SETTLEMENT AND ABANDONMENT OF LAND IN THE ROUGE VALLEY, LAURENTIDES, QUEBEC: AN HISTORICAL GEOGRAPHY.

by

P. M. GIBSON

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Department of Geography
McGill University
Montreal

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P R E F A C E

The historians of Quebec have frequently emphasised the importance of the role played by colonisation in the way of thought and in the development of the province. This thesis attempts to study the relationship between this historical movement of people, and the geography of a limited area in the Laurentians - the valley of the River Rouge. The advance of settlement into the valley in the nineteenth century and the subsequent abandonment of land and economic decline of this century are described, and the effect of English and French influences on the cultural landscape of the valley evaluated.

I would like to record my gratitude to McGill University for a Research Fellowship, of two years, during which time the research for this thesis was carried out, and also to the National Advisory Council for Geographical Research for a grant for fieldwork. To Professor F. C. Innes of McGill University who helped and encouraged me at every stage of the work, and to Professor P. B. Clibbon of Laval University, who gave me access to unpublished material and maps of his own, my sincere thanks are due. I would also like to acknowledge the help and co-operation I have received from all those to whom I have turned in the government record offices of Ottawa and Quebec. Most important I would like to thank all those people who live or work in the Rouge

Valley who have offered information and hospitality during my time in the field. Finally, I would add my grateful thanks to Mrs. D. M. Randall who typed this thesis.

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C H A P T E R I

INTRODUCTION

The aim of Historical Geography is essentially twofold - the elucidation of the present geographical reality of an area by the fuller understanding of its past development, and the attainment of some knowledge of the processes of geographical change. Most contributions to Historical Geography have fallen into one of two groups, as far as approach is concerned, the one largely horizontal, where cross-sections of different dates are constructed to show the overall geography at that time, and the other vertical, where individual themes are pursued throughout their development.

C. T. Smith (1964) has pointed out that the information available to the historical geographer may be classified and presented under any one of three heads: place, topic, and time. An exposition based on place showing the development of a region canton by canton, would be very disjointed; while the vertical presentation by topic, although methodologically sound, lacks overall cohesion. The cross-section approach, giving still-life pictures of the total geography of a region at particularly interesting or significant times, is more lucid, but where a relatively short time scale is involved, it is inadequate and unnecessarily static. It is

proposed, therefore, to treat the historical geography of the Rouge River Valley as a continuum of change rather than as a series of discrete stages. Within this continuum, certain components of the geography of the valley seem to the author to be of pre-eminent interest; these are, in particular, the process of taking up and subsequent abandonment of land, development of local industry; and the cultural diversification of landscape. These will be discussed in more detail within the general context of the changing geographical development of the valley.

Within Canada the interest in primary land settlement has been very marked, but nowhere more so than in the Province of Quebec where political, religious, and racial pressures have added impetus to the expansion of settlement. Internal colonisation of new, and in many cases marginal, land, has been actively encouraged by Government and Church. Consequently a greater degree of interest in land settlement has been aroused in Quebec, among both English and French writers, than in many other Canadian regions.

Discounting the eulogies of nineteenth century travellers and propagandists, there remains a considerable body of critical worthy modern scholars on the subject of colonisation in Quebec. Workers from Laval University have been particularly active in research on the Lac St. John Lowland. The historical geographical study of the Saguenay by Johnson (1950) has also dealt with colonisation in that area.

The more recent development of the Clay Belts of Abitibi and Temiscamingue has also aroused considerable interest and the process of land settlement has been observed there while still in progress. Biays' wide ranging study of frontier development in the 'Near-North' (1964) embraces the moving edge of the oecumene in Ontario, Quebec, and Newfoundland. Innes (1960) has worked on settlement and land use in the Clay Belts in Quebec.

All of these works are regional in scale and this precludes the detailed examination, necessary to further the understanding, of the process of geographical change in these new colonisation regions. These studies are all invaluable but the author considers that there is need for the more detailed study of smaller areas to illuminate the progression of changes attendent upon colonisation, settlement and the subsequent abandonment of land. The work by Hamelin in the Diocèse of Joliette P. Q., (1955) and by Morrissette (1963) in five separate colonisation parishes in the Province, in different stages of development, are excellent examples of the kind of work for which there is need.

It was decided that the process of growth and decline of an area could be studied better in one of the colonisation regions of Quebec where the entire cycle has been completed, rather than in the newer areas, only settled in the twentieth century. The Laurentians, to the north-west of Montreal are just such a region. In the nineteenth

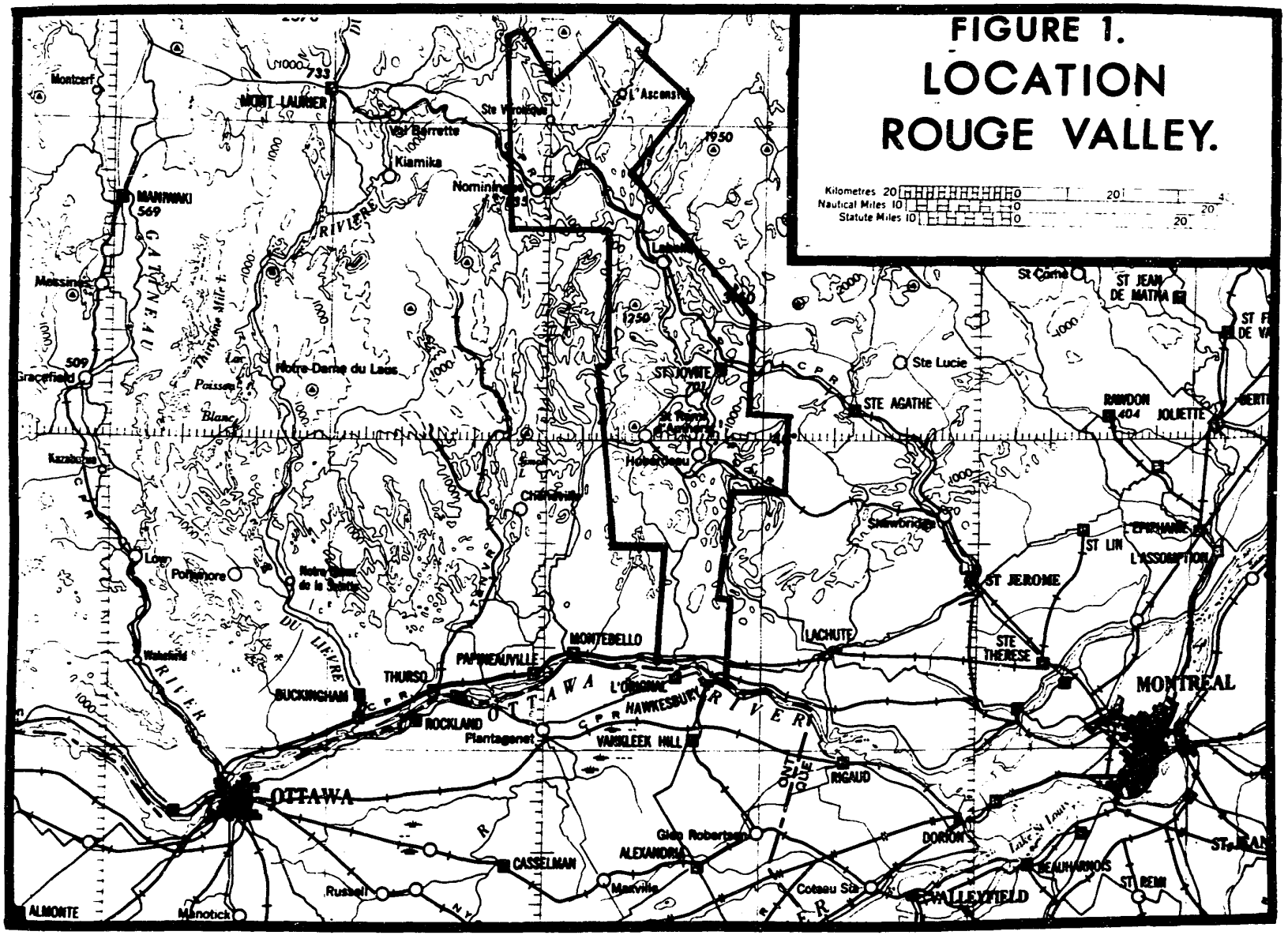


FIGURE 1.
LOCATION
ROUGE VALLEY.
Kilometres 20 0 20 40
Nautical Miles 10 0 20
Statute Miles 10 0 20
MONT LAURIER
Ste Veronique
L'Ascension
Val Barrette
Kiamika
Nominingue
MANIWAKI
569
RIVIERE
GATINEAU
Mossines
509
Gracefield
Notre-Dame du Laus
Lac Paissac
Lac Blanc
Kazabazua
Low
Portsmore
Wakefield
Notre-Dame de la Salette
DU LIEVRE
RIVER
THURSO
BUCKINGHAM
PAPINEAUVILLE
MONTEBELLO
L'ORIGNAL
OTTAWA
RIVER
ROCKLAND
Plantagenet
VANKLEEK HILL
HAWKESBURY
ONTARIO
RIGAUD
OTTAWA
CASSELMAN
Russell
Manotick
ALMONTE
Glen Robertson
ALEXANDRIA
Maxville
Coteau Sta
VALLEYFIELD
DORION
Lake St Louis
BEAUHARNOIS
ST REMI
MONTREAL
LACHUTE
STE THERESE
ST JEROME
Shrewsbridge
ST LIN
L'ASSOMPTION
RAWDON
404
JOLIETTE
STE AGATHE
Ste Lucie
ST JOVITE
St Faustin
Labelle
St Come
ST JEAN DE MATHA
1950
1750
1000
733
509
404

century they were the scene of immense colonising activity, encouraged by the Quebec Government, the Church, and certain individuals of whom Father Labelle of St. Jerome was pre-eminent. Settlement in this region, having reached its apogee around 1920 is now declining, except in certain favoured areas, such as the valley of the Riviere du Nord regenerated by tourism.

The Rouge River , the valley of which was chosen as the study area, is a North bank tributary of the River Ottawa into which river it flows 55 miles above Montreal and 50 miles downstream from Ottawa, (Fig. 1) One of the immediate reasons for the choice of the Rouge River Valley was the completion and publishing of a regional study entitled "La Vallée de la Rivière Rouge" by the Société Technique d'Aménagement Régional, (1964) (henceforth refered to as S.T.A.R.). This report was authorised by A.R.D.A. (Aménagement Régional, et Development Agricole) as a basis for future development in the valley and contains a mass of information about the state of agriculture, industry and tourism in the valley as well as about social and economic conditions. It is, however, lacking in historical perspective. The historical geographer believes that only by a fuller understanding of the former geographical and social development can the present be evaluated, and the future planned. It is the intention of this thesis to attempt to make good this lack.

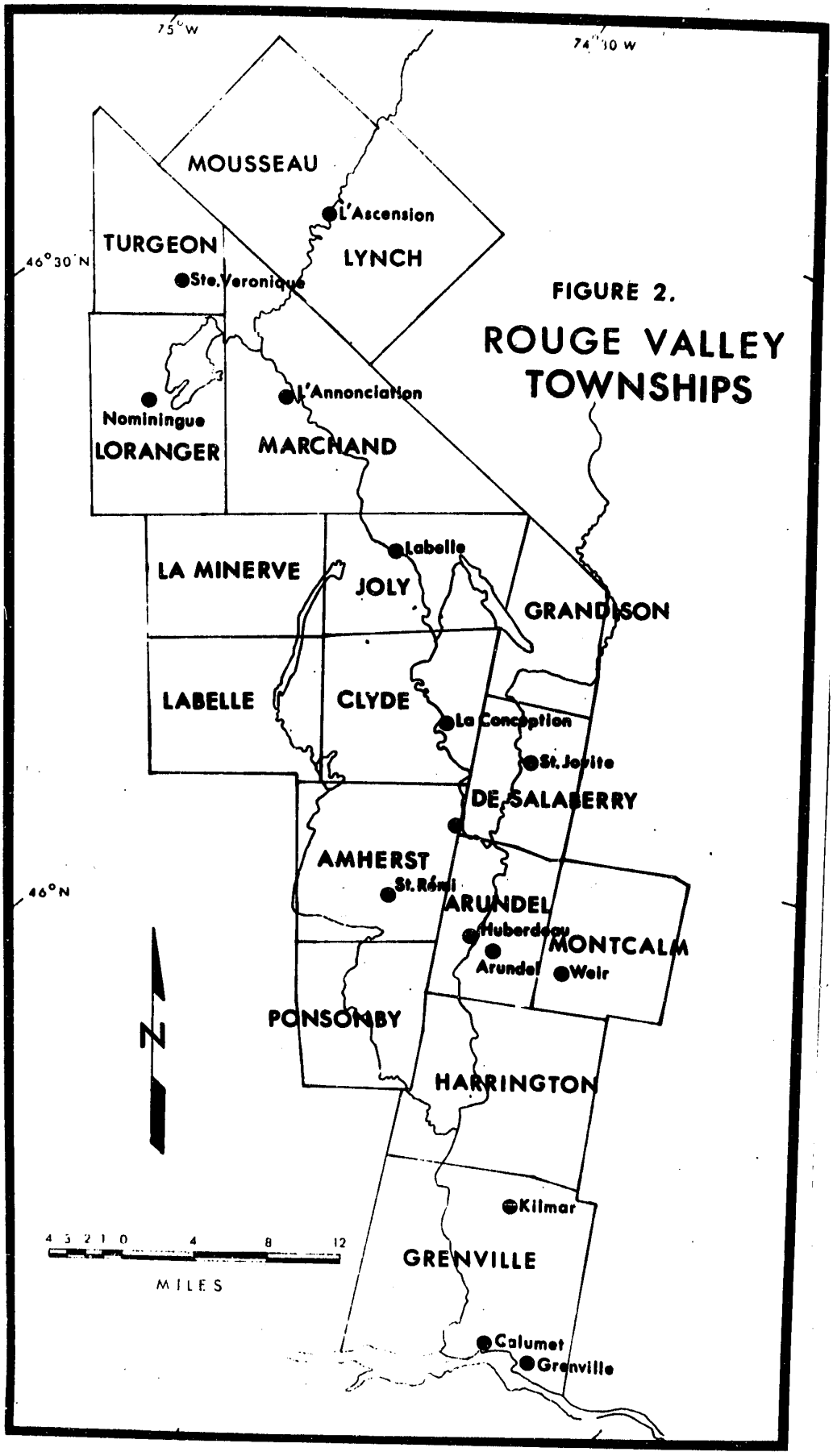


FIGURE 2.

ROUGE VALLEY TOWNSHIPS

The area considered here is slightly less than that studied by S.T.A.R. and excludes those peripheral areas which are neither physically nor economically orientated towards the Rouge Valley. This leaves out Fasset and Notre-Dame-du-Bon-Secours in the Ottawa Valley; Lac des Sieze Iles and Wentworth which are more orientated towards the Rivière du Nord than to the Rouge, as are St. Faustin and Lac Superieur, as well as Boyer in the far North on the watershed of the Rouge and the Lievre. The core area remaining comprises the municipalities of Grenville, Harrington, Arundel, Huberdeau, Montcalm, Barkmere, Brebeuf, St. Jovite (de Salaberry Township) L'Annonciation (Marchand Township) La Macaza, Turgeon, and L'Ascension (Lynch and Mousseau Townships), as well as the contiguous parts of Amherst and Ponsonby.

The main problems to be considered are those which impinge most closely on land settlement and economic development and also upon the diversification of cultural landscapes in the valley. The process of the taking up of land in the nineteenth and early twentieth century is studied and is thought to be more related to outside influences and the availability of communications, than to the quality of the land, about which there was very little contemporary knowledge. The pattern of economic development, particularly agriculture and small primary industries will be traced. The problem of the reasons for the success or failure of colonisation is of particular interest; and the pattern of

the abandonment of land is studied together with its relationship to land capability.

There are two markedly different cultural landscapes within the Rouge Valley, that of the north and that of the south. In common with several other south flowing Laurentian rivers in this general region the Rouge has a valley which narrows down-stream to a gorge which cuts through the Shield edge, which here forms the Grenville Escarpment. In the southern portion of the basin therefore there is a predominance of hilly land with isolated basins of lowland. This was settled largely by English speaking people. Further up-stream the valley widens out to over two miles in some places, over which the river meanders, cutting the almost level valley floor into terraces. This northern area is predominantly French. The cultural differences as well as the physical make these two areas very distinctive, and some of these differences of economic and landscape development will be studied more fully.

CHAPTER II

PHYSICAL ENVIRONMENT

The influence that the physical environment of a pioneer area has upon the original settlement and subsequent economic development makes it imperative that a study of this type should be prefaced by a description of the geology, topography, and drainage of the Rouge Valley, as well as its soils, original vegetation, and climate. The exhaustive treatment of these topics however, is unnecessary except in as far as they affect man's occupance and use of the region, and it is largely this aspect of the physical environment which will be dealt with. It was not only the actual physical conditions prevailing in the Rouge Basin which influenced the colonists' decision to locate at a particular place, but also their perception of the physical geography of the valley at the time of settlement. For this reason it is valuable to include in the description of the area contemporary reports and opinions of the terrain, soils, and climate, which though facile and often mistaken were none-the-less important factors bearing on the decision of individuals to go out into the wilderness, and upon the choice of settlement area.

Geology and Topography

The Rouge River Basin lies wholly within the bounds

FIGURE 3.
ROUGE VALLEY
PHYSICAL.

of the Laurentian Shield except for a narrow strip in the south where the Rouge enters the Ottawa Valley and flows into the River Ottawa. The greater part of the basin therefore, lies within the Grenville geological province and consists of late Pre-Cambrian or Proterozoic rocks, mainly those of the Grenville series. Since this is the type locality for this series (Logan, 1863) the geology of the area is relatively well studied and it is known to consist of a complex group of metamorphosed rocks in which quartzites, crystalline limestones, and gniesses predominate (Dresser & Dennis, 1949). Within these there are intrusions of anorthosite, gabbro and grantie belonging to the Morin Series. The Grenville Series is associated with deposits of non-metallic minerals (Osborne, 1934) which have been of some economic importance.

The Ottawa Valley is a continuation of the St. Lawrence lowland and consists of a basal series of Palaeozoic sediments overlain by fluvio-glacial and alluvial deposits. These have been eroded by the Ottawa and its tributaries to form either gently sloping, or, in some places, very broken terraces with clay and loam soils which are in general admirably suited for cultivation. Bouchette (1832) wrote of this area in Grenville Township:

> "The meadowland, which lies at the base of these hills in the front, is overflowed in the spring of the year by the Ottawa.... This part and the remainder, comprehended

> between those highlands and the St. Lawrence, form a triangular of fine level and well irrigated soil, which was at the time of making the old grants considered by the grantees as the only culturable section of the Township."

The width of this section in Grenville varies from four miles in the east, to half a mile at Calumet and even less towards the west in the Augmentation of Grenville.

The margin of the Shield is, in general, rather ill-defined, having an elevation of 100-200 feet above the St. Lawrence Lowland, but in the Lower Ottawa Valley it is much more distinct. Although not attaining the height of the Eardsley Escarpment, to the north-west of Hull, which reaches 800-1,000 feet, the scarp edge of the shield in Grenville Township is as high as 700 feet at its maximum elevation, a height unequalled anywhere along the edge of the Shield in the Upper Ottawa Valley or eastwards as far as Trois Rivières, where the Shield edge is indistinct. This abrupt break of slope at the entrance of the Rouge region meant that penetration of the area was held back by lack of easy routes onto the Laurentian surface from the Ottawa Valley.

The topography of the Shield in the Rouge area is typical of the entire Laurentian region, and is largely the result of glaciation working upon the old Shield surface. Mammilation, the process whereby lines of weakness are opened up by weathering and stream action, has gone on, giving a rock knob topography which is characteristic of the Rouge region

and of the Laurentians as a whole. There are particularly good examples of this in Grenville, around the Harrington Basin and on the watershed between the Rivers Rouge and Diable. Bouchette describes such scenery in Grenville:

> "Proceeding northwards, from the Grenville Heights to the 7th Range, the face of the country presents only a succession of ascents and descents, abrupt hills, and stupendous mountains, interspersed, nevertheless, with rich vales, whose fertility is almost adequate compensation for the many sterile and unarable parts of the township."

It was such accounts as these that persuaded settlers to brave the difficulties of the wilderness in the hope of finding good farmland among the hills.

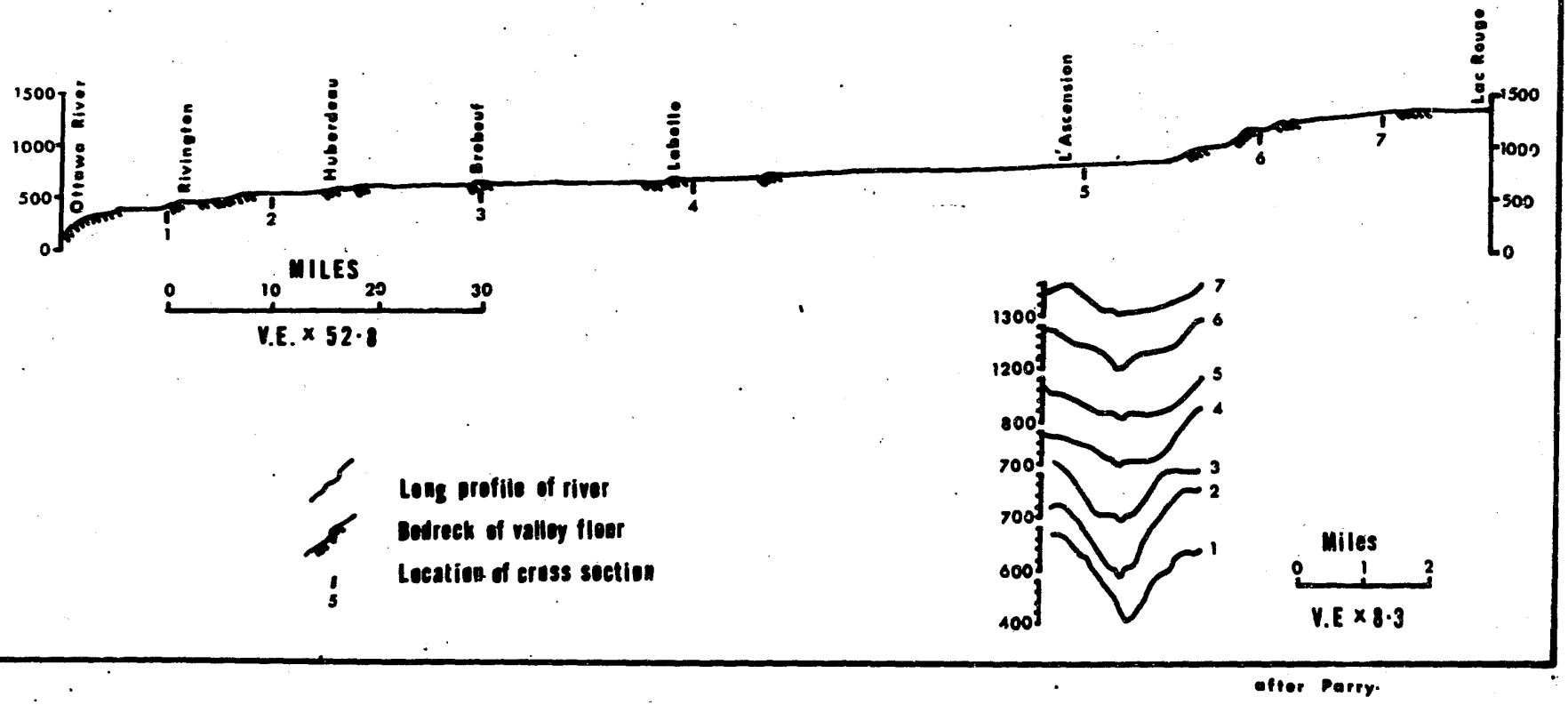
Although the surface is very rugged the local range of elevation is only a few hundred feet. Parry (1963) has distinguished an extensive area of comparable summit heights which he terms the Laurentian surface, and considers to be a peneplain feature. Rising above this and just east of the area under consideration in this thesis, is the Mont Tremblant massif, of which the highest point is Mont Tremblant itself at 3,175 feet.

The Laurentian surface is broken by several basins of comparatively small area, notably those of Avoca (12 sq. miles), Harrington (12 sq. miles), Arundel (24 sq. miles), and St. Jovite (20 sq. miles) which provide areas more suitable for agricultural settlement than the uplands. It is

thought that these depressions are tectonic features rather than the results of differential erosion. The St. Jovite Basin is bounded by faults and seems to be a depressed block which has sunk 650 feet below the level of the surrounding hills, (Parry, 1963). Apart from these basins the only lowland in the area is provided by the valleys of the Rouge and its main tributaries the Diable and Maskinongé.

The Rouge area shows many of the features of drainage common to the entire Shield. The pre-Pleistocene drainage has been deranged by glaciation, and is now a complex web of irregular, youthful streams and many lakes draining into each other, of which the largest are Lac Tremblant, Lac Labelle and Lac Nomininque. The Rouge and its main tributaries however, are exceptions to this pattern, having a higher degree of integration than is usual and flowing in well defined courses. The main valley of the Rouge was not formed in Pleistocene times but is much earlier. Osborne (1934) suggests that it was formed on Palaeozoic sediments and then superimposed upon the discordant rocks beneath, while during the Quaternary glaciation it seems likely that the valley was further incised by ice action. The form of the valley varies considerably throughout the river's course. (Fig. 4) In its upper section, north of L'Ascension, the valley is shallow with an available relief of only 200-300 feet. In the middle section between L'Ascension and the

FIGURE 4. LONG PROFILE AND AVAILABLE RELIEF OF THE ROUGE RIVER.



after Parry.

junction of the Rouge with the Diable the valley widens to over two miles and both Rouge and Diable are characterised by very low gradients, meanders, and cut-off lakes as they flow across terraced flood plains. (Fig. 5) This portion of the river valley is most suited to settlement, in spite of the flood danger in spring, but it is only a narrow segment compared with the wide extent of the uplands on either side. Downstream from Brebeuf the Rouge Valley takes yet another form, narrowing to a steep sided gorge, where the available relief is over 800 feet as the river cuts through the Grenville Escarpment to join the Ottawa. (Fig. 6) Thomas (1896) describes the Rouge at its mouth:

> "The Rouge, coming from the almost unknown regions of the North, and still maintaining its attachment to its mountain defiles, shoots into view around a precipice a few rods above the bridge, and between massive ledges rolls onward into the larger stream." (p. 401)

This lowest section of the river valley has the steepest gradient, being the result of a relatively recent glacial diversion. The old course of the Rouge lay one and a quarter miles to the west and is now followed by the Ruisseau Pointe-au-Chêne. Apart from the downwarped basins of Arundel and Harrington described above, there is little lowland along the river margin throughout this section, and settlers have always avoided the river here contrary to their practice higher up the valley.

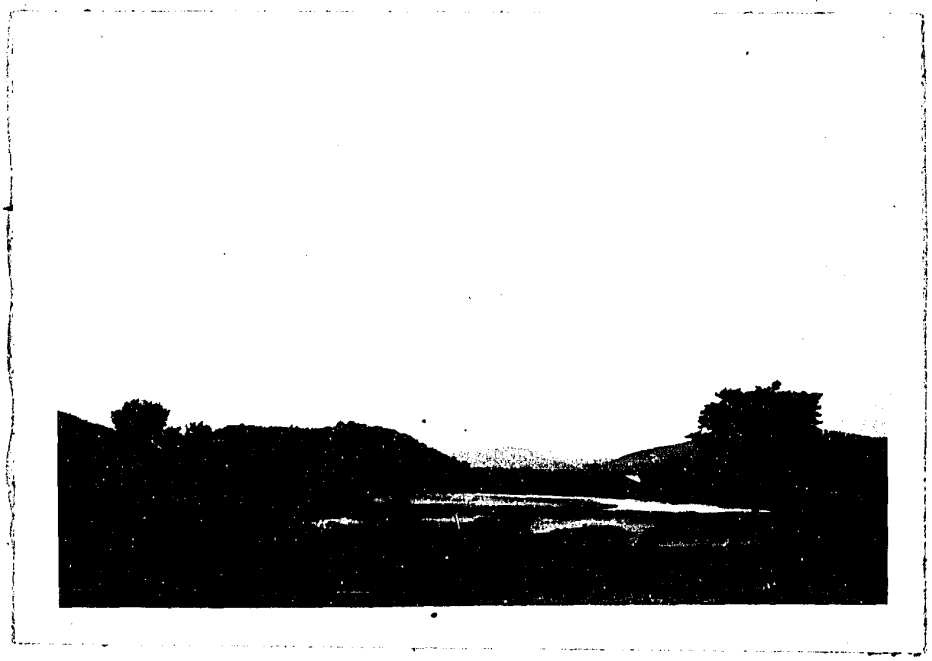


Fig. 5
Middle valley of the Rouge.

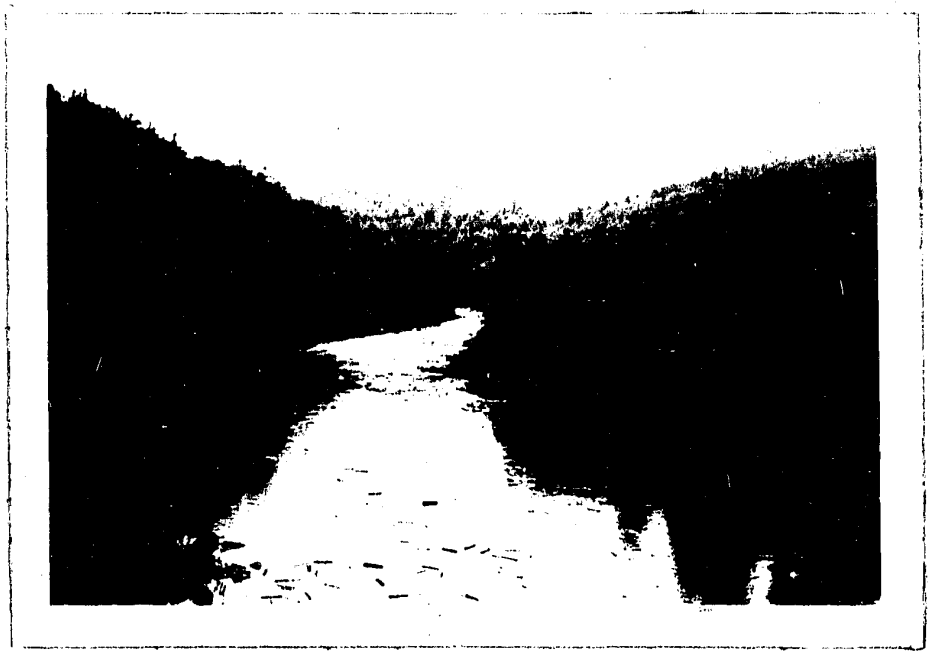


Fig. 6
Gorge section of the Rouge at its mouth, west of Calumet.

Soils

Apart from the fringe in the Ottawa Valley the areas of good agricultural soils in the Rouge area are small and localised. Nowhere do the soils reach the standard of those of the St. Lawrence lowland and there are wide areas of bare rock, or skeletal soils, on the uplands. Those soils, which were cleared for cultivation in the nineteenth century, were generally formed on deposits laid down during and after the retreat of the Pleistocene ice sheets and include a wide variety of types, not all of which are of value agriculturally. The classification used by Lajoie for the soils of Counties Argenteuil, Terrebonne and Deux Montagnes, (1960) and Counties Labelle and Papineau (in preparation), and adopted with modifications by the S.T.A.R. report, has as its base the parent material and morphological characteristics of the soil.

The largest group of soils in the Rouge region is that formed on morainic material and glacial till. These "terres de roches" occupy 85% of the total area of soils (S.T.A.R., 1964) and cover most of the upland. Their composition is heterogenous ranging from clay to boulders with coarse sands and gravels predominating. (Fig. 7) They are completely unsuitable for agriculture by reason of both their character and the broken topography of the areas where they are found.

Fig. 7
Glacial till deposits
west of L'Annonciation.

Fig. 8
Fluvio-glacial deposits,
Rockway Valley.

Fluvioglacial deposits are widely distributed and are found particularly in the valleys, depressions and basins. In the river valleys they have been eroded to form terraces, which are very marked along the Rouge, especially above La Conception. Their main constituants are coarse, well sorted sands and gravels and although rather better agriculturally speaking than the morainic and till soils of the uplands, they have a very low degree of natural fertility and excessive drainage. These soils are also found in the north of the Harrington Basin, and in Rockway Valley, (Fig. 8).

Some of the best soils of the entire region are those formed on marine and lacustrine deposits laid down on the floor of the Champlain Sea. The silty clays of this marine transgression have been traced as far north on the Rouge as La Conception at 750 feet, and though not finally identified may reach as far as Labelle in which stretch they are observed as sandy outwash deposits.* Upon these marine and lacustrine sediments have developed fine sand or loam soils, (Fig. 9). Although these were praised by surveyors in the late nineteenth century who spoke of "beautiful valleys . . ., occasionally of considerable extent and characterised by a soil composed of yellow earth, very rich, and without rocks," (Martin, 1882, p.56), (Sess. pps. P.Q. Report of Commissioner of Crown Lands), they are often insufficiently drained, although inherently fertile.

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* J. T. Parry, pers. comm., 1965.

Fig. 9
Lacustrine deposits, north-east of St. Jovite.

With drainage, these soils, together with more recent alluvium, form the best land for farming in the valley, and cover much of the floors of the downwarped basins of Avoca, Harrington, Arundel and St. Jovite and are also found in the central and northern section of the Rouge Valley and around Lac Nominingue.

The recent alluvial deposits flanking the rivers provide some of the most fertile soils in the area. Particularly valuable are those of the Rouge and Diable valleys near their junction. These vary from silts to fine sands and inspite of the danger of flooding, form a rich enclave in the midst of predominantly poor soils. This was noted as early as 1878 as "a large extent of magnificent land, which is highly adapted in every way to the purposes of colonisation, especially near the River Rouge," (Turgeon, 1879).

The Rouge Valley region presents the picture of a complicated mosaic of soils, only a small proportion of which are of good enough quality for farming. Large areas of the uplands have only thin stony soils and were not worth clearing. Sandy and gravelly terraces and flats are found throughout the area, particularly in the valleys and basins, where they are interspersed with the more valuable marine and lake deposits and alluvium, which make up the best agricultural soils in the valley. The extent of the better soils is, however, limited and does not justify the statement

of Joseph Bouchette made in 1859:

> "Les vallées de la Rivière Rouge, et de la Lièvre présentent une grande étendue de terres qui sont d'un qualité superieure et ne sont surpassé par aucune autre du Haut ou du Bas Canada."

Vegetation

Before the arrival of the first white settlers the natural vegetation of the lands north of the Ottawa was dense mixed forest in which deciduous trees were predominant. The forest was the only valuable resource to those who first penetrated these areas and as a result it has been extensively lumbered for over 150 years, often selectively, so that certain species, notably the red and white pine (Pinus resinosa; P. strobus) disappeared early from the region. By 1881 there was little pine as far north as the Cantons of Marchand and Loranger and the lumbering frontier was far to the north, (Martin, 1882).

The reports of the first surveyors and of travellers in the area often contain descriptions of the vegetation which with a knowledge of the present distribution of vegetation allows a complete picture of the original vegetation to be drawn. In the Canton of Joly the surveyor, William Crawford (1879), reported much spruce, birch, cedar, hemlock and balsam, with a scattering of beach and ash. In 1882, J. A. Martin described the vegetation of Marchand Township, noting maple, beech, basswood and birch on the heights and

spruce, cedar, birch, ash and fir in the lower stretches.

These and other such reports suggest that the pattern of vegetation was as follows. The well drained uplands, even today are dominated by sugar maple (Acer saccharum, Marsh) and beech (Fagus grandifolia), as well as white ash (Fraxinus americana); American linden (Tilia glabra); and iron wood (Ostrya virginiana). On the steepest and most shaded slopes this climax is replaced by an association of sugar-maple, yellow birch (Betula lutea) and balsam fir (Abies balsamia).

Areas which are waterlogged in spring and dry out by the end of the summer have hemlock (Tsuga canadiensis) and red maple (Acer rubrum) which flourish together with sugar maple and beech; while on perenially dry soils the red oak (Quercus borealis) is found. Black and white spruce (Picea mariana and P. glauca) are found in badly drained regions. Where the original forest vegetation has been destroyed by felling or by fire the area is reoccupied by a transitory association including the poplar (Populus tremuloides) and birch (Betula populifolia and B. papyrifera) together with white pine, white spruce and cedar (Thuja occidentalis).

Climate

The Laurentian region in common with the whole of southern Canada is affected by two main air masses. In win-

ter the cold, relatively dry and stable Arctic air mass moves south over the Laurentians, the Ottawa and St. Lawrence valleys and the Appalachians, its approach bringing storms, and cold snaps. In summer the region is affected by the northern fringes of the warmer mid-latitude air masses, particularly the tropical Gulf air mass which is warm and wet in late spring and throughout the summer brings heat waves with hot, humid conditions. The conflict between the two air masses and the funnelling of cyclone tracks into the Ottawa and St. Lawrence valleys leads to a great variation in climatic conditions, and the incidence of many storms and considerable precipitation in this region. The Laurentians are not high enough to influence climatic factors, or to give a climate markedly different from that of the bordering lowlands, but there is enough variation in relief to creat local differences in conditions between the Ottawa Valley and the Laurentians, and between different parts of the Rouge region itself, for example between Huberdeau on the River Rouge at 636 feet and Ste. Agathe at 1,260 feet.

Climatic data for the Rouge Basin itself is limited to the readings made at four stations, those at Huberdeau, St. Jovite, L'Annonciation and Nomininguе which have been operating for different lengths of time. That at St. Jovite was only set up in 1954 and since there are only 11 years of readings it is impossible to get 30 year averages comparable

with those of the other stations. For the fringe areas of the region, figures from Montebello, west of Grenville in the Ottawa Valley, and Ste. Agathe des Monts, on the uplands to the east of the Rouge Valley, have been used, there being no stations in the study area as such. All of these stations take readings of temperature maxima and minima and precipitation once or twice a day. The relevant information about the climatic stations is set out in Table 1.

Table 1 Meteorological Stations

Station	Latitude N°	Longtitude N°	Altitude (ft.)	Date of Establishment
Montebello	45° 39'	74° 57'	172	1930
Huberdeau	45° 59'	74° 37'	636	1913
St. Jovite	46° 08'	74° 38'	700	1954
L'Annonciation			867	1937
Nominingue	46° 24'	75° 02'	860	1913
Ste. Agathe	46° 05'	74° 18'	1,260	1903

Watson (1963) has commented on the 'northness' and 'winterness' of the Canadian climate, and in assessing the significance of the differences between the lowland and Laurentians from the point of view of settlement and agricultural colonisation these conceptions rather than the actual temperatures or mean values, are of importance. The

relative severity of winter in the two areas is less important than its duration, which limits the growing season. Mean temperatures (Table 2) show that there is little, if any, difference between the Ottawa Valley and the Laurentian stations throughout the year.

Table 2 Mean Temperatures (Monthly)

	Montebello	Huberdeau	Ste. Agathe
January	11.6	12.4	09.4
February	12.0	12.6	10.5
March	24.0	24.6	21.9
April	39.9	38.9	35.2
May	54.2	52.2	50.7
June	64.2	61.6	59.4
July	68.0	66.2	64.4
August	65.9	64.3	62.3
September	54.2	55.8	54.1
October	45.7	44.5	43.1
November	32.5	31.9	29.0
December	16.6	17.1	14.4

(Meteorological Branch Department of Transport, Canada 1954)

But these figures disguise the much greater daily range of temperature in the uplands and a much greater incedence of frost, which limits agriculture.

Table 3 Frost Free Period (Days)

Station	Frost free period (average)	Frost free period (shortest)	Frost free period (longest	Possible range
Montebello	125	106	145	39
Huberdeau	120	83	142	59
St. Jovite	84	99	140	41
Nominingue	111	58	154	96
Ste. Agathe	122	81	154	73

(Meteorological Division Department of Transportation, 1956)

It can be seen that as well as decreasing in length towards the north, from 125 days at Montebello to 111 days at Nominingue, the duration of the frost free period is much more variable and uncertain with increased latitude and altitude. A range of only 39 days at Montebello in the Ottawa Valley being matched with a range of 96 days at Nominingue 54 miles north, and 73 days at Ste. Agathe. Early reports on the climate minimised this drawback to farming or contradicted it entirely. Labelle (1880) states that the growing season north of St. Jovite begins three weeks before that of St. Jerome while in fact it is 10 days behind.

Precipitation throughout the year nowhere falls below 30 inches and along the scarp face of the Shield in the Ottawa Valley, for example at Montebello and the heights to the east of the Rouge Valley, it is a good deal higher.

Lamothe (1963) and the S.T.A.R. Report (1964), both feel that the Rouge is a boundary line between different regimes, the Shield surface to the west lying in a slight rain shadow.

Table 4 Monthly and Annual Precipitation (Inches)

	Montebello	Huberdeau	Ste. Agathe
January	9.28	2.86	2.69
February	2.60	2.31	2.43
March	3.28	2.56	2.74
April	3.47	2.53	2.96
May	3.18	3.11	3.08
June	3.69	3.77	3.23
July	3.81	3.79	3.62
August	3.50	3.46	3.06
September	3.85	3.83	3.47
October	3.43	3.14	3.31
November	3.78	3.40	4.08
December	3.45	3.00	3.47
Year	41.32	37.76	38.14

(Meteorological Division Department of Transportation, 1947)

It can be seen that the rainfall is regularly distributed throughout the year and this, together with the short growing season, prevents the full ripening of grains. In consequence stock rearing, with cattle on natural or sown

pasture in summer and stall fed on silage in winter is the most suitable form of farming in part of the area.

A similar pattern is found with snowfall in the six winter months. There is a progressive decline towards the west, and Lamothe quotes mean figures for Montreal (110 inches), Montebello (93 inches), Ottawa (81 inches) and Renfrew (69 inches). Huberdeau and Nominingue, (82 inches and 86 inches respectively), although further north are in sheltered positions within the Rouge Basin, while Ste. Agathe with 131 inches again has the highest total. In the case of the latter this has been an advantage for "l'activité économique de la région au cours de l'hiver est liée directement à l'abondance et à la fréquence des chutes de niege" (Lamothe, 1963) and a tourist industry oriented towards winter sports and particularly skiing has grown up here. The effects of snow fall on agriculture cannot be gauged by total falls, but only by the length of time the snow lies. Precise records of this are lacking, and it is known to vary locally, being dependent not only upon temperature but also upon soil type and vegetation cover. It lies longest on the fine damp clays of the Champlain Sea deposits, for example those between Huberdeau and St. Jovite, for these are slow to warm up, and melts most quickly on the course sands and gravels of the Rouge terraces. The area of sands along the Mousseau, is clear of snow early and consequently potatoes are an important crop here, on the easily warmed light soils. It was perhaps

soils such as these that prompted Labelle to write in 1776 that the snows in the north of the Rouge were lighter and lay for a shorter period than those of St. Jérôme.

The climate of the Laurentians and particularly the Rouge Valley, is not therefore, markedly different from that of the lowlands. It is a little more extreme in temperature and precipitation but the length and variability of the period with killing frosts is the most important limiting factor for agriculture, and it was this that contributed most to the climatic difficulties faced by the settlers. The sense of isolation in the forests, felt by the first settlers, was accentuated by heavy snow fall too.

C H A P T E R III

THE IMPETUS TO COLONISATION IN THE 19TH CENTURY

Although the first permanent colony in Quebec was established by Champlain in 1608 and the first seigneury was granted to Robert Giffard at Beauport in 1632, it was not until the late eighteenth and early nineteenth centuries that the colonisation movement in Quebec gathered momentum. In contrast to the dynamic English settlements to the south on the Eastern seaboard of North America, the growth of population and territorial expansion of New France stagnated for almost 200 years and the area effectively colonised and under cultivation was confined to the St. Lawrence lowland between Quebec and Montreal, with extentions below Quebec to Malbaie on the right bank and Rimouski on the left bank.

In the early period there were many reasons for the slow rate of agricultural expansion even apart from the obvious environmental ones of extreme climate, and distance from France. The internal politics and policies of France did little to encourage settlement in New France, for Louis XIV prevented free emigration and diverted the manpower of France into European wars leaving no excess to populate his possessions in North America. The companies which were set up and incorporated by the Crown obstensibly for the purposes

of colonisation, were in fact, no more than trading companies seeking quick profits from the fur trade, and the onerous work of colonisation which involved recruiting men, shipping them across the Atlantic, clearing land, and supplying equipment and capital was completely unacceptable to them. The Seigneurial system (Munro 1907, Harris 1966) was established to try to shift the burden of colonisation onto individual land holders who, in return for extensive grants of land, were obliged to bring over colonists to settle on the seigneuries as censitaires and who in turn had to pay nominal fees or rents (cens), to the seigneur and to clear a certain area of land. The success of the entire system depended upon the energy and enthusiasm of the siegneurs but in many cases their interest was sporadic or non-existent and few habitants were established. An example of this is the seigneury of Argenteuil which was granted in 1682 to the d'Ailleboust family which continued to live in France and did nothing to improve or settle this area. Even those seigneurs who went so far as to settle habitants on their land were often negligent in building grist-mills and providing other services which it was their right and duty to do.

The numbers which came from France during the French régime have been variably computed and have been stated by Vattier (1928) to be about 10,000. He gives figures for population growth in New France:

Table 5 Population of New France

1642	400
1663	2,500
1666	3,215
1673	6,705
1685	10,725*
1695	12,786
1714	18,964

*The population of New England at the same date was 200,000.

Becuase of Richlieu's decree in 1627 they were all French, largely from Normandy and West France and there was little miscegenation with the Indian inhabitants. Large families of 12 to 15 children were the rule and in spite of lack of equipment and livestock, there being no ploughs or oxen before 1628 and no horses before 1665, these children could have been established on the land to cut farms out of the forest. But the constant drawing-off of man power into exploration and fur trading diluted the strength of the colony. Vattier estimates that in 1680 out of a total population of less than 10,000, 800 were "coureurs du bois". Even the advent of the English régime in the 1760's did not result in the taking up of lands beyond the St. Lawrence valley although there was a steady flow of new settlers from the United States from that time onwards, especially after

1775 when the United Empire Loyalists came into Canada from the States. It is thought that 25,000 came in all, some settling near the border near Lake Champlain and most of the others going as far as Montreal and beyond to Ontario. By 1784 there were 1,581 Loyalists in Quebec. Immigrants from Britain were few in the eighteenth century and only came in considerable numbers after 1815.

The colonisation movement in the nineteenth century had two distinct phases, the earlier of which, from 1790 to 1830, was characterized by the slow infiltration of English-speaking settlers into some parts of the province noteably the Eastern Townships and the Ottawa Valley. At first the French were excluded from the eastern Townships region because its contiguity with the United States made it a matter of British policy to create a buffer zone of Loyalist settlement there. By the beginning of the nineteenth century all the area was granted, a small proportion of the land being in the hands of soldiers, immigrants and Loyalist farmers on small lots and the rest belonging to wealthy proprietors. In the same period lumbermen had penetrated the Ottawa region and had established farms to supply their workers. Small villages, associated with lumber industries and farming were steadily being formed, encroaching upon the wilderness, including Lachute where the first settlers located in 1796.

In nearly all cases the force behind this slow expansion was the English speaking settler. After 1763 the French population had confined itself to the seigneuries where there was an abundance of good, lowland, agricultural land, which could be held for only a nominal fee, in contrast to the broken terrain of the Eastern Townships, which, being granted under a system of free and common socage, had to be bought from the Government. The riverside location of the Seigneuries were preferable to the new interior lands where transport was difficult. High fertility rates insured swift natural increase in population and in 1790 the French Canadian population had reached 161,311. By the early years of the nineteenth century the French had not moved beyond the St. Lawrence Plain, except for some settlements along the Richlieu at St. Hyacinthe and in Beauce along the River Chaudière, and the lack of readily available agricultural land, was beginning to be felt, for it was no longer possible to procure farms for all the sons.

In the 1820's this problem became so pressing that the French began to look beyond their traditional areas of settlement towards the Eastern Townships, and the North, and the second phase of the colonisation movement was entered. The forces behind this great expansion of the French Canadian people stem from their social and cultural traditions which are unique in North America. The Quebec farm was, and to a considerable degree still is, a self sufficient family unit,

the large number of children in the family providing its labour force, to an extent where the institution of hired labour is virtually non-existent (Miner, 1939, Hughes, 1943, Guindon, 1964). The traditional form of inheritance is not the division of the land between sons which would lead to excessive fragmentation of holdings, but the passing on of the farm complete and entire to only one son, not on a system of primogeniture, but to the son most likely to conserve the family inheritance, (Gérin, 1937). This is the weak point of the whole system, for if a farmer has enough children to work the farm without outside help, he has too many to provide with land, and the excess has to find some other means of subsistence. Add to this the deeply rooted attachment to rural life, and it is evident that the system can only be maintained within an expanding agricultural area.

In the nineteenth century the dispossessed children were faced with several alternatives, most of which were unacceptable to some degree. The growing towns and small urban centres within the Province of Quebec attracted many, and there they became the labouring classes upon which Canadian industry was based. Hamelin (1955) writing of Joliette County suggests that a large proportion of these movements were short ones and that small local centres such as Joliette and St. Gabriel de Brandon attracted migrants rather than the city of Montreal. The bad working conditions and low wages, as well as employment and exploitation

of French Canadians by English speaking entrepreneurs caused considerable concern among the more vocal portion of the French people and the situation was often attacked in print, (Notre Nord-Ouest Provincial 1883). There was a concomitant movement into New England where industries needed labour and there was a high degree of prosperity. French Canadians, willing to work for lower wages than Americans, were ensured of employment, and the exodus from Quebec, beginning in the 1810's and continuing throughout the century drew off approximately 1½ million people (Vattier op. cit.). This weakening of the strength of the French Canadian nation also called forth protests against - "quelle terrible saignée, quelle catastrophe nationale pour les representants de notre race au Canada" (Vattier op. cit., p.87)

The only really acceptable solution was agricultural settlement, but although the Canadian West was open relatively few Quebeçois left to take land there, for the ties of family, ancestral land, and solidarity of race were too strong. The search for new land within the Province of Quebec led settlers into the Laurentians, the St. Maurice Valley, the Saguenay, and finally to the Lac St. Jean lowland and Temisquamingue. In these regions farms were established in the traditional form in an attempt to reproduce the features of the lowland system on marginal agricultural land.

Of almost equal importance with the social and economic system, which demanded an expanding area, has been a complex of less tangible forces, racial, cultural and religious, which have given impetus to colonisation in the last 150 years. A people deeply attached to their land and their cultural traditions, denied political power and having a superimposed English government the French Canadians have feared that they will lose their national and cultural identity. The theme of "notre race Franco-Canadienne" runs through most French Canadian writing in the nineteenth and twentieth centuries. Wade (1966) has paid tribute to "the tremendous force of the French Canadian will to maintain their cultural identity, their will to live apart from the predominant North American pattern..." a will exemplified by Labelle's exhortation in 1888 "Chaque pas-nos droits, nos institutions et nos lois" (Labelle, 1888). The desire to succeed in widening the bounds of their national area, within which their race could be maintained as a cultural whole, was further spurred by the example of the American and Canadian people in the west which was beginning to be settled at this time.

The religious motive was equally strong, for not only was the Church one of the most important institutions of French Canadian life which had to be preserved, it was also a driving force in itself. Bishops and priests, concerned for the maintainence of rural virtues, condemned the

drift of young men to the cities, which led to the collapse of the two cornerstones of French Canadian society and morality, the family and the parish. With all its weight of authority, rhetoric and example the Roman Catholic Church in Quebec sought to encourage the creation of new parishes, with the old social organisation and values, and in doing so to safeguard French Canadian society and expand the Kingdom of God. When Caron (1912) cried "Emparons nous du sol.... C'est un oeuvre religieuse et nationale que vous accomplissons!" (Quoted Biays 1964 p. 260), the juxtaposition of Church and State typifies the close relation between the aims of the two.

The work of colonisation was seen by the French Canadians to be a task of economic and national importance and though Biays makes the point that throughout the nineteenth century land settlement was unorganised and undirected, the first organised settlement in Abitibi being in 1920, there were several agencies encouraging and aiding colonisation long before that. Before Confederation there was little government involvement and the early years of the nineteenth century were characterised by the sporadic infiltration of English settlers into the Ottawa Valley and French onto the fringes of the Laurentians, and into the Saguenay and the Eastern Townships. This early period also had very few conditions attendant upon the grant of land on ticket of location, no house need be built before

five years after the grant and only 5% of the lot need be cleared in the same time. In 1859 these regulations became more stringent, a house had to be constructed within the first six months and 10% of the land cleared in the first four years. This change reflected the growing Government control of land settlement and a desire to encourage farming and improvement of the land and to discourage mere timber exploitation by the "pilleurs de bois". After 1867 when the French had some control of Government in Quebec, legislation and active aid to colonisation was begun.

The Ministry of Agriculture had been established in 1852, and although the Ministry of Lands and Forests had been in existence from 1821, in 1880 a separate Ministry of Colonisation was set up, to forward the expansion of land settlement in the Province. Government aid to colonists was extended into many fields, starting with the exploration of new lands and the dissemination of knowledge about them. By 1825 Pascal Taché, Seignor de Kamouraska had visited Lower St. Jean several times and reported to the Government on the area. It was decided that organised exploration to assess the value of the land for settlement should take place beginning in 1828 with the report on Lower St. Jean and the 1830 report on the St. Maurice Valley. After 1867 many such reports were made by surveyors who commented on the soil, vegetation and capability for settlement of the North. Cadastral surveys of projected townships in colonisation

areas were made at an early date to forestall undisciplined squatting and to enable the orderly alienation of land to take place.

The sphere in which the Government was most active was in the provision of communications between the older settled centres and the new lands. Arguing that a sense of isolation was one of the more important inhibiting factors in the growth of frontier settlements the Ministry of Colonisation contributed a considerable amount of money to the construction and maintenance of roads and from 1867 the Reports of the Minister of Colonisation list all such revenues. Only very late in the century were the so called 'Colonisation Railways' built towards the North, by companies receiving a large amount of financial help from the Government.

Legislation designed to draw people into the new lands became common near the beginning of this century. In 1890 an act providing for the granting of a 100 acre lot free of charge to any father of twelve children or more attracted many, not all of them good farmers. In 1905, 3,490 such lots were given away. By 1921 lists of the lands for sale and its potentialities were published together with the names and location of government employed agents who arranged the sales.

Other organisations, both clerical and secular made important contributions to the work of colonisation,

both corporatively and through individuals. The Roman Catholic Church in particular was very active in promoting resettlement, and created among the habitants, through the exhortations of the Bishops and the sermons of the parish priests a climate of thought which predisposed men to move towards the pioneer areas. Since the church and the parish were the central pivot of the old French Canadian society it was argued that the sense of strangeness, newness and isolation among the pioneers in the backwoods would be lessened if the Church was there from the beginning in the form of the "missionaire-colonisateur". These priests often moved to a new area before the settlers, setting up a cross, or consecrating a small chapel, then organising and aiding in the establishment of the colonists. Some individuals within the Church had even greater influence upon the movement. Father Labelle of St. Jérôme became, after 1865, the force behind the thrust of colonisation into the northern part of the Rouge Valley and towards Mt. Laurier. His advocacy of the building of colonisation roads and railways and his influence upon the Quebec Government gave him international fame.

The colonisation societies which sprang up in Quebec in the nineteenth century were of both religious and secular organisation. The Société de Colonisation du Diocèse de Montréal, founded in 1894 and dedicated to the establishment of new parishes for the faithful, was a Roman

Catholic Church organisation, while the Montreal Colonisation Society was a Protestant division of the same organisation and dealt mainly with new, English speaking imigrants. While the Church-based organisations continued to maintain an interest in the young colony as a living whole, the secular societies were usually concerned only with the disposal of lands and settlement of individual colonists. The French Canadian system created communities, the English system established individuals.

The work of the societies was aided by a flood of writings about the new areas, contributed largely by travellers and gentlemen interested in the work. Stanislas Drapeau (1863), Joseph Tassé (1873), de Montigny (1896) and Thomas (1896), all wrote with enthusiasm about the north.

During the entire century therefore the thought of the Province of Quebec was directed towards expansion into the new lands. The great rallying cries where "Colonisez" and "Au Nord!" But enthusiasm took the place of sober rationalism, and the lands so joyfully taken up in the Laurentians and further north were very often unsuitable for agriculture and inadequate to support a family in the traditional form of life. By the end of the century the movement was slackening off, more and more potential settlers were drawn off by migration into the cities, and the population of the older colonisation parishes began to decline or remain steady instead of growing. The twentieth century

saw the opening and settlement of Abitibi it is true, but the steady stream of settlers characteristic of the nineteenth century was replaced by sudden spurts marking the ends of the Great Wars, when service men returned home, or periods of depression when work in the cities was unobtainable. As soon as conditions elsewhere returned to normal the drift outwards from the marginal farmlands recommenced. The movement of French Canadians into the forests and the marginal lands to the north is one of the fundamental themes in the nineteenth century history and geography of the Province of Quebec.

Although the same era saw many similar movements in different parts of the world, none of them parallel this one completely. Sweden experienced an analogous form of internal colonisation in the nineteenth century when families looking for land settled in the forests of Nörrland (Enequist 1960), in an environment very similar to that of the Laurentians, with coniferous or mixed forest and poor soils. The over expansion of this frontier and its consequent shrinking as marginal farms were abandoned was repeated in Quebec. But the Swedish and Finnish settlers in Nörrland were impelled largely by economic necessity while the folk movement of French Canadians was unique in the combination of economic pressures and racial and religious ideals. Unlike the Swedes, or the Irish who came to America in the 1830's and later, they were not looking for a new life in a new land

but for the conservation of the old life, traditions and values within their own province. The Welsh colony in Patagonia (Bowen, 1966), had similar ideals, including the preservation of the Welsh language, and the creation of an autonomous province. But even comparing Quebec colonisation with this Welsh colony the correspondence is not exact, for only in Quebec was a folk movement dignified by Government and Church support and by its adoption as a crusade to preserve the French Canadian race. It was this official recognition and encouragement of a movement, originally unconscious and undirected, which made the nineteenth century expansion towards the North in Quebec unique. Equally it was this encouragement, raising high ideals and hopes among the settlers, which made the harsh realities of marginal farming more bitter and the resulting disillusionment more intense.

C H A P T E R IV

EARLY OCCUPANCE

Before the French explorers penetrated beyond the village of Hochelaga on Montreal Island the only occupants of the Ottawa Valley and the Laurentian uplands were Indian tribes. The Rouge Valley formed part of the territory of the Algonkin Indians who consisted of migratory bands scattered throughout the Laurentian area between the Ojibwa who occupied the upper Great Lakes area and the Montagnais to the east of the St. Maurice River. Estimates have placed their numbers at 3-4,000 in the period before Cartier first reached New France in 1534 (Jennes, 1932) but by the time the first missionaries reached them, this figure had been much reduced by introduced diseases and Iroquois incursions. A few of those in contact with the lowland Hurons who were farmers had learnt some agricultural practices and planted maize, beans and squash but their methods were primative and attacks by the Iroquois frequent so that the contribution of agriculture to their food supply was limited. They remained primarily a hunting and trapping people, and as the best hunting grounds were in the hills, they avoided the main route ways and had very little contact with the early French travellers. Having no settled villages and few areas cleared for agriculture their imprint upon the

landscape was very slight.

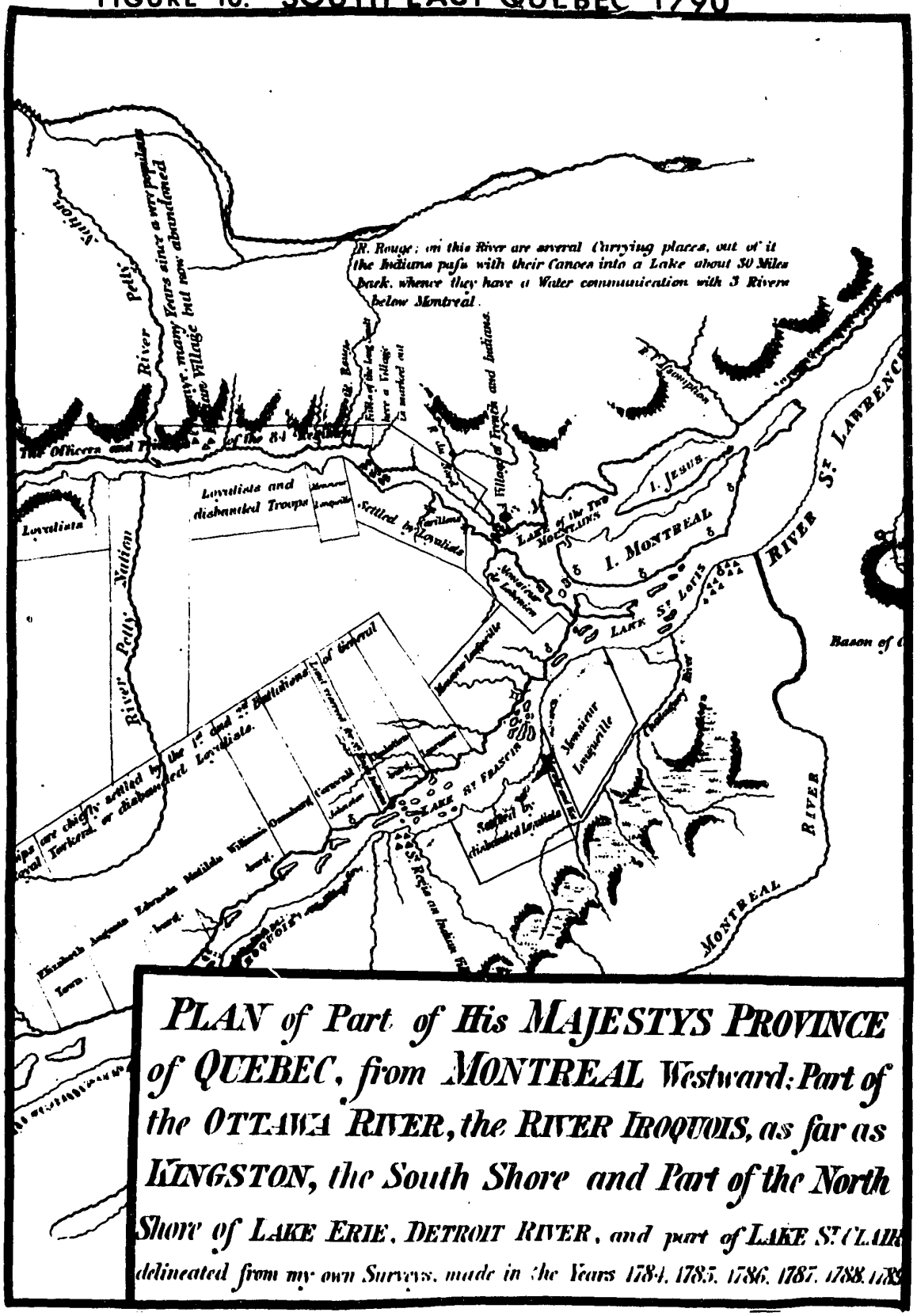
In contrast to the pacific Algonkins and their allies the Hurons in the lowlands, the Iroquois were a war-like group of tribes who fought all those who would not join their confederation. Their tribal areas were to the south of the St. Lawrence but in the seventeenth century they became strong enough to advance into southern Ontario and the Lower Ottawa Valley. In 1648 they crushed and drove out the Hurons of South East Ontario and later raided as far north as James Bay. Later, as their power declined, the Algonkins, who had been driven out of the lower Ottawa region began to drift back.

The Ottawa was an important canoe route to the Indians and became one of the main French routes to the interior. The aid given by Champlain in 1609 to the Montagnais against the Mohawks, members of the Iroquois confederacy, resulted in the antagonism of the Iroquois to the French, and their alliance with the Dutch and British to the south. These hostile forces prevented the French from penetrating south along the Richlieu or due west along the upper St. Lawrence which was all Iroquois territory, and in consequence they advanced along the Ottawa. In 1615 Champlain travelled up the River Ottawa, finding a portage in the melt-water channel of the Mattawa valley, and continuing via Lake Nipissing and the French River to Georgian Bay and the Upper Great Lakes and this became the main

French access route to the interior of the American continent.and was followed by fur traders. Along most of this route the French travellers were vulnerable to attack and one especially dreaded place was the mouth of the River Rouge near the head of the Long Sault rapids on the Ottawa. in 1692, 100 French surprised a large band of Indians there and defeated them thus ending most of the attacks. On the evidence of a map produced in 1790 of south west Quebec and south east Ontario (Fig. 10) it seems that there were still some Indians in the area as late as the early nineteenth century, for the Rouge is described as one of their canoe routes, though the name Iroquois Falls first given in 1878 to the village now known as Labelle is a misnomer, as the Indian inhabitants were probably Algonkins.

Before the advent of the French the Algonkins had traded muskrat and beaver skins with the Hurons of the St. Lawrence lowland and in the seventeenth and eighteenth centuries the French voyageurs took over this existing trade and the Ottawa became one of the principal channels for the movement of furs. In 1759 Bourgainville estimated that 80 canoes carrying six to seven hundred men set out up the Ottawa each year in the spring and returned in the autumn laden with furs. In the same year Quebec was taken by Britain and after 1780 , the North-West Company was established and grew to control a large part of the fur trade. Forts or trading posts were established along the Ottawa to

FIGURE 10. SOUTH EAST QUEBEC 1790



act as collecting points for the furs collected by the Indians of the Laurentians, and they included the Fort de la Petite Nation near Grenville, Fort de la Lièvre, and Fort Mondion upstream from Hull. These were the first white settlements along the Ottawa but they were impermanent, consisting as they did of a fluctuating population of trappers and traders, and did not represent an attempt at colonisation. Except for a few vegetables, which added to the diet of the occupants, no crops were grown and little land was cleared. It was only infrequently that a fort became the nucleus of a subsequent settlement. This pattern of an attenuated communication network along watercourses, and isolated forts and trading posts, was common t to the entire territory held by the French in North America and, unsupported by colonisation, it was inherently weak, and vulnerable to attack. Throughout the French administration the population of Quebec grew only slowly and was not able to consolidate the position of these outposts by an expansion of agricultural colonisation. In some cases it was legally prevented from doing so, for until the eighteenth century French colonisation was confined by edict to the Montreal Plain to protect the fur trade of the Ottawa, and it was only after the American Revolution of 1775-77, with the coming of United Empire Loyalists from the United States, that permanent settlement was established in the valley. Until then although the Ottawa Valley was known

to the traders, the Laurentians were terra incognita known only from Indian tales, and the Rouge Valley had not been entered.

The spread of settlement into the Ottawa Valley and the Laurentians was therefore a late development although the Seigneury of Argenteuil was first created in 1682 and given to Charles Joseph d'Ailleboust. It consisted of 72 sq. miles on the north side of the Ottawa with a frontage of six miles on that river and extending 12 miles inland to the Laurentian foothills, (Wales, 1934). From 1682 to 1781, when the d'Ailleboust family sold the seigneury to Pierre Louis Panet, the land remained as virgin forest and nothing was done to induce French habitants to settle there. The only European settlement was the fur trading post of Maison Rouge one mile to the west of the site of the Manor house of St. Andrews. In 1781 the first settler located in the seigneury, on Carillon Island, and the present village of St. Andrews became the first organised colony in the Ottawa Valley. This growth owed little to the efforts of the seignor, for Panet was not resident, and did not build grist and saw mills, and it was not until the seigneury passed into the hands of Major Patrick Murray soon after 1795 that a resident seignor who encouraged colonisation was found, and the hamlet of St. Andrews grew to be a small industrial centre with the establishment of a paper mill and boat building yards.

The seigneury of la Petite Nation (in what is now Papineau County, was equally slow in development in the French period and it was only after the American Revolution that settlers began to move into the Lower Ottawa Valley in any numbers, the first colonists being predominantly of British or American extraction. In 1796 the first man to locate at Lachute was a Vermont man and his family and in 1798, 1800 and 1803 other American families followed them so that by 1803 there were thirty families or 103 people living at Lachute subsisting not by agriculture but by the sale of timber, charcoal and potash, (Rigby, 1964). Although they did not farm and abandoned the lots when they were deforested the land which they cleared became an attraction to other settlers particularly the Scots who started to move into the cleared ranges in the early nineteenth century. The first of these settlers on record is John Cameron of Inverness who took up land in 1802.

As yet the Rouge region was outside the bounds of the settled area in spite of grants made in 1795-7 in the south of Grenville Township, to the men of General Burgoyne's regiments for loyalty to the Crown during the American Revolution, but the edge of the oecumene was moving steadily in that direction along the Ottawa Valley. In all, grants totalling 18,000 acres were made at this time to 21 people, (Chamberland, 1961) in the first range of Grenville, which had been surveyed in 1805, when it was laid out in lots by

Joseph Bouchette. But none of the grantees settled in the area, or cleared any land, the first occupant being Archibald MacMillan from Lochaber, Scotland who arrived at Grenville in 1810 having taken out a ticket of location for Range I Lots 6 and 7 and Range II Lots 9 and 10, and early grants in the third range were made to Duncan MacMillan and Rory and Neil McDonell. These were all in the east of the township where the lowland at the foot of the Grenville scarp widens, and they were all located in the Ottawa Valley. It was only later that the obstacle of the escarpment was overcome and the poorer soils of the upland settled.

The next important impetus given to colonisation in the Ottawa Valley was the war with America in 1812-1814, when the upper St. Lawrence was a vulnerable area and the Ottawa and Rideau districts were threatened. Military necessity demanded the ability to move men quickly along the Ottawa and to maintain the areas alliegence to Canada and to this end some means of circumventing the Carillon and Long Sault rapids was needed. The Government ordered the construction of canals to avoid these obstacles to navigation and in 1819 work on them began. Although the Grenville Canal (five miles long) and that at Carillon (nearly three miles long) were not completed until 1834 there was in 1819 an influx of Irish and French Canadian labourers who worked in the construction gangs, and although only few of them settled down in Grenville several

taverns were established and the navvies created enough of a disturbance for MacMillan, a Protestant, to ask the Roman Catholic Bishop to establish a mission and to send a priest to try to restore order. In 1827 when Hugh Paisley, the first priest arrived, the migrant workers of whom he wrote:

> "Les employés du canal en particulier, s'il fait l'en croire, n'étaient pas des anges tutilaires. Ils blasphèmaient comme maudits, buvaient comme des gouffres, dansaient des ronds avec la furie des sorciers de l'Ile d'Orléans" (Chamberland ibid. p. 48)

far outnumbered the established Catholic families numbering 28 largely peaceful farming French Canadians from Counties Terrebone, Vaudreuil and Rigaud. The first Catholic cemetery in the Ottawa Valley was started at Grenville in 1830. From 1819 to 1848 large numbers of Irish were emigrating to North America and in 1831 alone 50,000 Irish immigrants landed in Quebec, of these hundreds, largely Protestant Orangemen, settled in the townships of Grenville, Lochaber, Buckingham, Hull and Templeton. The establishment of farming colonies in the Ottawa Valley, mainly of English speaking and Protestant families, was well underway by 1830, but in Grenville at least, few had pierced the Laurentian Escarpment and located on the shield itself, and it was only in the 1830's that settlers located on the shield edge on the lots east of Range IV Lot 9 of Grenville and further north.

The expansion of settlement beyond the St. Lawrence Lowlands in another direction, to the north and north west of Montreal, was also checked when it reached the shield edge and advanced much more slowly when it entered the Laurentians. In the later eighteenth century the townships of Abercromby, Wexford, Kilkenney, Morin, Doncaster, Wolfe, Grandison and de Salaberry were delimited on the Laurentian upland north of the Seigneury of Terrebone. Although intended for British settlers, poor soils and rugged terrain meant that few were attracted to these areas except for a few Scots and Irish in the Nord and Achigan area, and although some lots were taken up they were abandoned after being cut over. It was not until the 1830's that there was pressure upon French Canadian farmers of the lowlands to move into the Laurentians. Miner and Hughes both postulated that population pressure was the main force behind colonisation in nineteenth century Quebec but this has been disputed in recent years. However, Beauregard (1965) has proved conclusively that in the Richlieu Valley at least, high birth rates and immigration between 1763 and 1867 led to a surplus rural population which in the succeeding years left for the cities or new agricultural areas. It was the years after 1871 that saw the movement of French Canadians in force into the Upper Rouge and it appears that overpopulation of the old farming lands was almost universal in Quebec.

In very many cases the first agricultural settlement on the shield was the result of lumbering activity. The Ottawa Valley in particular and the uplands to the north were the scene of widespread forest exploitation. The first lumberman to locate on the Upper Ottawa was a Massachusets man, Philemon Wright, who in 1800 established himself on the Ottawa at the Chaudriere Falls with five families and 25 men specially engaged for lumbering activities. By 1806 he had invested $20,000 in his enterprises and built a sawmill on the Falls as well as a tannery and bakery. In order to feed his labour force without bringing provisions from Montreal up the long, slow and expensive route of the Ottawa he began farming, by 1824 he had three farms, with a total of 3,000 acres near Hull. In the same year the population of this settlement stood at 803.

In these backwoods regions farming was unprofitable for it was uneconomic to market produce in Montreal or other urban markets (Blanchard, 1949) and at an early stage of pioneer occupance no local markets existed. But by the beginning of the nineteenth century timber was becoming a valuable commodity, especially as the Napoleonic Wars created a large market for timber for ship building and after 1806 the Berlin Decrees cut off the supply of Baltic timber to Britain. Canadian exports of timber to Britain were protected by tariff until 1832 but even after that date, the growing demand by the canal and railway construction

companies as well as the Crimean War of 1855-56 and the American Civil War of 1861-65 kept prices at a high level, (Mallory, 1964). In the Ottawa region and the Laurentians agriculture was financed and attracted by lumbering, and farms were set up, not only by the lumbering companies but by individual farmers who were drawn to establish themselves near the 'chantiers' (or lumber camps), to provide food for the workers, and also to supplement the income they received in this way by participating in winter work in the forests themselves. In many cases this attraction led farmers to locate on poor soils within the Shield, which, when the logging frontier moved on, were found to be unprofitable to farm and were subsequently abandoned. Maxwell, (1966) has described this process in part of Renfrew County in Ontario.

The early history of lumbering in the Rouge Valley and the Laurentians north of the front ranges of Grenville is firmly associated with the enterprises of the Hamilton Brothers who established a sawmill at Hawkesbury in 1797 and held timber licences for 287 sq. miles at an early date, within the basin of the Rouge in the areas later to become the townships of Amherst, Loranger, Clyde, Joly, Marchand, Lynch and Mousseau. The white pine was the most valued species but it disappeared early because of selective cutting, and spruce and hemlock were also exploited. The logs were floated down the Rouge and collected at the mouth for rafting across to the mill at Hawkesbury. As in

Ontario the movement of the lumbermen encouraged the building of roads at an early date and in 1829 a road was cut into the Laurentians following old Indian trails across the Grenville Scarp north of Calumet, as far as Rivington. There was considerable movement of men and supplies along this road and its continuation north beyond the Harrington Basin. The numbers of men involved in the Hamilton Brothers operations can be guessed from a memo dated 1845 which mentions 156 men, of whom 60 were divided into four cutting parties, and 27 were allocated to "the three farms on the river", (Harrington and Rouge Valley Home and School Association, 1962). Lack of good roads meant that provisions for men and animals had to be brought in my water, or by pack horse and costs were high, a ton of hay costing $36.^{00}$ and a bushel of potatoes $2.^{00}$ to $3.^{00}$. As a result farms were established by the forestry company growing potatoes, oats and vegetables, and raising beef cattle, (Charette, 1953). Godard, (1956) cites de Montigny's comments on the Ferme en Bas (Labelle) in 1884, when the farm consisted of 1,500 acres of which 100 acres were cleared.

> "Les dépendences: maisons, granges, écuries, étables etc., quoiqu 'un peu vieilles sont encore très propres à l'exploitation... Toutes les éspèces de grains ainsi que les plants à pasturages y poussent admirablement." (de Montigny, edition 1896, p.224).

The sites of these farms, which were owned and operated by the company to provision their workers in the forests, are not known exactly but it has been suggested

that one was located at Milways just south of the present Canadian International Paper forest farm in Harrington. Other sources suggest that the three farms were all further north; Ferme en Bas at Labelle, Ferme du Milieu at L'Annonciation, and Ferme d'en Haut at L'Ascension. The company had certainly penetrated as far north as this for a provincial government report in 1873 (P.Q. Sessional Papers 1874) mentions the logging road along the river through Arundel and de Salaberry to Fort Bellingham above Brébeuf and then far to the north, and stresses its potential value as a colonisation route. These farms did become the nuclei of future settlements and they were significant as the first agricultural establishments in the Rouge Valley, they drew in men to farm and demonstrated that farming was possible in the area.

Settlement did not spread appreciably beyond the St. Lawrence lowlands under the French régime in Quebec and it was not until the British took control that there was a movement of colonisation into the Ottawa Valley and to the north of Montreal. Scots and Irish immigrants moved to the frontiers of settlement and established themselves in Grenville and to the north of the Seigneury of Terrebone in the early years of the nineteenth century. Farming in the first instance was largely subsistence and it was not until the lumber companies began to exploit the forests of the region that a local market was found. In

Grenville the lots in the Ottawa Valley were all taken up first, from 1800-1830, but after this the Grenville Scarp was an obstacle to the penetration of the Shield area and further expansion was checked for a while and only resumed at a slower rate. Again it was the lumbering activity and chance of an immediate cash return from the timber on a lot which encouraged settlers to locate on the Shield. The swift expansion of settlement came in the 1840's and later years which were characterised by a growing pressure of population in the lowland French Canadian townships and an awakening realisation in both Government and Church that public policy should encourage and aid pioneer settlement in the Laurentian area.

C H A P T E R V

THE ADVANCE OF SETTLEMENT 1831-1901

The period of 70 years between 1831 and 1901 was the era of the expansion of the oecumene in the Laurentians. The spread of settlement outwards from the St. Lawrence Lowlands first engulfed the Eastern Townships and the Ottawa Valley and then turned to the less inviting lands of the north, where the settled area grew by the accretion of new townships, surveyed in the forests, and made available to farmers under the auspices of the Ministry of Lands and Forests and the Ministry of Colonisation. The Rouge Valley was approached along two different, well defined axes (Fig.11) which were of importance at different times in the valley's history. The lower part of the valley, below Brébeuf, was approached from the Ottawa, in the south, by the English-speaking settlers from about 1831 onwards, though the movement was dying out by 1871 and did not penetrate the hilly barrier to the northern part of the valley. The second line of entry was from the south-east, from St. Jérôme and was followed predominently by French Canadian settlers. Although the "marche de peuplement" began from St. Jérôme at the same time as settlement was taking place in the lower Rouge Valley, it did not reach the upper Rouge until after 1871, the settlements of Ste. Adèle and Ste. Agathe in the

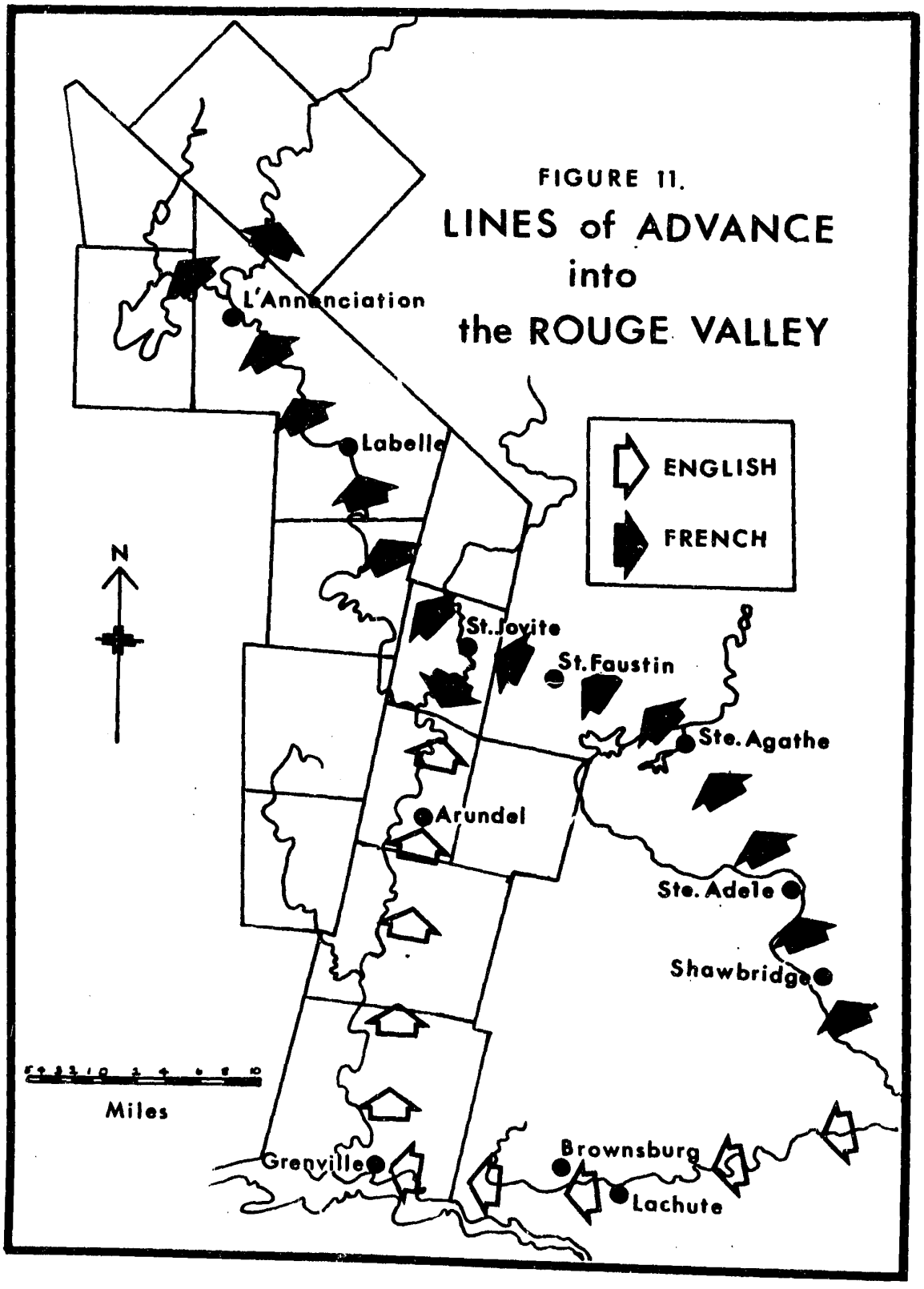


FIGURE 11.
LINES of ADVANCE
into
the ROUGE VALLEY
ENGLISH
FRENCH
N
L'Annonciation
Labelle
St. Jovite
St. Faustin
Ste. Agathe
Arundel
Ste. Adele
Shawbridge
Miles
Grenville
Brownsburg
Lachute

valley of the Nord being contempprary with those of Grenville and Harrington. Only after 1871 did the "Pays d'en haut" north from St. Jovite and Brébeuf become the most rapidly advancing region of colonisation in the Rouge Valley, and the time between 1871 and 1901 can be designated the period of French expansion in the upper valley.

The entire area, before settlement, was Crown land, belonging to the State, and measures were taken to ensure its orderly alienation. In most cases the surveyors went before the settlers, and though there were some squatters ahead of them they were few enough in numbers not to cause difficulties. The front range of Grenville was surveyed in 1788 and the rest of the township in 1805, Harrington was surveyed and mapped completely by 1866, the township having been established in 1855. A survey order for the Township of Clyde was made by the Commissioner of Crown Lands in 1877, and surveys of the Township of Joly, of part of Loranger and of the Township of Marchand were made in 1878, 1881, and 1882 respectively. In all cases these townships were laid out in ranges with lots of 100 acres, except in Grenville and Harrington, where each lot was 200 acres. The surveyors' reports also contained information about the area, and an assessment of its agricultural value.

The ungranted lots were under the jurisdiction of the Ministry of Lands and Forests which often conceded them to forestry companies under a licence allowing the cutting

of timber but not settlement. It has already been noted that the Hamilton Brothers had large lumber concessions in the Rouge Valley under such licences. When a township was opened to colonists the process of alienation or granting of the lots within it was made up of three consecutive stages. First the lots were transferred from the Ministry of Lands and Forests to the Ministry of Colonisation, and became available for sale. Then they were granted on a ticket of location to individual settlers for a price that was set at $2.00 an acre for many years, of this price a fifth was to be paid immediately and the rest in four equal annual installments. This was not a final grant, for the Ministry could revoke it at any time if the payments were not made, or if the conditions attendant upon its sale were not satisfied. These conditions have already been mentioned but the most important was the stipulation that a certain proportion of the area should be cleared within a stated time. From 1848 to 1859 this was 5% in five years, but from 1859-1900 this rule became more stringent and 10% had to be cleared and cultivated in the first four years. Many of the revpquations of lots recorded in the Terrier of Quebec were made because of "defaute d'accomplissement des conditions de la vente". It is difficult to tell from the records whether this failure to complete the required works was the result of exploitive cutting of timber by the grantees, or a genuine failure of farming by the new colon-

ist. Finally, once the price was paid, and the statutary improvements completed letters patent were issued to the owner of the lot, and it became his land with no restrictions as to its use, sale, or abandonment. In all cases in the following discussion, the date of first grant of land is taken to be that of the issue of the ticket of location.

English Settlement

The Ottawa Valley was one of the few parts of Quebec where English speaking settlers found a permanent niche, and by 1830 the lowland part of Grenville township had been occupied by Scots, Ulstermen, Irish and a few Englishmen. Some of these began to move onto the Shield on finding their path blocked by the solid settlement of French bourgoises in the Seigneury of the Petite Nation which had been bought by M. Papineau of Montreal in 1803, received its first settlers in 1817 at Montebello and by 1818 had 82 families consisting of 572 people. The northward deflection of English speaking settlers led them to lands in the most part rocky and broken, which accentuated their tendancy to locate on isolated farms rather than in the compact groups which characterised the French settlement going on in the surrounding townships, or in the north of the Rouge at a later date.

Bouchette, (1832) wrote of Avoca:

> "This road continues, though very bad, along the eastern Branch of the Calumet, and, passing occasionally by the door of a solitary settler, terminates in the 7th range. It should be observed, in justice to the inhabitants of these parts, that they have surmounted, with the most industrious praiseworthy perseverance, the various obstacles presenting themselves in regions so hilly and forbidding, and have succeeded in the attainment of a degree of rustic enjoyment beyond what might have been reasonably anticipated to exist in the 4th, 5th and 6th ranges of Grenville at so early a period of its settlement".

A study of the Land Records for 1831 to 1861 shows that there was no steady advance of the frontier of settlement towards the north but the sporadic taking up of land in small pockets, and favourable areas, by individuals and small groups. The more accessible lowland basins within the uplands were settled at an early date, that of Avoca, approached along the valley of the Calumet, had its first settlers in 1826 in the persons of James MacArthur of Mull, Argyllshire, and John Bates and Jonathon Kelly both of County Tyrone in Ireland. The Rouge river itself had little attraction as a route for travellers, its lower course having many rapids, and lacking any suitable farming land along its banks.

The back ranges in Grenville are uniformly unsuitable for settlement and were not granted in many cases until the 1880's and 90's, but having been crossed they gave access to the relatively extensive lowland basin of Harring-

ton and Rivington which had more potential as agricultural land although covered by cedar swamp. The first grants were made here in the 1830's to settlers coming in from Calumet, Avoca and Lost River and locating in Range I of Harrington. The west of Harrington was settled slightly earlier than the east and was known as 'Old Harrington'. Thomas (1896) writes "though the land in the west is somewhat broken, it is mostly free from stone". In spite of its inhospitality, the area in the north-east and north of Harrington was not long in being settled. In 1849 Donald Fraser settled in Range V, twenty miles from the nearest roads, while in 1850 Lost River received its first settlers, a group of Scots, who were so isolated that for many years Gaelic remained the only language in the area. Beyond that as far as Lake MacDonald, although the land was less broken, it remained sparsely settled even in 1896 (Thomas ibid.), with the occasional farmstead being found such as that of David Green who in 1864 located on Lac Vert, (Harrington Range IX Lot 13), or that of Higginson at the outlet of Lake MacDonald, Harrington Range VIII Lots 8 and 9, which even as late as 1878, when it was first granted, was completely isolated.

Although the first white man to live in what is now Arundel Township, Stephen Jakes Bevan, a trapper and Indian trader, built a shanty on the Rouge in 1822, it was not until 1856 that the first settler, William Thomson of

Glasgow, was granted land there in Range II Lots 10, 11, and 12. He was followed in the next year by the Staniforth brothers from England, and the basis of the present village of Arundel was formed. Therefore by the 1860's English speaking settlers had penetrated as far as the hilly ridge separating the northern and southern parts of the Rouge Valley, but this did not constitute an overall pattern of settled land, (Fig. 12). Instead the terrain, with its multitude of rock knobs interspersed with pockets and basins of lowland and fringes of cultivable soils along the lakes and rivers, led to a pattern of extremely dispersed population, and a very low percentage of the land granted was actually cleared and cultivated, (Table 6). In Grenville in 1861 although 39% of the total area had been granted, only 36% of this had been cleared, while in Harrington only 14% of the granted land was cleared.

The upland areas were only granted at a much later date, towards the end of the nineteenth century, often as wood lots to existing farms. The Ranges VI, VII and VIII of Grenville have many lots not granted until the 1890's and remaining uncultivated today, and in Harrington a large part of the township has never been granted and now forms part of the forest holdings of the Canadian International Paper Company.

In 1861 the pioneer fringe had just moved as far north as Arundel and only 2% of its total area had been

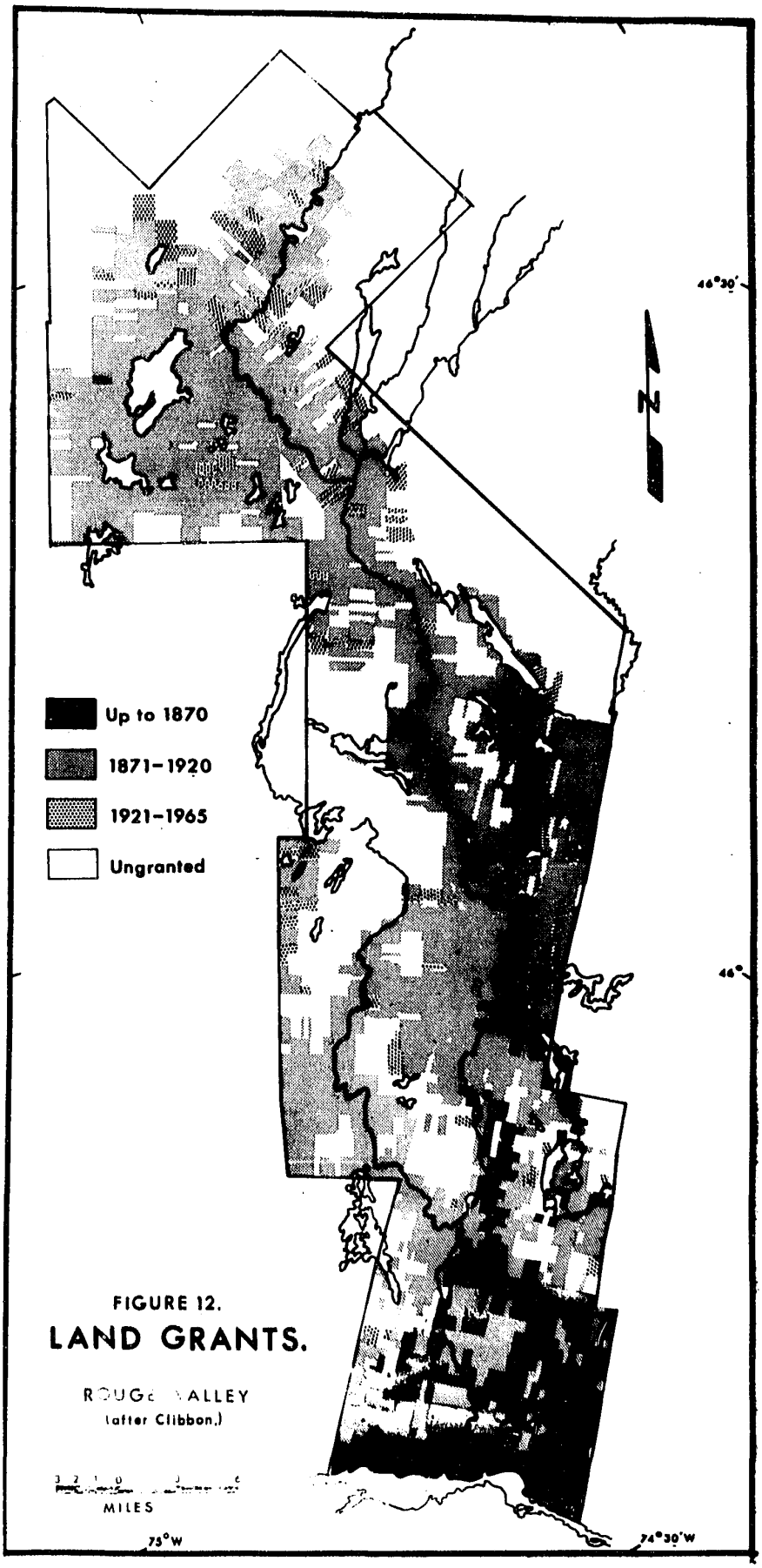


FIGURE 12.

LAND GRANTS.

ROUGE VALLEY

(after Clibbon.)

Table 6 Land Granted, and Land Cleared 1831-1891
(Grenville, Harrington and Arundel)

Year	Total population	Area held (acres)	Area cleared & cultivated (acres)	Source
Grenville and Augmentation:			Total area 84,374 acres.	
1831	1,875		1,070	Bouchette
1851	1,992		6,753	Drapeau
1861	2,178	33,472	12,007	Census of the Canadas
1871	2,223	26,818	12,342	Census of Canada
1881	2,412	37,304	15,714	" " "
1891	2,685			
Harrington:	Total area (+Montcalm): 101,801 acres.			
1831	-	-	-	
1851	267	4,050*	531	Drapeau and Land Records
1861	310	5,500	744	Census of the Canadas
1871	Separate figures not available			
1881	718	17,105	4,683	Census of Canada
1891	720			" " "
Arundel:	Total Area 32,335 acres			
1831	-	-	-	
1851	-	-	-	
1861	26	600	45	Census of the Canadas
1871	Separate figures not available			
1881	606	19,035	3,561	Census of Canada
1891	743			" " "

* Approximately

granted on location ticket and 7.5% of this had been cleared, though thereafter there was a swift increase in granted land in the Arundel Basin and northwards along the Rouge, and west into the Rockway Valley in Amherst, first settled in 1877. This paradox of the swift expansion of far flung settlements and the very slow taking up of the lots between them is matched in the southern part of the valley by the slow expansion of clearing and cultivation in the enthusiastically taken up lots, because of the difficulty of cutting fields out of the forest, and the lack of manpower.

The origins of the settlers were diverse and although they had been designated "English speaking" in an attempt to distinguish them from the French Canadians, this is not strictly true, although they adopted English as a common language. The first settlers in Grenville and the Rouge Valley were Scots following Archibald MacMillan from Lochaber and they were closely followed by Ulstermen who, coming to work as labourers on the Grenville Canal, settled as farmers, and soon became assimilated by the Scots. The Catholic Irish came generally at a later date and few of them settled in the Rouge area, although there were settlers from County Tyrone in Avoca by 1830. The first settlers to move into Harrington were Scottish and in the Harrington Basin even today Scottish names such as MacIntyre, MacDonald and MacTavish predominate. Thomas notes that the first settlers at Lost River in 1850 were Highlanders who spoke

only Gaelic. Settlers from England and Wales, and English Canadians made up a further large proportion of the population in all of these townships. In 1861 Harrington had 310 people of whom 193 were English Canadians, 9 English, 86 Scots, 6 Irish, 1 American and 15 French Canadian. Arundel too was strongly English and Protestant. Where there were French Canadian families, often former canal workers, in the rural areas they rapidly became assimilated, Anglicized and converted to the Protestant religion,* the Dubois' of Arundel and the Provençal's of Harrington being examples. There was a smattering of other Europeans but they quickly adopted English and became assimilated too. The diversity of origins and religious sects among these settlers was one factor which encouraged them to settle in small incohesive and isolated groups in the backwoods.

The census figures show that the growth of population was not rapid, and that new settlers moved in very slowly, there being an increment of about 200 people a decade in each township, or only 20 people a year on average. Grenville Township was growing more quickly than this by the end of the century with an increase of 339 people from 1881-1891 but it had two large villages, Grenville and Calumet, in the Ottawa Valley which accounted for a large proportion of the total population, and the growth of rural population was much slower. Harrington only gained two people in the same period, showing signs of already having

* Rev. D. Hughes, personal communication, Arundel, 1966.

passed its peak of development, though Arundel's population was still increasing as colonisation went on and 137 people were added in the decade beginning 1881. Even so compared with the numbers of settlers moving into the French colonisation townships in other parts of the Laurentians these accretions were small and the lessening of the movement of English speaking colonists into the south of the Rouge Valley may be explained by the physical barrier to the northern part of the valley, the presence of French settlers in the same region, and the counter attraction of more fertile and more easily farmed land in the west of Canada. Many families left the valley in the 1890's to relocate in the Prairies.*

French Settlement

After 1871 the main focus of attention was the northern part of the valley which was attracting French Canadian settlers. Starting from St. Jerome, which was founded in 1821, the main access route to the upper Rouge, across the Laurentian Plateau was much more difficult than that of the Ottawa Valley, by which the settlers in the southern part of the Rouge reached their land. The French Canadians were sustained in their resolve to find new lands in the inhospitable uplands by an almost religious zeal to create a new homeland where the virtues of the traditional rural way of life could be maintained. They were inspired

* Mrs. M. A. Langdon, personal communication, Rockway Valley, 1966.

in this crusade by a group of dedicated priests of whom the Abbé Labelle was the most enthusiastic and indefatigable. Arriving in St. Jérôme as priest in 1868 he was struck by the beauty of the Laurentians and by their apparent suitability for settlement.

> "La province de Québec était pour lui une seconde religion. En travaillant à la colonisation en présant la construction de chemins de fer, en ouvrant des centres de colon, il voulait aussi bien aider à l'établir ses compatriotes que participer au dévelopement de la seule province canadienne-française du Canada" (Prévost-Lamarre, 1941, pp. 11-12).

To accomplish this he devoted his life to the work of making 29 exploratory journeys north along the Rouge as far as Nominingue, and Turgeon and beyond towards the present site of Mont Laurier, between 1868 and 1891, drawing up plans, travelling with and visiting groups of colonists to give advice and help, and spreading information about the Rouge Valley to prospective colonists in Quebec and abroad in France. His aim was "d'y mettre un colon à la place de chaque épinette" in the Rouge Valley, and he dreamed of the time when each of his settlements would be linked to St. Jérôme and Montreal by rail. With the aid of such a man and his associates the Abbé's Proulx, Ouimet and other "missionaires-colonisateurs" and taking into account the continuous, if often narrow, band of cultivatable land along the river, it is not surprising that the process of taking up land in the Northern Rouge was more organised and settlement

more stable than in the south of the valley.

The progressive establishment of settlements north from St. Jerome had been going on since 1850, St. Saveur was founded in 1850, Ste. Adele in 1854, Ste. Agathe in 1861 and St. Faustin in 1873. In 1864 the Report of the Minister of Agriculture (Sessional Papers, Province of Canada) stresses the need to build a bridge over the Diable in de Salaberry to reach "numerous settlers who are locating themselves to the west of the river". This is the first mention of settlers in this township and they were probably English speaking settlers associated with the Hamilton Brothers farm at the confluence of the Rouge and the Diable at Chute au Bleuets (now Brébeuf). This colony was an extension of the English settlement in Arundel and occupied Range IV of de Salaberry from the Rouge to Lac Brochet (Dury, 1939). In 1870 the Abbé Labelle planted a cross and said the first mass on the site of St. Jovite in Range V and by 1875 there were nine families from Ste. Adèle and Ste. Agathe in the township. In 1870 Labelle crossed the "montagne de la Repousse", the divide between St. Jovite and the upper Rouge, a route later followed by most of the colonists in the north of the valley.

The movement into the upper Rouge approximated much more closely to the idea of the unbroken advancing frontier of settlement than did that of the south. Although there were some squatters who went ahead and settled in the

forests before the area was surveyed and laid out in lots, and Fontaine (1879) reports many settlers round Lake Maskinongé (now Lake Labelle) before the land there was surveyed. In 1879 the upper valley had many people choosing lots and marking them by blazed trees and small clearings, (Sessional papers, P.Q., Report on Colonisation, 1879), but they were only one step ahead of official land granting and were quickly absorbed into the orderly framework of granted lots. The peopling of this part of the valley took place under different conditions from the early settlement in the south. The physical characteristics of this stretch of the valley, a relatively narrow meander plain, with well drained terraces along the valley sides and alluvial and lacustrine soils, contrast with the isolated basins of the south, and encouraged the formation of a continuous band of farmed land along its length and the continual easy movement of settlers towards the north, seeking new land once they had reached the Valley itself. Where settlers moved up out of the valleys into the rocky hills around them the pattern of granted land is much more similar to the south, with small pockets of settlement, expanding only slowly.

Another difference between North and South was that the North was settled after Confederation 1867 and the Provincial Government of Quebec took a far greater interest in colonisation than was formerly the case. Instead of unaided and undirected settlement there was considerable official

encouragement of the colonists. The surveyors of the new townships of Clyde, Joly, Marchand, Loranger, Turgeon, Lynch and Mousseau, all submitted reports on the areas they had been working on, extolling its riches, and occasionally warning of its difficulties. For example Turgeon (1878) writes of Clyde Township:

> "There we find an admirable valley covered with thick forests several miles in extent, containing maple trees, ash, elm and cedar, in the midst of which appear, as if by magic, numerous clearings in which extensive fields covered with a promising harvest prove the extraordinary richness of the soil" (Sessional papers, P. Q. p. 31)

and Fontaine in the area north of L'Annonciation mentioning its

> "vast pine woods and sandy and sterile soils" (Sessional papers, P. Q. p. 60, 1879).

Where there were settlers demanding new lands official surveying followed quickly and roads were subsidized by government funds. From 1871-1901 the Rouge Valley and the immense area of Ottawa County to the west were two of the main recipients of government aid. In 1885-86 although Chicoutimi and Saquenay received the most government money for colonisation works with $16,004, Ottawa County was second with $15,394 and Argenteuil third with $8,899.

Yet another reason for the swift but controlled expansion of the north of the valley was the change in world economic conditions by 1876 the effects of the commercial depression were being felt, the demand for timber was less

and its price fell. As a result commercial lumbering declined and the workers who had supported themselves by this industry turned to agriculture. At the same time there was a determined attempt by the Quebec government to make use of the economic crisis to try to attract French Canadians in New England industries back to Quebec by the offer of rail tickets and land. Up to this time Father Labelle had worked to establish small French Canadian parishes in the Orangist townships of Argenteuil, and had created them in Arundel, Montcalm, Wentworth and de Salaberry, thereby encircling the English townships of Grenville, Harrington and Arundel and meeting the French Canadian settlers in Papineau who had reached Amherst. After 1875 he began to look further north and directed all his energies to the placing of the growing numbers of prospective colonists on the land in the upper Rouge.

A picture of the swift advance of settlement may be obtained from the Reports of the Ministry of Agriculture and the Department of Crown Lands in the Sessional Papers of the Province of Quebec from 1860 onwards. In 1868 there were 15 families in the Township of de Salaberry, and the Land Records show that 22 lots had been granted in the western parts of Ranges I, II, and III, around the site of Brebeuf on the fine loams of the Rouge and Diable confluence. In 1875 the first settlers, about nine families from Ste. Agathe and Ste. Adèle, located on the site of St. Jovite in Ranges IV, V

and VI of de Salaberry.

By 1879 there were 150 families holding land in the townships and there were few lots still available for settlement. There were even some lots taken up in Grandison and in the next year the two townships were created a municipality.

The height of land between the Diable at the bridge at St. Jovite and the Rouge, although a considerable barrier, was quickly surmounted when information about the excellent land to be found in Clyde began to spread. The first land was taken up in the 1870's and it seems that pressure was being put on the government to aid settlement, for the survey of the township was ordered in 1877 "at the instance of certain zealous promoters of the settlement of our wild lands". (Sessional papers, P. Q., Report of the Commissioner of Crown Lands, 1877). The soil of the township was reported to be of good quality along the Rouge and it was suggested that two agents be appointed to deal with colonisation to the east and west of the Rouge respectively. The speed of colonisation in this part of the valley can be gauged by the fact that by 1879, only two years later there were a hundred families located on the river ranges of Clyde, which were completely occupied. The upland ranges were settled only much later.

By 1878 the tide of settlement had reached Joly and in that year the township was surveyed, the Ranges A and B along the river were marked out and several people had

taken up land. Father Labelle established a chapel and a group of settlers at Chute aux Iroquois at the same time, near the old forestry farm, Ferme en Bas. By 1882 there was a population of 300 including three families who had returned from the States, and more were locating outside the river valley around Lac Maskinongé (Lac Labelle) on land which was not marked out into lots. By 1885 12 plots of land were taken up there.

Further north in the valley the same pattern was found - the establishment of a chapel and a group of colonists by Labelle or his aides, which formed the nucleus of rural communities which grew swiftly through the accretion of new settlers who settled first along the river and only later moved into the uplands. L'Annonciation in 1880 had four families and by 1890 had 75. In 1880 the Jesuites started a farm on Lac Nominingue and by 1883 the first secular settlers had arrived. In 1885 it was reported that there were even 12 settlers in Lynch and Mousseau the furthest north of the settled townships, along the old lumber road.

Even in the north, which was characterized by single families taking up land which they had been unable to obtain elsewhere and farming it for a livelihood, there was very often a discrepancy between the area of land granted and that cleared. It is impossible to tabulate the respective areas as the census date for this developing region 1871 and 1901 is given for municipalities which changed their

boundaries, or were grouped together in different combinations from one census to the next. But the figures available suggest that the clearing of land was equally as slow as it was in the south. In de Salaberry and Grandison in 1881, out of 14,526 acres of land owned, only 2,401 acres Or 16.5% was cleared and cultivated. The Director of the Jesuites' establishment at Lac Nominingue the Rev. Father Martineau wrote in 1887:

> "the greatest obstacle to the colonisation of the township of Loranger is the possession of a great many lots by a small number of prospectors not fulfilling the terms of settlement. Some of these have 20 or 24 lots and have only established one family on the whole. Thus 85 lots which are the property of 6 individuals are occupied by 6 families only. Several others besides have taken one or two lots, of which they have never thought since. This is the great obstacle to colonisation here".
> (Sessional papers P.Q., Martineau, 1887)

Most of the settlers who located in the Rouge Valley in the section north of Brebeuf from 1871 onwards were French Canadian, (Fig. 13), de Salaberry and Grandison in 1881 out of a total population of 654 had 632 people from Quebec compared with 18 from the British Isles, 2 from France and 2 from the United States, the latter in all probability French Canadian in origin. By the end of the period in 1901 the ethnic balance was as shown by Table 7. It was only after 1914 that the anomalous group of Poles and Ukranians settled in Marchand.

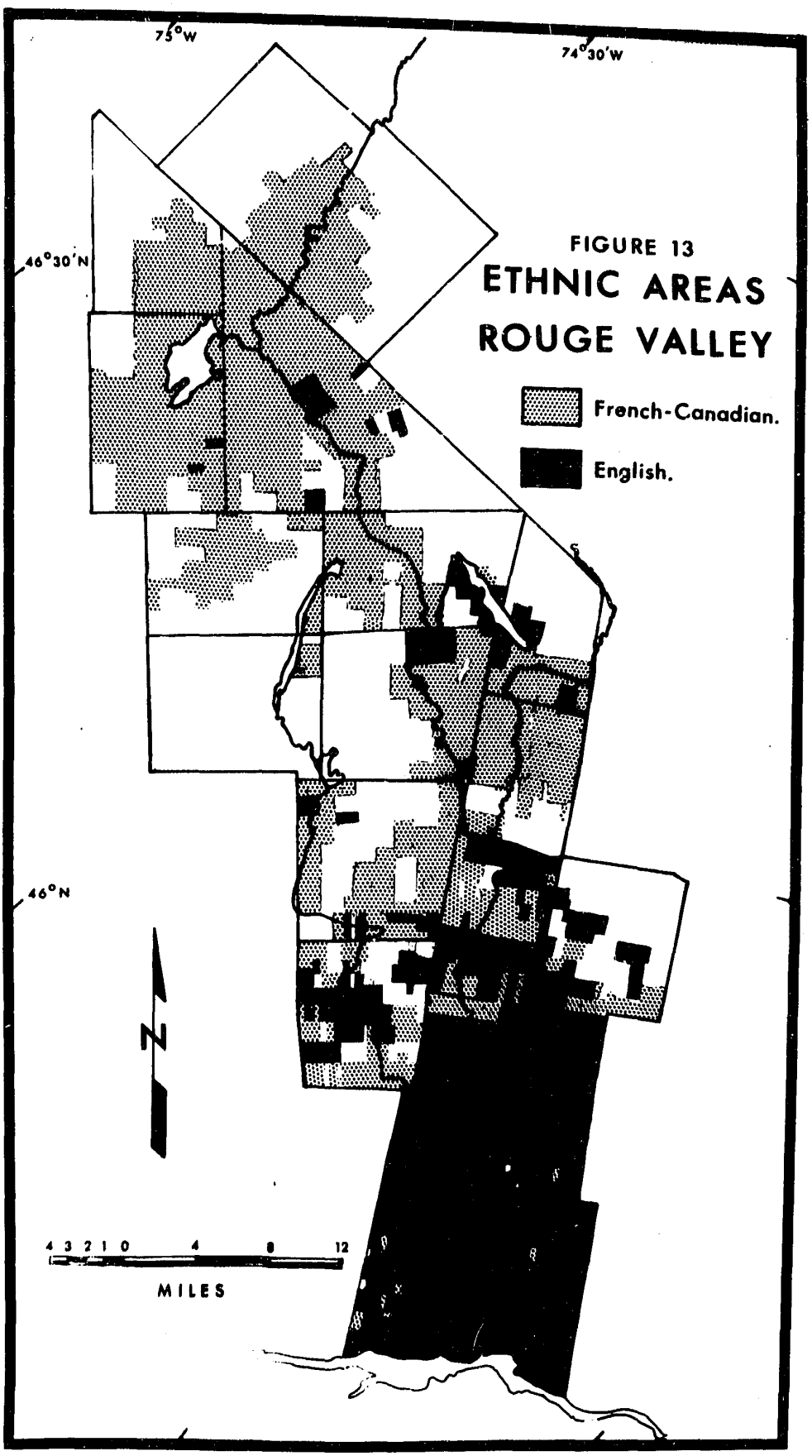

75°W
74°30'W
46°30'N
46°N
FIGURE 13
ETHNIC AREAS
ROUGE VALLEY
French-Canadian.
English.
N
4 3 2 1 0 4 8 12
MILES

Table 7 Racial Composition of Population 1901 (Northern Rouge Valley)

Township	French Canadian	British	Italian	Jewish	Indian & Métis
Clyde	493	14	-	-	12
Joly	897	43	-	-	22
Marchand	1,249	9	74	18	2
Loranger	203	7	-	-	-
Turgeon	484	2	-	-	-

(Census of Canada, 1901)

The large preponderance of French Canadians either from Quebec or New England, meant that there was an overall similarity in the form settlement took, beginning with a few settlers in the forests but soon organised into a village centre under the missionaire-colonisateur and evolving into a highly organised parish. Only in very few places were there isolated farmsteads unconnected with the central village, the exceptional solitary farms being found only in the uplands. The range system was found almost throughout and the regular siting of farm houses along the main range road was almost universal, unlike the scattered pattern in the south.

The immediate origin of the Quebec settlers was generally near at hand, a large proportion coming from the neighbouring counties to the north of Montreal. Charette (1953) groups the families which settled at L'Annonciation

by origin into six main bodies, of which the largest, comprising 187 families, is drawn from St. Jérôme, Ste. Agathe, Ste. Adèle, St. Jovite and the other parishes of the Laurentians who moved into the Rouge as a direct result of the activity of Father Labelle. The second group of 42 families came from the Ottawa Valley and the Lachute region, and the third from Montcalm, Joliette and L'Assomption counties (24 families). Smaller numbers came from the rural areas around Montreal (19 families) and the Richlieu Valley (14 families), while the larger towns of Quebec provided 57 families of which 34 came from Montreal. The movement out of the urban centres corresponds with the years of depression and unemployment, and is particularly strong in 1870-1876. Only 19 families came from beyond Quebec, four from the United States, four from France, four from Italy, two from Belgium and five of unknown origin. It can be seen that the numbers decline in proportion to distance and that the peopling of the region was largely the result of short migrations, in contrast to the Rouge townships in Argenteuil which had many settlers who were immigrants from the British Isles.

The rapidity of population growth in the northern part of the valley is a surprising contrast to that of the south. At the beginning of the active colonisation period in 1871 there were 15 families or 75 people in the northern Rouge area, and the census for that year suggests that all

of these were Indians. By 1881 de Salaberry and Grandison had 130 families and 654 people, and by 1891 the population was growing rapidly and continued to increase even after 1901.

Table 8 Population - 1891 and 1901 (Northern Rouge Valley)

	1891		1901	
	Families	Total population	Families	Total population
De Salaberry and Grandison	198	1,144	309	1,752
Clyde)	137	736	107	519
Joly)			197	962
Marchand	73	414	254	1,352
Loranger	-	-	103	494
Turgeon	-	-	49	205
Lynch and Mousseau	-	-	-	-
Totals:	308	2,294	1,019	5,285

(Census of Canada)

The reasons for this swift increase may be found in the sustained flow of settlers from the more densely settled French Canadian parishes in the rest of Quebec, and from New England, aided and encouraged by the government and individual enthusiasts, which continued until the alternative attractions of the Clay Belts became more important in the 1920's, and in the abnormally high birth rate of the Quebec rural population in the nineteenth century. It may also be argued

that the organisation of settlement was better than in the south, for the presence of a priest and the setting up of a familiar parish system militated against the feeling of isolation common among frontier settlers. It appears that the failure rate among the French Canadian settlers in the early years was much lower than in the English speaking townships (Charette, 1953, Godard, 1955) because of a much greater attachment to the land and a willingness to put up with difficult conditions and a taxing way of life.

Communications

The catalyst which encouraged settlement in the backwoods throughout Quebec in the nineteenth century was the provision of communications, which not only allowed access to the new cantons and ensured the availability of supplies, but also helped to disperse the sense of isolation which discouraged many pioneers. Official attitudes varied through the century and were markedly different in their effect in Quebec before and after Confederation. Up to 1867 there was little systematic government aid for the construction of colonisation roads in the Laurentians although there was a growing awareness of the need and occasional grants were made. After 1867 the government of Quebec took a more active interest in colonisation and gave annual grants for the construction, improvement and maintenance of roads in the new areas, for the specific purposes of attracting settlers.

In 1810 when the first settlers located in Grenville there was only a footpath as far as Chatham to the east and it was not until 1830 that the road from Grenville to Hull was opened, (Thomas op. cit. 1896), although there had been a steamer service from Hawkesbury to Bytown since 1823. It was however, relatively easy for settlers to reach the front ranges of Grenville by way of the Ottawa and the greatest difficulty was the inaccessibility of the back country. In 1832 Bouchette notes only one road penetrating the uplands along the east branch of the River Calumet as far as the seventh range, with several offshoots linking the scattered farms of Avoca. He comments that they are all "very bad", and it appears that this was simply a track cut by the colonists themselves.

By 1850 the Sessional papers of the Legislative Assembly of Canada contain reports of letters from private individuals which draw attention to an apparent lack of Government aid to settlers:

> "in order to settle the Waste Lands, we must preserve and prevent our population from emigrating; we must facilitate his access to those lands by the opening, and if possible the keeping in repair of the High Roads or principal ones"
> (Langevin, Agriculture Society of Lower Canada: in Appendix to Journals of the Legislative Assembly of the Province of Canada, 1850).

Even in 1862 the Report of the Commissioner of Crown Lands also suggests that government spending on such roads is inadequate. Noting that in Argenteuil in 1862 only two miles

of new road were opened the report complains that the money is dissipated on penetrating the "Laurentian Chain" and that communications within the Rouge and neighbouring valleys are poor. Although the road northwards from Grenville had by this time reached Range III of Harrington it was very rough and only passable to wheeled vehicles in summer. The low standard of the roads made distances more formidable and it was suggested that the route down to Grenville and thence down the Ottawa Valley to Montreal was too long and that a cross-country road parallel to the Ottawa and 20 miles north of it, crossing the other roads and tying them into one system would be most useful. This is interesting in that the S.T.A.R. report (1964) over a hundred years later suggests the same measure. The suggestion was never adopted and roads were extended in a very slow and piecemeal fashion, local inhabitants working on them periodically and receiving small government grants.

The effect of a new road was generally immediate and there are many examples of the sudden growth of population and expansion of granted land following the opening of a track. Government grants were made to help construct the road from Grenville to Arundel and in 1864 it was estimated that since such aid was given the population in the area through which the road passed had risen by 600-700 and the value of real property had doubled within five years. In the following year it was said to be "the great highway which

leads from the Ottawa River to the settlements of Harrington East and West; it also leads to Wentworth, Arundel, de Salaberry and Wolfe", (Sessional papers, Province of Canada, 1865).

By 1867 this piecemeal development had produced a scanty network of roads in the southern part of the valley, extending from Grenville to Arundel with a branch from Dalesville to Harrington, a spur along the Maskinonge and linked only in 1867 by a bridge at Rivington to the Government road (now lost) into Avoca, (Fig. 14). Thereafter the Government records show that very little new construction was carried out, although private or municipal works might have been undertaken. The broken terrain and scattered form of settlement makes this provision of roads seem inadequate and there were probably other tracks, now lost, cut through the brush to isolated farms such as that of James MacArthur, south of Beavin Lake in Harrington who in 1859 had cut a track through the forest to the nearest grist mill at Dalesville 26 miles away.

The 1870's when the north of the valley was settled were the years when the government papers record the change in public spending on communications in the Rouge Valley. The activities of Father Labelle included a campaign for more roads for the Rouge and similar colonisation areas, and from this time to the end of the century this pressure helped to induce Government spending. Part of the effectiveness of Labelle's campaign was the demonstrable success

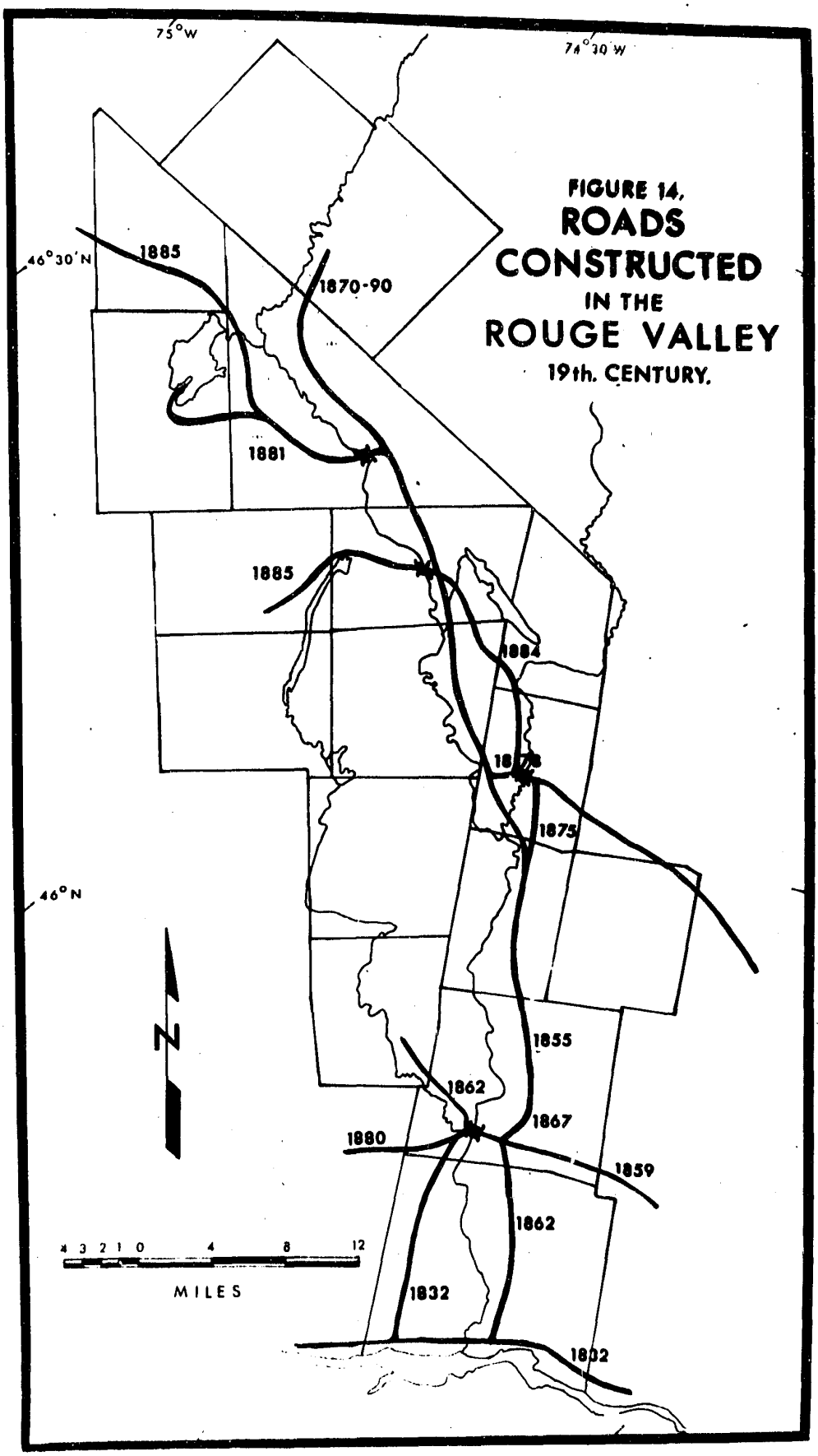


FIGURE 14.
ROADS CONSTRUCTED IN THE ROUGE VALLEY 19th. CENTURY.

of the roads. In 1871 $2,500.^{00} was spent on the road from St. Saveur across Beresford to de Salaberry and thence to the Rouge in Clyde Township; by 1874 a bridge was constructed across the Diable and in 1878 the road had reached within one mile of the de Salaberry/Clyde border. The following year, after the completion of the road it was reported that all the river lots in Clyde were taken up and that 100 families lived there although the previous year there had been only very few families. Encouraged by this there was a grant to improve the old lumbering road of the Hamilton Brothers which stretched for 40 miles towards the north from Clyde and was used by many colonists. In the 1880's many spurs were added to this road; one to the head of Lac Labelle in Joly, and another crossing Marchand and Loranger to reach the sandy plain around Lac Nominingue, it was written "This road, by the quantity and quality of lands which it opens to colonisation is probably the most important of all in the North" (Sessional papers, P.Q., 1882-3).

The advance of the oecumene aided by these roads seemed likely to continue northwards. Settlers went north into the forests using existing lumber roads and tracks and their position was consolidated and their numbers increased as Government financed roads were built to connect them with the older settled areas. In 1885 for example 18 settlers had located along the old lumber trail 12 miles long linking the forestry company's Ferme au Milieu (L'Annonciation)

with the Ferme en Haute in Lynch Township, "but if other roads were built the township of Lynch would soon be settled" (Sessional papers, P.Q., 1885). In 1886 improvements were begun on this section of road using government funds, and in 1890 the Montreal Colonisation Society contributed $200.^{00}$ towards the construction of a road to the north east of the river in Mousseau Township. In this case however, the optimistic hopes of the promoters were not justified and Lynch and Mousseau advanced only very slowly in the 1890's and land there was only granted piecemeal over a period of 40 years. By this time the positive attraction of reasonably good communications was not enough to offset the poverty of the land, in the case of Mousseau a sandy outwash plain intersperced with till covered hills, especially when the Clay Belts became a counter-attraction.

The colonisation railways, dreams of Father Labelle, reached Huberdeau in 1897 and Labelle in 1893 and were not extended beyond these points until after 1901. Their effect upon the primary taking up of land was not very important and a discussion of their effects on the geography of the valley belongs more properly to a later section concerned with the process of economic development within the Rouge Valley.

In conclusion it can be seen that colonisation in the valley was associated with two distinct areas settled in different periods. The southern section from Grenville to

Brébeuf saw primary settlement taking place from 1831 to 1871 in the form of discrete and isolated farms, in part the result of broken topography, and in part of the ethnic heterogenity of its settlers. Coming from many parts of the British Isles, Canada and America the pioneers in the south lacked cohesive organisation, which was not remedied by government direction, as can be seen from the piecemeal development of the road network. Also lacking very often were frontier skills and traditions of pioneer farming on marginal land.

In the north the spread of settlement began later but was characterised by a strong and continuing movement north along the valley initiated and maintained by the concerted action of Church and Government, and seen particularly in the swift provision of roads to open up new areas. Consisting almost wholly of French Canadians impelled by a desire for new land and encouraged by "missionaires-colonisateurs" to locate in groups and to create a parish system which reproduced their traditional milieu, the settlers showed a greater organisation of village and rural life at an early date and a greater tenacity in the face of difficult conditions. Although the economic bases of life in the valley in both north and south have been the same, differences in traditions have resulted in slightly different emphasis and in success. Even more noticeable are differences in cultural landscapes resulting from this ethnic division.

C H A P T E R VI

WAY OF LIFE 1831-1901

Pioneering.

The difficulties which faced the original settlers in the forests of the Laurentians were very great and called forth surprising resources of endurance and skill, born of the determination not to fail in their enterprise. Certainly the physical conditions of the land where they located required both of these attributes and the first feelings of the settlers must have been of discouragement. Faced by the hummocky and broken terrain of most of the Rouge area it is not surprising that the first lots were taken up in the basins of lower land or along the rivers, though even here there were considerable difficulties, for large parts of the Harrington Basin were covered by cedar swamp, and there was the danger of spring floods in the upper part of the valley, especially near the Rouge-Diable confluence where the river meandered slowly with very slight gradients. In the south particularly, lowland was relatively rare and in the west of Grenville Township the "excellent patches of good land clothed with hand timber ... are ... by no means so extensive as to make up for the stony and unculturable parts of the township" (Bouchette, 1832).

Even more forbidding was the forest which covered the entire region for it not only made immediate access difficult but was an obstacle to farming which had to be removed labouriously before the first crop, which was to support the family in its first year on the lot, could be planted. Most of the settlement was by single families with no outside help and the clearing had to be done almost single handed. The account of Wilfred Lapointe of his feelings on first travelling to St. Jovite to take up land there illustrates the doubts but also the determination of the settlers:

> "Nous étions en pleine foret et il fallait lever la tête pour voir le soliel un découragement s'empare de moi. Je suivis, bien triste, le guide... mais tout de même je n'avais pas l'idée de retourner a Ste. Thérèse. Le soir je dis à mon frère Jules. Nous allons importer avec nous tous ce que nous avons et nous irons sur notre lot. D'autres ont réussi on réussira. Ma resolution était prise...." (Dury, 1939, p. 52).

The first selection of a lot was very often made at the land office before any journey into the region was undertaken and the amount of knowledge about the terrain, soils and agricultural capabilities of the area chosen was often very small. There is some evidence however, that some prospective settlers travelled to the Rouge to select lots before filing an application. This was especially true of the settlement of the northern part of the valley when roads were being built northwards. M. Belliveau, a

settler in Clyde, is said to have sheltered 109 prospective settlers looking for land in February of 1878 alone, many of whom located in the township. The usual pattern of settlement of the individual family was for the men to go out in the spring to commence clearing and for the women and children to follow later. For example the first settlers in the Rockway Valley, Edward Neil and Edward Sinclair arrived in the valley in spring 1877 and built cabins from the logs left by clearing. In September of that year their families came to join them and were installed in the houses for the winter.

The first task which faced the colonist was to clear an area of land of forest in order to plant a first crop of oats or potatoes among the stumps. The timber which he felled, although of considerable market value, was unsaleable because of the inability to transport it to markets, and also because until 1910 it was forbidden for the settler to sell timber from his land, or to cut it for any purpose except clearing, building houses, barns or fences, or for fuel. As a result much saleable timber was lost. Many ostensible settlers evaded the law, cut over the land, sold the timber and abandoned the lot. There is some evidence from the Terrier of the Province that this was quite common for in many cases the first payment is made and no others, and the records show that the grant was revoked because the statutory improvements were not made. Other

settlers converted the wood into a first cash crop to support themselves until they could start farming, by making potash. Where there was agriculture the wood was burnt and the ground broken by a plough or by hand and a first crop of oats or buckwheat planted among the stumps. In 1857 James McArthur took up 200 acres in Harrington Glen in Range X of that township. By the following year he had cleared a small area, hoed it by hand, for he did not acquire a team of oxen until 1859, and planted six bushels of oats and ten of potatoes. (Thomas 1896) While the clearings were small frost was a hazard and in 1868 William Staniforth in Arundel was finding it difficult to grow buckwheat and corn. With the expansion of clearing this danger, which was the result of forest cover, was lessened. Geiger, (1950) provides corroboratory evidence for this effect, for the clearing of small areas in the forest leads to greater insolation as the sun penetrates to the ground surface during the day, while the still air leads to increased radiation at night, giving rise to extreme diurnal range of temperature and the danger of frost. As the clearings become larger the wind penetrates to the lowest air layers, the air next to the ground is in motion and the danger of frost is lessened as the daily range of temperature becomes lower.

The rate of clearing the land of forest was often slow, for example Colin Fraser who in 1866 had bought 200

acres in Range II Harrington, had by 1896 after 30 years cleared only half of it. This slow growth of the cleared area is not surprising in view of the lack of man power and the almost total ignorance of pioneer skills among some of the settlers. William Thomson of Arundel admitted "none of us knew anything about bush farming and consequently worked to great disadvantage; but we learned it all in time, so that we succeeded in making a living and clearing up the farm" (Thomas op. cit., 1896)

The French Canadian settlers in the north of the Rouge were often better fitted for the pioneer life, for Father Labelle's work was largely among the farming population of Quebec and he recruited as settlers many of the children of farmers who were skilled in agriculture and clearing land, for they could best endure the "rigeurs du travail, et de la misère" of backwoods farming, (Labelle, 1879). In his opinion this early training made the most successful pioneers: "faconnée à la vie dure et pénible des champs, la race Canadienne possede des aptitudes particulières pour coloniser" (Labelle, 1888 p. 11).

Agriculture

Table 9 shows the crops grown in different parts of the valley in the period 1831-1891 during the era of colonisation. It will be seen that the hardy crops such as oats, buckwheat and potatoes predominate for they are better

Table 9 Crop Production, Rouge Valley, 1831-91
(in bushels)

Year	Wheat	Barley	Oats	Rye	Legumes
Grenville					
1831	9,497	150	2,280	-	100
1851	All grains 29,648 minots				
1861	All grains 71,100 minots				
1871	1,956	202	33,024	10	1,820
1881	1,820	464	44,315	12	2,102
1891	2,628	264	53,185	-	1,996
Harrington					
1851	All grains ,3,101 minots				
1861	All grains 8,825 minots				
1871*	677	412	12,105	104	606
1881	807	293	18,089	-	1,162
1891	1,097	401	20,714	-	1,557
Arundel					
1881	610	507	15,002	49	732
1891	388	465	22,214	-	1,701
De Salaberry & Grandison					
1881	250	710	10,100	210	936
1891	1,008	1,238	19,855	93	2,198
Clyde & Joly					
1891	377	722	15,643	48	1,504

* Census figures of Harrington, Arundel, de Salaberry and Grandison combined.

Table 9 (continued)

Year	Buckwheat	Corn	Potatoes	Roots	Hay (tons)
Grenville					
1831	-	2,000	15,000	-	-
1851	-	-	17,899 minots		1,741
1861	-	-	51,186 minots		1,988
1871	1,269	2,951	46,282	469	2,798
1881	3,526	2,975	29,594	3,794	3,034
1891	2,787	2,273	34,692	242	4,797
Harrington					
1851	-	-	1,479 minots		-
1861	-	-	5,120 minots		-
1871*	489	231	17,445	4,504	662
1881	1,522	428	8,569	4,880	913
1891	2,283	246	8,168	675	1,505
Arundel					
1881	2,857	216	7,539	759	1,015
1891	3,377	92	12,575	30,955	34,041
De Salaberry & Grandison					
1881	3,342	51	4,636	3,957	390
1891	3,563	98	14,274	1,304	1,692
Clyde & Joly					
1891	3,456	478	11,838	2,961	1,558

* Census figures for Harrington, Arundel, de Salaberry and Grandison combined.

adapted to a short growing season, light soils and poorly prepared ground than any of the others. Wheat forms a very small percentage of the total grain crops and only has an important place in Grenville in 1831 where it makes up 79% of the total grain harvest with oats second with 19.75%, and barley third at only 1.25%. By 1871 wheat accounts for only 5.5% in Grenville, and oats leads, comprising 93% of the grain harvested. This change corresponds with that in the rest of the province as described by Parker, (1957) in the 1830's and is thought to be the result of pests attacking the wheat which was already weakened and unhealthy because of repeated cropping after only one year fallow and no manure. In many areas, including the Ottawa Valley and the Laurentian fringe, wheat was replaced by oats or barley which were more suited to climatic and soil conditions. Oats has been the main grain produced in the Rouge Valley because of its adaptation to cool and damp conditions, and its high yields. Bouchette quotes yield averages of 10 bushels per acre for wheat, 15 for corn and 20 for oats. But even barley had outstripped wheat production in de Salaberry by 1881 and in Arundel by 1891. Rye was grown rarely and in small amounts through the nineteenth century in the Rouge.

Buckwheat, peas and beans were all grown in varying quantities but were never very important and the small amount of corn was grown as winter fodder and dried on

racks previous to storage. One of the most important crops for the pioneers and remaining so for their descendents has been the potato. At first grown on the small cleared areas as a subsistence crop it was valuable because its yield per acre was very much greater than that of any other crop and could support a family through the first hard winter. Later as the cleared area of the farms grew and other crops were sown to provide food, the potato remained important because of the suitability of the light sandy soils found in many parts of the valley for its cultivation especially on the outwash plains near L'Ascension in the north and around Lac Nomininque. With improved communications the crop was marketed in the towns of the Montreal plain.

Hay, turnips and other root crops were grown as fodder in large quantities at an early date especilly in Arundel, because stock rearing, with the emphasis on dairy cattle, has always been important in French Canada, and continued to be so on the frontier. All of the early sources of information for the Rouge area show that once the initial lack of stock on the pioneer farms was overcome the numbers of cattle in particular increased rapidly. In 1832 Bouchette wrote of Grenville "This township appears to be particularly adapted to the breeding of cattle of all kinds, for all that have been introduced have thrived amazingly", and at that date, 20 years after the first

settlement, there were 500 cattle, 250 sheep and 375 swine in the township. Of its working animals oxen outnumber horses, there being 64 and 59 respectively in 1832. Arundel in 1861 had only five cattle, seven sheep and three horses but this was only five years after the first settler located there and at that time out of the 600 acres granted, only 45 acres were cleared, (Drapeau, 1863), of which 22 acres were under pasture and 23 under crops. Beasts were superflous when the cleared area was so small but with the increasing areas cut over and available as pasture, in many cases the best use that could be made of the land, growth in the numbers of stock was very swift. By 1896 the township had many thriving farms and large numbers of stock. That of A. B. Filion east of the Rouge, is quoted by Thomas 1896 as having 500 acres, half of which was cleared, and 50 cattle, 40 sheep and 11 horses, as well as 60 acres sown with oats. In 1891 Arundel township had 594 milch cows, 452 other cattle, 713 sheep and 215 swine. The importance of the dairy industry can be gauged from the fact that 46,465 pounds of home-made butter were produced in the same year.

At first the farming was for subsistence only, until enough of the lot was cleared to produce a surplus, and until the roads had been improved to enable wheeled vehicles carrying grain, potatoes and butter to markets to travel on them. Before this stage was reached the only cash income

available was that earned by winter work in the "chantiers", or lumber camps of the forestry companies. Although this was rarely the primary reason for settlers moving into the forests, it may have been a subsiduary one and many men supplemented the family income by the dual occupations of farming and lumbering. From Rockway Valley in the 1870's and 1880's there were men who went as far as Labelle and Mt. Laurier to work in the lumber camps of W. D. Graham and William Staniforth of Arundel, for wages of $10-$15 a month.* With cash incomes so small it is not surprising that many of the families' clothes were made on the farm from locally available wool, which was spun and woven at home, that the diet was supplemented by meat provided by hunting.

The first shelters erected by the settlers have generally gone unrecorded, but the first permanent houses were nearly always of logs, this being the material ready to hand and needing a minimum of preparation before use, and a minimum of skill and craftsmanship in construction. In 1861 Arundel, which was in the first stage of settlement, had only six houses, all of logs. Grenville in 1861, although it had some more sophisticated buildings with eight stone houses and nine frame houses, still had 325 log houses. One of these still stands in Grenville village (Fig. 15) and is constructed of squared timbers with rough morticed cornering, and an assymetrical plan which suggests

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* Personal Communication, Mrs. M. A. Langdon, Rockway Valley, August 1966.

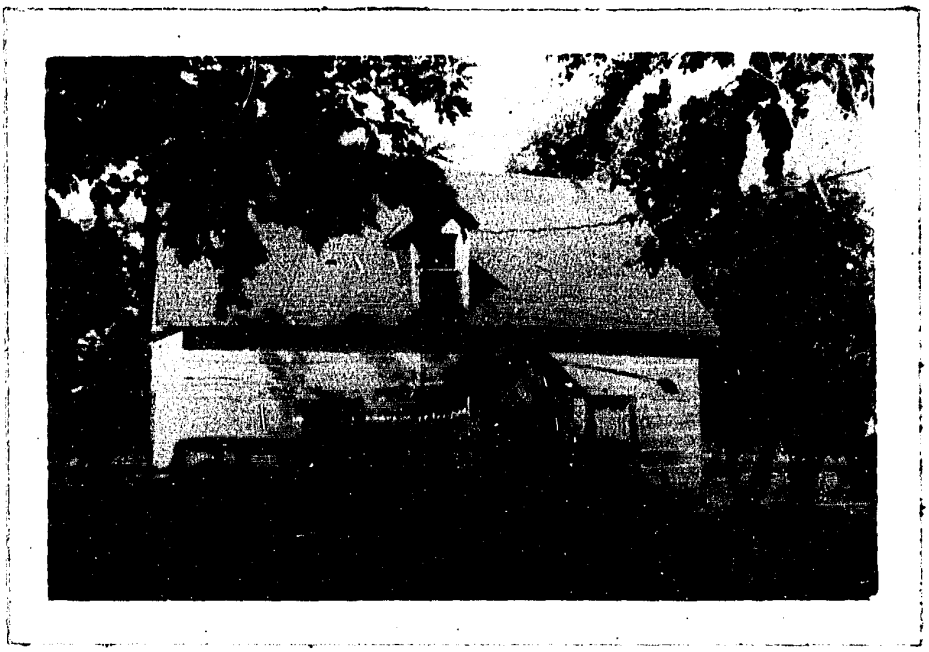

Fig. 15
House of adze-squared timber, Grenville village.

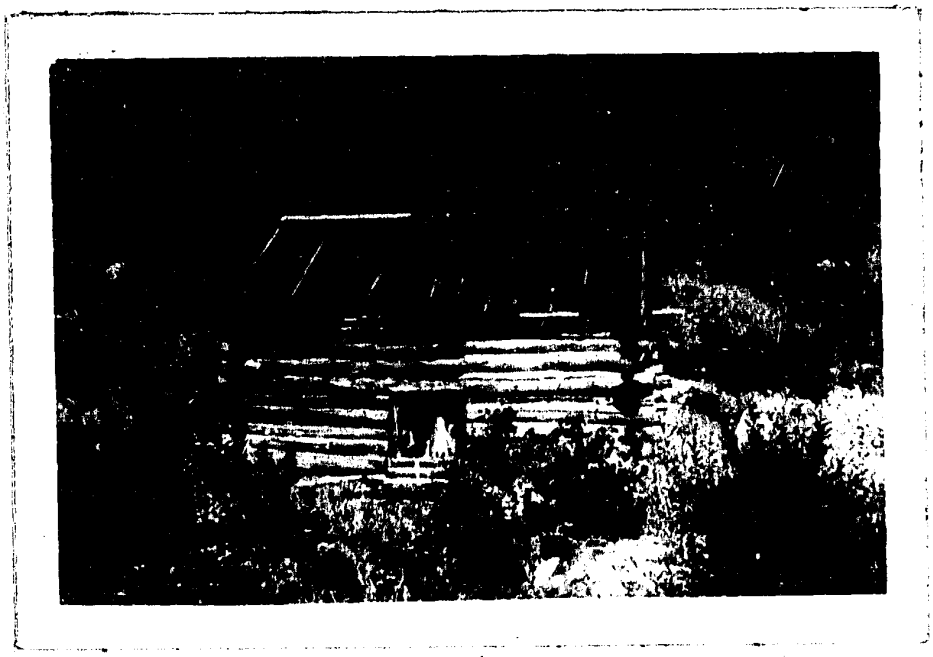

Fig. 16
Log barn with top-notched cornering, Clyde Township.

an early date of building. The only surviving buildings made of whole logs are the small barns which are found scattered throughout the valley, (Fig. 16).

It is not until 1891 that the Census of Canada again provides information on the materials used in buildings and the numbers of storeys and rooms of houses. Grenville Township, excluding the village of Grenville, had 349 houses of wood, 11 of brick and 9 of stone. All of Arundel's 119 houses were of wood, though whether of log or frame construction is not stated. St. Jovite (the census area including de Salaberry and Grandison) has 188 houses, 185 of which were of wood and the remaining three of brick, a brickworks having been set up at St. Jovite in 1879. In the same area are four 'shanties' almost by definition small structures, roughly constructed from logs and probably inhabited by woodcutters, or farmers in newly settled parts of the township. Clyde and Joly together have three such buildings and Marchand two, all their other houses being of wood too. From a study of the early buildings, both houses and barns, which survive, it appears that the French settlers of the north were much more skilled in log and square timber construction than were the English speaking settlers of the south. This phenomena will be discussed later, (see Chapter IX)

Industry

The development of industries was a much later

stage in the history of the valley and there was generally a lapse of some years after the first settlers established themselves before small local industries grew up. They were all dependent upon local materials, power and demand, and served a very limited local market in regions relatively newly settled and isolated from alternative sources of supply. At first even the most necessary services such as grist mills were lacking for the pioneers, and long journeys had to be made to the nearest ones. The problem was more acute among the English-speaking settlers of the southern part of the valley, for the individual farms were scattered and there was often no village centre where the mill could be conveniently situated to serve the largest number of farmers. Although the first mill in the region was opened near Grenville, in the Ottawa Valley, in 1838, others followed only very slowly. That at Harrington opened in 1885, 50 years after the first settlers arrived and it is significant that this is an area of dispersed settlement. In Arundel the first recorded grist mill was built in 1884, 27 years after the first settlers. Among the French settlers of the north such facilities were provided early in the village centres and were the outcome of the more highly organised and nucleated settlement there. St. Jovite had its first grist mill before 1876, and L'Annonciation in 1890 very soon after these areas were opened up by farmers. In all eight pre-1900 grist mills are recorded in the valley,

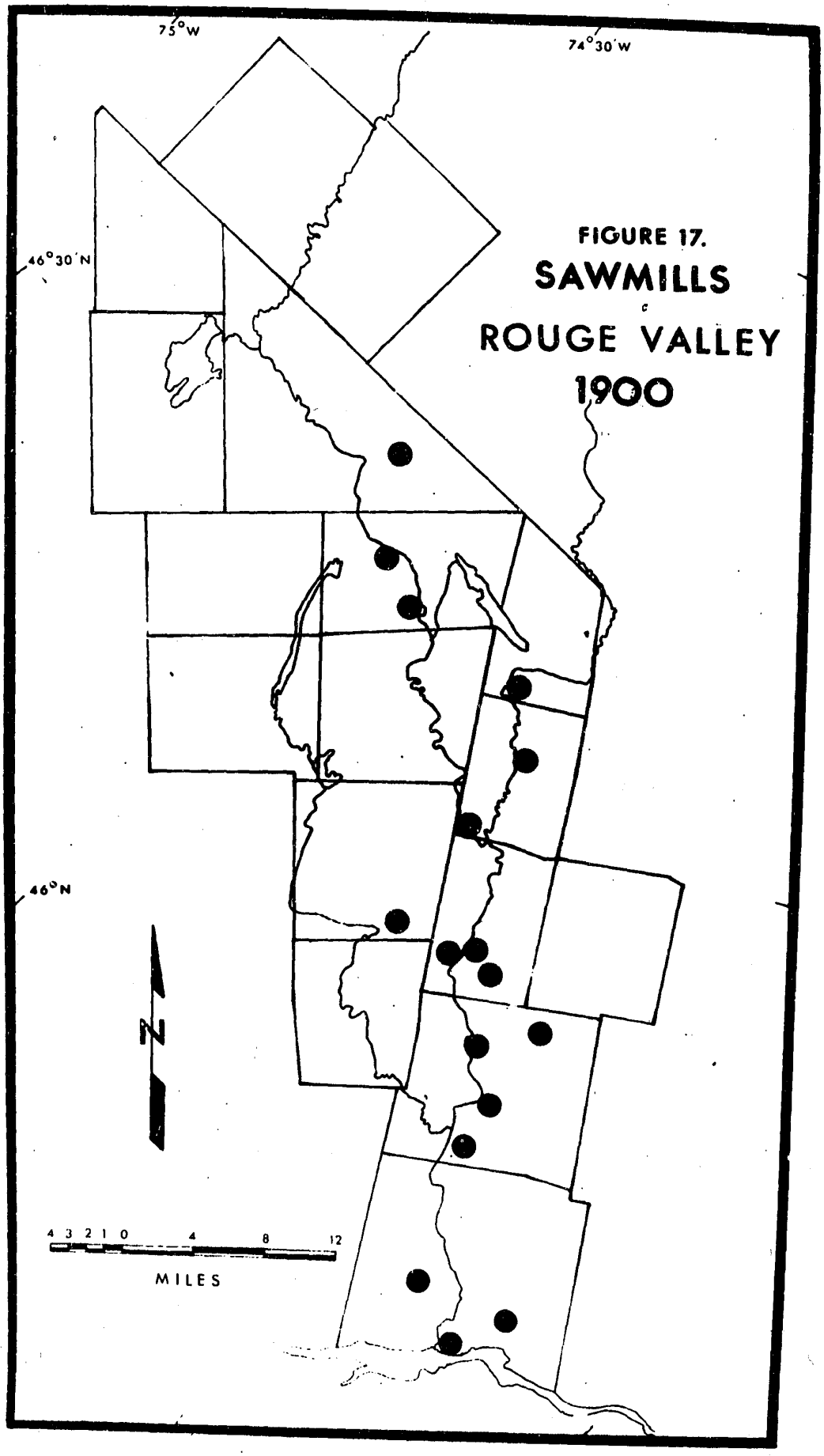

FIGURE 17.
SAWMILLS
ROUGE VALLEY
1900

located at a distance of 10-15 miles from each other.

More numerous were the small lumber mills which were established along the Rouge and its tributaries, again serving local needs, (Fig. 17). They did not belong to the large lumber companies such as the Hamilton Brothers which held cutting licences within the Rouge watershed, for all that timber was floated down the Rouge and sawn or pulped at the large factory mills at Grenville and Hawkesbury, but were owned and operated by small land holders or merchants who manufactured construction materials: boards, planks, door and window frames, shingles etc., for local use. The suitability of conditions for the growth of this local industry was obvious, the raw materials were all around in super-abundance, water power was readily available from the many streams, and as the population grew and more settlers came and built houses and barns and fences there was a steadily growing local market for sawmill products. By 1900 there were at least 17 small sawmills in the region all situated on the rivers, particularly on the falls such as those at Chute au Iroquois (Labelle), except for one in the Harrington Basin which obtained its power from a dammed stream and mill race. From their beginnings with only a circular saw cutting beams and planks many of the mills were improved by the addition of planing and shingle making equipment, including that of the mill at Avoca, added in 1882, or by the establishment of small workshops producing doors and panels

such as that of M. Boileau at L'Annonciation, built in 1896 (Charette, 1953). They often employed many men and the sawmill of Robert McIntyre of Calumet in 1895 produced 1½ million feet of timber in a year, (Thomas, 1896). This was however, one of the more advanced establishments and had been converted to steam power in 1870. Most of the mills further up the valley remained quite small and dependent upon water power until the end of the century.

There were other small factories or workshops producing construction materials from local resources before 1900 but they generally had a short life. The brickworks at St. Jovite started in about 1880, was not really a success, for in spite of clay of good quality the moulds used were poor, and the lack of a cheap means of transport for the bulky end-product limited their sale, (de Montigny, 1896). This was the main reason for the stunted growth of many of the embryo industries in the region. More successful but limited in extent was a small hand wood-working industry around St. Jovite in the 1880's and '90's which produced white wood shovels, red-wood baskets, and sabots for sale in Montreal, (de Montigny ibid.). Such domestic industries were often practised by individual farmers in the winters to add to their income, and were never very important.

The most important of all the home industries and second only to sawmill products in value was the

production of butter and cheese, much of it for local consumption, particularly at first, but later for sale in Montreal and its surrounding towns.

Table 10 Butter and Cheese production 1891 (Rouge Valley)

Township	Homemade Butter (lbs.)	Homemade Cheese (lbs.)
Grenville	90,373	276
Grenville (Village)	3,920	-
Harrington	41,180	695
Arundel	46,465	175
St. Jovite (Grandison, and de Salaberry)	28,231	-
Clyde and Joly	22,610	-
Marchand	9,687	-

From Census of Canada, 1891.

The production of butter on the farm was well established by the end of the century but it was not until the period 1901-1941 that it was exported in significant quantities to the industrial towns. It was only later that cheese factories were built in the valley.

Other industries were very localised, dependent on the occurrence of a particular resource, and sporadic in production, such as the building granite which was quarried for a few years around 1850 near Calumet, or the asbestos

which was mined for a short time near Pointe-au-Chêne in 1896. Apart from these, local services were the only other industries and blacksmiths, carriage makers and tanners were found throughout the region.

The way of life of the pioneers in the Rouge Valley in the nineteenth century and the progress which they made can be paralleled in many other areas, such as the Clay Belts, where settlement has penetrated the forests. Hampered by difficult physical conditions and lack of communications their first years were ones of great difficulty and discouragement, their houses were roughly built, their clothes of homespun, and their own land the only source of food. As the forest was cleared these conditions were ameliorated, for government aided roads helped to end isolation, while the farms with their growing herds of cattle and fields of fodder crops and hardy grains began to provide a small surplus. Small local industries grew up serving only the immediate neighbourhood and using the products of the forest and the farm as raw materials. Prevented from growing larger by the still inadequate means of transport these mills and creameries remained very small until the changes brought about by the railway and the truck in the twentieth century, and it was only then that the Rouge began to look out towards the older settled areas.

C H A P T E R VII

DECLINE 1901-1966

At the beginning of this century it appeared that the settlers of the Rouge Valley had surmounted their initial difficulties, and that the area was entering a period of modest prosperity. Until 1921 colonists were still entering the valley, though at a slower rate than before, land was still being taken up for agricultural purposes in Mousseau, Lynch, Turgeon and Loranger. Thereafter there was a steady decline in the amount of land farmed in the valley and in the agricultural population.

By 1893 the Northern Colonisation Railway had reached Labelle and was extended as far as Mont Laurier in 1909, while further south the Montfort and Gatineau Colonisation Railway, having been built to Huberdeau in 1897, was continued as far as St. Rémi d'Amherst in 1926. Theoretically these lines were intended to facilitate the movement of people and goods between Montreal and the Laurentians and to end the isolation of the backwoods cantons. This relatively cheap transport did encourage mining development in the Rouge and the export of timber and agricultural produce, so that during the first years of the operation of the railway local industries became quite important, only to decline relatively rapidly in the 1930's and 1940's.

Population

The numbers of inhabitants of the valley continued to grow until 1911, and following that date there was a recession during the 1920's and 1930's, followed by a slight rise in the 1941 census figures. Since then the population has remained remarkably stable at about 14,500. Table 11 shows the distribution by townships and villages from 1901 to 1961 and reveals certain trends. Although most of the townships show a peak in 1911 or earlier the two northernmost continued to grow for a longer period because it was there that colonisation was still going on. L'Ascension (Lynch and Mousseau Townships) had its greatest number of inhabitants in 1921, while Turgeon on the northern limit of settlement, continued to grow until 1951. Where figures are available separately for villages it can be seen that they have continued to grow in numbers up to the present at the expense of the rural areas. The only exception is Calumet, which having no industries except the C.I.P. pulp factory and mill acts as a residential village for workers employed in Grenville, or at Marelan, (Dumont and Martin, 1963). The internal factors responsible for this decline in rural population are the physical characteristics of the valley, especially the limited amount of good agricultural land. The reports of the Government surveyors and pamphleteers were found to be unjustifiably enthusiastic about the agricultural capabilities of the area, and many of those who settled there were disillusioned by the small returns they received for their labour on the land.

Table 11 Population 1901-1961 (Rouge Valley)

	1901	1911	1921	1931	1941	1951	1961
Grenville & Augmentation	2,404	2,558	1,624	1,794	1,893	1,883	1,847
Harrington	1,097	538	600	613	689	642	688
Arundel	1,323	1,479	1,434	506*	471	516	456
Huberdeau*	-	-	-	1,070	1,146	1,230	1,118
Montcalm	-	401	214	291	325	300	251
Grenville (village)	495	633	701	719	737	1,069	1,330
Calumet (village)	-	-	682	675	705	719	439
Brebeuf	-	325	340	308	384	469	410
De Salaberry & Grandison	1,752	1,742	1,244	1,336	989	948	528
Clyde	519	614	602	628	629	631	541
Joly	962	454	475	478	493	367	422
Lac Tremblant N.	-	-	6	3	-	-	2
La Macaza	-	-	-	421	470	537	607
Marchand	1,352	1,402	1,601	907	1,032	913	1,026
Turgeon	211	374	487	501	584	726	661
Loranger	494	506	834	361	463	480	406
L'Ascension (Lynch & Mousseau)	-	520	705	589	648	695	600
Labelle (village)	-	826	641	685	709	1,003	1,042
L'Annonciation (vil.)	-	622	612	658	632	660	1,042
Nomininge (village)	-	548	700	493	533	726	744
TOTAL	10,609	13,542	13,502	13,084	14,542	14,521	14,339

* Divided in 1926

(Census of Canada)

External factors were also active in drawing away potential settlers from the Rouge, and the Laurentians as a whole, and even in attracting people from the valley itself. The alternative opportunities for agricultural settlement in Témiscamingue and Abitibi became much more attractive, especially after 1920 when colonisation there was highly organised and subsidized by the Provincial Government. The reports of colonisation societies recruiting settlers for the Clay Belts from the Laurentians reveal this. In 1935 the Mont Laurier Colonisation Society recruited 17 settlers from Gatineau, 185 from Labelle, and 3 from Terrebone. In the same year the Ottawa Colonisation Society drew to the north 33 settlers from Argenteuil, 92 from Gatineau, 135 from Hull, 282 from Papineau and 74 from Labelle, (Sessional papers, P. Q. 1935).

The other source of external attraction has been the urban centres of the province, especially the Montreal area. Improved communications between the Rouge and the metropolitan area led to the decline of local industries when faced with competition from the larger enterprises of the city. These in turn needed labour and drew the surplus population from the valley, (Fortier, 1930). This drift of population still continues. In 1964, 25 families left the parish of Labelle to find employment near Montreal at the General Motors plant at Ste. Thérèse, or with the Dominion Rubber Company at St. Jerome.* The southern, English-speaking, rural townships lost young people to the industries at Grenville, Hawkesbury

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* Personal communication. Abbe J. Dupont, Labelle, 1966.

or Lachute, as well as to Montreal, (Dumont and Martin op.cit). A reflection of this movement from a rural to an urban environment can be seen in the increasing population of the villages within the Rouge, such as L'Annonciation; people moving in to find employment in service industries, commerce and tiny local industrial plants, for example that of Canuk Pottery (Quebec) Limited at Labelle which in 1966 employed 40 women and 15 men.

In brief, since 1920 the Rouge has been losing people to new farming areas, or to external urban areas. There has been an internal decline in the rural population relative to that of the villages, and a rise in the average age of the inhabitants of the Valley as more and more young people move out.

Agriculture and Abandonment

One of the symptons of this decline has been the abandonment of marginal agricultural land throughout the valley in the past 30 years and the presence of abandoned land is one of the most striking geographical characteristics of the Rouge Valley today. It is difficult to define 'abandonment' for there is a gradation between farms where the owner is resident and working full time on his land, and those where even the farm house is abandoned. Often, although the land is not farmed, the owner still uses the house as a residence, and the land will not appear in any statistics as 'abandoned', even though in fact it is quite unproductive. Frequently

although the owner may not be resident, neighbouring farmers will graze cattle on his fields, or cut the hay crop for their own use. This is only a casual use of essentially unproductive land which will also come into the category 'abandoned'. Therefore abandoned land may be defined as an area whose owner or tenant does not farm it, although he may be resident, and which is, as a result, either completely unused for agricultural purposes, or used only very infrequently and exploitively by neighbouring farmers, during which time, this land receives little or no attention and gradually regenerates to scrub vegetative cover.

The most useful indication of abandoned land is vegetation, for this permits a tentative date to be deduced for the cessation of cultivation. Clibbon (1963), distinguishes three categories of vegetation on abandoned farm land: open grassland, scrub grassland and scrub woodland. Open grassland is characteristic of farmland which has gone out of cultivation in recent years (perhaps in the last four or five years) and is composed of long grass, weeds, old hay and bushes under four feet high. Scrub grassland has more bushy growth and is found on land abandoned for a longer time, generally up to ten years ago, (Fig. 18). Scrub woodland is found on land last farmed 15 or more years ago and has a large number of small trees among dense undergrowth, (Fig. 19). At this stage it becomes difficult to distinguish between regrown secondary forest on former

Fig. 18
Scrub grassland, south of Arundel.

Fig. 19
Scrub woodland,
south of Arundel.

Fig. 20
Broken-down fence, central Harrington township.

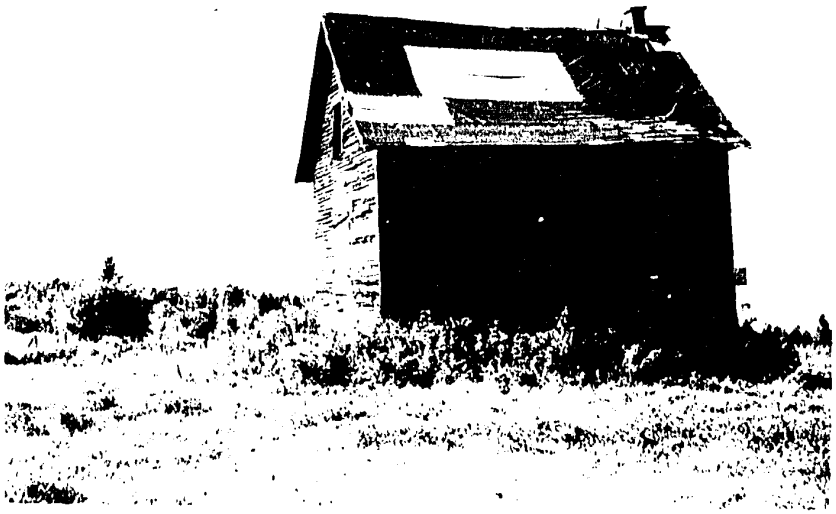


Fig. 21
Abandoned house, Mousseau township.

agricultural land, and that on land cut over by lumbermen (S.T.A.R., 1964) other criteria must be used. The remains of old fences, or abandoned and ruined houses, shacks or barns (Figs. 20 and 21), suggest that the area was once cultivated, and their state of delapidation can suggest the date when they were last in use. For more accurate dating it is necessary to go to the local inhabitants who in many cases remember as far as 30 or 40 years back to the time when an area ceased to be farmed, or when a farmer moved away.

Fig. 22 shows the distribution of abandoned land in the valley and it can be seen that it forms a large percentage of the cleared area.

Table 12 Abandoned Land as % of Cleared Area

		%
1.	Mont Tremblant	65.0
2.	La Macaza	61.6
3.	L'Ascension (Lynch and Mousseau)	56.3
4.	St. Jovite	46.1
5.	L'Annonciation	41.4
6.	Turgeon	40.9
7.	Harrington	32.6
8.	Nominingue and Bellerive	28.2
9.	Mountcalm	27.1
10.	Grenville	18.7

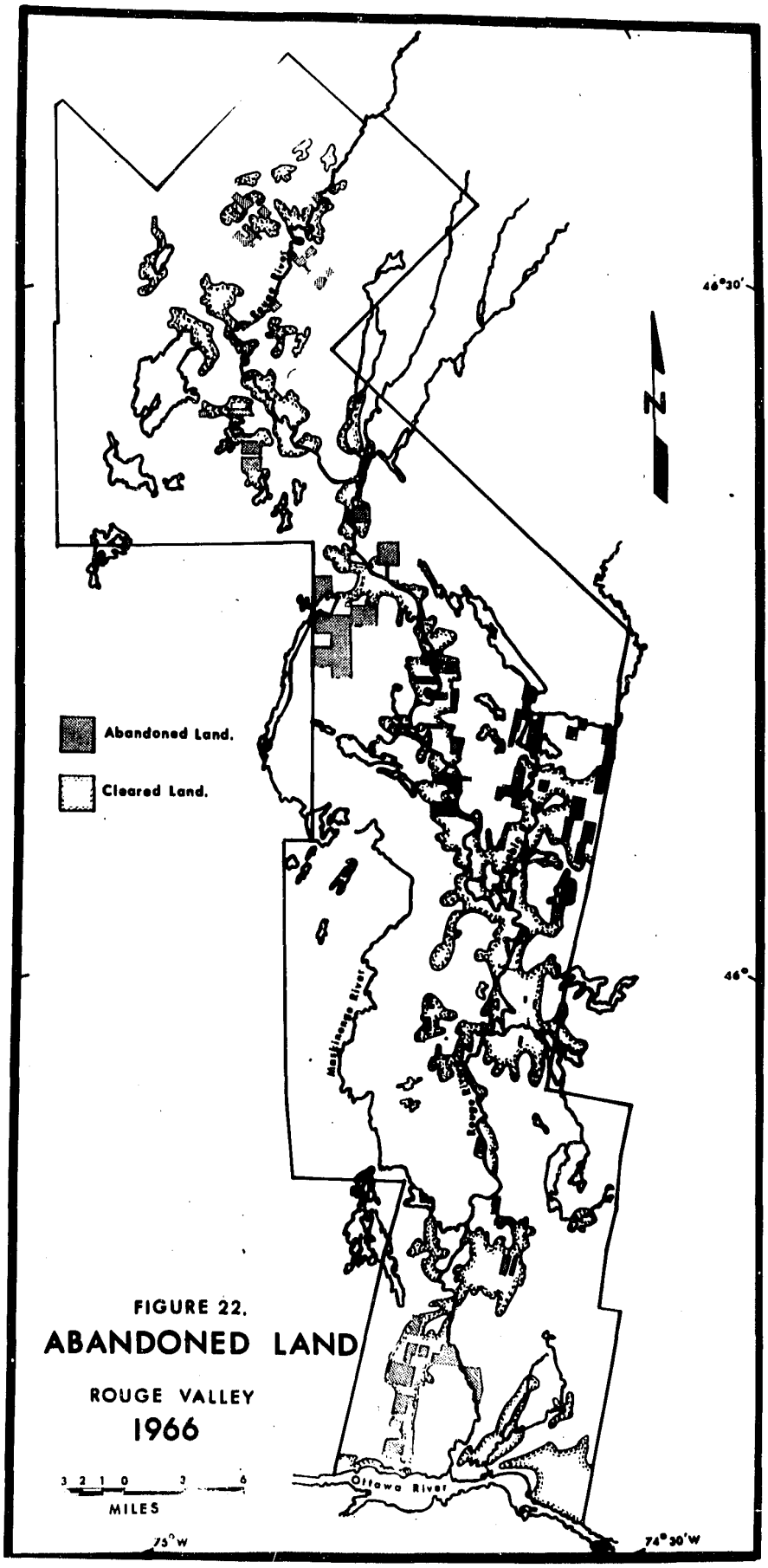


FIGURE 22.

ABANDONED LAND

ROUGE VALLEY

1966

11.	Huberdeau	16.1
12.	Joly and Lac Tremblant	14.7
13.	Brebeuf	9.8
14.	La Conception (Clyde)	8.5
15.	Arundel	8.4

(From S.T.A.R. report, 1964)

The northernmost townships are among those most severely affected, with Lynch and Mousseau having 56.3% of farm land abandoned, and Turgeon 40.9%, while the townships laid out on the uplands such as Mont Tremblant and La Macaza have even higher proportions of decayed farmland. The land records of the Province of Quebec corroborate this by revealing a high degree of instability of land holding in these areas. No less than 68 of the lots granted on billet of location in Turgeon alone were repossessed by the Ministry of Agriculture and Colonisation because of non-payment of the installments of the fee and were regranted as many as five times. In Mousseau 25 lots suffered the same fluctuating fortunes. Grenville comes low on the list, having only 18.7% of its farm land abandoned, most of this being in Avoca and the valley of the River Calumet. The central townships of Arundel, Brebeuf and Clyde have suffered least of all for these have the largest proportion of lowland and the best soils in the valley. One of the major factors in the abandonment of land is the soil capability. The S.T.A.R.

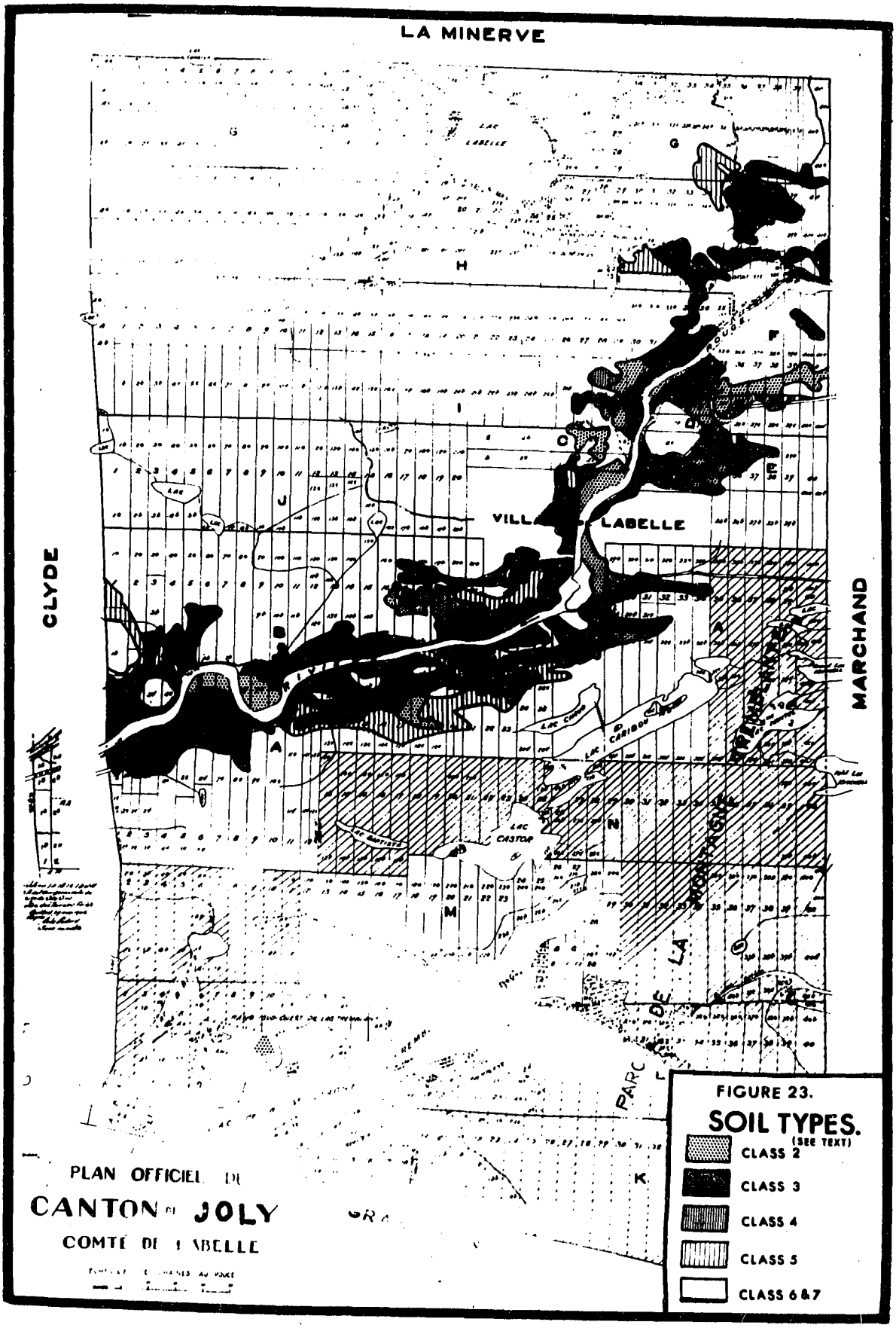
report adopts a modified form of the soil classification based on suitability for farming outlined by Mailloux, Dubé and Tardif in 1964. This is a binary classification based on the fundamental value of the soil determined by its texture, structure, depth, drainage and nutrients, and on the type and expense of management practices needed for its use, such as drainage, de-stoning, or fertilizing. Seven different categories are distinguished, Class 1 being excellent farm land needing no improvement. It is not found in the Rouge valley, the best land there being in Class 2 and comprising soils of good quality which nevertheless need some improvement. The marine and lacustrine deposits of the Champlain Sea, clays, and clayey loams found along the river, are of this type, as well as the fine sands of the Rouge - Diable confluence. Class 3 soils are those with important limiting features, and are little suited to agriculture, unless important and expensive ameliorations are carried out. Classes 4 and 5 are not suited for cultivation but may be used as improved pasture and rough grazing respectively. Classes 6 and 7 have soils of little use for farming and should remain under natural vegetation. In the Rouge the glacial till of the uplands conforms to these types.

The areas covered by each of these land categories is given for each township in Table 13 and it is clear that townships with the largest amount of land in Classes 2 and 3

Table 13 Farm Characteristics by Municipality

Municipality	Farmed (acres)	Cleared & cultivated (acres)	Abandoned (acres)	Soil Classes (acres) 2-3	4	5	6	7
Grenville	17,408	6,136	150	2,865	2,368	1,337	2,044	8,674
Harrington	13,953	3,970	752	1,719	1,269	1,802	735	8,419
Arundel	9,999	3,116	210	1,519	1,497	1,046	596	5,351
Huberdeau	4,642	1,714	6	503	522	1,093	537	1,987
Brebeuf	5,815	2,355	127	1,750	401	263	957	2,327
St. Jovite	7,591	2,707	68	1,070	333	532	689	4,770
La Conception	6,042	2,864	45	1,993	213	98	70	3,816
Mt. Tremblant	460	42	14	0	108	0	0	352
Joly/ Lac Tremblant	7,168	1,775	192	237	1,409	153	569	4,619
L'Annonciation	9,521	1,725	636	900	1,028	105	0	7,514
Turgeon	4,268	783	43	251	371	87	205	3,354
La Macaza	1,992	289	58	0	358	162	0	1,478
Bellerioc/ Nominingue	5,437	1,128	138	128	533	159	508	3,916
L'Ascension	6,796	1,139	481	747	694	12	0	5,063

(From S.T.A.R. "La Vallee de la Riviere Rouge, 1964)


LA MINERVE
CLYDE
MARCHAND
LABELLE
LAC CASTOR
LAC CARIBOU
PARC DE LA MONTAGNE
PLAN OFFICIEL DU
CANTON DE JOLY
COMTÉ DE LABELLE
FIGURE 23.
SOIL TYPES.
(SEE TEXT)
CLASS 2
CLASS 3
CLASS 4
CLASS 5
CLASS 6&7

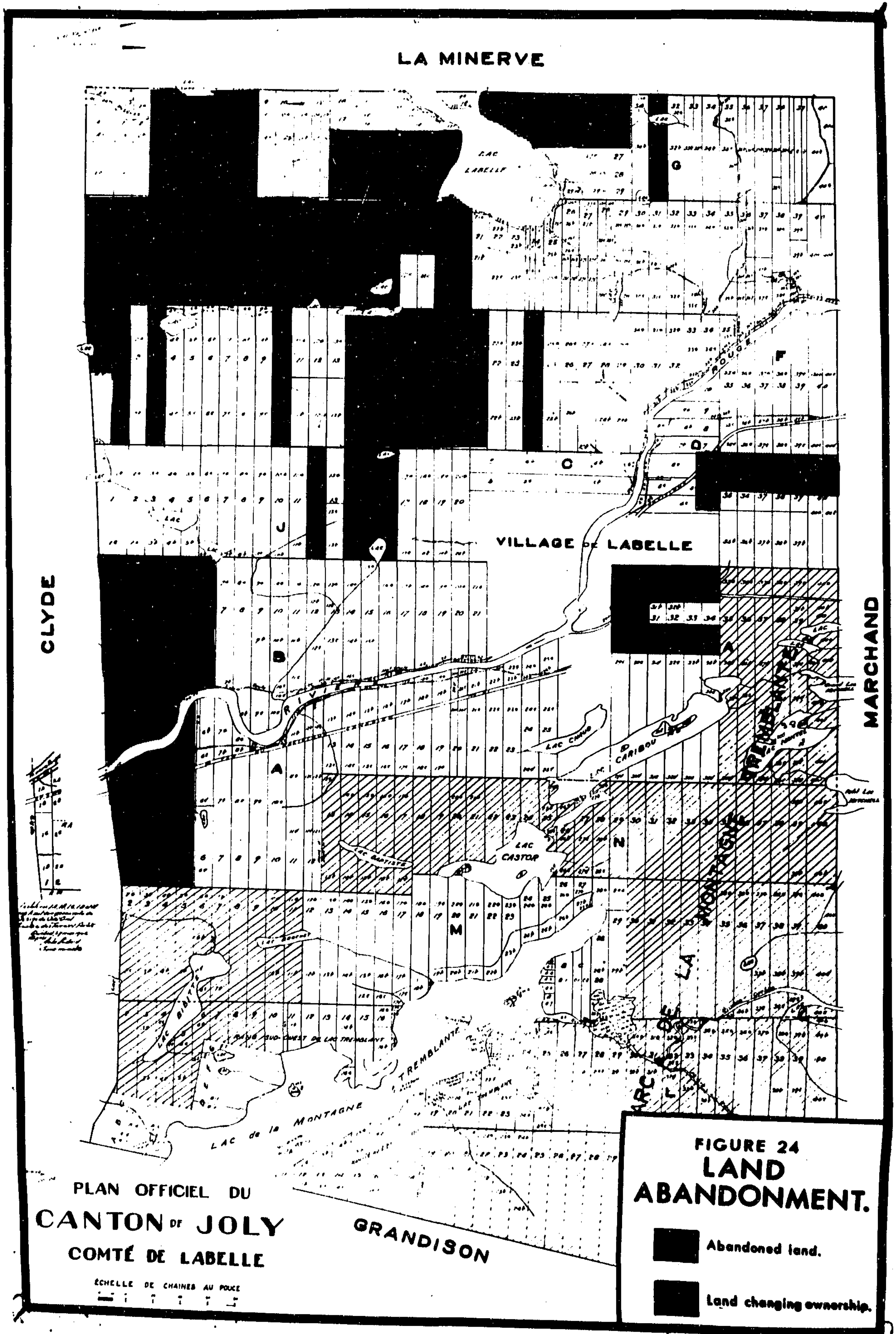


FIGURE 24
LAND
ABANDONMENT.

Abandoned land.

Land changing ownership.

such as Arundel and Brébeuf, have the smallest proportion of abandoned land. La Macaza has no land in classes 2 or 3 and a high proportion of abandoned land. Joly Township may serve as a more detailed example. Fig. 23 shows that the cultivable soils occupy a narrow strip of land along the Rouge, for the highland rises steeply near the river. The upland has rock knob topography and the only soil is a thin sterile covering of glacial till. (Class 7) Farms once established on this were being abandoned from the 1920's onwards. Lots 1 to 18 Range H were abandoned in 1925-35; lots 16 to 21 of Range I in the 1930's and lots 3 to 8, 13-16 and 24-26 of Range G around Lac Labelle in the 1940's, (Fig. 24). In the northwest of the township some of these soils are still being farmed, but apart from this the entire upland area is forested. By contrast the soils of the valley, fluvio-glacial sands of varying textures, are all cultivated and have few abandoned farms, except in the south, where Range A lots 1-5 ceased to be cultivated around 1945.*

Although land abandonment is the most noticeable feature of declining agriculture in the Rouge Valley, there are other evidences of the lessening importance of farming. In 1916 Magnan could write with optimism:-

> "La région Labelle est peut-être plus rocheuse qu'on ne la voudrait, mais le sol y est riche et produit quand même toutes les céreales. Les paturages y sont bien

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* Personal communications, M. George Godard, Labelle, 1966.

> audessus de la moyenne et offrent un avantage precieux à l'industry laitière et elevage d'animaux" (Magnan, p.44)

But this was not borne out by subsequent experience. There was a continuous drop in the amount of arable land after 1931. Dumont and Martin quote figures for the south of the valley which suggest that the area of arable land dropped by almost one third in the 20 years from 1931 to 1957, (1931 - 22,133 acres; 1957 - 16,840 acres). The Economic Atlas of Quebec, prepared from the 1961 census figures shows that Argenteuil County has only 40-61% of its cleared area under arable while Labelle County has 61.1-65% under arable. The lower valley of the Ottawa as a whole with 57.7% arable, has the lowest percentage of cultivated land compared with cleared land of any of the economic regions of the province. The production of all crops except oats hay and fodder crops has dropped since 1931 and this is not a sign of specialisation in stock rearing and dairying for the numbers of stock have fallen too.

There has been a concomitant decrease in the farm population over the same period. Population changes in the Rouge area have already been discussed and it was noted that the total number of people remained almost stationary, as young people were lost to external areas. Within the region there has been a marked change in the ratio of people living in rural areas and those living in the villages or quasi-urban, non-agricultural groups.

Table 14 Rural and Urban Population (Cos. Argenteuil and Labelle)

	1941	1951	1961
Argenteuil			
Total population	22,974	27,197	31,830
Rural population	20,313 (88.7%)	19,833 (73%)	15,183 (46.7%)
Urban population	2,661 (11.3%)	7,364 (27%)	16,647 (53.3%)
Labelle			
Total population	22,670	25,872	29,084
Rural population	14,255 (62.8%)	15,386 (59.5%)	18,988 (65.5%)
Urban population	8,415 (37,2%)	10,486 (40.5%)	10,096 (34.5%)

Table 14 shows that the percentage of the population living in towns and villages has grown continuously from 1931.

These trends in agriculture have not been peculiar to the Rouge area but are widespread throughout Quebec. In spite of a growing population the number of agricultural workers has declined both relatively and absolutely as the process of industrialisation has gone on. Dagenais (1959) has shown that agriculture, from being the employment of 50% of the total population of Quebec in 1900, was the occupation of only 16.5% in 1956. There was an average loss of 5,000 agricultural workers a year. The small peasant farmer,

dependent for a livelihood on hiw own land is disappearing. Similarly between 1941 and 1956, 14% of the occupied area was abandoned, 43,000 acres reverting to forest, and the arable area dropped by 1.6%. Consecutively agricultural production rose by 28.3% as a result of improved farming methods. It is safe to say that the traditional attachment to the ancestral farm and the national idea of a peasant population is dying in Quebec. "L'Agriculture de la Province de Québec est en train de cesser d'être un mode de vie pour devenir une enterprise", (Dagenais, ibid.).

Industry

The changes in the industrial development of the Rouge Valley in the years 1901-1965 have been closely associated with communications. Charette (1953) has described the forms of transport prevalent in the valley at the start of the century before the construction of the railways, when there was a weekly passenger coach service to St. Jérôme and Montreal. With two horses the coach could cover thirty miles a day and it was a journey of two days from L'Annonciation in the north of the valley to St. Jérôme. The transport of goods by wagon in summer, and sled in winter was even slower, and correspondingly more expensive. As St. Jérôme was the main provisioning centre for the northern Rouge and the receiving point for lumber and other produce, the high cost of transport was an obstacle to the development of the valley. The southern end of the Rouge Valley was at

a similar disadvantage with regard to Lachute which was its main urban supplier. After the coming of the railways, which were built to L'Annonciation and Nomihingue in 1904, and to Huberdeau in 1897, continuing to St. Rémi in 1926, the movement of goods became much easier, and small scale industries grew up involving the processing of local raw materials for sale in the metropolitan area of Montreal.

Wood industries, butter and cheese making and mining all had a period of modest prosperity from 1910 to 1940, but the volume of trade was never sufficient to make the operation of the railways economic, especially after the introduction of trucking. Eventually road transport superceded rail transport as the most important means of moving goods, and led to the abandonment of the Canadian National Railway line to St. Rémi (the former Montfort and Gatineau Colonisation Railway) in 1962, (Fig. 25). The Northern Colonisation Railway, now owned by the Canadian Pacific Railways is still in operation, though running at a loss. Cheap and efficient road transport eventually reversed the trend towards the establishment of small scale processing plants or mills in the valley in favour of concentration in large plants outside the area.

The dairying industries have been most affected by these changes in communications. Until 1901, census figures show that considerable amounts of butter were made on individual farms in the Rouge Valley, though cheese was only

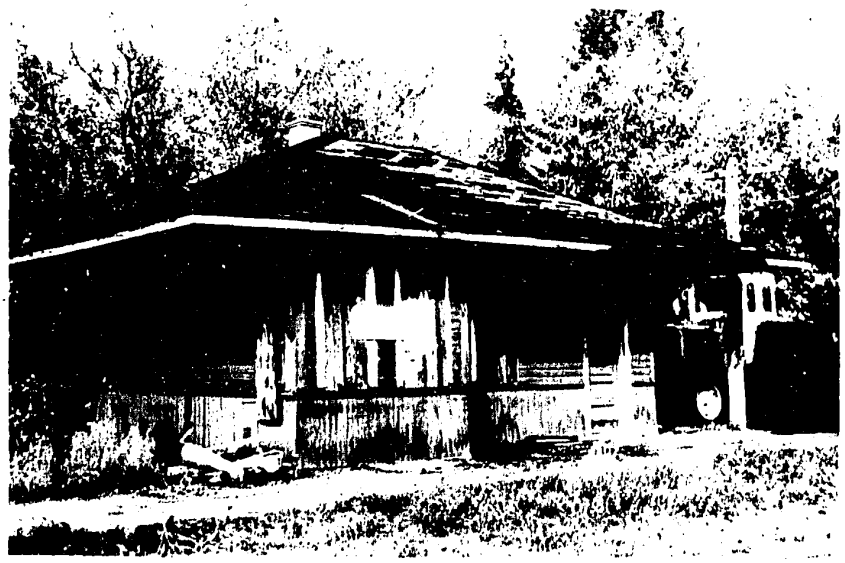

Fig. 25
Abandoned railway station on C.N.R. line (formerly the Montfort and Gatineau Colonisation Railway), Arundel.

made in the southern townships of Grenville, Harrington and Arundel. The more complex processes involved in cheese making meant that home production at any time was small and it was carried on largely in cheese factories, but there were very few of these in the valley before 1901. In the early years of the century there was a marked increase in their numbers particularly in the south and centre of the valley. Lovell's Directory of the Province of Quebec for 1910 lists 19 in the valley as well as two butter factories and in 1915 there were 23 cheese factories and two butter factories, (Fig. 26). The small size of these factories can be gauged from the census figures for 1911. The two butter factories at L'Annonciation and Nominingue together employed only three men and their combined annual production was 46,632 lbs. of butter. The cheese factories were hardley larger, for the 103 factories in the whole of Argenteuil and Labelle Counties employed only 114 people, and they produced 4,337,487 lbs. of cheese in 1911, an average of 42,111 lbs. from each factory. The small scale of the industry was a result of the limited hinterland from which each factory could draw milk.

The latest record of the establishment of a new factory was of a combined butter and cheese manufactory at Arundel in 1924, and the industry soon began to decline. Throughout the 1930's many of the smaller factories were closing down and by 1945 there were only three cheese

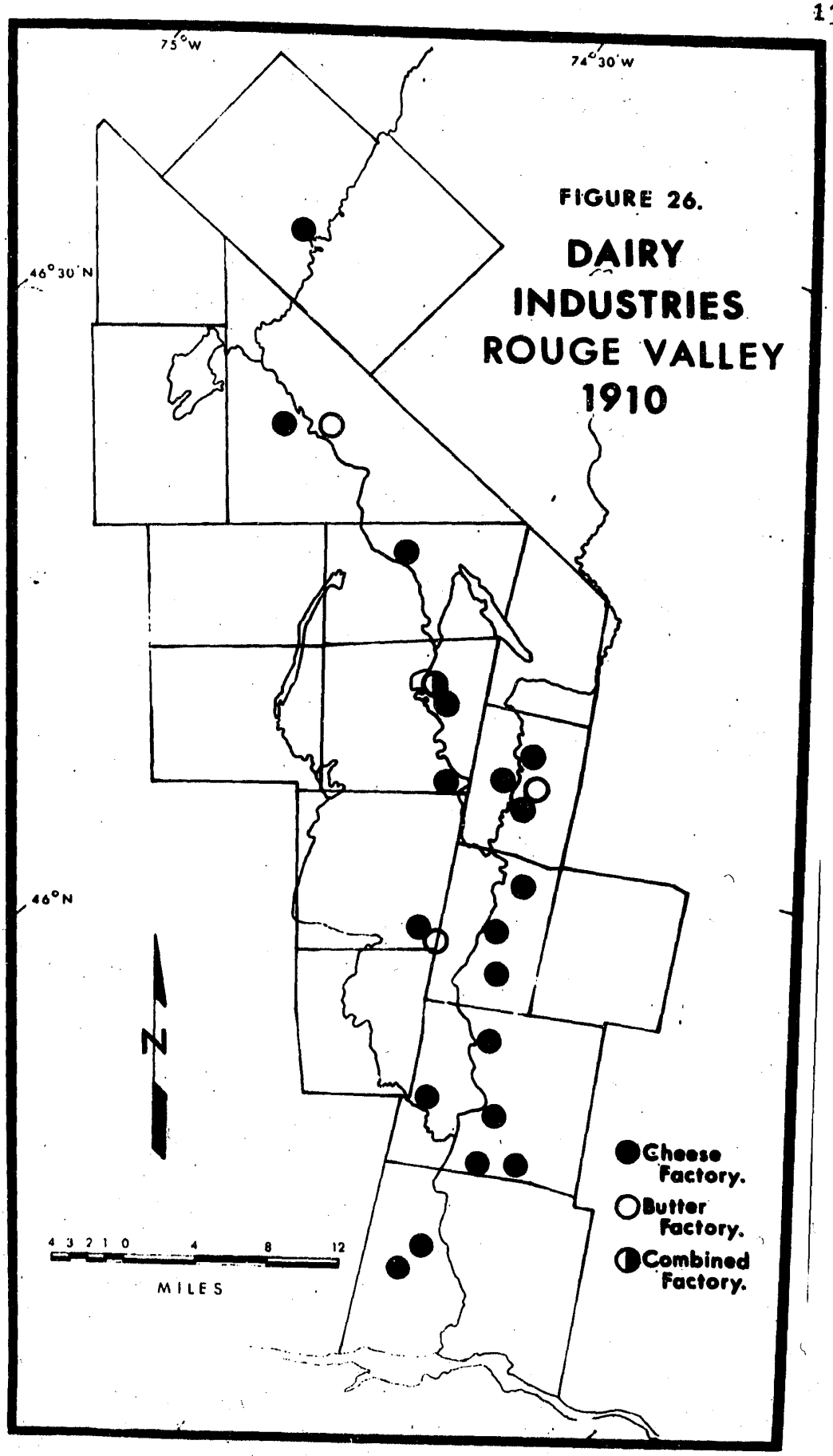

FIGURE 26.

DAIRY INDUSTRIES ROUGE VALLEY 1910

factories left in operation, one at Arundel and two in Harrington. These in turn went out of production by 1948. The reasons for closure include accident, such as the destruction by fire of the Arundel Creamery in 1945, but more important were changes in economic relationships with surrounding areas. In the 1930's and 1940's agriculture and stock raising within the valley was declining and local supplies of milk were often inadequate. At the same time improved road transport meant that milk could be collected daily over a wide area by the more heavily capitalized dairy produce companies of Lachute and St. Jérôme, for processing in large plants in these two urban centres. In the face of this competition for milk supplies, and competative prices for products produced in large quantities near to the urban markets which the Rouge factories had supplied, the small factories had to close down. Today no butter or cheese is produced commercially in the Rouge Valley, and its milk is processed in Lachute or St. Jérôme.

The timber industries which have always been of considerable importance in the economy of the valley have gone through similar stages of development, though they have not suffered to such a great extent as the dairying industries. By the beginning of the twentieth century the main lumbering frontier was far to the north of the Rouge though several companies held cutting rights within the Rouge watershed. From the 1890's onwards the trend was towards the

consolidation of these holdings. In 1898 G. H. Perley and Company of Ottawa bought the cutting rights to 623 sq. miles in the Rouge Valley, and set up a saw mill at Calumet. This company merged with the Riordan Company in 1912 and the new association became the Riordan Pulp and Paper Company Limited. In 1921 this went bankrupt and its limits were acquired by the International Paper Company, which in 1925 changed its name to the Canadian International Paper Company (C.I.P.), which today controls most of the commercial forests of the Rouge region. The amount of logging increased markedly between 1932 and 1945 when the C.I.P. cut softwoods for pulp. After 1945 as the supplies of softwoods ran out hardwoods were cut for the same purpose. This timber was floated down the Rouge to the mill at Calumet and later trucked out from the 'chantiers'.

There were fewer small companies operating mills in the Rouge though there were many small sawmills in operation using timber from the farmers woodlots, and producing planks and building materials for use in the region, (Fig. 27). In 1915 Lovell's Directory lists 41 sawmills in the area, and today (1966) there are 13, five of which are connected with C.I.P. operations, including the C.I.P. pulp mill at Calumet which is very large compared with the other saw or pulp mills in the area. In all cases the amount of employment afforded by the mills has declined following mechanisation. The C.I.P. sawmill at Labelle

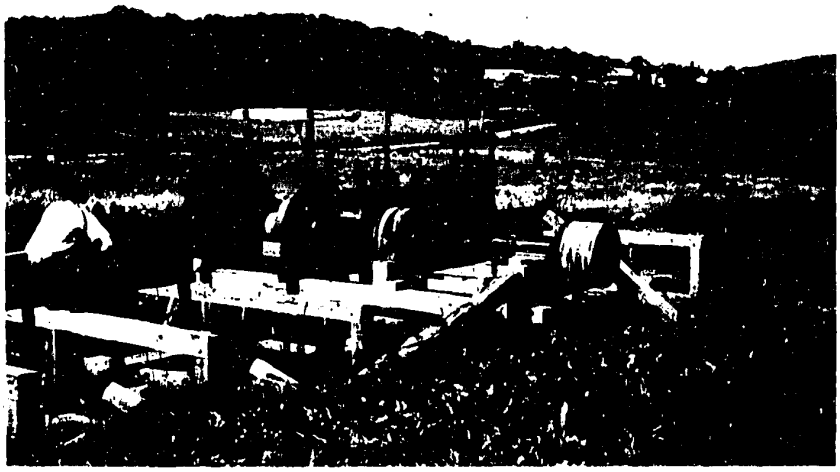

Fig. 27
Remains of sawmill, north of Ste. Veronique, Turgeon.

which used to employ 250 men now only provides work for 150.*

There are some local specialisations within the woodworking industry in the valley today. Calumet and L'Annonciation have factories producing furniture, in the north of Harrington Township doors and panels are produced, and several mills along the river make boards, planks and shingles. Few of these products, except furniture, are marketed outside the area, they are all on a small scale and provide little employment. The overall pattern is one of small mills or factories located on the river in the main villages supplying timber and wood products for local use.

Although it had long been known that the metamorphosed rocks of the Grenville series contained deposits of economically valuable minerals the mining industry in the Rouge region played a very small part in its economy before 1900. Mica was dug out of pits in the east of Grenville in the nineteenth century but the amount obtained must have been small for Philpotts (1961) reports only seven workings, none over 30 feet in diameter. In 1896 the Non-Magnetic Asbestos Company began to mine asbestos near Pointe-au-Chêne and set up a crushing and grinding mill, (Thomas1896), but it was in operation for only a year before supplies of the mineral were proved to be inadequate. These early examples of mining were all located in the southern and earliest

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* Abbé J. Dupont, personal communication, Labelle, September, 1966.

settled parts in or near the Ottawa Valley. During the period of consolidation in the valley, following the construction of the railways several geological surveys were made which revealed the mineral potential. Fig. 28 shows the large number of short-lived operations in the Rouge area, mining and quarrying a wide range of non-metallic minerals. These include mica, silica, graphite, kaolin, granite, ochre, and garnet (for abrasive), (Osborne 1934, 1935). All of these were unexploited until the railroad went through the region, and a particularly good example of this is the silica mine in Rockway Valley, (Fig. 29) which began operations in 1926, the year the railway line was extended through Rockway to St. Rémi. In most cases too, the period of mining was very short because the deposits were small, and the effect of the mining industry as a locality has been transitory.

The exception among mining enterprises has been the Canadian Refractories magnesite mine at Kilmar in Grenville. Discovered in 1900, and, being the only occurrence of this type of magnesite in Eastern Canada the deposit has been expolited at several locations from 1907, with a particular increase during World War I when Austrian supplies of magnesite were cut off from Canada. A narrow guage railway was built in 1916 from the Dobbie Mine in Range I Lot 13 of Harrington to the Canadian Pacific Railway in the Ottawa Valley at Marelan. Today only the mine at Kilmar

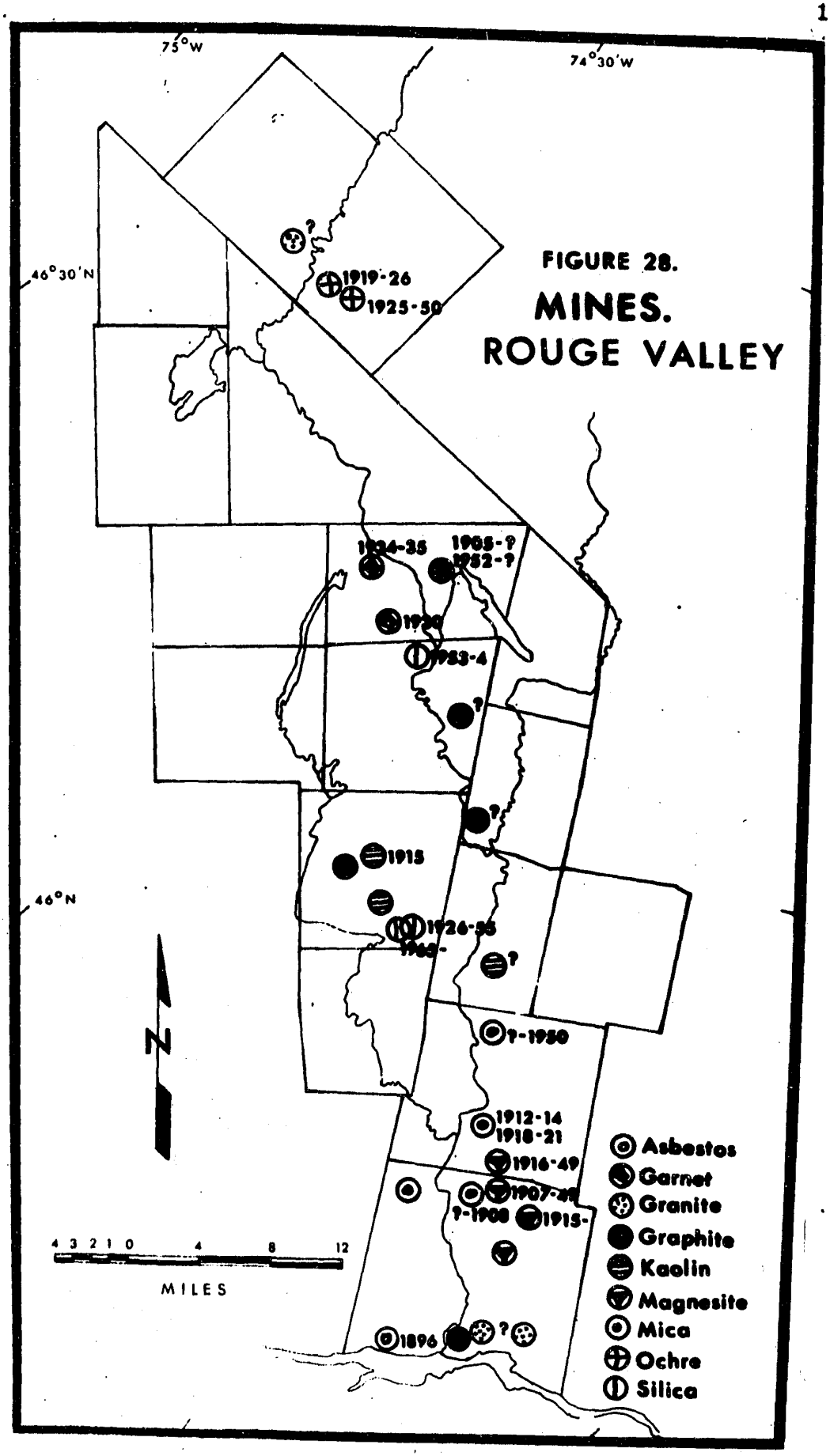

FIGURE 28.

MINES.

ROUGE VALLEY

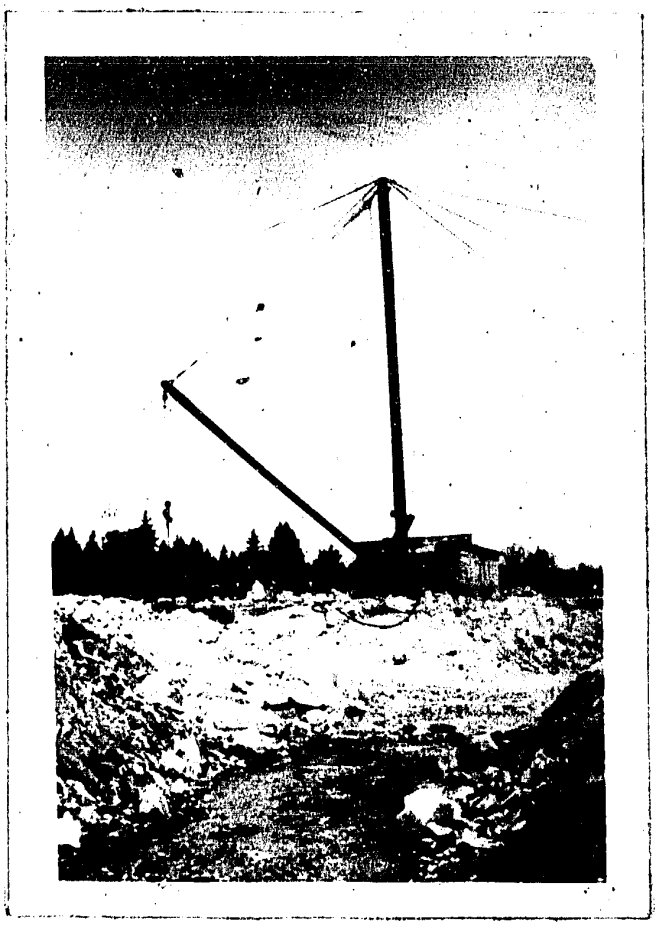

Fig. 29
Silica quarry, opened 1926, now abandoned, Rockway Valley.

is being worked, and there is a factory to calcine the ore at the mine and concentrating plant and laboratories at Marelan. The mine and factories provide employment opportunities and tend to attract young people from the southern part of the valley thus contributing to the decline in agricultural man power, in areas such as Ayoca and the Maskinonge Valley.* Except for this mine there were no mining enterprises in the valley in 1966 except for the re-opened silica mine in Rockway Valley, and some granite quarrying in Grenville. Mineral deposits are not large enough or valuable enough to attract exploitation today, though they have been of some importance in the economy of the valley during the past fifty years.

The first two decades of this century, as well as being characterised by industrial growth, also saw the first use of the turbulent lower course of the Rouge for the generation of hydro-electricity. In 1903 a dam and generators were constructed at Table Falls (Fig. 30) and supplied Hawkesbury, Grenville, Calumet and L'Orignal with electricity. A second dam was completed at Bell Falls in 1917 and supplied power to local farmers in 1919. Both sites came into the hands of the Gatineau Power Company in 1926. In 1933 an attempt to raise the height of the Table Falls dam failed when the spring melt waters destroyed the coffer dam and the new dam in 1934, and from that date Bell Falls has been the only hydro-electric plant on

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* Dr. R. Rigby and Mr. Arthur. Personal Communications, Marelan, 1966.

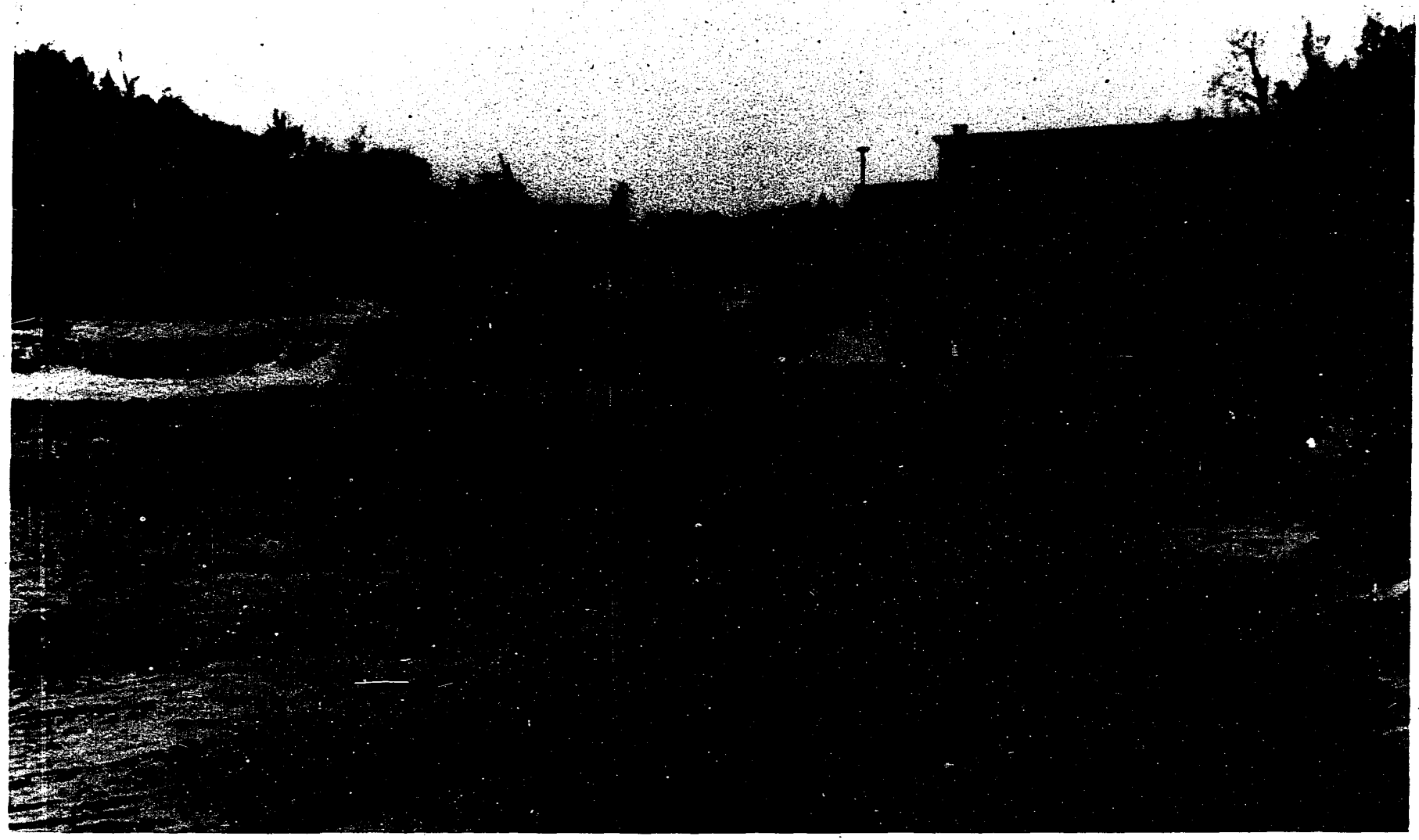


Fig. 30
Rosses Electric Power Station, Table Falls, 1911. (National Archives)

the Rouge.

In the industries discussed so far there has been little differenciation between the French north and the English south of the valley, for in all cases there was an increase in activity from 1900 until about 1940. As far as the tourist industry is concerned however, the north has seen much more development than the south because of physical suitability, presence of access roads and personal initiative. The northern area was compared by Father Labelle to Switzerland, and is fortunate in having many lakes including Lac Tremblant, Lac Mercier, Lac Labelle and many others, all of which offer fine sites for summer cottages. The Mont Tremblant massif provides magnificent ski slopes and is an important winter sports area. The first hotel there was built in 1900 by George Wheeler, who was lumbering in the upper Diable, and who with great foresight anticipated the demand for both winter and summer holidays in the region, (Dury, 1939). Today the Grey Rocks Hotel stands on the same site, and St. Jovite is a year round tourist centre and the most thriving village in the Rouge region.

The southern part of the valley lacks the attractions of lakes or ski slopes but is even more at a disadvantage as far as ease of access is concerned. Apart from Route 31 from Lachute to Arundel there are no other main roads in the whole area and no paved east-west roads at all. The S.T.A.R. Report suggests that roads be constructed across

the grain of the country from Lachute to Lac Papineau and from Morin Heights through Arundel, along the line of the old Canadian National Railway to St. Remi d'Amherst, to rectify this lack and to open the lower valley to tourists. The northern part of the valley has not had this drawback, Route 11 and now the Laurentian Auto-route have ensured swift and easy access to the valley from Montreal. Even so the Nord Valley with its resorts has been a zone of intervening opportunity which captured potential traffic heading north and the distance of the Rouge Valley from the city has meant that it has had fewer tourists than the Nord Valley.

Apart from the St. Jovite-Mont Tremblant complex of large hotels and organised ski slopes the main form of tourist activity in the valley has been the construction of weekend cottages on the lakes and streams. These contribute relatively little to the economy of the region. The S.T.A.R. report, (Volume 3) reveals that the 1,154 cottages in its survey area provide only 22 full time jobs and that the measures which it suggests for further cottages would provide employment for only 20 more people. To be of economic importance to the valley the tourist industry needs more large hotels and organised opportunities for recreation.

The S.T.A.R. report contains a very full analysis of the employment structure in the Rouge Valley in 1961,

and it is unnecessary to deal with this subject in detail here.

Table 15 Relative Importance of Industries in Terms of Employment, 1961 (Argenteiul and Labelle)

	Argenteiul		Labelle	
	Male	Female	Male	Female
Agriculture	8.7%	3.2%	16.7%	0.3%
Forestry	1.4%	0.09%	18.1%	0.2%
Mining and quarrying	0.7%	0%	0.9%	0.07%
Hunting and fishing	0.05%	0%	0.03%	0%
Manufacturing	34.4%	32.8%	14.7%	5.3%
Transport, communications and public services.	9.7%	2.6%	6.2%	4.4%
Construction	16.4%	1.1%	10.1%	0.5%
Commerce	10.3%	10.3%	12.7%	9.1%
Finance	1.2%	3.4%	0.8%	2.9%
Services (total)	15.1%	43.4%	15.9%	66.8%

(From S.T.A.R. op. cit. 1964)

The above table shows the relative importance of industries in terms of employment for Counties Argenteuil and Labelle. It is noteable that the very large percentage of workers are employed in unproductive service industries, particularly in Labelle and that forestry work is the other main employment there. The importance of manufacturing in Argenteuil is a result of industries at Lachute and Brownsburg, and the

Rouge area has a very small proportion of this industry, except for magnesite processing at Marelan, (Dumont and Martin, 1963). Labelle County, which lies almost entirely in the Rouge area, had suffered a 16% drop in employment since 1951 and in 1961 64% of its rural workers, particularly those in the lumbering industry, were seasonally unemployed, and 70% worked less than 35 hours a week when they had a job. This is further evidence of the decline of industry and opportunity for employment other than farming in the Rouge Valley in the last twenty years, a phenomenon by no means confined to the Rouge, but on the contrary universal in the marginal settlement areas of Quebec, since the 1930's.

> "The Quebec frontier is chronic, quickened to real activity here and there, by industries which make use of wood, minerals, and waterfalls, but offering little opportunity for the expansion of a farming population independent of industry"
> (Hughes, 1938 p344)

Following the nineteenth century expansion in the Rouge Valley the economy in the twentieth century was characterized by contraction rather than consolidation. This was a feature common to the whole of Quebec as the over-extended agricultural area began to shrink in the 1920's and the cities began to attract people from the colonisation areas, reversing the trend of the preceding hundred years. The Depression of the 1930's halted the movement to the towns for a time, but it was renewed in the 1940's, a period

when much of the farmland in the Rouge was abandoned. A similar movement was going on in North Sweden at the same time (Norling, 1960) as settlers withdrew from the morainic soils between the valleys, leaving their farms to secondary forest growth. As in the Laurentians the river valleys of Vasterbotten Lappmark, with better soils, lost fewer farmers. Norling notes a decline of agricultural employment and a rise in the numbers of people working in service industries and tourism, as in the Rouge Valley. In both Quebec and Lappmark the edge of the oecumene has not retreated but there has been a considerable thinning out of settlement behind it. This has been accompanied by a decline in local industries, thought by Paget (1960) to have been the result of wider spacial relationships and improved links with external areas. The self-contained life of frontier areas breaks down as external markets and supplies become available and the inducements to emigration from the fringe areas are greater. The industries of the Rouge Valley now fail to provide alternative employment for those leaving the land and there is likely to be a continual loss of population unless the economy can be rejuvenated by the establishment of rational forms of farming such as sheep and beef cattle raising, and by the further development of tourism.

C H A P T E R VIII

CULTURAL LANDSCAPES

The diversification of the cultural landscape is the result of the subtle influence of many factors acting within a framework of possibilities provided by the physical environment. These cultural influences working through time have visual expression in the assemblages of different forms of land holding, field shape, field boundaries, distribution of settlement, village type and styles of building, all resulting from mans' activity, which taken together allow the delimitation of relatively homogeneous 'culture areas' which are distinct from those others abutting on them. The work of the French school of regional geographers early in this century represents the classic example of this attempt to distinguish such "pays", particularly the studies of Vidal de la Blache on "France de l'Est" (1917), Blanchard on "La Flandre" (1906), and Demangeon on "Picardie" (1905). It was found, however, that the method worked best in rural areas, where the weight of tradition and conservative values ensured that the rate of change in building techniques and styles, for example, was slow, and the continuity of traditional methods and ideas maintained. In urban areas, or where industrialization is taking place, the rate of change is so rapid and the introduction of universal cultural

forms so prevalent that the coherence of the distinct culture area is lost and it is difficult to distinguish one culture area from the next. The Rouge Valley is, at the moment, a backwater; a declining area where modern techniques of industrialized agriculture are almost unheard of, and where the impact of the tourist industry has not been sufficient to change the cultural landscape significantly. In such an area the different cultural landscapes remain distinct and their components can be studied.

The environmental possibilities presented by the Rouge Valley vary between north and south as far as terrain and soils are concerned, with the north having, as is noted elsewhere, a much wider river valley with stretches of flat land, while the agriculturally valuable land in the south is restricted to a few basins. This might be held to influence the type of holding and the shape of fields in the two areas, but this is not in fact the case, cultural traditions being more important. As far as building materials are concerned the two areas are virtually indistinguishable, and it is again the human factor which explains any differences in form of building. The provenance of the original settlers has been of considerable importance in establishing the different cultural landscapes of the valley, The early English imprint on the Townships of Arundel, Harrington and Grenville still being noticeable despite the numerous French settlers there at present.

The degree of formal organization within the two ethnic groups varies considerably and this too has some influence upon the landscape. The English speaking settlers entered the southern part of the valley before the setting up of the Department of Colonisation in 1880 and their penetration of the forest was in isolated groups and development was sporadic, and individualistic. There was no pressure upon them, either political, or social, to conform to the plans of those in authority and this has resulted in very scattered settlement and an irregular pattern of farms and villages. In the north the French colonists took up land under the organization of the Department of Colonisation and the auspices of the Church. Village sites were often selected before any land was taken up and from the beginning the young settlement was guided by the 'missionaire - colonisateur'. The social organization orientated towards the Church and family group and common to the older French areas within Quebec was reproduced here, and in part helps to explain the growth of quite large nucleated villages, centred upon the Church, compared with the villages of the English speaking settlers which are smaller.

Thus the physical environment, regional and ethnic traditions and the degree of organisation, together, are the main factors bringing about the individuality of the two culture areas comprising the Rouge Valley, but many other minor influences have been in effect, including the date of

first settlement, the availability of factory produced building materials, and the intangible element of individual preference.

Land Holding and Field Systems

The different forms of land holdings in the Rouge Valley must be considered in terms of their antecedents elsewhere in Quebec because they represent the crystalisation of French and English practise. The original settlement in the Seigneuries of New France took place along the St. Lawrence and its tributaries and as the river was the main highway the river frontage was the most valuable land. To ensure an equitable distribution of land each lot had a narrow frontage on the river and extended inland for an undefined distance. These lots followed the meanderings of the river and together made up the range. This ensured that each settler built his house on his own land and yet was near his neighbour: a compromise between nucleated and dispersed settlement, (Deffontaines, 1953). This resulted in the long lines of houses bordering the St. Lawrence. Later, the lack of river lands led to the formation of a second range, behind the first, the two divided by a range road, having houses on each side and forming a 'rang double'. This process continued until there were several ranges, each divided into long lots which ran perpendicular to the range lines and the river.

The townships (cantons) into which the Province of Quebec is now divided are foreign to the original French land division; they are an English form, common in Ontario, and were superimposed after 1763. In the Eastern Townships the land was divided into townships six to ten miles square and subdivided into square farms and holdings within this framework. When the French Canadians infiltrated the Townships they took over this geometrical pattern and reconstituted the range system, but gave it a much more rigid rectalinear form (Biays, 1964), the range roads being straight lines and the lots running perpendicular to them and being all of the same size irrespective of differences in terrain. This form became the normal type of cadastral division in the late eighteenth century and in the nineteenth century all new lands, including those of the Laurentians, were surveyed and laid out as townships. The advantages of this system were that the survey was easily carried out and that all the farms on a range can be served by one road and the road mileage necessary is less than that needed in an area of square farm holdings. Barnes, (1935) notes that rural roads accomodate 12 farms per mile in Quebec where there are long lots and range roads and only three to nine farms per mile in Minnesota, where square holdings predominate. A similar saving was made later when the rural areas of Quebec were provided with electricity.

The Rouge area was progressively surveyed through

the nineteenth century and laid out into Cantons which, with some exceptions, approximated to a square or rectangle. In general the ranges run east-west and the lots north-south. The traditional size of the lot is 100 acres but in the southern English townships of Grenville, and Harrington they are twice as wide as the lots further north and are 200 acres in size, reflecting the English preference for larger yet more compact holdings. It is also noticeable that in these two townships good agricultural land is scarce and even with the larger holding many of the early settlers found it difficult to subsist on the upland areas. Within the English speaking area air photographs show that the predominant field pattern is of square fields which vary in size from place to place. In the Harrington Basin they are large, although furrowed by gullies and are associated with the cultivation of field crops, which include oats, corn and roots, as well as with stock raising, and a certain amount of mechanisation is possible.

The Arundel Basin also has large square fields (Fig. 31) and the good soils here support mixed farming. In Rockway Valley, although the northern limit of English settlement is being reached, the fields are still square but much smaller in size, this area having formerly concentrated on livestock raising and particularly on dairy cattle, which necessitates small fields for controlled grazing.

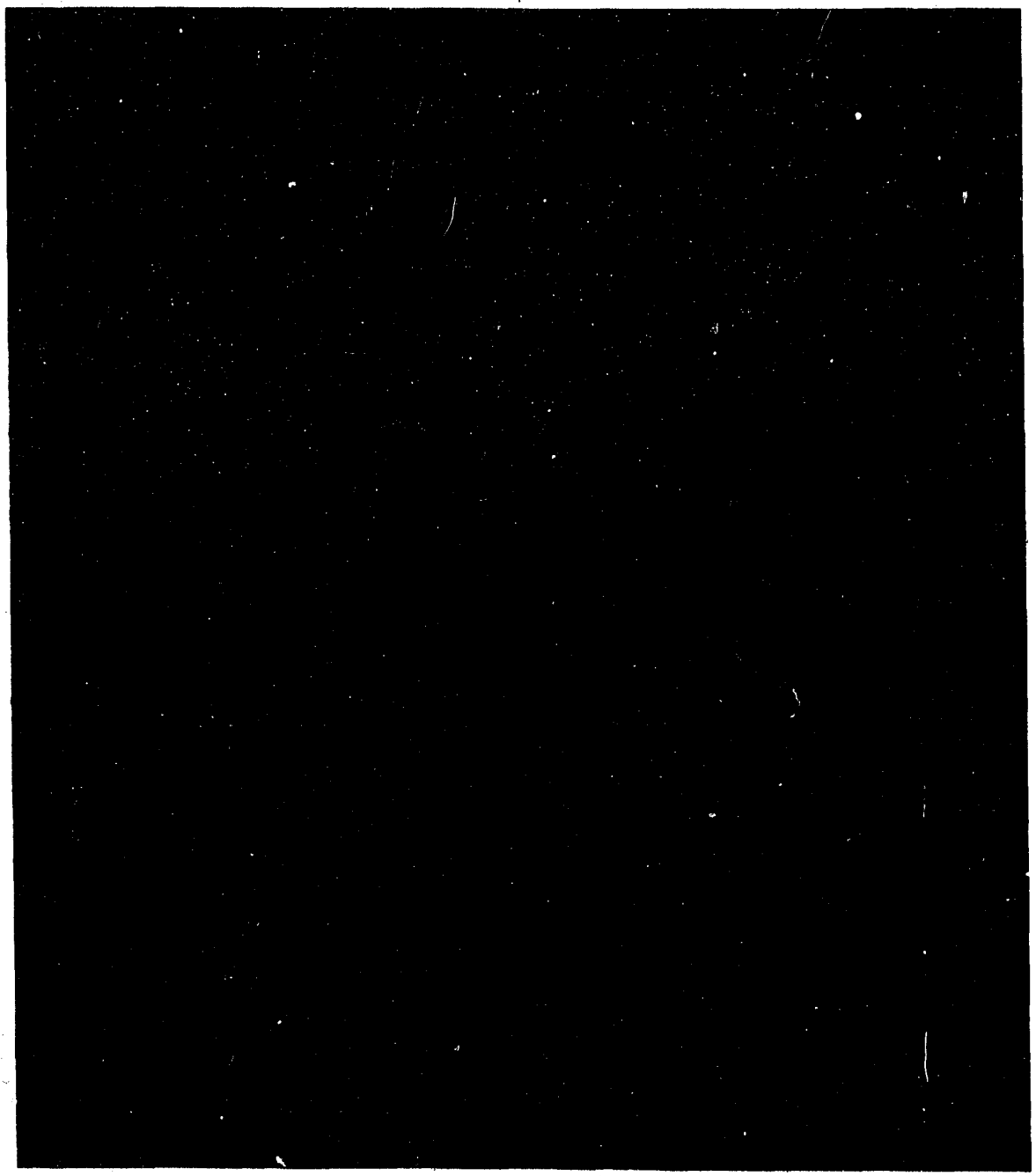


Fig. 31
Nucleated village of Arundel (centre of photograph) linear village of Hubendeau (to left). The square fields are characteristic of the English speaking townships, (north to left of page).

In the areas of predominantly French settlement the characteristic field shape is that of the long lot, found all over lowland Quebec and in the other areas where the French have penetrated. Deffontaines finds examples in Acadia, near Windsor, Ontario, at Georgian Bay, and as far west as Saskatchewan near Prince Albert, and Manitoba at Fort Alexanda on Lake Winnipeg. The same kind of holding is found on the lands held by the French along the Mississippi at Baton Rouge and New Orleans. However, the Rouge does not exhibit the extremes of geometrical layout of lots noted by Innes, (1960) and Biays, (1964) in the Clay Belts. Traditionally the long lot abutts onto the water front and this form is found along the margins of the Rouge in its middle valley, between Brébeuf and L'Annonciation, where the cadastral survey lot lines depart from the prevalent north-south pattern. In the valley the long lots are very noticeable, running back from the river to the point where they are interrupted by the highland which rises sharply. The imprint upon the landscape is marked, not only in the valley but also, although to a lesser degree, in the uplands, where the lines of the lots resume in small cleared areas after having been broken by rock knobs or patches of forest (Fig. 32).

Similarly field shapes repeat the long pattern. Longitudinal division of lots into narrow fields is not found in the Rouge area, but the transverse divisions are generally

Fig. 32
Long lots, east of St. Jovite, (north to left of page).

few and enclose fields much longer than they are wide. Near Brébeuf the average field has a ratio of 1:3.5 for its sides and near St. Jovite fields of 1:6 are found. Flatres (1960) comments that the Quebecois farmers did not have the idea of the ideal size of field that the British settlers had, and that their fields vary in size accordingly.

The termination of the fields on the edge of the uncultivated land, whether forest, marsh or rock outcrop, generally departs from the rectangular and follows the natural line of the obstacle. In the uplands it is often impossible to trace field boundaries or lot lines because the terrain is so broken, and even where the land was once cleared there is a thick secondary growth of forest. Field shapes have been mapped for the entire Rouge Valley and the marked predominance of square fields in the south and long fields in the north is very clear, (Fig. 33). The area between Arundel and St. Jovite is a zone of contact between French and English and both forms of field are found interdigitated. Small isolated areas with square fields are found among long fields in the north, and in most cases these can be found to coincide with groups of settlers other than French Canadians. For example, the Terrier shows a series of grants to Polish or Ukrainian settlers near Macaza where square fields are found, and a group of English settlers near L'Annonciation where another area of these fields is found. The only area not explained by

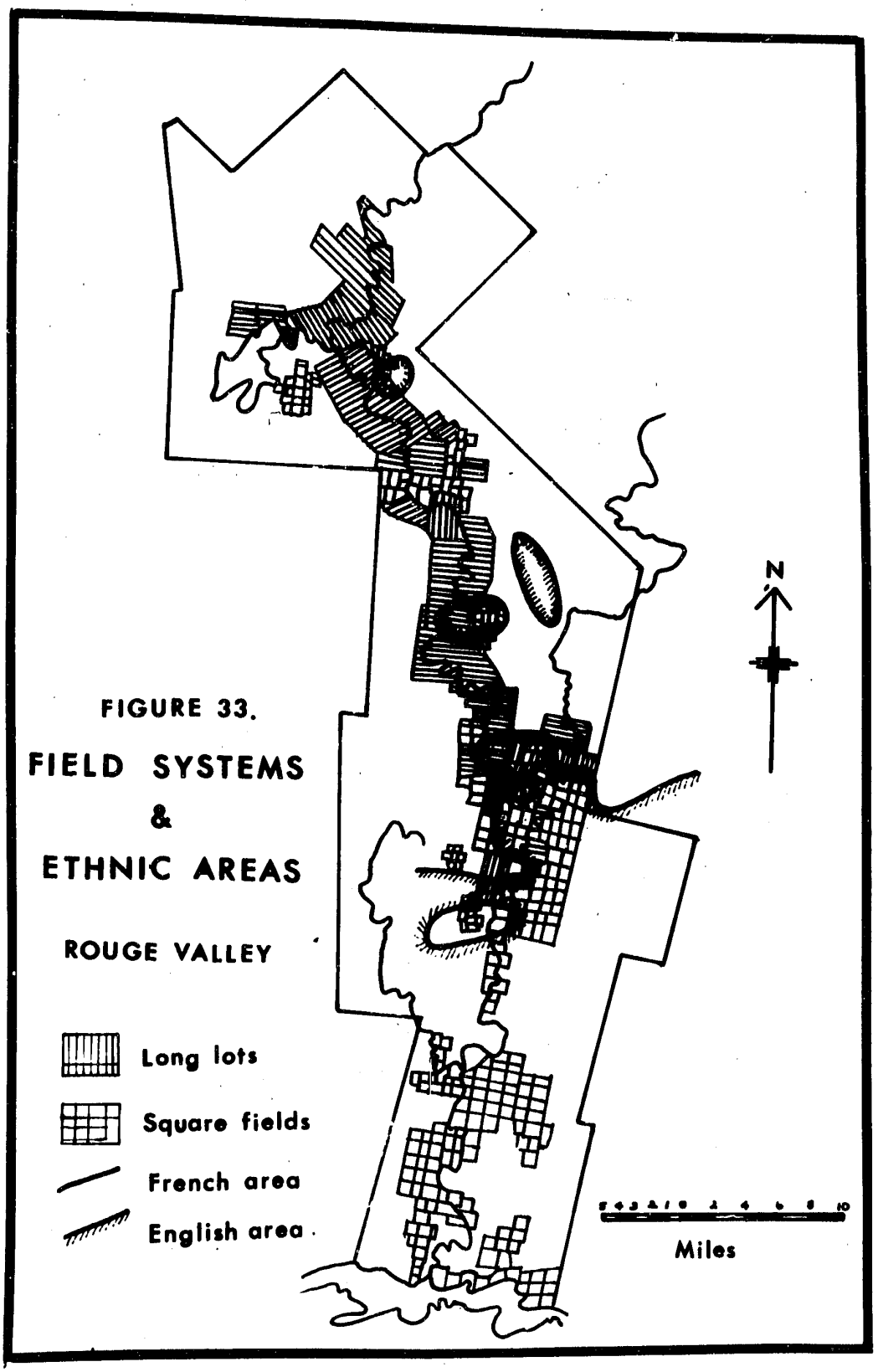


FIGURE 33.
FIELD SYSTEMS
&
ETHNIC AREAS
ROUGE VALLEY
Long lots
Square fields
French area
English area
N
Miles

ethnic affiliation is that where a group of square fields are found near Lake Nominingue. In spite of this exception, however the correspondence between fieldshape and the provenance of the original grantees is still maintained in the landscape today, even where there have been changes in owners from English to French and vice versa. The field patterns discussed are confined to the settled and farmed areas, but within these they contribute to the individuality of the different landscapes found in the English and French settled areas of the valley.

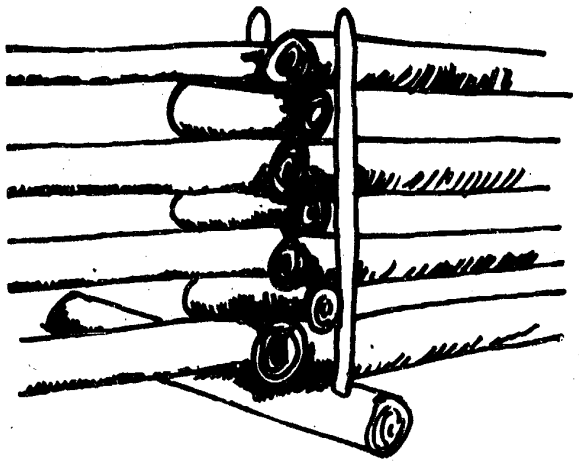
Field Boundaries

Mead, (1966) has pointed out that the shapes of holdings, and often fields too, are the result of administrative decisions and this has been the case in the Laurentians where the Ministry of Agriculture and Colonisation has controlled the taking up of lots. The materials and forms of the field enclosures are, however, capable of great variation because they depend upon the availability of fencing materials, either in the immediate vicinity, or at a distance when they have to be brought in and upon the traditions and skills of the settlers. In the Rouge Valley it seems likely that the former has been the stronger influence on fence or boundary types.

In earlier times wooden fences were probably found throughout the valley using timber which was plentiful

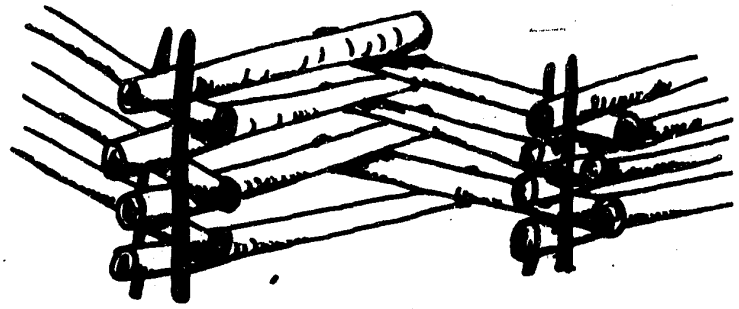
locally when the land was being cleared. Remains of fences made entirely of wood are found, but they are small in total length and widely scattered. The most common form is the modified chock and log with additional vertical supports (Fig. 34) which is massive in form, using the entire trunks of small trees as the cross pieces and logs for the uprights. The timber did not have to be squared or sawn, or even have the bark stripped off, so that these fences were probably the first ones built by colonists because they took less labour. Their distribution today in the area is very patchy; there are some between the Rouge and Diable south of Brebeuf, the remains of others in Joly on the road to Lac Labelle, and in Marchand around L'Annonciation and towards Lac Nominingue. The only other examples are found in the Arundel Basin where they are maintained on the farm of a gentleman farmer, and near Lac Ouimet where they are repaired as an attractive tourist feature. Apart from the last two examples they are occasionally found in the lowland but more characteristically in upland areas of marginal farming and abandonment of land, where the farmer is incapable of replacing them by more modern fencing because of the high cost of the latter.

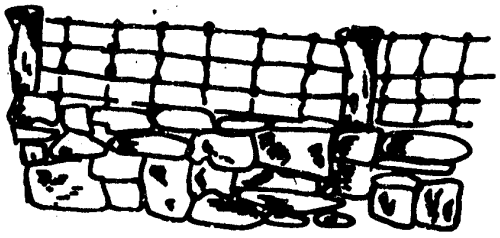
This is the only form of fencing completely constructed out of wood except for a single example of post and rail on the MacIntyre farm near the junction of the Rouge and Maskinongé. The Rouge Valley lacks the great variety



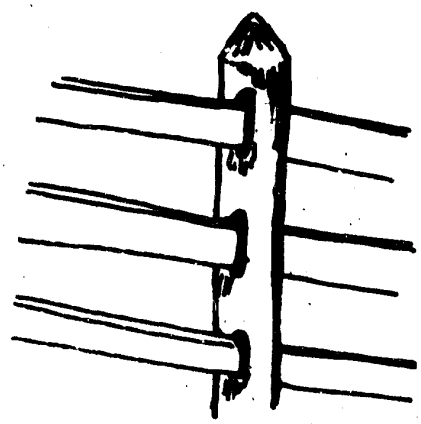
Chock and Log Fence.

Snake Fence.





Mixed Fence.
(Stone wall & sqared wire)



Post and Rail Fence.
(Morticed)

FENCE TYPES.
FIGURE 34.

of wood fences, which is found in similar areas in Ontario where snake fences (Fig. 34) and tripod fences are found over wide areas as well as the double upright form, (Leechman, 1953). The most common type of field boundary in the Rouge today, in both north and south is post and wire, either stake and woven wire or three wire strands or barbed wire. In places settled before 1890 this has probably replaced the earlier wooden fences as they fell down or decayed, wwhile in the parts settled after that date, such as the north of Marchand, Mousseau and Lynch these are probably the original fences. By the beginning of this century factory products such as fencing wire were being produced cheaply enough to be used even by colonists and as a former chapter has revealed the first settlement of the north of the valley was preceeded or accompanied by the construction of colonisation roads so that factory products could be brought in from near Montreal at relatively low cost. The advantages of wire fences are that they are less trouble to look after, and that they are less wasteful of space.

In spite of the prevalence of field stone, stone walls are not found in the valley itself, probably because the Quebec farmer has no tradition of building walls of dry stone, in contrast to the farmers of New England, (Flatres, 1960). The stones cleared from the fields are usually moved to the edge of the field, generally to the foot of the upland, or, more rarely, piled up near the centre. There are some stone walls in southern Grenville in the Ottawa

Valley, but these are just piles of stones, not dry stone walling, and their instability and inadequacy is demonstrated by the frequent addition of some strands of wire above them.

The pattern of fence types in the Rouge area does not reveal any regional differences between north and south, though these may have been obliterated as wooden fences were destroyed, to be replaced by wire fencing. The availability of convenient and cheap mass produced fencing has destroyed any evidence of traditional differences between the north and south of the valley. Today both the French long lots and English square fields are demarcated by the same kind of fence.

Settlement Forms

The characteristics of land holding in the two culture regions of the Rouge Valley are also reflected in the landscape by different patterns of settlement. The regularity of land holding in the French area despite the irregularity of the terrain has already been commented on, and the ranges have formalised the distribution of farms and even villages, especially in the river valleys. The location of farmsteads along the range road at the end of the lot gives the curious linear rural settlement so well developed in French Canada and represents a compromise between nucleated and dispersed settlement. Each farmstead is in its own land and yet is quite near the neighbouring

farms; in the early days of New France this was an advantage for defence but latterly the strong social significance of the range has been more important. The French Canadian colonist has strong family and group ties within the range; Deffontaines quotes the institution of the "premier voisin" included in all decisions; the maintenance of the road used to fall upon each member of the community whose property fronted on it; and in the early days of settlement each range organised its own school for the children. Miner, (1939) emphasises the social completeness of the range and notes the paucity of contacts with other ranges, even those nearby.

Although this extreme form of self sufficiency has disappeared in the Rouge Valley, for schools and other services are now more centralized, the linear distribution of farms still remains, with the orientation of the farm towards the road. There are few areas where the lowland is wide enough to accomodate two ranges so the 'rang double', with farms facing each other on each side of the road, is poorly developed, and the 'rang simple' is more common. It is particularly marked along Route 11, north from La Conception to beyond L'Annonciation, where there is a continuous line of farms to the east of the road, and between that and the river, except where the upland approaches the river margins. In the uplands and upon morainic and other poor soils this pattern is less regular. Although there is a good example

of a rectalinear road pattern and lines of farms to the west of L'Ascension in the Mousseau Valley on the very edge of the farmed area, where the roads were laid out and farms established as recently as the 1930's and 1940's. The traditions of the range are still maintained among French settlers.

Similarly the villages within the French region are much more regular and stereo-typed in form than are those of the English sector. They are an outgrowth of the range system and represent an intensification of the normal range settlement pattern. The most common form is the 'Strassendorf', or street village, formed by the infilling of the gaps between farms along the road. The central point is always the church, which marks the original choice of village site selected by the Abbe Labelle or his co-workers, and which represents the religious and social fulcrum of community life. L'Annonciation is the finest example of the street village in the region, its curved main street, following the line of Route 11 and the Canadian Pacific Railroad, being over a mile long; (Fig. 35), further expansion of this village has resulted in the construction of parallel and cross streets to give a grid pattern plan. The same form is represented at Huberdeau. St. Jovite, the largest settlement in the north region, has a similar grid form and is aligned along Route 11. Other examples of the linear village are La Conception on either side of the

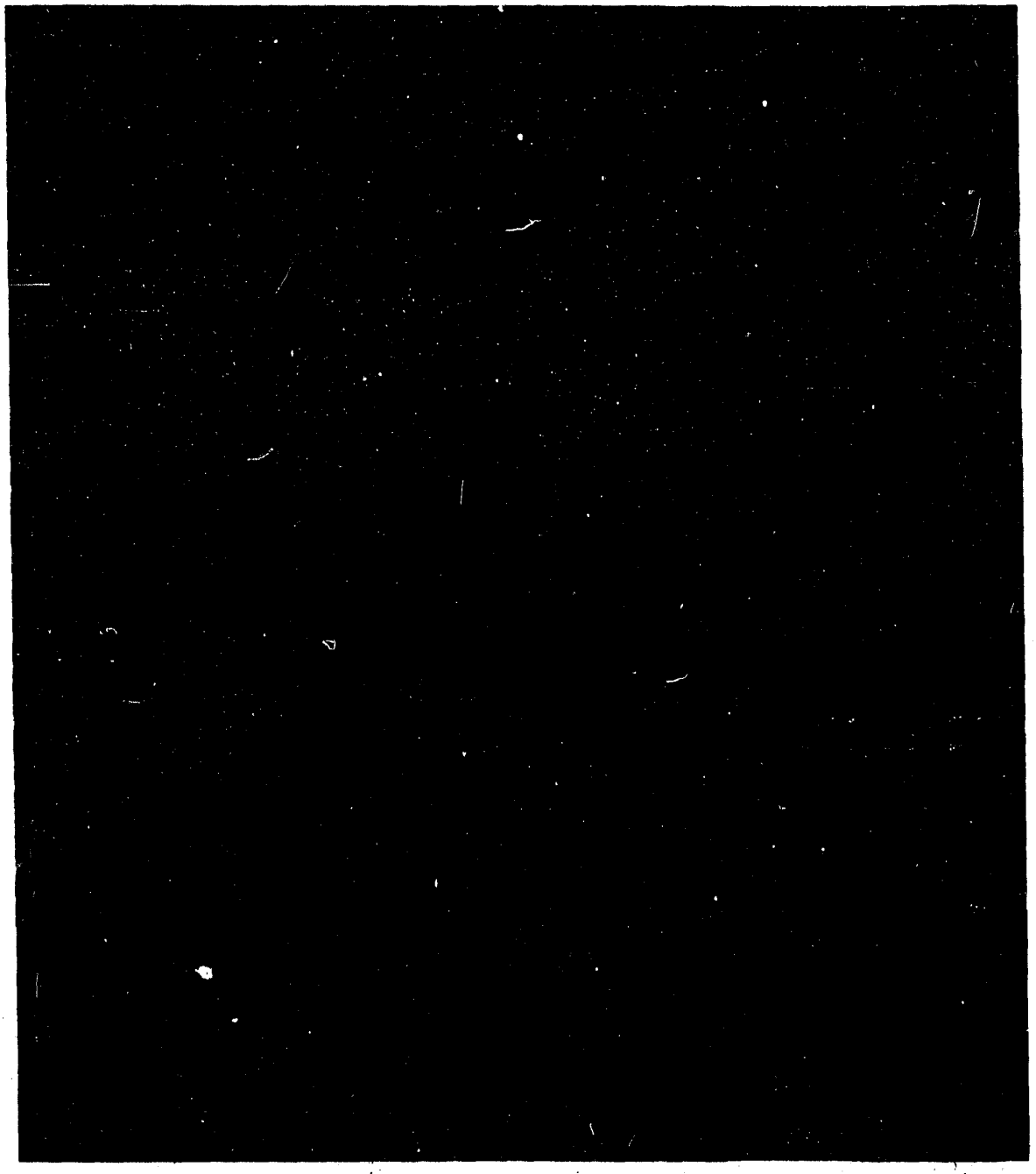


Fig. 35
The village of L'Annonciation, Marchand Township (north to left of page).

Rouge River and Ste. Veronique along the west shore of Lac Tiberiade. There are few other types of village plan among the French settlements although L'Ascension is a green village with the church, post office and village hall and offices grouped around a central open space. Secondary clusters are few and tend to be very small, three or four farms at the most, and although dignified by a name, for example Sienna, Bayard or La Conception Station, they generally lack any village facilities such as a store or post office or chapel.

In the southern part of the valley the English farm and village patterns are much less organised and regular, being the result, not of organised settlement but of individual colonists locating and cutting a farm out of the forest. There was no social organisation similar to the range or the parish and the British colonist was not part of a group but rather an isolated settler. The irregularity of rural settlement reflects this, for although some areas such as the Arundel Basin have a regular pattern of square holdings bounded by the range and lot roads, others such as Harrington, the Lost River area, and Avoca lack regularly arranged fields. In all of these areas and throughout the southern part of the valley the farmsteads are rarely located on the roads, but conform to the British practise, so common in Ontario, of building near the centre of the holding, orientated without consideration for the direction of the main road, but

rather with regard to aspect, and are served by a track or access road running from the main road to the farm-yard. On the ground this open and scattered distribution gives the impression of a much lower density of rural settlement than in the French areas with lines of farms along the roads.

In the southern parts of the valley the plans of the villages also show more variation than their French counterparts. Arundel is a nucleated settlement, clustered around Route 31, the abandoned Canadian National Railway, and the road to Huberdeau. It has no well defined centre and although the United Church has a central position it is not the focal point of village life. The Anglican Church is situated at one of the extremities of the village and is rather isolated. The fragmentation of allegiance between different churches results in the lack of a true centre for the community. Other areas which form natural units such as Avoca and Harrington and Rivington completely lack a village, having only dispersed farms. The Harrington and Rivington basin does not even have a post office being served from Calumet 15 miles away, and the three general stores in the basin are widely separated. The lack of a focal point can again be correlated with religious diversity for there are four small churches; Roman Catholic, United, Baptist and Pentecostal, and none of them is the force of attraction that the Church is in the French

settlements to the north, where the entire population is Catholic and attendance at Mass each week is an obligation. Kilmar is not considered from this point of view for it is not so much a rural village as a company settlement, associated with the Canadian Refractories magnesite mines.

The rash of tourist cottages which has only recently begun to disfigure the landscape in both the north and south of the valley, is not a rural phenomenon, rather it is an outlying extension of suburbia. The occupants of the cottages are transients contributing little to the indigenous life of the region except in so far as they give new life to the existing service and retail industries. They represent the disturbing effect of the urban and industrial society upon a landscape consisting of traditional forms.

Building Types

Despite marked differences between north and south in other facets of the cultural landscape, a study of house and barn types remains inconclusive. Although there is a wide variety of building materials, techniques and styles, all of which were recorded throughout the Rouge area, there seem to be few marked regional characteristics or clear cut distinctions. There are isolated examples which show typically French or English features, but these are not numerous enough to distinguish French or English culture areas on the basis of building types; the distribution rather than

the form of buildings is the more important criterion.

In the region as a whole a wide range of building materials have been used but there seems to have been less variety in the English section where there is a marked lack of materials other than wood to be found in the buildings. Plank and clapboard for both houses and barns are almost universal in the south although there are four log buildings and seven of squared timber still in existence. These date from the earliest days of pioneer settlement before sawn planks were readily available and reflect the greater isolation of the original English settlers and the lack of colonisation roads. Once built, the solidly constructed structures were not replaced, especially if they were situated in isolated areas, as are the two surviving log barns in the Avoca Basin, where, until recently farm holdings remained small and the original barns did not have to be replaced by larger ones. Recent consolidation has resulted in some larger modern barns. The best example of the effects of isolation can be found only three or four miles from Arundel near the Harrington boundary (on Range I lot 6). Although today served by a reasonably good road running towards Lac Vert where tourist cottages have been built, this was for a long time a backwater. Just north of Lac Matilda is a farm house and outbuildings showing many of the early kinds of building materials. The house itself (Fig. 36) is constructed of adze-squared timber which is generally an

Fig. 36
Squared-timber house near Lac Matilda, Arundel, with assymetrical plan and gambril roof.

early form, and so is one of the barns; they both have clay or lime mortar chinking. Another of the barns, now being demolished, is built of massive logs, while a lean-to has bark roofing. All of these features suggest an early date of settlement but the land records reveal that this lot was only granted on ticket of location in the 1920's. It is safe to assume that this area was settled by squatters at a much earlier date.

In the north there is a very much greater variety of materials. Log and square timber buildings are found scattered throughout except for the area north of L'Annonciation, where, in common with wooden fencing, they are entirely lacking. Stove wood construction is also very characteristic of the French area and is found from St. Jovite in the South (Fig. 37), to L'Ascension in the north. It takes the form of billets of wood eight to ten inches long set into mortar, the whole being supported by a timber frame. Perrin, (1963) writing of similar buildings in Wisconsin connects it with the lumber camp cabins of Quebec, so it may well be indigenous to this province. The materials are provided by the abundent unsaleable pieces left at the sawmill, and construction is easy for each piece weighs only about ten lbs. and can be handled by one person. Equally it does not require the skill needed for log construction. Plank and clapboard are also very widespread, and shingle sided barns are found here though absent in the

Fig. 37
Stove wood construction in a barn north of St. Jovite.

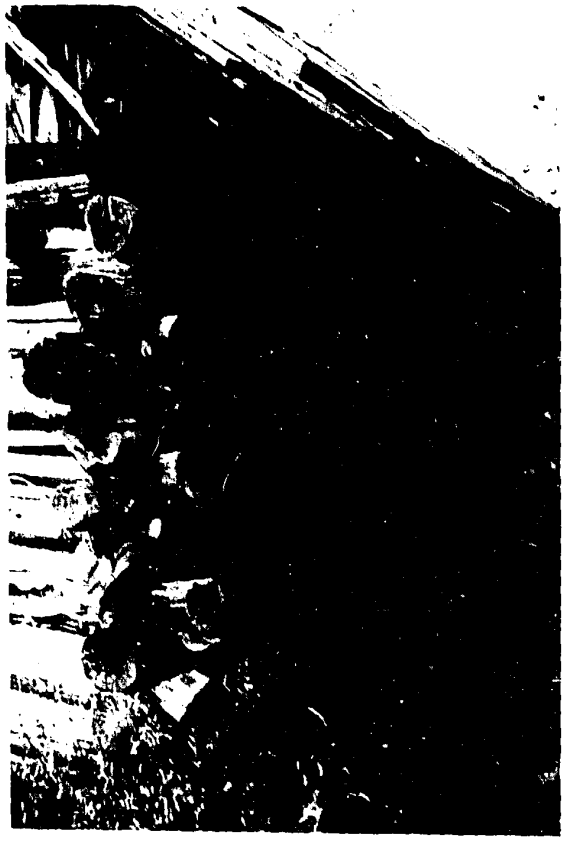


Fig. 38
Top-notched corner ing. Barn near Lac Vert, Harrington.

south. Even more noticeable is the widespread occurrence of factory produced materials. Brick houses are found around St. Jovite where there was a brickworks from 1879. Brick and stone patterned sidings and other mass-produced materials are widely used, as are concrete blocks. In the north settlement was still going on when cheap factory materials were available and they were often used instead of traditional materials.

The older buildings of the north however, show a greater mastery of the technique of building in timber than those of the south, and this is particularly well demonstrated by the cornering of the log and square timber houses and barns. In the south log barns are constructed by simply overlapping the logs at the corners and leaving wide gaps which have to be filled in with chinking. In the north where log barns survive the individual logs are top-notched at the corners and fit tightly and securely, (Fig. 38). Top-notching, as Kniffen (1965) has pointed out, calls for considerable skill if the notches are not going to form hollows where rain can collect and rot the wood. The good condition of a small barn just within Clyde Township on Route 11, or another one or two miles south of Macaza, demonstrates that these structures although old are well constructed and weatherproof. In the village of Grenville there is a square-timber house where the timbers are again simple overlapped, the gaps being filled in with mortar and

the whole whitewashed. At the best simple morticing is found, for example in the house near Lac Matilda in Arundel, already mentioned. In the French area complicated dovetailing replaces these crude methods. There is an excellent example of this in a small farm house to the west of L'Annonciation and it is noticeable that it is associated with a bellcast roof, traditionally associated with French Canadian vernacular architecture in the St. Lawrence lowlands, suggesting that the original settler was experienced in house construction of timber. In one case 'pièce sur pièce' construction is found. This also known as the Red River frame (not from the Rouge, but the Red River of the Praire Provinces), where the uprights of the frame are groved and heavy squared timbers are slid horizontally down them into place. Séguin, (1963) describes this type of construction in his work on the barns of Quebec and finds it a favourite mode of construction in the seventeenth and eighteenth centuries. It has been suggested that it was a technique known to the Norsemen in Scandinavia, adopted in Northern France and introduced to New France by Norman settlers.* The great difference in the development of techniques of building suggests only one hypothesis; that the French pioneers were drawn largely from the surrounding counties such as Terrebonne and those of the St. Lawrence Lowland and had absorbed the traditions of a rural society

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* Richardson, personal communication, November 1966. National Monuments Commission.

which built in wood. The English speaking settlers, however, were a mixed group including Scottish crofters, Irish navvies, and English city dwellers, and many of them had no experience of building with timber, and made do with simple techniques.

It is much more difficult to distinguish between French and English housing styles in the valley than between standards of technique as settlement in any numbers only began in the 1850's. It was at about this time that the traditions of vernacular building were dying out (Carless, 1925; Barkham, 1955), as new materials and techniques became available. It was at this time too that there was a revival of eighteenth century French architecture, especially in the more ambitious houses of the towns. There is a good example of this in St. Jovite (Fig. 39), but this is foreign to rural building and will be left out of consideration in a discussion of buildings in the countryside.

Two aspects which are significant in considering the rural farm houses are plan and rooftype. The assymetrical plan is generally indicative of an early building and is found only in the southern part of the valley, there being a very good example in Grenville village where a square timber house has its door displaced from the centre towards one side and the lower windows at different levels. The roof, dormer and porch are all later additions. The first settler in Grenville came in 1810 and the house

Fig. 39
Town house, St. Jovite. Revival of eighteenth century French style.

probably dates from the 1820's or 30's. In the north the houses all have symmetrical elevations and date from a later period.

The style of roof is often an indicator of date of settlement and the origin of the settler but in the Rouge there is an overall similarity of house types which contributes little towards the differentiation of cultural landscape. The ordinary straight pitched roof is found throughout, as is the flat roof and false front which is characteristic of houses built in the 1920's. The latter type is more numerous in the north which was the later settled area. There are only two examples of the gambril roof in the valley, one on the farmhouse north of Lac Matilda in North Harrington where it is probably a later addition and the other far in the north at L'Ascension on a lot granted in the 1900's, (Fig. 40). It is a relatively late form in French Canada as a whole but appeared there before the Rouge was settled and is therefore no indication of date of building. The bellcast roof is almost entirely absent, there being only one example in the valley, near Lac Nominingue in the French speaking area, in spite of its widespread distribution in the St. Lawrence Plain. The only conclusion that can be reached is that the entire Rouge region was settled too late, and within too narrow a time range, for there to be significant differences between French and English house styles.

Fig. 40
Gambril roofed house near L'Ascension.

Fig. 41
Barn with extended ridge-pole, La Macaza.

A similar conclusion can be reached from a study of barn types. Both English and Dutch roof types are found throughout, as are wooden silos. There are, however, isolated examples of features that are specifically French Canadian. There are examples of the feature that Seguin calls a campanile, permitting ventilation of the loft, near L'Annonciation, and this is not found in the south. A barn with an extended ridge pole is found near Macaza, (Fig. 41), and this too is a French Canadian rather than an English feature.

Conclusion

The Rouge Valley, although settled no longer than 150 years ago, and in most areas for a much shorter time reveals deeply ingrained traits which distinguish the French north from the English speaking south. The boundary between the two different cultural landscapes may be tentatively drawn some miles north of Arundel and Rockway Valley (with a French enclave at Huberdeau), and thence north-east to the Arundel/de Salaberry boundary. Brébeuf and St. Jovite to the north of this are markedly French. There is a considerable body of French speaking settlers within the English section but the landscape remains English in texture, for if the French are present in small numbers they are assimilated, anglicised and protestantised, and even if found in larger numbers, the patterns of landholding etc.,

are strongly enough entrenched to survive.

The most obviously distinctive features of the two areas are those which are least flexible and most rooted in the traditions of the races. Land holdings, field shapes and settlement patterns are deeply imprinted and subject to little change, and these show sharp differences between north and south. Other features are, by their nature, more ephemeral, and change with the advent of new materials and techniques. Fences and buildings are less useful indicators of cultural differences, because in spite of several good examples of traditional forms they are most affected by increasing industrialization with its effect on materials available, and urbanisation, affecting the break down of traditional rural way of life and styles of building. Although buildings are an important part of the total cultural landscapes, they are of secondary importance in their delimitation in the Rouge Valley.

C H A P T E R IX

CONCLUSION

The historical geography of the Rouge Valley in the nineteenth and twentieth centuries is a microcosm of trends which were widespread in Quebec, North America as a whole and Europe in the same period. The nineteenth century was characterised in many places by a growing population which had to expand onto new agricultural land or be absorbed by the growing industrial towns. Europe, as a whole had few areas of good agricultural land where expansion was possible and that century saw the taking up of marginal land, for example in the Swiss valleys, or the coniferous forests of Northern Sweden. North America was luckier, having abundant new land for settlers and could absorb some of the surplus European population. New techniques of fencing, well drilling and dry farming and better communications by rail meant that the Prairies became attractive for settlement after a considerable time lag, (McManis, 1964).

In spite of the attraction of land in the Canadian West, French-Canadian expansion to a very large extent was confined within the Province of Quebec for cultural rather than economic reasons. By the beginning of the nineteenth century all of the more favourable areas of the St. Lawrence

and Richlieu Valleys had been taken up, as well as the Eastern Townships, and there remained only the more forbidding lands of the Canadian Shield. Beauregard and others have demonstrated that there was considerable population pressure in the older agricultural regions of Quebec, aggravated by the system of land inheritance, where the family farm passed undivided to only one of the sons. Economic necessity forced the others to look for other means of subsistence, either in the towns or on new land. Racial and religious pressures upon the French-Canadians to remain within their own province and to maintain their social and religious organisations, gave to the colonisation movement the fervour and idealism of a crusade which made it unique. This idealism, bolstered by Government and Church support, blinded the colonists to the real value of the land that they took up in the North and its unsuitability for agriculture became apparent only later.

The process of land settlement, and the expansion of the frontier in the nineteenth century have taken different forms in the southern and northern parts of the Rouge valley. In the south the initial settlement within the Laurentians took the form of small, scattered clearings, beyond the more fully settled Ottawa Valley. The choice of these farms depended upon the perception of the sites by individuals, and this was conditioned by farming practices and available techniques. Lake-side sites and basins of relatively flat land

were more attractive to the settlers than the hummocky uplands, and the lighter sandy soils, which carried a less dense vegetation, and were more easily cleared, were preferred to the heavier and damper clay soils, which, although needing drainage, were inherently more fertile. The edge of the oecumene did not move steadily forward towards the north but was characterised by outliers of settlement and only later were these connected up and the whole area of the southern townships granted to settlers.

In contrast the French Canadian settlement of the northern part of the valley took the form of a regularly expanding frontier. The traditional riverine form of settlement of Quebec was maintained, and land was first taken up along the Rouge and its tributaries in an orderly fashion by organised groups of settlers taking advantage of the lacustrine and alluvial soils. Only after the river lands were colonised did settlement begin to move out into the uplands.

Thus in the south the original land settlement was dispersed, and there was no contiguity with the older settled areas. Subsequent settlement took the form of filling in between the earlier grants of land. In the north there was a progressive linear advance, so that at any one time in the valley's history the area around St. Jovite and the Rouge-Diable confluence was always economically in advance of the townships further north which were in various stages of pioneer development, the northernmost being the last settled

and least populated. Secondary settlement in the north took the form of a fanning out from the river valleys into the uplands, and onto the poorer soils. These variations in the form of the frontier were influenced both by the different topography of north and south and more importantly, by the organisation of settlement, or lack of it, in the early stages of settlement.

The parallels between the environment met by the settlers in the Rouge Valley and in Nörrland in Sweden are striking and led to many similarities in occupance. Both are boreal regions with limited growing seasons, mixed or coniferous forest and with soils predominantly of glacial til, lacustrine and fluvial soils being extremely localized and found only in the basins and valleys. In both areas the initial clearing was difficult especially as settlement was by individual families. The small cleared area, together with the poor soils, led to a combination of agriculture and forestry for subsistence, with the men of the community leaving for lumber camps in the winter and working for cash wages, to the detriment of their farms. In both the Laurentians and North Sweden stock rearing rather than arable farming has been predominant because of the difficulty of growing all but the hardiest of grains. Isolation throughout the nineteenth century led to subsistance farming, and retarded the growth of industries, except those serving the immediate local market, such as sawmilling.

Following the reckless over expansion of the settled area in Quebec in the nineteenth century, the twentieth century has seen a marked decline in the rural settlements in the Laurentians and further north. Paget (1960) recognises that the primary aim of colonisation in Quebec has been social rather than economic, and aimed at the establishment of nucleated, socio-religious and self-sufficient communities, similar to those already in existence in the province. In the rest of Canada the main reason for settlement was economic. This century has seen the decline of the social ideals of French-Canada, while economic efficiency has become more important. The dream of establishing a peasant society, each family on its own farm, has begun to fade. The trend is now towards industrialisation, even in agriculture, and its intensification and concentration. Agriculture in the marginal areas is economically unrewarding and more and more land is being abandoned, the farmers moving into the villages and towns.

The Rouge Valley agriculture has suffered in common with many other areas in Quebec, and evidences of the decline in farming are found in most parts of the area. Although abandonment of whole farms, or of unproductive fields is widespread, the position of the settlement frontier in the north has not retreated. Instead there has been considerable thinning out of rural settlement behind the frontier. This is particularly noticeable in the latest

settled townships of the north, including Turgeon, Lynch and Mousseau where the farmers have located only in the last thirty years, often under economic pressure during the Depression of the 1930's, and a strong attachment to their own land has not had the opportunity to develop. In the English speaking townships of the south there is evidence that the abandonment of some farms by their owners, has led to the consolidation of farms into larger units, managed by the remaining farmers. This development is found in Avoca particularly, but seems to be missing in the French part of the valley.

There is a strong correlation between low land capability and abandonment in all parts of the valley. The thinning out process is most marked on the till soils of the uplands, the coarse and excessively drained gravels in the river valleys, and the sandy plains near L'Ascension. Conversely, there has been no decline of farming on the good soils of the middle Rouge and the lower Diable, or in the Arundel and Harrington Basins, where mixed farming is reasonably successful. Thus the pattern that is revealed shows a core area of comparatively good soils along the Rouge and in the lowland basins, where farming is little affected by the prevailing movement off the land, but, surrounding this core, there is a fringe of marginal land where more and more fields go out of cultivation each year.

Agricultural settlement has been a long drawn out

process of trial and error. Having little initial knowledge of the capability of soils of the area, settlers gained this only by experience. The great numbers of lots which changed hands rapidly after the first grant show that in some areas this was learned quickly. In other places, where it was possible to make a living, the settlers held on until alternative economic opportunities outside the area finally induced them to leave lands of only marginal value for farming. Those farmers who remain in the fringe areas often do so because of attachment to farming and their own land and these are generally of the older generation.

Improved communications, instead of helping the local industries to develop, have led to the truncation of t their local markets, as products from the towns can be obtained more easily than before. The dairy industries of the Rouge Valley have disappeared and production is centralised in towns such as Lachute and St. Jérôme. Although the lumbering industry remains quite important mechanisation has reduced the labour force needed. Consequently there are fewer opportunities to supplement farm income by alternative, or part time employment. This is another potent force in the abandonment of marginal farms.

The future of the Rouge Valley for some time to come will continue to be influenced strongly by its past history and by the retention of traditional values by its people. Plans for its development put forward in the S.T.A.R.

report often fail to take this into account, and may have only limited success if they are implemented. The inadequacy of farming alone as an economic base was recognised by many people even while colonisation was going on in the nineteenth century, and the mineral base and opportunities in small local industries are transient. The numbers of would-be settlers who cut over their lots, obtained cash for the timber, and moved on, testify to the lack of appeal of agriculture alone even then. But even today agriculture in the valleys remains the economic base and the S.T.A.R. enquiry attempted to suggest a plan for its improvement and rationalization.

The geographical development of the valley in the past has left an unfortunate legacy of land division. The rigid pattern of lots which takes little account of relief or soils, cannot be changed, although several lots may be consolidated to create larger farms. Even more of a problem is the traditional attachment of a farmer to his own land, and his often irrational belief in its fertility. It is difficult to persuade the land-owners of the valley to change their location to a more favourable one, or to agree to the redistribution of land. Even more alien is the concept of common pasture, which the S.T.A.R. report suggests as the optimum use for part of Marchand. Small, self sufficient farms have always been thenorm, particularly among the French-Canadian settlers.

Further, there is a rigid dislike of new types of farming in the valley, and the strong adherence to the breeding of cattle, and to dairying, in spite of changing economic circumstances. There is a strong prejudice against sheep among French farmers although sheep runs are probably the optimum use of much of the cut over land. The S.T.A.R. report outlines a pilot scheme for raising sheep in the north of the valley but disregards the personal feelings of the farmers, which have been proved in other areas of the province to be unchanged even in the face of the demonstrable success of sheep farming. It is unfortunate that this century has seen the loss of younger people and those with initiative from the valley, leaving behind the older and more reactionary generation who are more bound by tradition and less willing to accept changes.

It seems likely that all attempts to rationalise farming in the valley will fail and that the farmed area will shrink until it comprises the areas of better soils and little more. Alternative uses of the lands thus deserted must be found and the suggestion that reafforestation be carried out, is probably acceptable to most land owners. Forestry has traditionally been part of the way of life of the valley, and the wood lot has always been an integral part of the farm. C.I.P. has had some success in forwarding reafforestation, offering seedlings at very low rates, and free advice on the care and management of private,

planted woodlands. These will probably provide a useful supplementary income for the farmers.

The expanding influence of the Montreal metropolitan area with improved communications has caused great changes in the economy of the Rouge Valley in the last 40 years. The demand for recreational facilities for the city dwellers and the construction of new roads brings the Rouge into Montreal's sphere of influence. As yet tourism is only important on the edges of the are, at St. Jovite and Mont Tremblant, but it seems very likely that the whole valley will be developed as a resort area similar to the valley of the Riviere du Nord. Although on first consideration, tourism seems to be inimicable to the traditional isolationist way of life of the valley, the slow infiltration of tourist cottages has accustomed the people to the idea, and the undoubted success of Mont Tremblant is encouraging. Organised tourist facilities provide more employment and contribute more to the economy of the valley than do summer cottages and the recommendatiosn of the S.T.A.R. report that a holiday area be established near St. Rémi, and more camping grounds, golf courses, and ski runs be opened, would give employment to the maximum number of people. At first this development can take place side by side with the traditional folk life of the valley, but employment in service industries (a trend already noticeable) will be an attractive alternative to farming.

It is to be hoped that the old and the new can exist side by side, and that farming will continue on the better soils while tourists and visitors make use of the other areas, the two aspects of the economy of the valley existing in symbiosis.

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