Prairie Icon and a Vanishing Way of Life: The role and influence of the grain elevator upon the communities of the Canadian prairie

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Overview

As you drive across the vast, wheat covered expanse of the western prairie, the angular forms and bright colors of the distant grain towers surprise the eye. This anticipatory impression is the first of three distinct ways in which the perceptual impact of the elevators is felt. Turning from the main highway and continuing into town, from the axis of Railroad Avenue flanking the rail line, the tall towers are seen rising on one side with the one and two story buildings of the town assembled on the opposite side of the Avenue. Lastly, there is the vista framed by the parallel building walls of Main Street closed by the imposing wall of the towers at its foot. From each perspective the grain elevators appear as the focal center of the prairie landscape, giving referral and scale to the rural community.

The study of the elevators entails two aspects: one relating to the past, that of the phenomenon their development and the union of the towers with the physical layout, economic vitality and visual landscape of the prairie town; and second, the impact of the recent widespread demolition of these utilitarian yet beautiful wooden towers upon the communities of which they were an integral part. The loss incurred is proportional to the strength of the bond the towers had with the towns and the land to which they were born. To understand this we have to first understand the character of the relationship between the towers, prairie towns and the prairie itself.

Introduction. Town structure.

The Survey adopted by the Canadian Order-in-Council in 1871 sectioned the prairie provinces into Squares of six miles by six miles, defined as townships. Each township was further divided into Subdivisions of one square mile. Main roads, widened to highways in modern times, most often followed the line of the subdivisions. The grid was universal, characteristically ignoring the topography and natural features of the landscape. Strongly imprinted on the land in the rectangular grid of fields and roads, the grid was and is to this day, the organizing force of the prairie.

With the development of the agricultural potential of the prairie, towns, and conjointly with their settlement, grain elevators, were situated along an expanding network of rail lines. One square mile (260 hectares) was allotted to each town and four square miles (1035 hectares) for larger communities serving as divisional collection points for grain storage. Largely founded by the railroads, the rural settlements became part of the tapestry of wheat fields and road network.

The distance between towns situated along the rail lines was in proportion to the storage capacity required by the surrounding farms for ensiling the harvested grain and averaged 7 to 10 miles apart. The plat of the town was set out following the survey of the railroad right-of-way and laying of the tracks. In the predominant arrangement, the complex of grain elevators was sited on one side of the tracks and opposite, on the other side of the tracks, the rail depot was situated. Together they formed the nucleus around which the town evolved.

The railroads, traversing, frequently at a diagonal, the rigorous order of field, roads and towns were the lifeline of the prairie. The grain towers which stood by the railroad in each town were the physical and symbolic focus of the prairie economy.

Morphology of the Prairie Town. Establishing Typologies.

The western Canadian prairie towns of Saskatchewan and Alberta typically occupy a subdivision unit of one square mile. The rail line transverses the town either normal to the north-south east-west orientation of the subdivision aligned with the Survey grid, or at an angle to the grid.

The street grid of the town either follows the orientation of the subdivision and that of the railroad in the cases in which the railroad is aligned with the Survey grid, or follows the angle of the railroad in those instances where the rail line is at an angle to the Survey grid. This difference, for the purposes of this paper, is defined as a survey alignment or railroad alignment and occurs in all three typologies discussed below. The alignment of the town street grid affects the orientation of the secondary roads and often that of primary highways entering the towns.

The role of the grain elevator complexes and their visual impact upon the townscape is shaped by the conjunction of the railroad line and street grid, specifically the relationship between the main street of the town and railroad avenue where the elevators are situated. The individual plans of the prairie town follow one of three primary typological patterns:

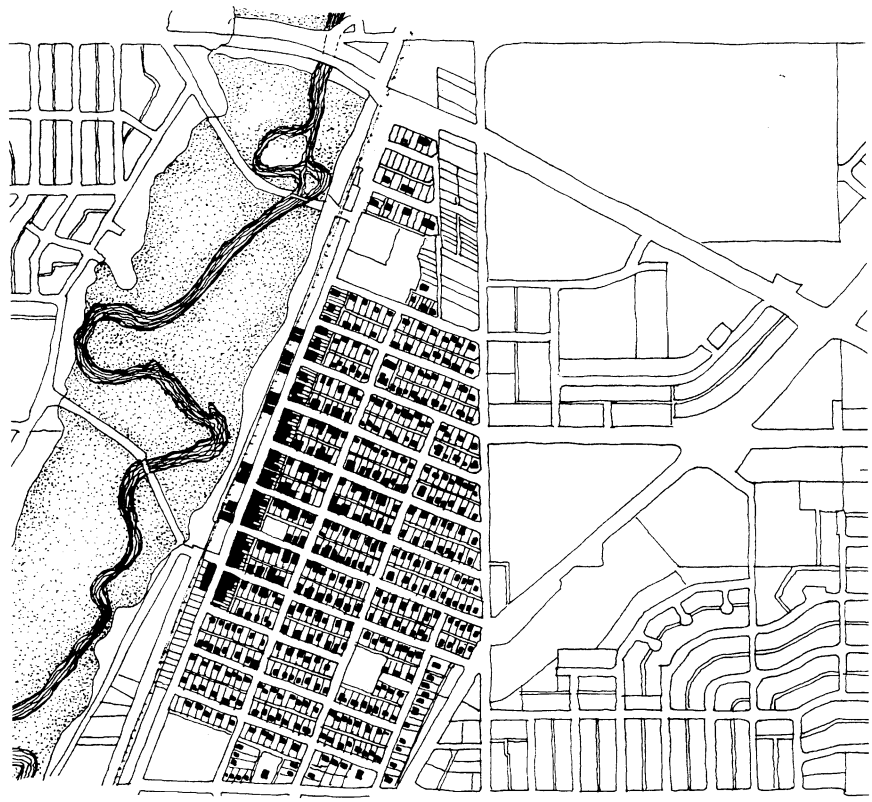

Fig. 1. Ponoka, Alberta. Plan 1998.

Railway–Main Linear Layout: The main street of the town flanks the elevators with the linear business zone facing the railway tracks and elevator towers.

Railway–Main Head-on Layout: The main street and business zone is perpendicular to the railroad tracks and elevator towers.

Railway–Main Parallel Layout: The main street and business zone parallels the tracks and elevators at a distance of one or two blocks.

In all three typologies, residences, schools and churches were situated on tightly knit blocks adjoining the commercial core of the town.

Railway-Main Linear Layout.

In this layout the main street of the town flanks the railroad. The grain towers are situated on the far side of the tracks, away from the town, and the depot, which if still is in existence, is placed between the tracks and the main street. The commercial buildings of the town are arrayed along the length of the main street with their frontage facing the tracks. An access road to service the grain elevators is situated on the far side of the tracks, paralleling the main street. In this layout the grain elevators are in direct and participatory position relative to the main street of the town.

In Alberta and Saskatchewan, two sizes of communities are representative of this layout: small towns in which the original plan remains essentially intact, and those towns which expanded substantially and evolved into important centers since their founding.

Sexsmith in northern Alberta and Leader and Fox Valley in Saskatchewan are small towns that closely retain their original layout. With its shops, bank and hotel, railway avenue–main street is the center of the commercial activity of the community. In both towns businesses, lining one side of the street, face the wooden shafts of grain towers whose tall, straight forms stand across the street in a wall of color.

In larger communities the closely knit pattern of uses reflected in Sexsmith and Fox Valley has shifted as the towns have undergone growth in recent years. Two examples document this, Taber and Ponoka in Alberta. In Taber modern convenience services––fast foods, gas stations, motels, etc.—have developed not within town, but along the Canadian Highway 3 that parallels the town on the far side of the railroad. As a consequence, local businesses have gravitated away from the traditional center of the town toward the secondary road that crosses from the highway to the railway–main street. The elevators now stand alone facing largely vacant lots formerly the sites of active businesses and the surrounding residences have lost the immediacy of their connection with the commercial activity of the town. The strength and role of the traditional main street has diminished.

Ponoka, Alberta, is situated in the proximity of Canadian Route 2, connecting Calgary and Edmonton. Because of its relative distance from Route 2, the commercial nucleus of Ponoka, unlike Taber, has remained unaffected by the development of contemporary services outside of town along the highway.

Planned as a Railway–Main Linear layout with the commercial zone centered along railway avenue facing the tracks, businesses have now expanded to the neighboring streets. However, the continuous, uniform wall of two and three story commercial

Fig. 2. Ponoka, Alberta. Main Street 1999.

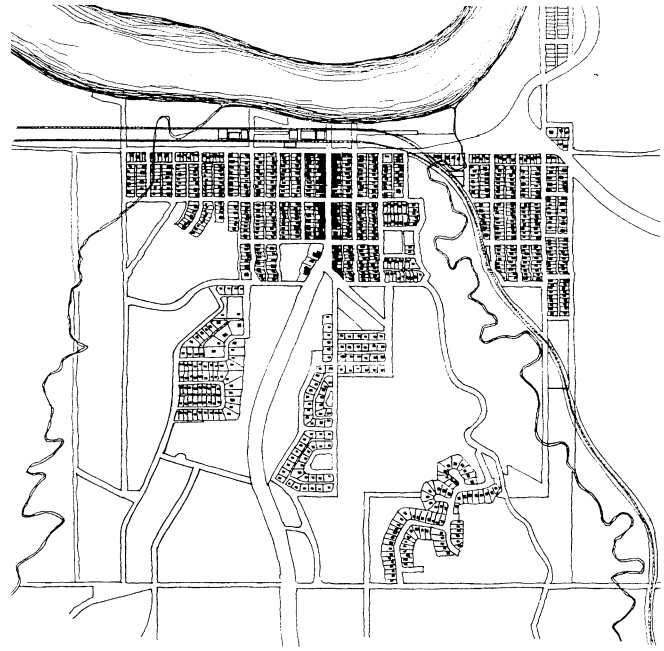

Fig. 3. Coupar, Saskatchewan. Main Street 1998

buildings that characterize the main street remain active and notwithstanding the dispersion of businesses away from railway avenue, the street retains its traditional vitality. Four of the original tower clusters rise above the wall of buildings opposite, dominating the landscape of the town. The sound of cars and pedestrian activity going about everyday business is overlain with the noise of trucks arriving and departing, pulleys and wheels grinding, and elevators churning grain.

The original street grid of Ponoka took the diagonal of the rail line as its base. With the expansion of the town, the pattern of the new streets was rotated into alignment with the orthogonal orientation of the Survey grid.

Railway- Main Head-on Layout

In the Head-on layout the main commercial street—main street—of the town is perpendicular to railroad avenue paralleling the tracks. The complex of grain elevators is situated at the head of the tee intersection of the two streets, either on the far side or town side of the tracks. Businesses line both sides of the main street, framing the vista toward the grain towers, which are seen head-on.

This planning arrangement was frequently adopted by the Canadian Pacific, Canadian Northern and Grand Trunk Pacific railways, the three major railroads serving western Canada.

Within the Head-on topology, two variants of the intersection of main street with railway avenue occur. In the cases in which the town grid and railroad either follow the orthogonal orientation of the Survey subdivision or are diagonal to it, the connection between the two is at right angles. Where the railroad is at a diagonal and the street layout follows the Survey grid, the two streets meet at an angle. Both variations were observed in smaller as well as larger towns, with a perpendicular intersection being the prevalent condition.

In smaller towns with the Head-on layout, the main street is often only one or two blocks in length. This arrangement was observed in Elnora, Delbourne and Milo in Alberta, and Pelly, Togo and Milestone in Saskatchewan. In a number of towns, the main street continues as a residential street; in others it terminates as a dead end. The generous width of the main street, ranging from 80 to 100 feet, recognizes its importance as the principal street of the town.

Athabasca in central Alberta, an important town situated north of Edmonton on a bend of the Athabasca River, is an example of the Head-on layout in a larger community. The street pattern and the rail line lying between the river and the town, follow the orientation of the Survey grid. From the south the principal highway gently curves as it nears Athabasca and then straightens, becoming the main commercial street. The grain towers until just a few years ago, rose into view head-on, giant clusters of red and green. Approaching town from the north on the east-west axis of railway avenue, the tower shafts were revealed as a soaring wall looking down on the one and two story buildings of the town opposite. The presence of the towers dominated the landscape of the town, they were the symbol and focus—and glory—of Athabasca. Today, the towers are gone.

In Vulcan, Alberta, the railroad traverses the grid of the Survey subdivision at a diagonal and forms the base line of the street grid within the town. The main highway approach to Vulcan, which follows the subdivision, is at an angle to the town. The march of towers along the rail way, seen from an angle, boldly announce and lead you to the town.

In Stettler, Alberta, a variant of the basic Head-on topology is experienced. Both angular and perpendicular connections of main street with the railroad avenue occur. The main rail and spur lines form a triangle embracing the rectangular street grid of the town. Stettler's main street is a nucleus of five commercial blocks wedged between the two lines, each with its own elevator clusters. The main street at one end intersects the rail line at right angles and, at the opposite end, the spur line at an

Fig. 4. Athabasca, Alberta. Plan 1998

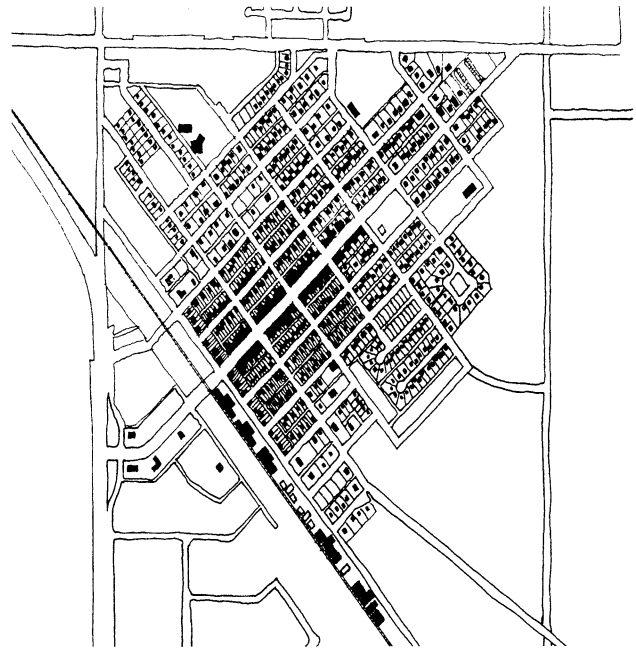

Fig. 5. Vulcan, Alberta. Plan 1998

acute angle. Clusters of grain towers are seen in both directions, forming a powerful dual backdrop to the community.

Lacombe in Alberta, a large town of several commercial blocks, is a striking example of the Head-on layout with an angular connection to the railroad. The sharply angled intersection between the main street and the railroad is echoed in the pointed tops of the elevator towers. The commercial fabric of the town is a tightly knit, well developed nucleus of two and three story brick buildings, many of which date back to the turn of the century. Such density might seemingly diminish the presence of the grain towers. Such is not the case. The bold, vertical shapes of the towers contrasts with the linearity of the lovely brick buildings; the cohesion of the two forms, juxtaposed one with the other, richly defines the landscape of the city.

Main–Railway Parallel Layout

In the third type of layout the main street of the town lies parallel to the railroad avenue, but at a distance removed by one or two blocks.

The Parallel layout is illustrated by the towns of Vauxhall and Hanna and Vauxhall in Alberta. Hanna is an infrequent example of the railroad running at a diagonal to the Survey grid, but, as is characteristic, with the town grid parallel to the railroad. The main street is of substantial length with the commercial buildings situated on both sides of the central blocks. The perpendicular side streets, which cross the main street and terminate at railway avenue, are predominately residential. Many of the side streets have a view of the grain elevators. Such is the height of the towers that their colored tops can be seen from the railroad side of main street over the monochromatic facades of the one and two story commercial buildings.

In Vauxhall, the street grid and railway follow the orthogonal orientation of the Square. The town represents a departure from the typical grouping of blocks in being singularly linear, stretching in ten unequally spaced blocks the full one mile width of the subdivision. In contrast to its length, the width of the town is only two and one half blocks. The balance of the Square is occupied by fields and today, farm machinery services and industrial uses.

The main highway bypasses the narrow end of Vauxhall following the line of the Square. The secondary road enters town along the axis of its length, passing first through the residential zone, progressing to the commercial center of three blocks length, and then continuing on the other side of Main Street past more residences. The elevators form an ever present backdrop to the side streets of the town, seen between the houses and over the facades of the commercial buildings.

In all the layouts described, schools and church are situated among the residences outside the business zone and closer to the town periphery.

Demolition, Disruption, Destruction.

Economic Impact.

A healthy Canadian prairie town, large or small, one whose economic base is stable, contains most or all of the facilities, institutions and amenities necessary to effectively serve the daily life of its residents. There is the ever present hotel, a bank, a tavern and cafe which are open year round and busy during the day time and in the evening. The supermarket and farmers cooperative are well stocked. There is a school, at least one church, a town office that operates with normal business hours, a police station and sometimes a small museum. A Golden Age Recreation Center along with rental units for assisted living, and a Community Hall are often found. There are playing fields, occasionally a sports arena, and public campground. And of course there are the grain elevators and the service businesses needed by the farmers.

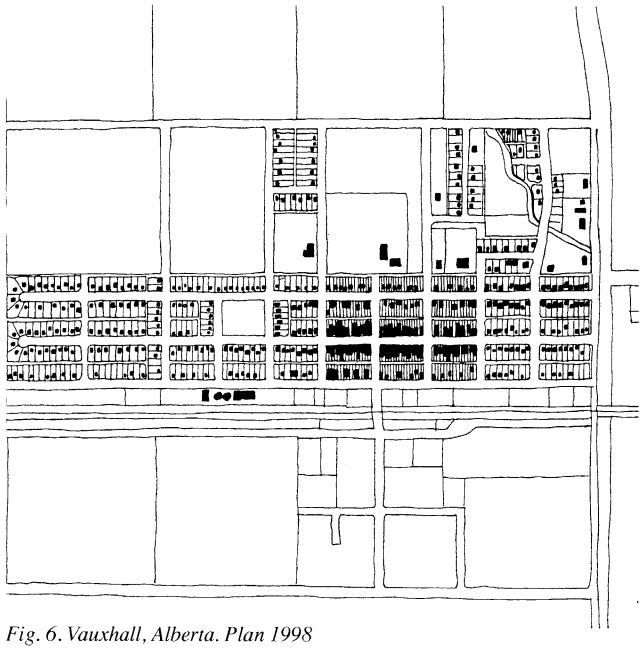

Fig. 6. Vauxhall, Alberta. Plan 1998

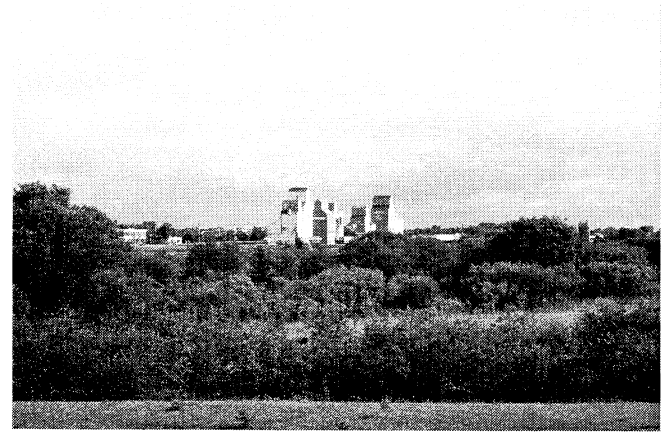

Fig. 7. Ponoka, Alberta. Approach to town.

The direct reciprocity of land and community symbolized by the wooden towers, a relationship extant since the founding of the towns, is undergoing change. Recent mergers of the farmer cooperatives and continual modernization of the grain operations have shifted the collection and ensiling of grain away from these rural localities to regional centers. Many clusters of the towers are being partially or entirely demolished. Their destruction has left the towns bereft of a powerful landmark; the source of the town's livelihood has been removed and the galvanic role of the towers in the layout and life of the town lost.

During the past three years over 100 towns in both Alberta and Saskatchewan were visited, many of them twice and even three times to observe changes as a consequence of the removal of elevators. The main street of numerous larger and smaller towns, along with their buildings, once bustling with the activity are empty now. Hotels have closed doors; taverns have lost their old flavor, becoming but cafes where a few old-timers sit and remember. No new buildings are being built, houses are deteriorating; even the services for the elderly have had to shut down as families have relocated elsewhere or residents have died-off. The towns have become abandoned shells whose life has been drawn away by communities fortunate enough to attract huge new storage networks.

Carmangay in Alberta, with seven elevator groups, was a magnificent example of the Head-on layout. When first observed in 1993, it was a healthy, bustling town. By the winter of 1997, only two elevators were remaining, and the town had an desolate look with only a few businesses open. The most recent visit in the late summer of 1999, revealed that one small elevator remained. On the main street only the hotel with a cafe and tavern remained open, even the gas station had closed. In the space of five years, a flourishing community had been reduced to a ghost town.

In Vulcan, which also was first visited in 1993, a mega-cluster of eight elevator groups tightly aligned with each other anchored the streetscape of the city. In the opinion of many , it was the strongest assemblage of elevators to be found in Alberta. Less than four years later, by the winter of 1997, the elevators were reduced to five groups. In late summer of 1999 only three groups remained, one of which had been altered. The approach to Vulcan along Route 23, once witness to an arresting wall of towers and vibrant color, entirely lost its impact.

Other towns have suffered similar change. Many smaller communities have deteriorated entirely, with only a few houses remaining occupied, largely by those who choose to commute to distant centers for work. The larger towns have had a better opportunity to survive economically because of lesser dependency on grain as the sole foundation of the local economy. But they too suffer loss: the dispersion of businesses from the center to the outskirts of the town adjoining the highway, and the pictorial loss of the wooden towers as an active part of the townscape. The future of the prairie is still defined by the elevators, but now ones which are tall, gray concrete drums —enormous, efficient collection tanks with raised metal distribution systems—whose gigantic scale and storage capacity require large service areas, resulting in their placement not in the heart of town, but on the periphery.

Pictorial Loss.

The tower of grain, for decades a magnificent icon of the western landscape, is becoming a relic of the past. Its commanding, utilitarian form was synonymous with the prairie itself, a universal a symbol of economic vitality and an object of special beauty.

There is an unevenness in the expanse of flat fields like a tiny mount of earth, a small swelling, an imperfection. The light of the sun is also there and only outlines the profile, no detail is seen. The approach is slow in the endlessness of space, so slow that the dreamy eye leaves the swelling and wanders. The sky is different now, dark and angry, a tempest coming. The eye is drawn back to the outline. No mount of earth to magnify the image, no light to bring out the form. Yet it is the image which like a magnet asks all attention. The horizontal plain is punc-

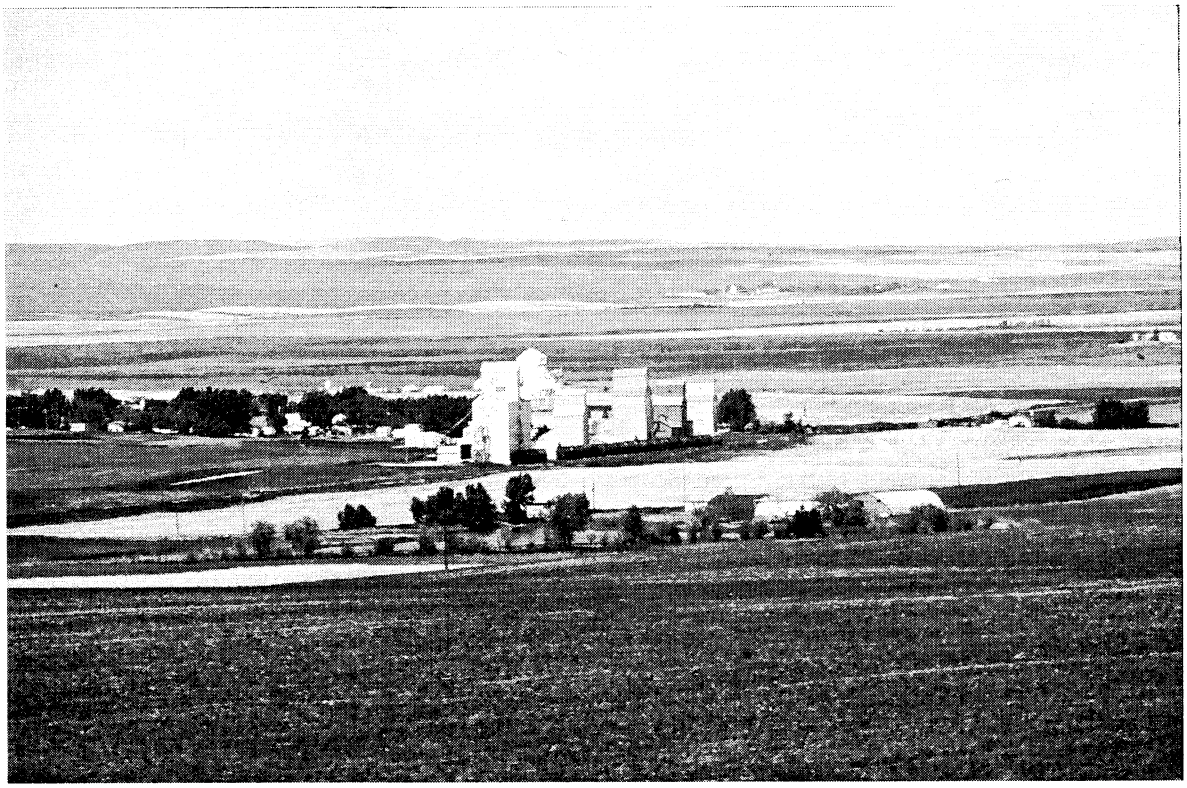

Fig. 8. Milo, Alberta. As seen driving through the fields.

tured by blades, which grow. Sharp top like ridges point the sky, straight lines connect them down to earth.

The elevators, visible across the great distance of the fields, dramatically signal the presence of prairie towns. Comparison with the defensive formations of medieval towns of Europe offers an inexact parallel. There the topography and the placement of town on the top of the hill aided in its defense. Being visible and exposed on all sides, the medieval town commanded the surrounding landscape and accentuated the land's deformity by magnifying the hill on which it was placed. The whole appeared at once magnificent and powerful. In the flatness of the prairie the situation is different, in ways less obvious, but the placement of the elevators nonetheless accentuates the landscape: the armature of the tracks cutting through the prairie in an unforgiving line connecting distant points, the nestling of the towers in the shallow valleys, the sight of vertical shafts culminating an earthen mount, the anticipation of a towns existence.

The small dusty road follows a gentle ridge. To one side, its slope descends, then rises again, and in the depression there is water. It is a lake. The road is straight and long and one rides with the sun, which burns the skin and enhances the color of the landscape. The green of the fields is in contrast with the blue of water and sky and the glowing whiteness of the dry grassy fields. The scale of the prairie seems endless, unmeasurable. The road continues and there is no change. Then speckles of color appear, far ahead, they are delicate and small, at the foot of the lake. The eye is attracted by them. The color is more vivid, they sparkle in the sun. Slowly, when car is coming closer, the view becomes more clear. In the hollow of the valley the group of colorful boxes stand, the town is right behind.

The sight of elevators on the prairie landscape renders pictorial completeness. Their presence encompasses the issues of framing, closure, anticipation and composition. There is also a tension, a condition between building and landscape which is unique. It is an extraordinary relationship in which one would be poorer, less complete, without the other.

The prairie, a flat endless plane of wheat clothed land, bathed by the sun's light from early morning hours to the evening when shadows fall upon the earth engraving the ridges of worked soil, golden and luminous, appeared punctuated by vertical markings of simple, angular shapes. Their color rose from the fields to meet the sky, together with the breathing earth at sunset. They defined the space and measured the time in this empty loneliness. The prairie of dancing winds, endless, mysterious and quiet, was marked by points in space, defining the distance.

The ephemeral issue of beauty, of belonging and place, the force of a singular image. From magnificent icon of the prairie to pile of wood rubble, demolition of the grain towers signals an irreversible change in the traditional patter of life in the towns of the prairie provinces.

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