Upper Canada; that is, the winters are of a shorter duration, and much milder, than those experienced at Quebec.

Last summer I had water melons sown in the open ground on the 4th of June, which were ripe early in September; the largest weighing 13 lbs. The musk melons and cucumbers were as large, and as well flavoured, as I ever met with a fruit-shop in London. Turnips sown the 25th of June, were fit for the table about the middle of August. In October one of them weighed 14 3/4 lbs. One bushel of potatoes will produce from forty to fifty bushels.

Wheat, barley, and rye I have only seen in small quantities; but I am of opinion, that no country will produce a more abundant crop, or with so little trouble, as on Red River.

The natural produce of the soil, is wild flax, wild rice, cherries, pears, raspberries, strawberries, grapes, bush cranberries, currants, plums, crab apples, and different roots, which the Indians prepare as food. The plains likewise abound with medicinal herbs and roots. Salt springs are very common; and the sugar maple is to be found in every point.

I need not mention the immense herds of buffaloe that graze on the plains, or the number of elk and moose deer that inhabit the woods.

A line, with sixty hooks, set across any part of the river, will give you from sixty to a hundred catfish per day, each weighing from 9 to 25 lbs. Besides sturgeon, and many other fish peculiar to North America, may be taken in great abundance with nets. In the fall and spring, wild fowl of almost all descriptions are very common. The general price of a buffaloe, as large as an English ox, is from twenty to thirty rounds of ammunition, or from three-fourths to one pound of tobacco.

But the real value of the country, is the fertility of its soil, and the facility that Nature offers to the industrious of obtaining the reward of his labour. Here a luxuriant soil only asks the labour of the ploughman; not a root or stump requires to be taken up. The lands are already cleared. The plains present you with a pasturage of many hundred miles in extent; and your horses and cows, except those required to be milked, may be left out all winter. In truth, I know of no country that offers so many advantages: an exceeding wholesome climate, a fertile soil, fish, flesh, and fowls in abundance; and sugar and salt for the trouble of making them. In fact, all the necessaries and all the luxuries that are useful to mankind, are to be found there. Society only is wanting.

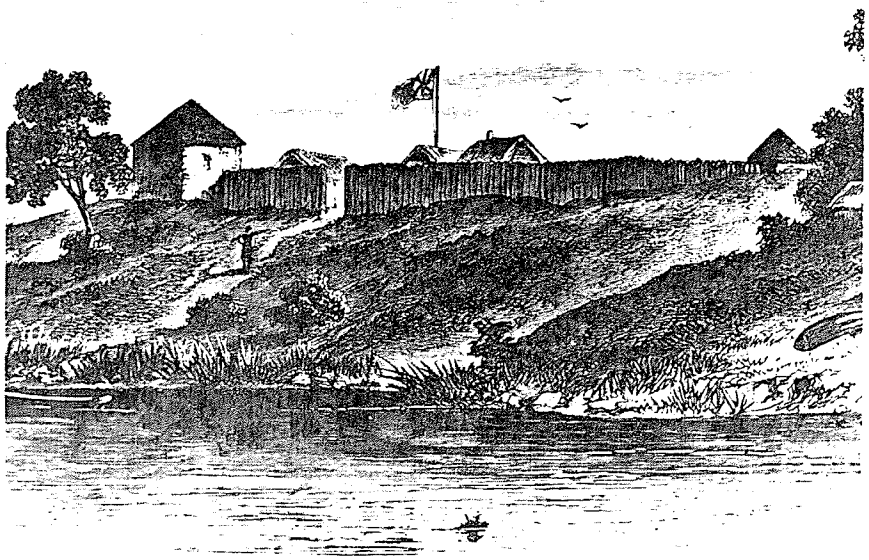
I trust, my good Sir, you will pardon the cursory manner in which this is written. Being on the eve of my departure, I hope will plead an excuse; and believe me, though hastily written, the foregoing

statements are strictly correct.

I have the honour to be,

Sir,
Your most obedient humble servent,
JOHN PRITCHARD

[From Statement Respecting the Earl of Selkirk's Settlement upon the Red River in North America, published in 1817].



19. A copy of a pencil sketch made by Lord Selkirk of Fort Douglas
[Manitoba Archives - in Western World, vol. 3 no. 29, July 1892]

20. A sketch of Fort Gibraltar about 1821
[Manitoba Archives]

111 The Landscape of the Red River Valley from 1800 to 1870

21. Life on the Prairie - the Buffalo Hunt
[Manitoba Archives - Animals Collection]

III THE LANDSCAPE OF THE RED RIVER VALLEY FROM 1800 TO 1870

As has been seen, the landscape of the Red River Valley in 1800 was one of wilderness, of semi-savage inhabitants living in pursuit of furs and game, of vast herds of animals wandering on the windswept plain, of small enclaves of wood and clay where the commercial activity of an empire was conducted and where the seeds of a civilization other than that of the native inhabitants were being sown upon the land. The landscape, however, had changed little from the time of the draining of the basin when Lake Agassiz receded.

Hints of change were becoming evident. The steel trap had decimated the populations of fur-bearing animals; smallpox and other diseases had substantially reduced native populations. The horse, the gun, and alcohol were having serious effects upon the cultures of these peoples, but the outward appearance of the landscape was little affected. As the decades of the 19th Century began to pass, the seeds of civilization grew, spreading out from the fur-trading posts and the Selkirk Settlement, up and down the rivers until by 1870 a ribbon of settlement followed many of the rivers in the Valley.

Between 1800 and 1870 the development of two distinct landscapes in the Red River valley occurred. The first was the nature-dominated landscape of the plain, the second was the man-dominated landscape of the riparian settlements [Morton 1957]. Elements of each landscape foraged at times into the dominion of the other - fires, locusts, floods, wolves, and Indians sometimes disturbed the tranquillity of civilized life in Red River; hunting expeditions, cart trains, and some haying activity intruded

upon the natural form of the open prairie and parkland. But, for the most part, these landscapes were separate, having individual identities and a fairly well defined boundary running parallel to the river but two miles from it.

The development of these landscapes in the Red River valley grew out of one major factor, as did their separate identities. The valley's land - its tenure, its use, its resources, and its peoples from 1800 on, caused great turmoil in the landscape and in the political environment of Canada in 1870 and 1885 [Morton 1957].

THE DUALITY OF LIFE AND LANDSCAPE

A wandering, hunting, trapping, trading, and gathering society had no need to consider land as personal property. Certainly, a maple grove, a reach of a fish-filled river, a wild-rice bay, or a productive waterfowl moulting ground may have been traditionally used by a band or group from one year to the next, but the staking and claiming of land for private and personal use was foreign to the thinking of these peoples [Warkentin 1972]. With the introduction of serious agriculture into the valley by the Selkirk Settlers, such notions of land tenure began to assume an importance little understood by the natives who considered the Red River their traditional home. The people of mixed blood, as products of two societies, were caught between these two uses of the land; between the civilized pursuits of farming and animal husbandry dictated as the Christian way of life by the newly-arrived whites and some members of the church, and the wild nomadic pursuits of hunting, trading, fishing and voyaging, the traditional uses of the land by its native inhabitants.

The lives of a pioneer people have a common purpose- through their toil they must alter and manipulate their environment in order to survive and prosper. Thus a culture develops, unique to a people, based upon a previous culture and the responses of those people to an environmental situation. Manitoba is a mosaic of such cultures. The Ukrainians, Icelanders, Jews, Mennonites, Scots, and many other groups arrived in Manitoba and were responsible for the metamorphosis of the landscape of much of the Province, from a swaying sea of prairie grasses and islands of aspen to a highly-contrived industrialized landscape.

One people who were able to survive successfully in both environments were the French-speaking Canadians and Métis of the Red River Valley. As fur-company voyageurs, these pioneers lived much as the native people of the valley lived, as hunters and traders. As these mixed bloods settled and came to dominate Red River society, both numerically and as its elite [Morton 1957], they developed a unique culture which was tied irrevocably to a doomed landscape, that of the buffalo-blackened plain and the open, free, uninhabited spaces. Their culture, in maturing, destroyed its buffalo foundations, the result of which was for the Métis and half-breed to perish or to follow a civilized path and a different culture. Some did, and created a cultured agrarian landscape along the Red River and elsewhere. Some did not, and were forced to flee to an almost empty plain in a last vain attempt to re-create a vanished and vanquished life style on a lonely land.

The Rise of Métis Culture and Awareness

The French fur trade out of New France ended with the confrontation of Wolfe and Montcalm on the plains of Abraham in 1760. This was not an end, however, but a beginning to a much more serious exploitation of the fur resources of the North-west begun immediately after British control of Canada was assumed. Using the same techniques, resources, and manpower as the French, the traders who eventually formed the series of North-West Companies followed the same routes out of Montreal to the some of the same fort locations abandoned by their predecessors, and then moved beyond [Morton 1957]. They relied upon the French-Canadian voyageurs who had traditionally plied the fur-trade routes. With their knowledge of the country, their historical connections with the fur trade and the native peoples of the North-west (who had grown to trust the French), and their abilities to withstand the rigours of the portage, the voyageurs remained the largest segment of the white population on the western plains, especially after 1768 when the official proclamation against wintering among the Indians was withdrawn [Morton 1957]. These Canadians lived and had lived as the natives of the plains and woodlands lived; hunting, fishing, and trading, at one with the land and usually sharing accommodation with one or a series of Assiniboine, Cree, Saulteaux or other women, from whom offspring issued [Brown 1980]. When their voyaging contracts expired a number of these "freemen" chose to stay in the west - especially after the dissolution of the X.Y. Company in 1805 [Stanley 1963] - living with their families. Others did not. The children in either case grew up with their Indian mothers and they became closely

associated with the people of the plains, their cultures and, in time, the plains themselves.

Yet, these mixed bloods were different from their mothers. Many had French surnames, although some had Scottish names, their skin was generally lighter, and many of their ideas and notions were those of their fathers. The half-breeds (those of mixed Indian and English- and Gaelic-speaking white parentage) were generally better educated and more settled than the French-speaking half-breed, called the Métis. This was due in part to the higher positions their fathers held in the fur trade [Stanley 1960]. It was the Métis who settled in the Red River Valley south of the forks and on the east side of the Red River [Stanley 1963]. The Métis easily accepted the ministrations of the missionaries and many became deeply religious [Stanley 1960]. They were usually illiterate, yet extremely skilful in the ways of the Indian. They learned to live on the land as their mothers' people had taught them. This included the art, skill, and organization of the buffalo hunt [Morton 1957]. They were a bridge between two societies which linked aspects of both until they became a third society. These bois brulé or Métis developed a unique culture on the western plains, one which grew to prominence between 1800 and 1870 and centred itself about the Red River colony [Stanley 1963].

Beginnings of Settlement at Red River

The Forks of the Red River, since French time and La Vérendrye's Fort Rouge in 1738, had been a favourite site of white settlement, as transitory as these fur-trading establishments were. Fort Rouge, Fort Gibraltar, Fort Douglas, and Fort Garry each was built at or close to the junction of the Red and the Assiniboine Rivers, and around each such nucleus a small group of people congregated at one time or another, the workman of the trade, their families, and the Indians. The fact that large Indian encampments had been established in the area at the time of white contact [Coues 1897] may have been the determining factor for location of these various trading posts. As has been previously shown, the landscape of the area allowed large camps to survive at various times of the year for hunting, fishing, trading, possibly for agriculture, and for warfare.

A number of Métis and French-Canadian freemen had also found the Forks an attractive place to settle prior to 1812, and some small houses and gardens may have been seen along the river banks [Ellis 1970], although most habitations were probably lodges clustered about the fur-trading post. By 1814, two years after the first of the Selkirk Settlers had arrived, Miles Macdonnell estimated there were 200 Canadians with their Indian wives and offspring about the newly-formed colony, some of whom had taken up land [Morton 1957].

Lord Selkirk also saw the Forks as an attractive place in which to settle dispossess Scottish crofters and Irish cotters caught in the turmoil of European agricultural change. As early as 1802 Selkirk had

proposed a colony at Red River to the British Government [Morton 1938], a dream which reached a sort of fulfilment in 1812 when the first of his settlers arrived late in the year, but due to a lack of food were forced to move themselves to Pembina in order to live off the buffalo during the winter. In this they were following the age-old tradition of Red River, its reliance on the buffalo for food.

The confluence of the Red and Assiniboine had attracted the fur-trade posts initially because of the rich harvest of furs to be had in the valley. As these were depleted, these posts became the collecting stations for the provisioning of the fur-trading brigades which passed through on their way west to the Athabaska country or east to Montreal [Morton 1957]. Since the Red River Valley was at the edge of a buffalo-rich hinterland and because the fur brigades had become dependent upon the buffalo as the fuel driving the human machinery of the transportation network of the trade, the valley was extremely important to the trading companies. By putting a number of people loyal to the Hudson Bay Company in such a strategic place in the North-west and strengthening the company's claim to the land, Selkirk was able to convince the directors of the merits of his proposed colony [Morton 1938]. Agricultural produce available on a scale which would help alleviate a dependence on the buffalo was another positive feature of the colony's establishment [Morton 1938]. A third feature was the attractiveness of such a settlement to retired Company servants and their native families. A white trader, with his Indian wife and half-breed children, could retire to the Forks, remain in the North-west, his adopted homeland, and not face the possible social

ostracism for having a "savage" wife or the problems of adaptation his children might be subject to should he and his family return to England or Canada [Stanley 1960].

In any event, the colony, despite a number of serious setbacks including starvation, flood, grasshoppers, war and massacre, crop failure, and other problems, was established and slowly grew.

The settlement attracted French-Canadian voyageurs and Hudson Bay Company servants and their families, as well as a number of Métis, especially after 1817 and the Seven Oaks Massacre. Many Métis came to see the advantages of living in the colony where they were close to the missions and where there was a market for the produce of the hunt. After 1821, when the North West Company and the Hudson Bay Company amalgamated and were able to cut their staff by two-thirds, great numbers of Métis labourers and voyageurs were released from service [Ray 1974]. Many settled at Pembina, at Grantown on the White Horse Plain, and to the south and east of the Red, Assiniboine and Sale Rivers. In 1823 John Halkett, Selkirk's executor, enlisted Bishop Provencher's help in persuading most of those who had settled at Pembina, 500 in number, to move to the Red River colony which further swelled the Métis' ranks [Ray 1974]. This growth between 1820 and 1860 transformed the colony from a white to a half-breed and Métis settlement [Stanley 1960]. This concentration of people - hunters, farmers, tripmen, and traders - had serious implications to the landscape of the Red River Valley.

Métis Life at Red River

The Métis culture which developed at the Forks of the Red and Assiniboine Rivers was a marriage of Indian and voyageur ways. The relationship of the Métis to the landscape was little changed from that of their parents. The French-Canadian half-breed was a roamer, a hunter, and a trader, independent of the restrictions of civilization except in that he needed the concentration of like souls that developed at Red River as an economic link which enabled him to live. In order to afford the necessities of life which he, like his Indian ancestors, had come to rely on - the frills of dress, shot and powder, tobacco, tea, and alcohol - he was required to work, to sell his produce or his labour. Thus, many Métis became tripmen for the Hudson Bay Company, provisioners for the brigades and, later, carters of goods coming up to the settlement from St. Paul in Minnesota. Both before and after the monopoly of the Hudson Bay Company was broken after the Sayer trial in 1849 some became free traders, and a few became farmers. The colony was to most of the Métis a fixed centre around which revolved their nomadic life [Morton 1957]. Some of the Métis settled down and became good steady successful farmers. The other extreme were the "hivernants" or winterers who came to the settlement only to trade or to make merry [Morton 1957]. In the middle was the majority of people who developed a rudimentary horticulture for a few vegetables but depended upon the semi-annual buffalo hunt to supply their needs and their luxuries [Ross 1856].

Agriculture did not at first attract the Métis, nor did it ever attract many of them [Jackson 1970]. A number of reasons for this have

been suggested, the most usual one being that put forward by John Palliser:

> There is no labouring class whose labour can be depended on for a day; they hunt during three months of the year, and beg, borrow, and starve during the remaining nine. Their grievances appear imaginary, and indolence the cause of all their trouble. This character is mainly that of the half breeds. [Palliser 1859, p. 8]

Alexander Ross, whose children were half-breeds, suggests that there may have been other reasons for their disinterest in agriculture:

> Some are respectable in their habits; others are improvident as the savages themselves: but the chief dependence of all is upon buffalo hunting or fishing. The boundless prairies, therefore, have attractions for them, which the settled habits and domestic comforts of the industrious farmer can never hope to rival in their estimation. [Ross 1856, p. 84]

Hind mirrors this sentiment although in other parts of his journal he is far less complimentary of the half-breeds as a class:

> The fascination of a camp in the high prairies, compared with the hitherto almost hopeless monotony of the farms of Red River, can be easily understood by those who have tasted the careless freedom of prairie life. I was often told that the half-breeds generally sigh for the hunting season when in the settlements, and form but a feeble attachment to a permanent home, which cannot offer to the majority a comfortable maintenance under present circumstances, or secure the consciousness of possessing a free and manly spirit, with rational aspirations and hopes.
>
> They frequently bring a large quantity of buffalo meat or robes to the trading posts, and receive a considerable amount of money in exchange. [Hind 1860, p. 180]

The money which they obtained covered them for at least part of the year and allowed them to buy the necessities and luxuries they needed. It can be assumed, then, that the most obvious reason for the Métis' lack of interest in agriculture was that the buffalo hunt was much more lucrative [Morton 1957]. This is substantiated by a Scot living in the colony:

> No one who ever saw one of these plain hunters come in to Fort Garry, after the season's work on the Saskatchewan, could fail to see that he was a person in exceedingly comfortable material circumstances. In his train he had any number of carts (with ponies for each and to spare) and these were laden with the choicest viands in the shape of buffalo meat, marrow-fat, beaver-tail, etc., while he also had a goodly supply of furs that would bring handsome prices. [Stanley 1963, p. 9]

The English-speaking settlers were farmers, generally good farmers, who, once established, were more than able to provide the agricultural produce needed by the settlement and by the Hudson Bay Company. Any excess of agricultural products, and there was an excess after 1834 [Murray 1967], had no market until the railroad provided one. Whether the Métis wished to become large-scale successful farmers was not at issue; there was no need of them or room for them [Morton 1949]. Some Métis did own good farms [Stanley 1963], but the majority were as Ross, writing about conditions in the colony at the time, describes:

> Our population... is made up of two classes nearly equal in number; the European or agricultural party, and the native or aboriginal party, called hunters or half-breeds, differing as much in their habits of life and daily pursuits as in the colour of their skin. In the present state of things, their interests are exactly opposed to each other, inasmuch as a market for one party shuts up all prospect against the other. When the plains fail, the farmer's produce is in demand; and when the crops fail, the hunter finds a ready market; but when both are successful, there is not a tithe of a market for either within the colony. Such a state cramps industry, and renders labour - the great source of wealth in other countries - utterly fruitless. Hence, an idle, vagrant, and grumbling population - a population with barns full, stores teeming with plenty, and yet their wives and children half naked, insomuch that the more industrious and wealthy can scarcely command a shilling to pay the doctor's bill, or their children's education. Singular assemblage of wealth and want, of abundance and wretchedness. [Ross 1856, p. 335]

FORMS ON THE PRAIRIE

Despite Lork Selkirk and his dreams of an agricultural enclave at Red River, pemmican was the raison d'être of the first settlement in the valley. The buffalo hunt was a necessity for the Métis, an outgrowth of their traditional way, a reuniting of the bonds of their love for the landscape and cultures from which they emerged. Other pursuits which took the Métis out into the plain and parkland were also important to them. Their ties to the fur trade were strong and their labours in the canoes and York boats of the Hudson Bay Company, their freighting of goods by cart and dog-sled, and their continued trade in furs with the Indians, were an economic necessity and a life style they found most addictive [Morton 1957]. Joseph Hargrave describes the feelings of the Métis in his book, Red River, published in 1871:

> The inhabitants of the Plain country of Red River, however, most assuredly evince an affection for the land of their nativity, closely allied to, if not identical with, the patriotic emotions of the denizens of other countries. Nor is it only to the dead natural scenery that their feelings cling, but though existing under an improved exterior, the romantic life, the custom, mode of thought, and language, of the Indians, retain their hold on the affections of their descendents to successive generations. [Hargrave 1977, p. 181]

The Métis Buffalo Hunt

> The Métis of Red River was a hunter and a trapper, a fisherman, a voyageur, by boat or cart brigade, even perforce a farmer - but above all, he was a horseman and a buffalo hunter. The buffalo hunt was his most characteristic occupation. [Morton 1961, p. 46]

During Henry's stay at Red River he was often meeting with freemen and their families in small cart brigades who were out hunting for buffalo [Coues 1897]. This they made into pemmican in the traditional Indian manner, by cutting the meat into strips, drying it either in the sun or over open fires, pounding it to a powder, then mixing it with fat and marrow in a green buffalo skin which was then sewn up [Morton 1957]. In this way, if the pemmican was prepared properly, it would last a number of years. The fur trading companies bought these 90-pound bags, each being the product of one animal, usually a young cow [Morton 1957].

The Indians at first supplied the traders with pemmican, but as the Métis became more proficient and more organized in their hunts they soon developed a strong competition with the Indians [Ray 1974]. By 1821 the Métis buffalo hunts had become organized seasonal expeditions [Morton 1957] and by the 1840's the Métis were bringing in more meat and pemmican than the Hudson Bay Company required-the Indian trade was no longer needed at Red River [Ray 1974].

The buffalo hunt was a natural outgrowth of the Métis way of life and it was to this end that these people seriously applied themselves. Their organization, their determination, and their success as hunters and warriors in this venture eventually gave rise to a mastery of the plains and the colony, a mastery which the Sioux and, later, the Canadians both learned to respect. Through the buffalo hunt and in their role as the

colony's shield against the Sioux, the Métis also developed a respect for themselves and for their vibrant and colourful culture which grew up at Red River [Morton 1957].

The hunt was held twice a year, the larger of the two in the spring in order to procure pemmican; the fall hunt was for hides and fresh meat [Morton 1957]. It was based on strict military discipline, something the Métis learned from their Indian ancestors and elaborated on [Morton 1957]. Two parties usually hunted, the main party from the area of Red River, a smaller party from Grantown. The hunt followed the old Pembina trail south toward the Pembina Hills, the hunters forming a long plodding line of screeching, howling Red River carts which were an elaboration of the wooden cart of Scotland [Morton 1957]. The hunt itself was conducted on horse from the backs of the famous "buffalo runners", the Métis coming up beside the buffalo and shooting across the horse's neck. When the lines of broken, crumpled beasts were at an end, the women, the old men, and the children in the cart brigade came forward to butcher and to make pemmican [Jackson 1970]. The work was hard and the hunting was dangerous. Many a hunter was thrown from a horse or maimed when a gun blew up in his hands. But it was exciting and colourful work and it attracted most of the Métis of the settlement if they could find the credit necessary to acquire carts, ammunition, and a good horse [Ross 1856].

The buffalo hunt affected the landscape of the Red River Valley in two ways: one transitory and one very permanent. The cart brigades and the hunters' camps were evident upon the plain, the tracks of the carts

and the bones of their victims were all that the Métis left in their passing. A number of observers have captured the transitory images of the hunters' camps and brigades in their photographs and in their descriptions.

Alexander Henry gives us the first description of a cart train, not a group of hunters, but some Canadians employed by the North West Company. A similar scene on a much larger scale would have attended the commencement of a hunt:

> Let us view the bustle and noise which attended the transportation of five pieces of goods to a place where the houses were built in 1801-02. The men were up a break of day and their horses tackled long before sunrise; but they were not ready to move before ten o'clock, when I had the curiosity to climb on top of my house to watch their motions and observe their order of march.
>
> Antoine Payet, guide and second in command, leads the van, with a cart drawn by two horses and loaded with his private baggage, cassetêtes, bags, kettles and mashqueminctes. Madame Payet follows the cart with a child and year old on her back, very merry. Charles Bottineau, with two horses and a cart loaded with 1 1/2 packs, his own baggage, and two young children with kettles and other trash hanging on to it. Madame Bottineau with a squalling infant on her back, scolding and tossing it about. Joseph Dubord goes on foot, with his long pipe-stem and calumet in his hand; Madame Dubord follows on foot, carrying his tobacco pouch with a broad bead tail. Antoine Thellier, with a cart and two horses, loaded with 1 1/2 packs of goods and Dubois' baggage. Antoine La Pointe with another cart and horses, loaded with two pieces of goods and with baggage belonging to Brisebois, Jasmin, and Pouliot, and a kettle hung on each side. Auguste Brisebois follows with only his gun on his shoulder and a fresh-lighted pipe in his mouth. Michel Jasmin goes next, like Brisebois, with gun and pipe puffing out clouds of smoke. Nicolas Pouliot, the greatest smoker in the North West, has nothing but pipe and pouch. Those three fellows, having taken a farewell dram and lighted fresh pipes, go on brisk and merry, playing numerous pranks. Domin Livernois, with a young mare, the property of Mr. Langlois, loaded with weeds for smoking, an old worsted bag (madame's property), some squashes and potatoes, a small keg of fresh water, and two young whelps howling. Next goes Livernois' young horse, drawing a travaille loaded with his baggage and a large worsted mashguemcate belonging to Madame Langlois. Next appears Madame [John] Cameron's mare, kicking, rearing, and snorting, hauling a travaille loaded with a bag of flour, cabbages, turnips, onions, a

small keg of water, and a large kettle of broth. Michel Langlois, who is master of the band, now comes on leading a horse that draws a travaille nicely covered with a new painted tent, under which his daughter and Mrs. Cameron lie at full length, very sick; this covering or canopy has a pretty effect in the caravan, and appears at a great distance in the plains. Madame Langlois brings up the rear of the human beings, following the travaille with a slow step and melancholy air, attending to the wants of her daughter, who, notwithstanding her sickess, can find no other expressions of gratitude to her parents than by calling them dogs, fools, beasts, etc. The rear guard consists of a long train of 20 dogs, some for sleighs, some for game, and others of no use whatever, except to snarl and destroy meat. The total forms a procession nearly a mile long, and appears like a large band of Assiniboines [Coues 1897, pp. 226-228].

Both the noise and the sight of the cart trains on the plain were said to be distinctive. The Earl of Southesk describes the effects of a cart train on both senses well:

> The frogs, as usual, never ceased their chirping and croaking uproar; cranes were very numerous, uttering continually their doleful, throat-gargling cry, a sound only surpassed in wretchedness by the shrieks of the ungreased cart-wheels, which moaned and screamed like a discontented panther. [Southesk 1969, p. 26]

> Fervently as I wished them away, it cheered one's spirits to see the hunters on their march. There was infinite picturesqueness about them. Their long moving columns sparkled with life and gaiety. Cart-tilts of every hue flashed brightly in the sun, hosts of wild wolfish dogs ran in and out among the vehicles, troops of loose horses pranced and galloped alongside. The smartly-dressed men were riding their showiest steeds, their wives and daughters were travelling in the carts, enthroned on high heaps of baggage. [Southesk 1969, p. 44]

John Palliser travelling in Alberta in 1860 gives us a further description of a half-breed hunting camp out on the plain:

> The band of "freemen" that are at present travelling in from the plains to Lake St. Ann's Settlement... were heavily loaded with the proceeds of their hunt... The rest of the band arrived, forming a motley troop with loaded horses and dogs, and travelling in a style hardly different from the Indians. The rest of the day was spent in winning the good will of their old chief Gabriel Dumont... The band was about 200 in number, including women and children. There were 40 tents which were merely Indian wigwams of buffalo skins sewed

together and stretched over poles. Their habits differ very little from those of the natives, except that their dress is all of European manufacture. Many of the men could talk French, but all prefer to talk the Cree language. The men are generally handsome, well-made fellows, but very few of the women are even comely. They were very hospitable, and we had many feasts of the finest buffalo meat, but the great delicacy that was at this time of season was the musk rat... [Palliser 1863, pp. 79-80]

It is apparent that the form of the Métis camp and cart train had changed little from the time of Henry to that of Southesk and Palliser. It is interesting to note that Henry in other parts of his journal described half-breed hunts occurring in the Red River Valley during his stay there between 1800 and 1808.

The Métis buffalo hunt with its strict military organization and huge success has been described fully by Ross [1856, pp. 234-274] and this account should be read for a fuller understanding of the hunt. During one such hunt in 1851, the small White Horse Plains band defeated several hundred Sioux Warriors due to their discipline. W. L. Morton describes the actions of those two days and sums up thus:

> The Métis, thereafter, were masters of the plains wherever they might choose to march. The action of the Grand Coteau showed that they could fight and move on the plains even in the face of superior numbers of Sioux, perhaps the most formidable warriors of all the North American plains tribes. Their conduct of the march of the cart brigade, their plains craft, their battle tactics, from the firing from the saddle to the use of the rifle pit, were brilliant by any standard of warfare. What wonder that the British officers who knew them spoke admiringly of their virtues as cavalry. What wonder that veteran of Europe's wars, Captain Napoleon Gay, after his service with Riel in 1870, tried to train his volounteer cavalry in the Franco-Prussian war as Métis mounted riflemen!
>
> The battle of Grand Coteau was perhaps the proudest memory of the Métis nation. Nothing more conclusively proved their mastery of the plains by which they lived... [Morton 1961, p. 59]

By 1859 the Métis were having to travel as far as the Cypress Hills in Alberta to find enough buffalo to hunt [Morton 1957]. In 1867 the last herd of wild buffalo was roaming the Souris River country [Ray 1974], once an area teeming with the animals. Most had been driven out of the area of the Forks by 1820 [Ray 1974].

This total destruction of the large fauna was the second and most devastating effect of the buffalo hunt upon the landscape of the plains. The disappearance of the buffalo as a result of the greed of the Indian and the half-breed marked the end of an era. It also resulted in the collapse of a number of Indian cultures as well as a large part of the Métis culture at Red River. When the pemmican market gave way to the hide market, this change brought about by a huge demand for hides created by the Crimean and the American Civil Wars, [Morton 1957], the killing became absolute.

Alexander Ross saw the end in 1856, as did most of the people, and he sums it up wonderfully:

> But the day is fast approaching, nor can it be far distant, when the transient glories and fears of the plain-rangers must arrive at their end. The buffalo, the exciting cause, once extinct, the wandering and savage life of the half-breed, as well as the savage himself, must give place to a more genial and interesting order of things; when here, as in other parts of the world, the husbandman and the plough, the sound of the grindstone, and the church-going bell, will alone be heard. Buffalo, the only inducement to the plains, are falling off fast. They are now like a ball between two players. The Americans are driving them north, the British south; and there is no space unmolested in which they may find an abiding place. The west alone will furnish them a last and temporary retreat. [Ross 1856, p. 267]

The buffalo had retreated to the west. Southesk, in 1859, did not

see live buffalo until he reached the elbow of the Saskatchewan River. He did see the remains of the herds, however:

> The plains we had been passing through during the day was thickly strewn with buffalo skulls, the relics of former slaughter by Indians or half-breed hunting parties. [Southesk 1969, p. 70]

Hind describes how this destruction was taking place:

> The improvidence of many of the half-breeds is remarkable. During the winter before the last, those of the White Horse Plain camped out on the distant prairies, and killed many thousand buffalo in wanton revelry, taking only their skins and tongues, little caring that the reckless destruction of these animals must exercise a very important change for the worse in their own condition. [Hind 1860, Volume 1, p. 180].

This loss of the rich fauna of the plains was not restricted to the buffalo alone. Moose and elk were also used for pemmican [Jackson 1970], but they had also been exterminated largely. Palliser, in travelling through the Pembina Hills, mentions:

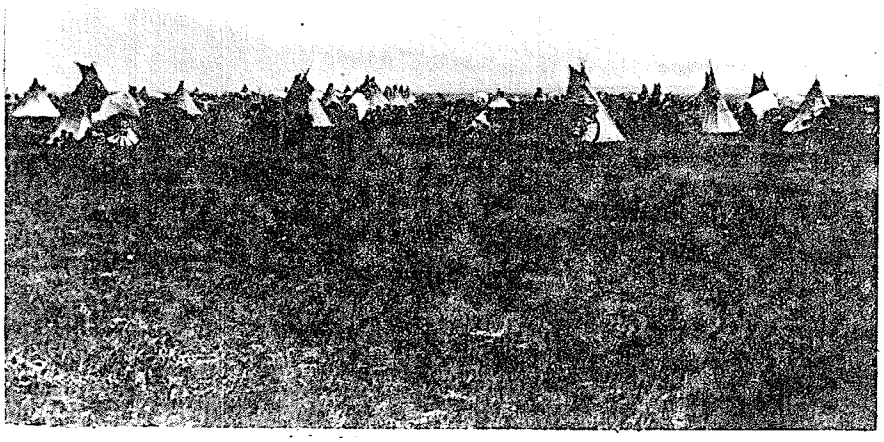
> Saw two small deer, and subsequently through the day several wolves. The woods in this locality formerly abounded in large game, such as elk, moose, and bears, but they have long since become very scarce. [Palliser 1863, p. 42]

In southern Manitoba in the last century and a half we have seen the extinction of the bison, swift fox, pronghorn, and mule deer, as well as the extinction of the geographic races of the gray wolf and the grizzly. The grizzly's disappearance was completed by 1825 [Wrigley 1979].

Certainly, the Métis buffalo hunt did not alone accomplish this. As man adjusted the landscape to suit himself a number of animal species fell before him. Others did follow him into the Red River Valley. Some that entered the area include the white-tailed deer, gray fox, white-tailed

jack rabbit, Norway rat, eastern cottontail, gray squirrel, fox squirrel, and house mouse [Wrigley 1979]. The landscape was tamed by man; the buffalo hunt was one of the advances of this process of eradicating useful or uncomfortable and inconvenient species from the land.

> Besides the wild men from the plains, we see, here and there, other former denizens of the wilds - the pets of Garry. In the half acre attached to the Ontario Bank is a pretty red doe. Young black bears are often seen chained in the gardens. Foxes peep from their holes, but run in as far as the cord will allow as we approach. A young cinnamon Bruin has his lair behind one of the warehouses. A pair of Buffalo calves were expected in soon by one of the traders. Every house of any pretensions has its show of stuffed birds, skins, and horns. In some the only carpets are the soft furs of bear, wolf, buffalo, mink, and badger. [Hamilton 1876, p. 43]



22. Half-breed hunters' camp
[Manitoba Archives - Boundary Commission 1872-1874]

23. Half-breed traders
[Manitoba Archives - Boundary Commission 1872-1874]

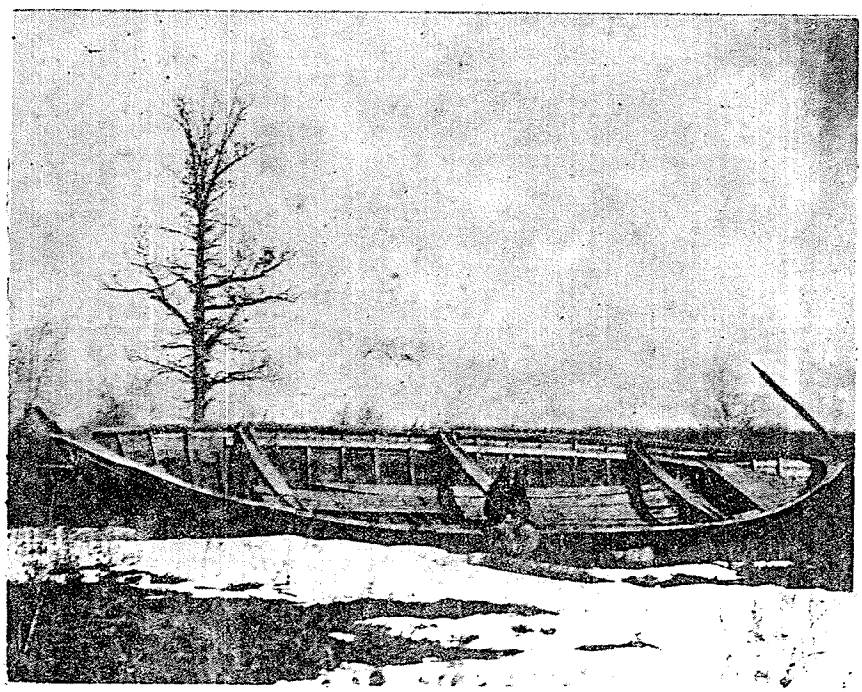
Métis Tripmen, Freighters, and Traders

With the demise of the buffalo in sight, a number of Métis turned to other pursuits in order to make a living. Some had always been involved in the fur trade as tripmen in the York boats and canoes of the Hudson Bay Company. In 1856, for instance, 55 boats each with a capacity of from three to five tons were in the Company's service [Stanley 1960]. These pursuits, as well as fishing, cart freighting to St. Paul (in 1857 over 300 carts were employed in such service) [Stanley 1960], and the trading in furs and robes, had little effect upon the landscape of the Red River Valley. The deep ruts of the cart tracks and the colour and noise of the cart trains was probably the most noticeable effect of these activities.

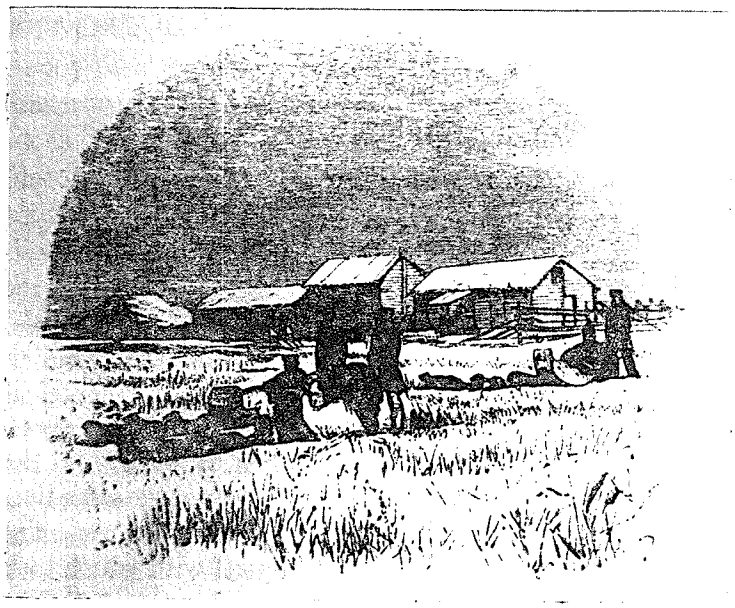
The Red River colony became the hub of the cart brigades [Morton 1957]. With the opening of free trade in 1849 a steady trade developed with St. Paul; organized brigades offering employment to Métis carters made their way south from 1850 on [Morton 1957]. When the Hudson Bay Company began importing their goods through St. Paul in 1858 this movement by cart increased further [Morton 1957]. By 1876, however, the cart brigades had effectively ceased functioning due to the steam boats paddling the river [Hamilton 1876].

The number of carts owned by the Métis and scattered about the settlement was certainly substantial. By 1849 there were 1,210 assembled for the hunt [Ross 1856]. This number must have risen much higher as freighting between St. Paul and Red River increased. Hind mentions there are 2,108 Red River carts in the settlement in 1856 [Hind 1860]. Therefore, carts must have been dominant features within the settlement as well as on the plain.

24. Red River Cart
[Public Archives of Canada - in Proulx 1970, p. 90]



25. Red River freighter's boat
[Manitoba Archives - Hime Collection 1858]



26. Dog Carioles
[in Hind 1860, volume 2, p. 86]

27. A cart train on the plain
[Manitoba Archives]

FORMS IN THE SETTLEMENT

The Métis who had assembled at the settlement had little choice in what they could do. Their seasonal employment kept them away from their homes much of the time. Many families, however, kept a small kitchen garden for their wants between their seasonal wanderings, and brought in hay to keep their livestock through the winter [Ross 1856]. It was these settlement-bound activities which were responsible for the substantial change of the landscape which occurred around the colony between 1800 and 1870.

The Red River colony depended upon the old nomadic economies of the buffalo hunt, and on the new sedentary economy of agriculture which grew in importance as the years went by [Morton 1949]. Although the Métis were largely outside of this activity with the decline of their traditional economies, the importance of agriculture grew in significance to them. This change brought new forms to the settlement and changed to a certain extent the landscape of the Red River south of the Forks.

River Lot Survey

Probably the strongest determinant of the form of the settlement at Red River was the long-lot survey which was begun in 1813 by Peter Fidler, a Hudson Bay Company trader and surveyor [Kaye 1977]. He initially laid out lots for the Selkirk Settlers in the vicinity of Point Douglas, just north of the Forks, and by 1818 had surveyed lots 22 miles north. St. Norbert wasn't surveyed until between 1835 and 1838 when George Taylor surveyed the entire colony. St. Norbert's lots extended to a point just below Point Coupée (St. Adolphe) [Mailhot 1980].

The survey imposed on the land was well suited to the riparian existence of the settlers and the Red River landscape although it probably held up the settlement of the open plain for a number of years by its existence. The survey imposed on the land and people a form of living which was very distinctive, but quite constricting.

The settlers and the Métis who took up lots were granted a piece of land 12 chains wide (792 feet) by two miles long which ran back perpendicular to the river. A further two miles out was considered the hay privilege of the particular lot-holder, beyond that was public lands [Kaye 1977].

This type of lot offered a number of advantages to the settler and had been based on the riparian long lots of the lower St. Lawrence River [Stanley 1960]. Firstly, each lot had river frontage, for water, fish, and transportation. Secondly, the river banks were high and well-drained, the natural levees made ideal gardens and small fields. Away from the river the land was covered in thick matted prairie sod, difficult to plow,

and generally poorly drained, especially after a flood year. The river-bottom forest which extended back from the river and gradually evolved through aspen and oak into the prairie grasses provided a number of blessings to each settler. There were good large trees for shelter from the prairie storms and fires, and the ribbon of forest provided wood for buildings, fences, and fuel. Beyond the trees was the wet thickly-sodded treeless meadow which offered luxuriant hay and grazing for the settlers' livestock. Although this land could have been improved by drainage, the myth of the sterility of the prairie soils persisted in keeping people from cultivating the plain. That, and the fact that Indian land claims had not been extinguished beyond the two-mile line on either side of the river, kept the settlement tightly bound to the river [Kaye 1977].

This form of settlement, however, had other advantages. Settlers' houses could be connected by one road running parallel to the river, each houses being about 792 feet apart. As families grew and lots were subdivided, houses got closer and closer together until farmers were cultivating only narrow ribbons of land extending away from the river [Ross 1856]. This pattern produced tightly-knit settlements, necessary for a pioneering community where neighbours were forced to depend upon each other.

There were disadvantages to this form of development. Expansion was always internal, through subdivision, and narrow lanes did not lend themselves to efficient farming practices. A flood would to destroy every homestead at once so that there would be no one who had not been flooded to turn to for help. Timber was quickly depleted in the settlement itself

although it could be easily rafted down the river from above [Morton 1949]. Distances became great for persons who took lots toward the edges of the colony. It appears, however, that the advantages of such a survey system outweighed the disadvantages, at least until 1870. The survey gave the settlement a very interesting form, one which many of the writers of the day felt they should comment upon:

> ...we now pass house after house, all of a like simple style - of hewn logs, one, or one and a half stories in height, with shingled or thatched roof, doors near the ground, round mud-built oven and root-house in the garden, and cattle shed in rear... The whole river's bank, for mile upon mile, seems a long street with houses on but one side... [Hamilton 1876]

This form of the colony was more visible north of the Forks on the west side of the river. The Métis tended to be squatters, as Hind states:

> The majority of the settlers were half-breed squatters, who maintained that the land was theirs by natural law, and that there was no need to bother about the Company's title. [Grosman 1977, p. 29]

The Métis lived on the land, however, in similar ways to the agricultural settlers, and took advantage of the benefits that the long-lot survey gave the others, whether the lot was legally theirs or not. W. L. Morton explains this:

> The Métis built their cabins in the wooded fringe of the river front for the sake of shelter and fuel. From the river itself they drew water and fish. On the silted river banks and dry plains and in openings in the woods, they sowed their patches of potatoes and barley. On the plain behind the women and old men cut the rank prairie hay. But what they chiefly valued in this riverfront site was the access it gave at once to the waterways before and the open plains behind. Like their Indian ancestors what they desired was an extensive and seasonal use of the land, a use not confined to agriculture, and with it the right to move freely where they would. The river-front settlements of the Métis, then, much like those of the Scots and the half-breeds, were an organic part of a complex way of life which varied with the seasons and rested at once at the

agriculture of the river side and the use of the plains for haying, grazing and hunting. [Grosman 1977, p p. 29-30]

This type of existence, the use of the land without having the proper feelings of ownership for it outraged men of property within the colony, men such as Alexander Ross:

> The reader is aware that the half-breeds are not of the emigrant class; but rather squatters and intruders, who have from time to time dropped off from the fur-trade, or come in from the Indian camp, and set down among their countrymen on the first vacant lot they find handy, which they make so scuple of calling their own. On this spot they remain, or burrow like rabbits, or rather freebooters, till the last stick of timber on it is cut down, and sold or destroyed; the wood being the only article on the lands which such people can turn to advantage. When the lot is stripped bare, they remove to another, and reduce it to the same condition. Thus the upper and best wooded part of the settlement has been entirely ruined, and rendered treeless. This alone might prove, if proof were necessary, not only the absence of all law, but the weakness or rather indifference of the government which permits the waste of a useful and indispensible article. Within the boundary of the colony, wood is already scarce; and unfortunately the country affords no substitute. Of all those squatters there is not at this day half a dozen to be found on their original lots. [Ross 1856, p p. 198-199]

What outraged Ross further was that the next fellow to come along to claim a denuded lot, already abandoned, had to pay the original squatter for improvements. "Thus he is virtually paid, not for improving, but for destroying the lot" [Ross 1856, p. 199].

The loss of trees in the colony had become a serious problem in the colony by 1856. The "abundance of wood on the banks of the river to answer every purpose for the ages to come" [Coues 1897, p. 149] which Henry spoke of in 1800 was virtually depleted by 1870. Joseph Hargrave, writing at that time, found that "a difficulty... exists in the small amount of timber for building purposes, and fuel growing on the banks of the Red River and Assiniboine" [Hargrave 1977, p. 178]. Hind also

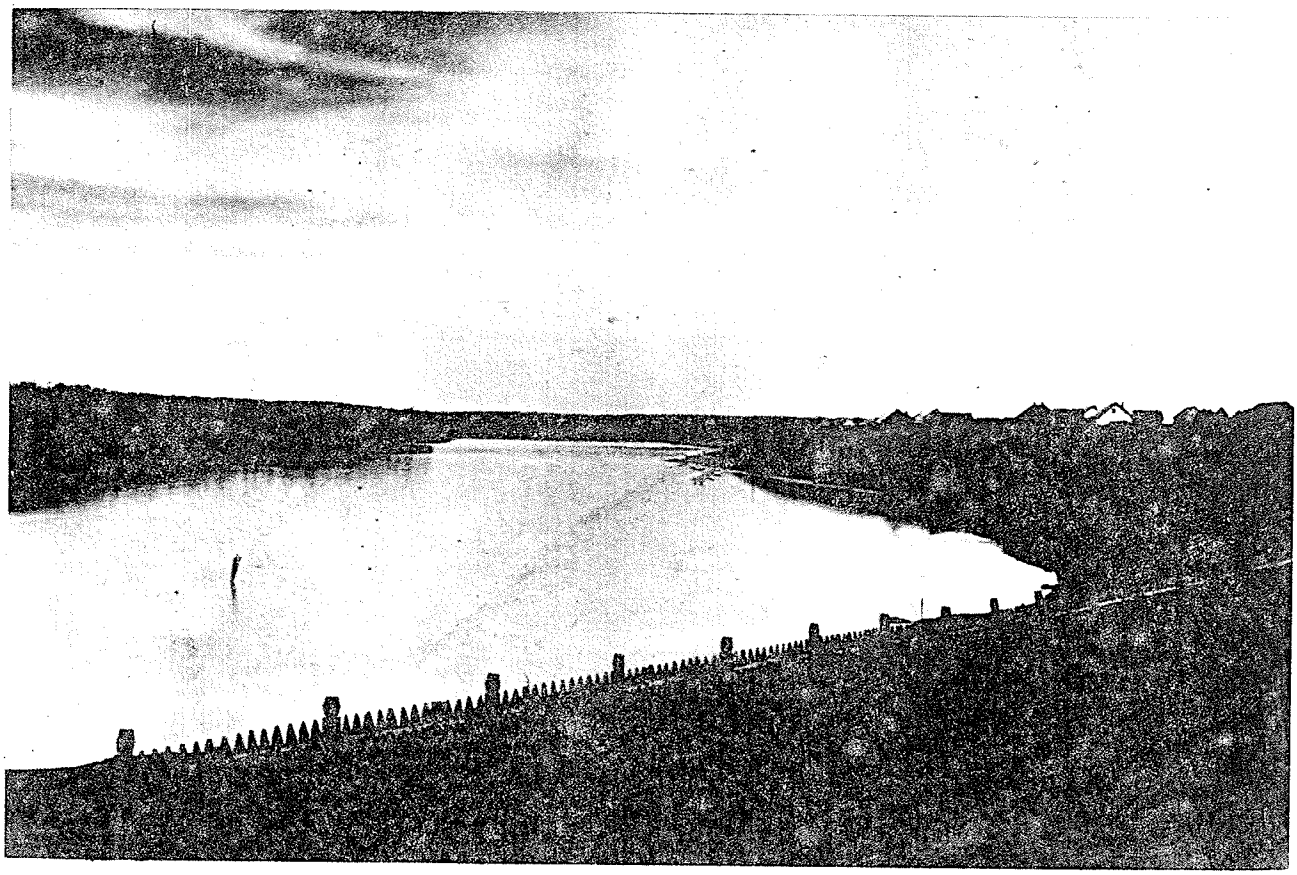
discusses the forest destruction in 1860, saying the river "was fringed with elm, poplar, maple, oak, and ash, all of large growth, but not fair representatives of the forest which once skirted the stream, so long subjected to a destructive culling process" [Hind 1860, vol. 1, p. 129]. The destruction of the river bottom forest becomes very apparent when the photographs of the settlement about that time are viewed. They usually show, however, the more northerly part of the colony, where settlement was more stable:

> The French part of the population is, as a class, migratory. They go to the prairies to hunt buffalo, or man the Hudson's Bay Company's boat and cart brigades. The part of the settlement in which they live may be described as both banks of that portion of the Red River lying to the south of it's junction, with the Assiniboine and the southern bank of the latter river. [Hargrave 1977, p. 174]

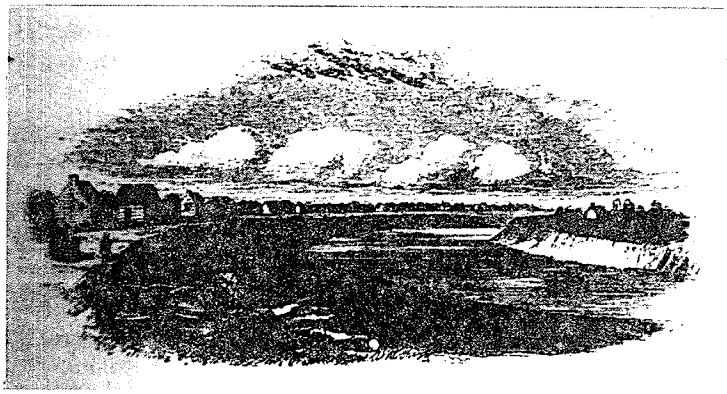
This part of the settlement was of a somewhat different character, especially at St. Norbert, where squatting occurred after 1821 but a survey was not conducted until 1836 [Mailhot 1980]. With their different attitude toward the land from those of the settlers it was no wonder that:

> The houses of the half-breed hunters generally show no signs of recent improvement, show no signs of care and attention devoted to gardens or to the cultivation of fruit. [Hind 1860, p. 182]

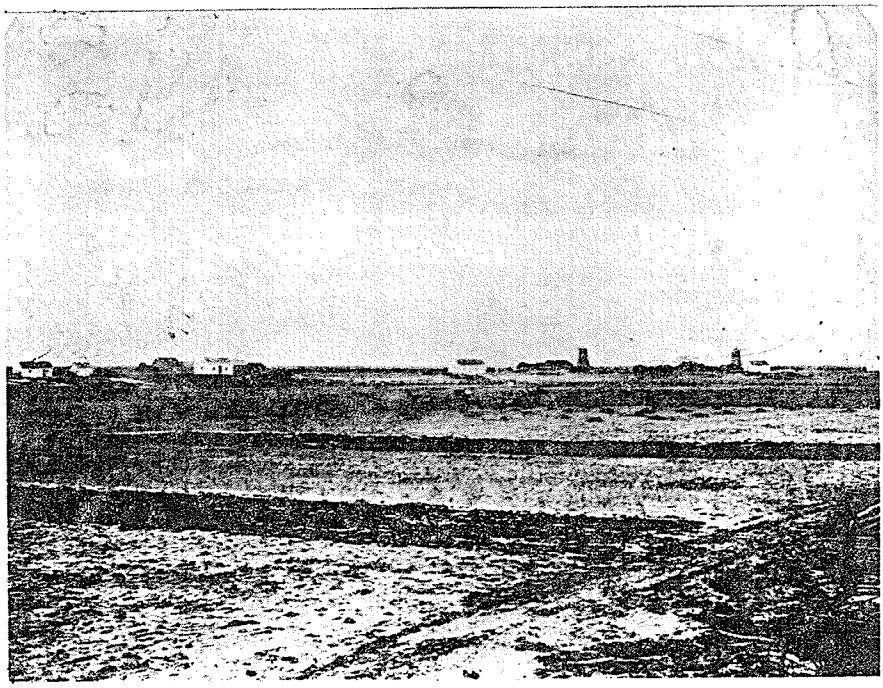
These typical Métis homesteads were little more than a house, a stable or small barn, a small cultivated kitchen garden, perhaps a hen-house, and an outhouse. The stock might have consisted of a milk cow or more, some pigs, and maybe some sheep. Some of the wealthier Métis would have had more stock as well as carts and oxen [Mailhot 1980].



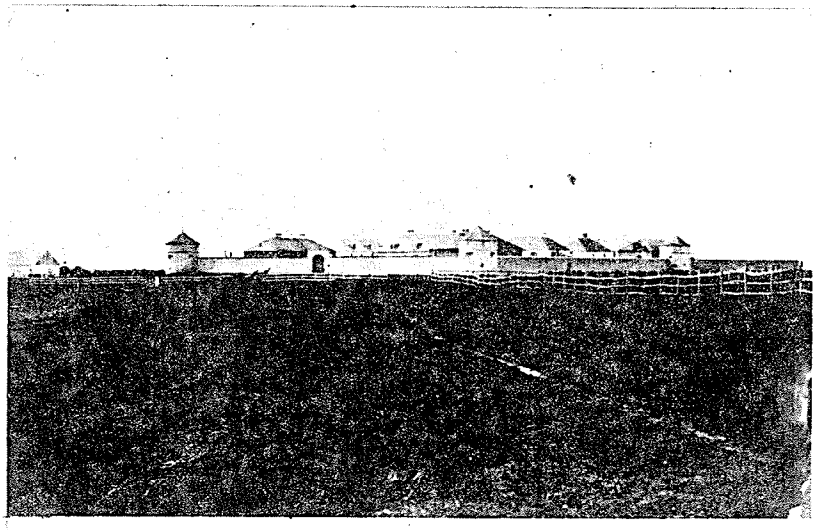
28. View of Red River from St. Andrews Church - 4 miles south of the Stone Fort
[Manitoba Archives - Hime Collection 1858]



29. The Red River at Pierre Gladieux's - 5 miles south of the Fort Garry
[in Hind 1860, vol. 1, p. 165]



30. Farm house and windmills, Middle Settlement (note the absence of trees)
[Manitoba Archives - Hime Collection 1858]



31. Fort Garry at the confluence of the Red and Assiniboine Rivers (note the absence of trees)
[Manitoba Archives - Hime Collection 1858]

Métis Structures

The houses of the Métis varied with economic conditions. The winterers lived in tents while some of the more prosperous had one or one-and-a-half story houses of several rooms. As better tools and materials became available and as the hunt declined, many Métis took far more interest in their homes and farms [Mailhot 1980]. A description of typical Métis house construction is given by Louis Goulet, who was born in 1859 and lived in St. Norbert:

> There were eight boys in the family: Moise, Roger, myself, Louis, Alexandre, Joseph, Napoléon, Charles and Maxime. One girl, Justine between Napoléon and Charles. The family lived on a stretch of land located on the west bank of the Red River, a little ways from the mouth of the Sale River. Our house, like all the others at that time in St-Norbert, was built from logs well squared-off with a large axe and held superimposed by tenon and mortise joints and what we called in those days a "dovetail". It was one and half stories high, two times longer than wide and covered with earth and straw. The chimney was made from long poles which we called "wood-shoots" ranging from 10 to 12 feet high. These poles were straight and planted side by side, and were covered, from the inside and outside, with thick clay mortar. It was used to heat and light up the room. The windows were squares of dried rawhides which tried hard to let the sun rays and moon rays penetrate into the room; if there were none, then the chimney would have two roles: light up and heat up the room.
>
> The woodwork: the frames, the chassis, the doors, the floors, and furniture were home-made and fashioned with a "crooked" knife, either alone at home in the evening or in a workparty. Ordinarily, only the parents slept together in one bed; the children slept each night rolled up in buffalo hide robes laid on the bare ground or on a floor if there was one. It was during the golden age when buffalo hides were numerous.
>
> No one would think perhaps that home-made products were rustic or crude. Maybe they weren't finished artistically but were far from being crude. The average person, used to providing his own needs, showed a suprising dexterity in such a way that most could be compared to today's tradesmen. In short, the interior furnishings in the Red River region satisfied the needs and comfort known to us in those days. Manual labour performed by "bees" was undertaken when the more important structures had to be assembled. It was a past

tradition that when a man, not able to build something alone, was helped by a group of men willing to "pitch in". It was a way by which various "experts" would exchange their abilities. We saw houses of all kinds raised in a day, thanks to the neighbours' efforts and without even having to ask them to help, they would come.

The building of a house was done generally by steps. We would first build the house for the family or person in need, and give them shelter immediately. Once this was fulfilled, the rest would be fabricated during the free hours; the head of the family would decide according to the need. However, the chimney was built with the rest of the domicile. After, came the building of furniture, the floor laying, the frame finishings and other woodwork. The first part of the building was a moderately-sized structure, built according to the needs of the family at that time. Later, when the house was too small to accomodate an increasing family, a wing was added and if later, the house was still too small, another wing was added and so on. That is why it was frequent to see often, long houses during pioneer days.

The main floor was the main room and often the only one. The attic not being used, was completely closed by a simple ceiling made from joists, or wooden planks cut by axe. This crude ceiling was called the upper floor. The usual furnishings in the house consisted of a table, seats, a cupboard or two. The latter was only simple shelves placed one on top of the other and fixed at each end to a plank or thick wooden piece fashioned by hand and by axe. The whole assembly was hidden by a piece of canvas or deer skin [Grosman 1975, pp. 25-27].

Such houses, however, had a transient nature about them. If a family moved to a new lot as has been described, such houses would be abandoned, possibily moved. Joseph Hargrave discussed the impermanence of such dwellings upon the landscape:

> One of the most characteristic features of the colony is the evanescent nature of its dwelling houses, which seem to resemble in that respect the lodges of the savage, removable from day to day and leaving no trace behind. The material used for building is wood, and the majority of the houses inhabited by the poorer classes have only one or two rooms... Even the larger houses of the wealthier residences, unless kept in constant repair, fall quickly into decay. The enclosures round them are stolen by wandering Indians, for firewood, or swept away by floods, and, in the event of the death of the proprietor, the whole thing sometimes falls to pieces in the hands of his successors, leaving nothing, save possibly a few isolated trees to mark the spot where snug farm houses and neatly

kept gardens had flourished. [Hargrave 1977, p. 180]

Although this may have been the case of most dwellings and barns, some did survive and remained occupied for great lengths of time. The Charette House in St. Norbert, built before 1812, survived well into the 1950's before being demolished [Shipley 1969]. However, most of the built forms on the landscape prior to 1870 have long since disappeared or have been replaced by newer structures.

Such structures included, for instance, the church and convent at St. Norbert. Religious life was extremely important to the Métis [Stanley 1960]. The population of these people clustered about Rivière Sale was large enough by the mid-1840's to warrant the commissioning of the Grey Nuns to travel twice weekly from St. Boniface to minister the catechism to the people [Mailhot 1980]. The first church was begun on the site of the present church in June of 1855. In June 1857 the Parish of St. Norbert was founded, named in honour of Norbert Provencher, the first bishop of St. Boniface. It extended east to Rivière aux Rats (St. Pierre) and south to the American border [Mailhot 1980]. In 1858, shortly after the founding of the parish, two of the Sisters of Charity, the Grey Nuns established a small convent school in a little log building north of the church. This was replaced by a much more substantial building on the same site in 1874. A number of churches had been built in the Red River Settlement by 1870.

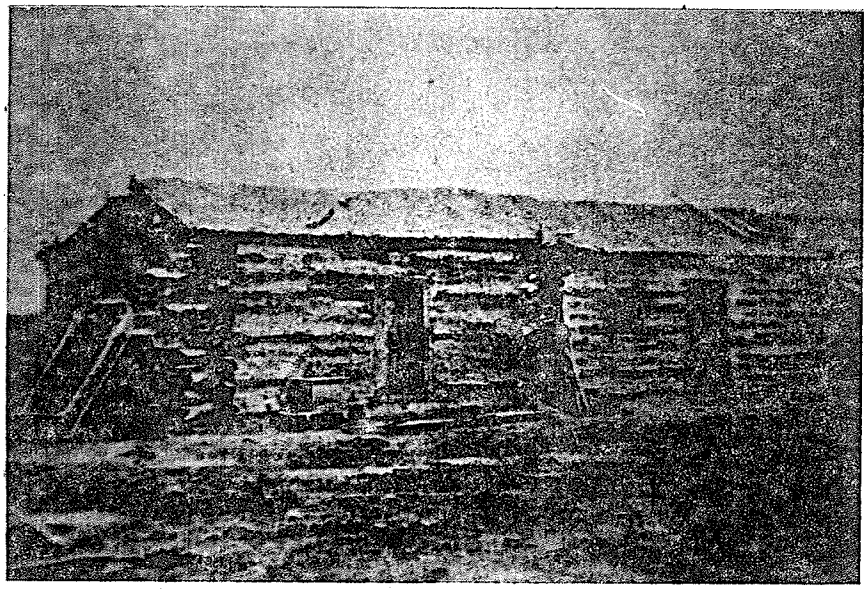
Other features of the Red River landscape included windmills, as Hargrave notes in 1868:

> Wind-mills have long been in use, and of late years steam grist and saw mills have been introduced. In a country where all houses are constructed of wood the latter are very useful. [Hargrave 1977, p. 179]

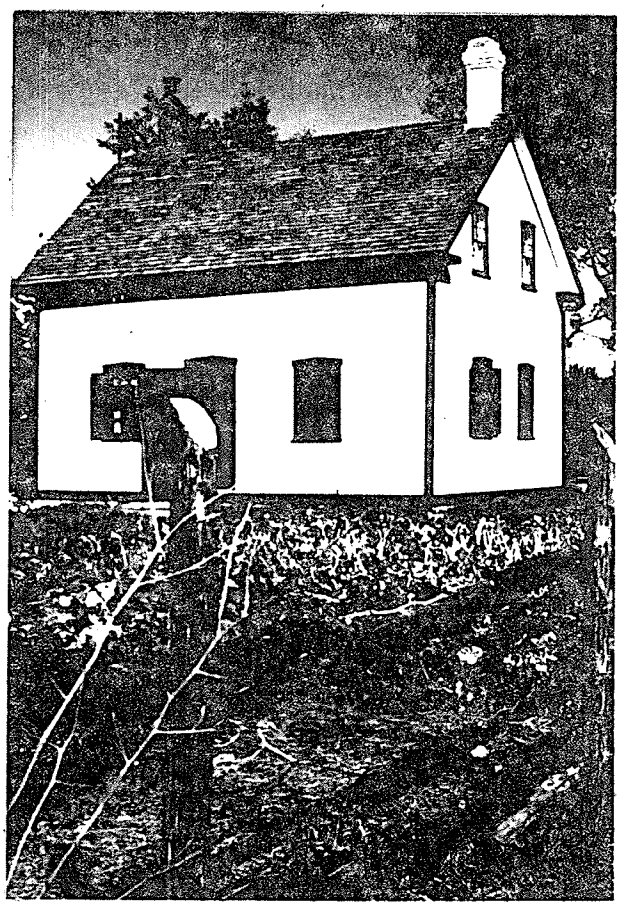
Several Métis owned mills. Cuthbert Grant had dammed Sturgeon Creek for the purpose of building a water-mill in 1829. The mill was not altogether a success [MacLeod et al, 1963]. Windmills were in operation prior to that at Red River, the first being constructed in 1825 and, although they were fairly unreliable, remained a marked feature of the Red River Settlement [Morton 1957].

In the 1850's Louis Riel Senior operated a small water-powered grist-mill on the Seine River [Grosman 1977]. There do not appear to have been any mills in operation by the Métis of St. Norbert, however.

The structures on the landscape up to 1870 were the small and large rectangular buildings of the fur trading posts, the cabins and barns of the settlers and squatters, the mills, the small enclave of commercial structures developing at Winnipeg to the north of Upper Fort Garry, and the church buildings which were scattered along the Red and Assiniboine Rivers. Most of these structures were made of wood, most of them of squared logs, while a number of the more substantial houses of the settlers and some commercial and institutional buildings were of limestone. Scattered amongst these various structures were the conical and dome-shaped dwellings of the Indians and the more restless or visiting Métis [Warkentin 1972].

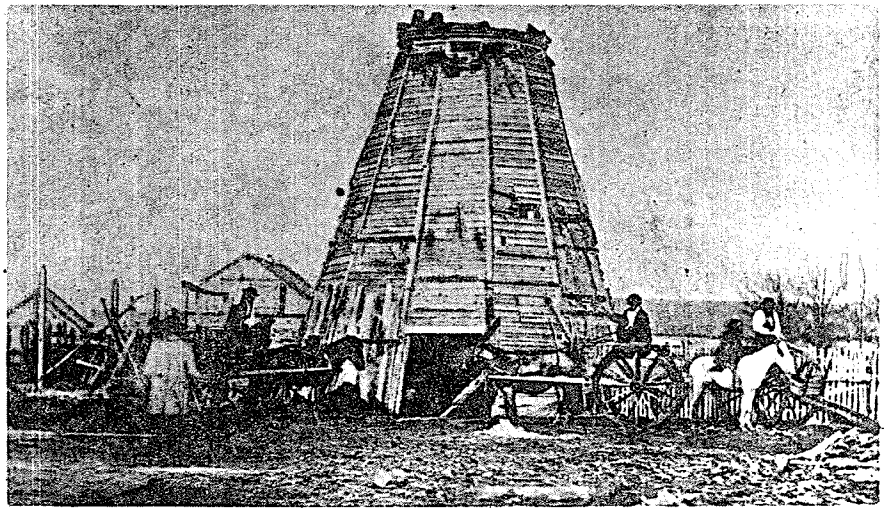


32. Métis home
[Public Archives of Canada-in Proulx 1970, p. 89]



33. The home of Louis Riel in St. Vital
[photograph by author]

34. Robert Logan's house and mill at Fort Douglas in 1860 [Manitoba Archives - from Western World, vol. 3, no. 29, July 1892, p. 146]



35. Windmill construction at Red River [Manitoba Archives]

Horticultural Activity

Agriculture among the Métis, as has been stated, was not extensively practiced. The species of plants which were grown usually consisted of some vegetables, barley, Indian corn, and potatoes [Morton 1957]. Fences were required around these plots to "prevent the wandering stock from invading the fields. The fences around the buildings were often post and slab, but the standard fence was post and rail" [Morton 1957, p. 86]. Wooden fences served two ends at Red River. They caused a serious drain on the wood resources of the colony and the cost of fencing using wood forced fields to remain very small; a large field was one of five acres [Morton 1949]. It was not until barbed wire was introduced about 1880 and the practice of fencing-in rather than fencing-out livestock came into practice that it became practical to farm larger acreages [Morton 1949].

The Métis who took some interest in agriculture, and there were a number of them in the Parish of St. Norbert, had a fairly large assortment of seeds available to them. The garden seeds obtainable at Upper Fort Garry about 1835 consisted of red beets, Buttersea cabbage, dwarfcabbage, red cabbage, purple broccoli, white broccoli, cauliflower, carrots, celery, cress, cucumbers, rye grass, clover grass, pot herbs, Scotch kale, leek, green cross lettuce, Marseilles lettuce, mangel wortzel, melon, savoy, mustard, Deptford onion, witch onion, parsley, early peas, salmon radishes, turnip radishes, early white turnips, yellow turnips, Dutch turnips, Lapland turnips, stone white turnips, wheat seed, barley, oats, potatoes, corn, pickling and round spinach, white lettuce, Hammersmith lettuce, and Swedish turnips [Parks Canada 1979].

Wheat was first introduced into the colony in 1812 from the British Isles but the success of its culture was negligible. It was not until 1820 when Prairie du Chien wheat was introduced from the Wisconsin territory that a viable strain succeeded and this became the standard Red River variety cultivated [Morton 1949]. Natural selection in this wheat and in several varieties of "squaw corn" (Horseteeth and Mandril or Mandan) produced varieties which afforded reasonable crops. New strains of wheat were introduced, starting with a "Scotch wheat" in 1847 and Black Sea wheat in 1848, and by 1860 seven strains were being grown [Morton 1949].

Fields were probably very uneven looking. Primitive methods such as broadcast seeding over roughly ploughed land up until 1850 would have resulted in uneven germination and ripening [Morton 1949]. That, coupled with weeds, would have given the fields a very mottled effect.

Flower seeds were being imported from England by the 1830's and there was a trend towards flower gardens and lawns among the prominent settlers and Company officials of Red River by the 1850's. Alexander Ross, for instance, at his residence of Colony Gardens had a flower garden in front of his house, "a perfect forest of rich beauty, flowers of every hue and colour... from the lovely daisy, to the rose, from the violet to the prince's feather" [Parks Canada 1979, p. 71]. Bishop Anderson's sister, Mary, developed a list of 63 flower species which were being grown at Red River in 1852. [See Appendix A] These seeds had come from Montreal and England and were circulating among the residents of Red River. There was also some hot-bed horticulture being practised, there was the odd imported

plum and apple tree about, and experiments were being conducted on the transplanting of native fruit stock [Parks Canada 1979]. This may not have been common at Red River, however, for Hargrave notes in 1868-69 that:

> Fruit trees... have not yet been successfully grown in Assiniboia; gooseberries, however, exist, and strawberries, raspberries, and different varities of currants grow wild along all the coasts of Lake Winnipeg. It has been suggested to me that one reason why garden fruits have been hitherto so little cultivated is that the unlimited quantities of wild berries growing in the woods and on the Plains supply the market, and render it umprofitable to incur any considerable expense in cultivating the others. [Hargrave 1977, p. 176]

With this type of activity occurring at Red River, it is probable that the Métis were also involved, although perhaps to a lesser extent. The Earl of Southesk found in 1859 at the Lake St. Anne Mission, a Métis community in Alberta:

> A well-arranged and well-kept garden, gay with many flowers - (some of them the commonest of the woods and plains, brought to perfection by care and labour). [Southesk 1969, p. 168]

Certainly, leading men of the Métis community at Red River, those who had become farmers by 1870, were utilizing seed which was available in the colony or were importing their own. (See Appendix B)

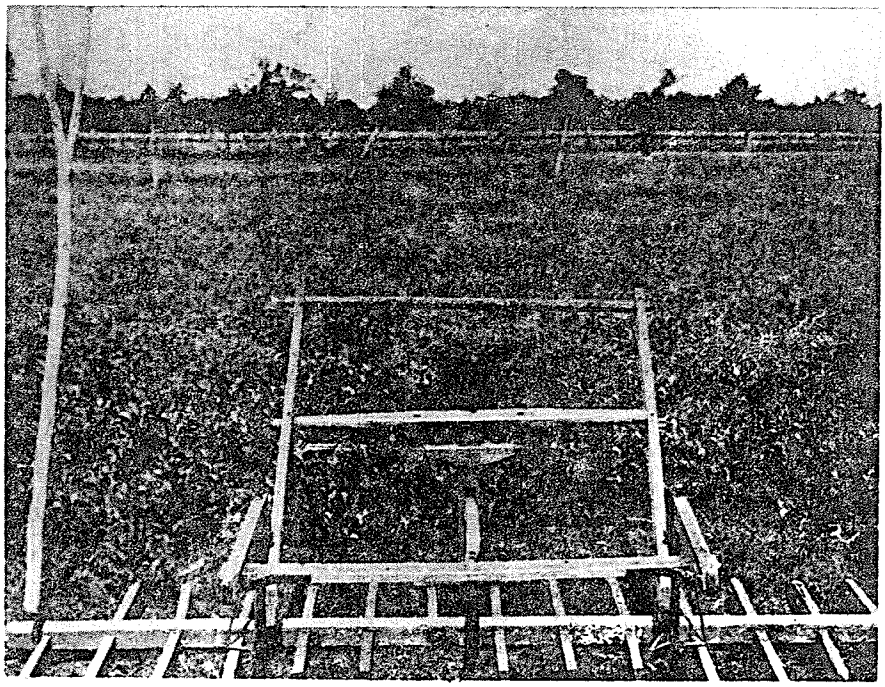
Hay Cutting

> Of the prairies along Red River only narrow strips of the top of the banks have yet been brought under cultivation by the colonist, as there the land is naturally rather higher and better drained than that lying further in the rear, both from its proximity to the river and also from the frequent gullies cut in the soft clay soil by the numerous small creeks that carry off the surface water. These gulleys at present reach but a very short distance back from the river, but were they artificially extended so as to serve as main drains, much land at present covered by swamps and marsh would be reclaimed. As it is, however, these marshes are of considerable value to the colonist from the abundant supply of natural hay which they yield. [Palliser 1863, p. 8]

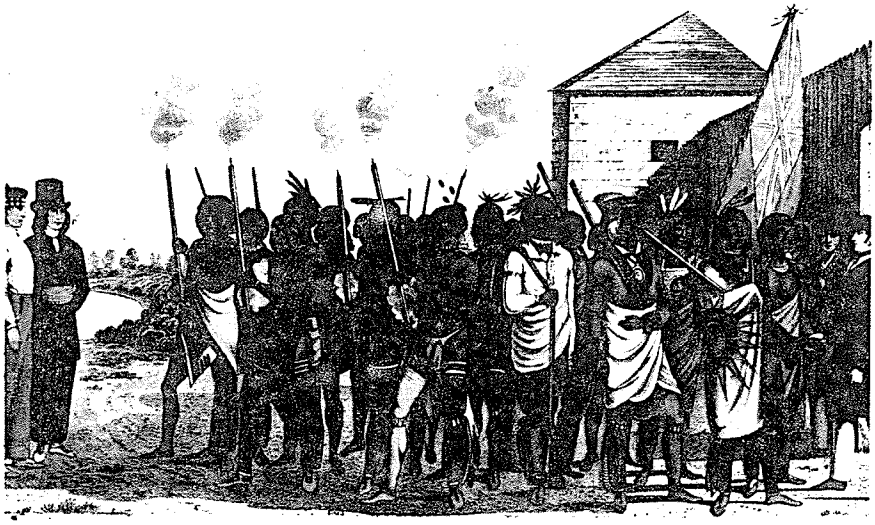
The practice of haying appears to have been the only serious incursion by agriculture into the plain or prairie prior to 1870. Although Ross calls the prairie meadows "wastelands" he goes on to state that "their luxuriance in natural grasses, leaves but little inducement for raising artificial grass of any kind" [Ross 1856, p. 114]. Similar sentiments are put forward by Hargrave, who also suggests that loaves of hay were a fairly common feature of the landscape at that time:

> A very important part of autumn work consists of hay-cutting, to commence which outside the "two mile line" before the 1st of August is illegal. The prairie grass on the swamps above referred to grows to an unlimited extent with great luxuriance... It is stacked on the Plains by the gatherers who protect it against the prairie fires by surrounding it with a ploughed or burned ring at least eight feet wide situated about twenty yards from the stacks.
>
> The prairie fires burn with great violence in the autumn, and sometimes approach very near the settlement, raising quite a storm through their influence on the atmosphere and covering the country with smoke. [Hargrave 1977, p. 178]

Even in 1868 when Hargrave was writing, however, the natural landscape was not to be intruded upon lightly. The country was to all intents and purposes still a savage land.



36. Hay rake at the Red River Settlement about 1825
[Manitoba Archives]



37. A Red Lake chief with some of his followers arriving at Red River in 1825
[Manitoba Archives - lithograph by W. Day from a painting by H. Jones after Rindisbacher]

TOWARD A CIVILIZED LANDSCAPE

> This year (1825) was one of great enterprise among the colonists. No less than forty-two new houses had been built within a few months. Strings of fencing were made, enclosures formed, and a stirring industry manifested on every side. It was curious to see such scenes diversified by the intrusion of armed bands of savages, their heads barbarously feathered, parading fantastically among the industrious and plodding settlers, and looking down with an eye of contempt and scorn on the slow drudgery of the white man, whose comforts they, nevertheless, envied. [Ross 1856, p. 83]

> On two Sundays during my visit, at the time when Divine service was being celebrated in all the churches of the settlement, the heathen Indians held their dog feasts and medicine dances in the open plain. In one instance five dogs were slaughtered, cooked and devoured; in another instance three; the evil spirit was invoked, the conjuror's arts used to inspire his savage spectators with awe, and all the revolting ceremonies belonging to the most degraded heathen superstition practised within a mile and a half of the spot where the stones are now gathered for the Bishop of Rupert's Land cathedral, and nearly the same distance from two capacious churches, Protestant and Roman Catholic, where Divine Service was at the same time being solemnized to orderly resident congregations. [Hind 1860, vol. 1, p. 202]

Hind's outrage is easily understood since he came from Toronto, from a country long before subdued, its unsettling aspects crushed under a blanket of civilization. The Red River Valley was still a landscape partly untamed, populated by semi-savage peoples and cultures. Yet, the precursor of civilization was already upon the land in the form of the riverine settlement at Red River. The interest in the North-west which brought out the exploring expeditions of Hind and Palliser, or travellers such as the Earl of Southesk, was a forerunner of things to come. The end of a way of life was at hand, and many knew it:

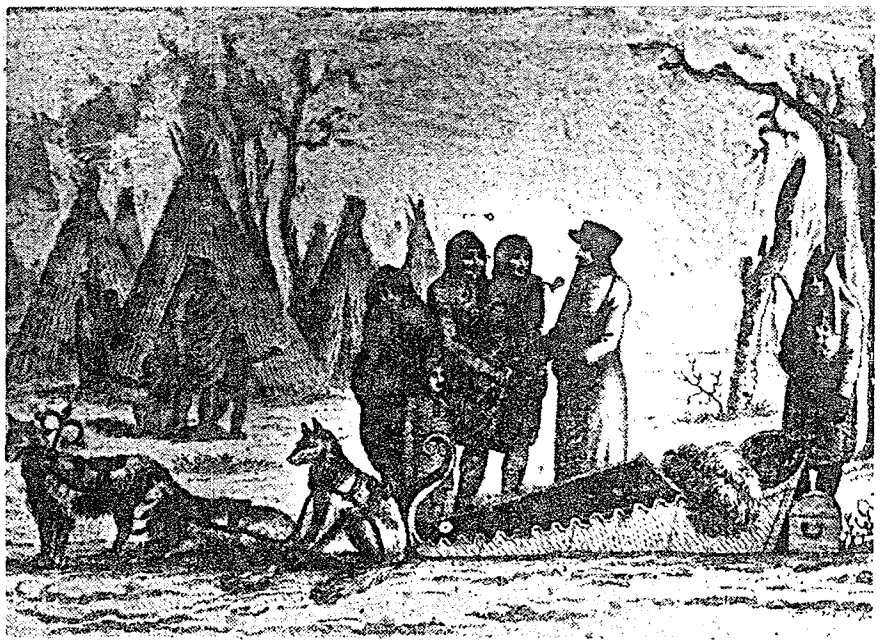
> Thursday, the 10th of June (1859), was a notable day at Fort Garry. The first steamer that had yet navigated the Red River made her appearance that morning, bringing two or three passengers from Minnesota. "Ans Northup" was the name of this small, shabby, stern-wheel boat, mean and insigificant in itself, but important as

the harbinger of new developments of what the Americans are pleased to call civilization.

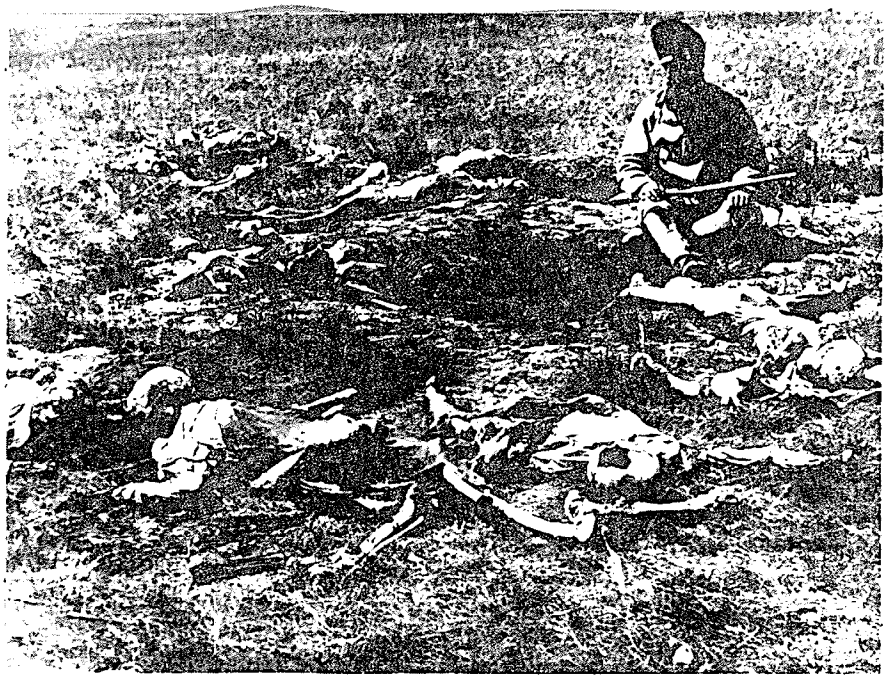
> Crowds of Indians stood silently on the shore, watching the arrival of this strange portentous object. Little thought they how ominous a sight it was for them, fraught with presages of ruin for all their wandering race. [Southesk 1969, p. 34]

Southesk may have been naive in thinking the Indians were unaware of what was happening to them, their culture, or their land. They were powerless to change a course of events which had happened so many times before to their peoples as North America was subjugated. Or perhaps they felt that their landscape was not really threatened, that the apparent barrenness of the empty expanse of plain with its fires, blizzards, and loneliness was its own protection, and theirs as well.

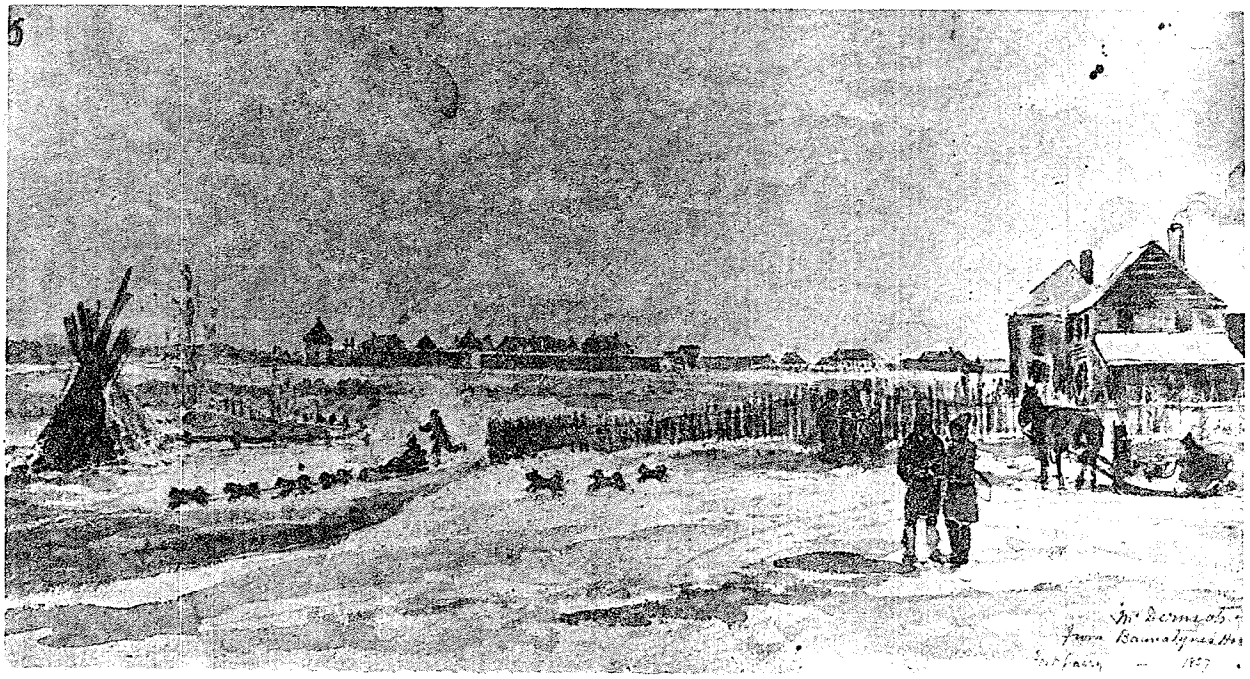
The Métis were the products of these civilized and savage landscapes. They lived in both worlds, in a culture which enveloped both landscapes. They understood the forebodings of the river boat and many acknowledged their prescience and adjusted. Some chose to ignore what they saw or were unable to live without the freedom offered by the boundless plain into which they could retreat, and many eventually did just that [Stanley 1960]. Their retreat only postponed the inevitable, however.



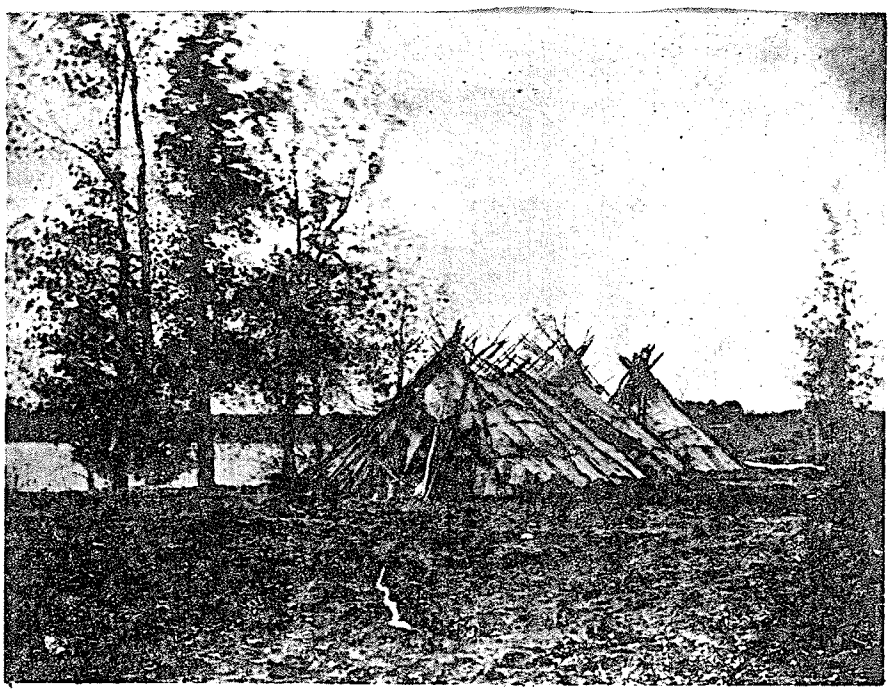
38. A missionary visiting the Indians at Red River in the 1820's
[Manitoba Archives - from McIntyre, A., The Canadian West]



39. Dead Crow Indians on the plain
[Manitoba Archives - Boundary Commission 1872-1874]

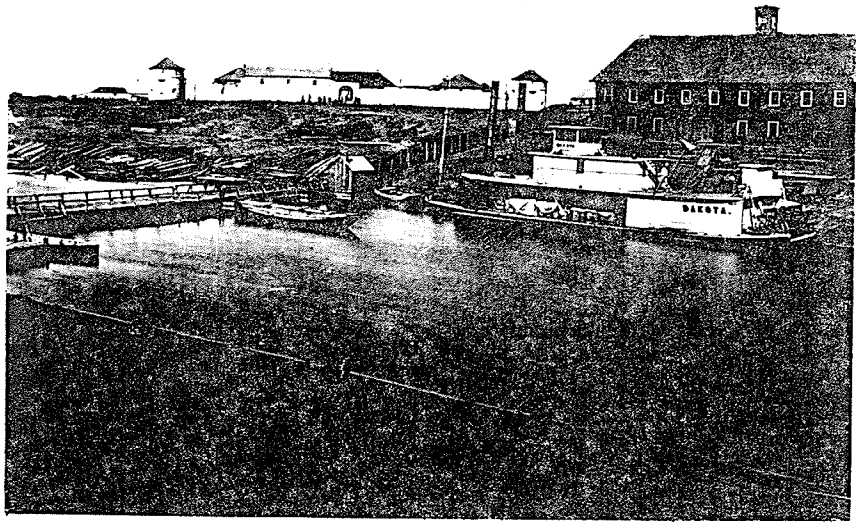


40. McDermot's from Bannatyne's house in 1857
[Manitoba Archives - W.H.E. Napier 1872]



41. Ojibway tents on the banks of the Red River near the Middle Settlement in 1858
[Manitoba Archives - Hime Collection]

42. View of Red River from the Stone Fort
[Manitoba Archives - Hime Collection 1858]



43. Fort Garry and the Assiniboine River at junction with the Red River in May in 1873
[Manitoba Archives - Boundary Commission 1872-1874]

The Potential of the Land and People

One man who made the transition from one landscape to the next, who helped carry the Métis culture from the buffalo hunt to the farmyard was Pierre Delorme, who lived in St. Adolphe. He, and others like him, were probably the finest and last examples in the development of a distinctive Métis culture prior to it being swallowed up in the winds of change which swept the North-west after 1870.

J. C. Hamilton stopped for breakfast at Delorme's house in St. Adolphe in late August of 1876. Delorme at the time ran a stage stop between Winnipeg and Pembina. Hamilton provides a description of the farmstead of this prosperous Métis:

> Good Pierre Delorme, come forth, and bon jour to you - a tall French half-breed, with curly hair turning silvery, moustashoed but beard shaven. In early life a buffalo hunter and trader, you left, as September came on, this pretty place by the river's bank, for the far off plains, taking tents and guns, wife and family, and returning in the spring with pony and ox-carts laden with skins and pemmican. A tall man and large hearted - surrounded by children, from the full-grown blushing damsels with plaited hair, who prepare our breakfast, to the little toddler that peeps from behind a door, but becomes more docile ere we leave. Count them, and then you will see how large a tract this good family will be entitled under the "Manitoba Act", since he and every pair of bright eyes among the household will get scrip for a quarter section of as good rich meadow land as the world affords.
>
> Talk with Pierre, as he comes to the door and points to his herd of many cows, log barns and great stacks of hay. He looks across the river to cottages among the bushes, and these are his. His hay farm contains already fifteen hundred acres. He has a grade bull from the States, and has given up buffaloes to raise fat cattle for the Garry market, where they fetch good figures. He has half a dozen sheep that seemed rather lean, and were the only live mutton we saw on the road; the long prairie, and sharp-pointed rye grass and low ground is not well adapted to them, but they do well in other parts of the Province and produce great fleeces. As to the fruit, he has plenty of small fruit; he had also planted some apple trees in a place sheltered with poplars, but the frost cut them down; they are springing up, and he hopes to succeed with then or with some hardier

variety in time. Good potatoes and onions were in the garden.

Delorme is of plain habits, does not smoke, and shakes his head when we talk of Scott. "All right but for that", he says. He perhaps thinks of what we elsewhere heard. His brother, who dwelt in the Pembina region, had also been a trader, but offended an implacable red man, and was left by him stark dead but a year ago. Mr. Delorme was a member of the first Dominion Parliament, but gave up politics for which he had no taste. In fact, the good Bois brulé felt quite bewildered in Ottawa, soon resigned his seat, and went back to his home on la chère Rivière Rouge. He is, however, still one of his Honour's advisers, being a member of the North-west Council as stated in the previous chapter. His house is a model of the better class of the Métis - so we will glance at it.

A story-and-a-half high, of logs, but clap-boarded without, having a large sitting-room, off which are half a dozen doors opening into a dining-room, little parlour and bedrooms. A table, chest of drawers, sewing machine, and half a dozen chairs with seats of wood or shagynappi, and box stove, are in the reception-room, into which the outer door opens direct. No carpets are seen - a city luxury. Neatly served, plain and substantial was our morning meal, and then we roamed about, scaring the golden plover, blackbirds and snipe, for the stage had not yet arrived from above. The mercantile men lay down for a snooze. A pony is brought to the door, and we find it saddled with a pretty home-made affair of skin richly wrought with beads. The senator sat or walked about, and smiled as he pondered on the coming greatness of the Dominion.

One, more prying, opens the parlour door, and finds to his astonishment an excellent cottage piano of London make. Such an instrument must have some one to use it. The pretty girl with plaited hair has milked her cows and washed the dishes. Coy and shy, with little understanding of our rude tongue, yet soon she came, did honour to the teaching of the good nuns of St. Boniface, her instructors, gave us with a fine expression a "Wedding March", and was at the last notes of a "Ray of Sunshine" as the stage drew up, and we shook hands with many thanks and adieux to the fair musician and the whole family now laughing around us. [Hamilton 1876, pp. 222-225]

Such a description contrasts extravagantly with the descriptions of the camps and pictures of the buffalo hunting and trading camps out on the plain. Yet, many Métis still lived the nomadic life at the time of Hamilton's writing, the family of Urbain Delorme of the White Horse Plain settlement, for instance. [See Carpenter 1977 for a chronicle of such

life]. As long as the open freedom of the plains existed many Métis found it necessary to enjoy that freedom. This love of the western landscape and the life style which the landscape had offered stood in direct contradiction to the tenets of civilization, those expressed by Hind, Palliser, Ross, Hargrave, and others. The writings of these gentlemen further destroyed any myth about the barrenness of the soil of the plains; they lauded the potential of the land. To the land-hungry world such writings released an insatiable appetite for the resources of the North-west.

> The land in Red River Settlement is said, by all who pretend to a knowledge of agriculture, to be pecularily favourable for the cultivation of wheat. Experiment has also tested this statement with most satisfactory results, wheat being, in fact, the main crop of the colony. It ripens in three months, and will produce forty bushels to the acre. Potatoes and all kinds of roots are cultivated with the greatest success...
>
> The possibility of conducting agricultural operations at a distance of more than two miles back from the river, has not yet been practically tested. The ground is certainly of a very swampy character, but many believe it remains so merely because no sufficient means have been used to render it otherwise. A vast population would be required to produce any material effect on the boundless, unreclaimed wastes in question. The process, however, might be assisted by the nature of the ground, which is soft and earthy generally to a great depth. A shaft sunk for a well at Fort Garry showed a depth of four feet of rich black soil, and an additional depth of forty-three feet of white, muddy sand before the solid rock was reached. This is believed to be a fair specimen of the prevailing state of things. A drain two or three feet deep, ploughed from a short distance back in the swamps towards the river becomes, in the course of a few years, a considerable ravine, which carries off the melting snow in great quantities every spring, the service it performs in this respect each year augmenting its capacity. [Hargrave 1977, pp. 176-177]
>
> The fertility of the soil is such as to render the use of manure superfluous. It is a fact that vast quantities of the latter article are systematically flung into the river, as the easiest way of getting rid of it. The extent to which this practice is carried seriously interferes with the purity of the waters in the lower

reaches of the river. [Hargrave 1977, p. 467]

I observed that the agricultural resources of the country were not merely confined to Red River Settlement, for the country through which we passed assumed fully equal and in some places even superior advantages, being more elevated above the river. I had an opportunity of noting the nature of the soil, where a settler was digging for marl about six feet deep, and again at Pembina where I had a special examination made. It consists of about one foot of black vegetable mould resting on a free clay loam of a light grey colour, but very deficient of sand. [Palliser 1859, p. 11]

The Time for Change

Up until 1868, except for a few small exceptions, settlement remained firmly tied to the rivers of southern Manitoba, with little development of any consequence occurring away from the rivers [Morton 1957]. The Parish of St. Norbert was the most populous of the parishes of the Red River Settlement with 975 souls [Mailhot 1980] and, although it appears to have been one of the more diversified examples of Métis life, was little more than a collection of ramshackle huts and small homesteads strung along the banks of the Red and the Sale Rivers. The church and convent were the only institutions of note, although a well-travelled road, built in 1853 [Shipley 1969], ran the length of the parish paralleling the river from point to point and connecting the St. Norbert settlement to the small commercial enclave of Winnipeg, north of the Forks.

The landscape away from the river was little different from its form in 1800. Certainly, the bellowing masses of bison no longer blackened the plain as in Henry's time, and the Métis buffalo hunters, who had replaced the natives of the Red River prairie, were rarely to be seen any longer in pursuit of their game. The last plains hunt out of Red River occurred in 1874 [Morton 1949], after having been unsuccessful some of the years prior to that [Jackson 1970]. The elk and grizzly bear had retreated to the mountains, and experiments in cattle raising and sheep raising had, to a small degree, begun the task of utilizing the vast open windswept spaces on the west side of the river. Haying was taking place in some areas on the prairie, but again usually close to the river. These activities were isolated in nature, however.

Fires still ravaged the plain, rejuvenating the grasses for the ghosts of the herds, pushing back any invading trees, burning out the forbs and unresistant species, sweeping down with a relentless fury on any who ventured too far from the protection of the riparian woodlands. Grasshoppers still ran rampant, fouling the landscape with their excrement and leaving nothing as they moved on but the visible sun-bleached skeletons of the bison, reminders of a teeming vibrant past. In mankind's eyes the prairie to the west was empty. There was little left to support a man with his plain's technology. The fur trade had dwindled, the buffalo hunt was almost over, the Indian was starving. The land was barren, yet ripe for change.

Forces on the edges of this emptiness were hovering, ready to pounce. The Canadian Government saw the west as its only means of viable expansion. The Americans to the south, fired by their dreams of "manifest destiny", saw the British North-west as their own, its future already aligned and assured within a Yankee paradise [Stanley 1960]. The British (in the guise of the Hudson Bay Company) wishing to divest itself of its colonial responsibilities, saw in the new nation of Canada a means of doing so. Without the bother of informing their wards, the Hudson Bay Company in 1869 transferred their territories to the Crown, which in turn transferred Rupert's Land to Canada, and the drive to a new equilibrium on the land began [Jackson 1970].

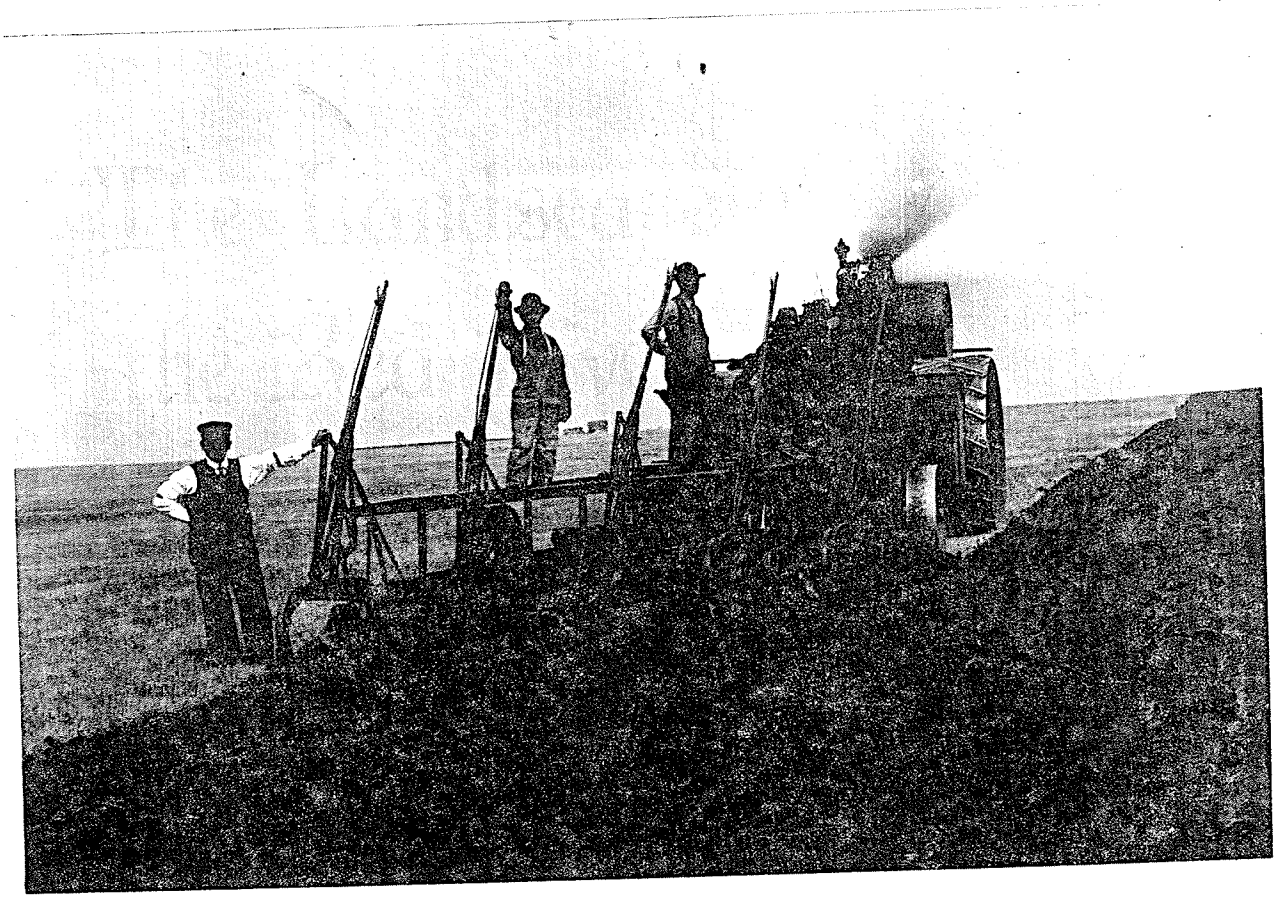
There was nothing capable of stopping this unrelenting and overpowering movement. The Métis, then the most powerful force in the North-west, resisted. St. Norbert became a hotbed of intrigue and the

centre of the stand against these events [Mailhot 1980]. But the Métis, like their barrier at the Sale River, were unable to stem the tide of these overwhelming events. This group of people, the product of two societies which had become a third, made their stand at the Forks of the Red and Assiniboine Rivers and they, like their culture, and the landscape out of which they grew, were swept away. Red River had a new destiny.

Change came, like a plague, like a wildfire, rushing over the prairie, tearing up the land; ripping the accumulation of the centuries from the soil and transforming the landscape overnight. From her crossing at the Red River, Winnipeg became the apex of a vast fan out of which humanity spewed until the plains were suffocated under a blanket of unfamiliar families, fences, buildings, livestock, and alien crops and cultures:

> The walking-plough, tipped with its point set to slip into the sod, its mouldboard gleaming a lambent silver polished by miles of turning soil, jerks as the horses lean into their collars, and the furrow rolls... sometimes now I find myself falling into the ploughman's halting plod, taking the weight of the share's twist on the right foot every second stride. I could drive a straight forrow and cover every wisp of grass and trash beneath the gleaming furrows, the soil moist with summer rain and turned for the first time since the waters of Lake Agassiz laid it down below the now phantom waves... the plough, with its patient, fourteen inch furrows turned side by side, one by one, till meadow and bush were black and level, was one of the greatest of history's transforming tools. No other, perhaps, has left such a mark on the face of the earth. Grassland and forest, oak grove and prairie steppe, each has eroded before its trenchant share and rending coulter, and the wilderness become field and lawn. It must be ranked with glacial ice and running water as one of the major engravers of the globe. And I used therefore to while away the plodding hours by musing on how I too at the plough handles was changing the face of the planet and remaking the landscape. [W. L. Morton 1970]

IV The Landscape of the Red River Valley after 1870



44. Breaking Prairie about 1910
[Manitoba Archives]

IV THE LANDSCAPE OF THE RED RIVER VALLEY AFTER 1870

The survey grid, agricultural drainage, the railway, roads, and the plough changed the land. Technological innovations which resulted in the telephone pole and power line, the square and then the round hay and straw bale, the various forms of the grain elevator and the prairie town, all gave new forms to the landscape away from the rivers in the Red River Valley.

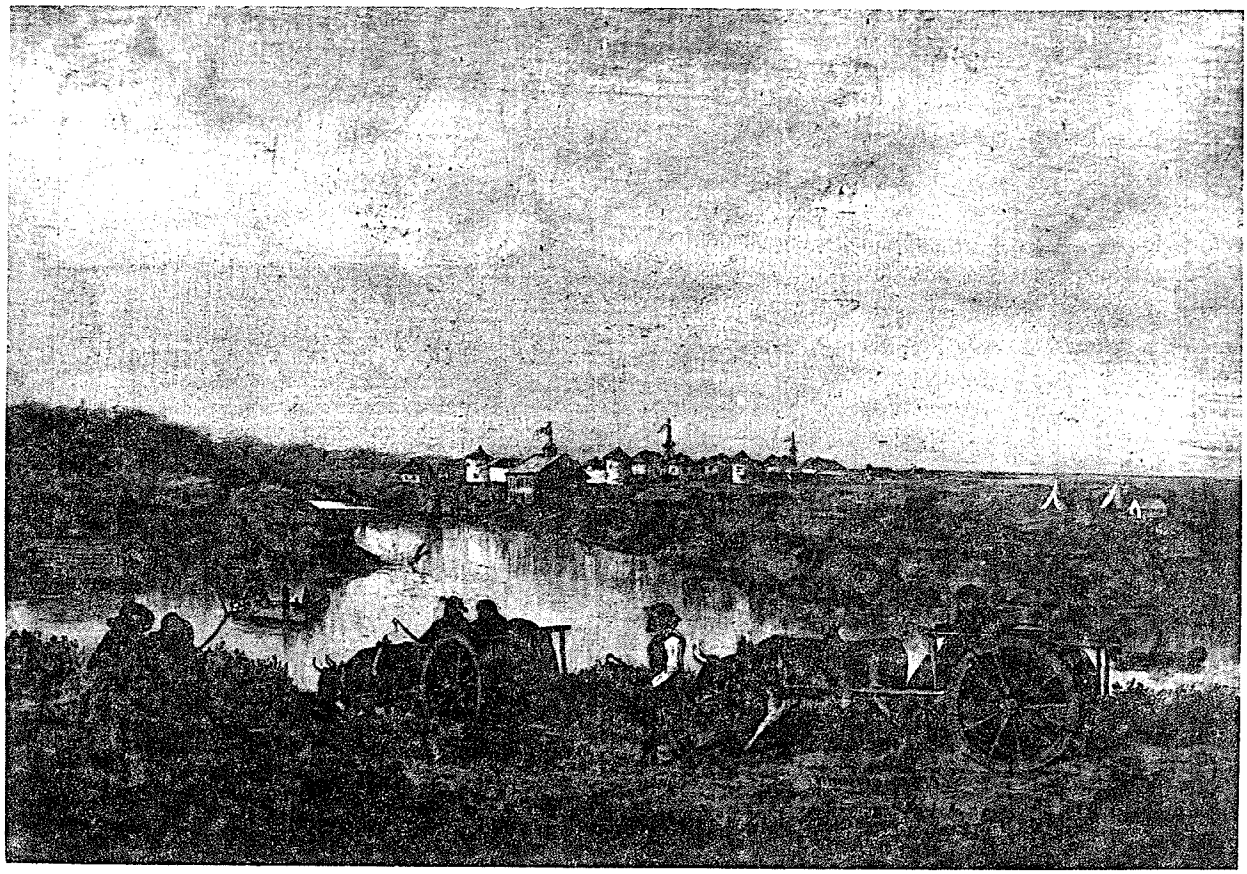
Along the rivers, where the landscape had already adjusted to agriculture, change was not as drastic. The long-lot survey continued to dominate the patterns of the land within two miles of the Red and Assiniboine Rivers. The City of Winnipeg developed and spread up and down the rivers, changing patterns as it grew, covering the agricultural land and the patterns of the survey and erasing the creeks and oxbows which had existed. Its spread is continuing today.

St. Norbert adjusted to the new regime and many of the Métis, by continuing their traditional pursuits as labourers, freighters, and guides, helped to establish the new order. Many remained on the land and settled into an agrarian existence about the parish. Pierre Delorme was one such man.

During the transition the Roman Catholic clergy, concerned for the well-being of their French-speaking flock brought out a number of young Quebec professionals, employing them in the local civil service. One who settled in St. Norbert, Joseph Turenne, built a house just north of the convent. He, and men like him, were unable to stop the systematic dispossession of the Métis lands, however, by the English-speaking peoples who flooded into Manitoba [Mailhot 1980].

An effort of the French leadership in Manitoba helped retain the francophone nature of parishes such as St. Norbert, however, by aggressively recruiting French-Canadian settlers from Quebec, Europe and New England. The Métis were replaced by such people as Benjamin Bohémier, who moved to St. Norbert in 1884 and who, while settling himself and his family up in Manitoba, rented houses in the parish, Joseph Turenne's being one of them. He was able to settle in his own house on his own property several miles north of the Sale River along Pembina Highway in 1889. With Bohémier's arrival and the arrival of others like him, St. Norbert was transformed from an enclave of semi-nomadic Métis to a settled French-Canadian farming community [Mailhot 1980].

The Métis who longed for a prairie landscape teeming with buffalo, for a plain of endless horizon and endless frontier left the Red River and headed west, but soon found that the past was irrecoverable. The landscape was lost, the buffalo was gone, a way of life and a culture quickly disappeared. The buffalo became the symbol of the new province and Manitou, the god of the mothers of the Métis, gave the Province its name.



45. Fort Garry in 1875
[Manitoba Archives - W. Frank Lynn]

46. A sod house with buffalo bones in foreground - Saskatchewan in 1885
[Manitoba Archives]

He cracked his long whip over the backs of his four bays and they went on the half-run, the binder snapping out its great sheaves of golden wheat and its drive chains singing in the hot afternoon. Just as it passed Jackson it tripped another sheaf; the ejecting arms swung upward; the needle ploughed the resilient stalks until its polished point protruded through the knotter, for all the world as though it were sticking out its tongue at its lord and owner; the compressing finger came up; the cord tightened; the beak, with two threads of twine in its jaws, made its revolution, too quickly for the eye to see, and the knot was tied; the knife cut the string, and the sheaf fell on the carrier. Then the loose chatter of the packers as, the strain for a moment relieved, they thrust fresh wheat into the loop of twine left by the needle when it receded into its sheath. It was done in a second, or at most two; every six or eight yards around that half-mile field the operation was repeated, and a boy of ten was the magician who slew those serried ranks of wheat in less time than a score of grown men with aching backs and swinging cradles in the days of his grandfather....

A stoop, a grab with his bare hands into the waists of two sheaves; a swing of the elbows and the back which brought them into an upright position, heads together, butts slightly tapering out, in the form of an inverted V; then a swift, sharp, downward stroke, planting them firmly in the stubble. Around this nucleus other sheaves were set in a circle, butts out, heads tapering in to turn the rain, not less than eight, not more than twelve, and father and son moved on to the next. By the time all the field was cut it would be a sea of stooks, ready for two or three weeks of curing in the autumn sun and rain and then for the thresher. A business this which lays heavy tribute of risk and labour upon its devotees, which rewards them sometimes handsomely, sometimes sparsely, sometimes not at all, but which has in it the elemental fascination of the soil. [Stead 1963, pp. 44-45]

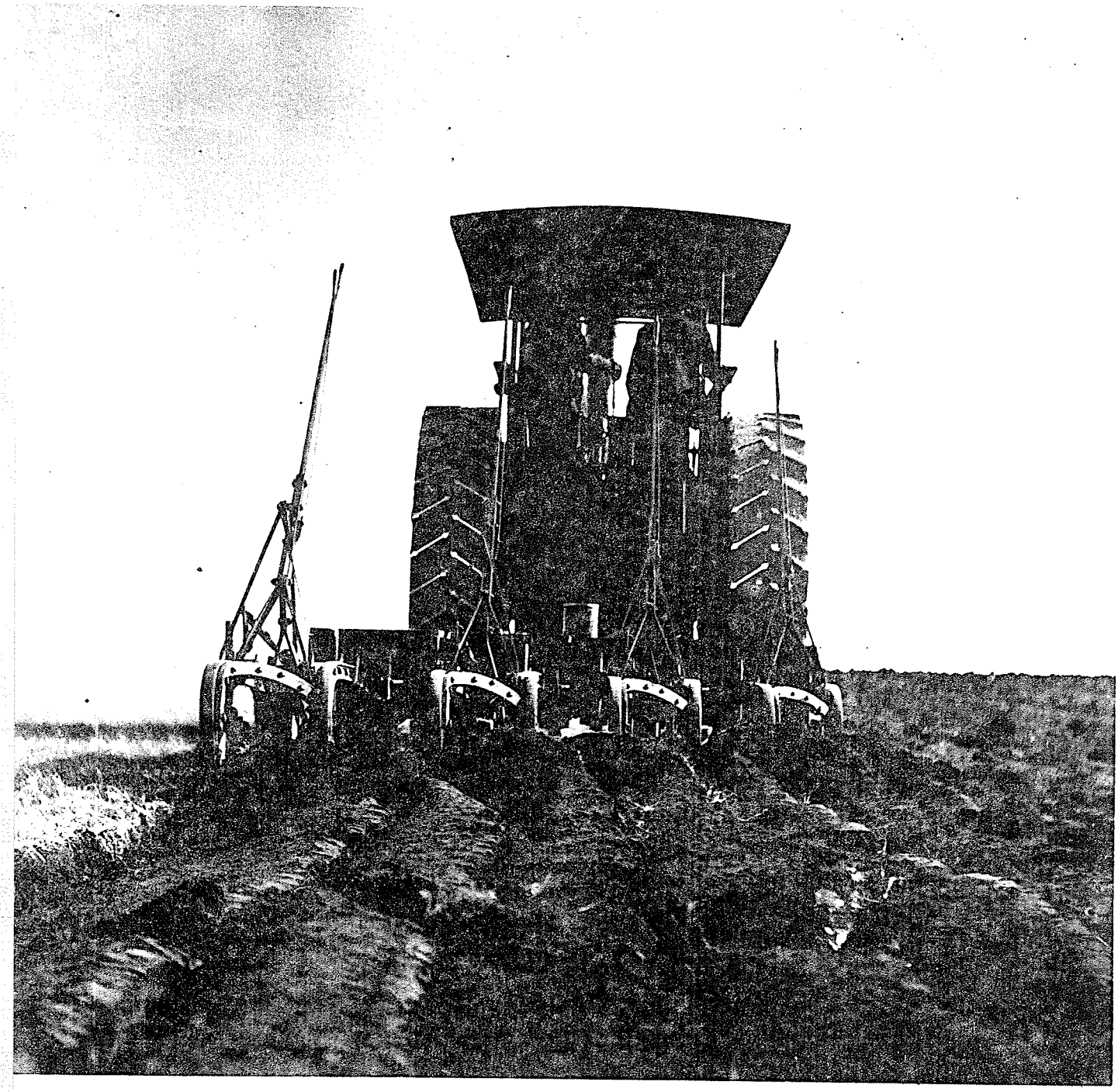
...a full moon was shoving a blood-red segment over the crest of the world. They paused to look at it, and then turned their eyes to the glow from burning straw piles on all quarters of the horizon, for in this way, for lack of a better market, do the farmers lavish their humus and nitrogen into the air.

They could now hear the panting of the steam engine, and the voices of men carried curiously distinct through darkness now thinning in the ruddy light of the rising moon. As they crested a hill they saw the black caterpillar of the "outfit" stretched before them. Bill Powers walking ahead with a lantern, on the lookout for stones and badger holes, and the engine following solemnly a few yards behind. The highroad was little more than a prairie trail with ruts too close for the wide-geared trucks of the engine, so that one side ran on the road and the other on the virgin prairie sod. The light from Powers' lantern glinted on the front wheels of the engine

as they wobbled drunkenly but irresistibly along their uneven course. A sharper exhaust snorted out as they struck the grade of the hill.

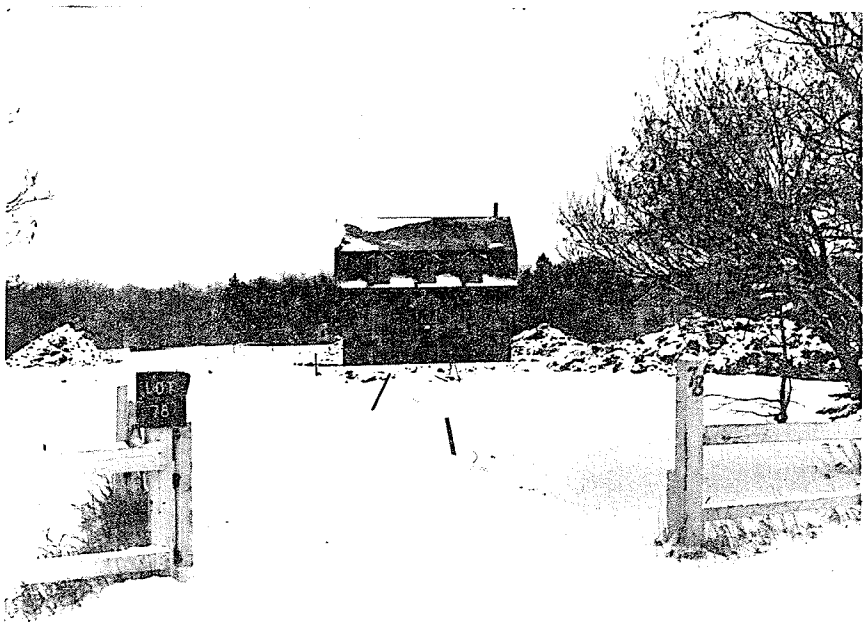
The straw wagon drew up beside the engine and Gander could dimly observe the fireman shoving straw into the firebox.

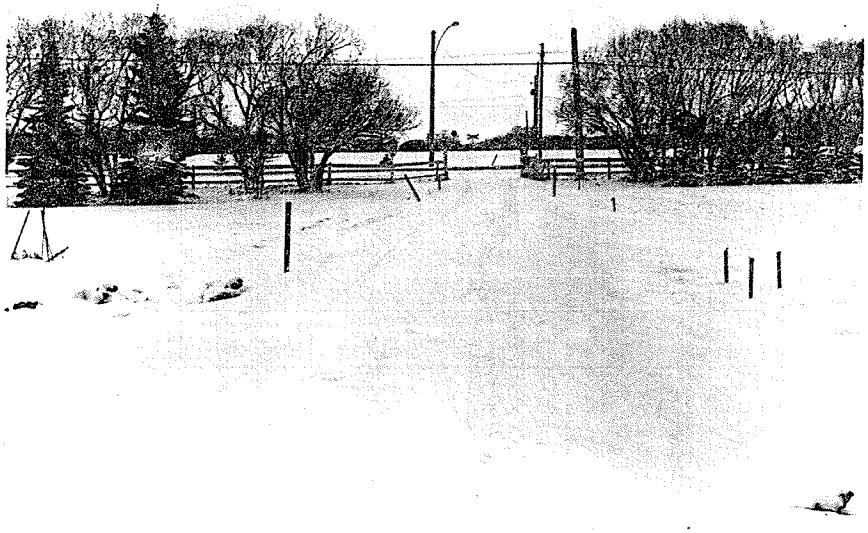
Behind the engine came the separator and behind it the caboose. Behind that again was the water tank and one or two supply wagons; quite a train, as it moved solemnly along that lonely road, here and there a point of metal catching the moonlight and picking itself out in brilliance against its sombre background. The steady pant of the exhaust, the rumble of the wheels, the voice of Bill Powers raised occasionally in caution or direction to his engineer - these were the accompaniments of that mechanical procession which on the morrow would thresh in a dozen hours the wheat to feed a hundred families for a year. Only two or three men were about... and the absence of human attendants heightened the dramatic ghostliness of the scene. And although Gander was a boy not touched by the romance of books here was something that stirred him deeply - the romance of machinery, of steam, which at the pull of a lever turned loose the power of giants! [Stead 1963, pp. 52-54]



47. The way of the future in 1910
[Manitoba Archives]

St. Norbert Heritage Park





48. & 49. Lot 78 Turnbull Drive

V ST. NORBERT HERITAGE PARK

Until about 1870, French-speaking peoples numerically dominated the population of the Red River Valley [Stanley 1960]. Their contribution to the development of the province has been documented to some extent in the reconstruction and interpretation of the Riel house in St. Vital, in the museums and church facilities of St. Boniface, and in rural areas of the province. However, a chronological documentation of these people, from early beginnings to a modern farm operation, is not available to the people of Manitoba.

Therefore, the first objective of the development of St. Norbert Heritage Park is to bring the people of Manitoba an understanding of the role of the people in the present Parish of St. Norbert, in the history of the development of the province. This is to be accomplished through a display of representative homesteads of the early Parish in Red River Valley.

The second objective of the park is to tie this site into a number of historic sites proposed along the Red River corridor in Winnipeg. The St. Norbert Heritage Park will, therefore, be an effective display of the cultural processes at work in the south-central part of the Red River Valley and will act in contrast to, but in conjunction with, the commemoration of the cultural heritage of the northern part of the Red River Valley displayed at Lower Fort Garry.

The basis for the design of St. Norbert Heritage Park is within the text of the preceding study. Although not all the information in this

study can be included in the landscape design of the park, that is inconsequential. What is important is that the designer's understanding of the landscape of the Red River Valley is so much more greatly increased. Design decisions can be made with authority and with confidence.

Away from the rivers the landscape of the Valley was little changed prior to 1870. The open prairie extended from the Sale River south and from the Red River west. The rest of the valley consisted of aspen parkland, with a thin band of deciduous forest along the rivers, and wetland vegetation in old oxbows, in depressions on the plain, and in the marshes at the mouth of the Red River. The only substantial development in the valley occurred along the wooded fringes of the rivers, and its form was controlled to a large extent by the long-lot survey after 1836, although the form of development would probably have been similar without the survey.

Much of the heavy river-bottom forest had been removed in the settlement prior to 1870. The trees which did remain were largely the less desirable species, those which were not as extensively used for construction or as fuel. In some areas the forest had been removed entirely, although this did not appear to be the case in St. Norbert.

The amount of agriculture and the number of species cultivated in the valley were suprisingly extensive among both the fur traders and the natives. Seed sources were quite available to anyone who wished to practise horticulture. Seed could be obtained from the traders of both the North West Company and the Hudson Bay Company, from the missionaries,

from the Indians in the valley and from the agricultural tribes along the Missouri. Flowers, both native and exotic, were cultivated, although the amount of information about ornamentals is fairly limited. There was little experimentation or bother with the cultivation of exotic fruit trees, as the natural landscape provided a bountiful harvest.

The amount of Indian activity in the Red River valley meant that native forms were very evident on the landscape all through the periods represented by the park, except perhaps after 1880. Not only the birch-bark and rush cones and domes of the Saulteaux but also the skin tents of the Sioux, Assiniboine, Cree, and the Saulteaux were present at times in and about the settlement.

The homesteads of the settlers were generally quite crude, especially south of the junction of the Red and Assiniboine Rivers in the early days of the settlement. Roofing material was usually thatch; buildings were squared logs chinked with clay plaster; some were whitewashed. Fences surrounded all fields that were expected to yield a crop, and were constructed of posts with several log rails strung between. Fields were small and probably very weedy. There were no lawns although the native grass may have been scythed or burned to keep down mosquitoes or wood ticks. Carts were probably evident at many homesteads, especially at those of the more well-to-do. Hay stacks and substantial piles of dung would have been fairly common features of any of the homesteads where livestock was kept. The dung would periodically find its way to the waters of the river which were seriously polluted by the 1840's. Other features of the homesteads could include fish- and meat-drying and smoking

racks, an outhouse, horse and dog carioles, and toboggans in the winter, and probably a kitchen midden of some form.

Other structures existed on the landscape. Windmills, water-mills, churches, trading posts, and, later, commercial buildings were present in the colony although in St. Norbert the church and convent were the only structures of note. St. Norbert in 1870 appears to have been a collection of small houses and outbuildings scattered among the woods of the Red and Sale Rivers, surrounded by small fenced fields and gardens, while livestock roamed pretty much at will.

This description of the landscape of Red River is quite general. The more specific findings of the study are incorporated into the design of the site of St. Norbert Heritage Park.

THE SITE

The site of the St. Norbert Heritage Park is in River Lots 78 and 79, the land bounded by the La Salle River on the north (I shall continue to refer to this river by its proper historic name, that being Sale River), the Red River on the east, a private dwelling on the south, and Turnbull Drive and Pembina Highway on the west. The size of the property is about 14 acres. There is also a tiny piece of land on the north side of the Sale River, but it is too small to be developed although it acts to shield the park from any obtrusive development that could occur beyond it.

The property belonged to H.H.G. Moody, who sold the land to the province in the fall of 1976 with the provision that it be used as a park. A small piece on the north-west was purchased in 1981 to complete the park. The old Moody house and garage sit at the top of the Red River bank in the middle of the north-south axis of the property. The house, built of squared telephone poles, has no historic significance. It sits at the top of a large landslide which, at its present rate of slippage (0.3 to 0.6 feet per year), would affect the house within 20 to 40 years [Vitkin 1979]. The house, therefore, will have to be removed. There are no structures on the property which are to be retained.

The present vegetation is a combination of both native and exotic species. The whole of the upper level is covered with a lawn of probably Kentucky bluegrass. Along Turnbull Drive and on the south and north-west property lines are hedges of blue and white spruce and large willows. Scattered throughout the property are clumps and hedges of willow, spruce, Scots pine, and various species of native and exotic shrubbery. The bank

along the Red River has a disturbed forest of young willow and some river-bottom species which grow up onto the upper plateau. There is very little understory in this area of the site. On the Sale River bank a more substantial growth of river-bottom forest species occur with shrub and herb layers intact, although a number of the elms have recently been removed. Generally speaking, the vegetation on the site, except along the river banks, requires almost total replacement in order that it be historically correct.

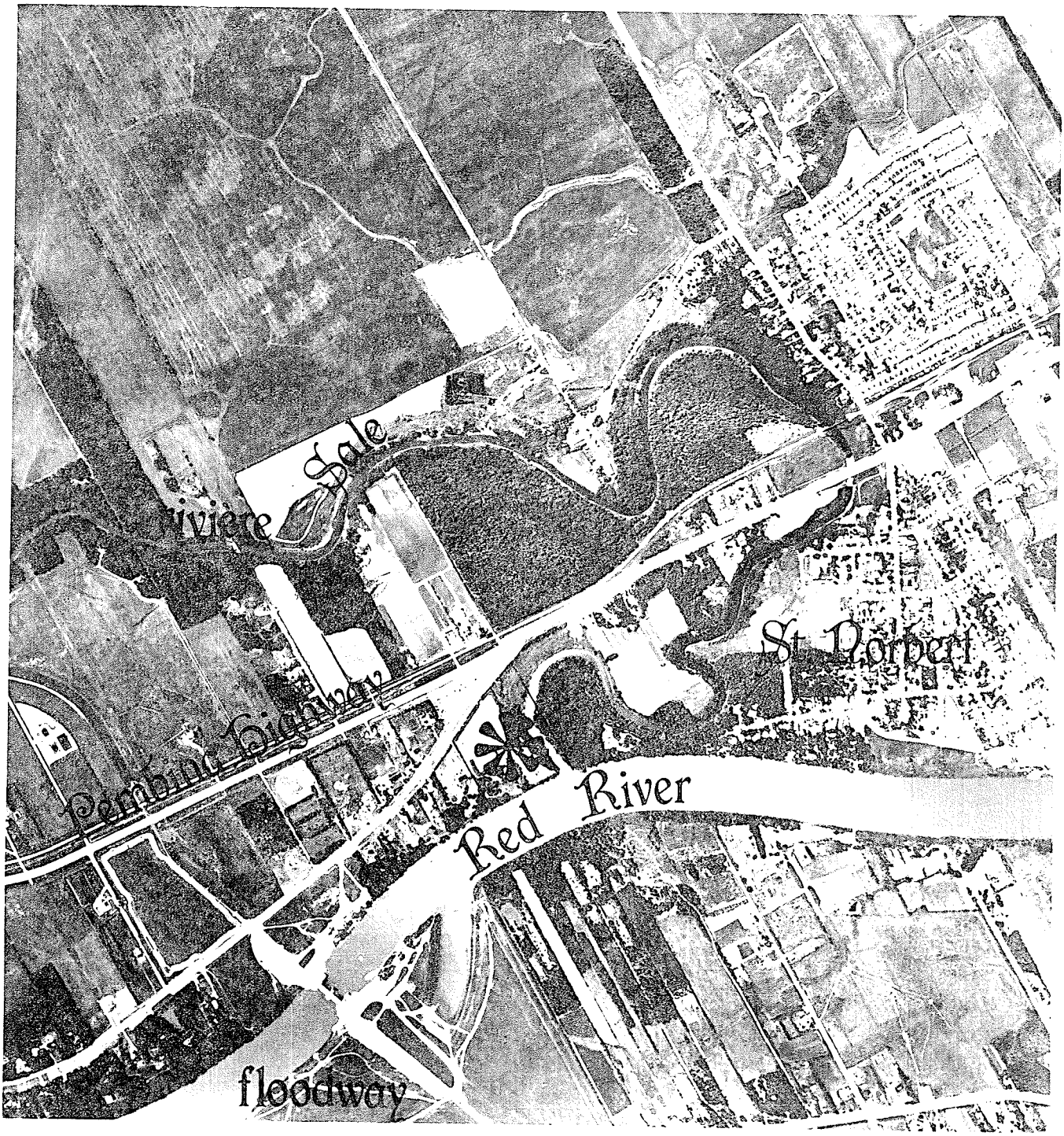
Soil stratigraphy indicates that high plastic lacustrine brown and grey clays underlain by glacial tills cover the property [Vitkin 1979]. As has already been stated, a serious stability problem occurs along the Red River bank, one which can to some extent be corrected by applying a number of remedial modifications to the bank. There may also be slight stability problems along the Sale River where some tension cracks are in evidence, but these are well into the forested area of the bank and should cause no concern.

The site is within the Winnipeg Floodway, with the floodway inlet control structure about 1,500 feet to the south. This structure does create a fairly substantial impact on the view to the south from the site, an obtrusion that is unavoidable. Flooding of the site is unlikely, although the minimum finished floor elevation of any structure to be placed on the site, as dictated by the City of Winnipeg, is 764 feet above sea level [Hay, R. - personal communication]. This puts a severe constraint on development of the property in terms of locating the historic buildings.

One of the most serious problems on the property is its proximity to Pembina Highway. The sounds of the highway completely dominate all areas on the property. There is no getting away from this howling roar except by entering a building. If the speed limit can be reduced, the level of noise and the resulting problem will be reduced as well.

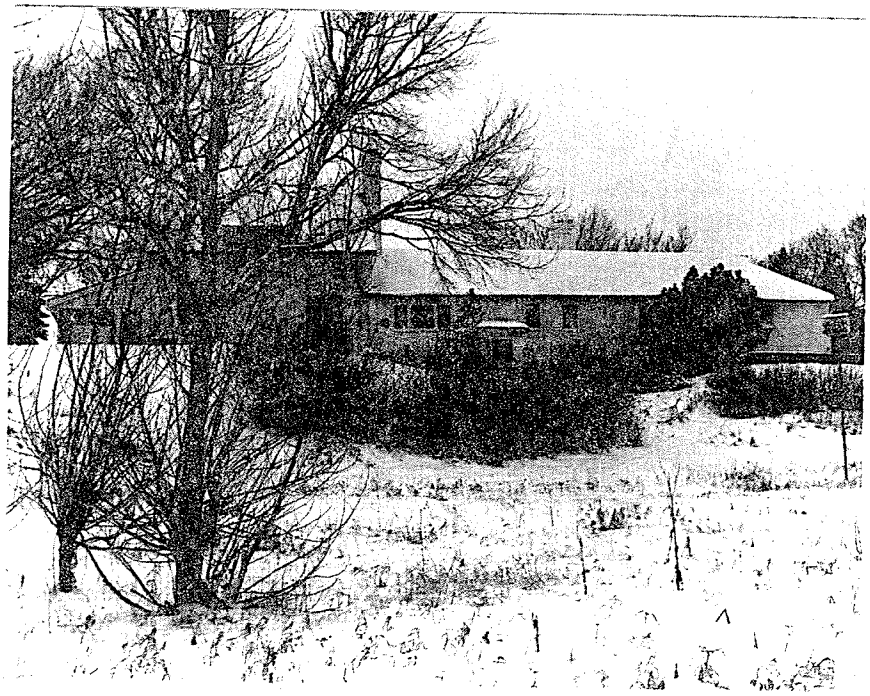
Another concern is the intersection of Turnbull Drive and Pembina Highway which occurs at the north-west corner of the property. This intersection is very awkward, and when Pembina Highway is divided in the future, it will be more so. The triangle of land between Turnbull Drive and the Highway, west of the park, may provide a solution to the problem, however.

The property, despite its few problems, is an extremely entrancing piece of land. The views across the rivers are virtually of natural landscape with private dwellings tucked well back into the woods and difficult to see. Several large transmission towers to the east and south are quite evident on the skyline, however. The view to the north from the confluence of the Sale and Red River is exceptional. One would hardly believe that the river is lined with houses, as none are presently evident; the river may look as it did in Henry's time when he and a group of Indians camped at the mouth of the Sale.

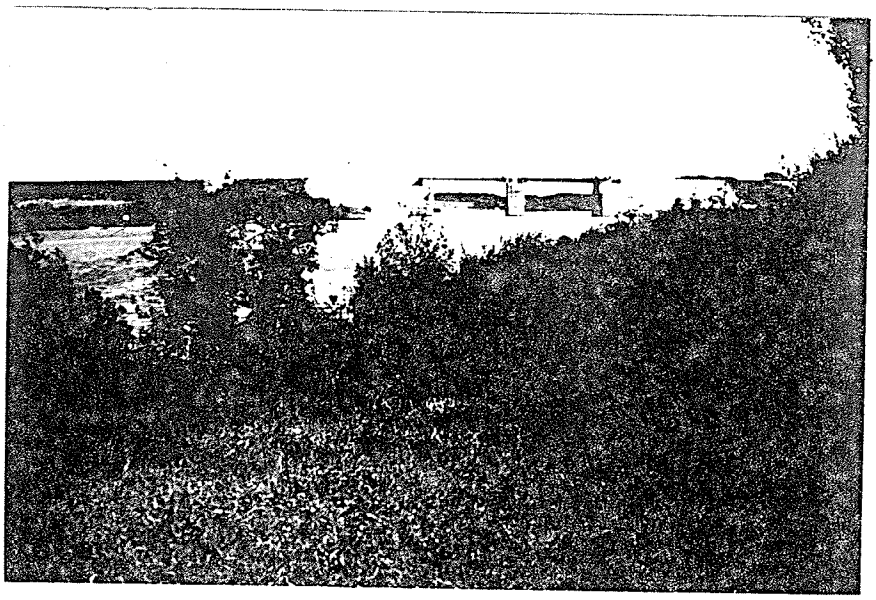


50. Aerial photo of area surrounding St. Norbert Heritage Park - July 1979 (scale : 1 inch = 1,320 feet)

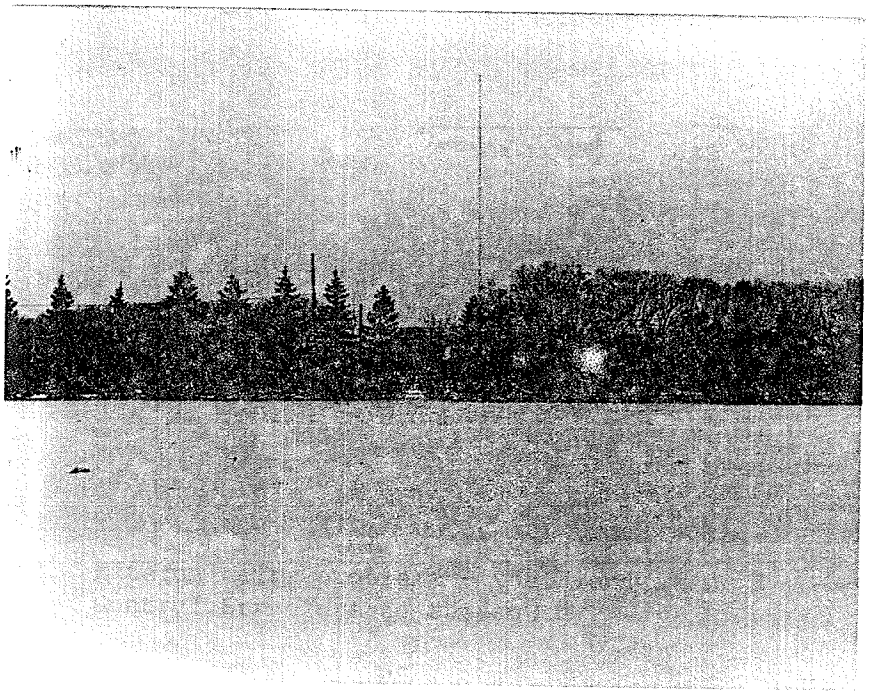
51. The Moody House



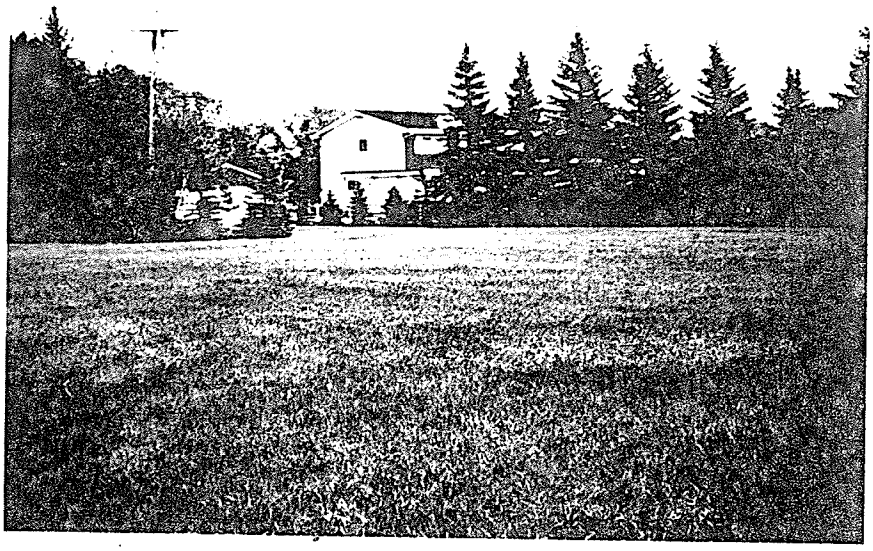
52. The Moody House



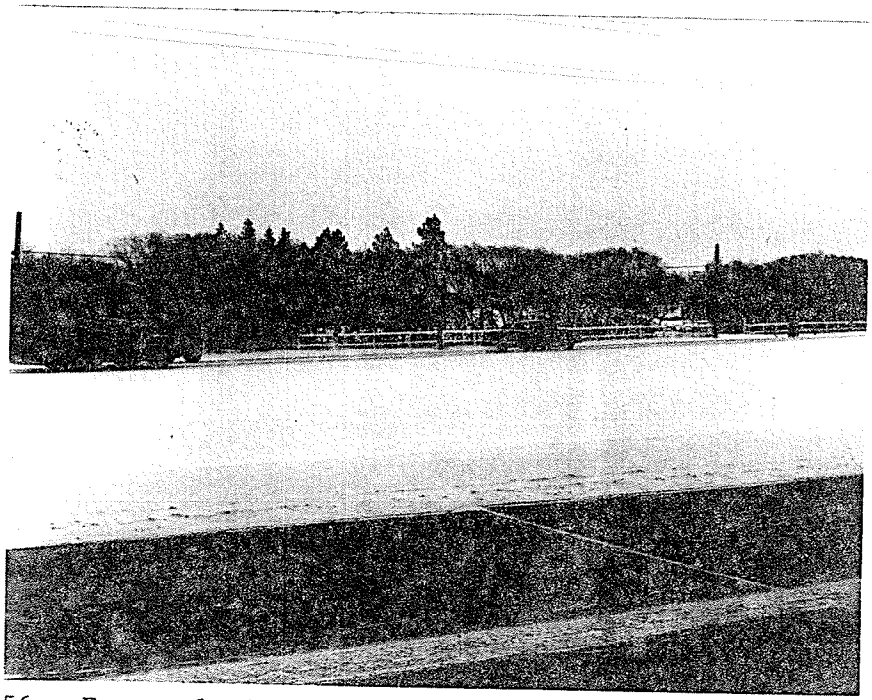
53. External site problems - the Floodway Control Structure to the south



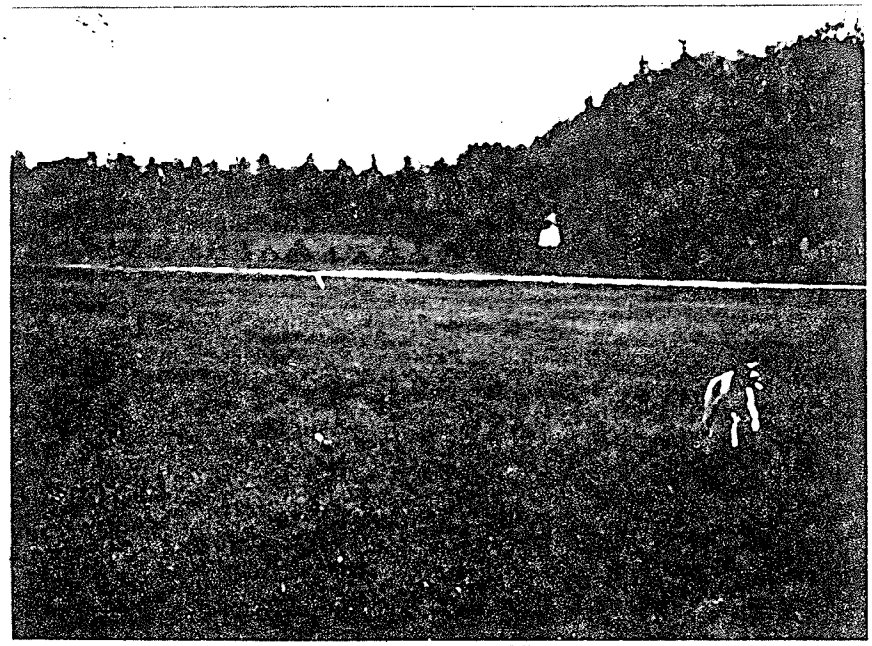
54. External site problems - transmission tower and non-native vegetation to the south-west



55. External site problems - a private residence on the southern property line



56. External site problems - traffic on Pembina Highway and Turnbull Drive



57. The site - open lawn on upper-level

58. The site - enclosed river-bottom forest along Sale

59. View east along Sale River towards Red River

60. View north down Red River at mouth of Sale

railway

La Salle River

NATURAL RIVERBOTTOM FOREST

OPEN FIELD OF GRASSES & WILLOWS AT RIVER

OLD BUILDING SITE AT TOP OF SLOPE

SPRUCE & WILLOW HEDGE

NATURAL RIVER BOTTOM FOREST WITH OPEN TO PARTIAL UNDERSTORY

SPRUCE & PINE AT TOP OF SLOPE — RIVERBOTTOM SPECIES BELOW.

STEEP ERODING BANK

MANICURED LAWN

RAIL FENCE

MANICURED LAWN

RAISED ASPHALT DRIVE

ELM AND ORNAMENTAL BEDS

PINE & WILLOW HEDGE

RIVERBOTTOM FOREST

Red River

SPRUCE & WILLOW HEDGE

ORNAMENTAL BEDS

LONG GRASS WITH WILLOWS AT RIVER

SCATTERED SPRUCE & WILLOWS HEDGE

Moody House

LANDSLIDE ZONE FROM HOUSE TO MID-RIVER

Pembina Highway

HISTORIC MARKERS

MANICURED GRASSES

SPRUCE & WILLOW HEDGE

Turnbull Drive

MANICURED LAWN

PINE & WILLOW HEDGE

SPRUCE & WILLOW HEDGE

RIVER BOTTOM FOREST - NO UNDERSTORY

SPRUCE HEDGE

RAIL FENCE

SPRUCE HEDGE

north

St. Norbert Heritage Park Existing Site Conditions scale: 0 50 100 feet 300

THE STRUCTURES

The structures which have been collected at present are the Turenne and Bohèmier Houses which sit on the property, and the Delorme House, which is at St. Adolphe on its original site. Other structures which may be included in the park are Indian dwellings, the Charette House, a house typical of the poorer Métis class, the first St. Norbert convent, an administrative and interpretive centre housed in a reconstructed historic structure (possibly the second St. Norbert Convent), and a shop and maintenance building housed in another historic reconstruction (possibly a large barn of French-Canadian design).

The information following has been gleaned from the staff of the Historic Resources Branch. These include a number of ongoing studies into family histories being conducted by Corinne Tellier, a study of the church in St. Norbert written by Lynne Champagne, a history of the settlement at St. Norbert prepared by Phillipe Mailhot, and an ongoing search for relevant information and architectual history researched by George Walker. More information is being generated every day, especially as the research into family histories continues. An archaeological investigation currently under way at the Delorme House will also provide a more complete picture of that particular site. Until the entire story surrounding each of the various structures to be represented at the park is unearthed, a great many assumptions as to layout of the farmyards, facilities present, etc. will have to be made. Since the chances of ever knowing all the details of a structure and its environment are extremely slim (most of the site of the Charette House has eroded away), educated guesses will have to suffice.

A general overview of each of the structures to be presented at St. Norbert Heritage Park follows. The French translation is included as the structures are labelled in French on the following site plan.

Indian Camp (Camp Saulteaux, Cree, Assiniboine 1750 - 1850)

A portable display of wigwams and tipis of the tribes frequenting the valley after 1750 will be constructed. A detailed study of the ethnology of these peoples will be required, however, before this camp can be assembled.

The Charette House (maison Charette 1811)

The Charette House was built some time about 1811 by Baptiste Charette, a carpenter for the North West Company. It is rumoured that the Selkirk settlers stopped at this house on the way to Pembina in 1812. The house was constructed of squared oak logs, dovetailed at the corners, and was one and one-half stories. The house faced the river, with its door to the east. At one time the trail to Pembina ran between it and the river, with outbuildings also on the river side. The land, however, has been drastically eroded away as the house was built on the eroding side of the river's meander. By 1952, when the structure was demolished for health reasons, the river was within 50 or 60 feet of the building.

When the house was demolished the oak logs were so old and hard that they could not be sawn or burned. A neighbour made a small bridge out of them which was eventually knocked down, the logs thrown into the bush where the lay and rotted. About six logs have since been salvaged and are presently in storage.

A Typical Métis House (maison typique de Métis 1830-1850)

This dwelling will have to be reconstructed to represent the life style of a family of the poorer Métis class, who would have been involved in the buffalo hunt and possibly boat tripping and freighting for the Hudson Bay Company. Associated with this building will be an exhibit of hunting, trapping, and possibly boat tripping.

The First St. Norbert Convent (premier couvent de Saint-Norbert 1858)

This building was constructed of logs and was roofed with straw and earth. The building housed a school and convent of the Grey Nuns and was the first institute of eduction at St. Norbert. The building was occupied by the Sisters of Charity from 1858 until 1874, when a larger more spacious convent was constructed. The first convent was still standing in 1882, although it was unoccupied. By 1897 it had been removed, a spruce tree in the cemetery was all that was left to mark its location.

The Delorme House (maison Delorme 1860)

The Delorme House was constructed about 1860 by Pierre Delorme on River Lot 21. Until the results of the archaeological investigation are available, what is known about him and his property is summarized by J. C. Hamilton earlier in the text.

The log-house remains on its original site although it has not been lived in for a number of years. It rests, facing the river, on its west side, immediately south of the bridge crossing the river at St. Adolphe.

Turenne House (maison Turenne 1871)

The Turenne House was built in 1871 for Joseph Turenne, a native of Quebec and friend of Father Ritchot, who had been persuaded to come out to

Manitoba after the troubles of 1869-70. He lived in the house from 1872 to 1880 when he and his family moved to St. Boniface. The house remained in the care of Father Ritchot, who allowed the Grey Nuns to use it as a boarding house and rental property. It eventually became known to the people of St. Norbert as the "Grey Nuns' House." A number of families lived in the house, including the Bohèmier's in 1887. It was a nuns' residence in 1969-1970 after the convent closed and a lodge for senior citizens was established.

The house faced due west with the river about 450 feet at its back. Behind the house was a shed used to store a buggy and a cutter. Also on the property was an outhouse between the shed and the river and a well to the south of the shed. A garden, mostly of potatoes, existed to the north of the house. Between the house and the convent the road ran down to the ferry, built in 1875.

The Second St. Norbert Convent (douzième couvent de Saint-Norbert 1874)

The second convent appears from the photographs to have been a two-and-one-half story structure. It was built in 1874, just north of the church and south of Joseph Turenne's house. This substantial building could accommodate up to 92 students. The main floor consisted of a kitchen, pantry, washing tubs, and refectory.

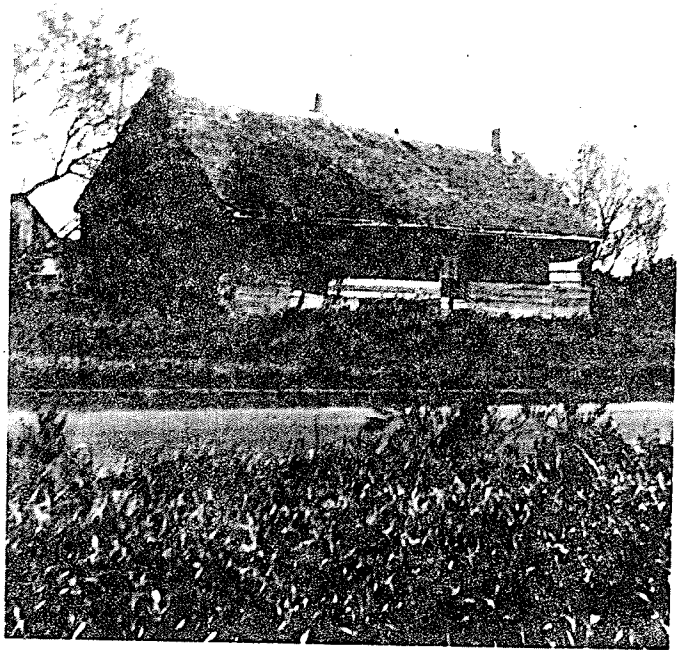
Classrooms and a dormitory were on the second floor. This building was linked to a third convent, a three-story structure built to the immediate north in 1889. It was incorporated into a much larger building in 1905, when the convent expanded to the south over the second convent. The 1905 convent could house 110 boarders and is presently the St. Norbert Lodge.

The Bohèmier House (maison Bohèmier 1889)

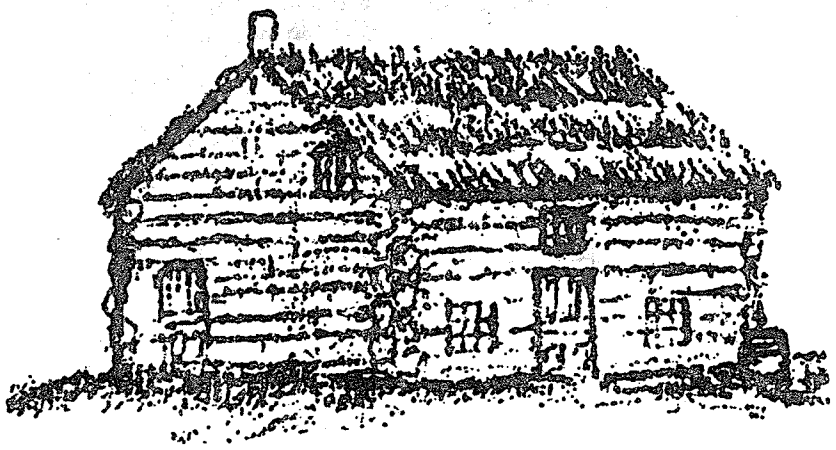
This house, a fine example of typical French-Canadian architecture, was built in 1889 when Benjamin Bohèmier moved his family from rental accommodation in St. Norbert to his homestead on River Lots 104 and 105. The original location faced square to Pembina Highway, about 150 feet to the east of the road. Behind the house, yet square to it, were a substantial barn, shed, and windmill. It was approximately 150 feet from the house to the back of these buildings. Behind these was a fenced yard for cattle which extended 150 feet down to a wooded creek. (This creek has become the large storage pond between the apartment blocks on Pembina Highway and the townhouses of Baylor Place.) To the south of the house was a large vegetable garden-the rows ran north-south. The last row, on the west, was rhubarb. West of this were a number of fruit trees (species unknown), then flower-beds of sweet william and sweet peas, and a bush of white lilacs. At the east end of the garden, next to the barn fence, potatoes were planted. On the south-east corner of the garden was a clump of trees: maples and one elm. Maples were also planted between the house and Pembina Highway in formal rows. Several of these trees are still standing. Whether these trees were planted before 1900 is not known, although it is believed they were. In front of the house beyond Pembina Highway was a long view of cultivated fields. As the Bohèmier family owned the land from the river to the 4-mile line, the view was extensive and apparently uninterrupted.

The house itself remained on its original site, occupied by the Bohèmier family, until 1974 when it was acquired by the Fort Garry Historical Society for preservation.

62. Charette House in 1925
[Manitoba Archives]

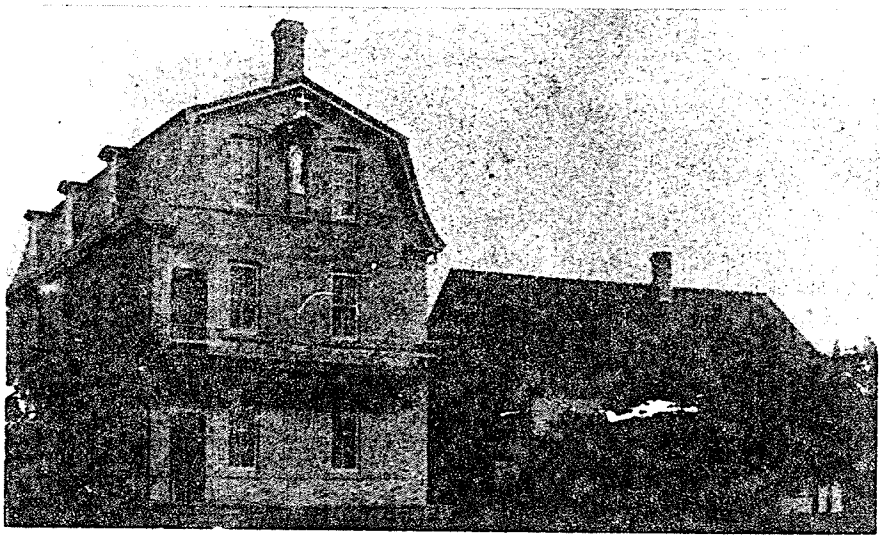


63. Charette House in 1947
[Manitoba Archives]

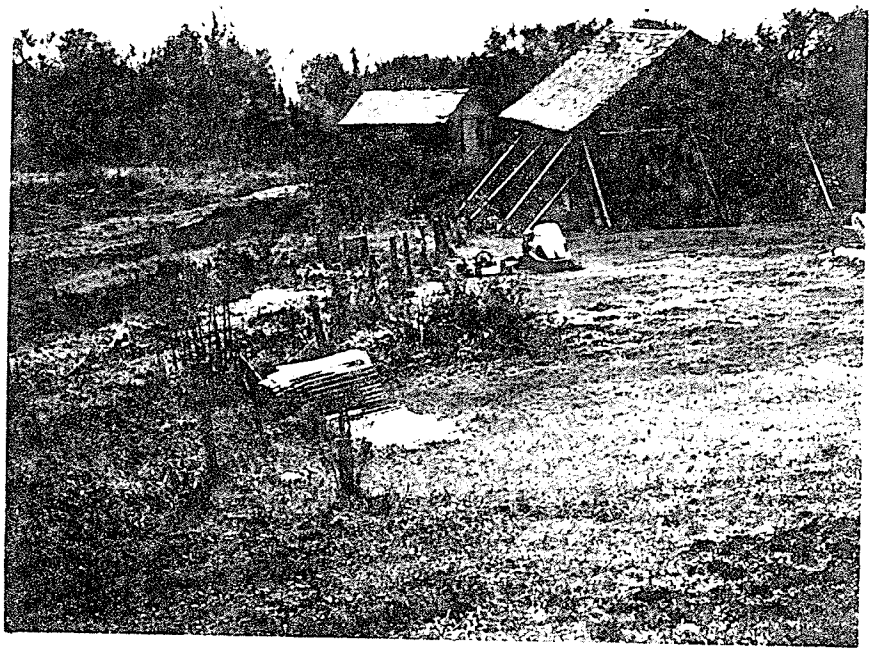


First St. Norbert Convent, 1858

64. The first St. Norbert Convent
[Manitoba Archives]

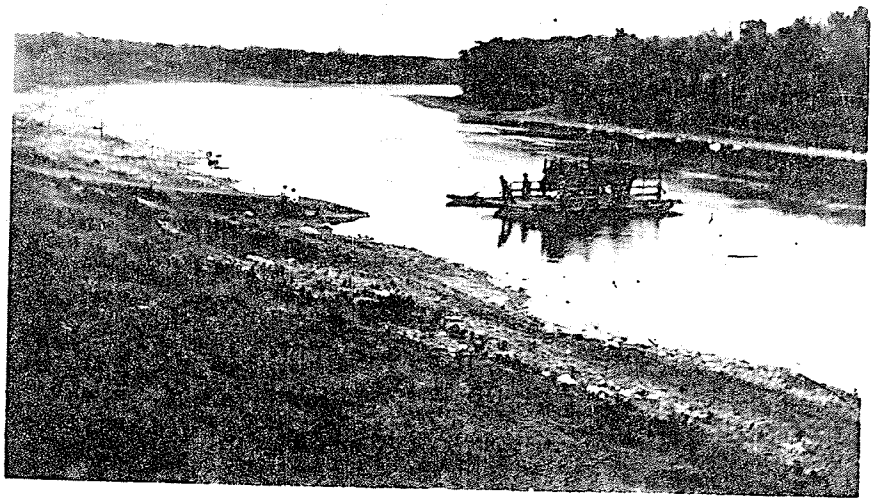


65. The second and third St. Norbert Convents
[Manitoba Archives]

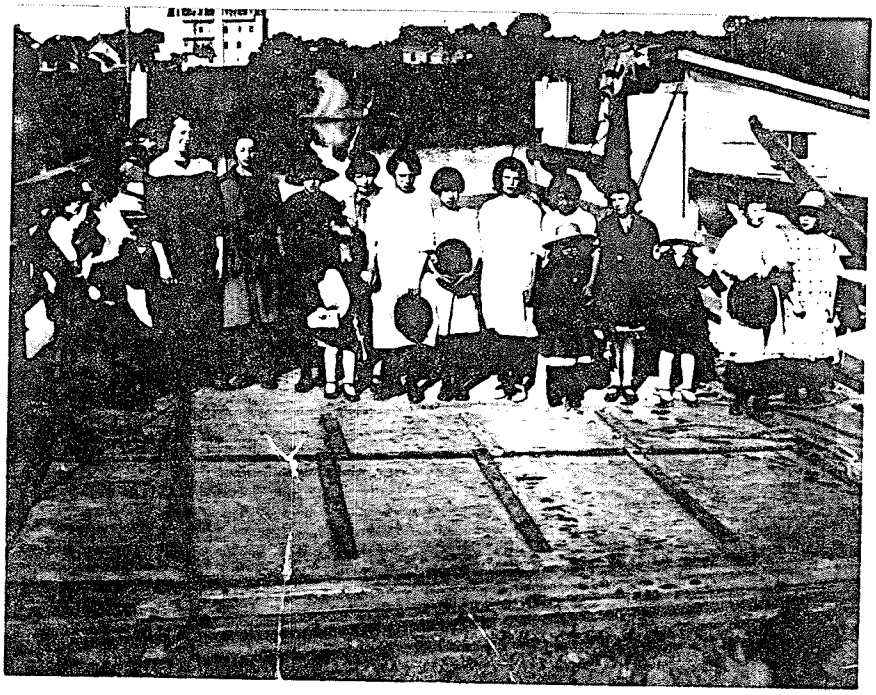


66. The Delorme House in 1981

67. The Delorme House from across the Red River

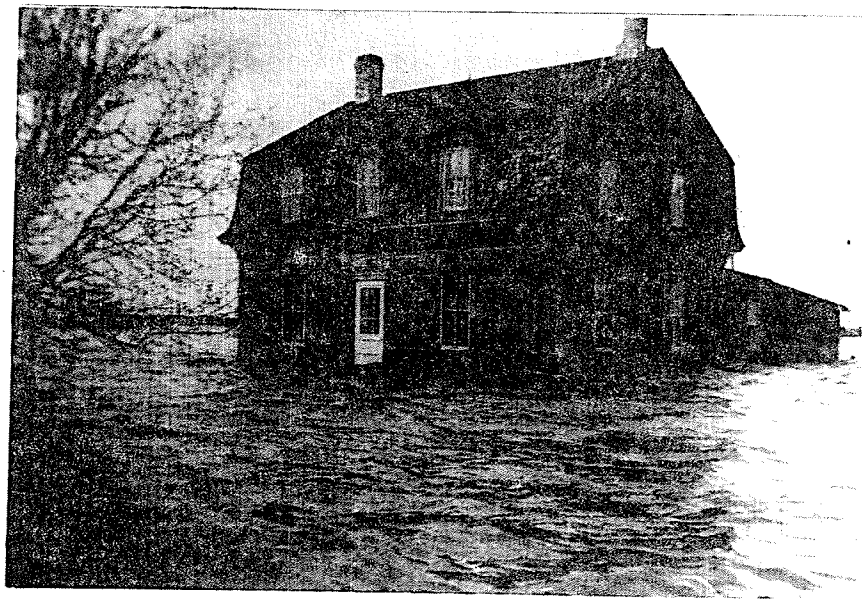


68. The St. Norbert - St. Vital Ferry in 1915
[Manitoba Archives]

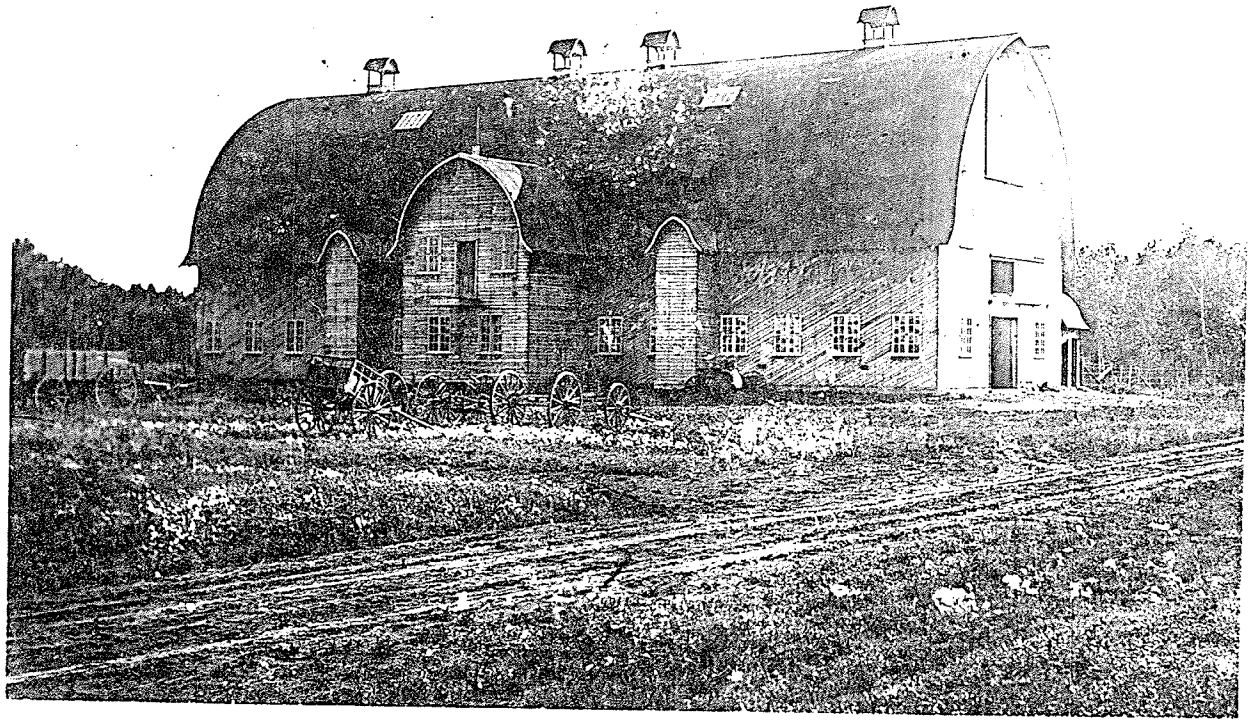


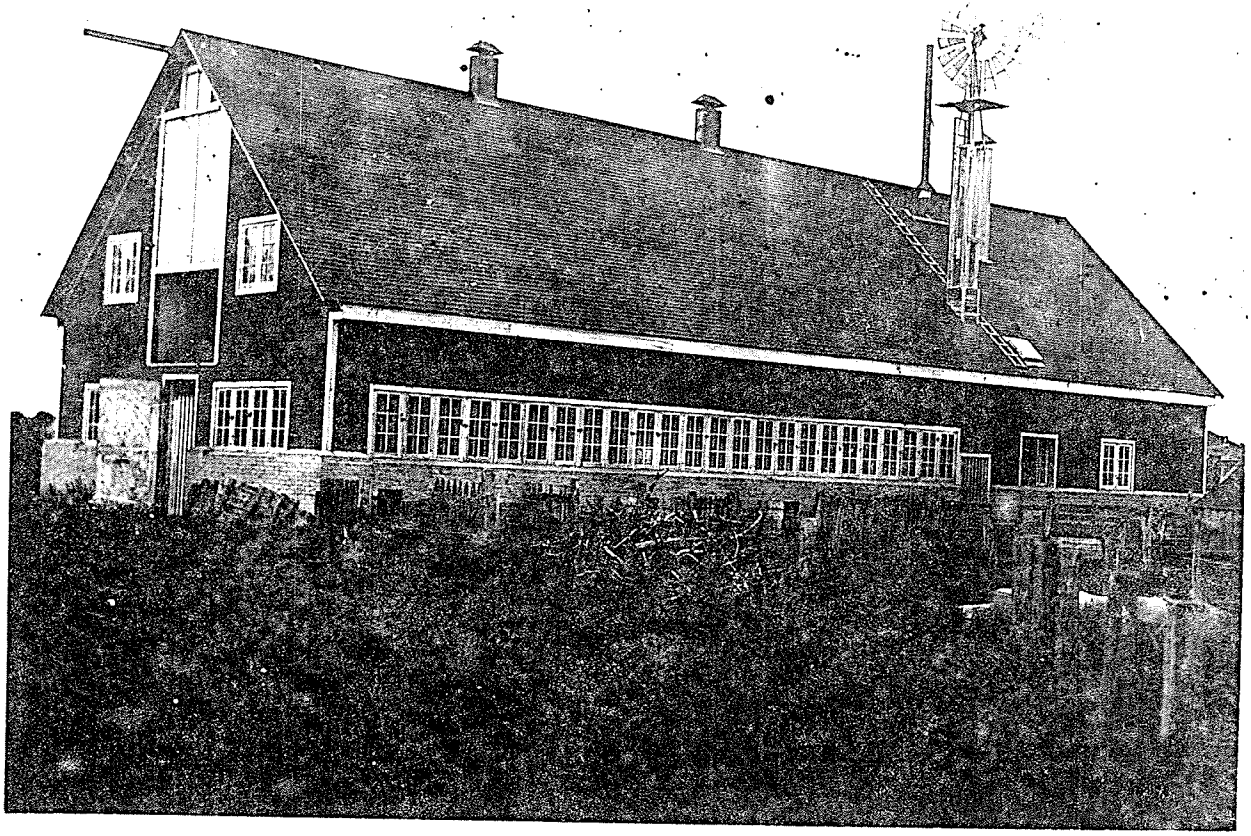
69. The ferry in 1925 with the Turenne House and Convent in the background
[Manitoba Archives]

70. The Turenne House in the 1930's
[photo courtesy of C. Tellier]



71. The Bohemier House during the 1950 flood
[photo courtesy of C. Tellier]





72. & 73. Barns in St. Norbert in 1915
[Manitoba Archives]

THE DESIGN

The first aim in the design of the St. Norbert Heritage Park is to create a setting for a number of historic buildings. This setting is to be as accurate as possible in terms of history, vegetation types, views around buildings, and details. As the buildings are being restored and constructed with absolute care that history be preserved, so must the landscape into which these buildings are placed. A mood reminiscent of the 19th Century is necessary within the park through careful attention to the protection of "period" site elements and boundaries, and through a concerted effort to hide and minimize impacts of "non-period" elements. This re-creation of the past may be attainable in part although a number of external visual and aural intrusions of the 20th Century will have their effect.

The need to be able to interpret the events to be depicted in St. Norbert Heritage Park in some form of order was the next task of this project. It was decided that a chronological time-frame was the most appropriate type of order which could be established, from ancient to modern rather than in the reverse. This decision was based on the fact that most histories operate on this format, that the story of St. Norbert could be told effectively in this manner, and that the site lent itself to this order. It therefore fell to the designer to create a continuum of events on the site, using the site as the medium, the buildings as the framework, and the design of the connections as the catalyst to tell the story of St. Norbert and its people.

The integration of the various periods to be depicted must be dealt with in such a way that a later structure does not encroach upon the atmosphere of a former structure. This is not necessary in the reverse, or where the dates of the buildings are in close proximity, however. Common threads, however, are required to tie the various periods of the park together. The path, plant materials, signing, and and other landscape treatments and elements will provide these.

The buildings and their outbuildings could be considered as given, and the site also, except for minor changes which have been or may be made, e.g., the purchase of the north-east corner and the re-routing of Turnbull Drive. The placement of the buildings and their juxtaposition, the handling of vegetation, pathways, views, and entry and exit from the site become all-important to the success of the park. The fact that the site is so small in comparison to the situations to be depicted by the park has made the miniaturization of the layouts of the homesteads necessary. By squeezing the distances between buildings, the Bohèmier barn to the house, for instance, the relationship between structures has been altered to some extent but not, it is hoped, to the detriment of the story being told. The layouts of the yards remain accurate in terms of structure placement and size, so that the historic utilization of the buildings and the depiction of family life is accurate.

The same can be said for the site as a whole. The historical relationship between the Second Convent and the Turenne House is accurate in that these buildings were beside each other, with the ferry path between them and the river at the back. Yet, historically, the distance

between these buildings was far greater. The placement of the Charette House beside the Delorme House has no basis in history or time, yet each house is reasonably well situated in terms of its historic relationship to the river and to the points of the compass. Because of this lack of space it has been necessary to treat the areas between the two homesteads in such a way that they ignore each other, that the view of one does not alter the atmosphere of the other. Certainly, the size of the site limits the success of such a venture. However, the need for such treatment has been recognized and dealt with.

The concept of "village", although St. Norbert eventually became one, does not work well for the St. Norbert Heritage Park. Of the houses to be represented in the park, the Delorme and the Bohèmier Houses were farmsteads and were isolated by distance from other dwellings. The Charette House was isolated initially by time. From a distance the site may be "village-like". From the parking area the buildings will appear to cluster around the Turenne House and Second Convent, where the town of St. Norbert originally began. However, once within the site, the buildings requiring isolation shall be perceived as being in that state through the careful manipulation of views and plantings.

The design of St. Norbert Heritage Park is based on a number of assumptions. The first is that because the project will be spaced over as many years as is required, funding will be no problem. Secondly, the assumption is made that Turnbull Drive can be re-routed to meet Pembina Highway at right angles when the Highway is twinned. When this happens the triangle of land presently between Turnbull Drive and the Highway

could be incorporated into the park together with the right-of-way of the re-routed street. This will add substantially to both the area and the potential of the park. An argument for a reduced speed limit in front of the park can be made as well. This will help greatly in reducing traffic noise which pervades every area of the site at present.

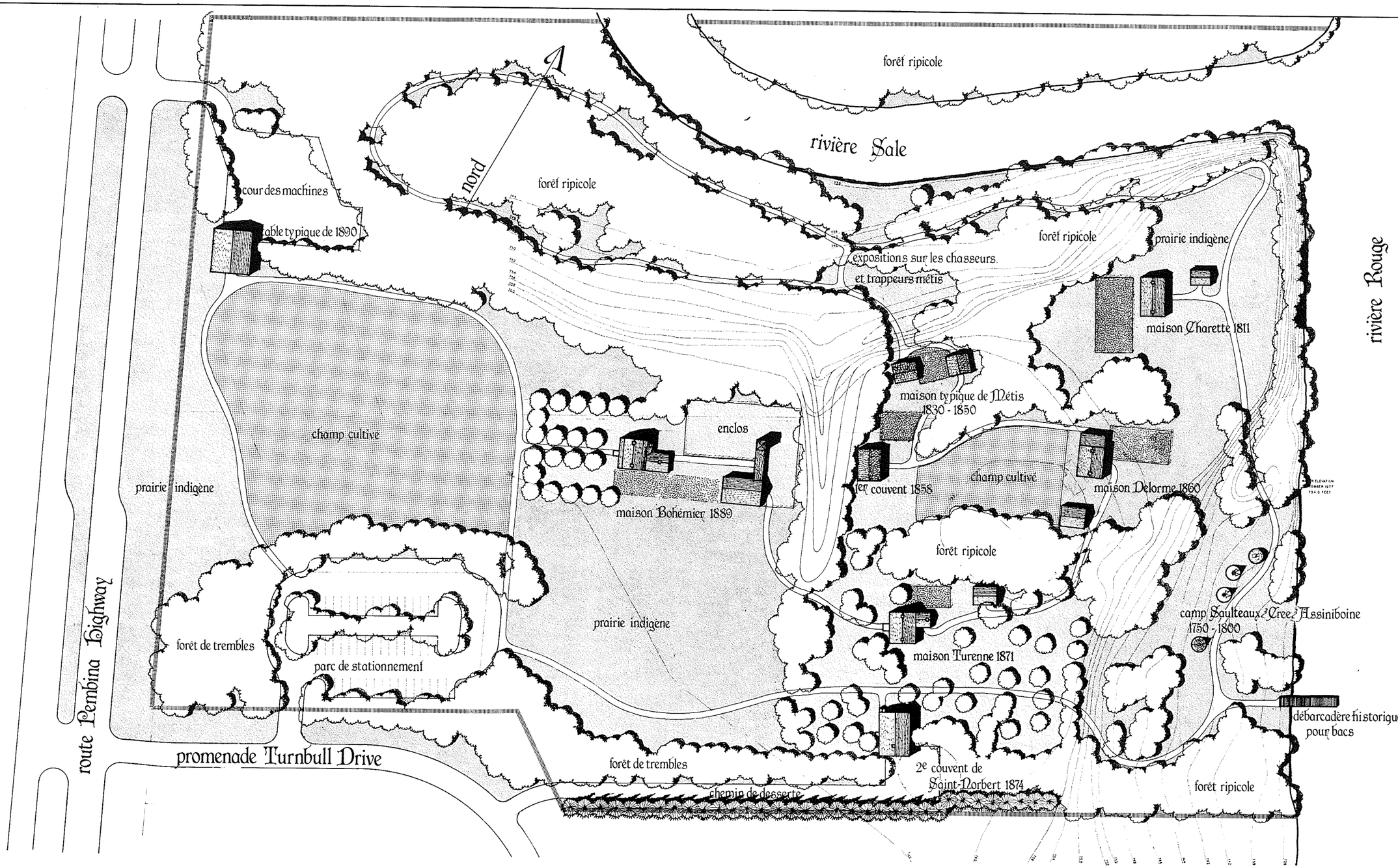
As most of the vegetation on the flat upper level of the property is non-native and it will have to be replaced with native stock. The disruption of existing plantings on the site is necessary in any case due to the extensive grading which will be necessary in order to meet the finished floor elevation set by the Flood Damage Reduction Program.

A re-establishment of tall grass prairie, along with vestiges of river-bottom forest and aspen-oak bluffs are necessary treatments on the site. (See Appendix C) The only non-native vegetation on the site, other than species cultivated in gardens and fields, is the line of spruce along the southern property line. This will, however, be hidden by a band of native aspen forest between the spruce and the park.

Servicing activities and machinery will issue from the service yard and building on the north-east corner of the property. This yard will be built on landfill and the right-of-way of the relocated Turnbull Drive. Sewer and water services for the park will be housed in this compound, as well as maintenance machinery, farm implements, and possibly fire-fighting equipment. A shop for restoration work and an area for exhibits storage will also be included.

The design of the park is just beginning. As more details become known treatment of the landscaping will become more refined. The details

of such things as lighting for security and aesthetics, fire suppression with hydrant locations, alarms, and fire vehicle entrances, servicing systems, surface gradients and materials, number of parking spaces required, and other considerations have only been given cursory attention. What has been developed is a workable framework from which to continue.



St. Norbert Heritage Park — Parc du Patrimoine de Saint-Norbert

0 20 40 100 200 pieds 300

Septembre 1981

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A WALK THROUGH THE PARK

From Pembina Highway a number of distinctive elements catch the attention of the passer-by. The most noticeable form is a historic barn, typical of those in the St. Norbert Parish about 1890 (étable typique de 1890). This structure serves a dual function. It is primarily the maintenance building for the park but acts also as an agent of attraction for those driving past; its form is meant to draw attention to the site. The view into the park is funnelled by what appear to be a bluff of aspen (forêt de trembles) to the south and a river-bottom forest (forêt ripicole) to the north. The focus of the view is the house and barn of the Bohémier family. The distinctive architecture of the house and the tall windmill attached to the barn behind should pique the interest of those looking in.

The view from the highway is unimpeded over, first, the tall grass prairie (prairie indigène) planted in the highway right-of-way, and then over a large waving field of grain (champ cultivé). The unmowed prairie grasses growing along the highway in front of the park are meant to catch the attention of the motorist as well, by being something different from the shorn species usually associated with rights-of-way. A sign in front of the aspen bluff at the intersection with Turnbull Drive invites the passer-by to visit the park.

The park entrance is off Turnbull Drive. The sunken parking lot (parc de stationnement) is situated in a clump of aspen and oak forest; its depth and the surrounding planting shields the rest of the park from the intrusion of the automobile. The only views from the parking lot are

to the east, toward the reconstructed second St. Norbert Convent. This impressive two-story structure immediately catches the eye and draws the visitor towards it. Again, the view is over an open field of re-established tall grass prairie.

The parking lot is designed to accommodate 48 cars and four buses. Because of its placement on the site it can be expanded to the east or west with no disturbance to the park.

The visitor appears to wander through a field of prairie which changes with the seasons. The eye can see the Bohémier homestead to the left, which whets the interest, but the visitor is drawn down the path to the Second Convent.

The path has an all-weather surface and is designed to accommodate the handicapped, as are all the facilities in the park. The second stories of several of the buildings are inaccessible, however. The trail is also used by small service vehicles when necessary.

The Second Convent is the administrative and interpretive centre of the park; inside it acts as an introduction to the park as a whole. The religious aspect is dealt with elsewhere. There is also a small restaurant and outdoor dining terrace associated with the building where French-Canadian and Métis fare is served. A small picnic area exists behind the Convent to the south of the trail to the river. People coming from the parking lot or from their boats which are docked at the historic ferry dock (débarcadère historique pour bacs) are taken through a small interpretative program within the Convent prior to beginning their tour.

Associated with the Second Convent is a service road (chemin de

desserte) and small service yard. These facilities are hidden from the park by a band of native aspen forest which parallels the road. A line of existing spruce, adjacent to the neighbouring property, is also hidden by the native vegetation. Because these spruce had already been in place on the property line prior to the park's development, and because they act as a natural winter buffer, they were retained for the neighbour's benefit as well as the park user's, as the neighbour's house is very close to the property line.

The service yard immediately south and east of the Convent acts in several ways. Restaurant and other supplies are brought into the site, staff parking is accommodated when necessary, and people unable to get from the parking lot to the interpretive centre can be driven right to the door. The service yard can be expanded to the east to triple its present size, if necessary.

From the Second Convent the visitor walks toward the river, where the life of the Red River Valley initially began, along the banks of the rivers. The walk down to the river's edge then becomes symbolic of going back to the beginnings. From the top of the bank the tops of tipis and wigwams are evident through the bush; once down the bank a scene unfolds before the visitor, one which could have been viewed on this spot more than 100 years ago. The Indian camp with its representation of Saulteaux, Cree, and Assiniboine life, is tucked into an opening in the river-bottom forest. Nothing can be seen from the camp except the native habitations and the forms associated with those habitations: drying and smoking racks, canoes, fire pits, a small field of Indian corn, etc. These

elements are all transportable or can be abandoned, as they were in native life, and need to be so as the river floods this part of the site almost every spring. The visitor is therefore introduced to the life of St. Norbert in the most accurate and historic terms by being firstintroduced to the river and to the native peoples who lived in the valley, the ancestors of St. Norbert's most celebrated residents, the Métis.

The visitor leaves the camp in the meadow opening and re-enters the forest, walking up a graded pathway. The forest opens out into a large clearing of tall grass prairie, with a house and small stable in its centre. The Charette house, built in 1811, represents the French-Canadian voyageurs, who began to settle along the Red River about 1800 with their native wives and half-breed children. Associated with this historic structure is a small vegetable and potato garden, fenced with post and rail to keep out wandering livestock. The trail runs between the house and the river, as it did historically, through the prairie grasses to the point which overlooks the Sale River's mouth. The views down to the Sale River and down the Red River are spectacular. One is enclosed and intimate; the Sale is defined by the heavy forest on its northern side. The scene that unfolds down the Red River is panoramic; if no boats are in sight one could believe that it was 1811. In turning away from this scene the visitor sees the Charette House once more, isolated and alone in the forest clearing, and perhaps does begin to believe.

The path leads back down to the river but it is the Sale River now. The view of the water flickers through the trunks of the oak, elm, and ash and the leaves of the understory. The peace is unbroken. Here the

visitor comes across the tools that the Métis used in their everyday life, as tripmen for the Hudson Bay Company, as trappers and traders, as fishermen, and as buffalo hunters. These exhibits are transitory, scattered in the floodzone of the Sale River as they would have been perhaps, and must be brought up each year.

There is a fork in the path. The narrower path continues up the river to the right. On the left the visitor sees at the top of the bank a small log-hut. If the desire is there the visitor follows the narrow path through the tall trees of the river-bottom forest and back again, an additional quarter mile of intimate river views and thoughts of the unhurried past. The view up to the log-cabin appears where the trails rejoin, and the ascent is made to the typical Métis house of the mid-19th Century.

The visitor wanders through the house, the outbuildings, and along the trail between the trees and the fence of the potato patch. With the small sod-covered buildings behind, a larger sod-covered structure appears.

This is the first St. Norbert Convent which was occupied by the Grey Nuns in 1858. Here the strength of the religious life of the Métis is attested to as well as the role of the church in the education of the community. The Convent lies between the home of a poor uneducated resident of the Red River Settlement and that of an educated well-to-do member of Red River society. A small school yard and garden lie within the Convent grounds.

The trail again leads between the forest and a fenced field.

However, the crop is now grain rather than potatoes. Across this small field is the home of Joseph Delorme, whose field this is. The house faces the river, as it did in 1860 when it was built. Delorme represents a high point in Métis society, a prosperous farmer, a politician, and a member of Riel's Provisional Government and, later, a member of Canada's Parliament. Through the interpretation of Delorme and his house the role of the residents of St. Norbert in the troubles of 1869 and 1870 can be told. Other stories are the freighting and carting exploits and the rise in a serious commitment to agriculture by the Métis as members of that society began to prosper. Delorme lived all these lives: buffalo hunter, carter, farmer, and leader of his people.

Another walk through the forest brings the Second Convent and the Turenne house into view. These buildings sit in a relationship to the river, to each other, and to the ferry, which is historically accurate. As such, the Second Convent acts only as a backdrop to the Turenne House, representing the Grey Nuns who came to be associated with the Turenne House, and as an element of the village which was beginning to grow up around the church at the time. The connection between the Turenne House and the Second Convent is only visual. Should anyone be tired or not wish to continue, or have need of the rest-rooms, the Convent is available to them .

The visitor enters the Turenne yard from the back, and the first building entered is the stable which is how Turenne himself would probably have arrived. After admiring the buggy and cariole in the small stable the visitor takes the path past the garden to the back door of the house,

over prairie grasses which have been scythed within the fenced yard.

Turenne was a man of letters, a French-Canadian who was brought out to help the Métis make the transition into Canada. The house represents this aspect of St. Norbert history. He was not a farmer, so the house and yard do not suggest this. After he left, the house became associated with Father Ritchot who may have boarded Louis Riel there while a fugitive. The Grey Nuns rented the house over the years to many people, including the Bohémiers.

Keep this in mind, as the trail leads to a gap in the woods through which the visitor is able to see the Bohémier property, with large barn and substantial house. The view again is over an expanse of tall prairie grasses. Through the gate into the cattle yard, the visitor enters the barn. The enclosing of the livestock, fenced in the cattle yard rather than fenced out of the fields and gardens, is an important feature of the Bohémier homestead.

The path then leads to the house, past an ample garden on one side and the fenced enclosure for cattle on the other. Although the cattle yard in this location has no basis in history (it was behind the barn and stretched down into the low wet area and creek) more room was required due to the size restraints to enclose the cattle to be shown, since cattle were an extremely large part of the Bohémiers' operation.

The Bohémier homestead represents the transition to large-scale farming operations in the parish. It represents the beginnings of use of the lands away from the river. Although the Bohémiers owned river lots they farmed on the scale of those who had moved out onto the open prairie and had taken a quarter section of land under the sectional survey. The

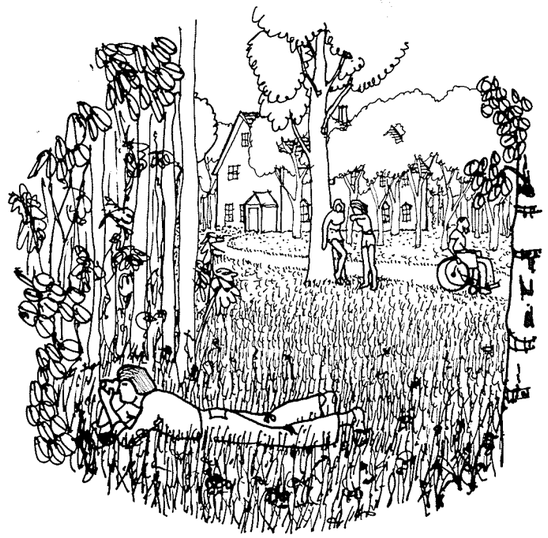
landscape around the house gives this feeling. The vista to the west from the house is accurate, Bohémier's fields stretched to the west away from the house, beyond Pembina Highway, which sat where the trail to the parking lot sits. The formal planting of maples was the pride of the patriarch who planted them. They give the house a look of permanence, of culture, and of modern times.

The house was built of dimensional lumber, the first structure on the site built in that way. The architecture is reminiscent of Quebec, from where the Bohémiers', and many other people of the parish, emigrated during the rush to the west. They were pioneers in that sense, but had come from solid foundations in Quebec. Such peoples, after many of the Métis had left, became the future of the parish. Symbolically, the house facets west, to where the Métis retreated and to where the settlers would soon follow.

This is represented in the landscaping around the Bohémier House. The native grasses are mowed to the outer line of maples; beyond that the grasses remain as they were. The view to the west, over a field of cultivated grain, changing colour from spring to fall, is arrested by a line of native grasses and forbs beyond it, whose height obliterates the highway to some extent.

The visitor walks to the west from the house and can return directly to the parking lot in the aspen bluff, between cultivated grain and the wild and natural grass. The way is also open to walk towards the barn and by it. The same feelings are evoked. The native prairie to the west, waiting to be overcome by that harbinger of the future: wheat. The visitor walks back into the aspen bluff and into the present.

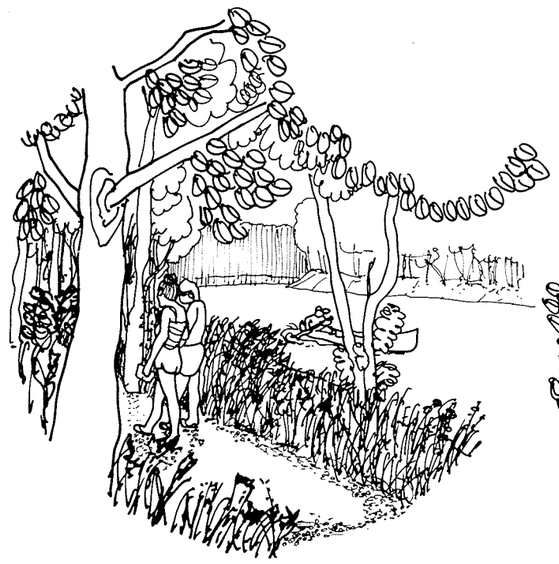
prairie indigène



2e couvent de Saint-Norbert

camp Saulteaux, Cree & Assiniboine

maison Charette



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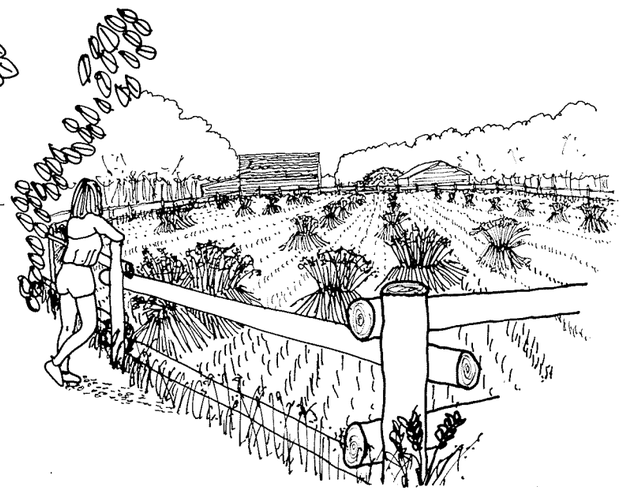
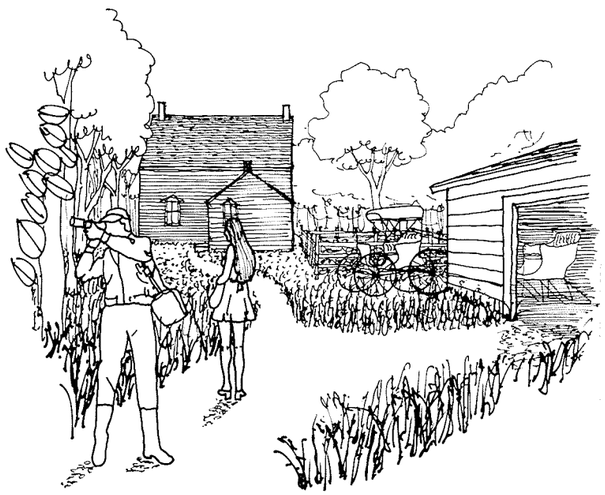
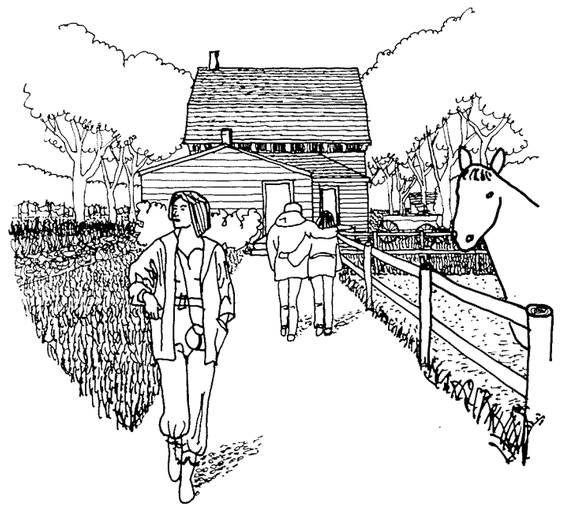


maison Delorme



maison Turenne



maison Bohémier

St. Norbert Heritage Park Parc du Patrmoine de Saint-Norbert -sketches-

appendixes

APPENDIX A - List of Flowers made up by Margaret J. Anderson, May 1852

This list represents the available species of ornamentals at the Red River Settlement at that time and is taken from the Period Landscape Study for Lower Fort Garry National Historic Park prepared by Parks Canada in December of 1979. The notes following the list were prepared by L. G. Thomas and revised by L. Fardin.

1. Sweet William: Dianthus barbatus

2. Hearts Ease: Viola tricolor, Wild Pansy of Parkinson Parasbius Terrestis, 1629, and Milton's "pansy freak" with jet -"garden pansy probably derived from this".

3. French Pink (2 types): Carnation? Or one of the other many kinds of pinks; though too early for Mrs. Sinkins (1867). Dianthus caryophyllus.

4. Virginia Stock: Under Crucifera-Malthiola Malcolmia maritima. "Is the Virginia Stock (although from Greece and Albania) a variable annual, 15-30 cm. (6-12 in.) tall, with racemes of lilac, rose, red or white flowers. There is also a yellow variant..."

5. Nastertium (sic): Nasturtium Many substitutes for caper (Capporis spinoa), "particularly Nasturtium (Tropaeolum majus) seed" I think this is the one she would grow, or want to, because of its culinary use "see also Perry). Introduced from Central South America; Tropaeolum majus, strong climber from Peru, introduced to Britian circa 1686. Margaret Anderson would probably use it as a creeper -- or want to. It ought to have been satisfactory annual at Red River in 1852, though very sensitive to frost.

6. London Pride: English name of Saxifraga umbrosa - able to survive in smoggy atmosphere ("S. xurbicim, S. spathularis, S. umbrosa is the plant usually grown as London Pride"). It would be expected to survive in Red River as most common saxifrages are pretty hardy.

7. White Jerusalem Star: Possibly Phlomis fruticosa Jerusalem Sage "one of the hardiest of the shrubbery species" A.W. Smith, A Gardener's Book of Plant Names Harper & Row, New York, 1963 (Isadore's late husband) lists J. artichoke (Helianthus tuberosus), Jerusalem cherry (Solanum capsicum), Jerusalem oak (Chemopodium Botrys.L). Jerusalem sage (Phlomis), Jerusalem thorn (Parkinsonia aculeata). I could not get much out of Perry on these. The first is a vegetable, the second usually a house plant, the last probably a tropical shrub or tree. Checking these against other listings for a white or star-shaped flower might be useful or possibly the Star of Bethlehem (Ornithogalum umbellatum).

8. Bergamot: Monarda didyma, also Bee Balm, also "Four leaves sometimes made into tea." From North America to Mexico and several species had been introduced to England as garden flowers. Would have seemed worth a try.

9. Marvel of Peru: Mirabilis jalapa, also "Four O'Clock Plant", herbaceous perennial, ca. 60 cm. -- 2 ft. -- high, used in tropics for bedding or mixed border, so one might have one's doubts about Red River unless as a house or green house plant.

10. Double Poppie (sic): Poppy. Probably Papaver rhoeas, Shirley Poppy or Corn Poppy, or Somniferum, Opium poppy, Orientale according to Perry too early for Shirley Poppy but she does refer to Doubles. The most likely (although presently prohibited by the RCMP) would be Papaver somniferum, which seems to have had doubles before the Shirley poppy.

11. Convolvulus (sic) Major (2 sorts): Convolvulus, "Major" suggests a climber, but "two sorts" might mean colour (blue, white, pink or even red) or type (climber or border plant). The Morning Glory, Ipomoea purpurea etc., may have been available this early but it is doubtful it would have had much success in Red River's short-growing season, unless started indoors. More and more, it seems more likely M. Anderson had some kind of greenhouse or hot frame.

12. Mignonette: Reseda odorata Easily grown even in foothills, though sensitive to frost like most annuals, even quite "hardy" ones. Very popular in the early 20th Century South Alberta gardens.

13. Sweet peas: Lathyrus odoratus; in England since 1699, this popular climber would be a natural for Red River.

14. Dwarf Pea: Perry mentions dwarf varieties of modern sweet peas, and perhaps there were earlier ones. Could she have been thinking of an edible?

15. Larkspur: These are more likely annual larkspur for massing then Delphinium, the hardy perennial, but both have been so much developed since 1852 that one would need to be very careful here.

16. Scarlet Kotens(?)(sic): Could this be Scarlet Avens Geum Auellyon? Unlikely! Possibly Scarlet chalcedonica, Jerusalem or Maltese Cross, certainly a very common perennial in the foothills gardens. It is hard to believe it would not be on Miss Anderson's seed list.

17. Candytuft: Iberis sempervirens or I. amara (the annual, at one time particularly popular). Sempervirens is the rock garden form and less likely to be thought of in Red River terms.

18. Saffron: Smith lists saffron (Crocus officinalis or C. sativus), false (C. earthamus), spring meadow (Colchicum automnale). The most likely is Crocus sativus, Saffron crocus, source of drug and dye in Britian since middle ages, flavour in saffron cakes, Saffron Walden, Essex, centre of the industry.

19. Lupins: Perennial lupins before Russell were pretty dull plant material so perhaps she was interested in the annuals. (L. laxiflarus, L. lapidus, L. mutabilis, were used by Russell to get away from the white, blue and purple colours of perennial).

20. Lavatera: (sic) Lavatera L. arborea, Tree Mallow; L. Albia, Tree Lavatera; L. Trimestris, annual, Herb tree mallow. She might have meant any of these but the third, Lavatera trimestris, is more likely.

21. Janesada(?): Maneso americano (too early). Toriduin Ipecocuantro (1822) medicinal need greenhouse culture.

22. Hos adonis(?).

23. Manophala: "Mono" as a prefix indicates "one" "Phaios" - "shining".

24. Egg Plant: "Solanum melongena escuclentum" Aubergine, "well-known vegetable with edible fruits". But could it be Smith's "Butter-and-eggs" - Linaria-Toadflax?

25. Double Marigold: Calendula officinalis. Pot Marigold, "slight culinary properties" Hardy, does well in Alberta.

26. Holly: Presumably the glossy-leaved red-berried Christmas shrubbery tree, Ilex, which does well in England and Vancouver Island, but would not be hardy in Red River.

27. Acorus flower.

28. Name unknown.

29. Large red flowers (name unknown).

30 Purple stem with stock (?)

31. Mixed China Astre (sic): Callistephus chinensis, annual; "mixed" probably refers to colours.

32. Negella Romanis (?): Nigella damascena, love-in-a-mist. From "black", niger, seeds of these annuals (Smith, op. cit.). Nothing in Perry.

33. Malope Grandiflora (?): Malope.

34. Petunia Thenisa (?): Petunia is generally treated as an annual, though strictly perennial. Thenisa is unknown.

35. Dianthus Atrorubens: A Pink or Carnation. Smith (p. 52) describes atrorubens as "dark red", so this is a dark red pink (or carnation).

36. Portlakie Selesonia: Portulaca - purslane - Portulaca grandiflora, Rose Moss or Sun Plant of Brazil; many colours are available and it does well under prairie conditions as an annual, even seeding itself, though very susceptible to frost. Likes a sunny location.

37. Galliopsis atropurpurea: Atropurpurea, see Smith, means dark purple. So it has perhaps "maroon & crimson flowers". G. ladanum is red hemp nettle.

38. Name unknown.

39. Malva zebrina - Variety of Mallow Zebrina (Smith 374), zebra-striped. But see also Zebrina pendula, the common house-plant.

40. Zeranthemum Annuum Alba: Eternal flower. (Smith 373). The flower heads dry, retain form and colour and are much used for winter decoration. Madly popular in 1852, and just the ticket to make a house a home in Red River. (Another genus, Helichrysum bracteatum, is an Australian perennial treated as annual in gardens and one often referred to as "Everlasting" - also called Straw Flower).

41. Scarlet striped Balsam: Impatiens Holstii or I. Wallerana or "Busy Lizzie", or Patience plant. ("Brilliant shades of scarlet...") most probably. But possibly I. Balsamina (often with dark red flowers). It is more likely to be Busy Lizzie, easy to pot up and keep indoors over the winter, and very colourful outside in the frost-free period.

42. Eschscholzia: E. californica, California poppy, state flower of California. Showy hardy annual, many colours but in 1852 probably only orange easily available. It seeds itself at Kapasiwin and elsewhere very freely.

43. Clarkia Pulchella: Clarkia (Smith, 102, North American annual named in honour of Captain William Clark, 1770-1838) Pulchella, pretty. A useful annual on the prairies. See any good Canadian seed catalogue.

44. Malva Mauritiana: Malva Sylvestris. Often used medicinally. The hollyhock is a species of this family. Alcea (althaea) rosea, and may have been what Mrs. Anderson wanted. A very popular cottage garden plant.

45. Gillia Tricolor: Tricoloured Gilia or Bird's eye Gilia.

46. French Marigold: Tagetes patula.

47. (?) Ten Week Stock, Matthiola incana.

48. White Candetuft: Candytuft. Iberis (See 17, above).

49. African Marigold: Tagetes erecta. Vigorous annual, of which there are many modern cultivars.

50. Virginia Stock: (See 4, above).

51. Cyanus: Smith, 122 "Cyanis: Old name and now the specific name for cornflower, signifying blue" Centaurea, Echinacea. One would certainly expect to find Centaurea cyanus, European cornflower, Blue Bottle or Bachelor's buttons in a Red River garden.

52. Adonis something, etc: Perry describes Adonis aestivalis, the Pheasant's Eye from S. Europe, as an annual, crimson flowers on one-foot stems. Smith defines "autumnalis" as "pertaining to autumn" and "vernalis" as "of spring; spring-flowering".

53. Halana Paradopa (?): Possibly using Smith, may be Solana Paradoxa, a strange plant of the genus Solanum, which includes potato, etc.

54. Collinsea Bicolor: Collinsia hetarophylla or Chinese Houses. annuals named in honour of Zaccheus Collins, 1764-1831. Not in Perry. The Collinsias are mentioned in London (p. 343) as among the natives of Mexico and California that embrace "some of the prettiest and most useful annuals in British gardens".

55. Larkspur: See 15. above. She probably wanted to try both annual and perennial larkspurs, perhaps including delphinium. Perennial larkspur is quite common in Alberta foothills - "locoweed", deadly or so reputed, for stock, and both domesticated larkspurs flourish.

56. Hibiscus africanus or Hibiscus trionum: Flower of an Hour. Grown under glass in temperate countries, e.g. H. McCuaig's solarium at Kapasiwin. If Anderson is making up her list from Red River, she must have an idea of the growth conditions there, and some of her orders, like this, suggest that she had in mind some kind of greenhouse. As some pretty sophisticated farmers were in Red River, by 1852 would this be a possibility? The glasshouse is much a part of English horticultural tradition.

57. Sweet William: See 1. above.

58. Mignonette: See 12. above.

59. (?) Adonis: See 52. above.

60. Marsh Stallion: Marsh mallow? Althaea officinalis. Perry refers to "medicinal virtues of ancient origin". Many of the plants of this list are of medicinal interest. Is there any connection between Anderson and medicine? One supposes many women in the early west had knowledge of medicinal herbs.

61. Indian Pink: See 3. above. But Perry specifies Indian Pink, Dianthus Chinensis as one of the parents of carnations grown commercially under glass. A carnation under glass would provide highly desirable cutflowers in the Red River winter, and a social as well as horticultural coup.

62. Stermspylla: Could be Hemerophylla or Thermopsis otherwise known as a false lupins.

63. Lupins: See 19 above. Probably she wanted both annual and perennial.

APPENDIX B - Requisition on Fort Garry of the Following Garden Seeds for William Lane - Circa 1855 - 1870

This list of vegetables is also taken from the Period Landscape Study for Lower Fort Garry National Historic Park. It would represent some of the available vegetables in the Red River Settlement after 1855.

Asparagus	- giant
Beans	- German wax
	- German yellow 6 weeks
	- Royal Dwarf Kidney
	- Large White
	- Scarlet Runner
Beets	- Turnip Bassano
	- Blood Turnip selected
	- Long Dark Blood
Brocoli	
Cabbage	- Early Large York
	- Early Winningstadt
	- Fine Red Dutch
Carrots	- Early Horn
	- Long Orange
Cauliflower	- Eye Paris
	- Early London
Celery	- White Solid
	- Large White Solid
Mustard	- White English
Nastertium	- Tall Yellow
Onions	- L. R. Wethersfield
	- Early Red
	- White Portugal
Parsnip	- Long Dutch
Parsley	- Curled
Pepper	- Bull Nose
Peas	- Carters 1st Crop
	- Champion of England
	- Tom Thumb
	- Dwarf Champions
Pumpkins	- Large Yellow
Radishes	- Turnip Rooted
	- White turnip rooted
	- New French
Spinach	- Round Summer
	- Prickly

Corn	- Common Sugar
	- Sweet
Cress	
Cucumbers	- Russian
	- Frame
	- Green
	- Small Gherkins
Leeks	- London
Lettuce	- Gilesia
	- Drumhead
	- Perry's Price Head
Musk Melon	
Yellow Cantelope	
Musk Melon	- Casaba
	- Few White
Water Melon	- Mountain Sweet
	- Peerless
	- Orange
Squash	- Boston Harrow
	- Winter Crook
	- Bush Scallop
	- Hubbard
Tomatoes	- Large Red
	- Ferry's Imported
	- Keyes Prolific
	- General Grant
Turnips	- Flat Dutch
	- Yellow Aberdeen
Japan	- Sage
	- Summer Savory
	- Caraway
	- Rose Mary
	- Thyme
	- Coreanda

APPENDIX C - Prairie Restoration

Cohlmeyer [1977] makes a strong case for the use of native plant materials in the landscaping of our cities. She cites, using natives over traditional plant materials, a reduction of costs in maintenance, i.e., watering, mowing, fertilization, pruning, etc., a lower cost in actual initial installation of the landscape, a reduced risk of disease destroying the landscaped area because of its inherent resistance, a reduction of pollution i.e., insecticides, herbicides, fertilizers, noise from maintenance equipment, an increase in wildlife habitat, species diversity and, along with this, a diversity of beauty (as has been seen from the descriptions of the prairie and parkland by people who saw them in their pristine state).

A scientific restoration is impossible, however, due to the need for buffalo, elk, floods, grasshoppers, fire, impeded drainage, etc. A self-sustaining community is possible, and a far better solution for St. Norbert. She suggests the restoration of prairie through planting rather than waiting for succession, with three to five year burnings or mowing once a year. She also does not recommend the use of non-native seed sources (e.g., Wisconsin) due to the lateness of flowering.

Leskiw [1978], on the other hand, recommends the use of native seed sources from 150 to 300 miles south, which would be more vigorous and aggressive than those obtained locally. By using these seeds in combination with seed obtained locally new strains would develop and a healthy vigorous prairie would result.

He suggests planting in June at a ratio of 60% grass to 40% forb-legume by weight or 10% grass to 90% forb-legume by volume using a native plant seed drill set to the various depths required for the different seeds. By going over the area to be planted several times at these depths the pattern of the drill would be lost. No fertilizers are recommended as they help weed growth.

He states that "weed growth is the largest deterrent to initial prairie re-establishment." By using a herbicide such as Round-up prior to the first appearance of the seeded native plants, weed competition could be virtually eliminated. During the first growing season, mowing to a height of about six inches would eliminate weeds but have little effect on the native plants as much of their initial energy goes into root production. Leskiw also recommends early spring burning every two to four years after the prairie has been established.

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