

GEOGRAPHIC ANALYSIS OF LAND USE PATTERN  
IN OTTAWA

by Solomon M. Mutswairo

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I

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## INTRODUCTION

The main purpose of this thesis is to study trends in urban land development as it relates to the City of Ottawa. In short, it is a study of an aspect of urban geography. Differential categories of land use in Ottawa have reached such a state of magnitude that a study of its past, present, and future trends is of interest to both the geographer and the town planners.

In this dissertation, we shall concern ourselves with an interpretive analysis of land use patterns that fall into such categories as: residential, institutional, special land use, commercial, industrial, recreational, open spaces, e.g. the Greenbelt, and government functional areas.

Since no discussion of "urbogenesis"<sup>1</sup> can be considered complete without involving, at the same time, a consideration of "homogenesis"<sup>2</sup> and their interaction with one another, it will be pertinent to make some brief reference to the population characteristics of Ottawa.

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1,2 These terms were coined by the author and designed to mean urban evolution and man's evolution respectively - the latter, not in the organic sense as in "morphogenesis"<sup>3</sup> but in the social and distributional sense from the geographer's point of view.

<sup>3</sup> Torrey, Theodore, W. - Morphogenesis of the Vertebrates - John Wiley & Sons, New York, 1963. 1

Mention will be made from time to time, where necessary, of dormitory settlements in Ottawa's immediate periphery such as the Cities of Hull and Eastview, Townships of Gloucester and Nepean, Aylmer, Bell's Corners, and Rockcliffe Park Village. Only in this respect will they be mentioned since they are not directly related to our study. The correlation between man and his environment delineates the importance of the interrelationship between man and his environment and how the former is, to some extent, influenced by the environmental phenomena in executing his activities.

Although the protagonists of the theory of determinism<sup>4</sup> would have us believe that variation in the environment is the most potent factor in all influencing evolution, whether biological or social, I believe that although man is subjected to the rigours and challenges of natural phenomena, he is not determined by natural forces for the execution of his plans. Nature gives the challenge, man gives the response. There is much evidence all around us to demonstrate that man has dominated over the opposing forces of nature. To him all things are possible provided he is prepared to pay the price of going against the presumptive directives imposed upon him by natural forces. Hence, the development of Ottawa has, and

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<sup>4</sup> Taylor, Griffith - Environment and Race, Oxford University Press, London, 1927, p. 24.

still is, taking such strides because man has vindicated his invincible powers over the forces of nature.

The chapter which deals with land values <sup>5</sup> in Ottawa might seem ill-placed in the context of our study. But the main point of its inclusion is based upon the fact that man and land are inextricably knit together so that the relevance of this chapter becomes clear. Man is dependent on the land for his existence. Hence, land value studies enable us to better understand the areal distribution of population in Ottawa in terms of land which may be prohibitive for private ownership, through high costs, or through some other natural conditions. This is especially true in an urban setting where each land item has had its own price fixed in terms of the theory of supply and demand. In this respect, areal distribution of population is a reflection of the value of land in terms of such premium as becomes established for it by its natural condition and setting. Therefore, the study of land values does seem to help the geographer to understand some of the reasons for the areal distribution of populations in the cities and, especially, in highly industrialized regions of the world with the city as the focal point.

Finally, a cursory glance at the activities of urban planning and development in Ottawa and its varied urban renewal programmes will help to throw light on our

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<sup>5</sup> Chapter IV

understanding of the "soul" of the City. Although there is much in common in most urban planning and development programmes, the differences lie in the nature of their details. For this reason, Ottawa's position becomes unique because it is the Canadian National Capital with a unique and peculiar urban development programme all its own. Its development is truly a reflection of its status and of its projected "urbogenesis" and of its anticipated beauty of pattern and layout.

Ottawa is relatively a "new city". Chosen by Queen Victoria to be the Capital of a United Canada in 1858, it assumed its importance by reason of the fact that it lies on the border of the two great provinces which provided the main political, social, cultural and economic foundations for confederation. Here in Ottawa, not only do we find the meeting place for Lower and Upper Canada, but it is also the seat of government. Ottawa is fast becoming a centre for such national institutions as the Art Gallery, Museum and Library, and also a centre of higher learning in its two Universities of Ottawa and Carleton. Ottawa is also the focal point where the two cultures of the founding nations- the English and the French, meet, mingle and fuse, and are expressed in architecture and atmosphere.

The present character and singular beauty of the City of Ottawa are an expression of its national pride. The whole aspect of its life is influencing its administration, future planning projects, and permeating its entire

concept of urban renewal projects. Economic, commercial and industrial concerns are all subject to rigid zoning and censorship programmes in Ottawa under the scrutinizing agency of the National Capital Commission, one of whose functions is to enhance the beauty of the Capital City and its environs and to plan for the development of government functional areas and buildings. Within the framework of such an orientation, all city planning is, thus, geared to the one goal - to beautify the City of Ottawa with a pattern of buildings suited to its function as the National Capital, and with a system of parks and parkways or driveways designed and landscaped to cross and recross the City for the citizens' pleasure and enjoyment. In this regard, the use of land has been extended to areas beyond the City Limits and expropriated so as to embrace a greenbelt of open country around the city and designed to arrest any unsightly sprawl of the city. On the Quebec side of Ottawa beyond Hull, the greenbelt reaches out in a great fingerlike projection of magnificent park along the westerly flank of the beautiful Gatineau Hills with their splendid lakes.

The City is now very much a part of an urban region. In order to predict any further development of the City, it has been necessary to consider in a broad way, the possibility of population "explosion" of the whole Ottawa Region in the next several decades. With the expansion in local horticulture, economic and industrial developments, there is every likelihood that the region, and also the City of 5

Ottawa, will experience a real population explosion within the next few decades.

In order to meet the projected trend of urban and regional expansion, the official plans for redevelopment of blighted areas are being carried out vigourously in those parts of the city that need redevelopment. Large sums of money are being spent in expropriations of land designed to meet the ever-growing challenges of city growth. Because Ottawa is the National Capital, the federal government is directly involved and is concerned with the many major developments and improvements through the instrumentality of the National Capital Commission.

Finally, it should be borne in mind that all the combined projects of Ottawa's urban renewal are centred on the two concepts of bringing out the aesthetic nature of the city, as well as putting the urban land into its best and maximum use possible. This, then, is the concept of Ottawa's land use and the interest which it is hoped this thesis will arouse in the mind of the geographer interested in this aspect of our "urbogenesis".

P A R T I

CITY SITE AND HISTORY

## CHAPTER I

## THE "URBOGENESIS" OF THE CITY OF OTTAWA

Geographic Situation

The conurbation of Ottawa - Hull, and their satellite settlements, is situated between Long. 75 degrees and 76 degrees West, and between Lat. 45 degrees and 46 degrees North, and lies in the Ottawa Region<sup>1</sup>.

The geographic position of the Ottawa - Hull conurbation is particularly convenient, with Ottawa situated on the southern bank of the Ottawa River on the proximal junction of the confluences of the Ottawa and Gatineau Rivers and the Rideau Canal and Hull, on the northern bank. The settlements are, thus, located in an extensive area formed by the Ottawa - St. Lawrence Lowland<sup>2</sup>, and situated in the vicinity of the southern escarpment of the Canadian Shield formed by the old sedimentary rocks of the former Palaeozoic Era.

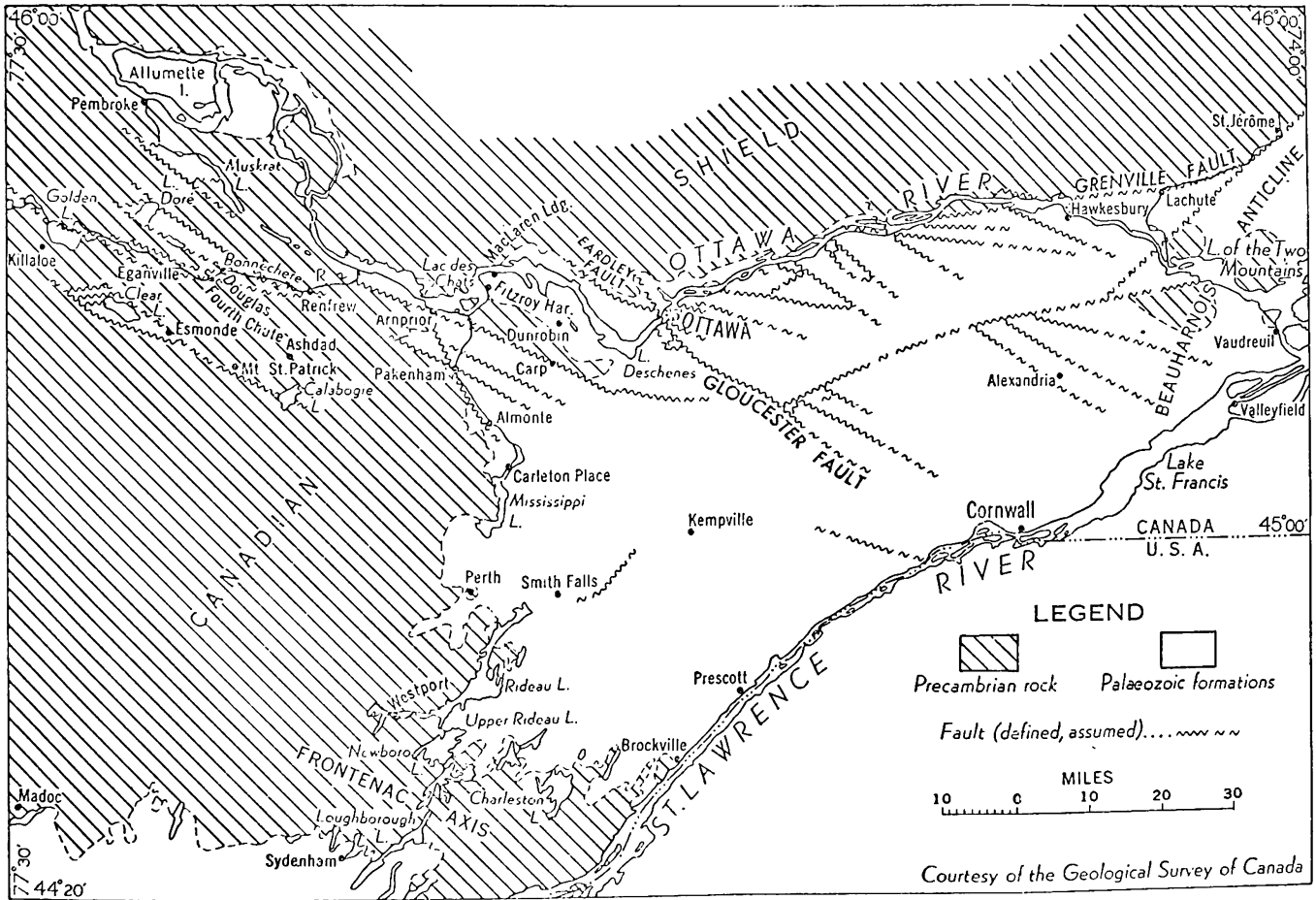
The Pre-Cambrian Uplands<sup>3</sup> occurring in the Gatineau Hills are the highest part of Ottawa Region. Here land reaches an altitude of some 1,300 feet above sea level. The lowest area is in the southern depression

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<sup>1</sup>Map No. 1

<sup>2</sup>Hosse, Hans August- Projected Development Trends and Conceptual Structure of the Ottawa Region: A feature on regional planning. Ph.D Thesis, Ottawa University, 1962.

<sup>3</sup>Wilson, Alice E.: A guide to the Geology of the Ottawa District - A Monograph Issue of the Canadian Field - Naturalist, Vol. 70, Jan.-Mar., 1956, Number 1, p. 1 et seq.



Structural map of the Ottawa-St. Lawrence Lowland showing faults affecting the Palaeozoic formations

MAP 1

Source: Wilson, Alice E., *A Guide to the Geology of the Ottawa District*, Vol. 70, Number 1, Jan-March, 1956, p.13.  
 Published by The Ottawa Field-Naturalists' Club, Ottawa.

## THE EVOLUTION OF THE CITY OF OTTAWA

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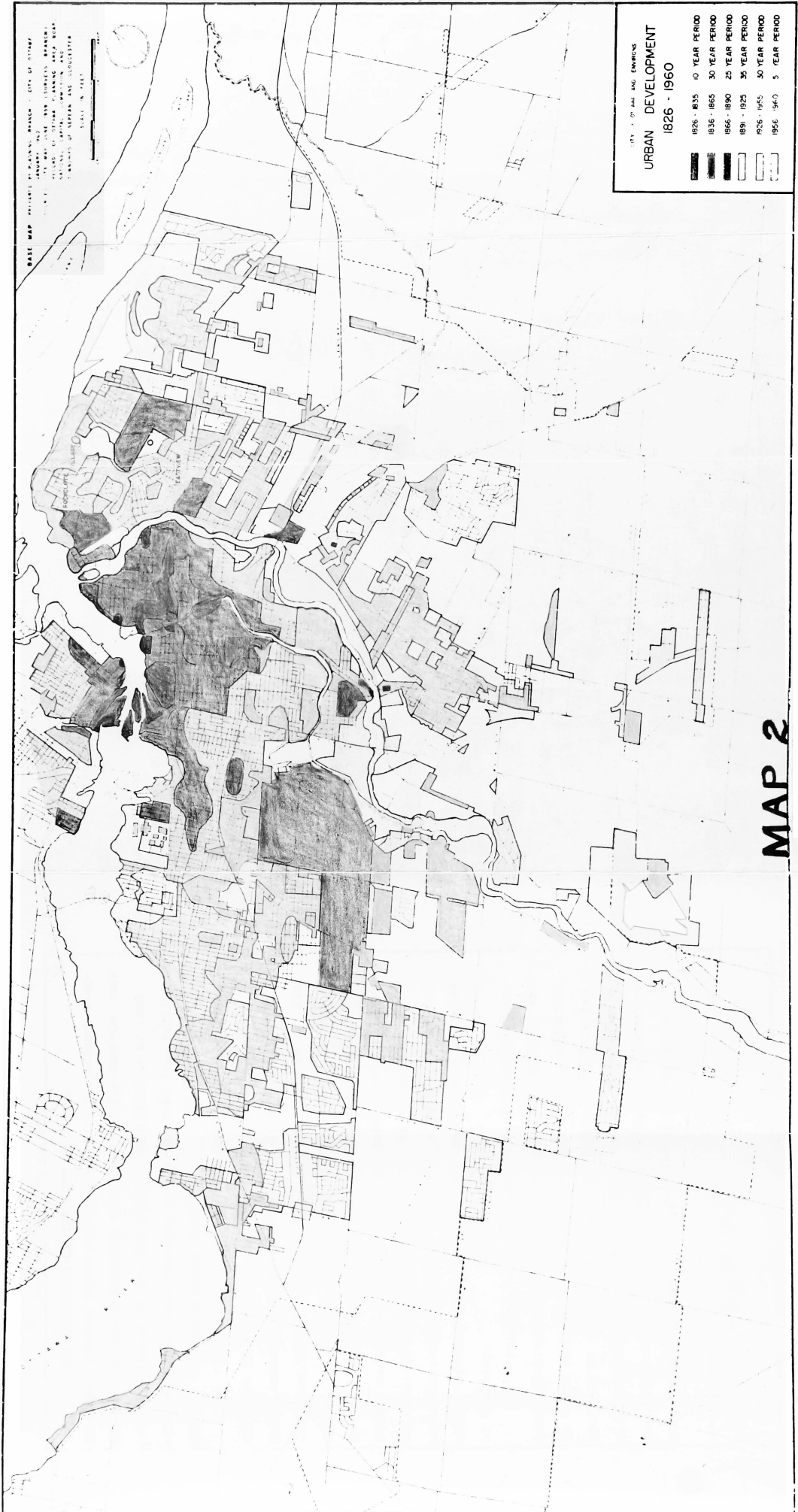
of the valley of the Ottawa just below the city where water surface level has an altitude of 127 to 132 feet above sea level. The Paleozoic sedimentary rocks of the lowlands of the Ottawa form a gently sloping and undulating land with deep sandy soils, rather poorly drained in places, left by the recession of the ancient glaciers and the sea. One of the better drained areas of the city is on Parliament Hill which attains an altitude of nearly 300 feet, while the highest point of land in the city (360 feet above sea level) is in the west end and embraces Copeland Park and South Carling. It has been used as the site for the City Water Reservoir.

The northwestern portion of the Ottawa Region, north of the City of Ottawa, has a general altitude of some 300 to 450 feet, with isolated hills somewhat higher, while the southeastern has a general altitude of some 400 feet. The eastern portion of this area is deeply underlain by drift, so that the relief in that area is lower with an altitude of somewhat between 225 and 275 feet. This is the lowest portion bordering on the City of Ottawa.

Notwithstanding the general geologic history of the area which has been mainly one of faults, the steep bluff along the Ottawa River from Parliament Hill to Rockcliffe Airport<sup>4</sup> is not just a fault line, but an

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<sup>4</sup>Ibidem, p.p. 29-30.



BASE MAP: DISTRICT PLANNING BOARD - CITY OF ST. LOUIS  
 THE CITY OF ST. LOUIS, MISSOURI  
 OFFICE OF PLANNING AND DEVELOPMENT  
 1500 MARKET STREET  
 ST. LOUIS, MISSOURI 63103

CITY OF ST. LOUIS AND ENVIRONS  
**URBAN DEVELOPMENT**  
**1826 - 1960**

[Darkest Shading]	1826 - 1835	10 YEAR PERIOD
[Dark Shading]	1836 - 1865	30 YEAR PERIOD
[Medium-Dark Shading]	1866 - 1890	25 YEAR PERIOD
[Medium Shading]	1891 - 1925	35 YEAR PERIOD
[Light Shading]	1926 - 1945	30 YEAR PERIOD
[Lightest Shading]	1946 - 1960	5 YEAR PERIOD

PREPARED BY PLANNING BOARD, CITY OF ST. LOUIS  
 MAP 1962

MAP 2

## THE EVOLUTION OF THE CITY OF OTTAWA

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erosional feature which has resulted from the natural wearing away of the sedimentary rock from the Pre-Cambrian rock of the Gatineau Hills. The general configuration of land which resulted from faulting can be observed from Parliament Hill to the Experimental Farm<sup>5</sup>.

It is well known that the nature of the terrain has much to do with the general population distribution. Well drained areas generally seem to attract people, while low lying areas seem to lack in population concentrations, unless, of course, these are well drained and made more habitable. The general distribution of population in Ottawa seems to follow closely this pattern of the nature of terrain. So that we find the general trend has been for population concentrations to move in a westerly direction, with a sporadic settlement in the east and south sections of the city.

Finally, it is of interest to note that Ottawa lies 126 miles from Montreal, 265 miles from Toronto, and 45 miles from the United States border. In this situation the city is under the economic influence of Canada's two main cities - Toronto and Montreal, and is situated at a meeting place for their economic spheres of influence. Both Toronto and Montreal are linked to Ottawa by road,

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<sup>5</sup>Ibid; p. 15, Fig. 4.

## THE EVOLUTION OF THE CITY OF OTTAWA

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rail and air, as well as with the USA.

Brief Historic Background

Late in the 18th Century, a plan for the City of Ottawa was made for a site chosen at the "forks" of the Rideau River.<sup>6</sup> However, Governors of the Canada were changed and the plans were put aside. Because of this delay, Hull, on the opposite banks of the Ottawa River, became a thriving village before even a few settlers were attracted to the south shore of the Ottawa.<sup>7</sup>

In the year 1818, the well-organized Richmond settlers (mainly disbanded soldiers who had been granted parcels of land at Richmond Landing along the Rideau River) soon arrived and constructed the first road in the Ottawa area to take them to Richmond. Richmond Landing, their debarkation point, flourished as a meeting place for the settlers, and as a refreshing stop-over for river travelers.<sup>8</sup> Johiel Collins, an intrepid pioneer, constructed the first house, which was a kind of tavern, in what was to be the future of Ottawa somewhere where Duke and Wellington

---

<sup>6</sup> Originally, during the spring floods, the Rideau River overflowed its banks from Dow's Great Swamp, entering the Ottawa River west of the Chaudiere Falls, thus forming two forks of the river.

<sup>7</sup> See Map No. 2

<sup>8</sup> Richmond Landing, named Nepean Point originally, renamed Bellow's Point or Landing after the first settler, renamed Richmond Landing after the Richmond settlers, is now the point immediately north and east of the area known as "The Flats, or LeBreton Flats."

## THE EVOLUTION OF THE CITY OF OTTAWA

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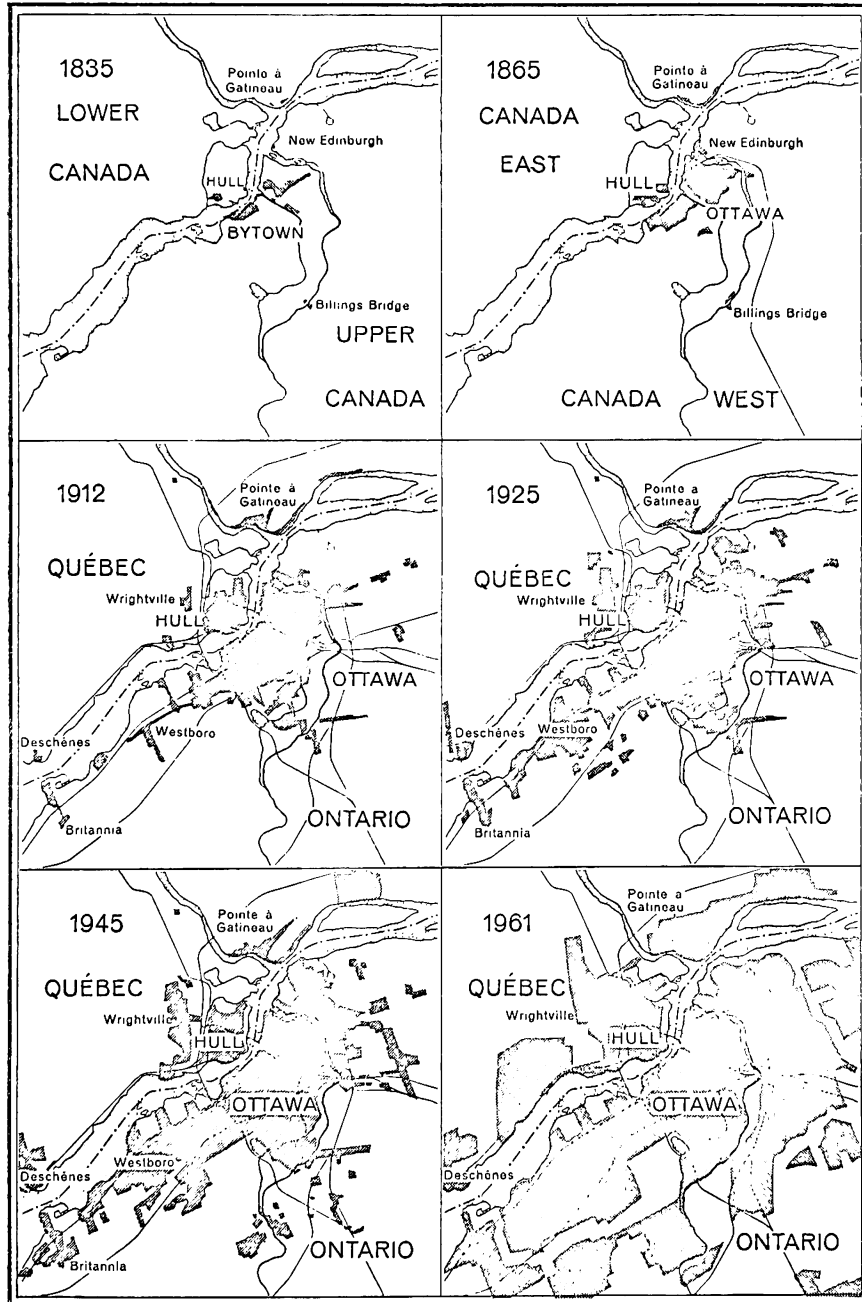
Streets intersect. Soon at Richmond Landing a number of houses went up at the transfer point of immigrants and goods coming from Montreal. Such was the modest beginning of the present City of Ottawa.

The USA-Canadian War of 1812 which had threatened to sever free communications along the St. Lawrence River between Quebec and Ontario revealed the necessity of finding an alternate way beyond the reach of the enemy. After technical reports and surveys on the subject, Lieutenant-Colonel John By and the Royal Engineers undertook the construction of the Rideau Canal linking the Ottawa River to connect Montreal and Kingston. The work started in 1827 and ended in 1832 at an estimated cost of about \$4 million.<sup>9</sup> Although the Canal had been constructed for military purposes, yet it was never used as such because the hostilities between Canada and the United States had now died down.

The construction of the Canal attracted many workmen both skilled and unskilled who settled on the present site of Ottawa. Thence, craftsmen of every trade, merchants and storekeepers, etc., came and soon the place adopted the name of Bytown in honour of the man who had built the Rideau Canal. About this time the population of Bytown was only about 1,000 souls. The felling of trees and the floating of

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<sup>9</sup>Greber, Jacques- Plan for the National Capital-  
General Report, p. 35.



*The Growth of the Ottawa-Hull Urban Region*

Source: Wilfrid Eggleston, *The Queen's Choice*,  
 Queen's Printer and Controller of  
 Stationery, Ottawa, 1961, p.210.

**MAP 3**

## THE EVOLUTION OF THE CITY OF OTTAWA

logs constituted the sole industrial occupation of the town and the region.

Essentially, even in the initial stages, development of Ottawa proceeded in isolated pockets with the gradual filling in of the open land between coming at later periods.<sup>10</sup> The high land, or Upper Town near military headquarters, was designed for the homes of the administration, and Lower Town, the plain east of the Rideau River, was reserved for the merchants. The two were separated by the Canal and public lands. These early settlements were extended immediately with development of the Nicholas-Sparks' property, now the heart of the central business district. Pockets of development also grew at Richmond Landing, New Edinburgh and Corktown.<sup>11</sup> Construction of the canal had made it necessary to build the Chaudiere, Pooley's and Sappers Bridges. These, together with Billings and Cummings Bridges, spurred development of the town in the interstices.

As the lumber industry expanded, with it the increases in the agricultural population, the modest village actually became the county town of the district as early as 1842. When Bytown constituted a town municipality by a statute enacted in July 1847, and afterwards disallowed by

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<sup>10</sup>See Map No. 3.

<sup>11</sup>Development at Richmond Landing was almost completely destroyed by the great fire of 1900. Corktown was a shack town built on the banks of the Rideau Canal near Laurier Avenue to house the canal labourers.

## THE EVOLUTION OF THE CITY OF OTTAWA

royal revocation, the settlement resumed her title of town in January 1850. By 1855, the settlement increased its population to more than 10,000 souls and secured legal status as a city, and exchanged this name of Bytown to that of Ottawa. This name she got from the early Indian tribesmen - the Outaouats, i.e. men of the forest, who made annual pilgrimages in spring in bark canoes laden with furs, and traded with their fellows at the meeting place at Tadoussac.

At this time Ottawa was still a rather nondescript little town with a population of hardly more than 10,000 when, in 1857, Queen Victoria chose it as a capital of a United Canada. It was chosen because from the military viewpoint it was relatively secure; it was also well placed politically, in relation to both the French and the English-speaking parts of Canada, and economically and aesthetically its location at the confluence of the Ottawa, Rideau and Gatineau Rivers was desirable.

It should be remembered that previous to 1887, the areal extent of the settlement was only 1,829.2 acres (See Appendix A). In this self same year the Village of New Edinburgh was annexed and added some 183.7 acres to the city. In the meantime, adjoining villages were sprouting and steadily growing. Such villages or townships included part of the Township of Gloucester which adjoined New Edinburgh and part of the Township of Nepean, including Stewarton, Rochesterville, Mount Sherwood and Organgeville

## THE EVOLUTION OF THE CITY OF OTTAWA

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all became annexed to Ottawa on 1st January, 1889. This brought a total of some 1,282.6 acres to the City of Ottawa. In 1907, the following became annexed to the City of Ottawa: Part of Township of Nepean, called Bayswater - annexed on 27 July, 1907; Part of Township of Nepean known as Village of Hintonburgh; Part of Township of Nepean known as Village of Ottawa East; and part of Township of Nepean known as Ottawa South, and Rideauville - all were annexed 16th December, 1907. By this time the city had incorporated a total of 1604.3 acres following all the preceding annexations. The early pockets of developments were encompassed and consolidated by 1911 in a series of annexations. These included again Part of the Township of Nepean, adjoining Bayswater, and another Part of Nepean known as Mechanicsville, these both together became annexed to the City of Ottawa on 13th March, 1911. However, no further annexations took place until after the Second World War.

In 1946, Part of the Township of Nepean (at the southeast corner of Carling Avenue and Merivale Road) became annexed to the city on 1st January, of the same year, bringing an additional acreage of 29.2 to an already total acreage of 7,420.2 of the city. In 1950, Part of the Township of Gloucester became annexed on 1st January of the same year and making an additional of 14,605.0 acres.

While development proceeded steadily, the City's direction was seriously hampered. The Canal and the Rideau

## THE EVOLUTION OF THE CITY OF OTTAWA

River inhibited development to the east and southeast, and the Experimental Farm formed a barrier to the south. The street railway <sup>12</sup> system tended to create a pattern of ribbon development with shops lining its route. The City's extension to the west, at Crystal Bay, a satellite town with its own industrial area and golf links, was planned in 1914, but never developed.

At the moment the City of Ottawa has a total areal extent covering some 27,225.0 acres, exclusive of water covering 3,256.6 acres.

Today the City of Ottawa has become a typical eastern Canadian municipality with its own government, and subject only to provincial legislation. As such, the City has complete control of the capital area over which it exercises very much authority. As the National Capital, Ottawa represents the symbolic assumption of its bicultural nationalism and, in miniature, the spirit of its people. Unlike other capitals of the world like London, or Paris which became national capitals by reason of their natural setting, and the fact, too, that they commanded sites which made them important commercial and cultural centres, or those of Canberra and Brasilia, which were built on virgin sites, Ottawa was chosen as the nation's capital, not because of its industrial or commercial importance, but because it was

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<sup>12</sup>The street railway system was inaugurated in 1869

## THE EVOLUTION OF THE CITY OF OTTAWA

considered to be somewhat representative of Canada's two basic cultures,<sup>13</sup> and also because it was considered to hold a strategic military position, as already noted in our previous discussion.

With the Ottawa River forming the boundary between the two largest provinces of Canada - Ontario and Quebec, Ottawa is a main meeting place for the many other cultures of the world. So far as the twin-siamese cities of Ottawa and Hull are concerned, it is only by historic reasons that the two are not the same municipality, for they share the same region and act as one socio-economic unit.

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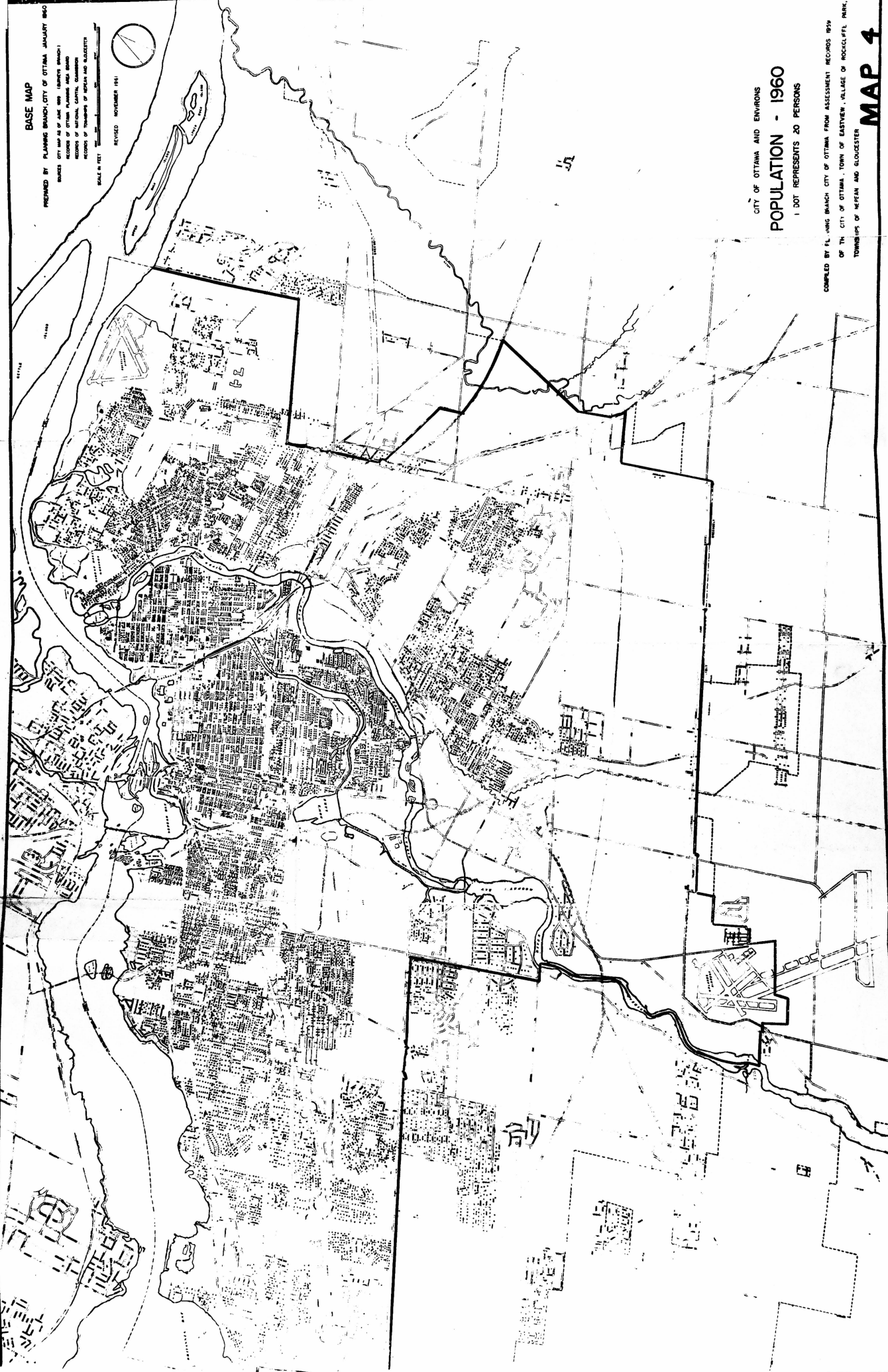
<sup>13</sup> Eggleston, W. - The Queen's Choice, pp.65, 82, 89, etc.

P A R T II

POPULATION

BASE MAP

PREPARED BY PLANNING BRANCH, CITY OF OTTAWA JANUARY 1960  
BASED ON CITY MAP OF JUNE 1959 (REVISED EDITION)  
RECORDS OF OTTAWA PLANNING AND DESIGN  
RECORDS OF NATIONAL CAPITAL COMMISSION  
RECORDS OF TOWNSHIPS OF WESTERN AND GLOUCESTER



CITY OF OTTAWA AND ENVIRONS  
POPULATION - 1960  
1 DOT REPRESENTS 20 PERSONS

COMPILED BY PLANNING BRANCH, CITY OF OTTAWA FROM ASSESSMENT RECORDS 1959  
OF THE CITY OF OTTAWA, TOWN OF EASTVIEW, VILLAGE OF ROCKCLIFF PARK,  
TOWNSHIPS OF WESTERN AND GLOUCESTER

MAP 4

GENERALIZED POPULATION DISTRIBUTION <sup>1</sup>The Evolution of Population Growth in Ottawa

In 1961, there was, in Ottawa, a total population of 266,017 <sup>2</sup> persons. Of this, 226,452 (84%) were Canadian-born, while 41,754 (16%) were born outside of Canada. In the period, 1946-61, there was a combined total population of 26,573 who immigrated directly to Ottawa and comprised 9% of the total population of the City in 1961 <sup>3</sup>.

The Metropolitan area of the National Capital Region, with its focal points in Ottawa and Hull, has been the scene of population explosion. In the year 1961, out of a total population of 429,750 <sup>4</sup> residing within the Metropolitan Region <sup>5</sup>, 377,597 persons were Canadian-born, while 52,153 were foreign-born. Also in the period 1946-61, 33,930 persons immigrated to the region <sup>6</sup>.

It has been rather difficult to obtain immigration figures for Ottawa dating back more than five years before 1961. The reason being that even those immigrants who were scheduled to come to Ottawa either came and left soon after

<sup>1</sup> & <sup>6</sup>  
See Map No. 4

<sup>2</sup>General Population Characteristics by Census Tracts, Census Metropolitan Area of Ottawa, 1961, p.4.

<sup>3</sup>Ibidem

<sup>4</sup>Ibidem

<sup>5</sup>Gréber, Jacques-Plan for the National Capital-General Report, 1950, pp. 14-16.

## GENERALIZED POPULATION DISTRIBUTION

or did not come but went elsewhere. As a result, the Immigration Department found difficulty in keeping correct figures. However, the following figures have been supplied by the Department of Citizenship and Immigration <sup>7</sup> in Ottawa, and will help to throw light on the nature of immigration population characteristics for a five-year period:

<u>Year</u>	<u>Total Population for Ottawa</u>	<u>No. of Immigrants to Ottawa</u>	<u>Percentage</u>
1957	228,446	5,227	2.2%
1958	236,837	2,752	1.1%
1959	250,803	2,425	0.9%
1960	259,395	2,349	0.9%
1961	266,017	1,822	0.6%

From the foregoing statistics, it is clear that population growth in Ottawa has been the result mainly of Canadian-born persons supplemented by a small, and yet significant, percentage of foreign-born persons.

Live births, by residents in Ottawa i.e. children born of parents resident in Ottawa at the time; as well as death rate per year, are of interest to our study of population characteristics in the City of Ottawa. The following figures will help throw light on this aspect of our study for a twelve-year period.<sup>8</sup>

<sup>7</sup>Figures supplied by the Department of Citizenship and Immigration, Statistics Section, Ottawa

<sup>8</sup>Vital Statistics - Annual Editions: Health & Welfare Division, Dominion Bureau of Statistics, Ottawa.

## GENERALIZED POPULATION DISTRIBUTION

<u>Year</u>	<u>Live Birth</u>	<u>Death</u>	<u>Total Population for Ottawa</u>	<u>% Increase</u>
1962	6,343	2,194	268,206	2.4
1961	6,223	2,232	266,017	2.3
1960	6,310	2,245	259,395	2.4
1959	6,100	2,237	250,803	2.4
1958	5,972	2,112	236,837	2.6
1957	5,686	2,118	228,446	2.5
1956	5,620	2,137	220,241	2.6
1955	5,646	1,941	216,662	2.6
1954	5,477	2,040	211,419	2.6
1953	5,292	2,027	205,568	2.6
1952	5,197	2,077	200,936	2.6
1951	5,011	1,946	195,067	2.6

The above figures for both birth-rate and death-rate show a remarkable constancy for each year. An average live-birth of 2.5% has been maintained for the twelve-year period ending in 1962. This is one significant way in which population growth has been maintained in Ottawa.

Among the outstanding periods in the history of Ottawa's population explosion was in the period between 1885 and 1895 when the population increase rose from 26.0% from 1874 to 1884, to 51.2%. A steady rise was also experienced within the period of 1896 to 1917 when there was a rise from 31.1% to 33.2%. During the First World War of 1914-18,

<sup>9</sup>See Appendix E

## GENERALIZED POPULATION DISTRIBUTION

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there was a pronounced decrease of 18% and it continued to drop to 15.7% in the late '30s during the depression years. From 1940 to 1950 there was a steady rise to 28.6%, continuing to rise from the '50s to 1961<sup>10</sup> to 36-4%.

The post-war spirit of the people of Europe to rehabilitate and to explore new lands for purposes of building new homes for themselves, has brought thousands of immigrants to Canada<sup>11</sup> and, of course, Ottawa had its share, too.<sup>12</sup> The post-war combined population of some 238,000 persons in Ottawa and Hull in 1945 rose to 400,000 in 1960- an increase of about 60% in a five-year period. Such an increase enhanced materially the importance of the National Capital in a very special way. All this has had a tremendous effect on the inhabitable land of Ottawa and Hull to replace the many thousands who emigrated here. No wonder Mr. Robert Bullock<sup>13</sup> once claimed for the City of Ottawa the title of the "fastest growing city in Eastern Canada." This sudden increase brought within its wake, an increase in the number of automobiles - three times the numbers in fifteen years and, between 1947 and 1960, an amount of \$600 million was used for putting up buildings in Ottawa alone. The number of churches doubled between 1945 and 1960, single-dwelling houses almost tripled, and apartment dwellings rose from 930 to nearly

<sup>10</sup>Ibidem

<sup>11</sup>Immigration, 1962-Dept. of Citizenship & Immigration, Statistics Section, p.7 (1852-1962).

<sup>12</sup>See figures supplied on p. 25

## GENERALIZED POPULATION DISTRIBUTION

1,700.<sup>14</sup> In proportion to this tremendous upsurge in populations, the Education Department had to cope with an increase in school population of from 25,000 in 1945 to 60,000 in 1960:<sup>15</sup> another increase of about 42% in the public schools alone. Primary schools and secondary schools were doubled respectively in the period of 15 years.

The forecast for the increase of population in Ottawa and Hull will be directly proportional to the growth of industry in both these siamese-twin cities, as well as to the increased civil services, the armed forces, research work, and various other services of the Crown Corporations. As the focal point for market garden produce, such as vegetables, and fruits of all kinds grown in the National Capital Region and vicinity, the old Byward Market in Ottawa located on George Street and Parent Avenue, has become an important place providing small services of this nature.

If Professor Gordon Stephen's prediction which he made in 1959 be accepted that the National Capital Region would contain "more than a million population before the end of the Century",<sup>16</sup> then it should be of interest to the geographer of demographical studies to reflect for a while on the rate of land availability, its development, and utilization, for all kinds of purposes including commercial

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<sup>14</sup> Ibidem

<sup>15</sup> Information received from The Public School Board, Ottawa.

<sup>16</sup> Statement made by Prof. Gordon Stephen, then Head of the Div. of Town and Regional Planning at the University of Toronto, and quoted in Ph.D. Thesis by Hans August House, University of Ottawa, 1962, p.101.

## GENERALIZED POPULATION DISTRIBUTION

industrial exploitation, and for the use by the Federal Government in the future when the time does come. Also, Mr. Alan K. Hay, has made the following observation:

"Considering the metropolitan area, Greater Ottawa ranks seventh in population in Canada with a combined total of 418,339.

It is growing at the rate of 15,000 per year and will have an estimated population of 680,000 by 1980." <sup>17</sup>

The study of human society, with all its customs, mores, political rules, constitutions, traditions, creeds, beliefs, collective attitudes, ideals and values, really is the premise of sociology.<sup>18</sup> Nevertheless, the discipline is also equally important to the student of human geography. Ottawa with its multiplicity of ethnic groups,<sup>19</sup> offers a fruitful field of study in this respect, and I should like to dwell on this topic for a while.

When individuals or families leave Europe, or any other part of the world, and decide to migrate to Canada, they do so purely on the basis of coming to make a living. The desire to seek a better livelihood, make more money, free themselves from religious persecution, or to be away from a hostile political party in their country, for adventure, or for some other reason, all these may be a paramount in their

<sup>17</sup>Hay, Alan K.-Canadian Geographical Journal, Vol.LXIV No. 6, Dec. 1961, p. 209

<sup>18</sup>Bernard, Jessie-American Community Behaviour, The Dryden Press, New York, 1954, 19 - See Map No. 6.

## GENERALIZED POPULATION DISTRIBUTION

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minds. But the idea of seeking actively to be assimilated as Canadians is only secondary and often forms an ambivalent attitude among those who finally migrate to Canada. When once such an individual, or individuals finally arrive in Canada, the foremost interest is to establish themselves in their jobs in order to be financially secure. Once this is established, the next step is to seek out a kins group with identical or similar traditions or language as those of their homeland. This is what is known as the esprit de corps. In this group, the individual enjoys the same morale, and the same collective will as the other members. This is collective representation with concepts embodying the objectives of the ethnic activity. The language, and other cultural peculiarities by which an ethnic group carries on its collective existence are the collective representations and these tend to distinguish an in-group from an out-group. The desire for security in collectivism, for recognition and prestige, are strong impulses in all ethnic groups,<sup>20</sup> in Ottawa and in other parts of Canada. In Ottawa, these various organizations do not seem to conflict with one another. Indeed,

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<sup>19</sup>See Map No. 5

<sup>20</sup>Information from respective Embassies: German Language Club, Greek Community of Ottawa, The Irish Society of Ottawa, The Lebanese Canadian Association, The Ottawa Valley Swiss Club, Lusitania Clube (Portuguese), The Netherlands Canada Society, etc.

## GENERALIZED POPULATION DISTRIBUTION

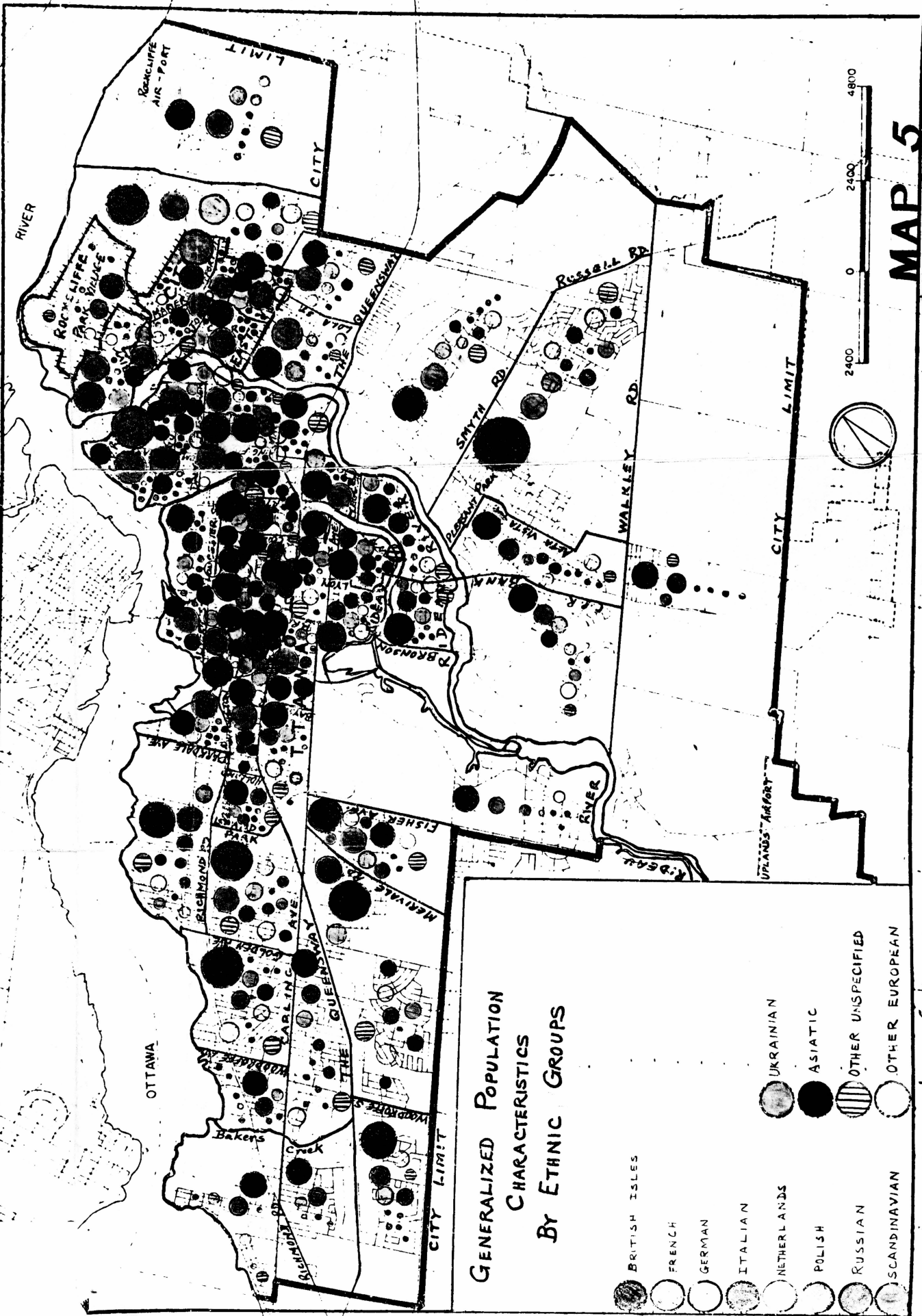
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they seem to enrich the whole society and to give it a whole-some flavour despite their tendency to perpetuate the individuality of each respective group. This is what Park and Burgess have called "Society and Symbiosis".<sup>21</sup> The various ethnic groups from collectively "Canadian Nationals" but only in a dissociated and rather abstract manner. The fact that the various ethnic groups still retain and maintain their identity accentuates this feeling of true Canadianism. Undoubtedly, there are those who have lost this idea of association with their previous homeland and who hold no emotions or sentiments for any other country but Canada. This is the product of time and of the consequent loss of the people's connection with their country of origin. But, at the present time, there does not seem yet to be too many individuals who are truly Canadian and who have no such ethnic appellation attached to them, except by some conscious effort of the will.

We can sum up our argument with the words of Edwin H. Sutherland who said:

"There are many degrees of cultural differences, ranging all the way from those which are mutually enriching, through those which, while not integrative, are not divisive to those which are divisive, although not necessarily a source of conflict."<sup>22</sup>

<sup>21</sup> Park and Burgess-Introduction to the Science of Sociology, University of Chicago Press, 1924 pp.166-169 and 283  
<sup>22</sup> Sutherland, H. Edwin-American Community Behavior. The Dryden Press, New York, 1954, p. 557 et seq.



**MAP 5**

**GENERALIZED POPULATION CHARACTERISTICS BY ETHNIC GROUPS**

- BRITISH ISLES
- FRENCH
- GERMAN
- ITALIAN
- NETHERLANDS
- POLISH
- RUSSIAN
- SCANDINAVIAN
- UKRAINIAN
- ASIATIC
- OTHER UNSPECIFIED
- OTHER EUROPEAN

- 8000 & OVER
- 6000 - 8000
- 4000 - 6000
- 2000 - 4000
- 1000 - 2000
- 500 - 1000
- 250 - 500
- 125 - 250
- 75 - 125
- 25 - 75

SOURCE: Population & Housing Characteristics By Census Tracts - 1961  
 Dominion Bureau of Statistics

GENERALIZED PATTERN OF POPULATION DISTRIBUTION  
BY ETHNIC GROUPS

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General areal distribution of ethnic groups in Ottawa is of particular interest to our study of population characteristics.

In the City of Eastview and the Township of Gloucester (both not considered a part of the City of Ottawa in the administrative sense), there are some 22,946 French-speaking people and only 14,200 English-speaking people.<sup>24</sup> Generally, there is a preponderance of the French-speaking people over the English-speaking (the two main ethnic groups in the eastern side of Ottawa, while Nepean Township (not a part of Ottawa) in the west or south-west, has some 15,292 English-speaking people and only 1,989 French-speaking people. Rockcliffe Park Village (not a part of Ottawa) has some 1,460 English-speaking people and only 263 French-speaking, not mentioning the others. Careful scrutiny of the other ethnic groups such as the Germans, Netherlanders, Polish, Scandinavians, Russians, Ukrainians, Negroes, Asiatics,<sup>25</sup> and others unspecified, shows a wide dispersion of them in the city. The Italians, although they show a fairly wide dispersion, have concentrations in and around the central part of the city, with Bronson and Preston Streets as the focal points. The Asiatics also have a tendency to be agglomerated in the central part of the city

<sup>23</sup> See Map No. 5-Also, see Appendix C

<sup>24</sup> General Population Characteristics by Census Tracts, 1961

<sup>25</sup> Asiatics include Chinese, Japanese, Indians (from India) and others from the Middle East and Far East.

which is, to a large extent, mixed. In relation to religious denominations, the impression one gets looking at the map drawn by Jacques Greber,<sup>26</sup> is a scattering of churches all over the city.<sup>27</sup> There are well over 130 religious denominations scattered all over Greater Ottawa. The estimate for the entire urban area region is given as 189 religious denominations. The numerical divisions of religious denominations seem to be, by and large, coincident with the pattern of population distribution in Ottawa. Each particular ethnic group tends to be congregated around, or in the neighbourhood of an already existing church of its choice especially in the peripheral districts of the city. For example, we find that the Roman Catholic Churches are more numerically in the eastern section of Ottawa- including Eastview, than, say in the western section. The French speaking tend to be more Roman Catholic than Protestant and, hence, these discrepancies are accentuated. As a single religious denomination, the Roman Catholic Church in Ottawa and Hull has the largest number of followers.<sup>28</sup> Amazingly enough, there is more than 99% people in Ottawa alone who profess one form of religious faith or another. This is, indeed a religious city.

<sup>26</sup> See Plan For the National Capital, General Report, Ottawa, 1950, plate XVII p. 99

<sup>27</sup> See Appendices G & H

<sup>28</sup> Ibidem

## CRIME RATE IN OTTAWA COMPARED WITH OTHER CITIES

Another interesting aspect of our study of population characteristics concerns the behaviour of man in relation to the existing law governing his conduct. Crime-rate in Ottawa is studied in comparison with the other cities in Canada of comparable size in population. The table below will serve for this purpose.

CITY	NO. OF CRIMES <sup>29</sup> i.e. PERSONS PROSECUTED						POP. in 1961 <sup>30</sup>
	1956	1957	1958	1959	1960	1961	
Calgary	3413	5868	6398	8169	8969	5598	249,641
Winnipeg	5291	6439	7706	8235	9650	9952	265,429
Ottawa	4749	5019	5504	6815	6329	5694	268,206
Hamilton	3110	5006	4937	8126	8037	6638	273,991
Edmonton	6747	9264	10391	10601	12176	14305	281,027

In 1956, crime rate was: Calgary 1.8%, Winnipeg 1.2%, Ottawa 2.1%, Hamilton 1.2%, and Edmonton 2.9%; while in 1961, it was: Calgary 2.2%, Winnipeg 3.7%, Ottawa 2.1%, Hamilton 2.4%, and Edmonton 5.6%. Ottawa has maintained a steady rate of crime wave, while the other cities have tended to fluctuate and even to increase their crime rates over the years.

There are difficulties encountered in trying to compare crime-rate with neighbouring cities even though they may be of comparable size. For many years the police kept back some statistics, and there was no uniformity in the methods of

<sup>29</sup>Crime Statistics (Police): Health and Welfare Division, Judicial Section, Selected Offences for Locations of 25,000 Population or over, 1956 -61, Dominion Bureau of Statistics, Ottawa.

collection and classification, so that comparisons of this kind still have to be made with caution. However, recently, a unified system of collecting data has been devised<sup>31</sup>.

The incidence of crime is now looked upon as a social problem and the responsibility of the community. The factors which tend to precipitate crime tendencies are related to the composition of the population, its age and sex, its economic and social status, the activities of the people, the size of the population in any one location, etc. It is the product of the environment and prevailing activities going on in a particular place. Since the standards of policing are in no way uniform everywhere in Canada, and also since the number of police employed differ in ratio to the sizes of the communities which they serve, the attitude of the public towards law enforcement, policies of prosecuting officials and courts, all these and others do tend to have a significant bearing on crime statistics. Climatic conditions and the migratory nature of the people are other factors which should be reckoned with in assessing the conditions tending to precipitate crime. Hence, the low incidence of crime in Ottawa seems to be the result of the composition of its population, and possibly its high percentage of civil

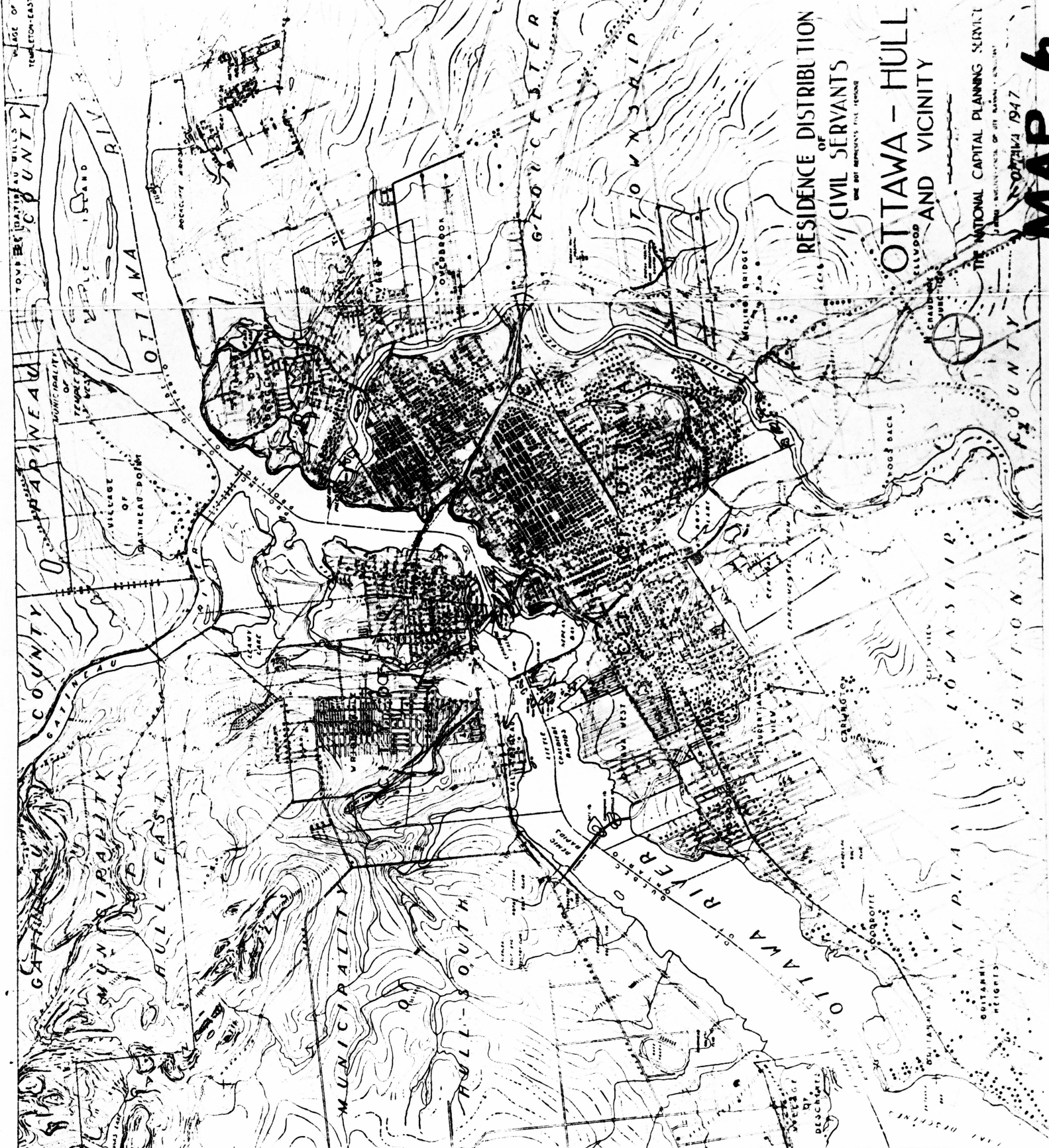
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<sup>30</sup> Population, 1961- Census of Canada, Bureau of Statistics, Ottawa.

servants who are, in a special way (though not significantly) aware of their peculiar position in government. Finally, the mediocrity of high industrialization and the absence of slum areas in Ottawa could be some of the reasons for the small incidence in crime-rate in the City of Ottawa.

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<sup>31</sup>Police Administration Statistics, Health and Welfare Division, Judicial Section, Dominion Bureau of Statistics.  
Also, Traffic Enforcement Statistics, DBS.



RESIDENCE DISTRIBUTION  
OF  
CIVIL SERVANTS  
AND NOT EMPLOYED FULL-TIME

OTTAWA - HULL  
AND VICINITY

THE NATIONAL CAPITAL PLANNING SERVICE  
1947

**MAP 6**

## GENERALIZED POPULATION DISTRIBUTION

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Government Civil Servants in Ottawa <sup>32</sup>.

Ottawa, as the National Capital, takes precedence over all the other cities in Canada in the number of civil servants in her employment. For comparison, it is interesting to note that in 1867, there were 280 civil servants who made up the entire headquarters staff of that day. One fifth of this labour force was in the postal services, another fifth in the customs and excise revenues department, another was engaged in public works, or in the small services provided by farming and fishing. A staff of 15 formed the militia and defence in Ottawa. The Governor General's Office had only nine, the Privy Council 12, the Department of Justice seven, and the Secretary of State 25<sup>33</sup>.

In 1960 the federal government employed some 45,000 personnel who own homes in Ottawa and who are regarded as civil servants. To-day (1963) there are 46,095<sup>34</sup>, or 22.9% of the 201,402 employees in the Ottawa-Hull metropolitan area distributed in the departmental branches, services and corporations. Of these 38% is taken by women employees. The civil service in Ottawa-Hull metropolitan area is 13.7% of the total federal government employees in the whole of Canada, but 41.2% of the total labour force of Ottawa alone. The predominance of civil servants in Ottawa is the expressive function of the National Capital. This includes, not

<sup>32</sup>See Map No. 6.

<sup>33</sup>Eggleston, Wilfrid, *The Queen's Choice*, The Queen's Printer, Ottawa, p.40.

## GENERALIZED POPULATION DISTRIBUTION

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only the official census of civil servants directly occupied in government work, but also other various professions indirectly dependent upon the government and public administration.

This dominance of civil servants is of importance on the economic life of the city because it stabilises Ottawa's economy, generally providing a steady purchasing stream for all time. This is especially so since these people draw a regular income accruing from relatively regular types of employment, and, as such are always in a better position financially to support the existing commercial and business enterprises. Indeed, it lends support to their purchasing potential at all times since there is no season when there is no employment for civil servants.

The preponderance of civil servants has had, in turn, a definite bearing on the physical planning of the City of Ottawa and on its future projected plans. But notwithstanding the security offered by civil employment and its dependability on trade and commerce, the disadvantage is that government can afford to employ only a limited number of personnel, so that, unless industrial and commercial enterprises expand and bring in their wake a proportionate increase in employment, there is likely to be always a high

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<sup>34</sup>Federal Government Employment in Metropolitan Area, March, 1961, p.p. 5-19.

## GENERALIZED POPULATION DISTRIBUTION

percentage of civil servants in Ottawa for a long time to come.

The locations of public federal government buildings in particular, were factors which had some direct significance on population distribution. Government servants gradually became domiciled in groups contiguous to these buildings in close proximity to their place of work. However, residence distribution of civil servants on the map<sup>35</sup> shows an amorphous and indiscriminate distribution throughout the city area, including Hull, and even as far afield as suburban areas lying outside of the City limits. There seems to be a marked concentration in the central areas of the city, however, comprising Wellington, By, Dalhousie, St. George's, and Capital wards. This tendency to congestion in the central part of the city has long been a serious problem and one to which we have already referred.

According to the brief of the Federal District presented to the Parliamentary Committee in 1956, it was stated:

"Decentralization was recommended as a means of avoiding downtown congestion, and of permitting civil servants to live in residential areas near their offices, as well as for obvious civil defence reasons."<sup>36</sup>

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<sup>35</sup>See Map No. 6

<sup>36</sup>Eggleston, Wilfrid, *The Queen's Choice*, p. 269

## GENERALIZED POPULATION DISTRIBUTION

For instance, let us take some specific examples of the civil labour employed at the following government functional locations and their respective strengths <sup>37</sup>.

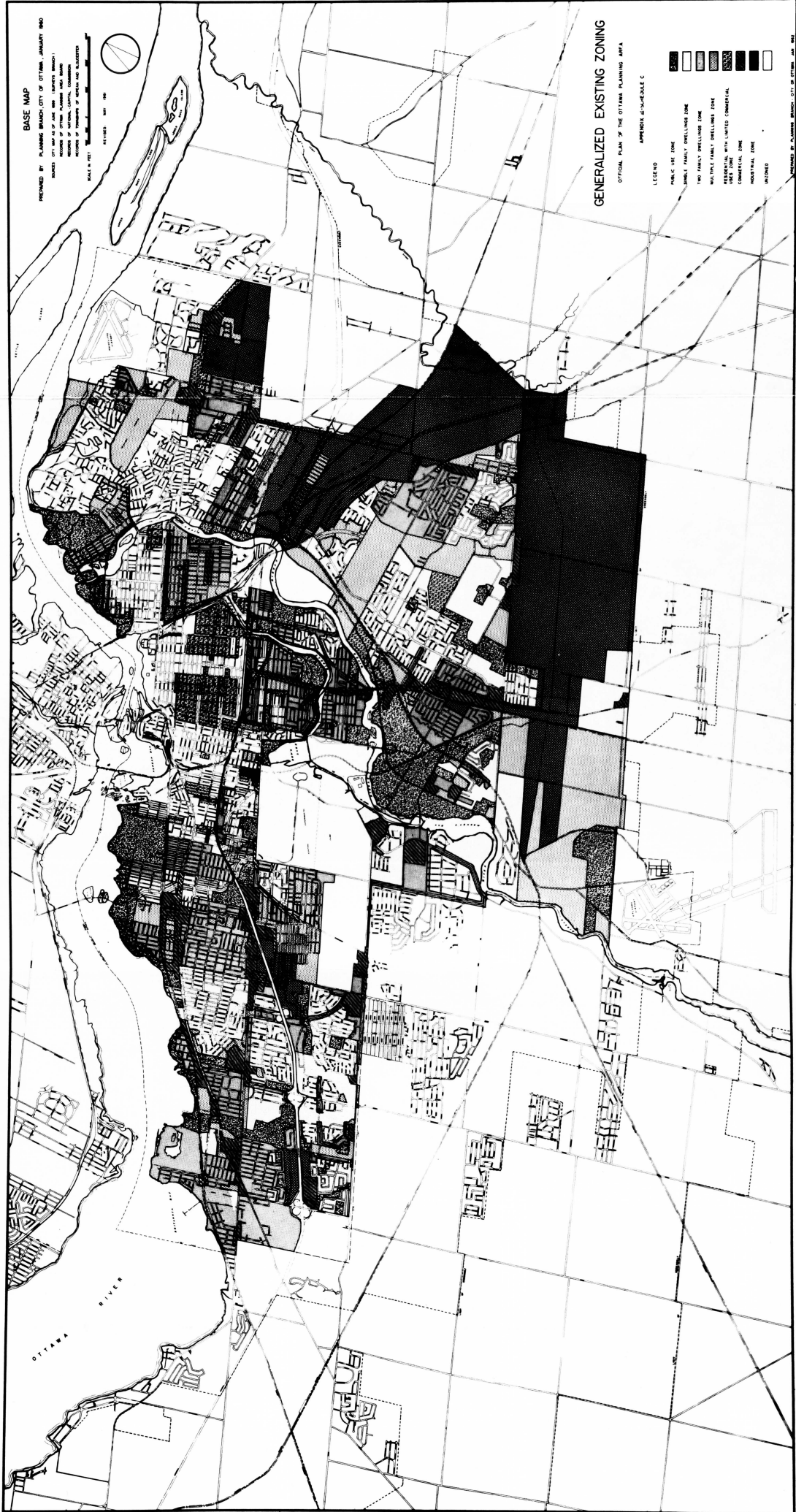
The National Research Council (2,909), Defence Production (1,156), Mines and Technical Surveys (2,525), Citizenship and Immigration (795), etc. Now if all of these were located in one place, what a congestion this would be of both people and vehicular traffic! Therefore, as a result of decentralization, much unwarranted congestion has been very much reduced.

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<sup>37</sup> See Appendix F.

PART III

THE CONCEPT OF LAND USE FOR RESIDENTIAL PURPOSES



# MAP 7



CHAPTER 3  
GENERALIZED EXISTING ZONING

46

Official Plan Land Use of Ottawa

Like most problems connected with social control, city planning could not be fully implemented without public sanction in the form of legislation. It is through this power that the general welfare of the community as well as the public health and safety can be placed on a more satisfactory basis. Zoning is perhaps the most important of these measures, both as a social control device and, in its wide effects, on land use.

Firstly, the proper function of zoning is to control the use of land and buildings and, secondly, to regulate the size and shape of buildings and their relation to one another. Zoning, even as the word suggests, describes the areas within which these control measures are to operate. Such regulations allocate to each major type of activity land which is sufficient and appropriate for that purpose. Districts given to heavy industrial use are zoned from commercial areas; residential districts are separated from the invasion by commerce and industry; and the district established for one type of residential uses is segregated from other types and densities of residential uses.

Land coverage, the density of population, and the height of buildings are prescribed for each zone type. But, however, the limits imposed by zoning prevent congestion and maintain needed light, fresh air, and open space.

## GENERALIZED EXISTING ZONING

Equally important is also the fact that these limits on density of development do tend to mitigate the congestion of vehicular traffic. Zoning regulations protect the desirable character to development in each select district, stabilize real estate values, and assure the most economic provision of municipal services and utilities.

The acceptance of zoning<sup>1</sup> in Ottawa for guiding urban growth has been called for an orderly development of land for the next twenty years or so. In order to avoid unplanned growth of its anticipated "living space"<sup>2</sup> the official general principles which cover some 8 major categories of land use<sup>3</sup> which are to be found in combination with 6 non-residential and 17 residential districts have been proposed in Ottawa. The residential districts within the city boundaries are further subdivided into 57 Planning Units<sup>4</sup> for study in greater detail. Competition for land use, coupled with the accelerated rate of urban development, have given rise to problems which call for thoughtful planning of land use in Ottawa.

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<sup>1</sup>See Map No. 7

<sup>2</sup>Carlson, L. and Philbrick, A.K. Geography and World Politics  
p.18

<sup>3</sup>See Plate X

<sup>4</sup>See Map No. 8.



## GENERALIZED EXISTING ZONING

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The city areas proper are all controlled by zoning regulations which aim at protecting developments which are already in existence and not governed by an overall policy for the general development of the city as such.

The official plan of land use for the City of Ottawa was presented to the public on 2nd January, 1962<sup>5</sup>. The official concept of land use followed definite, well defined land use categories<sup>6</sup>, and it outlined specific areas within the City of Ottawa. The concept was outlined as follows

1. To develop areas termed Proper Residential Areas so as to be in keeping with the increasing population densities of the peripheral neighbouring land areas within the National Capital Region, as well as the decreasing population densities of the central core of the city.
2. To develop such Residential Areas as lie in Office-Area Zones combining both residential and office-use of land.
3. To develop Government Functional Areas for the fulfilment of the nation's concept of distinguished government functional areas such as the Central Experimental Farm, Uplands Airport, National Research Council, etc.

<sup>5</sup>The Ottawa Citizen, Jan. 2, 1962, p.17

<sup>6</sup>What's New in Planning- A Bulletin for Citizens in The National Capitol Region, No. 5 April, 1963, pp 13-14

## GENERALIZED EXISTING ZONING

4. To distinguish and provide areas for Public Institutions such as Schools, Colleges, Universities, and other places for better and improved public services.

5. To provide better and more attractive Major Open Spaces such as the Greenbelt, Major Parking and Recreational Areas, Landscapes, Driveways, Public Utility Installations, Cemeteries, etc, also these to be in keeping with the nation's policy for an attractive national capital.

6. To renew and distinguish the Central Commercial Area through planned redevelopment plans within the central part of the city, in order to provide better and more attractive business centre.

7. To establish Major Commercial Areas serving a region and having a contiguous area of over 20 acres not arranged along a street, e.g., Westgate, Carlingwood, area south of Queensway opposite the Ogilvie Road Intersection.

8. To set aside land for Major Industrial Areas whose function can be grouped together through their related uses, e.g., industries having noticeable nuisance features which would not be intermingled with land for residential purposes; e.g., areas east of the Russell Road, south of Walkley Road, Queensway Pinecrest Interchanges, etc.

## GENERALIZED EXISTING ZONING

Proper residential units<sup>7</sup> are those units which are used primarily for human habitation, i.e. whether they be single, detached, or single attached, duplexes, or apartments.

The existing distribution pattern<sup>8</sup>, the prevailing percentage of occupation of dwellings for residential other than for other purposes, in both Ottawa and Hull, does point out to the fact that these urban areas are truly residential centres. Over 96% and 92% of Ottawa's and Hull's buildings respectively, are exclusively residential, and that of these about half are private owned. This, in itself, is an indication that there is here a stable society that is likely to continue to grow in building up the population of Ottawa-Hull metropolitan area. Presently in Ottawa alone, more buildings are concentrated in the central part of the city with steadily growing additions in the fringe zones. Since the end of World War II, new buildings have gone up in the fringe areas and these have been mainly single family detached houses of which there are more than 50% of the total for the City of Ottawa.

From 1946-59, more than 40% of the total number of buildings in Ottawa have gone up and more than 30% in Hull.

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<sup>7</sup>Census of Canada, Housing, Series 2.2, Bulletin 2.2-1

<sup>8</sup>See Appendices D, I, J, & K.

## GENERALIZED EXISTING ZONING

<sup>9</sup>This period of a boom in house construction has not been surpassed in Ottawa, except in Hull where before 1920, about 40% of the buildings went up, and only 35% in Ottawa.

Recently, there has been an increase, too, in the construction of apartments which, though still numerous in the city area proper, yet are on the increase in the fringe zones as well. But, however, the densities of populations have tended to take on a rather concentric pattern with densities ranging from fifty to forty five per acre in residential areas adjacent to the central part of the city, and gradually thinning out to densities of eight to ten persons per acre in peripheral fringes and, furthermore, to continue to decrease in remote fringes with a predominance of single family dwelling houses. Hence, outside of the city core population densities decrease to a very low percentage, seldom exceeding six to ten persons per acre.

Notwithstanding the fact that there is an increasing interest in apartment dwellings, especially in the central part of the city, due to lack of space for lateral or horizontal expansion, there is no doubt but that the single detached family type dwelling will continue to be on the increase. It can also be surmised that the outlying wards like Carleton, Gloucester and Nepean, will continue to increase their population densities and that the high costs

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<sup>9</sup>Census of Canada, Housing, Bulletin 2.2-1, pp. 17-2 and 17-4. Dominion Bureau of Statistics, 1961.

## GENERALIZED EXISTING ZONING

and the loss of residential to non-residential uses in the central part of the city, will be a factor in decreasing population densities despite the increase in apartment buildings.

The argument that tentacular, or decentralized growth should be discouraged because of the high costs of extending central water and sewerage services to the outlying areas has long been exploded. Modern technology has since removed this barrier so that separate decentralized municipalities will continue to flourish in the peripheral areas of the city.

Improvements in water supply, e.g. as in the Britannia Water Purification and Pumping Plant<sup>10</sup> built on 44 acres of land, plus 2 acres of road, is an example of modern technology capable of supplying 42,000,000 gallons of water per day, and serving, not only the immediate settlement in Britannia and Britannia Heights, but the entire City of Ottawa. This plant was erected at a cost of \$5,000,000. This is only one of two main Water Purification Plants in Ottawa. Well basins and septic tanks have also encouraged the expansion of fringe townships. Residential areas to-day take up 17.21% of the total existing land of Ottawa, or 5,486.27 acres of the total area of Ottawa,

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<sup>10</sup> Pamphlet on the Official opening of the Britannia Water Purification Plant and Pumping Station, 1961.



## GENERALIZED EXISTING ZONING

while water takes up 9.4%. Finally, it can be said that with this increase of population in mind, city planners have been forced to provide zoning legislation in order to better control the ever expanding population density of the city. The requirements for space, the constant pressure from various activities, together with the improvement, e.g. the Queensway under construction, and the general increase and improvement in public transportation services, are factors which have fostered the growth and expansion of **suburban** townships.

(a) Single Family Dwelling Zones<sup>11</sup>

Single family dwelling units are greatly lacking in the central part of the city, as has already been noted, but are widely dispersed in the outer fringes. Examples are to be found in Gloucester in Alta Vista area; the southern and eastern sides adjacent to Mooney's Bay; Carleton Heights in Elmdale-Victoria Ward; Courtland Park and Fisher Heights south of the Central Experimental Farm; and in a generalized belt in Westboro. Small isolated patches of such single family dwelling units are to be found east of Rockcliffe Park Village limits; in Manor Park north of Beechwood Cemetery in Rideau Ward.

These single family dwelling houses are in low rental areas and are mostly of the detached type. Such sprawls are,

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<sup>11</sup>See Map No. 7.  
& Map 8a

## GENERALIZED EXISTING ZONING

however, without provision for rental housing, and this is one disadvantage of such areas.

(b) Two Family Dwelling Zones<sup>12</sup>

There is a close link between the former single family zone area and the latter in that they lie in close proximity to each other. Much of the area in Capital Ward is owned by two family dwelling houses. Each side of the single family zone just described in Gloucester, for example, is taken up by two family dwellings. The southern and eastern sides of the City of Eastview in Rideau Ward, have two family dwelling units, as well as By and Sandy Hill in St. George's Ward. Wellington Ward lacks this distribution. Elmdale-Victoria and Carleton Wards have each a considerable part of their areas taken up by two family dwelling houses.

(c) Multiple Family Dwelling Zones<sup>13</sup>

Stretching like two wedges one between Eastview Township and the other to the north of Rockcliffe Park Village in Rideau Ward, are two areas of multiple family dwelling zones. These are Overbrook and Manor Park areas respectively. More zones are to be found to the south east and southern sides of the City of Eastview in Castle Heights as well as in St. George's Ward in Sandy Hill area. A similar area is found north and northeast of Porter's Island in New Edinburgh and

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<sup>12</sup>Ibidem

<sup>13</sup>Ibidem

## GENERALIZED EXISTING ZONING

Lindenlea areas in By Ward. In Capital Ward we have one of the most concentrated areas of multiple family dwelling houses in Ottawa.

A broad zone of multiple dwelling family dwelling houses simply cuts across Gloucester Ward between Alta Vista and Riverview Park in an easterly and southerly direction and lying on both sides of the two family dwelling zone on the east and a single family dwelling zone on the west. A very large area here is also devoted to such zoning.

Southern Queensboro and other small areas in this area, are also of this type of dwelling units. This belt stretches farther into Carleton, e.g., Carlingwood, Britannia Heights, Parkway Park, and broken in places by single and two family dwelling houses as already described.

(d) Residential with Limited Commercial Uses Zones<sup>14</sup>

Commercial zones sharing limited residential functions are, quite clearly, in areas equated with great commercial activities and, as such, are bracketed in very high rental areas. Wellington Ward on each side of Bank Street, is a typical zone in this category, along Laurier, and in small limited areas on Rideau Street south and northeastern corner near Rideau River, as well as on the eastern fringes of Eastview, and stretching along Montreal Road as far as Skead Road near the City Limits. Between Kilborn Avenue and

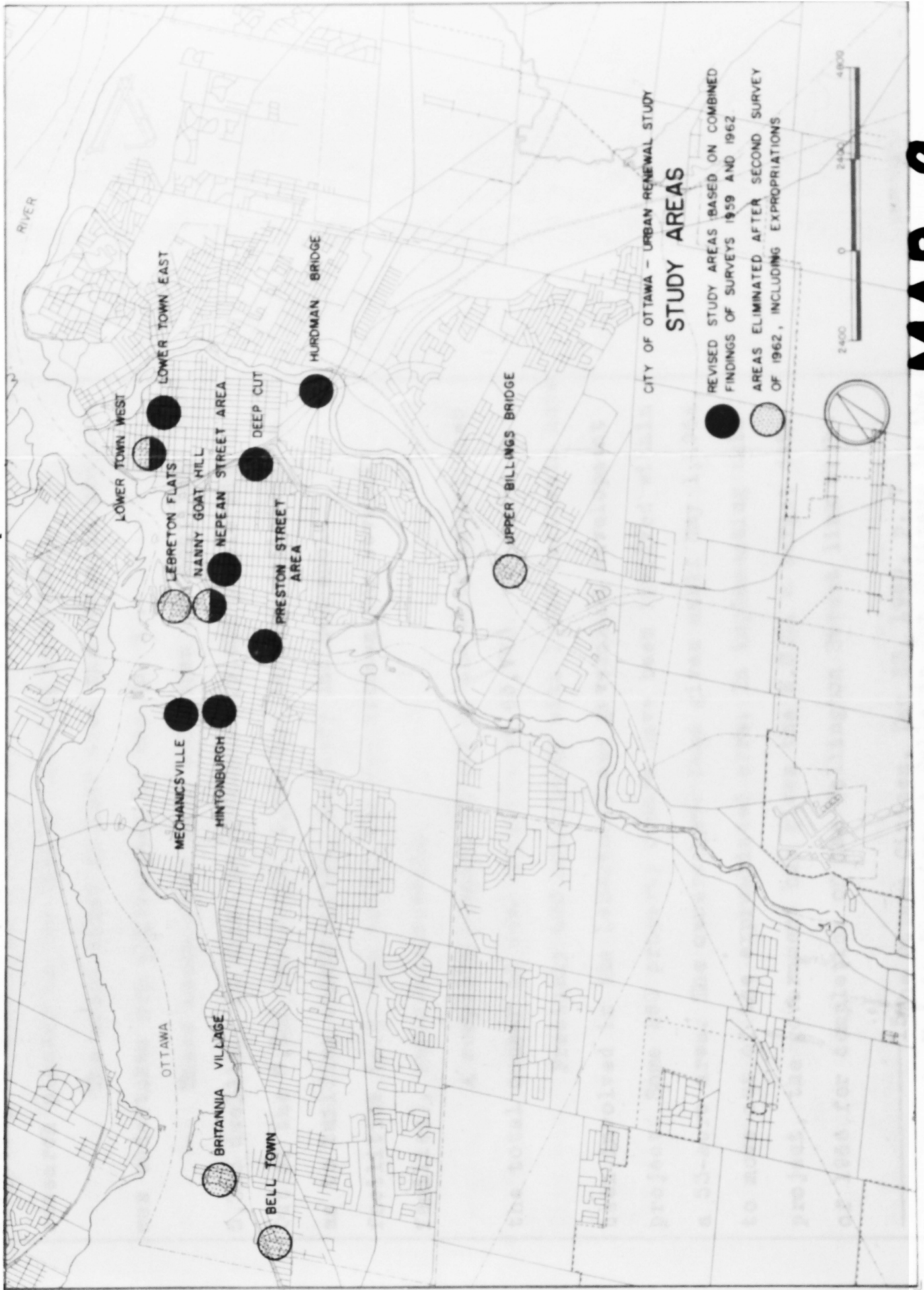
<sup>14</sup> Ibidem

## GENERALIZED EXISTING ZONING

Thessaly Circle in Rideau Park (Alta Vista) there is an area of such zoning. South of Wellington Street in and around Gladstone, Hamilton and Fairmont Avenues (Elmdale-Victoria), there is another such residential area with limited commercial uses zone.

Zoning and the plan of land use apply to the City of Ottawa alone, while any land which lies outside of the areas just described is termed unzoned land.

# OTTAWA



## MAP 9

## GENERALIZED EXISTING ZONING

Redevelopment of "Blighted" Housing Areas

15

There are 16 areas in the City of Ottawa that have been cited to show "major concentrated deterioration and blighting of houses", said Dr. Hans Hosse<sup>16</sup>, at one time research planner in the City's planning department.

The areas cited in 1960 when the research project was undertaken are illustrated in Map No. 9..

These areas cover some 550 acres and contained some 5,385 dwellings in which an estimated 19,408 people lived. Out of the 5,385 dwellings, 4,370 had serious deficiencies as to building construction, sanitary and household facilities (e.g. one toilet and one kitchen for several families), and over-crowding.

A complete housing survey of the City established the total number of housing units at 63,773.

Precisely 483 households with 1,949 residents have been involved in the LeBreton Flats government development project. Some 263 property owners have been involved within a 53-acre area. The owners have been given until May 1, 1964, to move out of the expropriated area. In implementing this project, the government has given the N.C.C. a target date of 1966 for completion of the Wellington Street link with

<sup>15</sup>The Ottawa Citizen, Dec 23, 1960, p. 7  
Also, What's New in Planning, A Bulletin for Citizens in the National Capital Region No. 5, April, 1963, pp 15-16

<sup>16</sup>The Ottawa Citizen, June 6, 1963.

## GENERALIZED EXISTING ZONING

the Ottawa River Parkway to pass through the Flats area. It is planned that about 10 high-rise government buildings for the area will be completed by Canada's Centennial on July 1, 1967. An estimated cost of \$70 million<sup>17</sup> is given for the construction of the housing projects in this area. The LeBreton Flats<sup>18</sup> government development project will cover 154 acres and will embrace: 53 acres expropriated; 60 acres of former CPR property already owned by the government as part of the N.C.C. Railway Relocation program; 29 acres of recreation land to be reclaimed from Nepean Bay; and 12 acres of present city streets. The N.C.C. estimated that it will cost about \$17 million for the 53 acres area expropriated where 263 property owners are located.

The Federal Government, N.C.C. and the Central Mortgage and Housing Corporation will co-operate, with the City and Ontario Government, in providing necessary housing accommodation for the 483 displaced householders in the LeBreton Flats Area.

Mechanicsville<sup>19</sup> area where ultimate housing for some 500 families is envisaged as a part of the future urban renewal project. A high priority rating is to be given to this area, and it is to be held for residential purposes but with increased residential densities proposed for the part where high-rise buildings may go up. The area is bounded by

<sup>17</sup>The Ottawa Citizen, May 29, 1962, p 3.

<sup>18</sup>The Ottawa Journal, April 21, 1961.

<sup>19</sup>The Ottawa Citizen, May 16, 1963, p. 23.

## GENERALIZED EXISTING ZONING

Scott Street, Stonehurst Avenue, Emerson Avenue, and the Ottawa River to the north and Parkdale Avenue to the West. The report envisages the area overlooking Lazy Bay on the Ottawa River being developed for residential purposes, and the area north of Scott Street and the CPR tracks being held for private commercial development. Area north of Burnside Avenue and East of Forward Avenue is for the erection of a semi-high-rise building of 100 apartment units. The present housing density is 12 units per acre, while the creation of the 100-apartment unit building will produce a density of 60 units per acre and would take care of the needs of families displaced in the area by the development program. In this category would be included a 4.8-acre area bounded by Burnside Avenue, Hichey Avenue, Lyndale and Stonehurst Avenues. Laroche Park is adjacent to the east and it is suggested that this open area be taken advantage of by the erection of three "town house" structures of 16 units each. A 12-storey house on the south of Burnside Avenue overlooking Lazy Bay is, also proposed and would have 288 housing units. On the northeast corner of Lyndale and Hinchey Avenues, the erection of a 70-unit, six-storey apartment building is projected. An overall density of 500 units, or 87 units per acre is envisaged.

The Preston Street Area has been described as "rather blighted"<sup>20</sup>. It's been suggested that the land between Preston, Gladstone, Rochester, and Arlington Streets,

## GENERALIZED EXISTING ZONING

comprising 6.3 acres, be designated a "redevelopment area". However, there is evidence that a complete redevelopment scheme here would cause considerable dislocation of the community in the neighbourhood. This work, therefore, has been temporarily shelved until the city has had time to assess the effect of the redevelopment plan on the community and industrial life of the entire area. The ultimate creation of higher density buildings is proposed for the area with adequate provision being made for park and recreational purposes.

21

Nanny Goat Hill is planned for a mixed office and residential use because of its proximity to the planned government redevelopment project in the adjacent LeBreton Flats District. Since expropriations have been made of a part of it by N.C.C., the remainder will be redeveloped for mixed office and residential uses. This is a 4-acre wedge bounded by Lorne Avenue to the west, Albert Street on the north, and the high bluff of the hill on the south and east. The northwest corner of Empress Avenue and Albert Street is occupied by the Good Companions Day Centre- a community centre for elderly people. Two separate buildings of 3-storeys high are proposed and will be sponsored by private

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<sup>20</sup>Ibidem

<sup>21</sup>Ibidem

## GENERALIZED EXISTING ZONING

or philanthropic bodies. Land not for buildings could be landscaped and utilized for parking.

Other areas include Deep Cut along the N.C.C. Driveway in the Wellington Ward. Major Hugh M. Bell and Dr. Courtney Evans- members of the Ottawa Property Owners' Association, and reporting to the same association once said that the deterioration of property values as foreseen in Capital, Dalhousie, and Wellington Wards through misuse of amenities was threatening the areas into becoming "shanty towns" unless action to prevent this was taken immediately. Increasing use of lawns into commercial vehicle parking lots, callous indifference of tenants to the "social pattern of the residential areas", commercialization of garden area by nightly and weekend use as auto wrecking and repair yards, were cited as among the factors likely to cause serious deterioration of the areas, and likely also to destroy the investment value of the N.C.C. program along the waterway. Hurdman Bridge area awaits redevelopment when the Railways move there shortly.

22

Again, Mr. Henry Verdier, one of the directors of Ottawa Property Owners' Association once reported that Sandy Hill area was degenerating into another "sleazy, unkempt downtown area". Sandy Hill, one time an affluent area was degenerating into an area of rooming houses, tasteless apartment conversions, and dilapidated private dwellings. He blamed it on the City because of its strict enforcement of

22 The Ottawa Citizen, April 10, 1963-p.2.

## GENERALIZED EXISTING ZONING

by-laws and building ordinances and enthusiasm for governing taxes on increased assessment. This last prevented many landlords from improving their properties and causing many to install more apartments than the allowed three in converted private houses.

Another factor was the University of Ottawa's expropriation ability which has left a feeling of insecurity and impermanency among occupants of University land holdings. However, the University has bold schemes for its expansion in the Sandy Hill area and which will revitalize the whole appearance of the area within the next few years.

The Concept of City Expansion

A great number of definitions of the city have been suggested by numerous geographers, and from several kinds of scientific angles. Many of these definitions stress specific points of view and as purposive definitions they often suit the needs well enough. One definition is as follows:- "The City is a relatively large, dense and permanent settlement of individuals engaged in diverse economic activities"<sup>23</sup> .

Another definition is:-

"....the city is a "natural habitat of civilized man" in the sense that it represents a "cultural area"<sup>24</sup> with peculiar cultural types" .

<sup>23</sup> Bartholomew, Harland-Land Uses in American Cities, Harvard Univ.Press, 1955, p.1

<sup>24</sup> Weber, Max- The City, The Free Press, Glencoe, Illinois, 1958, p.21

## GENERALIZED EXISTING ZONING

As a city, Ottawa does fit in very well with the definitions given above, and the nature of its expansion will be our subject for discussion in this part of the chapter.

Burgess has suggested the theory of the city expansion in terms of concentric circles around the central nucleus, with each of the "circles of growth being devoted to a certain kind of land use. Burgess says,

"The typical process of the expansion of a city can best be illustrated, perhaps, by a series of concentric circles, which may be numbered to **designate both the successive zones of urban expansion and the types of areas differentiated in the process of**  
<sup>25</sup>  
 expansion"

Burgess referred to his theory as "a zonal theory of growth of the city as it would be interpreted graphically if only one factor, namely, radial expansion, determined  
<sup>26</sup>  
 city growth"

Burgess's second theory is the "axial theory" in which he says the city develops with prongs or fingerlike

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<sup>25</sup>Weimer, A.H., and Hoyt, Homer, Principles of Real Estate, The Ronald Press Co, New York, 1948, pp332-342

<sup>26</sup>Wissink, G.A.-American Cities in Perspective, Printed in The Netherlands by Royal Van Gorcum Ltd., Assen, 1962, pp36-37

## GENERALIZED EXISTING ZONING

extensions moving out along main transportation routes; and also with suburban growth with the establishment of "islands" of settlements in advance of the main city area.

These types of expansion are characteristic of many large cities. For example, in the USA, Baltimore was for a long time a good example of ring growth, while New York, Chicago and Detroit are axial and suburban development.

Ottawa's concentric growth has been limited by the presence of the Ottawa River in the north. Although the earliest nucleus was in the immediate vicinity of the Rideau Falls, the growth was not concentric in the general sense of the word. It followed the courses of the rivers Ottawa, and Rideau and, later, of the Rideau Canal and subsequently has followed also the main transportation routes. Ottawa's growth then has been axial and successional, following the Rideau Street, Sussex Drive, Wellington Street, Bank Street, Carling Avenue, Bronson Street, Base Line Road, Merivale Road, Montreal Road, and several other transportation routes, so that the City has expanded in fingerlike expansions in accordance with Burgess's theory. Further expansion can be expected to continue axially along the eastern and western extensions of the Queensway, and along the Route 31 which is the southern extension of Bank Street.

27

The Sector Theory inco-operating residential neighbourhoods, has been expounded by Homer Hoyt. In this theory Hoyt says that the people in various social levels

## GENERALIZED EXISTING ZONING

tend to segregate into rather distinct neighbourhoods according to their incomes and social status. Although there are exceptions to this kinds of dispersion, the theory appears to have a fairly general validity. Further, Hoyt says that the highest income groups segregate into houses which are of higher prices or rental values, while the lower-income groups live in houses of low prices or rental values. The general tendency is for those in the lower-income bracket to live near the business and industrial or commercial centre of the city, and then tend to expand outward over one or more sectors of the city and occupying land which is not already occupied by higher-rent residential areas or business and industrial districts.

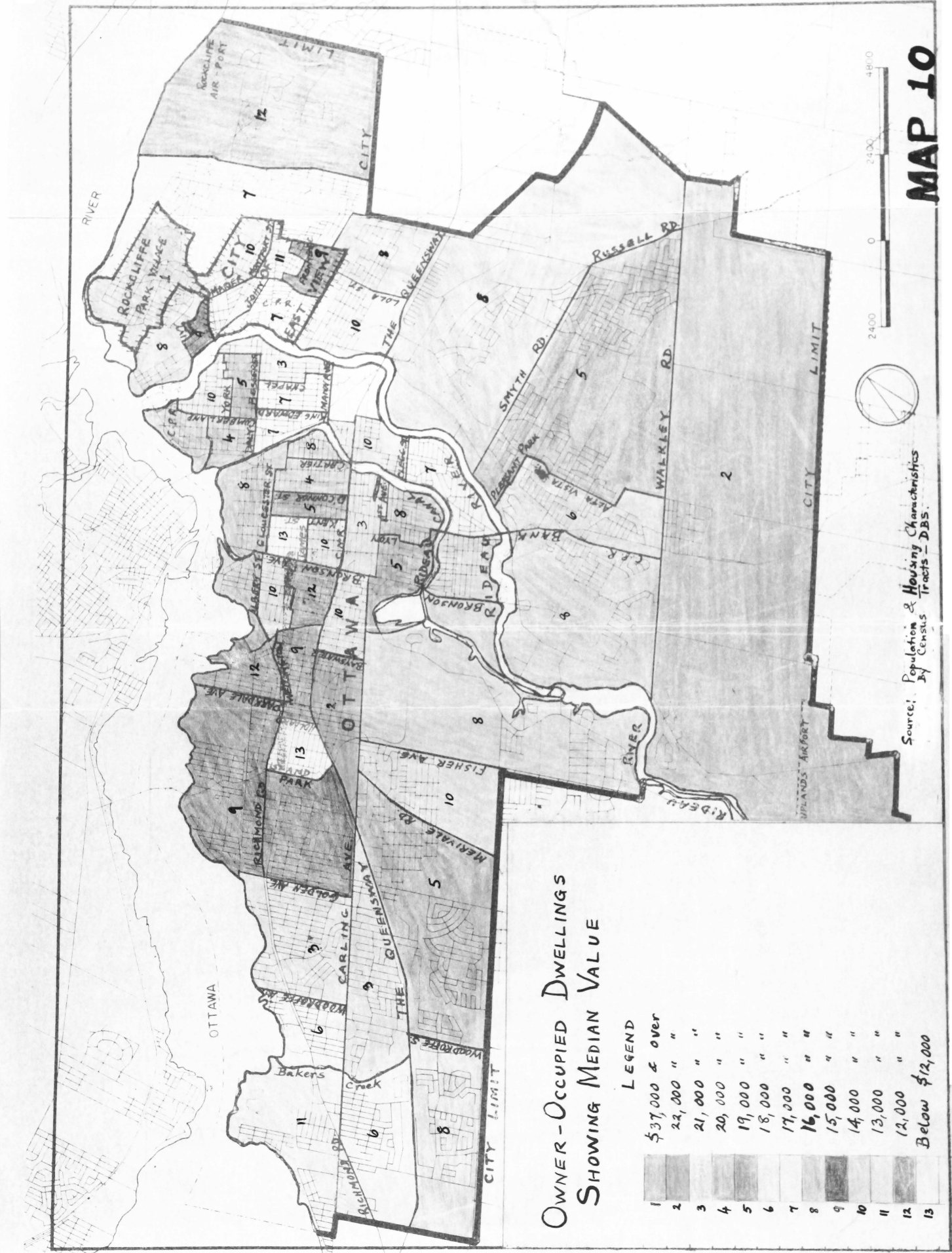
The sector theory as described above, finds a general applicability to the neighbourhoods in the city of Ottawa. Owner-occupied dwellings range from the distinguished area in Rockcliffe Park Village with homes with an average price tag ranging from <sup>28</sup>\$37,000 upwards, to the area in Gloucester Township, and the area west of Bayswater, and

<sup>27</sup>This theory was worked out by Homer Hoyt and first presented in a series of articles in the FHA's (Federal Housing Administration) Insured Mortgage Portfolio, Vol. 1, No. 6-10. See also, Homer, Hoyt-Structure and Growth of Residential Neighbourhoods in American Cities (Washington, D.C.; Government Printing Office, 1939)

See also-Weimer, AM & Hoyt, Homer-Principles of Real Estate, The Ronald Press Co., New York, 1954, pp 234-338

Also, Chapin, F. Stuart, Urban Land Use Planning, Harper & Brothers Publishers, New York, 1957, pp. 4; 10-11; 13-16; 32.

<sup>28</sup>See Map No. 10, areas marked 1, 2, & 3.



# OWNER-OCCUPIED DWELLINGS SHOWING MEDIAN VALUE

## LEGEND

1	\$37,000 & over
2	22,000 "
3	21,000 "
4	20,000 "
5	19,000 "
6	18,000 "
7	17,000 "
8	16,000 "
9	15,000 "
10	14,000 "
11	13,000 "
12	12,000 "
13	Below \$12,000

Source: Population & Housing Characteristics  
By Census Tracts - DBS.



# MAP 10

## GENERALIZED EXISTING ZONING

along Carling Avenue with real estate well over \$22,000. The areas east of Chapel Street, and between the Queensway and First Avenue, and also west of Golden Avenue in Westboro and Woodroffe Avenue, have dwellings worth more than \$21,000<sup>29</sup>.

The centre town area has owner-occupied dwellings with price tags ranging roughly from \$20,000 to all prices down to below \$12,000<sup>30</sup>.

The sector theory of residential neighbourhoods is a general tendency in most Canadian and American cities. It is not to be looked upon as a rigid, and unchanging geometric pattern.

Relating this theory, again, to Ottawa, we find that it also finds its application in the analysis of the average wage and salary income per family per annum<sup>31</sup>. Again, here we find a duplication of the areas as previously observed in our study of private owned homes, that such areas are occupied by people bracketed in the high and low income groups, with intermediate wage and salary income group occupying districts in the intermediate zone, while the least income bracket group, again, occupying the older centre part of the City.

<sup>29</sup>Ibidem, areas marked 6, 7, & 8.

<sup>30</sup>Ibidem, areas marked 11, 12, & 13.

<sup>31</sup>See Map No. 11.

## GENERALIZED EXISTING ZONING

Thus, beyond the low-income bracket zone lies better grade apartment houses and single-family residences and, beyond this, again as in Rockcliffe Park Village, the district of finer and larger houses. Thus, in the process of the expansion of the city, there is a phenomenon of distribution which sifts and sorts out and relocates individual families and groups by residence and occupation. Wissink says,

"This differentiation into distinct economic and cultural groupings gives form and character to the city. For segregation offers the group, and thereby, the individuals who compose the group, a place and role in the total organization of city life"<sup>32</sup>.

However, there are advantages and disadvantages in such differentiation and, of this, Wissink, again says,

"Segregation limits development in certain directions, but releases it in others. These areas tend to accentuate certain traits, to attract and develop their kind of individuals, and so to become further differentiated."<sup>33</sup>

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<sup>32</sup>Wissink, G.A., American Cities in Perspective, Royal Vangorcum Ltd., Assen, The Netherlands, 1962, p. 34

<sup>33</sup>Ibidem, p. 34

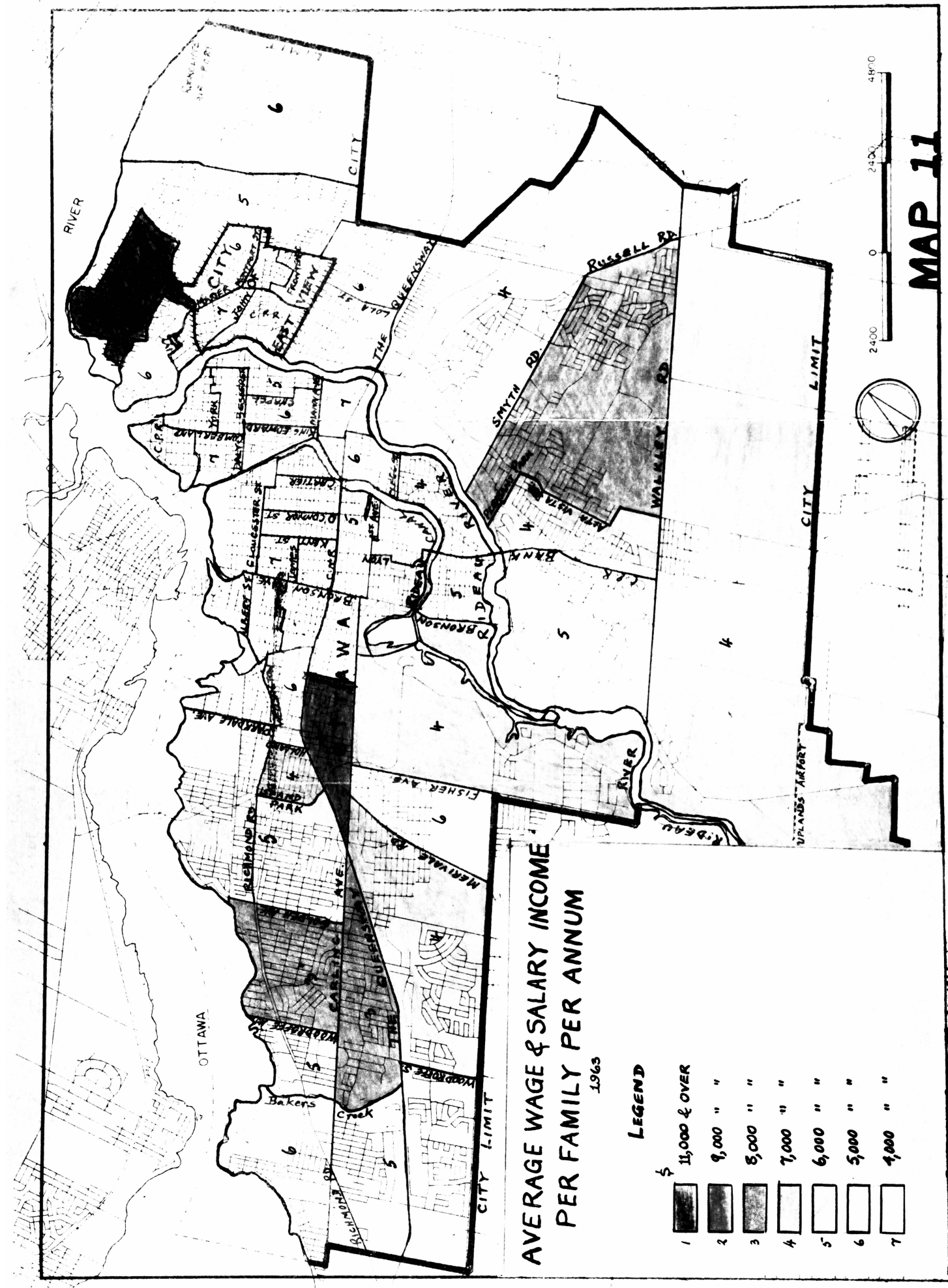
# MAP 11



## AVERAGE WAGE & SALARY INCOME PER FAMILY PER ANNUM 1963

### LEGEND

1	\$ 11,000 & OVER
2	9,000 "
3	8,000 "
4	7,000 "
5	6,000 "
6	5,000 "
7	4,000 "



Source: Population Census of 1963, Ottawa, Statistics Canada.

## GENERALIZED EXISTING ZONING

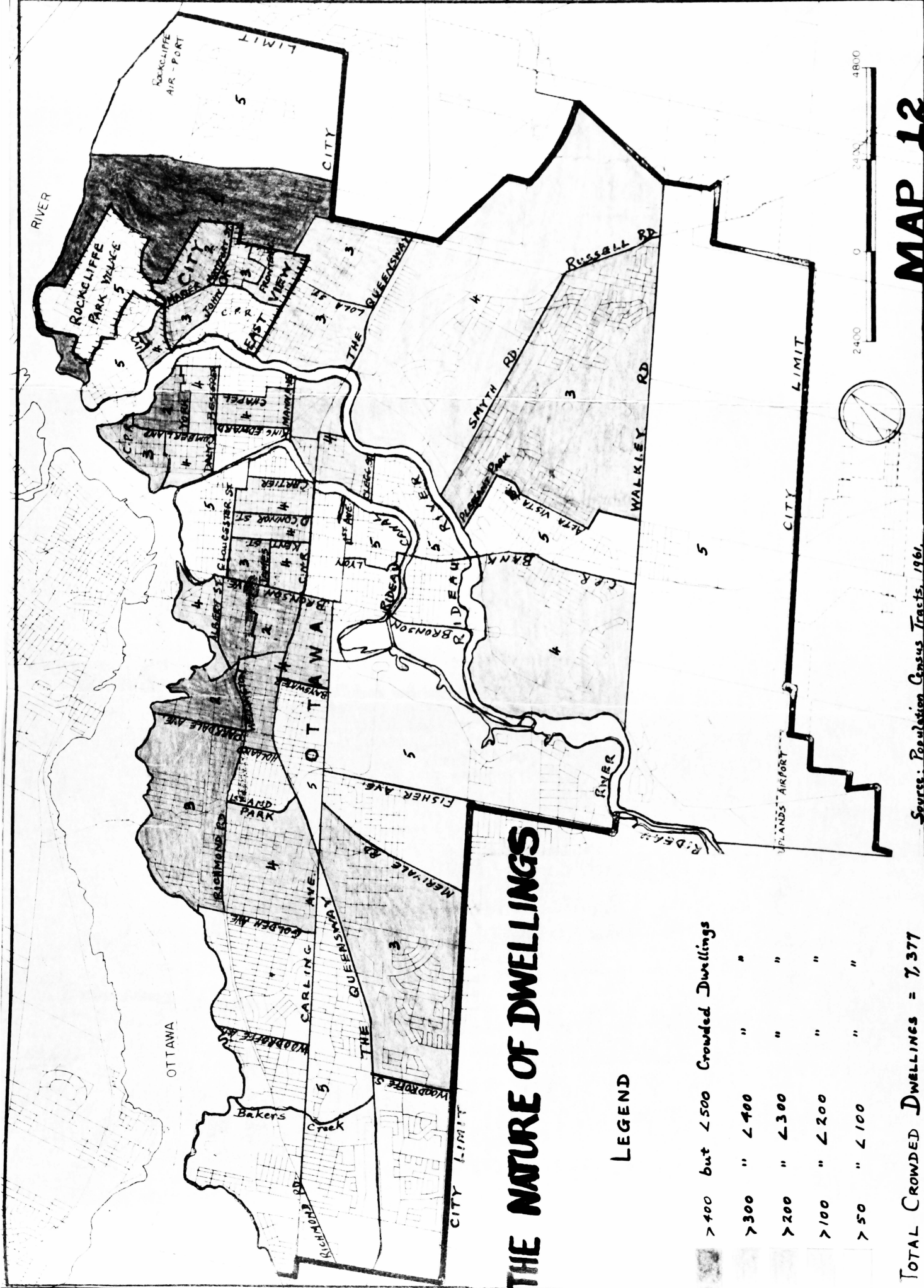
To amplify this point, in Ottawa, we will consider again Rockcliffe Park Village. This village which is strictly residential, is occupied mostly by men of affluence such as various government officials, wealthy business-men, foreign embassies and diplomats, and their high-ranking managerial, professional and technical personnel. In 1961, in Rockcliffe Park Village, out of a total working population<sup>34</sup> of 763 persons there was 55.44% persons in the managerial, professional and technical jobs, and only 12.97% in the clerical, sales, and general service occupations. Next door to Rockcliffe in the City of Eastview and, in the same year, there was, out of a total working class of 9,703 persons,<sup>35</sup> only 19.16% in the managerial, professional, and technical jobs, while 26.93% were in the clerical, sales, and general service occupations.

Finally, in our study of population and housing characteristics, it will be of interest to us to note that low-rental residential neighbourhoods tend to move outward, or to remain within the central core of the city and to be coincident with crowded or high density areas<sup>36</sup>. In these areas with the highest densities of crowded dwellings lying

<sup>34</sup>General Population Characteristics by Census Tracts, Census Metropolitan Area of Ottawa, 1961, p.7. Dom. Bureau of Statistics, Ottawa.

<sup>35</sup>Ibidem, p.7.

<sup>36</sup>See Map No. 12.



# THE NATURE OF DWELLINGS

## LEGEND

[Dark Shading]	> 400 but < 500	Crowded Dwellings
[Medium-Dark Shading]	> 300 "	< 400
[Medium Shading]	> 200 "	< 300
[Light Shading]	> 100 "	< 200
[White]	> 50 "	< 100

TOTAL CROWDED DWELLINGS = 7,377

Source: Population Census Tracts, 1961,  
Dominion Bureau of Statistics

# MAP 12

## GENERALIZED EXISTING ZONING

in a fringe of belt on the eastern side within the City of Eastview but outside of Rockcliffe Park Village, there is here over 1,026 high rise apartments, flats, and rowhousings, with the highest figure of 475 crowded dwellings. There is also in this area, 1,031 single detached dwellings. The City of Eastview, as a whole, has about 4,609 apartments, flats, and rowhousings, with a total of 1,302 crowded dwellings, and 1,386 single detached dwellings. The area lying east of Marier Street in Eastview has over 398 crowded dwellings, and 1,171 apartments and flats, and closely resembles the area lying between Albert Street and Carling Avenue, as well as an area north of York Street with 323 crowded dwellings.

Areas with high rise apartments and flats are as follows:- area lying between King Edward Avenue and Chapel (1,581), between O'Connor and Cartier (2,882), between Kent and O'Connor Streets (997), and an area lying between Golden Avenue and Island Park Street (1,452).<sup>37</sup>

However, north of Holland Street, north of Richmond Road, and east of Golden Avenue, there is an area marked by over a thousand dwellings each and is less crowded by reason of its multiplicity of detached dwellings-mainly privately owned homes.

In general, we can say that the crowded nature of dwellings seems to be coincident with the presence of many

<sup>37</sup>Reference: Population and Housing Characteristics by Census Tracts, 1961. Dominion Bureau of Statistics, pp10-15.

## GENERALIZED EXISTING ZONING

high rise apartments and flats, as well as with the presence of rowhousings and houses of low rents or value. But less crowdedness of dwellings and people also seems to be coincident with single detached dwellings and with better economic conditions of their occupants. Similarly, it is also evident that crowdedness is coincident with ~~tenant~~ tenant-occupied dwellings, as in an area east of the City of Eastview (1,947 tenant-occupied dwellings), as well as the rest of the central part of the City of Ottawa from Chapel Street to Bronson Avenue, with over 1,000 tenant-occupied dwellings, culminating in an area between O'Connor and Cartier Streets in centre town with 2,963 tenant-occupied dwellings and 2,882 high rise apartments and flats. These, too, are coincident with those people who are in the low income bracket, or with the migratory occupiers of dwellings whose residency oscillates between permanency, semi-permanency, or simply as in cases of tourists or others living in Hotels or motels, marked by impermanent occupation.

To conclude our study of the expansion of the city, or the ecological theory of city expansion as expounded by D. McKenzie<sup>38</sup>, we should take note of the growth of the suburban areas, or satellite cities- within the ~~commuter~~ commuter's zone of

<sup>38</sup>Robert E. Park, E.W. Burgess, Roderick D. McKenzie- The City (Chicago: The University of Chicago Press, 1925) pp.63- 79

## GENERALIZED EXISTING ZONING

the central business district.

Around Ottawa, our suburbs, or satellite communities would be represented by the following: the City of Eastview, the Townships of Gloucester and Nepean, Bells Corners, and across the Ottawa River: Gatineau and Pointe Gatineau, Hull South including Deschenes, and Aylmer. The City of Hull cannot be appropriately called a satellite City of Ottawa because it was occupied even before Ottawa was settled. The ones named are "dormitory" settlements which, to a large extent depend on, and are subordinate to the City of Ottawa around which they have grown. They lie within the commuter's zone to Ottawa which forms the main hub for the employment of the suburban community.

The satellite settlement or city is a community adjacent to a large municipality. While the satellite city, like Eastview, or the Townships of Gloucester and Nepean, for example, have separate political existence, they are, in one degree or another, dependent upon the main city of Ottawa for their economic and cultural well being. Such sprawls of fringe development may, in time, be absorbed in the corporate limits of the larger city.

The development of the "urban fringe" finds an explanation in R.D. McKenzie's <sup>39</sup> Multiple Nuclei Theory.

<sup>39</sup> Ibidem, pp.63-79 ...Also refer to Dobriner, William M.- The Suburban Community, 1958, p. 45

## GENERALIZED EXISTING ZONING

This theory suggests that some cities tend to develop in "isolated" pockets in the sense that, although they look detached from the main co-ordinate body of the main city proper, yet still form the same co-ordinate body. In Ottawa such isolation has been encouraged by the presence of river or canal, or by zoning.

An interesting aspect of city expansion which we might call "growth by stimulation" can be cited in the development of Carleton Heights west of Mooney's Bay. In 1942, the Veteran's Land Act<sup>40</sup> was enacted with the view to assist veterans of World War II and the Special Force (Korea) to settle on the land in Canada as full-time farmers, part-time farmers (small holders) and commercial fishermen, or to be build their own homes. It was in 1945 that  $\frac{1}{2}$ acre property lots were set aside in Carleton Heights and houses went up to house 303 persons in the Ottawa side of the City, and 225 in the Nepean Township side. This settlement stimulated the development of the settlements in the Township of Nepean. Also in 1960, further veterans land holdings were developed in the McKellar Area of Westboro. Here 49 -- 125 ft. X 60 ft. lots were developed

<sup>40</sup> The Veterans' Land Act- A Summary of its Provisions, Department of Veterans Affairs, (1962, pp. 5-40)

## GENERALIZED EXISTING ZONING

under the same Veterans' Land Act programme. The area east of the angle formed by the intersection of Richmond Road and Carling Avenue south of Britannia, is another area where 12  $\frac{1}{2}$  acre lots were also developed to accomodate the veterans. In 1963, 156 lots were set aside in Murchison Place --an area lying south of Courtland Park and north of Normandy Crescent in Carleton Heights. Twenty-nine of the 156 lots have been built upon already and the process of construction is still going on.

Isolated nucleated neighbourhoods such as those mentioned in our study, are not independent of the City of Ottawa. The people of come to live here partly because they like the quiet life of the suburban area, or partly because they have been driven here by social, economic, or land pressure. The psychology of their life has become a little accentuated in one way or another for here they are a community and not an amorphous mass of independent persons. There is created here a concept of individualized regional spirit on a small scale. Examples of multiple nuclei development can be observed in Ottawa east of the Rideau River. Rockcliffe Park Village, Manor Park, Rockcliffe Airport, Eastview, Overbrook and Castle Heights, Riverview

<sup>41</sup>Map lodged in Regional Office of Veterans' Land Act, Ottawa, Department of Veterans' Affairs, Carling Ave Ottawa.

## GENERALIZED EXISTING ZONING

Park, Elmvale Acres, and Alta Vista, are the outstanding nucleated settlements. The area west and southwest of Ottawa is marked by Britannia and Britannia Heights, Westboro, Copeland Park, Bel Air Park, Parkway Park, Carleton Heights, and City View in Nepean Township. These can also be rightly called residential neighbourhoods.

In summing up our study, it will be appropriate to say that our approach to the study of the population characteristics in Ottawa has, so far, been analytic, descriptive, and even evaluative. We have approached our study of human geography from the scientific, sociological, and economic points of view, and we have delved briefly into the theories of city growth and expansion. The city's expansion has demanded decisions for zoning and other by-laws so that man is seen to be forever struggling with himself and with the natural forces. This is a struggle for man's adjustment to his social, as well as natural environment.

The numerous social, religious, and economic conditions are so interrelated that the geographer is compelled to study them together because they are mutually interrelated and not isolated entities. The expansion of a part of the city with its consequent population explosion, in turn stimulates another part, or aspect of it, causing a kind of chain reaction. As in the multiplicity of ethnic groups in Ottawa, each aspect of social group

## GENERALIZED EXISTING ZONING

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enriches the other and these, in the final analysis, enrich the whole structure of city life. The civil servants who form an important part of our social structure have played a significant part in stabilizing domestic trade and economic activities and, as we tried to analyse the situation, also in being a possible accessory in lowering or keeping at a minimum, the crime-rate in Ottawa. Urban renewal programmes implemented in zoning and zoning by-laws show a change in mental attitude and in the social and economic evolutionary trends in the life of the people.

Hence, our study of population characteristics and of land utilization by man is of mutual benefit to the geographer and the town planner alike because both realize that all phenomena are inextricably interrelated and that they, in turn, influence man in all his manifold activities on earth.

P A R T I V

THE CONCEPT OF LAND VALUE AND BUILDING PLANS



**LEGEND**

VALUES PER FOOT FRONTAGE TO A DEPTH  
OF ONE HUNDRED FEET

- \$ 0 to \$ 100
- \$ 100 to \$ 200
- \$ 200 to \$ 300
- \$ 300 to \$ 400
- \$ 400 to \$ 500
- \$ 500 to \$ 600
- \$ 600 to \$ 700
- \$ 700 to \$ 800
- \$ 800 to \$ 900
- \$ 900 to \$ 1,000

**TAX EXEMPT PROPERTY**

- FEDERAL (SCHOOLS, CHURCHES, COLLEGES, UNIVERSITIES)
- MUNICIPAL (SCHOOLS, CHURCHES, COLLEGES, UNIVERSITIES)
- INSTITUTIONS

**LAND VALUE PLAN**

FROM THE ASSESSMENT ROLLS OF  
THE MUNICIPALITIES COMPRISING

**OTTAWA - HULL  
AND VICINITY**

THE NATIONAL CAPITAL PLANNING SERVICE

JAMES H. BURTCH - CHIEF OF STAFF PLANNING DEPARTMENT

OTTAWA 1946

**MAP 13**

## CHAPTER 4

## LAND VALUE IN OTTAWA

Land Value as a Factor in Population Distribution

The concept of land and property value is of importance in our understanding of the pattern of population distribution in Ottawa. The student of human geography who tries to understand and attempts to classify people into social patterns must study such segregations against the background of land values in a given locality. A study of this kind not only gives one the real knowledge as to why this group of people are here, or why this building is there and not here, but it interprets these discrepancies into a logical sequence resulting from land and property values in terms of cost, or, its natural usefulness to man. From this viewpoint, a convenient guide is given us by the categorization of land values as shown on the accompanying Map No. 13. In as much as such knowledge of land values is of importance to the geographer, so it is to prospective homeowner of real estate, business man, or town planner. From the town planner's point of view, improvement of run-down or blighted areas, is thus made possible by fostering land revaluation and other means of improvement such as land expropriation by government or municipal authorities for the execution of new houses and better projects.

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<sup>1</sup> See Map No. 13

## LAND VALUE IN OTTAWA

In order to explain this concept more adequately,<sup>2</sup> let us again, make use of Burgess's Concentric Theory . According to this theory relating to the distribution of land uses, urban land uses are arranged, or tend to be arranged in a series of concentric circles. At the centre of these zones would be found the banks and other financial offices; surrounding this and interpenetrating it would be the main retail or commercial departmental stores of high-grade specialty. In this area would also be located the wholesale and light manufacturing zone. Outside of this zone would be the homes or dwellings of the lower income classes, with stores of a rather low grade.

In the zone lying outside of the former would be the zone of heavy manufacturing. This district would tend to have homes of high-income groups. Here are to be found apartment houses (as in the centre part of the city), and tenements of the better grade class of people. Beyond this would be the residential zone of a decidedly well-to-do income group with finer houses and larger lots and, beyond this, the commuter's zone.

Thus, according to the concentric theory, we see that land is most intensively used in the financial and

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<sup>2</sup>The Structure and Growth of Residential Neighbourhoods in American Cities-Federal Housing Administration, Washington, D.C., 1939. pp 15-25.

## LAND VALUE IN OTTAWA

office district at the centre of the city. Land so used in the heart of the city has the highest value<sup>3,4</sup> in the urban area and is dominated by tall, expansive and attractive buildings. From the point of view of land values under study, it is obvious that land adjoining to Parliament Hill, and that lying athwart Wellington Street, and also land as far as King Edward Avenue, and on either side of Rideau Street, has the highest value per foot frontage in Ottawa. This is centre town area with high concentrations of commercial and business concerns of a diversified nature. This area has many advantages relating to accessibility to government offices, shops, banks, Art Gallery, Houses of Parliament, etc. It is well served by Sparks, Bank and other adjacent streets, these together forming a compact business and commercial area, and of course, it is one of the oldest parts of the City.

The next highest is the northern centre town bordering on the former and stretching along Susses Drive and encompassing Dalhousie and St. Patrick's Streets. A stretch along Rideau Street is another area of the same land value. The next is the centre town bordering on either side of Bank Street and running as far as Somerset Street,

\_\_\_\_\_<sup>3</sup> Park, R.E., Burgess, E.W., McKenzie, R.D.-The City, University of Chicago Press, 1925, pp. 148-150

<sup>4</sup>Bartholomew, Harland, -Land Uses in American Cities, Harvard University Press, Cambridge, 1955, pp. 23-26

## LAND VALUE IN OTTAWA

and continuing in a narrow belt all the way along Bank Street as far as the Rideau Canal. The value of land is governed by the fact that here the land is well serviced on a commercial strip, easily accessible, and in great demand for business and services of a small nature.

The area marked in orange on the accompanying map is a wide, generalized area covering the greater part of the City. The area is well serviced and covers a wide range of services, both services of a small nature to light and relatively heavy industry. But it is more residential than business area. It extends roughly to within a radius of two miles from the centre part of the City.

On the immediate periphery of this area, there is land valued at \$10 to \$24 per foot frontage, and stretches to the east west, and southeast, and lies within a radius of up to more than two miles from the centre of the City. On the outer edge of this area is land marked in yellow and valued at below \$9 per foot frontage. This is land lying in the suburban areas of the City with rather poorer services and providing in places own water and sewage services. Here the population thins out and develops in small, isolated pockets, such as in Carleton Heights west of Mooney's Bay; Ridgemont, south of Alta Vista; southern Elmvale Acres; Britannia; and Britannia Heights.

## LAND VALUE IN OTTAWA

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Thus, we find that decrease in land value ranges from centre part of the City to the outer peripheral suburbs in proportion to the demand laid on it for business and commercial purposes. This is the general trend, though not always the rule, since we find that once the land has been serviced it, invariably, tends to raise its value. This seems to be the case with certain government buildings which have been decentralized as, for example, the property in Confederation Heights where land has since been serviced and, subsequently, raised the value of land in that neighbourhood.

Building value plans in the centre part of the City are of the order of \$200,000 along Wellington, Albert, Slater, Queen, Laurier, Sussex Drive, and other streets-though some individual property run in millions of dollars.

Interspersed in this area are properties ranging in value from \$1,000 to over \$100,000. With the decrease in value so we find that most land areas also decrease in value in proportion to the distance from the centre of the City.

Differences in land value, and the search for "inexpensive" land for building, and the desire to be away from the congested centre part of the City, have been among the causes for the tentacular expansion of population and of

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<sup>5</sup>Greber, Jacques. Plans for the National Capital General Report, 1950, p.64 and plate VIII.

## LAND VALUE IN OTTAWA

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the growth of the City in a westerly direction as well as the sporadic tendency toward the east and the south of the City of Ottawa.

The concentric circle theory of Burgess offers an ideal pattern that helps us to understand the generalized trend in urban development. Ernest M. Fisher questioned this theory in 1930. He said that the zones should not be thought of as rigidly determined. He said that they all interpenetrate, and fade into one another without any distinct boundary. Occasionally subcentres spring up and start another pattern similar to that whose centre was, or still is, the centre of the city. Finally Fisher said that unfavourable, topography may entirely break up the pattern. He cites cities like Chicago located near a lake, New York on a peninsula, and Detroit on a river.

The second citation would tend to agree with Ottawa since the River Ottawa has formed a barrier which influence the city growth in a radial or sectional pattern. The criterion of Fisher also finds an explanation in Ottawa in residential neighbourhoods like Rockcliffe Park Village, which have already been cited as having very high land and property values, as well as other areas with high land property values. These lie outside of the central zone

\_\_\_\_\_6 The Structure and Growth of Residential Neighbourhoods in American Cities, Federal Housing Administration, Washington, D.C. Also refer to Fisher, Ernest M. -Advanced Principles of Real Estate Practice, New York, The MacMillan Co, 1930, p.26., and also Haig, R.M. "Toward an Understanding of the Metropolis-The Assignment of Activities to Areas in Urban Regions"-Quarterly Journal of Economics Vol. XI

## LAND VALUE IN OTTAWA

and the reasons for their peculiar developments can be readily discussed now. Rockcliffe Park Village became a residential district after 1912. By 1925 it had become a significant settlement and was inhabited, in the main, by the well-to-do section of the community. Overlooking the opposite bank of the Ottawa River, the district is in a beautiful rural setting, quiet and dignified and enjoying an air of perfect tranquillity and repose, amid its attractive rockery, parks and gardens. Having developed its uniqueness, the area became exclusive, lying adjacent to the government official residences, and so its land values soared. Not only is this the reason to account for the high cost of land, but Rockcliffe Park Village is a residential area of some social distinction which segregates against its prospective residents on economic basis. The area over-looking the Ottawa River in the north has its value of land comparable to that along Wellington, Rideau, Sparks, and Bank Streets, i.e. up to \$1,000 per foot frontage. The southern central area also is of this value. Intermediate to the former would be land valued at prices ranging all the way from \$10 to \$900.<sup>7</sup>

In the City of Eastview, the commercial strip along Montreal Road has land valued from \$200 - \$250 per foot frontage. Residential areas are valued from \$70- \$125, and industrial land around \$12 per foot frontage,<sup>8</sup>

<sup>7</sup>Consult Assessment Records, Village Clerk, Rockcliffe Park Village, 1964.

## LAND VALUE IN OTTAWA

or between 40¢ and 75¢ per sq. ft.

As a consequence arising from the differential values of land, we find that Rockcliffe Park Village has not had a real "population explosion" since around 1912.<sup>9</sup> The village has a population of only 2,084 persons with the British forming the majority (1,460), followed by the French-speaking (263), Germans (59), Jews (40), and a few others.

On the other hand, the City of Eastview's land values has its reflection in the crowded nature of its residential areas, and in the type of the social classes that migrate into it.

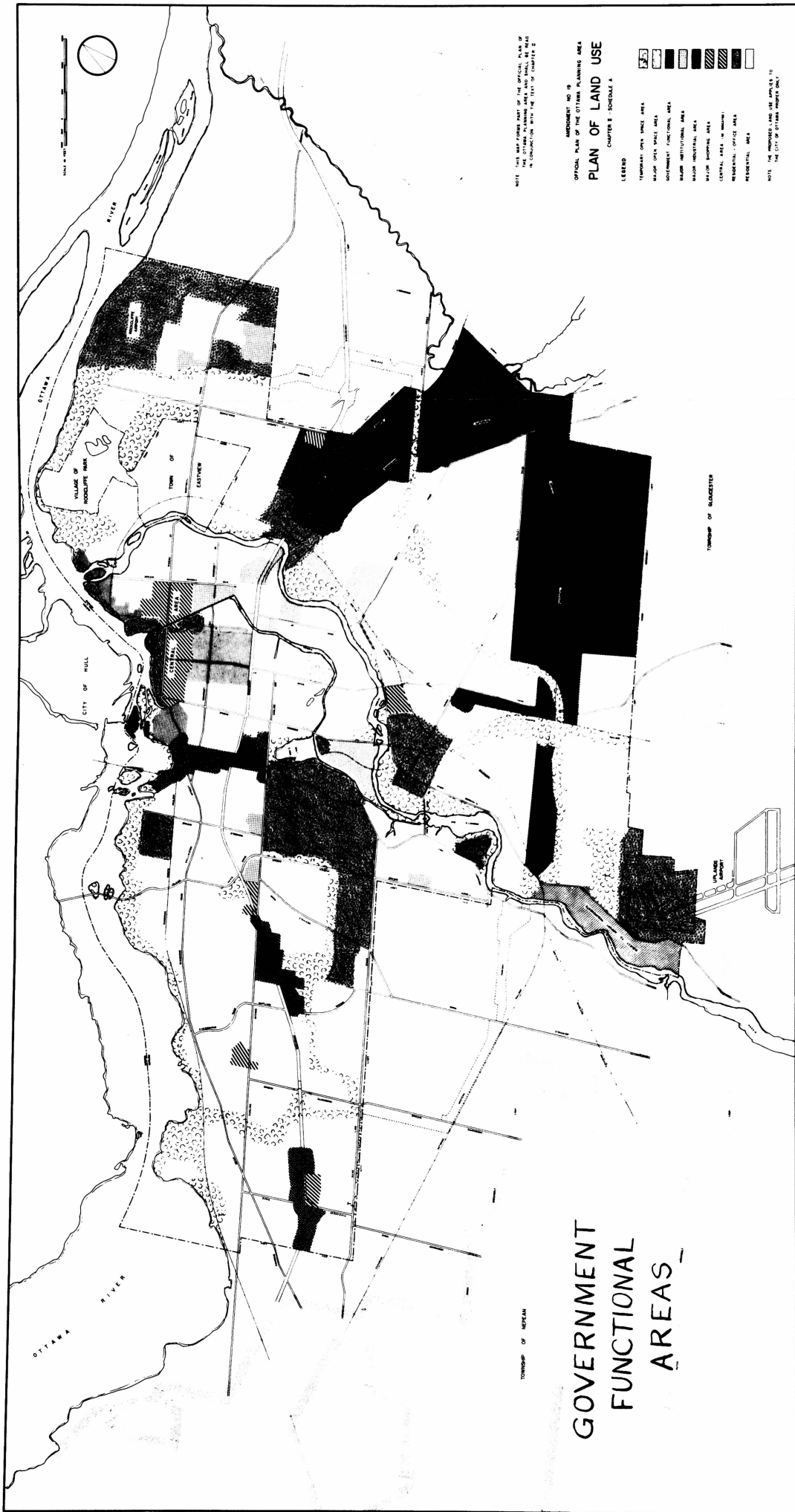
In this study, a revelation has been established between the value of land, the type of structure that is attracted to it, population density, or the lack of it, and dispersion of population in any given locality. Relating our study to Ottawa and its dormitory neighbourhoods, we can say that population distribution in any given locality can be considered as a reflection of the existing land value. It is also a controlling or directing factor in terms of the economic status of its individual persons as to where people will live in the various sectors of the city.

<sup>8</sup>Consult Assessment Records, Town Clerk, City of Eastview, 1964 Ibidem-For Ottawa, Eastview, and Rockcliffe Park Village, also see values for 1946-Jacques Greber, Plan for the National Capital, General Plan, 1950, p.65-Ibidem-Building Plan- p-64

<sup>9</sup>Population-Ethnic Groups, 1961, Dominion Bureau of Statistics p 39-3.

P A R T V

THE CONCEPT OF FEDERAL DECENTRALIZATION



NOTE: THIS MAP FORMS PART OF THE OFFICIAL PLAN OF THE OTTAWA PLANNING AREA AND IS TO BE CONSIDERED IN CONNECTION WITH THE TEXT OF CHAPTER 12.

AMENDMENT NO. 19  
 OFFICIAL PLAN OF THE OTTAWA PLANNING AREA  
**PLAN OF LAND USE**  
 CHAPTER 12 - SCHEDULE A

**LEGEND**

- UNIFORMITY ONLY AREA
- URBAN AREA
- GOVERNMENT FUNCTIONAL AREA
- URBAN INSTITUTIONAL AREA
- URBAN INDUSTRIAL AREA
- CENTRAL AREA (IN HISTORY)
- RESIDENTIAL - OFFICE AREA
- RESIDENTIAL AREA

NOTE: THE HATCHED LAND USE APPLIES TO THE CITY OF OTTAWA PROPERTY ONLY.

# MAP 14

DISTRIBUTION OF GOVERNMENT FUNCTIONAL AREAS <sup>1</sup>The Concept Underlying Federal Decentralization

Before discussing at any length government built-in areas, we should try to understand what is meant by "government functional areas." Considering the exclusive nature of such places, I would say that Federal (government) functional areas are those areas in which government work is intensified. This is simply to say that it is a place, or building, where the main purpose of its establishment is to carry out government interests. The dispersal of government buildings throughout the city area has been the main recommendation by Jacques Greber, so that as a result of his suggestion and recommendation many federal government functional areas have been provided away from the congested central area of the City.<sup>2</sup>

It is known that the total area of the City of Ottawa<sup>3</sup> is 30,481.6 acres and, of this, 8,050 acres are claimed by the Federal Government, exclusive of the 41,000-acre Greenbelt encircling, in a crescentic form, the City of Ottawa, in a southeast westerly direction.

The federal holdings, according to City Hall sources, take up some 34.06% of the total city land area. This estimate is quite apart from the 30 acres of the Sussex

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<sup>1</sup>Eggleston, Wilfred, *The Queen's Choice*, p.269

<sup>2</sup>See Appendix B.

<sup>3</sup>See Map No. 14

## DISTRIBUTION OF GOVERNMENT FUNCTIONAL AREAS

Street Triangle expropriated recently, nor the 15 to 20-acre tract of land in and around the Union Station which will pass from the city to the National Capital Commission control when the new Union Station moves on to the Hurdman's Bridge Station Boulevard area. There are also numerous other smaller properties taken over by N.C.C. but leased out to former owners, or new tenants, until such time the N.C.C. requires them. Some of the areas leased from private owners by various government departments include area between Kent Street and Elgin Street; between Laurier Avenue and Parliament Hill. There are 60 of these of which 22 are fully occupied by government departmental staff. A glance at a map (See Map No. 13) will show that much land is owned lock, stock and barrel by Federal Government and all agencies connected with it. The city is surrounded, interbisected and infiltrated by steadily expanding government-owned property which, about ten years ago, was owned by the City and private bodies.

There, are, at present, about 35 Federal Departmental Branches, Services and Corporations, working in an administrative capacity in Ottawa-Hull area, and employing in all a staff of 46,095 civil servants<sup>4</sup>. The following are government functional areas in Ottawa and Hull, most of

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<sup>4</sup> Federal Government Employment in Metropolitan Areas, March, 1961, Dominion Bureau of Statistics, p.6.

## DISTRIBUTION OF GOVERNMENT FUNCTIONAL AREAS

which are situated away from the congested central area of the city:-

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Delineated Government Functional Units

1. The National Research Council's buildings on Montreal Road form such a cluster and they have as their next door neighbour the Headquarters of the Central Mortgage and Housing Corporation.
2. Forest Research Laboratory of the Department of Northern Affairs and National Resources.
3. Confederation Heights in the southern area of Ottawa houses the Headquarters of the Department of Public Works and the Postal Department.
4. The Canadian Broadcasting Corporation.
5. The Department of Northern Affairs and National Resources and the Department of Transport.
6. Parliament Hill Complex.
7. Tunney's Pasture, accommodating the Dominion Bureau of Statistics; Atomic Energy of Canada Limited; and the Headquarters of the Department of National Health and Welfare.
8. A large tract of land known as Pinecrest further west, awaits development.
9. In Hull, Quebec, is the site of the Department of Printing and Stationery and several other sites for government buildings.

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<sup>5</sup> See Appendix F.

## DISTRIBUTION OF GOVERNMENT FUNCTIONAL AREAS

10. There are three areas in Central Ottawa which the N.C.C. has appropriated, viz: the present Union Station, a special area on Sussex Drive and LeBreton Flats west of Parliament Hill. These await further redevelopment.

11. Along the western end of Wellington Street is the large office buildings for the Departments of Veterans Affairs and Trade and Commerce.

12. The National Library in the Wellington Street area

13. The National Gallery in the Lorne Building on Elgin Street.

14. The Central Experimental Farm along Carling Avenue

15. The Royal Canadian Mounted Police Building on Tremblay Road.

16. The Department of National Defence on Cartier Square.

17. The Department of National Defence Hospital on Alta Vista Drive.

18. The Defence Research Board established at Shirley's Bay.

**DISTRIBUTION OF GOVERNMENT FUNCTIONAL AREAS**

19. Mines and Technical Surveys Buildings near Carling Avenue.

20. Canadian Broadcasting Corporation Complex in Chateau Laurier, Scott and Wellington Streets.

The Concept underlying the Function of the N.C.C.

The City of Ottawa, like all other cities of the world, has had to face up to its problems of expansion and periodic growth especially since the beginning of the 20th Century. It has had to live up to its role as the National Capital of Canada. With its gradual and yet persistent population "explosion", the City of Ottawa has had to reshuffle its earlier unplanned neighbouring urban units in order to fit itself for the task befitting the National Capital.

The City of Ottawa lacked a master plan from the very start. The downtown area has been determined by the activities of the early settlers who were more interested in finding land to build and make a living other than founding a city with a well planned layout. The residential areas immediately surrounding commercial and industrial areas show evidence of the detriments attached to such growth. The area around the Chaudiere Falls has continued to be a notable industrial area and, with its expansion from year to year with its plants, warehouses, and railway sidings, and congested traffic on both sides of the Ottawa River, it has encroached on residential zones. The downtown area continues

## DISTRIBUTION OF GOVERNMENT FUNCTIONAL AREAS

to grow commercially and semi-industrially, constantly interferring with residential areas which, thus, become overcrowded.

In order to fulfill its role as the National Capital and in order to arrest any uncontrolled sprawl of the city, the Federal Government has established a federal agency to aid the city in fulfilling its role. This is the National Capital Commission, or commonly called the N.C.C. However, this body has no direct authority or control over the City as such. Such powers are vested with the Provincial Government. The N.C.C. merely co-operates with the city authorities in making and developing joint projects which affect the city's life and its physical layout. The N.C.C. is also enlisted in the development of regional planning and projects aimed especially at beautifying the city, outside the municipal boundaries of the Capital, but within the 1,800 square-mile National Capital Region surrounding the Ottawa-Hull metropolitan area in the Provinces of Ontario and Quebec.

In order to implement the idea of a well planned city, the first commission was formed in 1999 and was called, the Ottawa Improvement Commission.

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<sup>6</sup> Eggleston, Wilfrid, The Queen's Choice, p.202.

## DISTRIBUTION OF GOVERNMENT FUNCTIONAL AREAS

consisted of a small honorary group of prominent and enthusiastic men who began working with an annual budget of \$60,000. With this small sum of money, they constructed parks, driveways, and public squares. The scenic driveways which run alongside the Rideau Canal are among such examples of the undertakings of these men. After 28 years had gone by, in 1927, a new act was passed renaming the Ottawa Improvement Commission the Federal District Commission which gave them jurisdiction over an area extending into Quebec Province. This time there was an increase in the grant to \$200,000 per annum, plus a special grant of \$3,000,000 designed to meet the cost of capital projects. In it there was a total membership of some 20 men, including one member from each province. The annual grant was consequently raised to \$300,000 and a new capital budget for land acquisition was also established. By an Act of Parliament which became effective on 6th February, 1959, the present National Capital Commission was constituted.

The existing legislation governing the activities of the National Commission is entitled: The National Capital Act. Under this Act, the objects and purposes of the Commission's existence are clearly laid out and which are these:

"To prepare plans for, and assist in, the development and conservation and improvement of the National Capital Region in order that the nature and character of the seat of the Government of Canada may be in accordance with its national significance." 7

## DISTRIBUTION OF GOVERNMENT FUNCTIONAL AREAS

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With the broadening of the horizon for a better and a more efficient workable proposition, a substantial financial support was accorded the National Capital Commission of just over \$50 million which was spent on improvements alone during the period of April 1st, 1947 to March 31, 1960.

Under this Act, the Commission has been given wide powers including the acquisition and development of property; construction and maintenance of parks, roads, bridges, buildings and other works; the right to undertake joint projects with municipalities, or make grants to municipalities; construct and operate concessions; and the right to administer public buildings. Also, the Commission is charged with the duty of developing public lands within the National Capital Region, and must give its approval before buildings or other works are erected, altered, or extended by government departments in the National Region.

The Commission has a staff of between 500 and 700, depending on the season, headed by a General Manager assisted by senior officials. The staff included professional engineers, architects, city and regional planners, landscape architects and surveyors, as well as employees possessing allied technical skills.

<sup>7</sup>The National Capital Commission-An account of the history, legislation and composition of the National Capital Commission together with an outline of the work and projects of the Commission (Last page) Published by the Information and Historical Division of the National Capital Commission, 1962.

## DISTRIBUTION OF GOVERNMENT FUNCTIONAL AREAS

The annual budget for the financial year, 1962-63 is as follows:-

\$3,325,970 for operation and maintenance;  
\$11,151,500 for capital projects and assistance  
to municipalities; and \$13,000,000 for land  
acquisition <sup>8</sup>.

The National Capital Commission has been very active in implementing projects for the development of the City and the region falling within its jurisdiction. The construction of the Mackenzie King Bridge, the Chaudiere Bridge approaches, the Bytown Bridge on Sussex Drive, the widening and reconstruction of the George Dunbar Bridge over the Rideau River and of the Bronson Bridge over the Rideau Canal, are some of the outstanding examples of this type of project carried out by the N.C.C.

The idea of urban renewal plan took form in 1913 when a Federal Plan Commission, under the chairmanship of Sir Herbert Holt, was established in order to prepare a report outlining a plan to guide the future development of the Capital. The First World War interrupted the plans which, consequently, remained in abeyance with its report failing to obtain an official status.

In 1937, the services of a distinguished Frenchman, Jacques Greber, were first obtained to make a new design of Elgin Street and Confederation Square. Later, his terms of

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<sup>8</sup>The information and historic division of the National Capital Commission, Ottawa, 1962.

## DISTRIBUTION OF GOVERNMENT FUNCTIONAL AREAS

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reference were extended to replan the grounds of Federal Public Buildings and the centre part of the City. After the Second World War of 1939-45, Greber was asked to prepare a more comprehensive Master Plan for Canada's Capital. His final report, together with the Parker Plan, has now come to be known as the "National Capital Plan," was accepted by Parliament in 1951 and has since been the Commission's planning guide and corner stone in all its plans.

One of Jacques Greber's strong recommendations was that, as far as possible, any subsequent government buildings should not be concentrated in the downtown area, but be dispersed over a wider area. The striking increase in the density of land use within the centre urban area is one reason for delimiting any further use of land in this area. Second, there is need for dispersing federal buildings outside of the downtown area so as to give desirable variation in federal property and in the aesthetic value which accrue to such a set up. This recommendation has been implemented by a policy of co-operation between the Department of Public Works and the National Capital Commission. As a result, the Commission has bought large tracts of land on the outskirts of the older city and, since 1945, most of the new government buildings have been erected on these decentralized sites and removed away from the congested central area of the city. Further west a large tract of serviced land, known as Pinecrest, awaits development. The

## DISTRIBUTION OF GOVERNMENT FUNCTIONAL AREAS

Department of Printing and Stationery and several other sites for government buildings exist in Hull. The N.C.C. has also assembled three large tracts of land in central Ottawa, at the present Union Station (15-20) acres, site on Sussex Drive near the City Hall (30 acres), and LeBreton Flats west of Parliament Hill. These are designed to provide sites for government functions that are best located close to Parliament Hill and central Ottawa. It is considered that the redevelopment that will take place along these lines will greatly improve the appearance of the City in those areas.

I think that in order to understand a little more about how government works in Ottawa, we will do well to dwell a little longer on the work of the N.C.C. In our concluding paragraphs I should like to elucidate further on this point of land acquisition.

Utilizing the legislative powers and financial resources available to them, the crown agent, the N.C.C., have made tremendous progress towards the implementation of the Greber Master Plan. The key to these circumstances leading to land acquisition programmes is contained in the methods employed by the N.C.C. Since Federal Government and the N.C.C. lacked direct authority over the municipal governments, and since there was no effective municipal zoning plans, the acquisition of land became an increasingly difficult task. The solution lay in more effective ways of

## DISTRIBUTION OF GOVERNMENT FUNCTIONAL AREAS

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acquiring strategically located lands within the National Capital Region, as well as within the city area itself on both side of the Ottawa River.

In this instance, ways of acquiring desired lands lay in the Federal Government's powers of expropriation if all other means failed. With this latent and yet potential power, and with the readily available funds, the N.C.C. has been able to act quickly and decisively in acquiring property especially in difficult areas. For example, some property on Wellington Street which was threatened by undesirable private development, was acquired which, in the absence of effective zoning by-laws within the municipality could not have been otherwise circumvented.

The ultimate realization of the Greber Master Plan was made possible by the rapid and extensive purchase of property over the past 15 year-period. From 1946 to the end of 1960, some 1,800 properties had been acquired by the Commission. The land so acquired has been of some importance in facilitating further major developments of the Ottawa River Parkway, the Rideau River Parkway, and the Western and Eastern Parkways, and several other important projects. Such projects as envisaged by the N.C.C. will, indeed, not only embrace the city areas of Ottawa and Hull alone, but the whole National Capital Region comprising the metropolitan areas which includes: the City of Ottawa, City of Hull, City of Eastview, Gloucester Township, Nepean Township, Rockcliffe

## DISTRIBUTION OF GOVERNMENT FUNCTIONAL AREAS

Park Village, Gatineau, Gatineau Point, Templeton, Templeton West, Aylmer, Deschenes, and Hull South. The land acquisition program had cost to the end of 1960 about \$39 million. This seems a very substantial sum of the taxpayer's money, but it needs to be seen in perspective. Much of this land was acquired before the recent soaring inflation on land values, for as little as a tenth or a twentieth of current prices. It is known, for example, that the property required for widening of one street in Montreal- Dorchester- cost some \$20 million.

It is within the City of Ottawa and the Townships of Nepean and Gloucester that the purchasing of land has been most outstanding. Without such purchases, it would have been impossible to effect the basic project of railway re-location in Hurdmans Bridge area to replace the present Union Station; the new industrial areas; the Greenbelt; the Queensway; and numerous other new system of parkways.

Interesting, and yet important, methods followed in the expropriation of land will be discussed next.

The first method is by direct expropriation of the land required by the N.C.C. for the use by the Federal Government. For example, on behalf of the N.C.C., the Department of Public Works acquired the property needed for the Gloucester industrial areas, and for the Rideau River and Ottawa River Parkways. Altogether 550 property owners were involved. Two years after expropriation began in 1947

## DISTRIBUTION OF GOVERNMENT FUNCTIONAL AREAS

about 50% of the settlements were completed, and about 10% annually afterwards. Much disagreement as to current prices of land and property held up much transactions; others were delayed because confusions were encountered as to proper titles and, moreover, it was difficult to find persons directly authorized to negotiate for the property.

The second method was using private appraisers. Expert surveyors and local real estate appraisers were asked to give report on current values. If survey and title were considered satisfactory, offers were made to the owners in writing. If these were refused, an expropriation notice was registered. In the meantime a real estate agent was authorized to try and come to terms with the owner. Lands for the Queensway and the Eastern and Western Parkways were acquired in this way.

The third method involved direct purchase after negotiation with the owner. This method, carried out by the Commission's own staff in 1959, proved the most satisfactory of the three methods since about 80% of the settlements were completed in the first year of operation. This called for patience in dealing with the people concerned until an agreement satisfactory to the owner was reached. In the process of acquiring property for Federal Government in Ottawa, the Commission found it possible to achieve another fruitful goal concurrently. Large sections of sub-standard housing were torn down. Slums and undesirable property were

## DISTRIBUTION OF GOVERNMENT FUNCTIONAL AREAS

cleared and replaced by projects fitting into the National Capital Plan. Such clearing was done in the Nordic Circle Area; beside Leamy Lake; Lazy Bay to Tunney's Pasture; in Westboro; and certain other sections of the Waterfront at Woodroffe; Junction and McCullough Streets; Mackenzie King Bridge area; the Hog's Back area; and the Rideau River front, especially in the Hurdman's Bridge area. Altogether some 658 dwellings and housing approximately 2,000 people were destroyed and removed. The Crown Agency is doing all this because it wants a renewal of the urban settlement in all its wide ramifications.

Unfortunately, certain municipalities have not co-operated so well with the Crown Agency to which they have given so much resistance some time. In an article which appeared in an Ottawa Newspaper, Mayoress C. Whitton made a statement that the City of Ottawa was planning "to take over all township lands between the City Limits and the Greenbelt as soon as possible. Suburban shopping centres, discount houses and dozens of new housing developments would be globbed up by Ottawa."

The following is a statement of protest which appeared challenging the Mayor's statement:

"Gloucester and Nepean Townships will fight to the last ditch to block Ottawa annexation of 13,000 acres of their richest land."  
(Gloucester-6,500 acres; Nepean-7,000 acres).<sup>9</sup>

<sup>9</sup>The Ottawa Citizen, January 8, 1963.

## DISTRIBUTION OF GOVERNMENT FUNCTIONAL AREAS

This was the reply received from the leaders of the townships defending their rights against subdivisions involved in this expropriation in the suburbs to Greenbelt take over, would be: Cardinal Heights; Rothwell Heights; Manordale; Parkwood Hills; Fisher Heights; part of Carleton Heights; St. Claire Gardens; Meadowlands; Pine Glen Clearview, Crestview; and Blossom Park.

Although the inhabitants of these townships said they would fight until hell froze over, nevertheless, it seems inevitable that as the city continues to expand, these settlements will become engulfed into the greater city area and become assimilated as a part of it. The Federal Government is in favour of such annexation and the opinion of the National Capital Commission would, undoubtedly, be in conformity with that of the Federal Government.

The Dynamics of Federal Decentralization

The dynamics of federal decentralization must be distinguished from mere city growth or suburban trend of lateral expansion. The former has been an artificially induced phenomenon in federal expansion in Ottawa, while the latter is the normal urban function of all cities. Decentralization has been directed to federal functional areas as a means to give qualitative form to the federal unit areas, more than a mere quantitative phenomenon. By this is meant that decentralization has given a regional form and a distinctive social, federal, or scientific

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character to each federal functional area. The concern in decentralization was centred not so much on vehicular or human congestion, however important this might be, but it was focused on strategic reasons in case of warfare, or any such malicious intent on federal property, as well as providing the desired variation in federal functional areas. Another important aspect of this problem has been the desire to create or to induce centres of new growth as distinct from the main body of the city and all its varied activities. Richard A. Ratcliff has pointed out that:-

"A basic problem of decentralization would therefore appear to be the political decentralization which separates the new growth from the main body by creating an artificial government galaxy which is functionally inappropriate for the economic and social organism of the metropolis".<sup>10</sup>

Decentralization of federal functional areas has not been the product of centripetal forces because it has not left behind it degeneration and decay or even a vacuum. Parliament Hill complex is still the centre of the federal government and the focal point of many federal activities. Decentralization has, therefore, been artificially induced in order to meet the demands of our time and age. Looking at

<sup>10</sup>Ratcliff, Richard U., in Mayer, H.M. & Kohn, C.F. - Readings in Urban Geography. The University of Chicago Press 1963. Also, Chapin (Jr.), F. Stuart, Urban Land Use Planning, Harper & Brothers, Publishers, (p.306. New York, 1957 pp25-27

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it from this viewpoint, the apparent haphazard scattering and amorphous decentralization of federal units in Ottawa would seem to resolve itself into a sensible hypothesis.

Outside of Ottawa, the problem of decentralization has also found wide application in political geography as exemplified in cases where the government has felt that it was necessary to decentralize human populations. The point in question is with reference to the creation of "Bantustans," for instance, in the Republic of South Africa. There has been created about eight such purely African States which it is felt by the government will divide the Africans in their political aspirations and counteract any measures for centralization. This is, of course, for strategic reasons and makes for better control of the Africans who are looked upon as a potential danger to the Apartheid Policy of the white government.

Another point of decentralization has been the partition of Germany into the British, American, French, and Russian zones after the Second World War. There are numerous other cases of decentralization that could be cited.

Hence, decentralization of federal property has not been a mere geographic necessity of suburban growth, but a conscious desire on the part of the official planners to attain the desired character of the National Capital.

The idea of decentralization, however, has not gone uncriticized. Humphrey Carver doubted the efficacy of

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the policy of decentralization. At one time he said,

"...there would have been nothing more effective than a sheer massing of government buildings. Size itself", he said, "is the most dramatic fact about building a city".<sup>11</sup>

However true this may be, yet the words of the brief of the Federal District Commission presented to the Parliamentary Committee in 1956, clearly emphasized that:-

"decentralization was recommended as a means of avoiding downtown congestion-----, as well as for obvious civil defence reasons."<sup>12</sup>

Finally, it can be said that decentralization,<sup>13</sup> or natural readjustment in the locations of certain activities, has found many and varied uses in industry, economic expansion, as well as in qualitative decentralization, as for example, in the movement of the upper income groups from the centre of the city to the suburban areas.

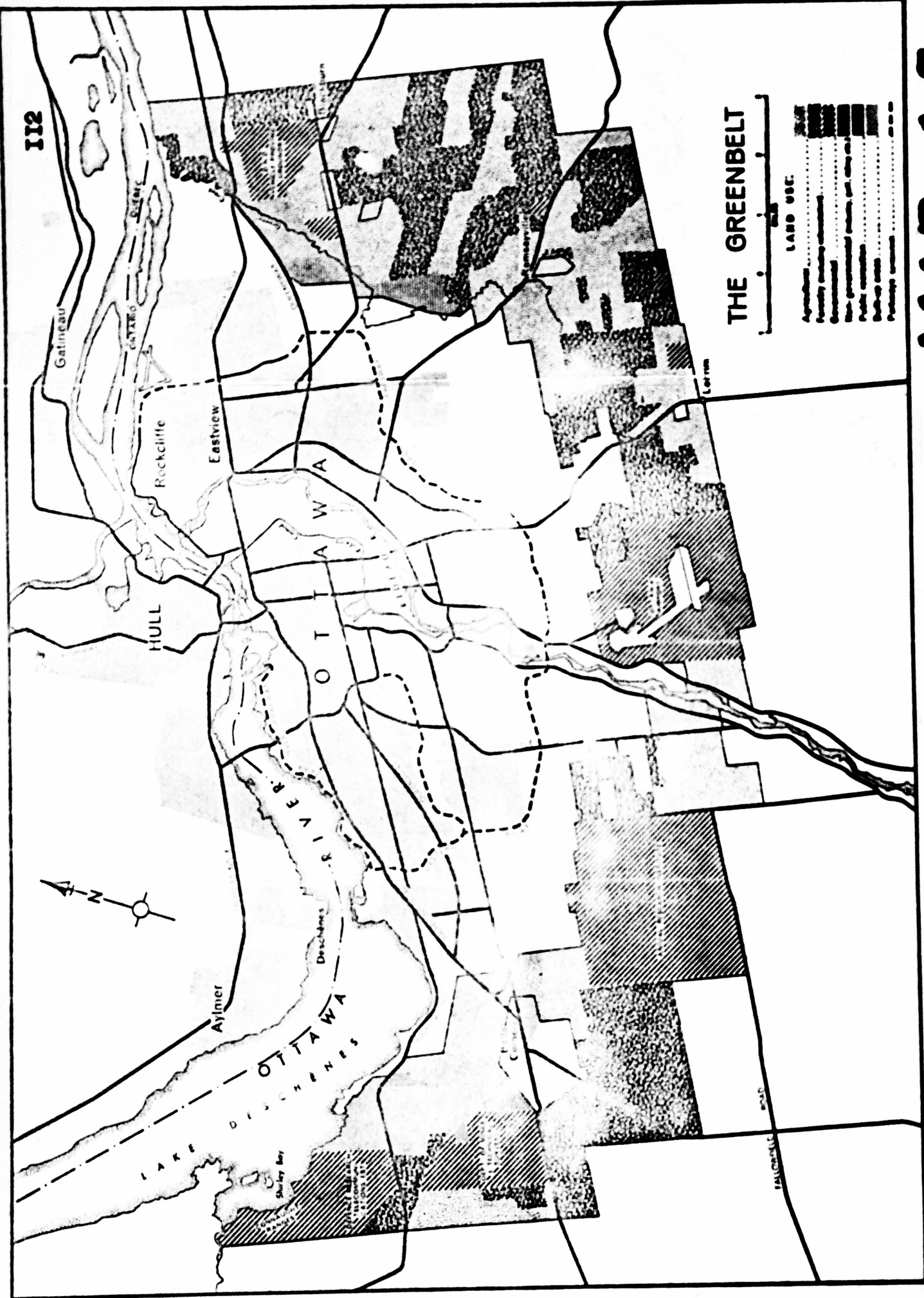
<sup>11</sup> Eggleston, Wilfrid, *The Queen's Choice*, p. 283

<sup>12</sup> *Ibidem* p. 269.

<sup>13</sup> Ratcliff, Richard U. *op. cit.*, p. 305- 308.

P A R T VI

THE PATTERN OF OPEN SPACES IN OTTAWA



## CHAPTER 6

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## OPEN SPACES

## 1

The Concept of the Greenbelt

An aspect of geography which I have decided to call "The Geography of Open Spaces" can be divided tentatively into four arbitrary categories comprising:

1. Open spaces utilized for cultivated or uncultivated lands for the needs of man's livelihood, e.g. rice paddies, corn or wheat-fields.
2. Open Spaces which have been artificially and consciously designed by man for his enjoyment, e.g. greenbelts, parks and recreational areas;
3. Forests which are not the direct creation of man but which have evolved of their own accord, e.g. from natural and spontaneous causes unaided by man- useful for lumbering, hunting, and game reserves.
4. The expansive open waters of the rivers, seas, or oceans- useful as fishing grounds, navigation, or as holiday resorts.

Some of the above have already been classified into distinct geographic disciplines.

In this dissertation our main concern, however, will be directed to the second category- that of greenbelts, parks and recreational areas in and around Ottawa. Generally, these areas are usually situated in close proximity to, or within the area of the city itself. For many centuries they have continued to play an important role in human existence and, as such, are worthy of study and investigation.

Writing about open spaces, G.S. Wehrwein says,

"...greenbelts" around the "Greenbelt Towns" form a girdle of permanent open space intended to "protect the town forever from overcrowding

1 See Map No. 15

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and undesirable building on neighbouring land"<sup>2</sup>

If such a girdle of permanent open space were merely set aside to protect the town from overcrowding, it does not seem that it would serve any appreciable purpose and would soon develop into a rugged woodland in which no one would be interested. In the original concept of the greenbelt, such an open space was designed to contain not only parks, recreational grounds, and the gardens of the urban inhabitants, but also full-time farmers who could bring their produce to the town market by crossing their own fields.

In England where the idea of the greenbelt, or the garden city originated,<sup>3</sup> it was originally implemented in town planning as an arrangement affording increased recreational facilities- idyllic physical conditions. Possibly as the result of the inauguration of national greenbelts insulating the small, self-contained but closely linked suburban communities, the idea prompted Alfred Marshall to suggest in 1899, a "national fresh air tax" in England, as a means of securing permanent greenbelts between towns. Marshall said,

<sup>2</sup>Wehrewein, George S. in: Mayer, H.M. & Kohn, C.F.- Readings in Urban Geography. The University of Chicago Press, 1963, p. 534.

<sup>3</sup>Ebenezer, Howard, Garden Cities of Tomorrow, published in 1898, London.

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"We need to increase the playgrounds in the midst of our towns. We need also to prevent one town from growing into another, or into a neighboring village; we need to keep intermediate stretches of country in dairy <sup>4</sup> farms---- as well as public pleasure grounds."

The Greenbelt is one of the most interesting planning measures devised by the National Capital Commission as an aid in controlling the size, shape, and expansion of the City of Ottawa. The Commission felt that uncontrolled expansion and urban sprawl and unsightly and uneconomic ribbon development along the highways at the outskirts of the City would be unfavourable factors in the growth of the Capital City of Canada. Of greater importance, however, was the practical limit which existed to the future extension of the central water and sewer services and that, accordingly, it would be desirable to place a limit on the size and shape of the urban core and limit as well, its population explosion.

Efforts by the Commission to establish a greenbelt by a process of persuading adjacent municipalities to establish zoning regulations were unsuccessful. It, therefore, became necessary to purchase the land from the owners at current market prices. This has now provided a semi-circular 41,000 acre belt of land around Ottawa,  $2\frac{1}{2}$  miles wide, covering roughly 57 square miles. It covers approximately a 28-mile arc and follows closely the City Limits from Ottawa

<sup>4</sup>Mumford, Lewis, The City in History, London, p. 504.

River at Green Creek on the east side to the river shore<sup>5</sup> approximately 2 miles to the west of the City. This concept of the Greenbelt was adopted by the Ottawa Planning Board, but negotiations for its zoning and implementations were obtained through consultation with the adjoining peripheral urban Townships of Nepean and Gloucester through whose territories runs the Greenbelt. Since no compensation would accrue to the Townships for losses in tax revenues, the two Townships did not feel obliged to comply with any method of co-operation.

The creation of such a greenbelt area breathing of a rural spirit was not without prohibitive elements, as we have just noted, trying to discourage such an undertaking. Thus, many people who owned property in what was to be the "Greenbelt" area, including farm families with a long history of land occupation in this area, were confounded by the establishment of a restricted "Greenbelt" and these were the people who voiced strong objection to any expropriation of their lands and interference with their freedom to sell their lands on the open market, or to hold it for their posterity.

Unlike a zoning by-law whose benefit would be for the people within the zoned area, a "greenbelt" is reserved for purposes which are altogether dissociated from the

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<sup>5</sup>See Map No. 15.

enhancement of the interests of the ratepapers' property. It was not surprising then, that in 1956, a letter of complaint coming from the Reeve of the Corporation of the Township of Nepean, told a session of the Parliamentary Committee in an aggravated tone, thus:-

"If some overall national policy requires a greenbelt, with which suggestion Nepean does not agree, then the National Government must adequately compensate the Nepean ratepapers. Certainly it must not expect the Nepean Council under the phony excuse of "zoning" to deprive its ratepapers of the present values of lands which they, and their forefathers have held for generations ... The Council of Nepean... has too much reading of history to believe that Canadians of pioneer stock will tolerate being ordered by any government at any level where they shall establish their homes". 6

It is also of interest to compare the arguments lodged by Gloucester Township in protesting against what they thought to be the naive theory of the Greenbelt. The brief went:-

"(the Greenbelt is) a false and impractical theory... Urban development in concentric circles has the beauty of symmetry and abstract logic. But the motor-car, population growth, the freeway, and our culture makes this European concept largely inapplicable to North American conditions". 7

This line of thought to put up impediments and resistance to any government proposed plans in the name of national interests, has never been without strong opposition from some of the citizens of Ottawa. The other argument brought

<sup>6</sup>Eggleston, Wilfrid, *The Queen's Choice*, p. 205  
<sup>7</sup>The Ottawa Citizen, Jan., 8, 1963.

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forward was that into this area municipal water and sewerage services could not be extended. Further, it was envisaged that the maintenance of this zone was essential for the preservation of the National Capital as it had been planned. In order to prevent the creation of unwanted fringe after fringe areas, the concept of delimitation of this by a greenbelt was a most welcome suggestion.

In a debate in which these arguments were presented, the Federal District Commission (now the N.C.C.) quickly challenged the municipal views and finally established the desirability of the Greenbelt in Ottawa. It paved the way for the implementation of the concept of the classical regional system- metropolis, greenbelt, and satellite.<sup>8</sup>

Although outright purchase was contemplated as a measure of meeting urban sprawl head on, the Commission was faced with another problem in that the Central Mortgage and Housing Corporation withheld any loan insurance on the houses proposed to be built in the Greenbelt, thus impeding most future building operations. However, in 1958, the Federal District Commission was granted powers to carry on an outright purchase of land required.

Satellite townships outside of the City of Ottawa are now represented by Nepean and Gloucester. A nucleated

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<sup>8</sup>Carver, Humphrey, *Cities in the Suburbs*, University of Toronto, 1962, pp. 32-40.

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community which is already in existence and growing at Bells Corners as well as another community of up to 10,000 may be possible at Blackburn.

In 1961, as a result of complete expropriation of the remaining lands, some 700 private properties were acquired. Three consultant firms worked for eight months making the necessary survey work and preparing documents required for this action. Government establishments within the Greenbelt early in 1961 included Connaught Ranges and National Telecommunications Research. An area of 300 acres north and west of Bells Corners is to be used by the Mines Branch of the Department of Mines and Technical Surveys. The 4,000 acres in Nepean Township in the southwest corner of the Greenbelt is to be allocated to the Animal Research Institute of the Department of Agriculture. As a part of a reforestation programme which it is considered will eventually embrace about 10,000 acres in the Greenbelt, some 250 acres were planted with young trees. This planting programme is to be handled by the Ontario Department of Lands and Forests. Surveying is being carried out at a rapid pace, while 4,113 acres have been surveyed in 1961. The total acreage surveyed to date equals 22,024 acres. Two large parks and two smaller ones are to be established within the

<sup>9</sup>What's new in planning, a Bulletin for Citizens in the N.C.C. Region, report for 1961, pp. 6, 11.

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Greenbelt. To the east of the Greenbelt a large natural park is proposed for the Green's Creek Valley, extending from Innes Road to the Ottawa River. A park of some 900 acres is planned in the westerly portion of the Greenbelt near Shirley's Bay establishment of the Department of National Defence and the research centre of the Northern Electric Company. This will be used for bathing and boating. Two smaller parks on either side of the Rideau River are for bathing and boating facilities as well.

Since the imposition of the Greenbelt upon the City Limits of Ottawa, it was intended to curtail unwarranted urban sprawl. Also, it was thought that this would provide for a guided spill-over of population from the urban metropolis to areas lying outside of the Greenbelt where an orderly development could be carried out and new municipal governments with self-supporting services, industrial and commercial developments suited to their own needs, encouraged. But a glance at the settlement map of Ottawa Region gives a settlement pattern already fraught with unorderly development. There is plentiful lack of uncontrolled rural settlement patterns sprouting in the neighbouring municipalities and already there is a great urge on many people to cross the limits of the Greenbelt in order to buy land in areas much below in price of the urban land now available. There are, already small nucleated, or clustered settlements which are fast becoming labour pools or reservoirs, for commuters to the City of Ottawa.

In considering this aspect of our study one is only too aware of the dangers of making too early an assumption. But the present observation is simply based on the fact that the Greenbelt is proving to be neither a satisfactory means for creating well organized, self-contained urban clusters, nor a satisfying means of preventing an unwanted urban sprawl outside of its limits. Thus, unless something is done to check this uncontrolled sprawl right from the outset, within the next fifty years or so, the future municipal authorities will be faced with the same problems of unplanned urban expansion which the City of Ottawa is faced with to-day. The long range probability will be a possible series of greenbelts separated by urban centres each with its own zoning by-laws and control measures.

The concept of the greenbelt is expressed by Paul Kriesis in an article in which he says:

"It was also assumed that a city should have definite limits and that these were to be assured by the creation of greenbelts to prevent sprawl of the great cities." <sup>10</sup>

This is particularly true of Ottawa with its 41,000-acre area of greenbelt encompassing it and designed to provide animal and plant research projects, afforestation, and an immediate extension of a natural setting in which

<sup>10</sup>Kriesis, Paul; "On City Renewal", Journal of the Town Planning Institute, May, 1961, p. 123

other specialized activities will be located.

The greenbelt concept is also a counter attack on the possibility of the decay of a city expressed by the increasing incidents of juvenile delinquency and gangsterism and drunkenness characteristic of large and uncontrolled cities. It has been the aim of the planner in Ottawa to pay respects to the survival, not only of the economic, but also of the cultural aspect of the City. Thus, a city being a distinct geographical unit area with its economic and human interactions must agree with the concept put forward by C.B. Buchanan which is:

"...to continue in the main stream of urban tradition with its emphasis on compactness, easy social exchanges, architectural unity, and freedom of movement for the pedestrians."<sup>11</sup>

The idea of "Garden Cities" (that is to say): towns or settlements for agricultural, industrial, commercial and residential purposes, or any of them, was the proposal made by Ebenezer Howard<sup>12</sup>. His concept was to deal with the two vital questions of overcrowding in cities and the population of rural districts, and to thereby reduce the congestion of population in large cities, or at least, to try to arrest its progress. This idea is finding its practice in Ottawa and in other cities of the world faced with similar situations.

<sup>11</sup>Ibidem p. 123

<sup>12</sup>Howard, Ebenezer. Garden Cities of Tomorrow, London, 1902.

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The idea of a greenbelt, however noble it may be, presupposes an orderly arrangement of the city growth and rules out the influence of natural factors which are often predominant. It also presupposes that the population is static, which it is not, and which, indeed, seems to have been the basic assumption of some of the Garden Cities exponents. This idea seems possible only with a static population that the greenbelt of parks, playgrounds, gardens, experimental farms, and other phenomena can be maintained over and against the invasion of a growing city or, if the city is permitted to expand, plans must be made for the gradual expansion of the central core, the expansion of the residential area, and the shifting of the rural land uses to urban land uses. The concept of a greenbelt is just inconceivable for large cities which simply grow and continue to do so at an alarming rate spurred in this direction by its economic, commercial, industrial and other impulses. Such a growth which is purely capitalistic would tend to exclude from the calculation of the city planners any idea which is abstract, non-profiteering, and uneconomic in the use of the available land. Hence, the idea of a greenbelt girding the city becomes the idealized longing for "idol" cities comprising national capitals whose subsidies can be obtained more economically from large public funds, or national revenues rather than from meagre municipal funds of

small towns. In implementing the ideas of a greenbelt, the desires of the national leaders become paramount, or dominant precluding and even overriding those of the citizens which thus become secondary. Such a garden city will, quite naturally, tend to 'expel' or discourage industry and the undesirable commercial or industrial enterprises deemed unfit for such a city, e.g. heavy industries with their polluting products would be undesirable in such a city and only small industries offering small services to the consumer market would be encouraged. This, I believe, has been the case with the City of Ottawa. It has become an "isolated City State", and an "idol city" with its own interests overriding those of any other single individual.

Lewis Mumford, commenting on the negligence given to the implementation of the greenbelts in cities like New York, San Francisco, and others says that it is a "disgrace to these professions and a blot on our common civic intelligence".<sup>13</sup> Mumford condemns the development of vast masses of suburban and sub-suburban housing as being consequential upon the failure to take heed of introducing appropriate zoning and land-use legislation and providing for large-scale acquisition of public land for settlement. However true this may be, I am of the opinion that cities cited above and others are more the direct products of the

<sup>13</sup> Mumford, Lewis, The City in History, London p.504.

capitalist interests for economic, industrial and commercial enterprises than of any rational or conscious planning. Consequently, the idea of a greenbelt for cities cannot be the general rule for all cities, but the exception.

This pattern of growth seems unavoidable in many cities. The conurbations of cities in England and most Europe, the megalopolization of urban concentrations in the U.S.A., all seem to be the modern trend of most 20th Century urban growths. Cities of a "rosary" pattern seem to carry the day and possibly will continue to do so for many centuries to come as population "explosion" continues. The greenbelt will, eventually become engulfed in the inescapable metropolis whose distant outlying spaces and public parks might have once been sacred groves of an ancient city.

Another point which the planner of a garden city (greenbelt city) is what Ebenezer Howard visualized in his concept of the Garden City. Howard envisaged not unrelated fragments or urban order, but unified wholes, unifying together both urban and rural values. His insight into the corporate and unified structure of a city called attention to the need for a responsible and representative public authority with power to assemble and hold the land, plan the city, time the order of building and provide the required services. No individual investor, whether speculator

or owner, dealing with individual building lots, individual houses, individual business, etc., could be allowed to dominate the scene. Cities like Amsterdam, Frank-furt-am-Main, Stockholm, Ottawa, Washington, Brasilia, Canberra, etc. are cities with such representative public authority. These and others are able to maintain a "greenbelt" concept only under pressure from the general public, and these cities should be regarded as exceptions rather than the rule.

Whereas much emphasis has been laid on the importance of the greenbelt, much less consideration has been placed on the costs and expenditure of such an undertaking. Expenditures for the maintenance and upkeep, development and improvement of the greenbelt area and all else associated with its existence are just enormous. The colossal investment that goes with such a project is just prohibitive for many cities. We have seen that roughly over \$23 million for the fiscal years 1947 to 1962 had been spent over the greenbelt projects. Details connected with various land developments run up to more than \$44 million for the same period of time. <sup>14</sup> The cumulative total for the whole region of the National Capital Commission in the Ottawa Region runs well over \$70 million for the same fiscal years.

<sup>14</sup> National Capital Commission- Expenditure for development and improvement within the National Capital Region. From April 1, 1947 to March 13, 1962. (Appendix L)

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Such large sums of money are just prohibitive for many municipalities which could not afford acquiring the required amounts.

The N.C.C. spent about \$20 million for the acquisition of 37,000 of the 41,000 acres of the Greenbelt area. This expropriation involved about 400 different people who own farm properties varying in size from 44 to 300 acres, totalling over 1,200 acres. The sum of money was "loaned" to the N.C.C. by the government at a nominal interest in order to enable expropriation to proceed. This land acquisition programme invariably, unearthed a sea of problems - human, financial and agricultural- surrounding the establishment of the 41,000 acres of the Greenbelt.

Greenbelt property owners are caught up "in the squeeze" because they cannot sell this land for housing and other development projects, despite its close proximity to the rapidly growing Capital.

The people who own property in the Greenbelt contend, with considerable force, that the N.C.C. cannot purchase their properties simply as farm land, or as intensively cultivated market garden land, and ignore the possible land development angle. The Greenbelt was designed primarily as a prime feature of the National Capital Master Plan to prevent urban sprawl beyond Ottawa's greatly expanding City Limits. The limits were extended January 1, 1950, when 22,000 acres in Nepean and Gloucester Townships

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were annexed to the Capital. Despite all the efforts being made, J.A. Hume of the Citizen Staff said,

"It is regrettably true that urban sprawl is already taking place within the ribbon, of varying width, between the City Limits and the start of the Greenbelt and also on the Belt's outer fringe". 15

Expropriation has brought forward problems to the people who have owned farm lands in the Greenbelt since about 1849. For example, it was reported in the Ottawa Citizen<sup>16</sup> that a certain Mr. James Lillico settled at a farm bearing his name in the now Greenbelt in 1849. This land has, since, remained a dairy farm with a herd of 25 Holstein cattle, selling whole milk to Bordens in Ottawa. There are other farms, too, in the Greenbelt which belong to several other people. Notwithstanding the N.C.C.'s expropriations, the land belongs to these early settlers who now are compelled to accept offers by the N.C.C. rather than face prolonged, costly litigation in the Exchequer Court of Canada. These are financial problems tied up with human lives in the expropriation of land in the Greenbelt, and with the halting of any further housing and other land developments in the Belt.

In the Carling Avenue area which is being developed by the N.C.C., as already noted, land values have

<sup>15</sup>The Ottawa Citizen, July 23, 1959, p. 9.

<sup>16</sup>Ibidem

increased. Mr. Peter H. Aykoroyd remarked that the N.C.C. development projects had, in effect, increased area land values more than any other single agency. He observed that land between the City Limits and the inner rim of the Greenbelt sold for as high as \$4,000 per acre, and some near Kingsmere and the Gatineau Park for as high as \$8,000 per acre. Further, the establishment of the Greenbelt had changed land values both inside and outside its well defined boundaries. Mr. Aykroyd observed:

"Land values have increased in such Greenbelt satellite communities as Orleans, Manotick and Stittsville. Other value-increasing moves included the N.C.C. Parkway Development, the Queensway, Government Building Complexes, the Railway re-Location and Urban redevelopment".<sup>17</sup>

#### Existing Parks and Recreation Areas <sup>18</sup>

The Department of Recreation and Parks, as it is commonly called to-day, was originally established in 1919 as the Ottawa Playgrounds Department. Its functions were limited mainly to the provision and maintenance of five outdoor rinks, four slides and two school rinks. The costs of operation for the 1919-20 season was \$5,729.50 catering for the City's population of some 107,732 people.

From that time to 1950, the population increased to 193,219, while in 1955 it reached 216,662, with an

<sup>17</sup> The Ottawa Citizen, November 14, 1962 p.10.

<sup>18</sup> See Map No. 16.



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annual expenditure of well over \$180,000 for rink operation and maintenance. Since 1950, the year of annexation of parts of Nepean and Gloucester Townships to the City of Ottawa, many sub-divisions have been created and a few more stretch to the new and wider boundaries of the City's new limits.

We should note that during the early part of the last decade, the exodus of families from the older sections of Ottawa to the newer sections did not have any serious effect on participation or attendance.

However, in the past five years, these new areas have increased both in size and numbers. Each new neighbourhood is now making its demands for community and recreation services for its people. As far back as 1940, we must also remember that the urban youth dweller did not have too much money, or too many side interests, thus the community rink was where they spent most of their leisure time. But, during the last World War II, as money became available to the general public, they sought other forms of past time activities. Also, there was a new interest of the parents to see the youth organized as recreation groups.

In the past decade, the automobile has wrought some rather startling revolutionary changes in the living habits of the residents. It has added to the family, as well as to the individual, a means of travel to far-off places for outdoor recreation thus calling for increased recreation programmes, including site-seeing in and around the City.

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The standards adopted for the City of Ottawa as the Nation's Capital are unique in the whole of Canada. Much money, time, and labour are being expended in beautifying the City and in creating a wealth of large public open spaces and facilities, and extensive parkways, particularly suited to public use and enjoyment. Thus, the standards have been designed to serve four basic needs: quiet passive recreation at neighbourhood level for all ages; active recreation at neighbourhood level primarily for pre-school and school ages, active recreation for adults at district level; and major combined active and passive recreation areas at city level.

There are no private owned parks and recreation areas, within the City Limits, except the Ottawa Hunt and Golf Club near Ottawa Airport outside of City Limits. All parks and recreation areas are either City property, Federal, or Provincial property.

In order to understand the Official Plan and Recreation Areas for Ottawa, one must be conversant with the Planning Act, Statutes of Ontario, 1955, Chapter 61, administered by the Community Planning Branch of the Department of Planning and Development of Ontario, which states:

"...that land to an amount determined by the Minister, but not exceeding 5% of the land included in the plan, shall be conveyed to the municipality for public purposes... that

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where the land is in a municipality...the Minister may authorize...the payment to the municipality, of a sum of money not exceeding the value of 5% of the land included in the subdivision.

All money received by the municipality...on the sale of land...shall be paid into a special account...and expended only for the purchase...of land to be held and used by the municipality for public purposes." 19

Hence, the implementation of this Act meant laying aside, in any new housing subdivision, acres for parks and playgrounds. At the present time there are approximately 512 acres in parkland made up as follows:-

Municipality owned and operated by the Department of Public Recreation, approximately.....232 acres

Municipality owned and operated by the Federal District Commission, approximately.130 acres

Federally owned and operated by the Federal District Commission..... 150 acres

TOTAL 512 acres

The Commission of Recreation and Parks submitted an official brief suggesting the acquisition of from 1,500 to 2,500 acres of land for future development in recreation and parks area. Thus, when Ottawa is fully developed in all areas within the City Limits, an additional 1,500 acres of parkland will be required over and above what exists.

<sup>19</sup>Departmental Report of the Official Plan of Parks and Recreation areas and the Planning Survey of Facilities, Organizations and Programmes of Parkland Sites for the City of Ottawa, May, 1960, 130 Chamberlain Avenue, Ottawa, pp. 5 & 6.

Also, there is the National Capital Commission which has put at the disposal of the Department of Recreation and Parks acres of valuable land for municipal recreation programmes and facilities. Many acres of valuable land have, thus, been incorporated in the Official Plan. There is evidence that many community groups and public organizations have shown the greatest interest in providing a substantial municipal park system in the City of Ottawa. Their moral support has also helped to bring to a happy end a project which looked so uncertain and doubtful.

In order to facilitate the development of Recreation and Parks, the City of Ottawa has been divided into four main districts:- Central, East, South and West, recognizing physical, social and other present and probable future conditions, including a basic programme administrative organization. These districts desiring of public open areas such as parks and playgrounds of various kinds have been divided into neighbourhoods, each approximately one half mile square. Specific boundaries for neighbourhoods were dictated by such factors as railroads, major traffic arteries parkways, waterways, industrial and commercial areas, social districts, population density, and the location of existing parks, playgrounds, schools, and other public and private areas.

The maintenance of the large grounds surrounding some 140 Federal Government Buildings in Ottawa and Hull

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is one aspect of the N.C.C.'s never-ending duties. This involves new landscape designs where necessary, planting of trees (as in the Greenbelt), shrubs and edging along pathways, etc.

Apart from the 22-mile Gatineau Parkway, or the 65,000 acres of the 75,000 acres which are owned by N.C.C. in the Gatineau Park,<sup>20</sup> there are 41 miles of parkways and driveways in and around Ottawa. This is quite apart from the green areas which have been appropriated for the Parkway Drive along the Ottawa River, and areas along the Rideau River and Canal which offer some aesthetic value to the City of Ottawa.

Each year the N.C.C. plants in the Capital many varieties of flowers which contribute natural beauty from early spring to late autumn. The parade of blooms starts with some 600,000 crocusses that appear soon after winter. They are followed by more than 800,000 glorious tulips<sup>21</sup> originally contributed by Queen Juliana after her visit to Ottawa in 1940. These provide the setting for the Ottawa Tulip Festival together with a host of daffodils giving concentrated colour in the Capital's urban parks. Other

<sup>20</sup>Eggleston, Wilfrid, *The Queen's Choice*, Ottawa, 1961, pp.251, 271, 273. Also, *The National Capital Commission An account of the history, legislation and composition of the National Capital Commission together with an outline of the work and projects of the Commission*, Ottawa, 1962, p.12.

<sup>21</sup>Eggleston, op. cit., pp. 267-268.

flowers include gay annuals such as zinnias, asters and petunias, and also vivid begonias in beds along the driveways.

The most important parks that are leased from the Cities of Ottawa and Hull are Rockcliffe and Strathcona Parks. The N.C.C. also owns landscapes and maintains four large parks which have become some of the main attractions in the Capital: Vincent Massey Park near the Hog's Back Falls is an example of the finest type of urban park design. This is a recreation rendezvous enjoying great popularity. It serves as a picnic ground for scores of government, business, social and church groups who make ample use of large sturdy tables and benches, open air fireplaces and running water.

A careful scrutiny of the creeks reveals also that many parks and open spaces run along both sides of stream banks, e.g. Pinecrest Creek east of Lincoln Heights and north Queensway Terrace in Carleton Ward; and Sawmill Creek west of Alta Vista Township are outstanding examples. In order to provide for easy and rapid transit of thoroughfare, the Ottawa River Parkway is being constructed along the southern shore of the river running from as far west as Dade Cove in Britannia to as far east as Rockcliffe Airport and beyond it.

Parks and open spaces not only provide recreational sites of some aesthetic value, but they also provide sites for public government buildings as well.

An item of great interest to landscape development has been the razing of old factories and warehouses in the triangle bounded by Sparks, Bay, and Wellington Streets in order to build a park in that area. This is the piece of land forming a transitional area from the long line of government buildings stretching westward on Wellington Street. In view of the approach of the hundredth anniversary of Confederation, it was decided to name the park the "Garden of the Provinces". Floral emblems in colour and flags with the coat of arms of the Provinces have been incorporated in the design. The Garden of the Provinces is another project by the N.C.C. designed to enhance the beauty and attractiveness of the National Capital.

In summarizing the concept of the Greenbelt it should be observed that certain fundamental concepts come to the fore in favour of this concept. In order to curtail the uncontrolled sprawls of urban outskirts which continually encroach upon the expanding urban settlement, a Greenbelt seems to be one of the ways in which a reasonable amount of control can be imposed upon an expanding urban area. With the increased facilities for better travel by automobiles, and in order to be in keeping with the modern craving for relaxation from life's strains, the idea of a Greenbelt would seem in some way to provide the desired natural conditions affording variety and refreshment. Its beautiful natural setting should afford aesthetic value and should break the

monotony and drudgery of the unnatural urban setting.

Although it may not always be possible to maintain the Greenbelt against the background of a growing city, yet the concept does seem to offer some immediate solution to the cravings of man for the pleasurable good. Hence, the idea seems of interest to both the geographer studying the discipline relating to urban geography, as well as to the townplanner whose main interest is to create ideal conditions for happy citizens living in a well-planned city. Whether this hypothesis could point to the solution of eliminating the undesired megalopolis trends of our time is still a question of ponderable dimensions.

Also, it does seem feasible that such an arrest of urban growth could exercise some form of control of population explosion in the city. This delimiting of population in a particular area to a desired minimum would tend also to control the social habits of the people and to prevent unwarranted crime arising from crowded slum areas, unemployment, juvenile delinquency, and the difficulty of policing a general public.

The proposition of the Greenbelt, though noble has three main disadvantages. Firstly, it is an expensive proposition and one that requires a considerable sum of money to put it into effect. Secondly, it calls for a well organized and well informed municipal personnel to carry out the duties of expropriations and the detailed

planning programmes. Thirdly, it calls also for an "educated" public who, to a large measure, are expected to understand the implications of the existence of the Greenbelt and the purpose it serves to the community.

The concept of parks and other recreation areas is not very much removed from the concept of the Greenbelt. Apart from their contribution to the beauty of the natural conditions of living, parks have become a real necessity for the modern living. Speaking of parks, Weir said,

"The nervous system of man....requires repose, rest and relaxation....Nothing is more in harmony with the previous experience of mankind than the quietness and beauty of large reservations. Small landscaped areas scattered thickly by the cities both in business and residential sections are also highly desirable". 22

Parks give a break in the monotony of life and afford the desired variation in man's activities, in his creative, artistic and constructive abilities through utilization of leisure and out-door activities. Parks are, therefore, a contribution to man's happiness. They increase neighbourliness and reduce to a minimum individualism. For it is in parks that the people can meet in picknicking grounds, camping sites, swimming pools, skating rinks, or at skiing grounds. Parks are areas of safety measures for children

<sup>22</sup>Weir, L.H.-A Manual of Municipal and Country Parks. Vol. 1 A.S. Barnes and Company, New York, 1928,p.2.

and adults alike since it is here that they can escape the dangers of modern traffic. Parks are areas of preventive of juvenile delinquency by offering an outlet for the dissipation of the energies of youth. Play or recreation provides an ideal opportunity for training in leadership. In addition, parks increase property values by raising the standard of the desirability of land for human use.

Play, and its relation to open spaces, has been engendered in the self-expression theory<sup>23</sup>. George Butler has made this plain when he defined the nature of man and his interrelationship to playgrounds when he said,

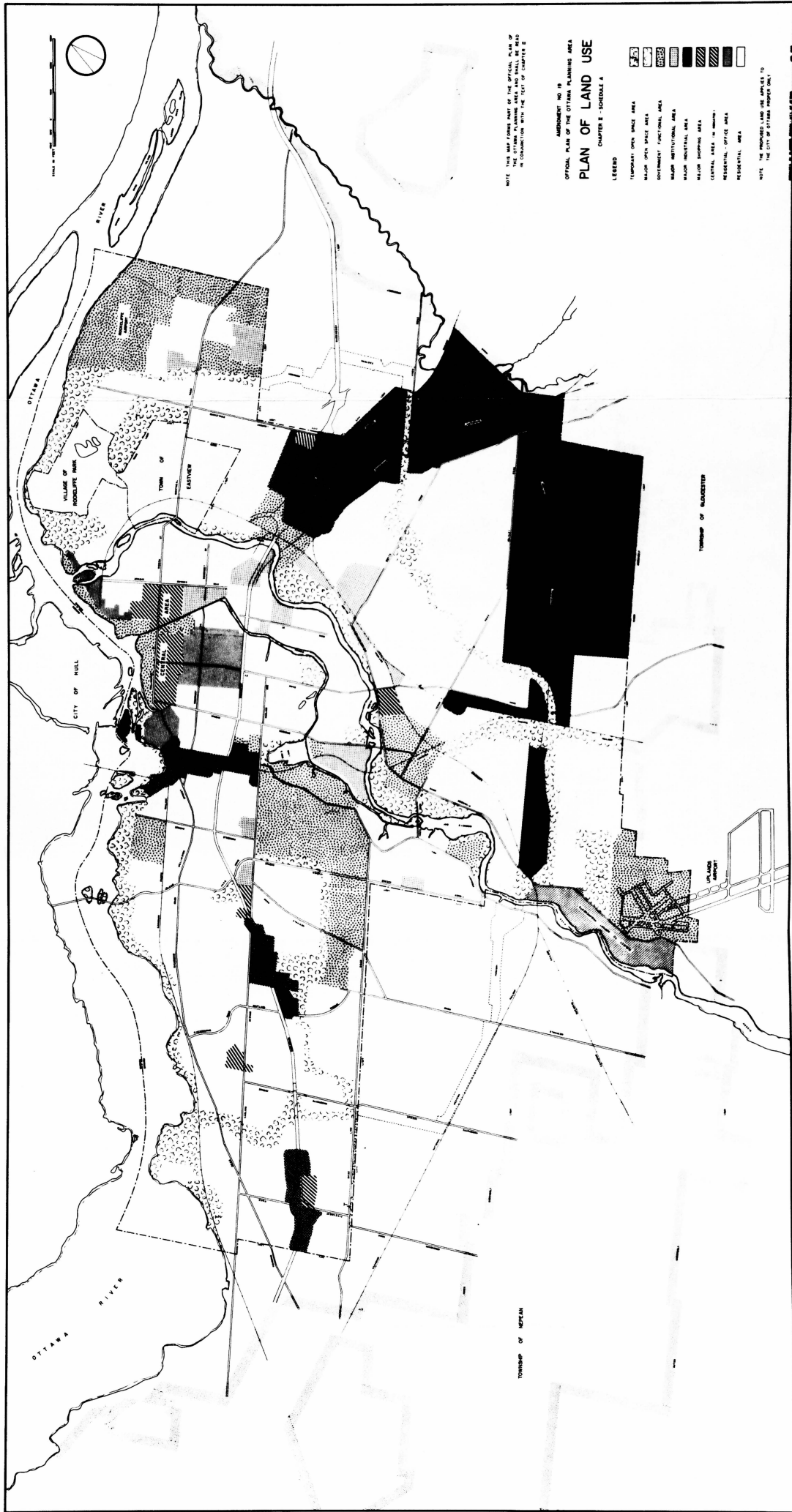
"This theory recognizes the nature of man, his anatomical and physiological structure, his psychological inclination, his feeling of capacity, and his desire for self-expression."<sup>23</sup>

It is for these reasons and others that the study of "The Geography of Open Spaces" should receive an important consideration as a vital aspect of urban geography and of its relation to human existence.

<sup>23</sup> Butler, George D.- Introduction to Community Recreation, McGraw-Hill Book Company, Inc., 1949, pp.7-8. Also, Mitchell, E.D. & Mason, B.S., -The Theory of Play, A.S. Barnes and Company, New York, 1934, pp. 190-192.

P A R T VII

COMMERCIAL, INSTITUTIONAL AND INDUSTRIAL AREAS



## SPECIAL LAND USE AREAS

The Nature of Special Land Use Areas

The main purpose underlying this chapter is to study the structural, functional, and spatial distribution characteristics of the institutional, residential-commercial, commercial and industrial concerns in Ottawa and their impact on the growth of the city as a whole. Our analysis will include a study of the heavy industrial area in the south and south-east industrial zone in Ottawa<sup>1</sup>, and the desired effects which such delineation is hoped to fulfill. The extreme variation of land use intensity in Ottawa is of prime importance in our understanding of the geographic analysis of the growth of the city and of its future expansion.

The central business core extends in a radius of approximately 1.5 miles around Parliament Hill. This tiny core forms the downtown district which includes most of the commercial, banking, retail, and other business of the city. This core does not include the industrial activities which are sparse in Ottawa. The exception is the E.B. Eddy Company, Paper Makers and one or two others long established adjacent to Parliament Hill. With certain modifications, the central core is that part exemplified by Proudfoot's statement in 1937 when he said that,

—————<sup>1</sup>See Map No. 17.

## SPECIAL LAND USE AREAS

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"The Central Business District represents the retail heart of each city".<sup>2</sup>

To some observers it is defined as that part which

"includes all business, commercial, and industrial activities which are located in the general "downtown" region of the city..."<sup>3</sup>

Residential Commercial and Office Uses

The areas as outlined above are fairly active in nature and are intended to present a harmonious intermingling of office and multiple-family dwelling units. As such, they differ from ordinary residential areas in this respect only, since all uses, and the criteria affecting their location are intended to be included in Residential Areas. Such Residential-Commercial areas include boarding, rooming, tourist, hotel, motel, nursing home (private), trailer, etc. while Office Uses include commercial offices, embassy, federal, local and provincial offices uses.

Residential Commercial take up some 55.31 acres, or 0.18% of the total land area of Ottawa, while Residential Office take up some 235.60 acres, or 0.73% of the total area.<sup>4</sup> In this category various federal offices take up some 150.72 acres and commercial 57.82 acres. This gives a total of

<sup>2</sup>Proudfoot, Malcolm J. "City Retail Structure", Economic Geography, XIII (October, 1937) p. 925 et seq.

<sup>3</sup>Horwood, E.M. and Boyce, R.R.-Studies of the Central Business and Urban Freeway Development, University of Washington Press, Seattle, 1959, p.2.

<sup>4</sup>See Appendix, N.

## SPECIAL LAND USE AREAS

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290.91 acres, or 0.91% of the total city area. It is not difficult, in terms of total land value, to see that the Federal Government activities, obviously take precedence over all other activities.

The district and planning unit designated <sup>5</sup> on the accompanying map gives 15 acres as the highest acreage devoted to residential office area. This includes St. Georges, By and Wellington downtown area, followed by Western Gloucester and Southern Elmdale-Victoria areas (Planning Unit No. 16). In terms of total area set aside or in use, it is by no means a reflection of the amount of office work being done in each particular area. The number of offices available may be far in excess of the amount of space available in space. In order to give the correct perspective this kind of activity should be reckoned in volume rather than in acres. For similar reasons, as observed above, there is a corresponding preponderance of 110.77 acres in the Central Downtown area. This development in office use is the rough measure of the commercial development of the central area. But the Eastern part of Gloucester, coming second with 73.69 acres, cannot reflect the amount of commercial activity being carried on there, but simply the amount of land set aside or intended for use in the area.

—————<sup>5</sup>Map No. 8.

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Institutions

The major institutional area category is intended to include large public institutional uses on sites which, in size and scale, tend to define residential areas, or are geographically located so as to be isolated from residential areas, public installations not in open space settings but which, combined with other public institutional uses form a significant non-residential use area. These include schools, colleges, universities, libraries and art galleries, museums, military buildings, hospitals and places of worship or religious congregation.

The major institutional area shown in District 4 of Map No. 8 involves the land of the Royal Ottawa Sanatorium and the Ottawa Hydroelectric Commission. These might have been included in the major shopping area in order to encourage its expansion, but it was considered advisable to assure the less active use of this land by designating it in this way. The Ottawa Civic Hospital is another major institution in District 6 of Elmdale-Victoria Ward. It has been found advisable to set it away from nuisance areas by reason of its function as an institution for the sick. The major institutional area located east of the Rideau Canal in District 7 is the general area now being assembled by the Ottawa University for its campus. The major institutional area located adjacent to the Queensway and consisting largely of federally owned lands, is

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proposed for development in conjunction with privately owned lands so as to complement the gateway nature of this area. This major institutional area between the Rideau Canal and Rideau River is comprised of a private college and a seminary which, together were considered large enough in size so as to complement the gateway nature of this area. The area north of Montreal Road in District II is the site of the St. Louis Marie de Montfort Hospital, while the major institutional area south of Montreal Road is a large seminary site.

The major institutional area immediately north of Kilborn Avenue in District 15 is land presently used as a seminary. South of Smyth Road there is an area set aside for use as a general hospital site. The Tri-Service Hospital lies east of Alta Vista Drive, while that portion lying west of Alta Vista Drive contains an N.C.C. tree nursery, and a church. It was considered advisable to include this last mentioned portion in the major institutional area category to provide flexibility in the development of the tree nursery lands either for use by an institution, or extension of the existing church. This area is isolated and it has been found necessary to include it under an institution area even though the general rule is to include churches in the Residential Category.

Institutions rank fifth in the order of descending magnitude in the land use classification with an overall acreage of 1,030.91 or 3.24% of the total city area. This

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This rating is all the more reasonable when we come to realize that there are over 50,000 children enrolled in the Ottawa Public and Separate Schools alone apart from several thousands in both the Ottawa Collegiate Board Schools and other Colleges and Universities. Ottawa is predominantly a religious community and a centre of all national activities. Little wonder, then that there is such a considerable area laid aside for many institutions. As the national capital, Ottawa occupies a unique position in housing foreign embassies and diplomats who own properties which are tax-free by special Act of Parliament. Such tax-free and exempt properties include a host of institutions and public grounds, charitable institutions such as churches, cemeteries Army and Air Force Buildings, Y.M.C.A. and Y.W.C.A., etc.

It is pertinent at this point to look more closely at the tax-exempt real estates in Ottawa. In an article which appeared in an Ottawa Newspaper<sup>6</sup>, the following information has been synthesized in which Mr. W.M. Arnott of the Citizen Staff said that some 46% of the City's land is now outside of the City's control. Within the City's limit, 8,103 acres are held by government, or related agencies, and an additional 2,800 acres have been pre-empted of schools, churches, embassies, hospitals, charitable institutions,

<sup>6</sup> The Ottawa Citizen, May 12, 1962, and also Annual Report of the Assessment Department, City Hall, Ottawa, 1961, pp. 7-9.

## SPECIAL LAND USE AREAS

provincial government, and outside municipal bodies. Apart from the lands and properties that are government controlled, some \$65,204,670 of assessment is tied up in educational institutions, churches, embassies, etc. There are 364 parcels of land tied up for educational purposes and representing some \$40,221,000, in lost assessment. The University of Ottawa alone owns some 100 tax-exempt properties. About 189 properties are held by the various religious denominations of the Capital and represent a loss of \$9,774,975 in assessment. Churches, and in some cases, church halls, are tax-exempt, although manses are assessable.

In Ottawa there are some 53 embassies representing a loss of \$2,349,850 in assessment. There are three cemeteries within the City Limits, taking up another \$567,000 in lost assessment. Miscellaneous charitable institutions account for another \$3,134,650 in lost assessment. In this group fall a number of French Canadian charitable properties in the form of societies, the Y.M.C.A. and Y.W.C.A., Community Chest Buildings, Canadian Legion, and similar institutions. Ottawa Boys' Club, Army and Navy Veterans Holdings, etc.

The Ontario Government holds 11 parcels of tax-exempt property, accounting for \$1,415,950 and the Ontario Hydro holds 7 parcels accounting for \$1,467,275 of lost assessment.

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There are \$15,838,250 in assessment of lost assessment in tax-exempt hospitals, and \$435,320 of tax-exempt assessment of properties held by Carleton County, Gloucester and Nepean Townships. Carleton County owns 3 properties totalling \$354,200. This takes in the County Courthouse and allied buildings. Nepean Township has one tax-exempt property valued at \$35,150, and Gloucester two assessed at \$49,975.

In City circles further N.C.C. expropriations are being forecast, notably the area between Wellington Street, and Albert Street, and between Bank and Lyon Streets. This is the section originally earmarked in the report of town planning consultant Jacques Greber as the location of a National Theatre, National Concert Hall and allied auditoriums.

Tax-exempt properties give an assessment of some \$261,423,587 which would yield to the City of Ottawa a considerable sum of money by way of taxes. If this were the case the City would have been able to swell its expansion budget very much more and be in a much better position to meet the demand for unemployment in many respects.

Land occupied by foreign embassies technically "ceases" to be regarded as federal land for as long as the foreign power continues to lay claim on it by its presence. As such, the City authorities have no power over its use or taxation.

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Churches and similar charitable institutions are "non-productive" assets. Their employment capacity is negligible and, as such, can add little or nothing to the City's productive capacity or even to its population increase. They do, however, exercise a stabilizing influence in that they tend to keep the community together and to impart a salutary, spiritual stability to the population as a whole.

Commercial Delineation and the Concept of Industrial Decentralization

There is only about 454.46 acres or 1.42% of the total land area in use for active commercial enterprise in Ottawa. The streets, comprising Sparks, Rideau, Bank, Dalhousie, and Wellington, have shown unsurpassed commercial growths which have penetrated neighbouring streets and even interferred with former residential sections. These "ribbon" commercial developments are a reflection of early settlement pattern which took regard only of settlement areas and little or none for commercial uses which, of course, didn't exist then. Hence, subsequent developments of commercial, semi-commercial, industrial and semi-industrial areas have been allowed to expand to the detriment of adjacent residential areas. Furthermore, they have followed a constant evolution under the pressure of added demands for services. However, true this may be, this cannot be the whole truth behind the lack of real booming commercial and industrial enterprises in Ottawa. We are forced, therefore, to look for reasons in

some other premises.

In any locality, certain fundamental factors are essential in stimulating economic or industrial expansion. An unstable or doubtful location for business produces doubt in the mind of the prospective investor. In his book, Alfred Marshall postulates on the Law of Diminishing Return which is a prohibitive factor in business location. He says,

"If a manufacturer (or investor) expends an inappropriately large amount of his resources on machinery, so that a considerable part of it is habitually idle;.... then his excessive expenditure in that particular direction will not be as remunerative as his previous expenditure had been: <sup>7</sup> and it may be said to yield him a "diminishing return."

The many theories which have been proposed in this subject fall outside of the scope of this dissertation. However, it is important to know that they verge on the high theme of economic and industrial expansion. But unlike physical laws, here we need especially to be reminded that economic problems are imperfectly represented when treated as problems of statistical equilibrium <sup>8</sup>. These are problems of organic growth and whose stability can only be spoken of in terms of relativity. For, although the statistical treatment alone can give us some definite directive insight

<sup>7</sup>Marshall, Alfred- Principles of Economics, 8th Edition Macmillan & Co., Ltd., London, 1959, pp 140-141

<sup>8</sup>Hicks, J.R.- Value and Capital, 2nd Edition, Clarendon Press Oxford, 1961 pp.99-111; 245-257

Also, Chapin, F. Stuart- Urban Land Use Planning, pp 7-9.

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into the matter, yet this is merely a necessary introduction to a more philosophical treatment of society as an organism. Investment and the success of any commercial enterprise can thus be related to the following factors: population size within a geographical area; climate; location of market; availability of raw materials; characteristics of labour supply; competition with other areas; collective action, etc.

Ottawa's population is small as compared with many larger cities of the world. Thus the law of supply and demand is already limited by its size. Ottawa's geographic position is not the best in the world's optimum regions of production. It faces a vast, empty northern hinterland which needs filling. Its geographic location in the higher, frigid latitudes makes it doubtful if it will ever be a real vast city within a megalopolis:

Speaking of market places, Cournot says,

"Economists understand by the term Market, not any particular market place in which things are bought and sold, but the whole of any region in which buyers and sellers are in such free intercourse with one another that the prices of the same goods tend to equality easily and quickly." 9

While Ottawa's market is soundly based on a diversified economy, with the civil servants' payroll contributing almost 50% of the buying power, it is only important on the local level and creates no further tentacles outside of its region.

What has killed business in Ottawa is lack of real profound investment and the proximity of its location to the

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huge capitalist investments in the USA with which there can be little competition. Thus, the would-be investor would not look at a small place offering small returns, but would be motivated to look to places like Montreal, or Toronto or even to the USA with the optimum conditions for business activity<sup>11</sup> through the media of production, trade, or credit operations.

Operating in Ottawa to-day, there are some 104<sup>12</sup> industries which actually manufacture in the city.

In general, industry, light and heavy, at present, utilizes some 1,053.97 acres (3.30%) of the total area of the city. A total of 1,849 acres are developed and set aside for further development. The few industries in Ottawa are highly diversified in their products and are made up of various companies with a total labour force of 40.7% of the total population of Ottawa. There are numerous sales and branch offices located in the city, and also firms engaged only in local service or catering. Manufacturing ranges from Sheet metal products, Canvass Goods, Precision Electrical Equipment, Radioisotopes, Topographical Planimetric and Acromagnetic Maps, Silver and Jewelery, Pulp and Paper

<sup>9</sup> Cournot, A.-opp. 1st city. p.270

<sup>10</sup> Lauterbach, Albert- Man, Motives, and Money: Psychological Frontiers of Economics, Cornell University Press, Ithaca, New York, 1954, pp.1-54.

<sup>11</sup> Hicks, J.R.-Value and Capital, 2nd Edition, Oxford, Clarendon Press, 1961, pp. 11-25

<sup>12</sup> See Appendix O.

Industries by E.B. Eddy and others, Aircraft and Surveying Instruments, Automobile Springs, and a host of other products of a small service nature. The city has been successful in attracting to itself and its vicinity, a small number of industries, so that commercial and industrial life is becoming an increasingly important part of its everyday life.

As it will be observed from the foregoing description that most, if not all, of the industries, are mainly of the light type and not the heavy industries with their air-polluting effects. This is in accordance with the Federal Government's policy of preserving the National Capital as a model city in both its setting and industrial location. That this is the concept for locating heavy industry in the outskirts of the City is clearly understood in terms of this theory.

Quite clearly, then, Ottawa is still far from being considered an industrial city, ranking 12th in size of manufacturing labour force, 16th in volume of wages and salaries in manufacturing, and 20th in value of factory shipments, among the manufacturing cities in Canada.

The expansion of commercial and industrial enterprises is both an individual and collective action. Of this, W. Arthur Lewis says,

"Collective action and cohesive sentiment are not merely necessary to growth, they may also in circumstances achieve results superior to those achieved by individualism." 13

Further, Lewis says,

"Collective action in the form of government action is necessary even if only to supplement private action. Governments have extensive functions in promoting economic development" <sup>14</sup>

The latter is what has been greatly lacking in Ottawa. Government and City Officials have been either unwilling to consider this, or merely indifferent to the need for economic expansion of the City. This is the human inertia that has been attacked from time to time by the economically and commercially-minded citizens of Ottawa. Speaking of industries in Ottawa, Mr. Leo Dolan who, at one time, was asked by the City to carry out a special study of the City's industrial development activities, once said,

"...the people of Ottawa are not much interested in industrial development, except as an abstract idea". <sup>15</sup>

Now land set aside for industrial expansion is, in many instances, unserviced. The cost of providing service on top of the price of the land would make it prohibitive for most operations, e.g., the prospective industrial land in the City- aside from roads, water or sewers, is of the order of \$5,000 per acre. Finally, serviced land would cost something like \$8,000 per acre. Under present regulations, only about one half of the serviced land can be built upon. This

<sup>13</sup> Lewis, W. Arthur- The Theory of Economic Growth  
George Allen & Unwin Ltd., London, 1955, p. 79

<sup>14</sup> Ibidem p. 376 et seq.

<sup>15</sup> The Ottawa Citizen, May 12, 1962.

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would bring the total price to about \$1 per square foot of land, or \$43,000 per acre under most leaseback arrangements.

Most of the land zoned for industry is located in the East and South-eastern outskirts of the City where some 4,810.69 acres have been set aside. This land is either little serviced or unserved, and the prospective business man would have to develop it at his own cost. The land is claimed by business men as poor building land; low and swampy, and generally undesirable for construction. The cost of servicing would rule out the area for early development. Also, the land is rather impractical for the **type** of industry that **might** locate here for it is reckoned by industrialists to be on the wrong side of the City with rather poor communications.

Again, in the civic land now available for industry in the western section of the City in the Carling Avenue area, prices of land are in the order of \$2.00 a square foot, or \$86,000 per acre. By comparison, the price of most property off Highway 401 in the heart of the industrial region outside Toronto, for example, is about 25% lower.

Since it is the very nature of urban development that land and building values are constantly changing, it is never possible to obtain a precise picture of the pattern of values. In our present case, looking at the land reserved for industry, one sees very clearly that a large mass of land is set aside for this purpose. The area consisting of

land south of Walkely Road and east of Russell Road is a huge area of some 4,910.69 acres available for all purposes. One criticism which has been laid against this is that too much land has been zoned for industry with little buffer areas to separate heavy industry from homes in the south-eastern residential-industrial area. That this area, once developed, will form a polluting reservoir for the residential homes of the people is the fear of many people. With this in mind, changes are contemplated so as to give residential areas more protection.

Although Ottawa is not a booming industrial city, yet there are opportunities for new industries to locate in Ottawa and to draw on present labour skills and develop new ones through training programmes. At the present time job opportunities in various technical and skilled trades are limited. New industries would provide numerous increased opportunities for population stay in the Ottawa area. The civil service draws from all Canada- and the result is that Ottawa youth migrate to other cities taking with them their purchasing power and potentials for industrial development. Increasing the industrial strength of Ottawa would curb this unfortunate tendency - for new industry means new payrolls, new families, new customers, and a stable economy.

The Commercial and Industrial Development Corporation

The deficiency in industrialization in Ottawa has not gone unchallenged. The newly developed Commercial

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and Industrial Development Corporation, or CID, arose out of this concern in the deficiency of industrialization in Ottawa. It was formed to promote industrial development in the area of Greater Ottawa. It represents more than one municipality and enlists the support of business and industrial leaders. To show just how enthusiastic the newly formed group was, a small sum of \$48,450 budget of the corporation was raised by a 5% per capita grant from the five municipalities:- Ottawa, Nepean, Gloucester, Eastview, and Rockcliffe Park Village, and \$32,300 from private corporations and other sources. It replaces the ill-fated Ottawa Industrial Commission which was based at City Hall. It has a 25-member board of directors - four from the City, one member each from the adjacent municipalities, 17 appointees from the Corporation's private membership.

The main stress from City's Officials is on light industries which, presently, own 276.95 acres or 0.87% of the total City area. Heavy industries, occupying some 772.02 acres, or 2.43%, have been encouraged to locate in the suburban municipalities. Under the City's new plan, some 3,560 acres of land are available for industrial development. In the section on the accompanying Map No. 17, some 4,810.69 acres are available for all purposes, but mainly for major industrial uses.

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Despite that special zoning of area for industrial purposes, we still find a lingering tendency on the part of the people to take a pessimistic view of Ottawa's industrial and commercial potentialities.

Speaking of industries, Mr. John Rook-Green, Manager of the newly formed CID, said,

"...industrial groups are hesitant in locating here (Ottawa) until they can find out what the attitude of the City's people is." 16

The role of Ottawa is that of a "Model City" in accordance with the wishes of Federal Government. It will, thus, remain a symbol of Canada's greatness rather than an industrial city. Small, light industries will, however, locate in Ottawa. But it is sheer presumption to envisage a sprawling industrial city competing with Montreal or Toronto, or the gigantic industrial cities of the U.S.A. Ottawa is a special geographical land unit designated to play a certain role in the bicultural relations of Canada. Its land use will, therefore, be biased in that direction for a long time to come, and will reflect the desires of its people who want it to remain the symbol, in both setting and beauty, of Canada's National Capital.

Pursuing our discussion further about land use in Ottawa in relation to industrialization, we find that the efforts to attract industries to Ottawa are being

<sup>16</sup> The Ottawa Journal, Dec. 5, 1963.

slowed down by high cost of available land; indifference and apathetic attitude of government officials; outright opposition from residents; severe zoning bylaws and the stress laid on beautification of the City. Prospective business men are, thus, afraid of possible diminishing returns under such rather insecure conditions.

As a result, what little industrial enterprise has been attracted to the National Capital during the past few years is generally being located in the outskirts beyond the Eastern City Limits. Zoning is much more severe here than in many non-government cities. For example, in new developments in the Metro-Toronto area, the ratio of building is 60 to 40 between housing and industry respectively. In Ottawa the figure does not come close to this division.

Finally, let us consider the question of the location of industry as a part of the general complex problem in terms of local and regional distribution of economic activities. First, the forces which operate as economic causes of industrial location, or simply "locational forces", are manifold. By locational factor it is presumed to mean an advantage which an industry gains when it is located at a particular point rather than elsewhere. The advantage would be related to a saving of cost, i.e. a possibility for the particular industry to produce at this place a certain, or certain products at less cost than elsewhere, to effect the entire productive and

## SPECIAL LAND USE AREAS

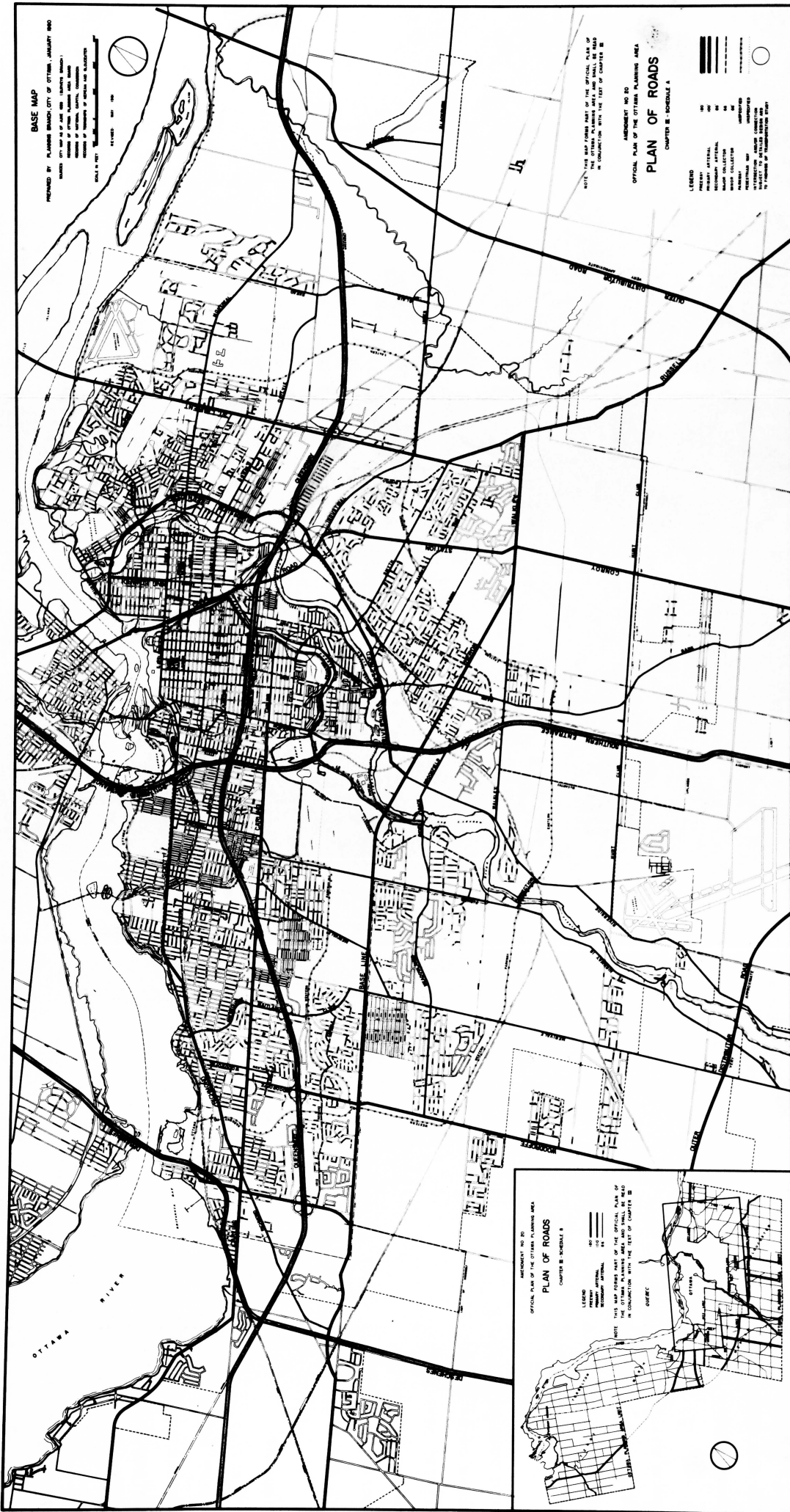
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distributive process, or processes of certain industrial products cheaper at that point than at another place.

It is obvious that from the point of view of practicality, Ottawa does not possess many locational advantages. It is diverted northwards from the general St. Lawrence Waterway with its historic and economic advantages and easy transportation facilities. It seems out of the way from the direct route facing the progressive regions around St. Lawrence and south into the U.S.A. The economic advantages gained by such locational factors dwindle down to a small fraction and are far inferior to those of either the Montreal Region with a population of some 2,109,509, and Toronto's 1,824,481. The probability of either Montreal or Toronto conducting successful industrial enterprises because of their population advantages becomes much greater than that of Ottawa with its regional population of about 429,750, persons and producing goods of a small service nature.

<sup>17</sup>Census of Canada, Population, 1961, Dominion Bureau of Statistics. For further reading on industries and their location, see:  
Webber, Alfred- The Theory of the Location of Industries, Chicago, 1929, p. 17 et seq.

P A R T V I I I  
C O M M U N I C A T I O N S



**BASE MAP**  
 PROVIDED BY PLANNING BRANCH, CITY OF OTTAWA, JANUARY 1960  
 SHOWS CITY GRID OF LAND AND TRAVEL DISTANCE  
 DISTANCE OF TRAVEL FROM CENTER OF OTTAWA  
 DISTANCE OF TRAVEL FROM CENTER OF RIDEAUVILLE  
 DISTANCE OF TRAVEL FROM CENTER OF BARRINGTON

NOTE: THIS MAP FORMS PART OF THE OFFICIAL PLAN OF THE OTTAWA PLANNING AREA AND SHALL BE READ IN CONJUNCTION WITH THE TEXT OF CHAPTER 18

AMENDMENT NO. 20  
 OFFICIAL PLAN OF THE OTTAWA PLANNING AREA  
 PLAN OF ROADS  
 CHAPTER 18 - SCHEDULE A

LEGEND  
 PRIMARY ARTERIAL  
 SECONDARY ARTERIAL  
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NOTE: THIS MAP FORMS PART OF THE OFFICIAL PLAN OF THE OTTAWA PLANNING AREA AND SHALL BE READ IN CONJUNCTION WITH THE TEXT OF CHAPTER 18

AMENDMENT NO. 20  
 OFFICIAL PLAN OF THE OTTAWA PLANNING AREA  
 PLAN OF ROADS  
 CHAPTER 18 - SCHEDULE A

LEGEND  
 PRIMARY ARTERIAL  
 SECONDARY ARTERIAL  
 COLLECTOR  
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# MAP 18

## THE PLAN OF ROADS AND RAILWAY RELOCATION

Plan of Roads

Ottawa's blueprint for its urban development for the next 20 years is to be found in The Official Plan of Land Use which sets forth general principles of the guidance of both the city and private land developers. These general principles form the basis for future detailed planning which, in turn, have become the basis of urban renewal in Ottawa.

The purpose of the Plan is to establish the major land use categories in the City. These have already been studied and numbered 8 and are to be found in combination with six-non-residential and 17 residential districts. The Official Plan of Land Use is applicable to the City of Ottawa only. But the City of Eastview has already said it would harmonize its zoning with the City's Master Plan.

The Land Use Plan goes hand in hand with the Official Plan of Roads. In Ottawa a complex of roads and bridges and railway relocation<sup>1</sup> have been interwoven together in the whole complex nature of its projected future development programmes.

It is estimated that 70 parkways, bridges and superhighways will ease traffic congestion in Ottawa after they are completed. Of the 3 bridges now in use, 5 more will be built, and of the 8 bridges now in use over the Rideau Canal, 7 new ones will be built over the Canal.

## THE PLAN OF ROADS AND RAILWAY RELOCATION

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Many traffic arteries and parkways are planned for future development in Ottawa. The whole network is estimated to last 20 years. The roads plan is double-barrel and is designed to help present-day traffic congestion and will ease off traffic congestion in the future. The eventual cost is not possible to predict since new land has still to be bought for many of the roads. The Province of Ontario and the Federal Government will make a joint contribution in the construction and carrying out of these projects.

2

The Queensway, now two-thirds finished, is part of the Trans-Canada Highway No. 17. This is a unique joint project carried out by four parties as partners: The Ontario Department of Highways, The City of Ottawa, The Engineering and Construction Division of the Department of Public Works, and The National Capital Commission. This Highway is being built upon the former right-of-way of the Canadian National Railway running through Ottawa, and it is designed as a high-speed limited access throughway. Since traffic flowing from Toronto to Montreal does not, at the present, come via Ottawa a destination and not a city requiring a by-pass, the Queensway will allow ready access to the city from either side providing a pass-through

<sup>1</sup>See Map No. 16

<sup>2</sup>The Professional Engineer and Engineering Department, July, 1962, pp. 20 and 46.

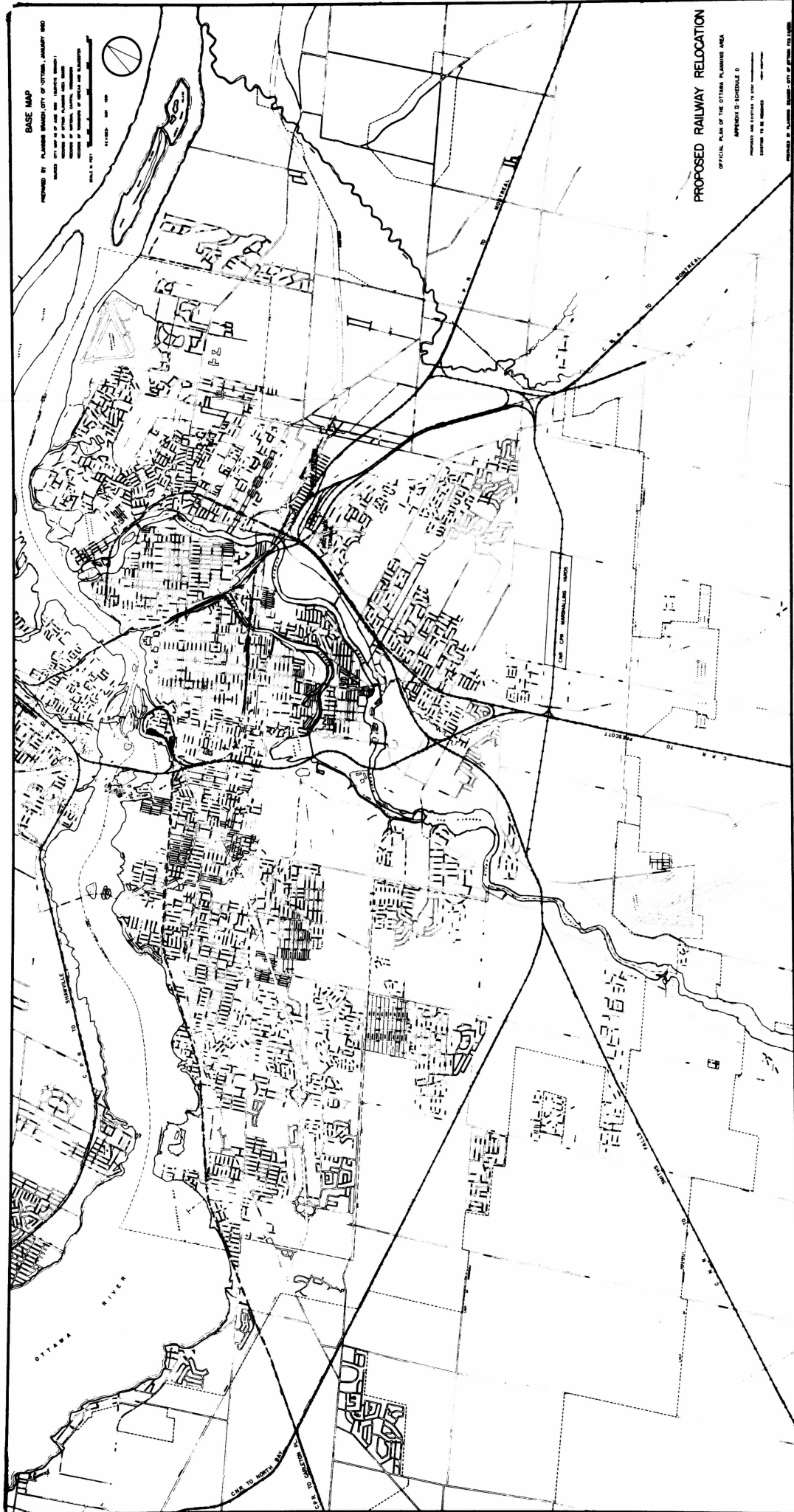
## THE PLAN OF ROADS AND RAILWAY RELOCATION

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as well as for those who wish to go by. The supervision of the construction of the Queensway has been carried out by the Ontario Department of Highways. The N.C.C.'s contribution was to provide the right-of-way throughout its length within the city limits, and also to do the landscaping. The two end sections - East and West, are now completed and open to traffic while the centre is still under construction, and it is hoped that it will be completed by the end of the year (1963).

This Highway is important for attracting tourists and other visitors to the National Capital. It will also provide rapid transit service to businessmen and industrialists and a ready link with the rest of Canada. In addition, the Queensway will form the main artery from which will radiate into the city and the Ottawa Metropolitan area "secondary arteries", "wandering arteries" of less importance, and "outer distributor roads" from its double-barrel lanes.

Some other projects like the Smyth Road Bridge, are still under construction. Basically, the official plan sets up an eastwest and northsouth grid pattern of main roads, reinforced by several "wandering" arteries of less rigid path. The grid is designed to move traffic both in and out of the city and right through it. The freeways are the senior roads in the system. They are limited access, dual-lane expressways which connect to only other freeways



# MAP 19

## THE PLAN OF ROADS AND RAILWAY RELOCATION

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and arteries which Ottawa is designed to have, viz., The Queensway, The Pinecrest-Britannia, and the Highway 31 extension.

An interesting and completely new arterial called the "Outer Distributor Road" will circle the south of Ottawa like a big belt, then cross into Quebec on a planned new bridge near Green's Creek. The road, however, is completely outside the City Limits and is the "bypass" proposed in the old Greber Report. Through traffic is handled by the freeways. "The Outer Distributor" is a connector joining the north-south arterials and providing truck access to the new southeastern industrial area.

Riverside Drive will be rebuilt and extended north to cross the planned MacDonald-Cartier Bridge to Quebec. The Riverside extension will follow the east shore of the Rideau River.

A major-north-south arterial will lie along Conroy and Station Roads, connecting with Industrial Avenue near Alta Vista Drive. Then it will turn over across to Hull over the present Interprovincial Span.

Russell Road and St. Laurent Boulevard form a major east and route. St. Laurent will span into another planned new bridge to Quebec, just west of Rockcliffe Airport.

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<sup>3</sup> See Map No. 15

## THE PLAN OF ROADS AND RAILWAY RELOCATION

The Base Line, Heron and Walkley Roads will be linked into one city wide artery.

There will also be 17 roads, at least 86 feet wide and called "secondary" arteries which, until now, have been considered major routes.

The planned Ottawa River Parkway will run from the proposed new Deschenes Bridge along the southern section of the Ottawa River and across the shore of Nepean Bay to Parliament Hill. In this position it will run five miles from the end of Bayview Road near Lazy Bay, to Britannia. This Parkway is under construction at the moment. The Eastern Parkway will meet it at the Rideau River and will twist north and east to the Ottawa River at Rockcliffe Airport. A south shore Rideau River Parkway will be developed through improvement of Riverside Drive from Uplands Airport and a link leading to the western end of the new \$10 million Ottawa-Hull Bridge. The N.C.C., the P.W.D., and the City are co-operating in spending about \$1 million in improvement of Riverside Drive from Billings Bridge to Hog's Back Road.

The development of the Parkway along the Ottawa River will make more of the river shore available to the general public for recreation and enjoyment and will curtail the monopoly of the area by a few individuals who already have property along the river shore. Beaches and places of public interest and car parks will be created along the river

## THE PLAN OF ROADS AND RAILWAY RELOCATION

shore. Examples of places where proposed beaches will be located will be at a place opposite Lanark Street, a second, behind Tunney's Pasture, and a third, at Woodroffe.

But expropriation of the Ottawa River shore land has not all been plain sailing. The angry owners of some high-priced real estate fronting of the river shore have grouped forces in opposition to the N.C.C. expropriation order which has struck a "death knell" to their homes along the proposed Ottawa River Parkway.

In several statements, one indignant landholder said, "We are the helpless victims of bureaucracy gone mad." In another, the citizens living in this area have submitted to the N.C.C. a written statement running thus:

"We are citizens living in a free and democratic society, not a totalitarian state. As such, we have a fundamental right to enjoy the undisturbed use of our homes and land...We demand that this expropriation be withdrawn immediately".<sup>4</sup>

Plan of Railway Relocation

Urban renewal and bold land use projects in Ottawa have turned tables on the present location of Union Station in Central Ottawa. Twenty-two acres of this site are to be cleared of buildings and redeveloped when the Union Station and the tracks will be relocated two miles to the south at Hurdman's Bridge Station in 1965.

<sup>4</sup>\_\_\_\_\_The Ottawa Citizen, August 3, 1963, p. 17

## THE PLAN OF ROADS AND RAILWAY RELOCATION

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The reasons advanced for the railway relocation are manifold, but the main ones are these that the railways are taking up valuable land, as well as providing many obstructions to traffic in the form of level crossings and roads blocked by fill. The facilities for passenger, express and freight are becoming obsolete and unsightly. It was the Master Planner, Jacques Greber, who recommended in 1950, that the railroads be relocated. This proposal was accepted and has been under way now for several years. The total estimated expenditure is between \$15 million and \$20 million and will involve the removal of 32 miles of track, the elimination of 72 level crossings, and will release 322 acres of right-of-way for use as traffic arteries within the city, and 127 acres of yard space in centrally located areas which will be redeveloped for better living. The present Union Station will be demolished and the area cleared for redevelopment with commercial and government buildings.

Furthermore, reasons for relocation of the Union  
5  
Station are cited in an article in which Mr. Thrift said,

"As long as the Union Station remains in Confederation Square, major traffic improvements to the Central Business District and government areas cannot be undertaken and Confederation Square adequately developed".

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5 The Ottawa Citizen, May 17, 1961.

## THE PLAN OF ROADS AND RAILWAY RELOCATION

These improvements are considered essential to prevent deterioration of the areas by continued separation of Upper and Lower Towns. It is further argued that retention of downtown railway facilities would greatly complicate and make more costly the construction of the Queensway.

The Union Station is regarded as obsolete, both as regards its location and the facilities it provides to-day. Inadequate motor vehicle access and lack of parking space in this downtown area are all too evident. The importance of the railways has dwindled for the last 15 to 20 years with the increase of the automobile services for the general public. The need for it is now less felt, and as a result, railway transportation no longer poses as a real necessity in terms of convenience and time factor which is becoming increasingly the business of privately owned automobiles, and public buses. Also, railways form nuisance areas with their noise and the demand they make on land for their use. Railways do not present aesthetic values and, as a result, they are required to move to the suburban areas of the city.

Finally, it is also estimated that efficiency in railway operation and the most central location to serve approximately 600,000 Metropolitan Ottawa Population within the next 10 years' time is among the reasons for the site of the new Union Station at Hurdman's Bridge Station.

## THE PLAN OF ROADS AND RAILWAY RELOCATION

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To conclude our study, let us make a few pertinent observations with respect to the transportation plans for the City of Ottawa.

Transportation has been defined by Mossman and Morton as,

"a service or facility which creates time and place utility through the physical transfer of persons and goods from one location to another".<sup>6</sup>

The revolution in road and rail transportation in Ottawa has been the direct response to the demand to meet the need of a dynamic city and its metropolitan area. It is the result of the phenomenal growth of automotive transportation within and without the City itself. It has been suggested to regard

"the city as a working entity and the country as a living entity".<sup>7</sup>

Consequently, it is suggested that the best way to meet decrease urban congestion is to increase the radius of movement around the cities. This seems to be the concept underlying the revolution in transportation system in Ottawa.

Every year in Canada there are many people killed or injured in traffic accidents and, in addition, there are the material waste in damaged property. The Report of the

<sup>6</sup>Mossman, F.H. & Morton, Newton- Principles of Transportation, The Ronald Press Company, New York, 1957 p.3.

<sup>7</sup>Bel Geddes, Norman- Magic Motorways, American Book-Stratford Press, Inc., New York, 1940, p. 209.

## THE PLAN OF ROADS AND RAILWAY RELOCATION

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Pilot Committee has stated,

"The thousands killed and injured every year on streets and highways.....the incalculable waste in slow moving traffic and traffic jams.....the drain on the public treasury... from inadequate construction practices in highway building... All these are major national problems".<sup>8</sup>

The N.C.C. in Ottawa, with its influence on land use, has played (and continues to play) an important role in the selection of the routes for urban motorways. Since there are no metropolitan areas which are identical in every respect, each must have its own blueprint with a pattern of urban motorways which best meets the needs of its conurbation.

Such phenomena arising from the merger of the land use and transport demand, have evolved in Ottawa, a pattern of ultimate development peculiar to the needs of the National Capital

Specialised urban motorway systems fall into three categories as proposed by Feuchtinger, at the London Conference on Urban Motorways, viz.:

(1) Outer Rings and Outer Tangents, (2) Inner Rings<sup>9</sup> and Inner Tangents, and (3) Centripetal Orientation Schemes.

<sup>8</sup>Roads For Canada-A Report of the Pilot Committee Appointed by the Canadian Good Roads Association to Study Highway Research in Canada-Ottawa, Nov.1,1951, p. 1

<sup>9</sup>Feuchtinger, in Jones, John Hugh-The Geometric Design of Modern Highways, E.&F.N. SponLtd., London, 1961, pp.2-3 Also, Feuchtinger, Max-Erich-Some Aspects of Planning and Design of Urban Motorways, Report of the London Conference on Urban Motorways, British Road Federation,1956.

## THE PLAN OF ROADS AND RAILWAY RELOCATION

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The Group I configurations, patterns which consist essentially of a by-pass around the central city are representative of the Ottawa road system with its Outer Distributor Road <sup>10</sup> representing the by-pass around the city.

Road transportation, more than rail transportation, plays an important role in satisfying the needs of the society. The securing of goods from more distant places is a function of the transportation system. As the cost of transportation decreases, goods, can be secured easily. Since transportation precedes production in bringing in raw materials and supplies, wider markets can be reached easily. The value and accessibility of such areas and the magnitude of their development will tend to reflect the quality of transportation available. No wonder Charles H. Cooley has tried to account for the location of cities by the theory <sup>11</sup> of transportation.

Ottawa's transportation system has tended to lag behind for various reasons. Firstly, Ottawa's location was chosen deliberately for strategic reasons making its accessibility rather difficult. Secondly, its northern

<sup>10</sup> See Map No. 18

<sup>11</sup> Cooley, Charles H. in Weber, Max-The City, The Free Press, Glencoe, Illinois, 1958, pp. 16-17

Also, The Editors of Fortune- The Exploding Metropolis Doubleday & Co., Inc., Garden City, New York, 1958, pp.53-80.

## THE PLAN OF ROADS AND RAILWAY RELOCATION

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hinterland, though slightly a mining area, is covered by the hard, infertile out cropping of the Laurentian Shield which does not lend itself to much agricultural enterprises. Thirdly, lack of adequate public funds and the somewhat absence of public interest has tended to contribute to the inertia which is now apparently giving way to a new impetus.

S U M M A R Y   A N D   C O N C L U S I O N S

## SUMMARY AND CONCLUSIONS

Our study of Ottawa has been concerned with the devotion of man's physical and mental energies to changing his environment. All this can be equated with the uses to which man has put the land at his disposal. It is, quite clearly then, a study of the environment, its influences on man, and the extent to which man is trying to change it, or modify it, in order to derive from it the maximum benefit for a better and fuller life.

It has been noted that Ottawa is endowed with its own "artificial personality". From the time of its foundation as a nondescript village in the early 19th century, up to the time of its inception as a National Capital, Ottawa has been the agent of the Federal Government, holding a delegated authority to perform certain governmental functions on the State's behalf, and for the simple reason that such functions are better performed by the municipality than by the State itself. In order to do this, the City has been provided with a frame of government by whose powers the National Capital Commission has been set up to assist government in carrying out certain duties and obligations as will enhance the administration of the City.

Although economic enterprise is by no means strictly governmental in its nature, government civil labour has played an important role in its economic and social life and by and large, in controlling crime rate in the City.

## SUMMARY AND CONCLUSIONS

The former factor though economically limiting, is in a way, salutary to its economic life, contributing a steady and substantial purchasing power to most of its citizens at all times.

Socially, the City of Ottawa is unique in that it reveals a fairly good cross section of a multiplicity of ethnic groups. It is truly a cosmopolitan City and whose function is not only governmental, but consisting in work of social amelioration as well. The cosmopolitanism of Ottawa is not only unique here, but it is rather a common feature found in many, if not all of the cities of the American Continent as a whole. Here, of course, is to be seen the effects of immigration which bring to Canada a large percentage of immigrants from overseas countries.

The question which haunts City Planners to-day in Ottawa is: Can Ottawa be too big for convenient control? There is no doubt that the growth of our modern cities has been the most conspicuous phenomenon of the past hundred years. James Bryce<sup>1</sup> has said that there is plenty evidence that the cities of our day and age have already, at least, grown well out of hand. The unmanageable sprawl of cities is the one thing that haunts City planners. They are concerned about all the evil consequences that arise subsequent to the uncontrolled growth of the city- unemployment, poor, social and housing conditions, difficulty of water-supply and sanitary sewage disposal- just to mention

## SUMMARY AND CONCLUSIONS

a few. Ottawa cannot quite be equated with such urban sprawls since its present size and the rate of its growth do not seem to invoke such fears. The City of Ottawa is trying to arrest these evils by imposing a City Limit rimmed by a greenbelt. This is a precautions measure and not a phenomenon arising from any existing unmanageable city sprawl. City Zoning and the encouragement given to urban decentralization outside of the City Limits is another preventive measure.

A similar aspect of city planning in Ottawa has been the decentralization of government functional areas- an idea propounded by the celebrated French town planner, Jacques Greber- The reason was political strategy, in which it was suggested that decentralization would reduce the hazards of destruction of government property in the event of an attack by an enemy. This certainly, does not now seem feasible in this age of atomic warfare capable of devastating large areas with the impact of one blast.

In Ottawa, City Planners are estimating a population of 300,000 within the next 10-15 years. Whatever form the city will take, or whatever living or working conditions will turn out to be, will depend upon the

<sup>1</sup> Bryce, James. "The Menace of Great Cities" in National Housing Association Publications, No. 20, June, 1913, pp. 11-17.

## SUMMARY AND CONCLUSIONS

efficacy of the zoning laws and by-laws of the City, and the extent of industrialization in Ottawa.

Redevelopment has called for renewal of housing, relocation of the Union Station to Hurdman Bridge area and the construction of new roads and bridges. Thus we come to the conclusion that Ottawa Land Use Plan is being put to the best advantage possible, and that the City is well on its way to becoming a well planned city—a Washington of the north, whose development can only be envisaged in terms of time-space-continuum. Ottawa is fast becoming a bicultural centre, a depot for the many foreign embassies and diplomats, a national research centre for scientific projects, a modest commercial and industrial centre within the Ottawa Region, an agricultural and horticultural centre for the Ottawa-St. Lawrence River Valley, and a home for the thousands who come from all over the world to settle in Ottawa.

B I B L I O G R A P H Y

## BIBLIOGRAPHY

Reports

Cassels, W.L. and A.K. Hay, Highway Entrances.  
A report to the Ottawa Planning Area Board. Ottawa, 1948.

Ottawa Planning Area Board. Future Development of  
the City of Ottawa and its Environs. Ottawa, 1947.

-----, Amendment No. 2 of the Official Plan of the  
Ottawa Planning Area respecting Parks and Recreation Areas  
in the City of Ottawa, Ottawa, 1959.

----- Official Plan of Highways, Parkways and  
Railways of the City of Ottawa and Environs, Ottawa, 1953.

Other Sources

National Construction Council of Canada. Report on  
Relief Housing Conditions in the City of Ottawa. Ottawa 1935

Rotary Club of Ottawa. Resolution re Federal District  
of Ottawa the Capital City of Canada. Ottawa, 1912

Seymour, Horace, "Planning for Ottawa and Environs,"  
Civil Service News, (August, 1937) Ottawa.

Tate, Alan. The National Capital Region: Settlement,  
Greenbelt and Satellite, Ottawa, 1959.

Periodicals

Cauchon, Noulan, "Ottawa Town Planning Commission,"  
The Journal of the Town Planning Institute of Canada, I  
Nos. 4 and 5 (June-August, 1921).

-----, "Ottawa Zoning By-Law," The Journal of the  
Town Planning Institute of Canada, V. No. I (February, 1926).

Hosse, H.A., "Ottawa's Greenbelt and Its Anticipated  
Effects," The Canadian Geographer, No. 17, (November, 1960).

## BIBLIOGRAPHY

184

Books

Brault, Lucien, Ottawa Old and New. Ottawa: Ottawa Historical Information Institute, 1946.

Burgess, Ernest W. The Growth of the City.

Carver, Humphrey, Cities in the Suburbs-University of Toronto, 1962.

Chapin, F. Stuart Jr. Urban Land Use Planning. Harper & Brothers, New York, 1957.

-----, and Putnam, D.F. The Physiography of Southern Ontario. Toronto: University of Toronto Press, 1951.

Cole and Crowe, Recent trends in Rural Planning, Prentice-Hall, Inc., New York, 1937.

Davies, Blodwen, The Charm of Ottawa. Toronto: McGraw-Hill Company of Canada Limited, 1954.

Dickinson, Robert E., City Region and Regionalism-A Geographical Contribution and Human Ecology-1960, London.

Dominion Bureau of Statistics. The Manufacturing Industries of Canada, 1958. Industry and Merchandising Division, Queen's Printer, 1960.

Dobriner, William M., The Suburban Community, G.P. Putman's Sons, New York.

Eggleston, Wilfrid. The Queen's Choice, Queen's Printer and Controller of Stationery, 1961

Gallion, Arthur B., The Urban Pattern. D. van Nostrand Co. Inc., Toronto, 1950.

Geddes, Patrick. City Development. Edinburgh, 1904.

Greber, Jacques. Plan for the National Capital: General Report. Ottawa: King's Printer, 1950.

Harris, C.D. & E.L. Ullman. The Nature of Cities. The Annals of the American Academy of Political & Social Science. November, 1945.

## BIBLIOGRAPHY

Holt, Herbert S. Report of the Federal Planning Commission on a General Plan for the Cities of Ottawa and Hull. Ottawa: King's Printer, 1916.

Hosse, Hans August. Projected Development 1949. Trends and Conceptual Structure of the Ottawa Region: A Feature on Regional Planning, Ph.D. Thesis, University of Ottawa, 1962.

Howard, Ebenezer, Garden Cities of Tomorrow. Swan Sonnenschein & Co. Ltd., London, 1902.

Hoyt, Homer. One Hundred Years of Land Values in Chicago. Univ. of Chicago Press, 1933. p. 449.

Ketchum, Carleton J. Federal District Capital. Ottawa T.F. Ahearn, 1939.

Ontario Department of Economics. Eastern Ontario Region: Economic Survey, 1960.

Purdom, C.B. The Garden City. J.M. Dent & Sons Ltd., London, 1931.

Ross, A.H.D. Ottawa Past and Present. Ottawa: Thornburn and Abbott, 1927.

Ratcliff, Richard U. Urban Land Economics- McGraw-Hill Book Company, Inc., 1949, p. 356.

Rowatt, D.C. Ottawa's Future Development and Needs. City of Ottawa Brief to the Royal Commission on Canada's Economic Prospects. 1956.

Smith, Wilbur and Associates. Traffic and Transportation Plan for Ottawa, Canada. Newhaven. Connecticut, 1955.

Weber, Alfred. Theory of the Location of Industries. Univ. of Chicago Press, Chicago, 1929.

Wilson, A.E. "A Guide to the Geology of the Ottawa District." Canadian Field-Naturalist, LXX (January-March 1956) No. 1.

Reps. John W. The Greenbelt Concept. In Town and Country Planning, July, 1960.

A P P E N D I C E S

APPENDIX A  
ANNEXATIONS

Date	Area	Annexed Current	Acreage Total	Annexed Current	Population Total
Previous to 1887			1,829.2		34,753
Jan 1, 1887	Village of New Edinburgh	183.7	2,012.9	1,000	37,020
Jan 1, 1889	Part of Twp. of Gloucester	151.3	2,164.2	1,200	
	Part of Twp. of Nepean in- cluding Stewarton, Rochesterville, Mount Sherwood and Orange- ville	1,131.1	3,295.5		42,728
Jul 27, 1907	Part of Twp. of Nepean, called Bayswater	291.7	3,587.2		
Dec 16, 1907	Part of Twp. of Nepean, known as Village of Hintonburgh	473.9	4,061.1		
	Part of Twp. of Nepean, known as Ottawa South & Rideauville	380.4	4,441.5		
	Part of Twp. of Nepean, known as Village of Ottawa East	458.3	4,899.8	7,000	76,260
Feb 4, 1909	Part of Twp. of Nepean, adjoin- ing Bayswater	80.8	4,980.6	500	83,360

## APPENDIX A

Date	Area	Annexed Current	Acreage Total	Annexed Current	Population Total
Mar 13 1911	Part of Twp. of Nepean, known as Mechanicsville	118.9	5,099.5	1,000	90,520
Jan 1, 1946	Part of Twp. of Nepean (S/E corner Carling Ave & Merivale Road)	29.2	5,128.7	1,000	165,362
Jan 1, 1947	Part of Twp. of Nepean (includ- ing Stevenson Place)	71.0	5,199.7	1,500	164,266
Jan 1, 1950	Part of Twp. of Nepean	7,420.2	12,619.9	18,000	
	Part of Twp. of Gloucester	14,605.0	27,224.9	7,000	193,219
	Covered by water		3,256.6		
	<b>TOTAL</b>		<b>30,481.5 acres</b>		

## APPENDIX B

OTTAWA - DENSITY OF POPULATION BY WARD - 1961<sup>1</sup>

Ward	Population	Acreage	Density of Persons per acre
Rideau	34,990	4,204.0	8.3
By	18,308	479.7	38.1
St. George's	22,946	804.5	28.5
Wellington	19,303	651.0	29.7
Capital	25,034	1,213.7	20.6
Dalhousie	26,113	726.1	36.0
Elmdale-Victoria	32,647	2,531.0	8.9
Queensboro	27,350	2,356.0	11.6
Carleton	38,304	3,534.0	10.8
Gloucester	31,022	10,725.0	2.8
TOTAL	266,017	27,225.0	9.8
Covered by Water		3,256.6	
TOTAL		30,481.6	

<sup>1</sup>Annual Report of the Assessment Department, City Hall, Ottawa, 1962, pp. 11 and 16.

## APPENDIX C

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POPULATION OF OTTAWA BY ETHNIC GROUPS <sup>1</sup>

## European Origin

British	148,129
French	68,459
German	9,332
Italian	8,263
Netherlands	3,788
Jewish	3,373
Polish	3,466
Scandinavian	2,466
Ukrainian	2,359
Russian	1,169
Hungarian	1,149
Austrian n.o.s.	1,020
Czech and Slovak	478
Finish	197
Other European	3,769
<u>Miscellaneous Origin</u>	
Chinese	970
Japanese	91
Other Asiatic	2,018
Native Indian and Eskimo	180
Negro	175
Other and not stated of all groups	7,329
TOTAL	268,206

<sup>1</sup> Population Census of Canada, Ethnic Groups, Bulletin 1, 2-5. pp. 38-11 and 38-12, 1962. Dominion Bureau of Statistics.

APPENDIX D  
POPULATION CENSUS - 1961

Ward	Age 3 and Under	Age 4	Age 5	Age 6-7	Age 8-9	Age 10-13
Rideau	3,426	1,029	1,044	1,968	1,803	3,137
By	1,126	338	344	665	594	1,198
St. George's	1,252	413	370	714	691	1,462
Wellington	734	182	194	348	283	631
Capital	1,275	359	388	742	696	1,526
Dalhousie	1,790	536	503	927	863	1,721
Elmdale-Victoria	1,374	465	427	908	859	1,751
Queensboro	1,951	545	573	1,059	1,042	2,096
Carleton	3,429	1,071	965	1,962	1,813	3,487
Gloucester	2,899	881	928	1,798	1,649	2,810
TOTAL	19,256	5,819	5,736	11,091	10,293	19,819
1960	18,518	5,682	5,834	10,706	10,066	19,986
Increase	738	137	98 #	385	227	167 #
#Decrease						

Continued on next page

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APPENDIX D  
POPULATION CENSUS - 1961

Ward	Age 14	Age 15	Age 16-19	Age 20-59	Age 60-64	Age 65-69	Age 70 and Over	Total all ages
Rideau	748	550	1,798	17,898	348	415	826	34,990
By	340	252	1,180	10,285	715	454	837	18,308
St. George's	405	303	1,437	13,455	613	692	1,139	22,946
Wellington	192	142	651	12,999	651	784	1,512	19,303
Capital	452	346	1,302	13,619	1,006	1,178	2,145	25,034
Dalhousie	428	317	1,227	15,076	581	773	1,371	26,113
Elmdale-Victoria	506	387	1,272	12,610	539	542	1,007	22,647
Queensboro	610	472	1,596	15,040	587	647	1,132	27,350
Carleton	960	649	1,902	20,335	413	468	850	38,304
Gloucester	717	545	1,595	16,028	305	331	536	31,022
<b>TOTAL</b>	<b>5,358</b>	<b>3,963</b>	<b>13,690</b>	<b>147,325</b>	<b>5,758</b>	<b>6,284</b>	<b>11,355</b>	<b>266,017</b>
1960	5,358	3,490	13,071	144,353	5,810	6,340	11,447	259,395
Increase	1,266	473	889	2,972	52#	56#	92#	6,622
#Decrease								

## APPENDIX E

191

## POPULATION OF THE CITY OF OTTAWA

Year	Population
1828	1,000
1847	5,000
1848	6,275
1857	7,760
1867	18,700
1868	19,387
1869	20,007
1870	20,561
1871	21,541
1872	22,527
1873	23,509
1874	24,431
1875	25,471
1876	25,214
1877	25,000
1878	24,431
1879	23,789
1880	24,025
1881	25,633
1882	26,228
1883	27,645
1884	30,791
1885	32,857
1886	34,753
1887	37,020
1888	41,033
1889	42,728
1890	43,122
1891	43,229
1892	43,942
1893	45,135
1894	47,775
1895	49,674
1896	51,540
1897	53,737
1898	55,386
1899	57,002
1900	58,193
1901	60,689
1902	61,151
1903	61,597
1904	63,234
1905	65,120
1906	67,572

## APPENDIX E

192

Year	Population
1907	76,260
1908	80,284
1909	83,360
1910	86,106
1911	90,520
1912	95,570
1913	100,180
1914	101,795
1915	100,163
1916	100,561
1917	101,549
1918	104,007
1919	107,732
1920	110,738
1921	112,899
1922	116,205
1923	117,239
1924	118,088
1925	118,697
1926	119,254
1927	120,799
1928	122,731
1929	125,496
1930	127,332
1931	130,672
1932	132,551
1933	135,300
1934	137,911
1935	140,316
1936	141,903
1937	142,852
1938	144,202
1939	145,183
1940	150,277
1941	154,585
1942	158,581
1943	163,829
1944	163,690
1945	163,403
1946	165,362
1947	164,266
1948	161,455
1949	162,442
1950	193,219
1951	195,067

Year	Population
1952	200,936
1953	205,568
1954	211,419
1955	216,662
1956	220,241
1957	228,446
1958	236,837
1959	250,803
1960	259,395
1961	266,017
1962	268,206

APPENDIX F  
POPULATION OF GOVERNMENT FUNCTIONAL AREAS  
Departmental Branches, Services and Corporations  
Administrative Classification

Department, Branch or Service	Persons Employed at End of Month, March, 1961. OTTAWA - HULL
Agriculture	2,203
Atomic Energy	8
Auditor General's Office	113
Board of Broadcast Governors	27
Chief Electoral Officer, Office of the	19
Citizenship and Immigration	795
Defence Production	1,156
External Affairs	945
Finance	3,067
Fisheries	181
<sup>1</sup> Forestry	7
Governor General & Lieutenant-Governors	17
Insurance	90
Justice	423
Civil Service Commission	531

<sup>1</sup> Following the proclamation of the Department of Forestry on October 1, 1960, employees are gradually being transferred from the Forestry Branch of Northern Affairs and National Resources and the Forest Biology Division of Agriculture to the new Department. Separate data on Prevailing Rate and Casual employees thus transferred are not available and they are therefore included under their former Departments.

## APPENDIX F

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Department, Branch or Service	Persons Employed at End of Month, March, 1961 OTTAWA - HULL
Labour	1,166
Legislation	944
Mines & Technical Surveys	2,525
National Defence	8,356
National Film Board	30
National Gallery of Canada	75
National Health and Welfare	1,239
National Research Council	2,909
National Revenue	2,351
Northern Affairs and National Resources	1,133
Post Office	1,998
Privy Council	196
Public Archives and National Library	150
Public Printing and Stationery	1,618
Public Works	3,620
Royal Canadian Mounted Police	1,724
Secretary of State	736
Trade and Commerce	2,475
Transport	2,002
Veterans Affairs	1,246
GRAND TOTAL <sup>2</sup>	46,095

<sup>2</sup>Excludes the Governor General, Lieutenant Governors, Judges and Ministers of the Crown.

## APPENDIX G

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## POPULATION OF CHURCHES - 1961

OTTAWA Church <sup>1</sup>	No. of Followers	
	Ottawa	Hull
Roman Catholic	127,407	54,825
United Church of Canada	51,242	414
Anglican Church of Canada	46,689	715
Presbyterian	13,231	459
Lutheran	6,344	126
Baptist	5,416	112
Jewish	5,036	36
Greek Orthodox	2,672	84
Pentecostal	936	3
Ukrainian (Greek) Catholic	790	7
Salvation Army	677	--
Christian Science	498	--
Mormon	394	--
Jehovah's Witnesses	381	--
Christian Reformed	379	--
Confucian & Buddhist	202	--
Adventist	75	--
Mennonite	53	--
Evangelical United Brethren	35	--
Churches of Christ's Disciples	31	--
OTHERS	5,718	148
TOTAL	267,772	56,929

<sup>1</sup>Census of Canada, Population-Religious Denominations, Bulletin 1.2-6, pp. 45.II-12, 1961 Dominion Bureau of Statistics.

APPENDIX H  
CHURCHES <sup>1</sup>

197

Name	No. of Property
Anglican	27
Baptist	13
Christian Missionary Alliance	3
Christian Science	1
Church of Christ	1
Church of the Nazarene	2
Free Methodist	1
Hebrew	7
Holiness Movement	1
Jehovah's Witness	3
Latter Day Saints	2
Lutheran	8
The Messianic Testimony	1
New Apostolic Church	2
Orthodox (Greek & Ukrainian)	4
Pentecostal	1
Plymouth Brethren	4
Presbyterian	13
Riverview Community	1
Roman Catholic	54
Russian Church of St. Nicholas	1
Salvation Army	3
Seventh Day Adventist	1

## APPENDIX H

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Name	No. of Property
Tabernacle	2
Unitarian	2
United	30
Wesleyan Methodist	1
TOTAL	189

<sup>1</sup>Assessment of the City of Ottawa, City Hall, 1961.

APPENDIX I  
 OCCUPIED DWELLINGS BY TYPE<sup>1</sup>  
 -1961-  
 TYPES OF DWELLINGS

	Single Attached			Apartment or Plat					
	Single Detached	Total	Double House	Other	Total Duplex	Other Mobile			
Ottawa City Area	107,570	51,914	15,345	9,842	5,503	40,196	16,578	23,618	115
City Proper	70,112	31,800	11,776	7,645	4,131	26,478	10,103	16,375	-
Fringe Areas	37,458	20,114	3,569	2,197	1,372	13,718	6,475	7,243	-
Hull City	13,304	4,671	1,985	1,194	971	6,648	3,223	3,425	-

<sup>1</sup> Statistics, 1962-63, p. 19, Eastern Ontario Development Association.

APPENDIX I  
-HOUSING-

Average Rents		Crowded Dwellings	
Metropolitan Area	\$84	Metropolitan Area	16,493
City Proper	\$91	City Proper	7,377
Fringe Areas	\$69	Fringe Areas	9,116
Average No. of Persons per Household		3.8	
Families Maintaining Households		89.8%	
Owner Occupied Dwellings		43.4%	
Average Persons per Family		3.5	
Families with Children		65.3%	
Average No. of Rooms		5.5	

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APPENDIX J  
CLASSIFICATION OF BUILDINGS BY WARDS

	Rideau 1	By 2	St. George's 3	Wellington 4	Capital 5	Dalhousie 6
Singles	3,092	515	1,615	836	3,666	1,899
Doubles	450	485	277	121	453	420
Duplexes & Triplexes	423	318	316	232	593	419
Rows	156	135	90	85	80	226
Apartments	202	151	280	384	125	227
Stores	36	54	47	128	30	87
Stores with Apts. over	30	153	67	120	65	97
Stores with Offices over	4	18	10	60	6	6
Banks	4	3	6	13	5	5
Public Garages & Services	24	33	16	42	28	51
Factories & Warehouses	13	73	51	51	22	71
Theatres	1	2	1	7	2	
Hotels	1	10	3	11		4
Motels	6	3				
Offices	8	13	31	114	1	37
Miscellaneous	36	20	15	53	18	73
Total No. of Buildings	4,482	1,986	2,835	8,257	5,094	3,622
	NUMBER OF HOUSING UNITS ASSESSED					
	8,583	4,650	6,434	7,601	7,987	7,153

Continued on next page

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APPENDIX J  
CLASSIFICATION OF BUILDINGS BY WARDS

	Elmdale- Victoria 7	Queensboro 8	Carleton 9	Gloucester 10	Total
Singles	3,125	4,467	8,432	6,710	34,357
Doubles	431	271	437	243	3,588
Duplexes & Triplexes	372	333	178	257	3,441
Rows	40	47	16	1	876
Apartments	271	161	110	24	1,735
Stores	42	71	36	36	567
Stores with Apts. over	113	21	18	7	691
Stores with Offices over	6	7	5	5	123
Banks	6	5	2	6	55
Public Garages & Services	43	42	45	40	364
Stations					
Factories & Warehouses	78	45	28	72	504
Theatres	2	2			17
Hotels	2	1		2	32
Motels	5	2	5	2	23
Offices	9	8	20	25	266
Miscellaneous	19	34	142	25	435
Total No. of Buildings	4,364	5,517	9,474	7,453	47,074
	5,987	7,755	10,363	7,855	74,368
	NUMBER OF HOUSING UNITS ASSESSED				

## APPENDIX K

## NUMBER OF ASSESSMENTS MADE BY THE ASSESSORS

DURING 1961

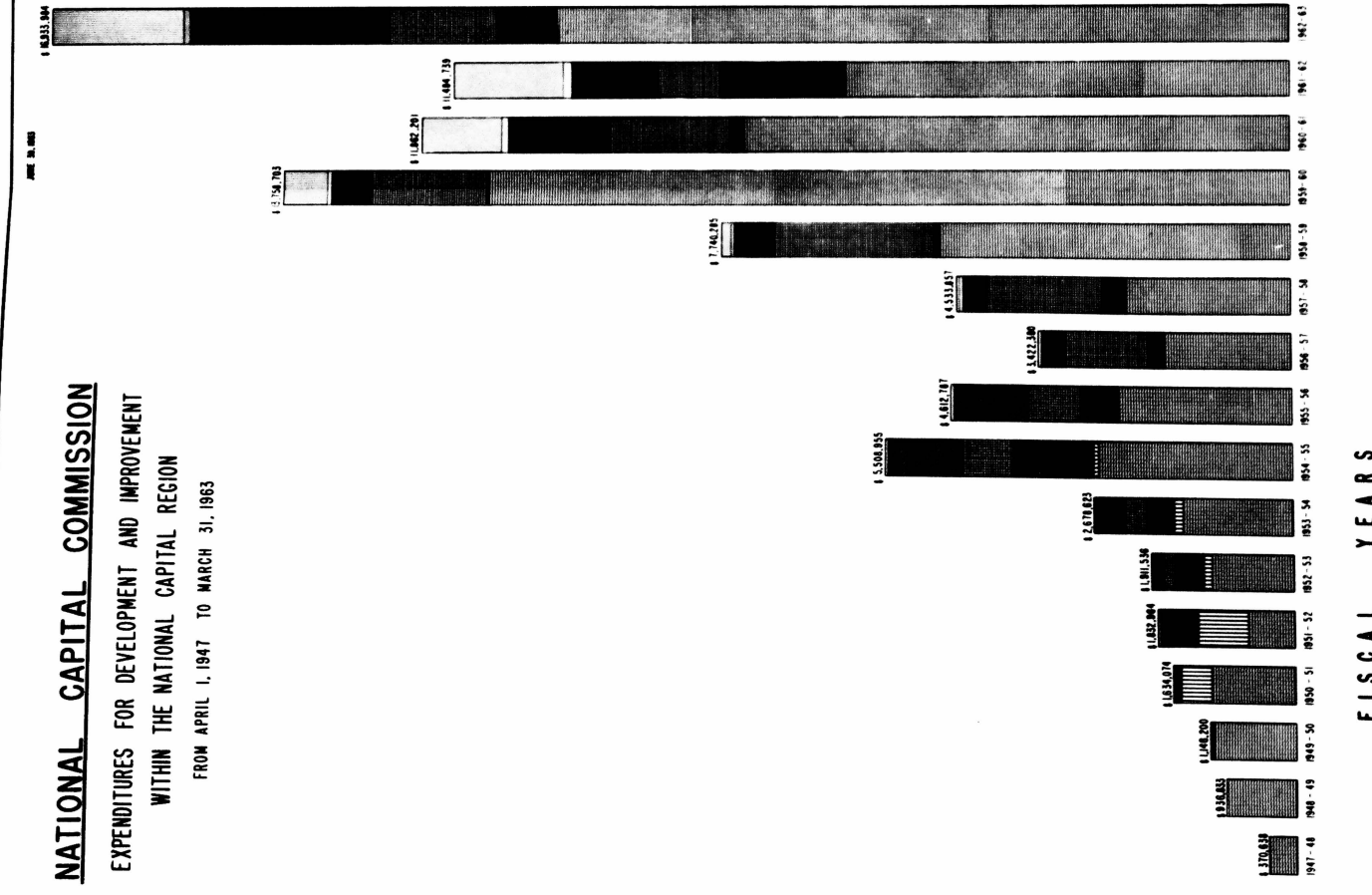
Ward	Land not in Use	Land in Use not built Upon	Land in Use Built Upon	Business	Total
Rideau	361	26	9,264	278	9,929
By	67	52	5,776	797	6,692
St. George's	71	45	7,289	591	7,996
Wellington	40	154	10,739	2,164	13,097
Capital	56	56	8,578	461	9,151
Dalhousie	46	89	8,107	772	9,014
Elmdale-Victoria	154	65	6,841	616	7,676
Queensboro	285	84	8,705	535	9,609
Carleton	1,461	52	12,428	454	14,395
Gloucester	1,911	76	10,411	469	12,567
TOTAL	4,452	699	88,138	7,137 <sup>#</sup>	100,426

NOTE: The above table does not include assessments made under Section 53 or 54 of The Assessment Act for 1961 or 1962 taxes.  
<sup>#</sup> Business Assessments made during 1962.

# NATIONAL CAPITAL COMMISSION

## EXPENDITURES FOR DEVELOPMENT AND IMPROVEMENT WITHIN THE NATIONAL CAPITAL REGION

FROM APRIL 1, 1947 TO MARCH 31, 1963



Category	Amount
CUMULATIVE TOTAL	\$ 90,368,759
INTEREST ON LOANS TO ACQUIRE PROPERTY	\$ 85
MISCELLANEOUS MAINTENANCE	\$ 80
ASSISTANCE TO MUNICIPALITIES IN CONSTRUCTION PROJECTS AND WATER MAINS	\$ 75
MISCELLANEOUS CONSTRUCTION COMMISSION PROPERTIES	\$ 70
RELOCATION OF RAILWAY FACILITIES	\$ 65
MAGNETIC RING BRIDGE	\$ 60
PARADES IN CANTLEAU PARK	\$ 55
LEC DES FEES PARADES	\$ 50
DEVELOPMENT OF MGS. BALK PARK	\$ 45
DEVELOPMENT OF MULL PARKS	\$ 40
IMPROVEMENT OF PARK FACILITIES IN CANTLEAU PARK	\$ 35
OTTAWA RIVER PARADES	\$ 30
IMPROVEMENTS TO LERMON FIELDS	\$ 25
IMPROVEMENTS IN THE GREENBELT	\$ 20
IMPROVEMENTS TO HISTORIC PROPERTIES	\$ 15
MISCELLANEOUS PARK AND PARADES PROJECTS	\$ 10
PROPERTY ACQUISITIONS	\$ 5
GRANTS TO OTTAWA FOR CONSTRUCTION OF SEWERS AND WATER MAINS	\$ 2,540,018
GRANT TO OTTAWA FOR CONSTRUCTION OF SEWER TO SERVICÉ ESPRASAUX SITE AT GREEN CREEK	\$ 3,084,371
GRANT TO HELP WITH CONSTRUCTION OF NEW SEWER AND SEWAGE DISPOSAL PLANT	\$ 180,000
CONSTRUCTION OF RYAN BRIDGES AND IMPROVEMENTS TO SUSSEX DRIVE	\$ 982,128
CONTRIBUTION TO CONSTRUCTION OF NEW BRIDGES	\$ 637,046
CONTRIBUTION RE RECONSTRUCTION OF RIVERSIDE DRIVE	\$ 148,694
IMPROVEMENTS TO OTTAWA AND MULL APPROACHES TO CHANDLER BRIDGE	\$ 191,803
CONTRIBUTION RE CONSTRUCTION OF DUNDAS BRIDGE	\$ 180,815
LANDSCAPING AND DEMOLITION OF BUILDINGS FOR THE QUEENSBY (PART COST)	\$ 278,153
DEMOLITION OF BUILDINGS FOR IMPROVING OF MCDONALD-CANTIER BRIDGE (PART COST)	\$ 9,507
SHARE OF COST OF STRUCTURE AT JUNCTION OF CANTLEAU AND PROPOSED WESTERN MARKET (PART COST)	\$ 8,256
GRANTS TO HISTORICAL SOCIETIES	\$ 6,400
MISCELLANEOUS ASSISTANCE	\$ 178,859
MISCELLANEOUS RESEARCH AND STUDIES	\$ 118,500
OTTAWA RIVER PARADES	\$ 5,804,666
LEC DES FEES PARADES	\$ 495,268
DEVELOPMENT OF MGS. BALK PARK	\$ 518,268
DEVELOPMENT OF MULL PARKS	\$ 531,659
IMPROVEMENT OF PARK FACILITIES IN CANTLEAU PARK	\$ 671,085
OTTAWA RIVER PARADES	\$ 1,038,058
IMPROVEMENTS TO LERMON FIELDS	\$ 8,889
IMPROVEMENTS IN THE GREENBELT	\$ 62,517
IMPROVEMENTS TO HISTORIC PROPERTIES	\$ 46,150
MISCELLANEOUS PARK AND PARADES PROJECTS	\$ 6,608,478
PROPERTY ACQUISITIONS	\$ 15,184,676

Category	Amount
GRANTS TO OTTAWA FOR CONSTRUCTION OF SEWERS AND WATER MAINS	\$ 2,540,018
GRANT TO OTTAWA FOR CONSTRUCTION OF SEWER TO SERVICÉ ESPRASAUX SITE AT GREEN CREEK	\$ 3,084,371
GRANT TO HELP WITH CONSTRUCTION OF NEW SEWER AND SEWAGE DISPOSAL PLANT	\$ 180,000
CONSTRUCTION OF RYAN BRIDGES AND IMPROVEMENTS TO SUSSEX DRIVE	\$ 982,128
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IMPROVEMENTS IN THE GREENBELT	\$ 62,517
IMPROVEMENTS TO HISTORIC PROPERTIES	\$ 46,150
MISCELLANEOUS PARK AND PARADES PROJECTS	\$ 6,608,478
PROPERTY ACQUISITIONS	\$ 15,184,676

FISCAL YEARS

UNITED STATES GOVERNMENT  
NATIONAL CAPITAL COMMISSION

APPENDIX M  
THE TOTAL AREA OF THE CITY, INCLUDING STREET  
AND WATER LAND USE IN ACRES

	Land Use in Acres	%Total
1. Residential Single, Double, Duplex, One or two family dwellings and new residence	5,486.27	17.21
2. Residential Commercial Boarding, Rooming, Tourist Nursing home, Hotel, etc.	55.31	0.18
3. Office Embassy Fed. Commercial	(150.72 acres) (57.82 acres)	0.73
4. Institutions	1,030.91	3.24
5. Commercial Assembly or Amusements Shopping, Theatre, Eating, Automobile	454.46	1.42
6. Light Industry	276.95	0.87
7. Heavy Industry Primary Mfg. Railroad Repairs & Maintenance	(102.11 acres) (623.50 acres)	2.43

APPENDIX M  
THE TOTAL AREA OF THE CITY, INCLUDING STREET  
AND WATER LAND USE IN ACRES

	Land Use in Acres	Total
8. Communication and Major Utilities		
Fire Stations, Heating Plant		
Police Station, TV, Electric etc.	426.82	1.26
9. Major Open Space Uses		
Federal Gov't Parks, Landscape, etc.	(1,489.47 acres)	2,783.98
Federal Gov't Parks, Landscape, etc.		4.83
10. Vacant		
Federal	(5,378.99 acres)	
Local, Provincial, Private	(16.88%)	
Miscellaneous		
Hunt Club	(207.94 acres)	
Experimental Farm	(1,257 acres)	
Rockcliffe Air Base	(617.56)	12,858.44
Total Land use		24,385.76
Total Street Area		4,217.13
Rideau River		571.23
Rideau Canal		159.95
Ottawa River		2,525.00
OVERALL TOTAL	31,859.07	100.

## APPENDIX N

1 206

## INDIVIDUAL ITEM ASSESSMENT FOR THE CITY OF OTTAWA

	Area in Acres	%Total
Residential		
Single	4,299.13	13.49
Double	400.44	1.26
Duplex	273.67	0.86
One or two families and non residential	0.57	-
Multiple families 3-5	117.73	0.37
#6	175.68	0.55
#7	45.61	0.14
Row Housing	173.44	0.54
Residential, Commercial		
Boarding, rooming, tourist	8.33	0.03
Hotel, tourist, cabin	1.91	0.01
Motel	39.02	0.12
Nursing home (private)	3.91	0.01
Trailer	2.11	0.01
Office		
Commercial	57.82	0.18
Embassy	18.62	0.06
Federal	150.72	0.47
Local	3.83	0.01
Provincial	4.61	6.01
Institutions		
Private School	4.36	0.01
Separate School	88.01	0.28
High School	63.79	0.20
Kindergarten	0.33	-
Library, Art gallery, Museum	3.15	0.01
Military	2.77	0.01
Public	294.25	0.92
Special residence	175.14	0.55
Sanitorium	170.74	0.54
University etc.	141.95	0.45
Place of Worship	86.42	0.27

<sup>1</sup> Source: City Hall, Planning Branch,  
Ottawa, 1963.

## INDIVIDUAL ITEM ASSESSMENT FOR THE CITY OF OTTAWA

	Area in Acres	%Total
<b>Commercial</b>		
Assembly or Amusement	14.88	0.05
Shopping Centre	30.41	0.10
Drive in Theatre, Stadium (open)	101.75	0.32
<b>Eating:</b>	10.98	0.03
Automobile	20.74	0.06
Parking	167.44	0.53
Retail	45.34	0.14
Service Station	58.86	0.18
<b>Light Industry</b>		
Auto or Body Repairs	43.18	0.14
Bottling Plant	1.91	0.01
Dry Cleaning Plant	6.79	0.02
Food Processing	7.48	0.02
Kennel or Animal Hospital	1.35	0.00
Secondary mfg (no nuisance feature)	25.95	0.08
Printing or Newspaper	12.83	0.04
Vulcanizing or the	1.66	0.01
Wholesale or Storage-Enclosed	101.11	0.32
<b>Heavy Industry</b>		
Brewery	4.40	0.01
Food processing (with	0.50	-
Junk or Salvage Yard	17.00	0.05
Lumber Mill	2.37	0.01
Primary Mfg.	102.11	0.32
Secondary Mfg. nuisance	13.26	0.04
Railroad Repair and Maintenance	623.50	1.96
Storage	13.88	0.04
<b>Communication &amp; Major Utilities &amp; Services</b>		
Sewage Disposal	11.81	0.04
Electronic	53.15	0.17
Fire Station	2.60	0.01
Heating Plant	0.49	-
Police Station	0.21	-
TV or Radio Station	3.97	0.01
Transportation-Railroad etc.	9.28	0.03
Power Line	318.93	1.00
Water Treatment or Plant	24.96	0.08

## APPENDIX N

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	Area in Acres	Total
Major Open Spaces		
Agriculture	764.31	2.40
Cemetery	229.94	0.72
Federal Provincial Park	1,489.47	4.68
Market Garden	47.40	0.15
Local Gov't Park	238.01	0.75
Private Recreation Activity	14.85	0.05
Vacant		
Federal	5,378.99	16.88
Local	4,050.08	12.71
Provincial	367.56	1.22
Private	30.95	0.10
Miscellaneous	922.63	2.89
Cottages	4.87	0.01
Hunting Club	207.94	0.65
Experimental Farm	1,257.86	3.95
Rockcliffe Air Base	617.56	1.94
Total Land Use	24,385.76	76.54
Total Street Area	4,217.13	13.24
Rideau River	571.23	1.79
Rideau Canal	159.95	0.50
Ottawa River	2,525.00	7.93
OVERALL TOTAL	31,859.07	100.

APPENDIX O  
INDUSTRIAL LIST

Name of Firm	Address	No. Employees	Type of Goods
Allen & Rollaston (Ottawa) Ltd.	112 Lisgar St.	17	Dental Supplies
Allied Paper Products Ltd.	120 John St. Eastview	75	Cellophane, Polyethylene, Plain & printed bags
Ambridge Thompson Ltd.	10 Lloyd St.	50	Sporting Clothes, Canvass goods
B. Applebaum	302-304 Murray St.	7	Sheet Metal Products
Ashton Press Mfr. Co. Ltd.	Bells Corners, P. O. Box 3250 Stn. C 153	Printing Presses & Equipment	
Atomic Energy of Canada Ltd.	Tunney's Pasture	268	Radioisotopes, radio- graphy sources, ionotron luminous compounds Adelbert, accessory equip. cobalt needles, neutron sources, etc.
Barrett Brothers Lumber Ltd.	260 Catherine St.	30	Sash & Door
A.J. Bastien & Co.	13-15 Nicholas Street	6	Optical supplies
Beach Foundry Limited	1 Hinton Avenue	200	Stoves, electric, gas, coal & combinations, furnace electric water heaters

## APPENDIX 0

Name of Firm	Address	No. Employees	Type of Goods
Beauchamp Trick Bodies	Hurdman's Bridge	8	Truck bodies
Beechwood Machinery Ltd.	100 McArthur Rd. Eastview	8	Aluminum roofing, struct. steels
Davidson Foundry	16 Hamilton	6	Light & medium Grey Iron Castings
Demers Neon & Electric Ltd.	1041 Gladstone	10	Neon & Electric Signs, Cold- cathode fixtures, cold cathode lamps
O.L. Derouin & Sons	132 Slater St.	5	Lenses (Optical)
Dominion Bridge Co. Ltd.	Charlevoix Avenue	100	Fabricators & Erectors of Structural Steel
Dominion Loose Leaf Co. Ltd.	320 Parkdale Avenue	55	Lithographing & Printdallas Binders binders & Pamphlet covers Die Cut Labels
Dominion Manufacturers	320 Catherine	5	Caskets & Funeral Directors' Supplies
Dominion Structural Steel	P.O. Box 455, Postal 25 Terminal Ottawa (Star Top Road)	25	Fabrication & Erection of Structural steel, steel joists, reinforced bars and mesh

## APPENDIX O

Name of Firm	Address	No. Employees	Type of Goods
Durie Mosaic & Marble Ltd.	18 Pretoria Ave.	65	Terrazzo & Marble
Dustbane Mfg. Co. Ltd.	88 Metcalfe St.	45	Cleaning Materials & Sanitary Supplies
The E. E. Eddy Company	Ottawa & Hull	2292	Specialty Paper, Paper Boxes & Bags Facial & Toilet Tissue
E. Kemp Edwards Ltd.	25 Bayswater	67	Sash Doors, Frames, General Millwork
Electronics Materials International Ltd.	342 Gladstone	37	Electronics Test Equipment, wet & inert cells precision tools
F. Fentiman & Sons Ltd.	335 Roosevelt Ave.	86	Garage Doors & Operators Wall coverings, folding doors
Robt. J. Ferguson & Sons	64 Booth	3	Brass, Bronze & Aluminium castings
Alexander Fleck Ltd.	75 Spencer Ave.	60	Pulp & Paper Mills Machinery & Equipment Mill Supplies
A. C. Foster	33 York Street	1	Harness Leather Supplies

## APPENDIX O

Name of Firm	Address	No. Employees	Type of Goods
Fraser Duntile Co. Ltd.	130 Sparks St.	95	Concrete Blocks Moto-Mix Cement Stone
Ben Gelman	283 Dalhousie St.	6	Candies, Chocolates
General Bearing Service Ltd.	96 Fleet Street	9	Swivel & Stationery Casters
Harry Kayley & Sons Ltd.	Murdman's Bridge	150	Concrete Products
Hodgings Brothers	940 Gladstone	23	Furnaces (Warm Air)
Imperial Optical	199 Queen St.	19	Optical Lenses (finishing)
Independent Coal & Lumber Co. Ltd.	1950 Scott Street	106	Millwork Products, door frames, sash, cupboards
Instruments (1951) Ltd.	645 Wellington St.	35	Aircraft & Surveying instruments
Journal Publishing Co.	237 Queen St.	325	Newspapers
Ketchum Mfg. Co. Ltd.	396 Berkley Avenue	30	Identifications for livestock & poultry (live or dressed) metal stampings, tool and die works, saddlery

Name of Firm	Address	APPENDIX O	No. Employees	Type of Goods
Lacelle's Iron Works	233 Rochester St.		2	Fire escapes, railings, stair-ways, window guards, grills
Lawrence Mfg. Co.	12 York St.		6	Awings & Upholstering Everything in canvass
Thos. Lawson & Sons Ltd.	160 Fleet St.		50	All types of castings, patterns
Le Droit Publishing Co.	375 Rideau St.		260	Newspapers, printing Photoengraving
MacDonnell & Conyers	790 Bronson Ave.		12	Rough & Dressed Lumber exporters to United States
Mayno Davis Lumber Co.	57 Duke St.		21	Sash, frames millwork
McKay Smelters Ltd.	20 Charlevoix St. East.		24	Brass & Aluminum
Mechron Engineering Products Ltd.	2437 Laladar Avenue		85	Engine Generator Sets, Switch Gear & Control Panels
Alex Moore	133 Sparks Street		10	Jewellery
National Drug & Chemical Co. of Canada Ltd.	205 Catherine Street		51	Family remedies, pharmaceutical products

214	Name of Firm	Address	APPENDIX O	
			No. Employees	Type of Goods
	National Printers Ltd.	401 Preston Street	32	Book Work, Machine Posting Forms Catalogues, snap-out forms offset.
	Northern Radio Manf. Co.	1950 Bank St.	47	Electronic Communications Equipment
	O'Keefe's Brewery Ottawa Ltd.	840 Wellington St.	170	Ale, Stout & Lager
	Ontario Beauty Supply	33 Murray Street	6	Beauty Supplies
	O.P.W. Paints Ltd.	687 Wellington St.	120	Paints, varnishes
	Otis Elevator Co. Ltd.	254 Queen Street	46	Elevators Elevator entrances
	Ottawa Arts Ceramics Co.	Cyrville, P.O. Box 95	1	Ceramics
	Ottawa Cabinet Shop	24 Florence St.	6	Custom furniture store fixtures
	Ottawa Feather Mattress Co. Ltd.	548 Wellington St.	2	Bed Springs, Custom Works
	Ottawa Iron Works Ltd.	256 McArthur Road	45	Steel Stairs, Fire Escapes Balconies, Railings, Aluminum Bronze and Stainless Steel Work, Ornamental Iron Works
	Ottawa Imperial Cap Co.	116 York St.	3	Caps

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APPENDIX O

No

Employees Type of Goods

Name of Firm	Address	No	Type of Goods
Ottawa Paper Box	764 Albert St.	45	Folding Paper Boxes
Ottawa Tile & Marble Co.	398 Slater St.	15	Terazzo
Ottawa Truss Co. of Canada Ltd.	302 Sparks St.	50	Surgical Trusses & Supports
Pritchard Andrews Co. Ltd.	264 Sparks St.	27	Rubber Stamps, Marking Devices Stencils, Brass Plates
Rapid Grip & Batten Ltd.	370 Bank St.	20	Electrotypes, Stereotype mats
Rideau Aluminum & Steels Ltd.	1320 Bank St.	30	Commercial Kitchens
J. Robinson & Son	2 Tinton Avenue	2	Brass, Bronze & Aluminum Castings
Safety Vermin Control	89 Fleet St.	2	Rat Poison, Insecticides, Insect Powder
Sparton Air Services Ltd.	Uplands Airport	145	Aerial Surveys, Maps
Sun Tube of Canada Ltd.	145 Spruce St.	120	Collapsible metal tubes, extruded parts
Sperry Gyroscope	3 Hamilton Avenue	171	Electronic assembly Overhaul & Repair
Thomas Supply & Equip. Co. Ltd.	1345 Goldrey Ave. P.O. Box 226	199	Cosmetics

		APPENDIX O			
912	Name of Firm	Address	No. Employees	Type of Goods	
	Travers Aprons Ltd.	911 Bank St.	12	Advertising caps, aprons nurses uniforms, doctors' coats, pennants	
	T. & S. Custom Built Fixtures	2060 Scott St.	12	Custom Built Fixtures	
	Trudel & McAdam Ltd.	P.O. Box 765, R.R. No. 2, Ottawa	21	Steel Stairs, Handrails	
	Twin City Dunbrick Co.	158 McArthur Rd. Eastview	15	Concrete Bricks & Blocks	
	Uniform Cap Mfr. Co.	388 Albert St.	7	Uniform Caps	
	Unique Cabinet Builders	961 Bronson Ave.	1	Kitchen Cabinets, etc. general woodworking	
	Universal Log Loaders Ltd.	296 Kendall Ave.	1	Bouffard Log Loaders	
	Canadian Aero Service Ltd.	348 Queen St.	125	Topographical planimet- ric & aeromagnetic maps	
	Canadian Bank Note Co. Ltd.	145 Richmond Road	330	Engraved Bank Notes, Bonds, Postage stamps, stock certificates, cheques, labels & all monetary documents.	
	Canadian Pittsburgh Industries (Hobbs Glass Division)	300 Lisgar St.	51	Sheet Glass & Safety Glass, mirrors	

## APPENDIX O

Name of Firm	Address	No. Employees	Type of Goods
Capital Carbon & Ribbon Co. Ltd.	120 John St. Eastview	30	Paper converters, carbon paper, type-writer ribbons
Capital Wire & Cloth Mfr. Co.	Hinton Avenue	155	Pulp & Paper Mills, wire cloth
Chinook Sleeping Bags Ltd.	1225 Bank St.	5	Sleeping Bags, Camping Equip.
Citizen Publishing Co.	136 Sparks St.	351	Newspapers
Hugh Carson Co. Ltd.	72 Albert St.	275	Slipcovers (auto) luggage duffel bags, all types of luggage
Computing Devices of Canada Ltd.	Bells Corners	1100	Data handling systems, analogue & digital computers, laboratory test & measuring equipment engineering consulting service
Consolidated Glass Industries Ltd.	433 Cooper St.	24	Mirrors, furniture tops
R.L. Crain Ltd.	190 Richmond Rd. P.O. Box 392	620	Business Forms
Crawley Films Ltd.	P.O. Box 3040, Ottawa 3, Ontario	125	Motion Pictures & Filmstrips Stills for industry government education & I.V.

## APPENDIX O

Name of Firm	Address	No Employees	Type of Goods
Belanger Springmaker (The)	249 Garneau St. Eastview	5	Auto & Truck Springs
A.J. & M.O. Benson	1386 Bank St.	3	Apiary Equipment
Betcherman Iron & Metal Co.	20 Charlevoix St. Eastview	25	Brass & Bronze Ingots, aluminium ingots, virgin metal
Blue Bird Dust Products	452 McArthur Rd. Eastview	1	Manufactured sweeping compound
Thos. Black & Sons (Canada) Ltd.	222 Strathcona ave.	20	Canvas goods, awnings tents sails tarpaulins, packsacks waterproof clothing
Bogue Electric Co. of Canada Ltd.	Box 900 Billings Bridge Riverside Dr. West of Uplands	20	Precision Electrical Equip.
Bond Brass Ltd.	110 McArthur Rd. Eastview	16	Brass, Bronze Cooper Aluminium & lead castings
Borden Co. Ltd. (Chateau Cheese Div.)	18 York St.	68	Process & Cream Cheese
British Amer. Bank Note Co. Ltd.	975 Gladstone Ave.	260	Bank Notes, Bonds Debent- ures, stock certificates, stamps, cheques

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## APPENDIX O

Name of Firm	Address	No. Employees	Type of Goods
Henry Birks & Sons (Ont) Ltd.	101 Sparks St.	103	Silver & Jewellery
Campbell Steel & Iron Works	655 Carling Ave.	32	Boilers, Hot Water Tanks, Steel flag-poles, oil storage tanks, fire escapes steel stairways, smoke stacks, machine shopwork
Valley Chemicals	966 Somerset St.W.	1	Paints, varnishes, lacquers Asphalt, Coatings, Soaps & Cleaning compounds
Victoria Foundry Co.Ltd.	55 Booth St.	30	Castings & machinery
S.C. Walker Mfg.Co.Ltd.	692 Wellington St.	20	Cotton Uniforms
W.H. Whelan & Son	297 Booth St.	6	Automobile Springs

N.B. Listed are industries which actually manufacture in Ottawa. Sales and branch offices located here are not included, nor are firms engaged only in local service or catering.