AN ECOLOGICAL STUDY OF ETHNIC GROUPS OF HAMILTON

AN ECOLOGICAL STUDY OF ETHNIC GROUPS OF HAMILTON

by

Nasrin Rahman, M.A.

A RESEARCH PAPER

SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES

IN PARTIAL FULFILMENT OF THE REQUIREMENTS

FOR THE DEGREE

MASTER OF ARTS

McMaster University
June, 1977

MASTER OF ARTS (1977)
(GEOGRAPHY)

McMaster University
Hamilton, Ontario

TITLE: An Ecological Study of Ethnic Groups in Hamilton

AUTHOR: Nasrin Rahman, M.A., B.A. Honours (University of Dacca, Bangladesh)

SUPERVISOR: Dr. S. Martin Taylor

NUMBER OF PAGES: ix, 100

ABSTRACT

Hamilton has been affected by waves of foreign immigrants moving into the city since the beginning of this century. The resulting admixture of ethnic groups has produced a varied spatial pattern which forms the focus of analysis in this paper.

A review of the literature on various ethnic enclaves in different cities of the world serves to focus this ecological study of ethnic groups in Hamilton.

The historical and cultural background of Hamilton and the distributional pattern of the major ethnic communities are described. The factors influencing the distribution of ethnic groups in the city are then examined by means of factor analysis and regression analysis of 1971 census data.

The analysis shows well distributed homogenous ethnic enclaves varying in their spatial concentration. As a whole it may be described as a mosaic with a high concentration of ethnic groups in the northern part of the city, north-east and west end.

The results confirm the importance of ethnic dimensions within the social and spatial structure of the city and the importance of socio-economic status and housing characteristics in influencing the distribution of ethnic groups.

ACKNOWLEDGEMENTS

I must first thank my supervisor, Dr. S. Martin Taylor, for his academic guidance, advice and unfailing moral support during the writing of this research paper.

I also wish to express my gratitude to Dr. G.I. Thrall who devoted his time in helping me with the analysis. I would like to thank Dr. Kao-Lee Liaw for the help he gave me whenever I went to him.

Thanks are extended to Usha Bhalla, whose suggestions in map making was utilized, and to Sharon Wright, who accomplished miracles with numerous, untidy manuscripts.

Above all, deepest gratitude to my husband who had made this degree possible for me.

TABLE OF CONTENTS

LIST OF MAPS

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1

INTRODUCTION

This paper is concerned with the spatial distribution and organization of ethnic groups in Hamilton, Ontario. The socio-cultural structure of the city is typically complex, even where the population is ethnically homogeneous (Watson, 1962; Jones, 1969, 1962). This complexity is much more marked where ethnic variations are found within the urban population.

Hamilton has been affected by waves of foreign immigrants moving into the city since the beginning of this century. The resulting admixture of ethnic groups has produced a varied spatial pattern which forms the focus of analysis in this paper.

Strictly speaking, of course, all of Hamilton's population belong to some ethnic group or other. However, those of British origin are considered as a non-ethnic category in this analysis, as this group forms part of the Canadian core-culture. Even recent British immigrants typically become assimilated in a much shorter time than immigrants from elsewhere because their general cultural background is nearer to the Canadian norm.

Non-British groups commonly retain a sufficient number of their own cultural traits to distinguish and isolate them for varying lengths of time. Such variations depend upon national origin, cultural background

and the attitudes toward them held by the remainder of the city population (Ware, 1931). These are some of the factors contributing to the ethnic distribution patterns existing within the city.

This paper is concerned with examining the spatial distribution of ethnic groups in Hamilton and its relationship to the socio-economic structure of the city. The paper is organised as follows. First, existing literature on the spatial distribution and organization of ethnic groups is reviewed. Macro scale studies based on social area analysis and factorial ecology are distinguished from neighbourhood scale studies of socio-spatial organization. Literature dealing with the factors influencing the distribution of ethnic groups is also reviewed. Second, the distribution pattern of ethnic groups in Hamilton based on the mapping of census data is discussed in light of the historical-cultural background of the city. Third, the factors influencing this distribution are examined by means of factor analysis and regression analysis of 1971 census data. Finally, the main conclusions of the analysis are summarized.

CHAPTER 2

LITERATURE REVIEW

The spatial distribution and spatial organization of ethnic groups in urban areas has been the focus of much research within geography and sociology. In Canada, the United States and other parts of the world, empirical studies have been based on cities at different stages of development. The spatial patterning of ethnic groups revealed by these studies has varied. For example, some studies indicate clustering, and other dispersion. Further the ethnic composition of the cities studied were in some cases homogeneous and in others heterogeneous.

Homogeneous ethnic clusters are characteristic of many major North American cities. Such ethnic enclaves develop due to a combination of socio-cultural needs, economic factors and discriminatory housing practices.

The existing geographic literature dealing with ethnic elements in urban areas can be divided into two main categories: studies of spatial distribution on a city wide basis and studies of socio-spatial organization at a neighbourhood scale. Spatial distribution studies have typically employed Social Area Analysis or Factorial Ecology using aggregate census data. Studies of socio-spatial organization are those dealing with social behaviour within segregated ethnic enclaves.

The present study is mainly concerned with the spatial distribution

of ethnic groups, however, social organization within ethnic enclaves can not be ignored. The social areas as described at a macro scale reflect the social processes operating at the neighbourhood scale. Therefore it is necessary to consider the processes of social organization.

Social Area Analysis and Factorial Ecology

Social Area Analysis was initially developed by American sociologists: Shevky, Williams and Bell. It was first applied by Shevky and Bell (1953) on small census areas of Los Angeles and San Francisco.

The analysis evolved as a theory of social differentiation but a major application has been derived from its ability to classify subareas within a city. In doing so, Shevky and Bell suggested three main dimensions of social variation - Social Rank (economic status), Urbanization (family status) and Segregation (ethnic status). The segregation dimension, which suggests that over time the population group tends to form distinctive clusters based primarily upon ethnicity, is of most immediate relevance to this present study. Shevky and Bell measured segregation in terms of percentage of census tract population in specified alien groups. This is how the distribution of ethnic groups in Hamilton was analysed in this study.

Herbert's (1973) application of social area analysis to Winnipeg, showed that the census tracts contained few members of specified ethnic groups and segregation indices demarcated the Ukrainian districts. Social area analysis was also applied to the town of Newcastle-under-Lyne, in Staffordshire England, which is much smaller than the North American cities for which this type of investigation has been attempted.

The segregation scores could not be derived because of the negligiable number of specific ethnic elements. However, after mapping the index scores Herbert notes three advantages of social area analysis:-

> The social area map is meaningful and accurately differentiates the urban structure of Newcastle thus fulfilling one claim which may be made of the approach in that it summarizes several essential aspects of the social geography of an urban area. That social area analysis is a useful comparative tool has perhaps been demonstrated by the comparisons which have been made between the results of this study and those which have been obtained from other parts of the world. The social area map and social space diagram are also held as valuable frames of reference in the context of which sample studies of selected parts of the urban area may be made. (Herbert, 1973, p.55).

Other researchers, also viewed the work of the social area analysts favourably. Some said that many of the difficulties are really problems of interpretation. In a review of social area analysis, Timms (1965) concludes that "the general significance and utility of the social area typology can only be established by an extension of comparative studies" (Timms, 1965, p.255).

However Social Area Analysis has been severely criticized by Hawley and Duncan mainly on grounds that the technique lacks a carefully formulated theoretical basis (Hawley and Duncan, Nov. 1957). They claim that social area analysis does not answer the fundamental question of why residential areas within cities should differ from one another and, more specifically, they suggest that the Shevky-Bell attempt to explain the theoretical basis of the social area typology is merely "... an ex post facto rationalization for their choice of indexes" (Hawley and

Duncan, 1957, p.339). Further they argue that social area analysis is a prematurely closed system in that the "social areas" have no necessary geographic or spatial relevance, a problem which is somewhat "analogous to the geographers' differentiation between regional types and contiguous regions". With these criticisms and other problems of the technique in mind, we next consider factorial ecology studies.

The term factorial ecology is of recent origin and has been used to describe analyses of urban-spatial structure, which employ factor analysis as the technique. "By most urban geographers, factor analysis is now the preferred approach to problems of defining subareas within the city and of identifying the main social dimensions of urban structure" (Herbert, 1975, p.153). Factor analysis examines the complex interrelationships between many variables and summarizes the important relationships in the form of a few basic patterns called factors. As such, the single most distinctive characteristic of factor analysis is its data reduction capability. However, one cannot over-look its criticisms. The most important criticism of factor analysis is that it is arbitrary in that different investigators can arrive at different answers using the same data and technique because of subjective interpretation of factors. In spite of its drawbacks scholars like Herbert, Rees, and Murdie have used factor analysis to analyse the residential structure of various cities including Winnipeg, Chicago, and Toronto.

One of the main findings by Herbert (1975) using factorial ecology indicates that in North American cities the ethnic status dimension is always present though its precise form varies with the local conditions. For example in Winnipeg, the French and Ukrainian minorities were demarcated;

in Toronto, the Italians and Jews; in most American cities, the Negroes.

Rees (1970) shows the importance of the ethnic dimension in his analysis of the social structure of Chicago. He argues that there are constraints which limit minority groups such as the Negroes, to particular sections of the city and that within these sections a range of socio-economic status had been incorporated.

Murdie (1969) examined the urban spatial structure of Toronto using factor analysis. Structural aspects of the model were evaluated using principal components analysis, while the spatial patterns were tested using scores for the factor analysis and an analysis of variance design. It was a longitudinal analysis using 1951-1961 census data. This comparative study of the factorial ecology of Toronto for 1951 and 1961 provided a basis for examining change in socio-spatial structure over time. The social area analysis constructs were the main dimensions at both points in time with a seperate Italian ethnic dimension emerging in 1961, reflecting the large-scale migration of Italians into Toronto during the 1960's. The main characteristics of change between the two time periods were described by Murdie as suburbanization, ethnic change and urbanization. Murdie identified ethnic communities as segregated clusters in different parts of the city. His study also showed a relationship between socio-economic factors and the spatial distribution of ethnic groups.

In general, factorial ecology studies lead to two main conclusions about ethnic groups within the urban population:

1. the importance of an ethnic dimension especially in North American cities based on the factor structure which typically emerges;

2. the existence of ethnic enclaves based on the mapping of factor scores.

The question now arises as to the socio-spatial processes within these different ethnic enclaves, which give rise to their clear spatial segregation.

Socio-Spatial Organization

Social areas at the macro scale reflect social-spatial processes at the local level. Recent studies in social geography and urban sociology have focussed on the latter.

Jones (1976) in his study of ethnic groups in Birmingham, England, shows that the non-white ethnic groups, Indians, Pakistanis and West Indians, cluster in a heterogeneous fashion in a neighbourhood but then for the sake of self identity they create their own ethnic colony.

Many minority groups, in the United States too, form boundary markers, not only do they define what belongs to a person and what belongs to his neighbours, but also who they are and what it means to be a neighbour in a complex society. Suttles work in Chicago and Ley's work in Philadelphia provide good examples of this type of territorial definition (Suttles, 1970; Ley, 1974).

Within the "Addams" area in Chicago, occupied by four groups - Italians, Mexican, Puerto Ricans and Negroes - the internal and external social order and spatial arrangement was strongly territorial. Despite the ethnic heterogenety of the area, the individual ethnic groups shared a collective representation of the entire area while recognizing the distinct identity and social order of their individual group (Suttles, 1970).

Ley (1974) in his study of black neighbourhoods in inner city Philadelphia, shows that the black neighbourhood represented an "existential space" for the residents determined by social behaviour and community organization. He found that neighbourhoods were strongly territorial with security at a maximum near the core of the territory and increasing danger toward the boundary.

Immigration to North America gave rise to a residential concentration of Jews in certain areas in cities, although these frequently merged with the settlement areas of other foreign-born groups. But the degree of residential segregation was less than that of mediaval Europe or of the Negro population in major U.S. urban areas. The Jewish population, in Chicago for example, is concentrated in particular suburbs with its own social organizations, such as synagogues, Hebrew schools etc. within the community (Richmond, 1972).

In the United States the differences between ethnic groups and the dominant culture are basic and have to do with such core values as use of and structuring of space, time and material, all of which were learned early in life. The major ethnic groups of North American cities maintained their socio-cultural and spatial identity for several generations. The spatial segregation of ethnic enclaves has been more permanent than the maintenance of cultural identity, which has to an extent intermingled with the American way of life.

Some studies have been done in Canada. Richmond (1967) found in his study that the "ethnic enclaves" of Montreal, Toronto, Vancouver, all had social organizations and within their area they tried to maintain certain cultural behavioural patterns. One of the main findings of Foster

(1965) was that in the ethnically diverse Barton Street area of Hamilton each ethnic group maintained social institutions and organizations.

Thus we have seen so far in this chapter that ethnic factors play an important role in determining residential patterns; that ethnic groups tend to congregate in certain parts of cities; and that within these territories the prevailing social order serves to maintain group identity. The further question arises of what are the factors influencing this residential segregation.

Controlling Factors

Studies have shown that socio-economic factors, cultural needs, security, discrimination and prejudice and the housing market seem to be the controlling factors in the distribution patterns of ethnic groups.

Ley (1974) described the Black Section in inner city Philadelphia as an area of low socio-economic status, inhabited by only poor class Negroes. He speaks of it, as a social area primarily made up of persons of a single race possessing similiar subculture characteristics. This inner city space constituted the territorial base within which black culture was "learned, transmitted and preserved". These low income blacks congregated and formed inner city enclaves.

The Addams area described by Suttles (1970) is another example of the correlation between socio-economic status and the residential segregation of ethnic groups. Despite the hetergeneity of the Addams area in Chicago, all four ethnic sections share many characteristics and seem headed along the same social progression. The overall pattern is one where age, sex, ethnic and territorial unity are fitted together, like

building blocks to create a large structure. Suttles (1970) termed this pattern "ordered segmentation" to indicate two related features: the orderly relationship between groups; and the sequential order in which groups combine in instances of conflict and opposition. This ordered segmentation, however is not equally developed in all ethnic sections but, in skeletal outline, it is the common framework within which groups are formed and social relations are cultivated in this slum area of Chicago. It should be kept in mind that this is a rather unusual area with many pecularities of its own and situated in an unique historical context. The most common feature of all four groups is that they are relatively poor. The area is regarded both officially and unofficially as a slum. Thus we may say that the development of ethnic enclaves such as the 'Addams' area in Chicago was strongly influenced by socio-economic factors.

Wirth (1964, p. 78) has commented that the emergence of seperate Jewish areas in Chicago "... was not the product of design on the part of anyone, but rather the unwitting crystallization of needs and practices rooted in customs and heritages, religious and secular, of Jews themselves". Economic status combined with religious precepts created the modern Jewish community. The Hindus, in Dacca, Bangladesh, like the Jews, have segregated themselves in a precise residential areas based on needs for customs, heritage and religion. However unlike Jews, the Hindus are of lower economic status and have lived there for generations.

In Birmingham, England, the ethnic diversity has led to a strong propensity to congregate for mutual support, and in its extreme form to the creation of ethnic colonies (Jones, 1976). Rex (1967) reported that in Britain and U.S. urban blight in central city areas has come to be

associated with residential concentration of racial and ethnic minorities and with conflict, sometimes of a violent nature, over housing, employment and educational resources. Clustered enclaves are obviously developed in part to provide a sense of security.

The term 'ghetto' is not only an economically but also a socially and psychologically deprived area. Residence in a ghetto is mainly involuntary due to the discriminatory practices of the dominant groups through the "real estate market and in other ways" (Clark, 1965). The urban housing market is the key to understanding black occupance in American cities, although "housing markets themselves simply mirror the value systems of the larger society" (Rose, 1972). Laphan (1975), found that blacks did not pay more for housing but noted that the absence of a price difference does not rule out the possibility of discrimination. Morrill (1965) agrees, "paramount among those value systems is an overwhelming reluctance of whites to live near blacks, so that the black ghetto has a particularly exclusive character with sharply segregated white and black populations.*

Liberson (1970) examined the influence of language on ethnic residential distributions in Canadian cities. He concluded that the retention of mother tongue was an important factor in maintaining the

---

* the exclusiveness of Negro segregation is a fundamental feature of the Ghetto Developer Model presented in H.M. Rose, "The Development of an Urban Subsystem: a case of Negro Ghetto", Annals, Association of American Geographer. Vol. 60, (1970), pp.5-16.

continuity and residential enclaves of ethnic groups. But there was significant variation from city to city in the relative importance of mother tongue on ethnic residential segregation. He found that, in Ottawa, the mother tongue composition of various ethnic groups was important. The Biharis (immigrants from India) in Bangladesh have congregated and lived separate from the dominant culture primarily because of language differences.

There have been several studies of ethnic groups in Toronto (Bourne, 1967; Richmond, 1967, 1972; Murdie, 1969). Most of them suggest that socio-economic status plays an important role in influencing the distribution of ethnic groups. However no single factor can explain the patterns of ethnic residential concentration and dissimiliarity in Toronto. Richmond (1972) found that those most likely to live in an area of ethnic concentration were average sized family households, particularly immigrants who arrived before 1956 and these of low socio-economic status; they have a strong attachment to their church or synagogue and prefer the sense of security and belonging derived from having their relatives and most of their friends living in the neighbourhood.

Very little work has been done on the ethnic community of Hamilton. Foster (1965) looking at the period 1921-1961 found that certain patterns do underlie the distribution of ethnic features in the Barton Street area. Immigration through time produced patterns of settlement and each group displayed many unique features of its own, dependent upon the size and history of its immigration, the predominant occupation of its members and its own peculiar cultural traits.

These previous findings serve to focus this study of ethnic groups

in Hamilton. The major objectives are: to identify homogeneous ethnic enclaves in the city of Hamilton; and to examine the relationship between the distribution of ethnic groups and social, economic and cultural variables.

In order to meet these objectives, the following chapters will consider: firstly, the historical and cultural background of Hamilton; secondly, the distribution pattern of the major ethnic communities; and thirdly, the factors influencing the distribution of ethnic groups in the city of Hamilton by means of a factor and regression analysis of 1971 census data.

CHAPTER 3

HISTORICAL AND CULTURAL BACKGROUND OF HAMILTON

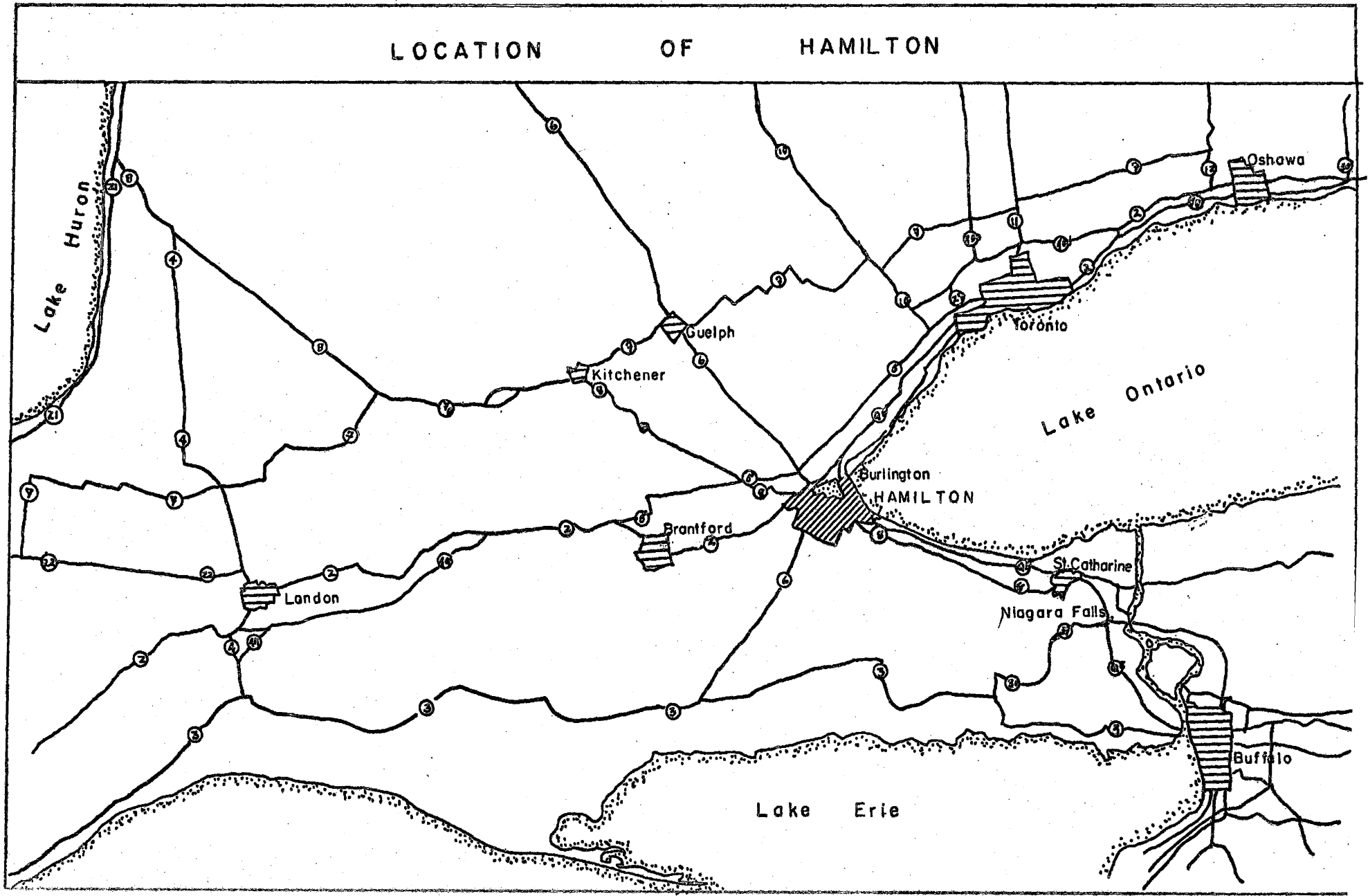
Location

Hamilton is an industrial and manufacturing city of 309,180 people (1971), located at the western end of Lake Ontario. Hamilton is also located in the main population belt of Southern Ontario, and can thus sell to rich hinterlands.

Hamilton is directly linked by roads to such other urban centres as Toronto, Guelph, London, Kitchener, Brantford and Buffalo and its unique harbour and position at the head of the lake, allows Hamilton to be economically tied into the St. Lawrence-Great Lake shipping route. In addition, Hamilton's industry is also served by the transcontinental Canadian National Railway and the local Toronto, Hamilton and Buffalo Railway (Chapman and Putman, 1951; Smith, 1950).

Hamilton's location on these major transportation routes not only allows an economical assembly of raw materials, but also an efficient distribution of manufactured goods to a large and continually growing market. It is this nodal effect then, coupled with cheap flat land along the harbour that have been the prime factors in the development of this city as the hub of Ontario's "Golden Horseshoe" of industry. The development of industries in Hamilton has been an attraction for immigrant groups from all over the world.

MAP 1


LOCATION OF HAMILTON
Lake Huron
Guelph
Kitchener
Toronto
Oshawa
Lake Ontario
Burlington
HAMILTON
Brantford
St. Catharine
London
Niagara Falls
Buffalo
Lake Erie

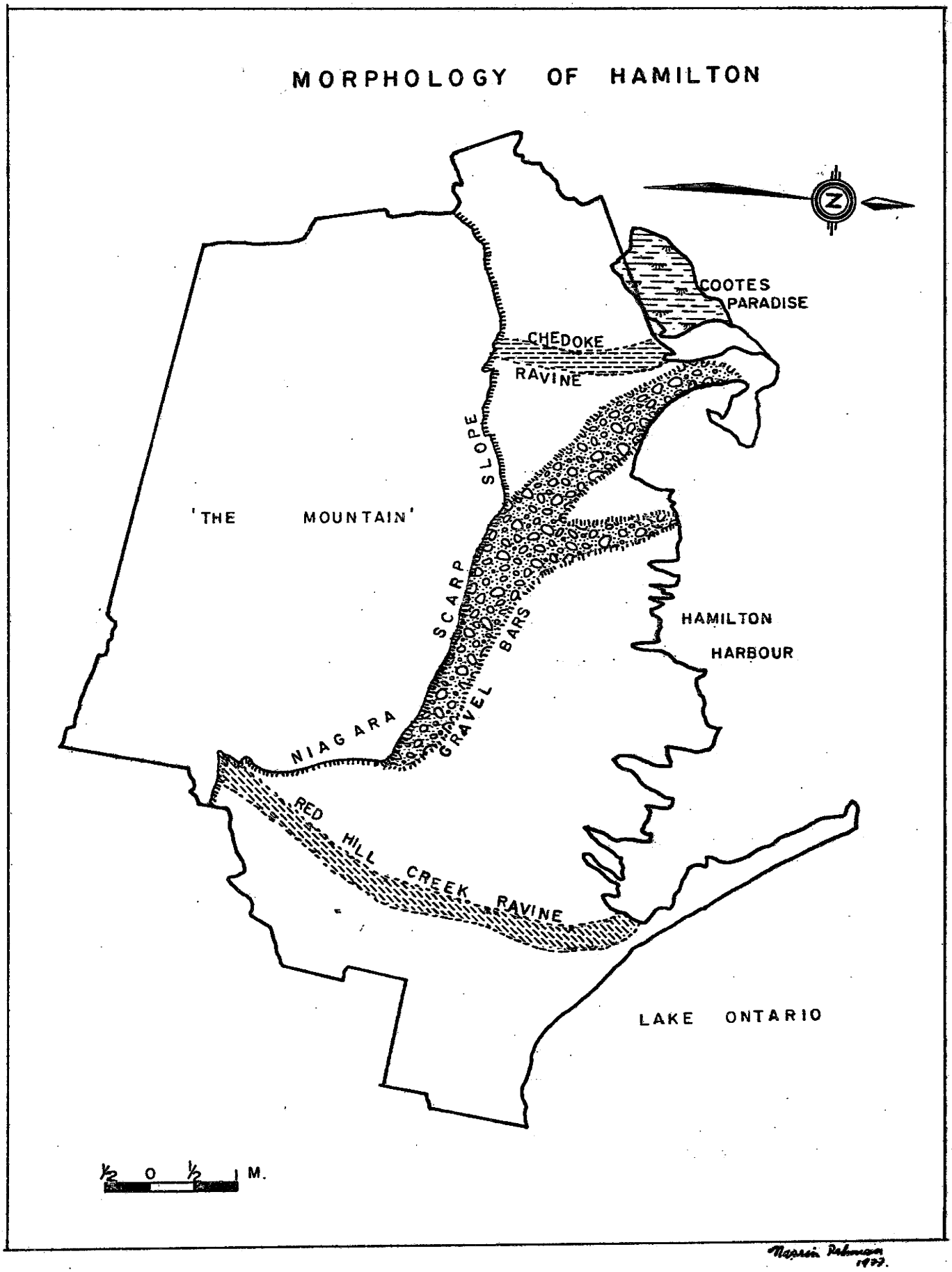
Morphology

Hamilton, the nation's major centre of heavy industry, is the 5th city of Canada (Minister of State Affairs, Canada, 1975). Since the beginning of the 19th century it has grown from a small agricultural village to its present status as a manufacturing city of over 300,000 population. Situated at the foot of the Niagara Escarpment and bounded in the west by the pre-glacial Dundas Valley, the major part of the city lies on the lake-shore plain at the extreme western end of Lake Ontario. It is cut off from the outer lake by two gravel bars, the remnants of previous lake level shore lines (map 2). The outer bar cuts off Hamilton Harbour from Lake Ontario while the inner bar seperates Cootes Paradise from the harbour. Hamilton's "Head of the Lake" situation and its superb harbour have contributed to its emergence as a major centre of Canadian industry (Chapman and Putman, 1951; Burkholder, 1938).

The site of the city is affected by several prominent physical features. The greatest of these is the Niagara Escarpment which divides the city in a predominantly east-west direction. This has created an upper level of the city above the scarp slope and a lower level on the lakeshore plain between the escarpment and the harbour. The Red Hill Creek on the east side of the plain and Chedoke Ravine to the west are less spectacular. It is between these 3 features, the two ravines and the escarpment, that the major part of the city lies.

In general the growing residential areas of the city lie outside these limits while inside is the real heart of Hamilton. The former swamp land on the edge of the harbour has been reclaimed over the years and developed as an intensive industrial belt, segregated to a large extent

MAP 2

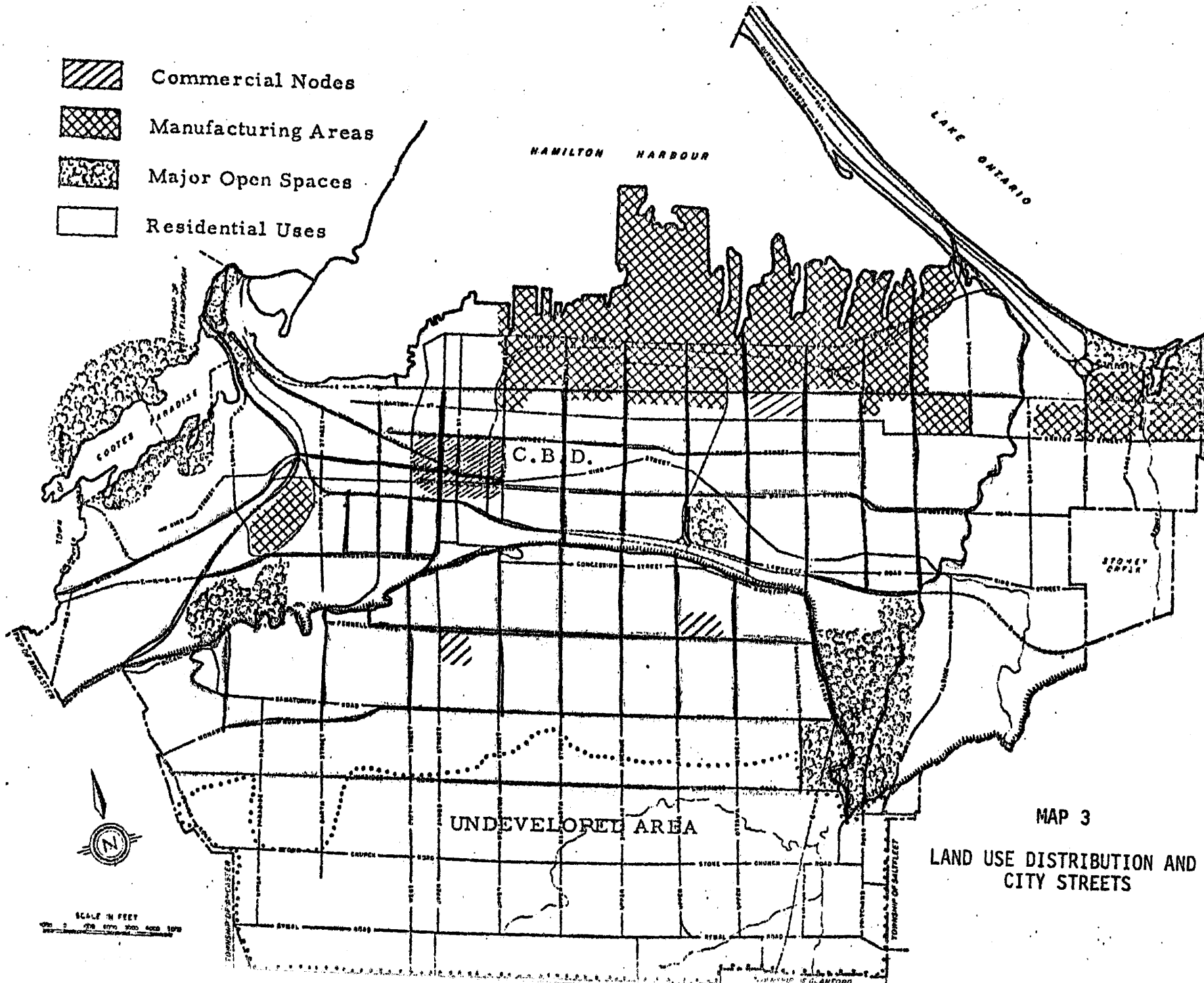

MORPHOLOGY OF HAMILTON
N
COOTES PARADISE
CHEDOKE RAVINE
SLOPE
'THE MOUNTAIN'
SCARP
GRAVEL BARS
HAMILTON HARBOUR
NIAGARA
RED HILL CREEK RAVINE
LAKE ONTARIO
½ 0 ½ 1 M.
Nazrin Rahman 1977.

from much of the remainder of the city. South of this zone are the major commercial areas which in turn give way to residential landuse. This extends to the foot of, and then climbs over the edge of the escarpment on to the "mountain", and spills over the ravines into the east and west limits of the city. In quality this residential landuse generally improves southward from the industrial zone and reaches its peak on the "mountain" and in West and East Hamilton beyond the ravines (map 2).

The city street pattern (map 3) consists predominantly of a north-south, east-west grid laid out on the lakeshore plain where urban development originated. York and King Streets are notable exceptions to this regularity. The main arteries of the grid run along the former concession boundaries. North-south examples are James, Wellington, Wentworth, Sherman, Gage, Ottawa and Kenilworth, while the major east-west arteries are Main, King, Cannon, Barton and Burlington.

Population Growth

Hamilton began as an agricultural village in a pioneer region at the beginning of the 19th century. It gradually developed into a market town with small-scale local industry to meet the needs of the surrounding agricultural region. Consequently population growth was relatively slow during the greater part of the century and it was not until the industrial stimulus of the closing decades that the growth rate noticeably increased (figures 1-4). Between 1871 and 1901 the population of the city doubled from 26,716 to 52,634. The beginning of the present century heralded a forty year period of much greater relative increase. The 1931 figure of 155,547 represented a trebling of the 1901 total and this period was

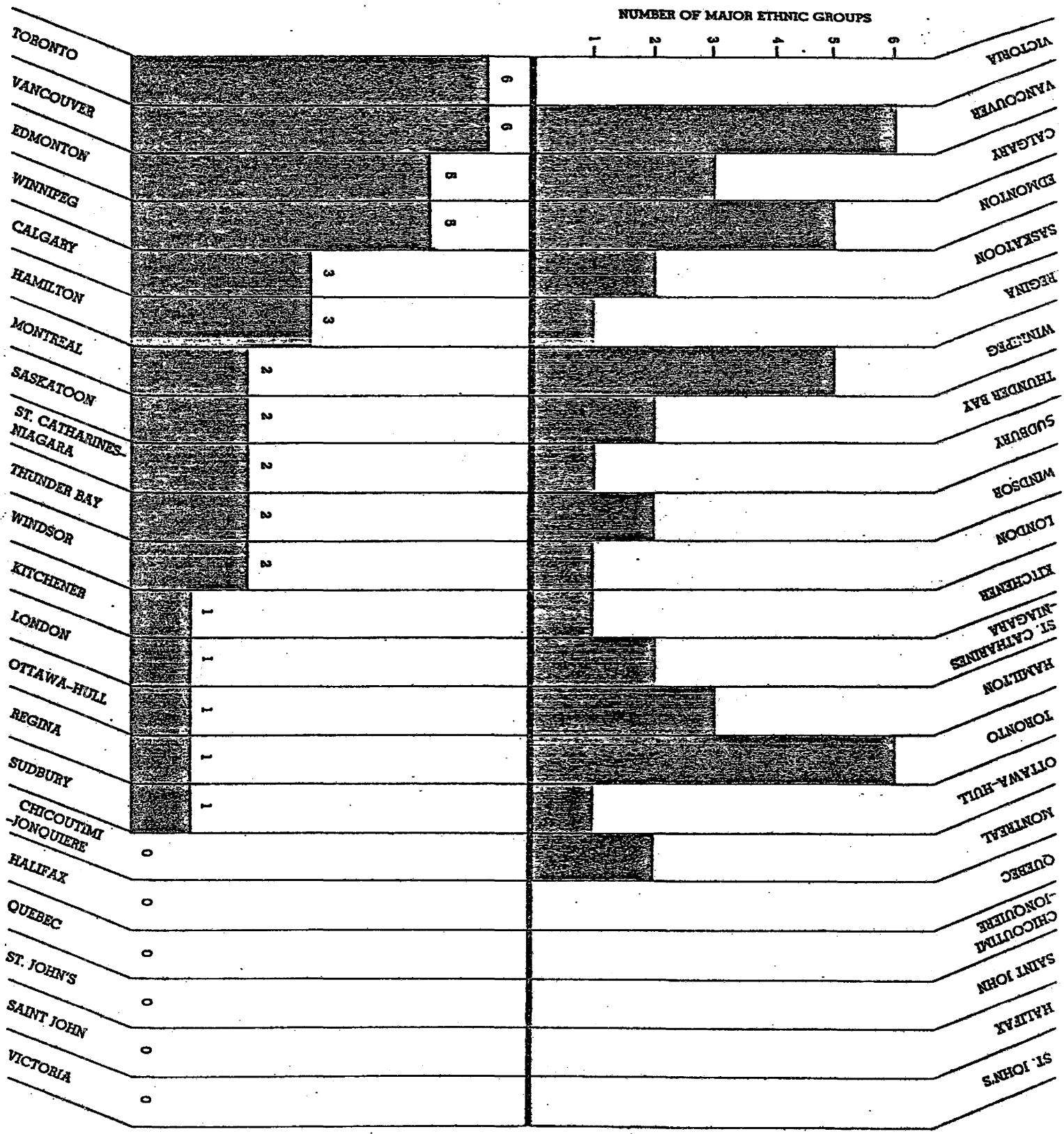


MAP 3

LAND USE DISTRIBUTION AND CITY STREETS

FIGURE 1

NUMBER OF ETHNIC GROUPS IN CANADA



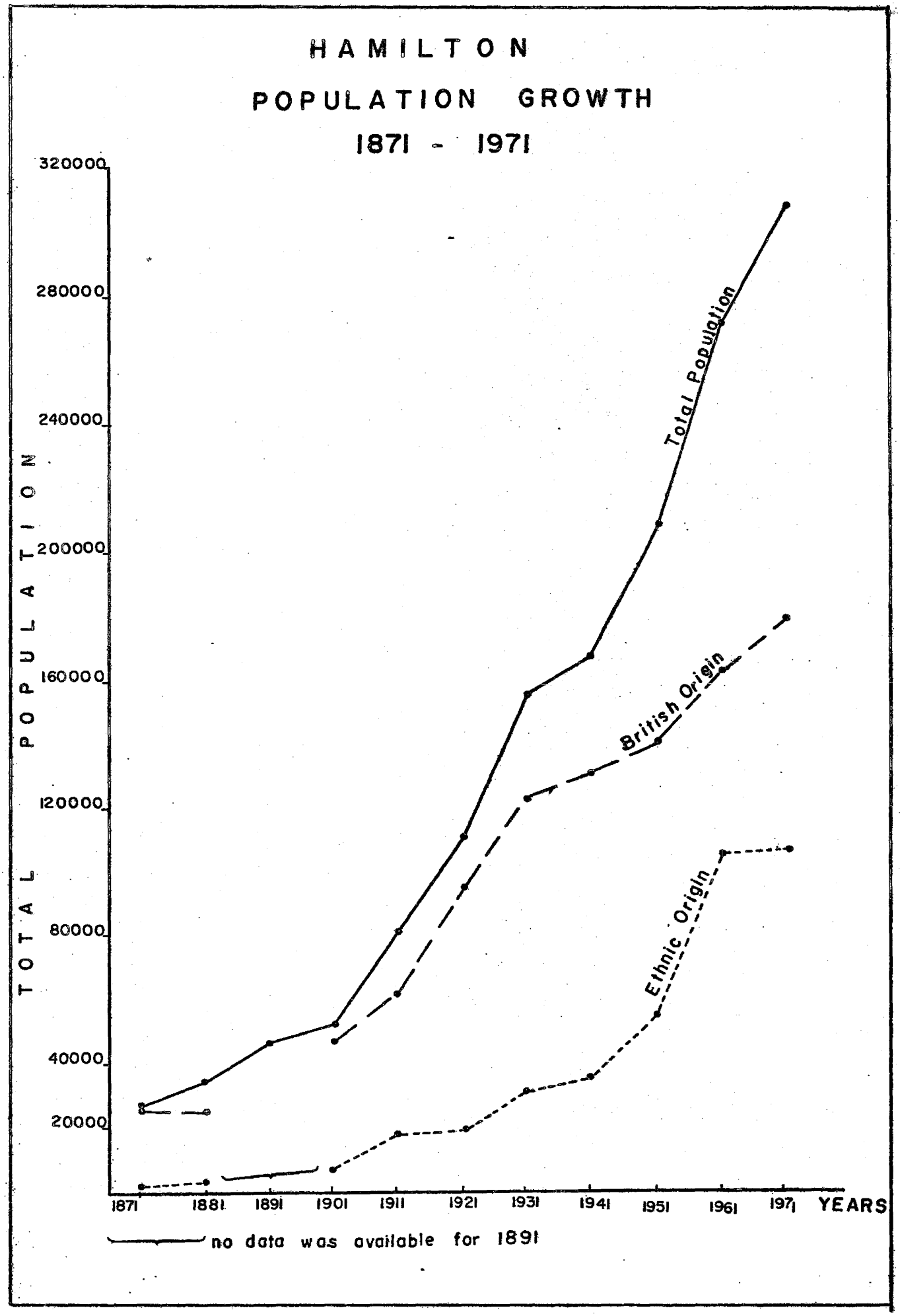
really the coming of age of Hamilton as Canada's major heavy industry centre (Times Printing, 1892). Subsequently population growth stagnated until after the second world war due to the economic depression of the pre-war period which struck the heavy industry of Hamilton with particular severity. In the post-war period population growth has again occurred with a 100,679 total increase from 1951 to 1971.

The two interrelated factors of economic and population growth have between them worked a fundamental change in the ethnic structure of Hamilton's population. Before 1900 Hamilton was to all intents and purposes a "British" city, in that over 90% of the population was of British origin. However, since that time the British element has shown a steady relative decline in the face of the growth of population from continental Europe (figure 2).

Since the turn of the century, the heavy industry and its associated ancillaries have made Hamilton a constant magnet for labour migration. During the first decade of the century Canada as a whole experienced a very rapid immigration rising to a peak of over 40,000 in 1913. New settlers were being rapidly absorbed on the prairies but many of them were eastern Canadians and their places in the east were being filled by new immigrants from abroad. The prairie boom gave a stimulus to manufacturing in the eastern cities and thousands of immigrants moved directly into industrial employment. Hamilton was one of the cities affected by this movement and the change in the ethnic character of the city had its origins in this period (Meeker, 1953; Foster, 1962).

Among those attracted to the city were many non-English speaking people from the continent of Europe. A great number of these new immigrants

FIGURE 2

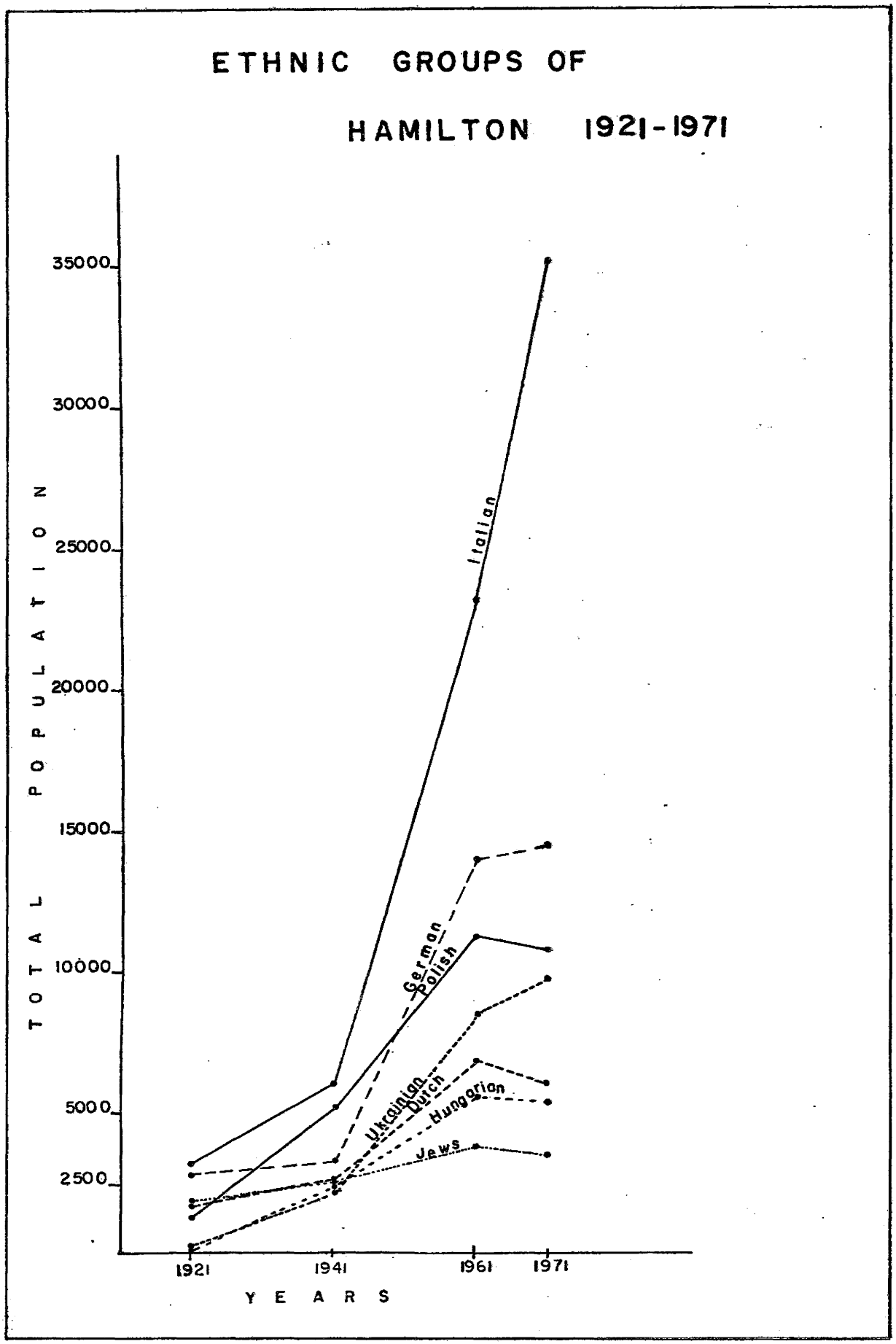

HAMILTON
POPULATION GROWTH
1871 - 1971
TOTAL POPULATION
320000
280000
240000
200000
160000
120000
80000
40000
20000
Total Population
British Origin
Ethnic Origin
1871
1881
1891
1901
1911
1921
1931
1941
1951
1961
1971
YEARS
no data was available for 1891

were unskilled workers who sought labouring jobs in the iron and steel plants (Meeker, 1953). These people formed the original nucleus of Hamilton's present European population. Coming in at a low-economic level they began to produce many of today's distinctive patterns. In 1971, 57% of the city's population claimed British origin, the lowest figure in Hamilton's history, this is a 32% decline from the 1901 figure. Before that date non-British movement into the city had been negligible, but the change began soon afterwards and really gained momentum in the 1920-30 decade. By 1911 the British origin figure showed its first significant drop as the city's industry began to affect the pattern of immigration. It rose slightly in 1921 as a result of large-scale immigration from the British Isles after World War I, but fell again between 1931 and 1941.

This process accelerated after 1945, reaching much lower figures in 1961 and 1971. This is accounted for by the large scale European immigration during the late forties and early fifties. Consequently, while the germs of change were planted earlier in the century, the post 1945 period with its heavy immigration has contributed most to the cosmopolitan character of Hamilton's population.

The realtive size of individual non-British origin groups in Hamilton has varied from time to time but all have shown absolute increases (figure 3). In 1901 the Germans were by far the largest ethnic group and apart from the French, other groups were negligible in size. In 1911, the German figure had fallen somewhat while the Italian showed an increase. There was little change among other groups.

FIGURE 3

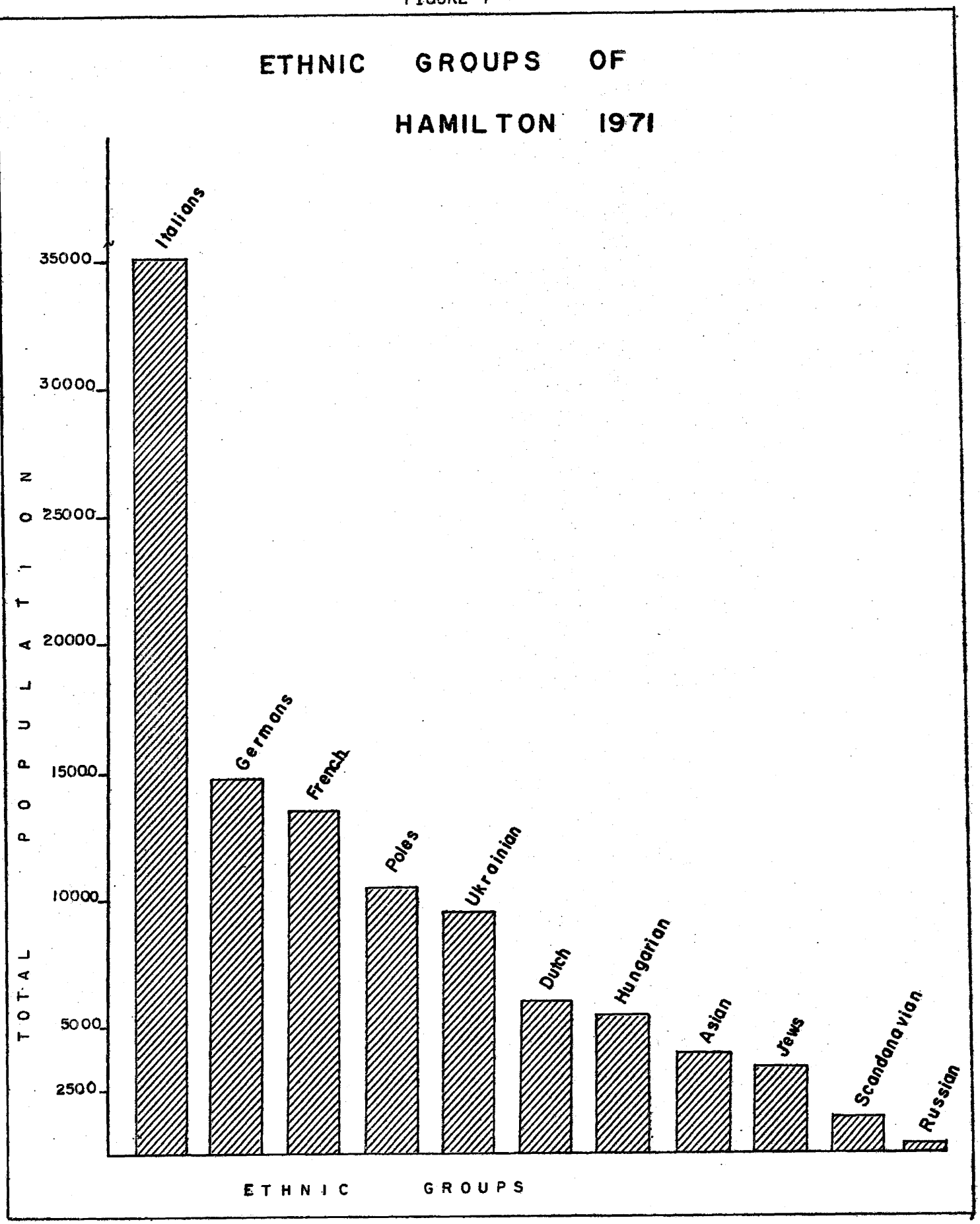

ETHNIC GROUPS OF
HAMILTON 1921-1971
TOTAL POPULATION
35000
30000
25000
20000
15000
10000
5000
2500
1921
1941
1961
1971
YEARS
Italian
German
Polish
Ukranian
Dutch
Hungarian
Jews

The influence of large-scale immigration was first strongly felt in the 1921 figures. The Italian group had again increased and for the first time there was a notable eastern European group, composed mainly of Poles and Ukrainians. This trend has continued with varying emphasis ever since. The Italian element has remained by far the strongest being especially strengthened during the 1950's. The proportion of Polish origin increased most between 1921 and 1961 but since then the rate of increase has been smaller. The Ukrainian figure has always been smaller than the Polish.

The Dutch element increased slowly until 1951 since when the Dutch population has more than doubled. From being the largest non-British group in the city in 1901 the Germans reached their lowest proportion between the two world wars. However, the group began to grow vigorously after 1945 and doubled in size between 1951 and 1971, so that they now form the second largest ethnic group after the Italians. The French element grew slowly but steadily after 1901 with a small temporary decline between 1921 and 1931 and had reached their highest peak by 1971.

The above groups are the major ones in the city but there is a sizeable "other European" category containing a variety of groups which, with a few exceptions, are too small to be individually important in the total population (figure 4). The Hungarian element began to grow in the twenties but subsequently there was no further significant increase until the immigration of the late fifties boosted the size of the groups. The Jewish growth became relatively strong in the first decade of the century but since then has declined in relative size as the group has not been strengthened by any large scale immigration. The Scandanavian community

FIGURE 4


ETHNIC GROUPS OF
HAMILTON 1971
TOTAL POPULATION
35000
30000
25000
20000
15000
10000
5000
2500
Italians
Germans
French
Poles
Ukrainian
Dutch
Hungarian
Asian
Jews
Scandanavian
Russian
ETHNIC GROUPS

has always remained very small showing only a tiny relative increase. The Asiatic groups have also remained small as have such groups as the Czechs, Slovaks and Romanians.

It should be noted that there have been absolute declines in the total populations of some ethnic groups such as the Dutch (6910 in 1961 to 6295 in 1971), Poles (11412 in 1961 to 10815 in 1971), Jews (by 233 between 1961-1971) and Hungarian (by 103 between 1961-1971)(figure 3). This may be due to the fact of their moving out of Hamilton to the suburbs and other cities of Canada or to the more restrictive immigration policy.

With this historical and cultural background, attention now turns to an examination of the spatial distribution of ethnic groups of Hamilton in 1971.

CHAPTER 4

SPATIAL DISTRIBUTION OF ETHNIC GROUPS

One of the most interesting results of the pattern of immigration described in the previous section has been the emergence in Hamilton of distinct residential sectors occupied by distinct ethnic groups. From the point of view of the diverse nature of its ethnic population, its distinctive ethnic residential patterns, and the cultural impact of ethnic institutions and services on the urban landscape, Hamilton is a small-scale example of the classic North American industrial city.

General Distribution Pattern of Ethnic Communities

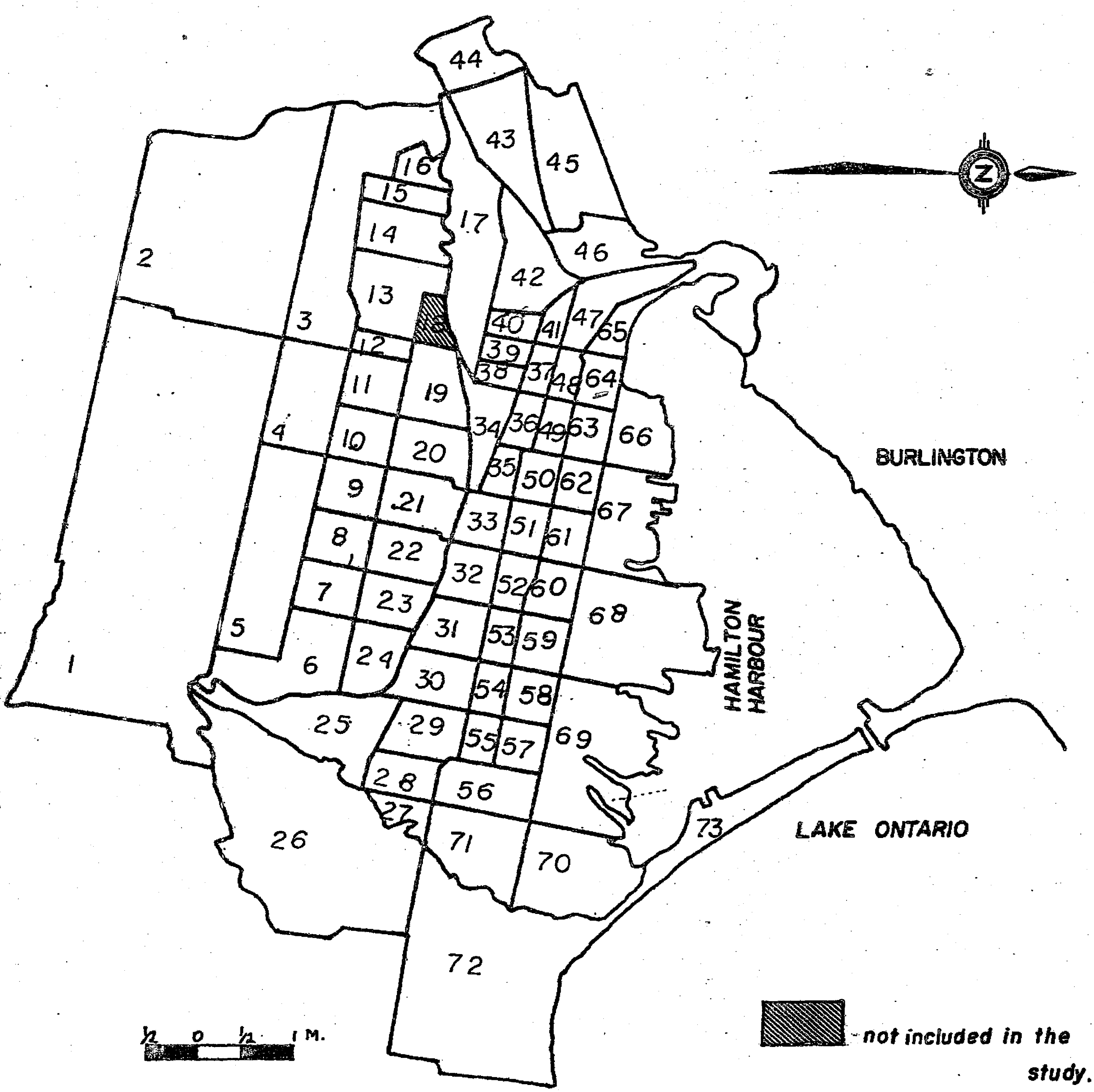
This analysis of the distribution of ethnic groups is based on the 1971 census data for Hamilton, which provides the population characteristics for the 73 census tract divisions (map 4). From these figures a series of choropleth maps has been constructed showing the percentage distribution per census tract of each of the major ethnic groups (maps 5 to 16).

The highest concentration of population of non-Canadian origin is found on the lake plain between the escarpment, Chedoke and Kenilworth with greatest density north and just south of Main Street. There are pockets of high density west of Upper James on the mountain. It increases northward from the foot of the mountain and has its greatest density along the Main Street axis. Densities fall off east of Ottawa and in the west end where the proportion of post-war immigrants in the population is very low.

MAP 4

CENSUS TRACTS - HAMILTON

1971



The situation is similiar on the edge of the mountain although densities do increase south of it. Again there are pockets of greater density on the mountain west of Garth (map 5). The greatest Italian concentration is undoubtedly in the north-west quarter of the city bounded by Main and Ottawa (map 6). The Peak Hill Creek area also has a comparatively high density. Italian population on the mountain is generally low and in west Hamilton very low.

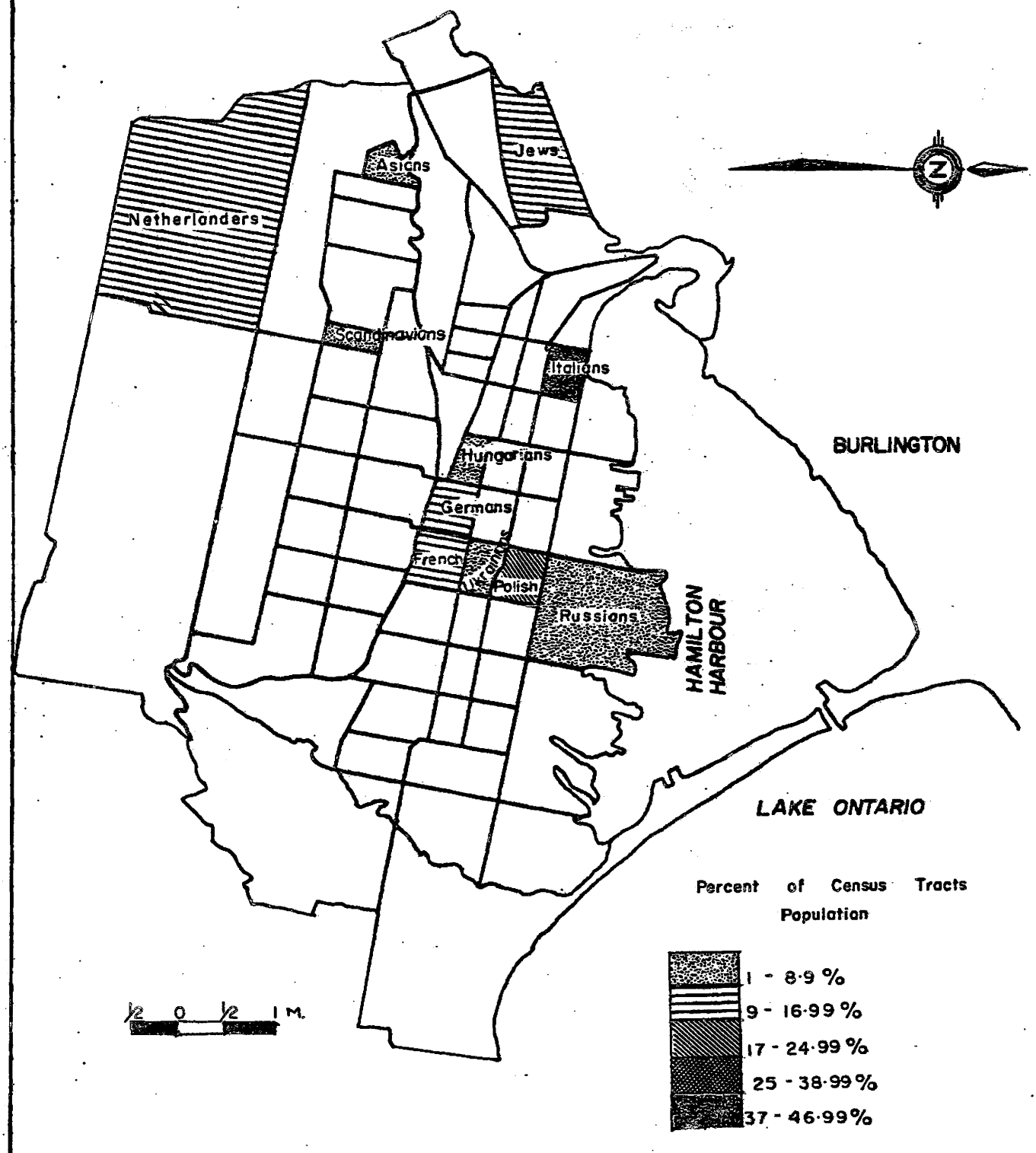
The Polish and Ukrainian distribution is similiar being concentrated in the north-east of the city (maps 7 and 8). The population densities are greatest in the north and gradually taper off towards the east, while declining more steeply in the west beyond Wentworth. Polish and Ukrainian percentages are relatively low in the west end and on the mountain. The German population distribution is somewhat similiar but localized (map 9).

The German population has its highest density in the area between Main and the escarpment and Main West and Gage. Another centre of concentration is in the north east on the mountain between Mountain Brow Boulevard and Upper Sherman.

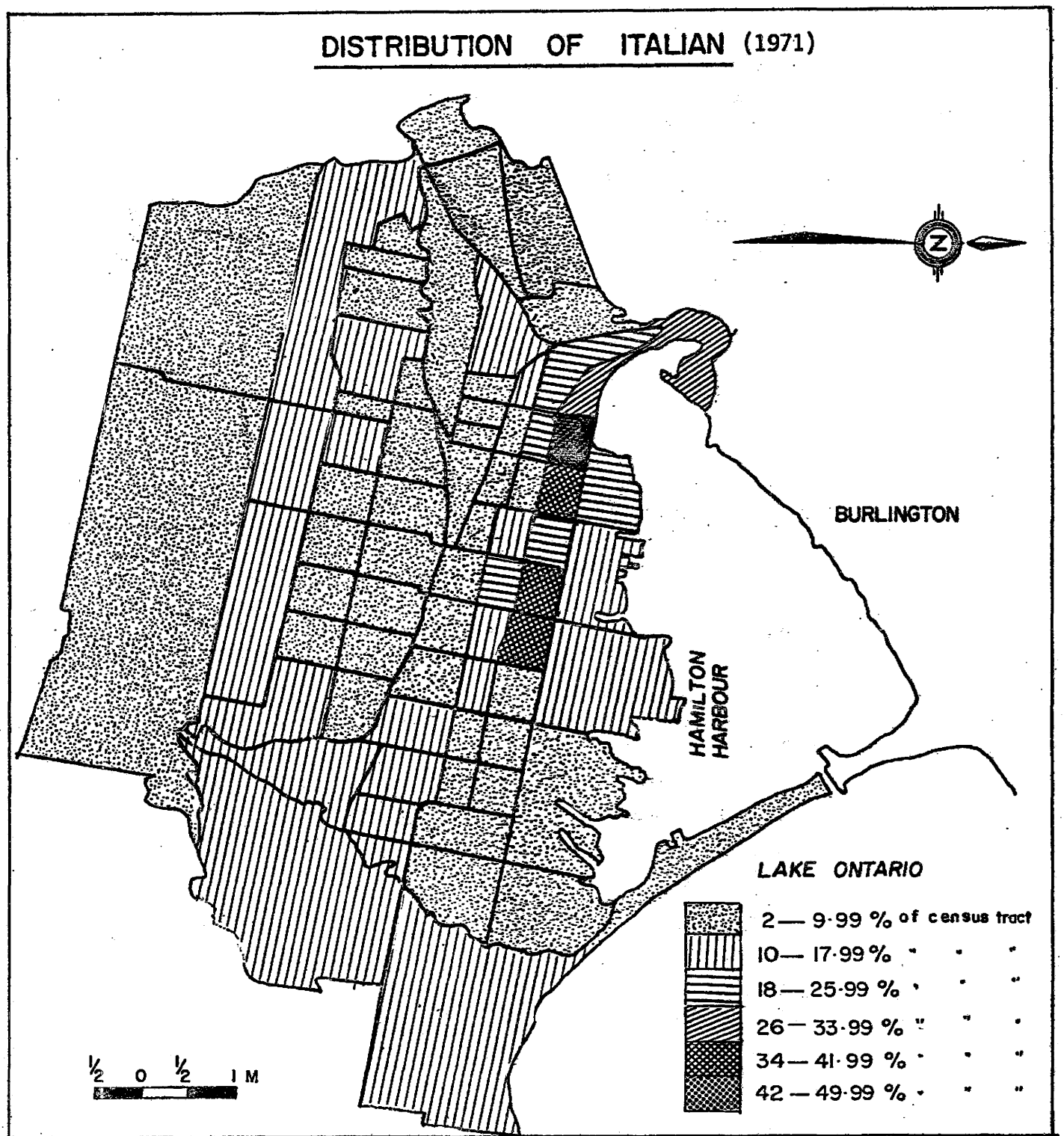
Other ethnic groups are spread out over the city with the highest Jewish concentration in the west of the city (map 11). Netherlanders are concentrated in the south and west on the mountain (map 10); French on the northern part of the city plain (map 12); Russians mainly in the north eastern industrial area (map 13), and the Asians are mainly located on the west part of the mountain and in the downtown area (map 14). Hungarian and Scandanavian are well spread out in the city (maps 15 and 16).

MAP 5

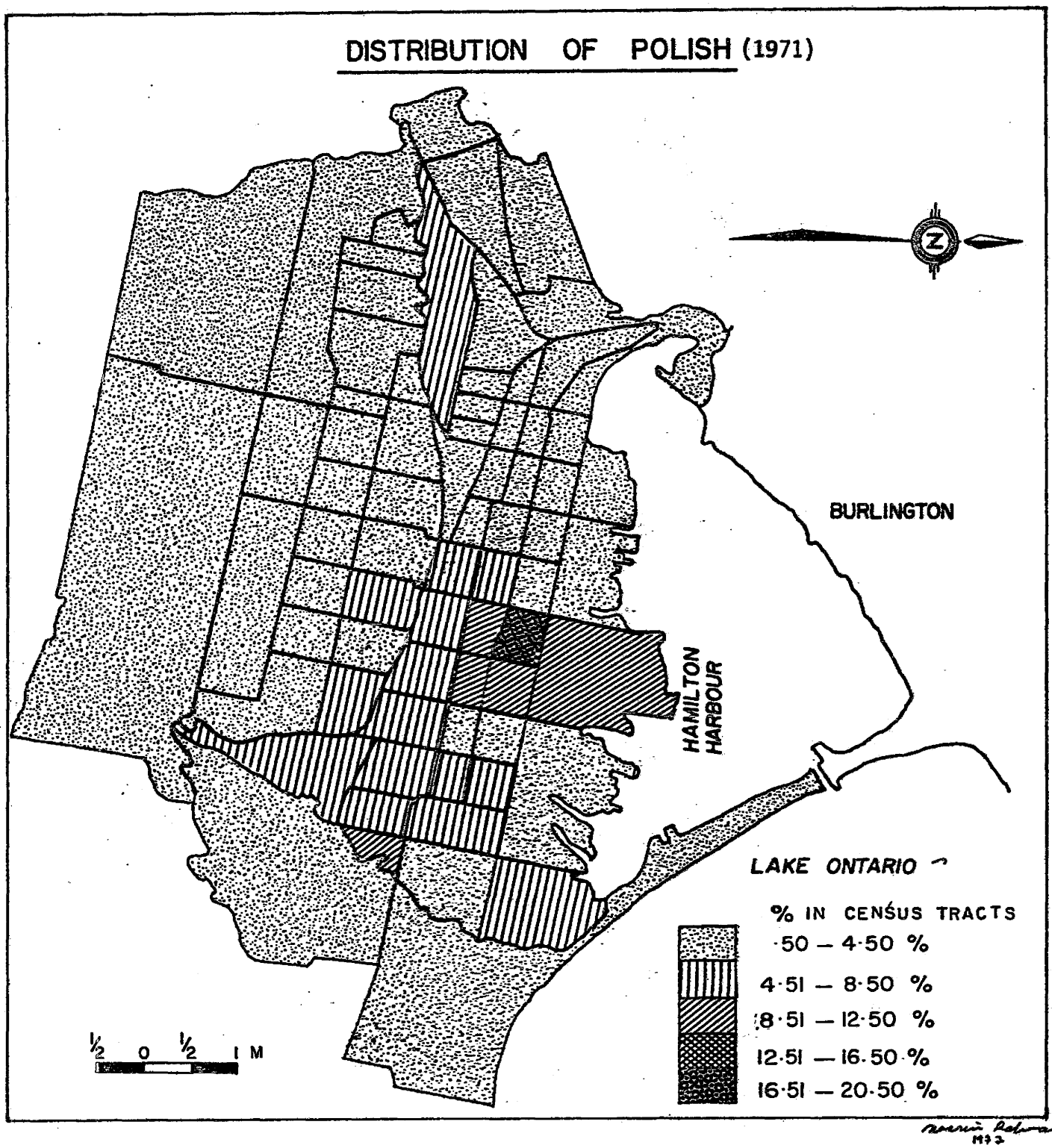
CONCENTRATION of ETHNIC GROUPS (1971)



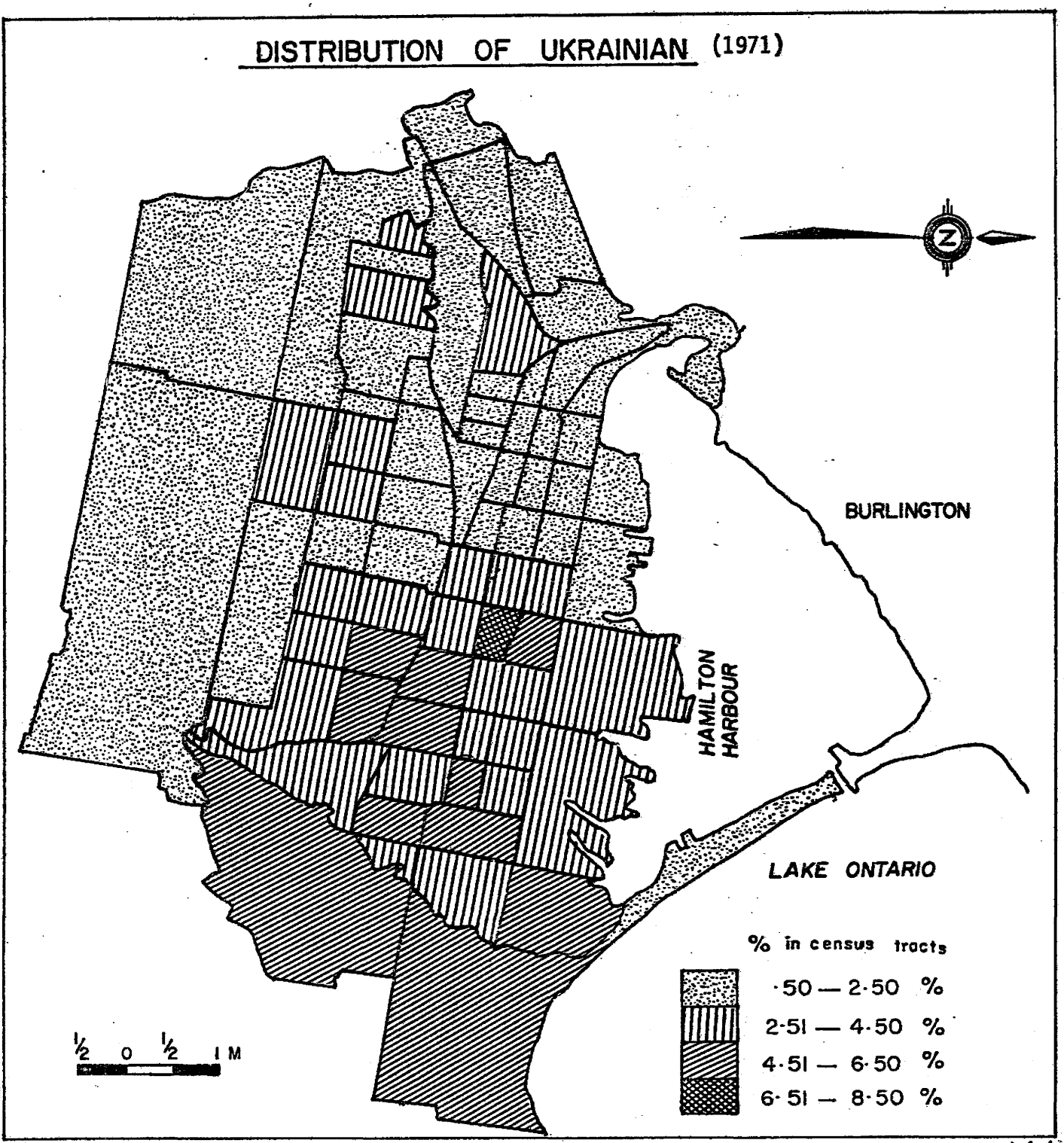
MAP 6


DISTRIBUTION OF ITALIAN (1971)
N
BURLINGTON
HAMILTON HARBOUR
LAKE ONTARIO
2 — 9·99 % of census tract
10 — 17·99 % " " "
18 — 25·99 % " " "
26 — 33·99 % " " "
34 — 41·99 % " " "
42 — 49·99 % " " "
½ 0 ½ 1 M

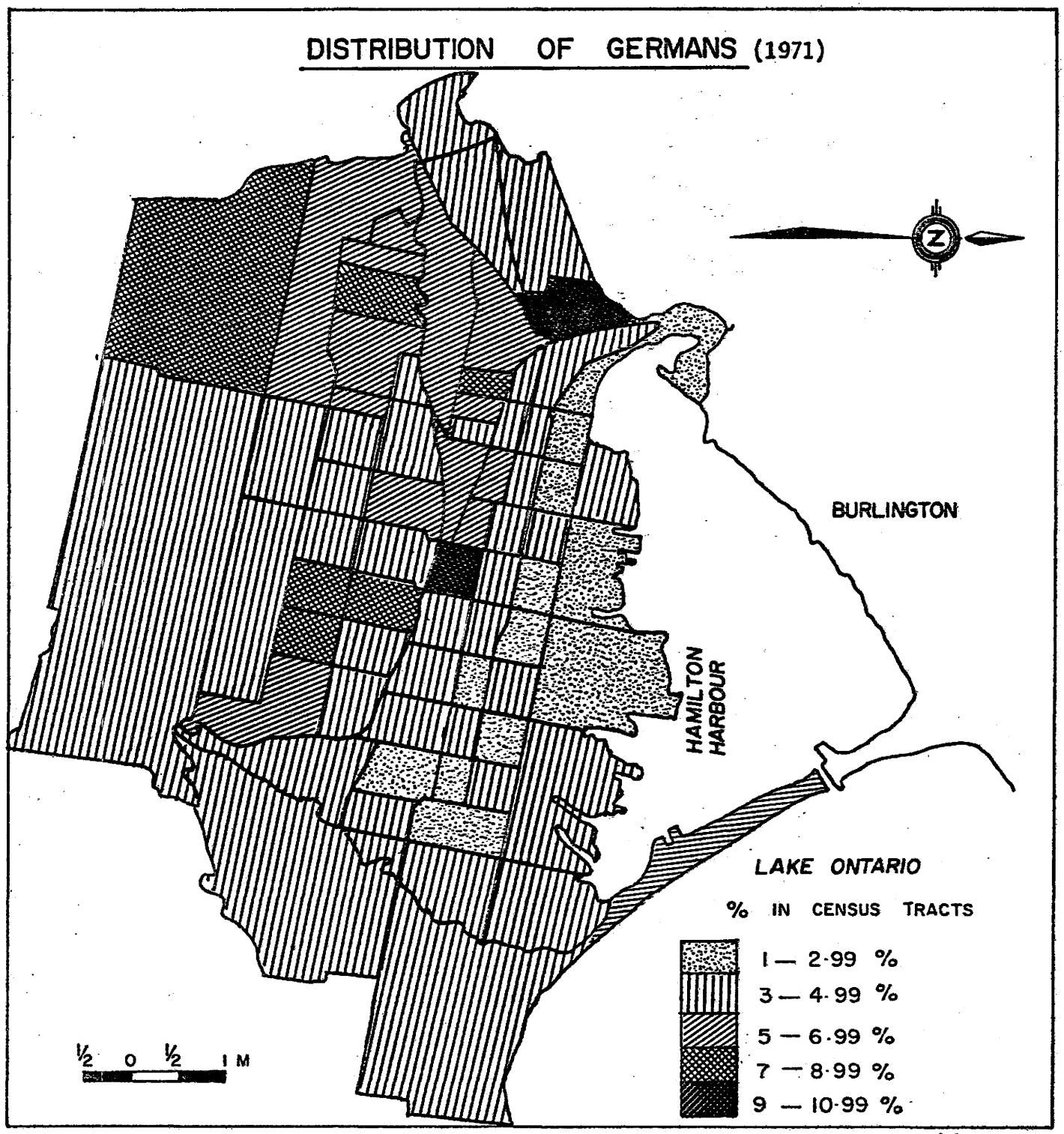
MAP 7


DISTRIBUTION OF POLISH (1971)
N
BURLINGTON
HAMILTON HARBOUR
LAKE ONTARIO
% IN CENSUS TRACTS
·50 – 4·50 %
4·51 – 8·50 %
8·51 – 12·50 %
12·51 – 16·50 %
16·51 – 20·50 %
½ 0 ½ 1 M

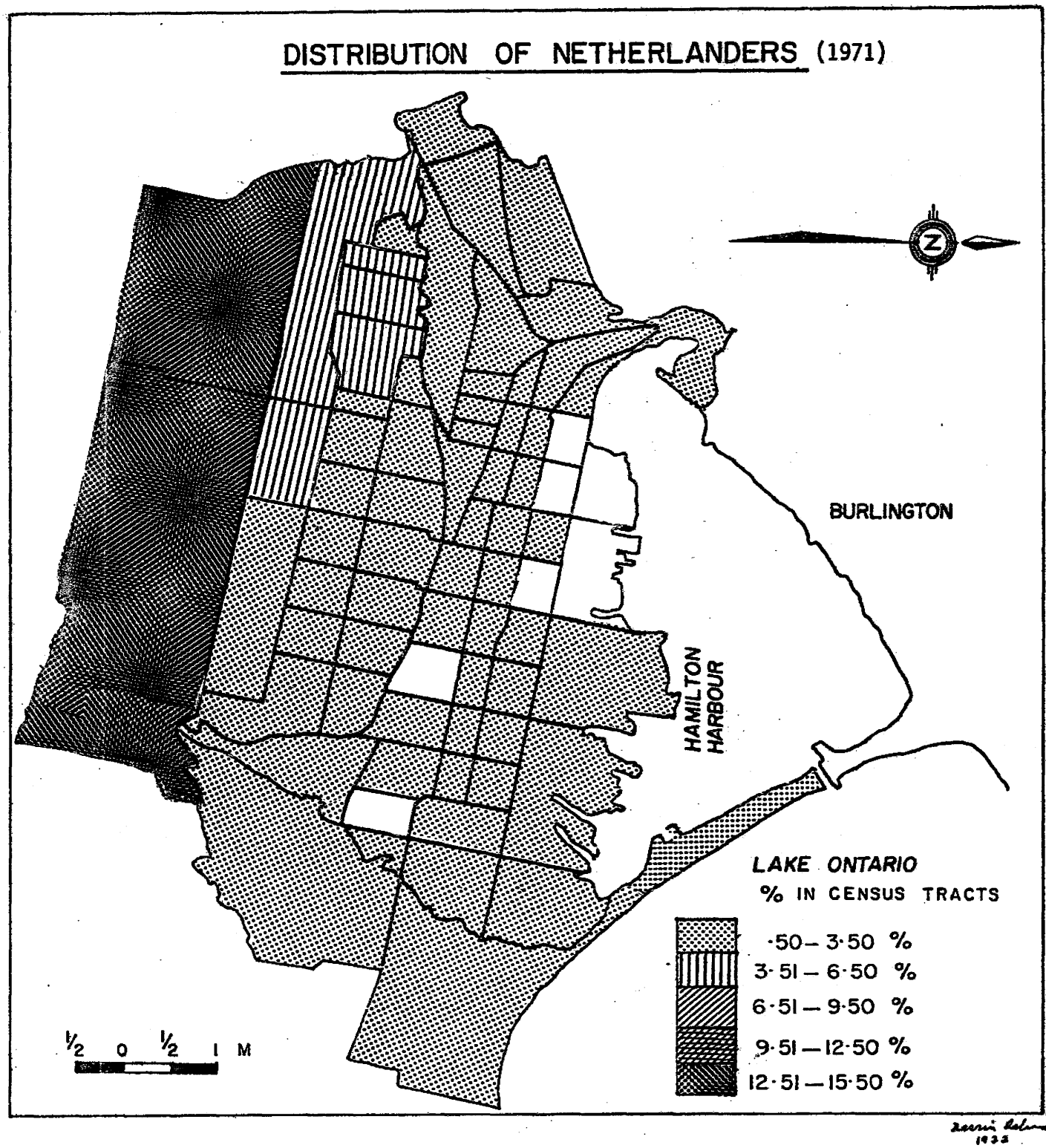
MAP 8


DISTRIBUTION OF UKRAINIAN (1971)
N
BURLINGTON
HAMILTON HARBOUR
LAKE ONTARIO
% in census tracts
·50 — 2·50 %
2·51 — 4·50 %
4·51 — 6·50 %
6·51 — 8·50 %
½ 0 ½ 1 M

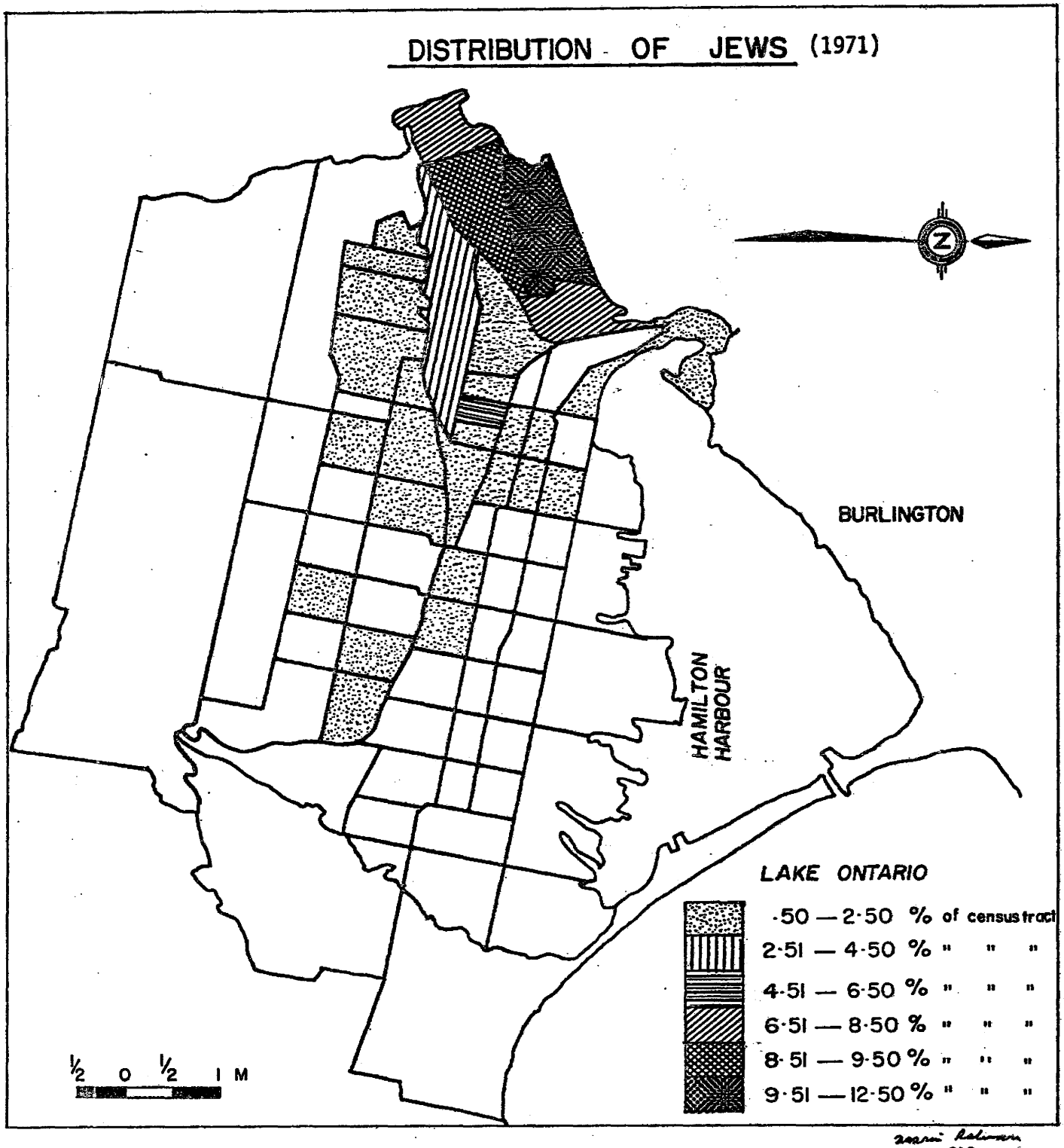
MAP 9


DISTRIBUTION OF GERMANS (1971)
N
BURLINGTON
HAMILTON HARBOUR
LAKE ONTARIO
% IN CENSUS TRACTS
1 — 2·99 %
3 — 4·99 %
5 — 6·99 %
7 — 8·99 %
9 — 10·99 %
½ 0 ½ 1 M

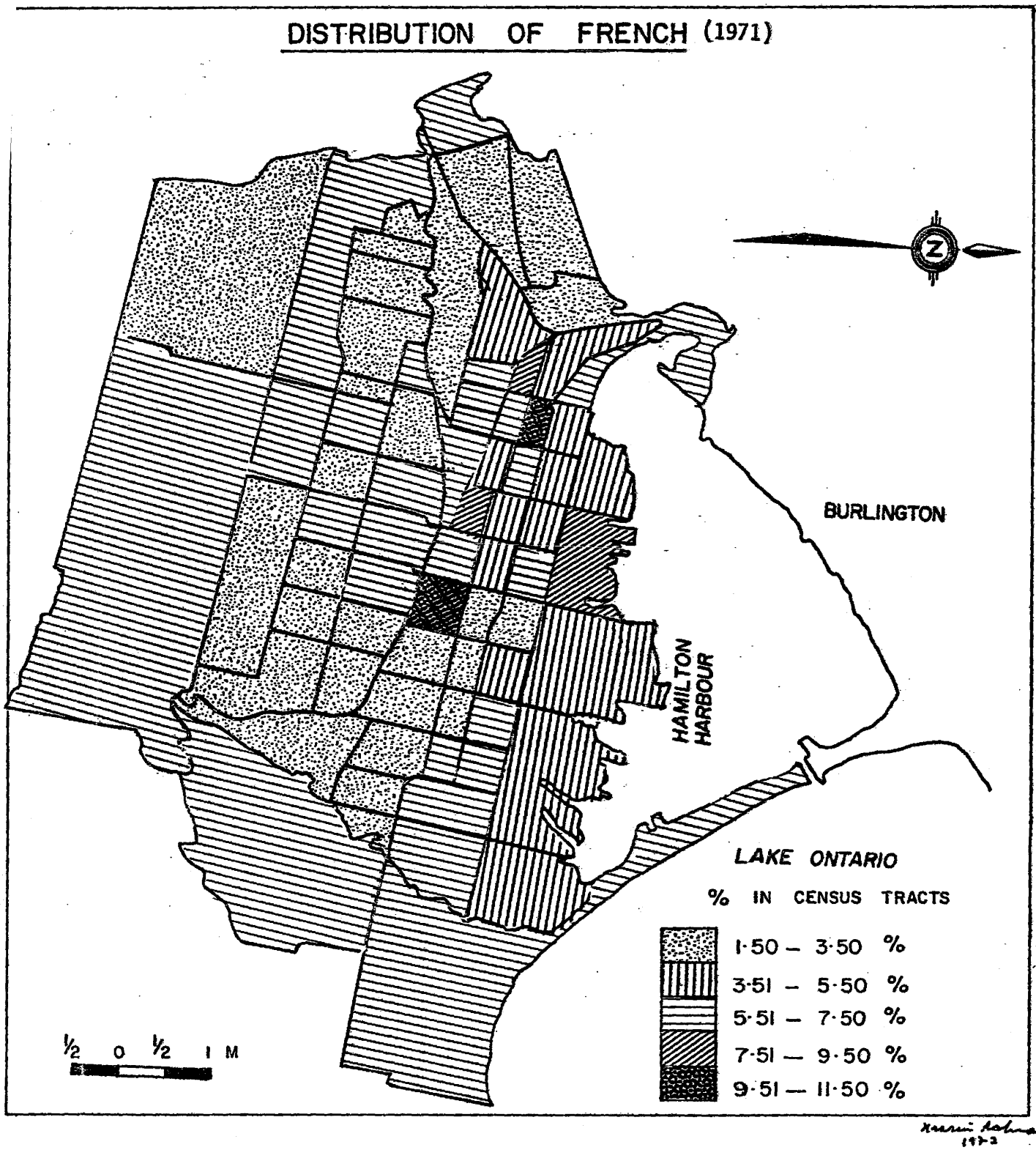
MAP 10


DISTRIBUTION OF NETHERLANDERS (1971)
N
BURLINGTON
HAMILTON HARBOUR
LAKE ONTARIO
% IN CENSUS TRACTS
·50 – 3·50 %
3·51 – 6·50 %
6·51 – 9·50 %
9·51 – 12·50 %
12·51 – 15·50 %
½ 0 ½ 1 M

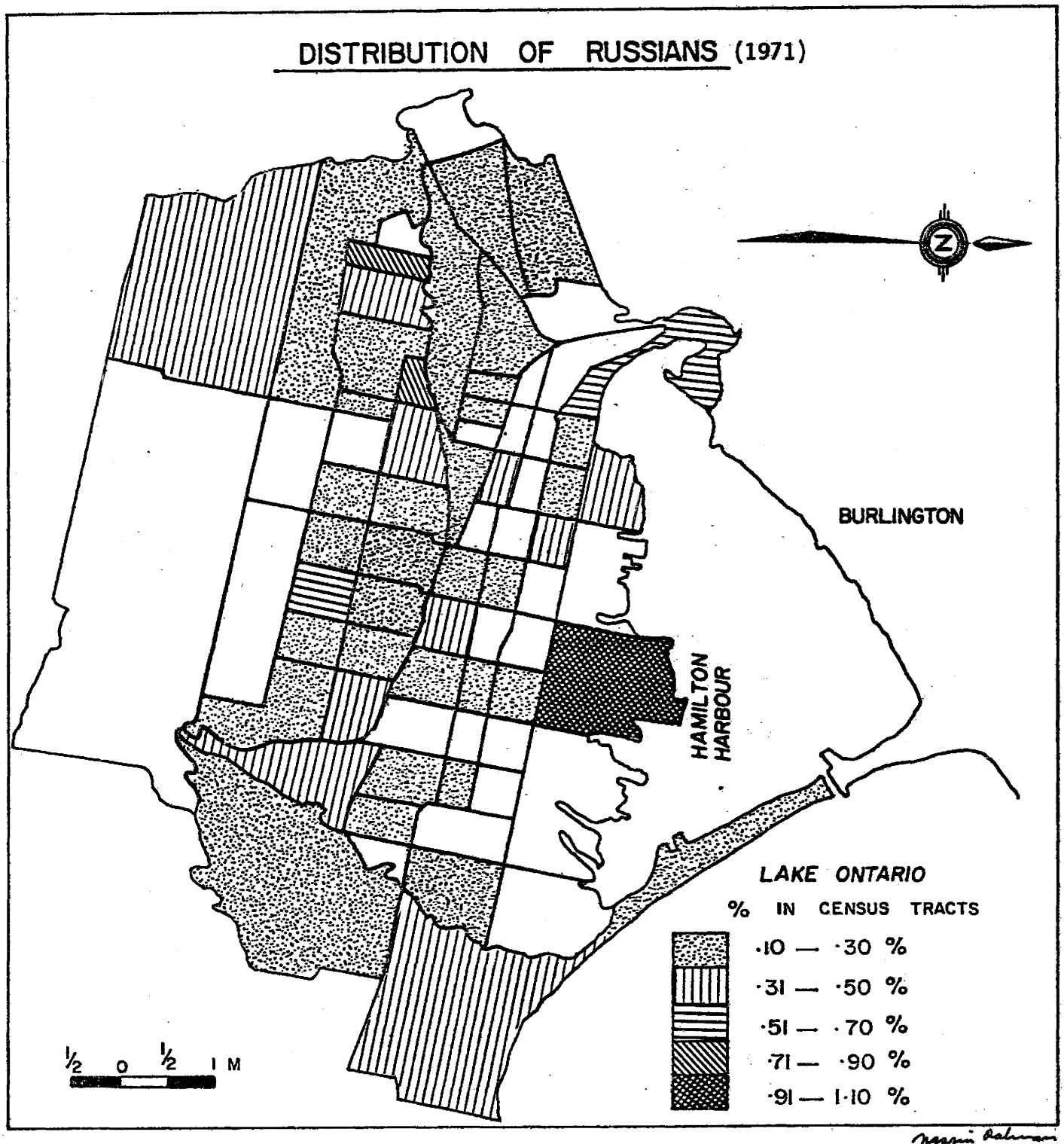
MAP 11


DISTRIBUTION OF JEWS (1971)
N
BURLINGTON
HAMILTON HARBOUR
LAKE ONTARIO
·50 — 2·50 % of census tract
2·51 — 4·50 % " " "
4·51 — 6·50 % " " "
6·51 — 8·50 % " " "
8·51 — 9·50 % " " "
9·51 — 12·50 % " " "
½ 0 ½ 1 M

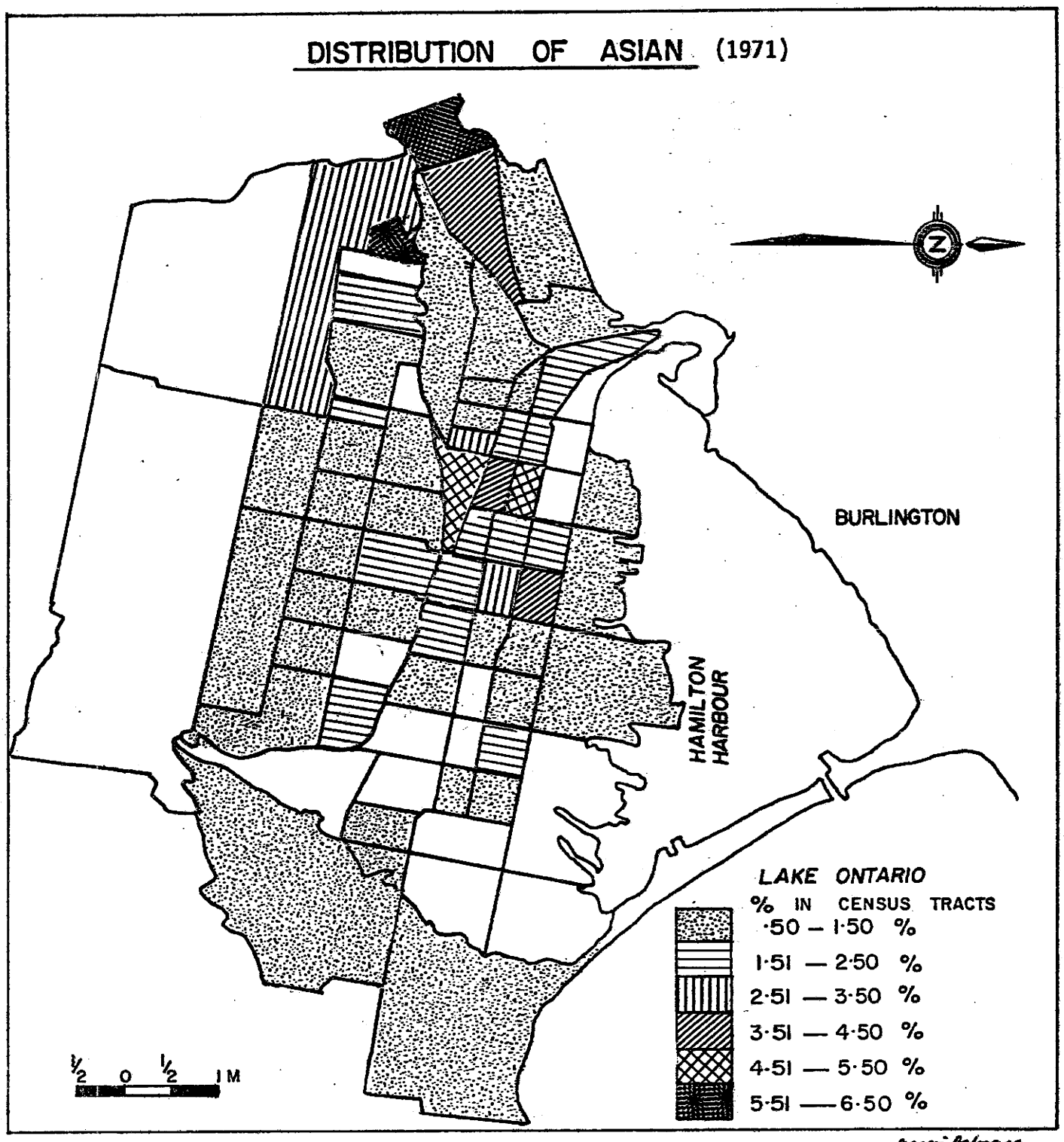
MAP 12


DISTRIBUTION OF FRENCH (1971)
N
BURLINGTON
HAMILTON HARBOUR
LAKE ONTARIO
% IN CENSUS TRACTS
1·50 – 3·50 %
3·51 – 5·50 %
5·51 – 7·50 %
7·51 – 9·50 %
9·51 – 11·50 %
½ 0 ½ 1 M

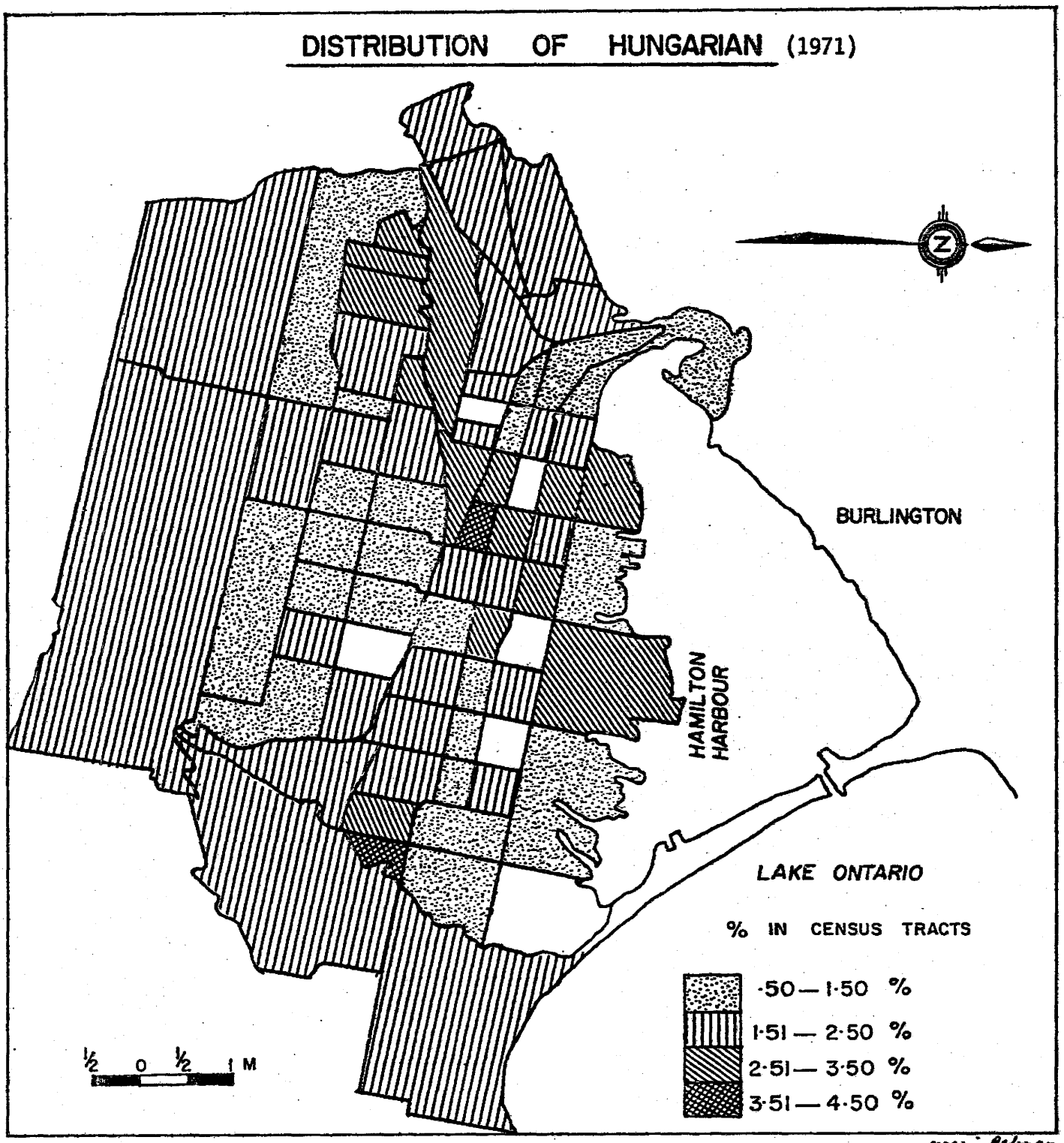
MAP 13


DISTRIBUTION OF RUSSIANS (1971)
N
BURLINGTON
HAMILTON HARBOUR
LAKE ONTARIO
% IN CENSUS TRACTS
·10 — ·30 %
·31 — ·50 %
·51 — ·70 %
·71 — ·90 %
·91 — 1·10 %
½ 0 ½ 1 M

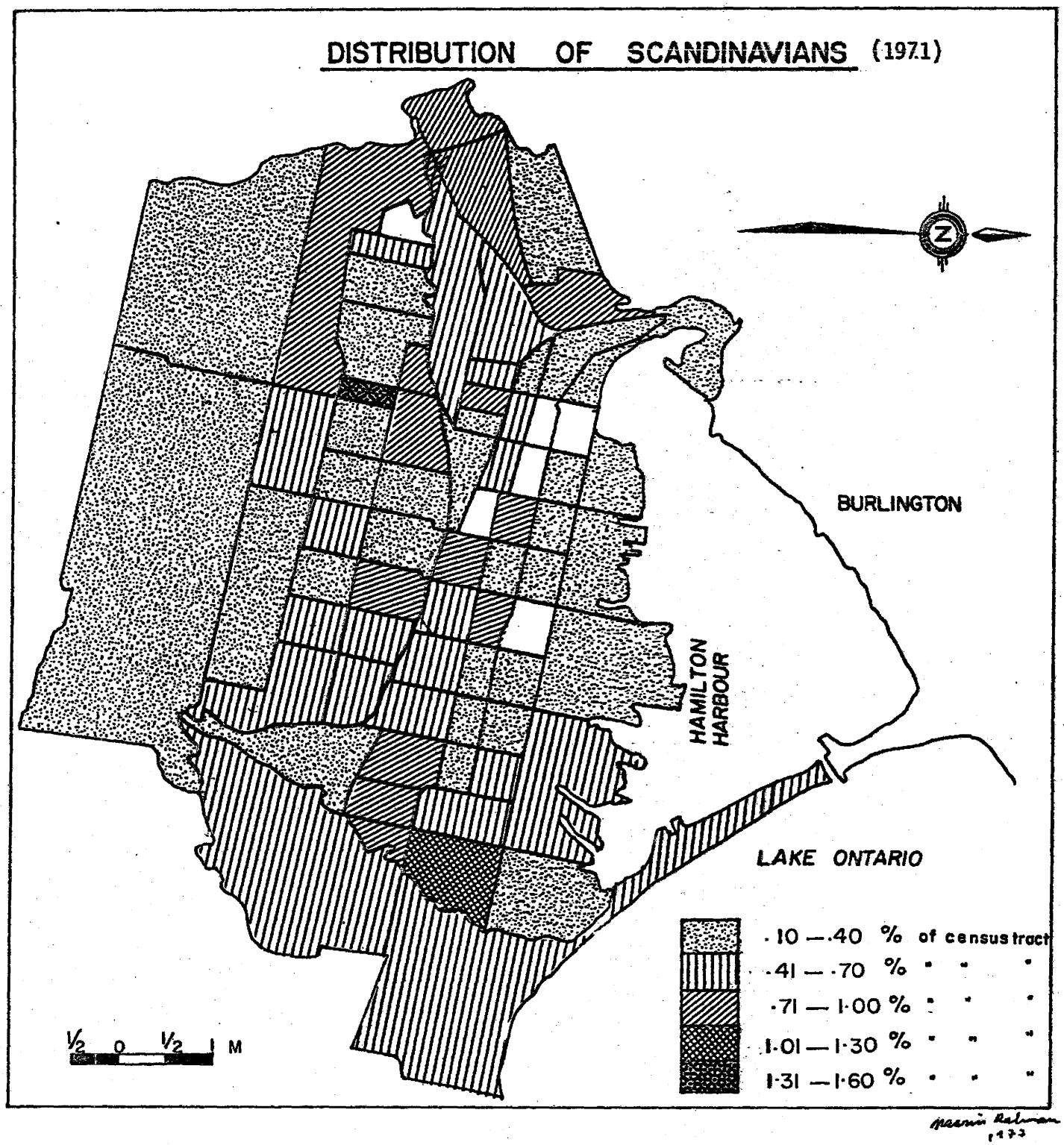
MAP 14


DISTRIBUTION OF ASIAN (1971)
N
BURLINGTON
HAMILTON HARBOUR
LAKE ONTARIO
% IN CENSUS TRACTS
·50 — 1·50 %
1·51 — 2·50 %
2·51 — 3·50 %
3·51 — 4·50 %
4·51 — 5·50 %
5·51 — 6·50 %
½ 0 ½ 1 M

MAP 15


DISTRIBUTION OF HUNGARIAN (1971)
N
BURLINGTON
HAMILTON HARBOUR
LAKE ONTARIO
% IN CENSUS TRACTS
·50 — 1·50 %
1·51 — 2·50 %
2·51 — 3·50 %
3·51 — 4·50 %
½ 0 ½ 1 M
Naseem Rahman 1977

MAP 16


DISTRIBUTION OF SCANDINAVIANS (1971)
N
BURLINGTON
HAMILTON HARBOUR
LAKE ONTARIO
.10 — .40 % of census tract
.41 — .70 % " " "
.71 — 1.00 % " " "
1.01 — 1.30 % " " "
1.31 — 1.60 % " " "
½ 0 ½ 1 M

When comparing these distributions it should be borne in mind that in practically all census tracts the majority of the population are still of British origin. The only exception are tracts 60, 63, 64 where the Italian population exceeds the British.

This general examination of the spatial distribution of ethnic groups shows that definite ethnic residential patterns exist. The distribution and organization of ethnic groups is now examined in more detail.

Ethnic Enclaves and Social Organizations*

Italians

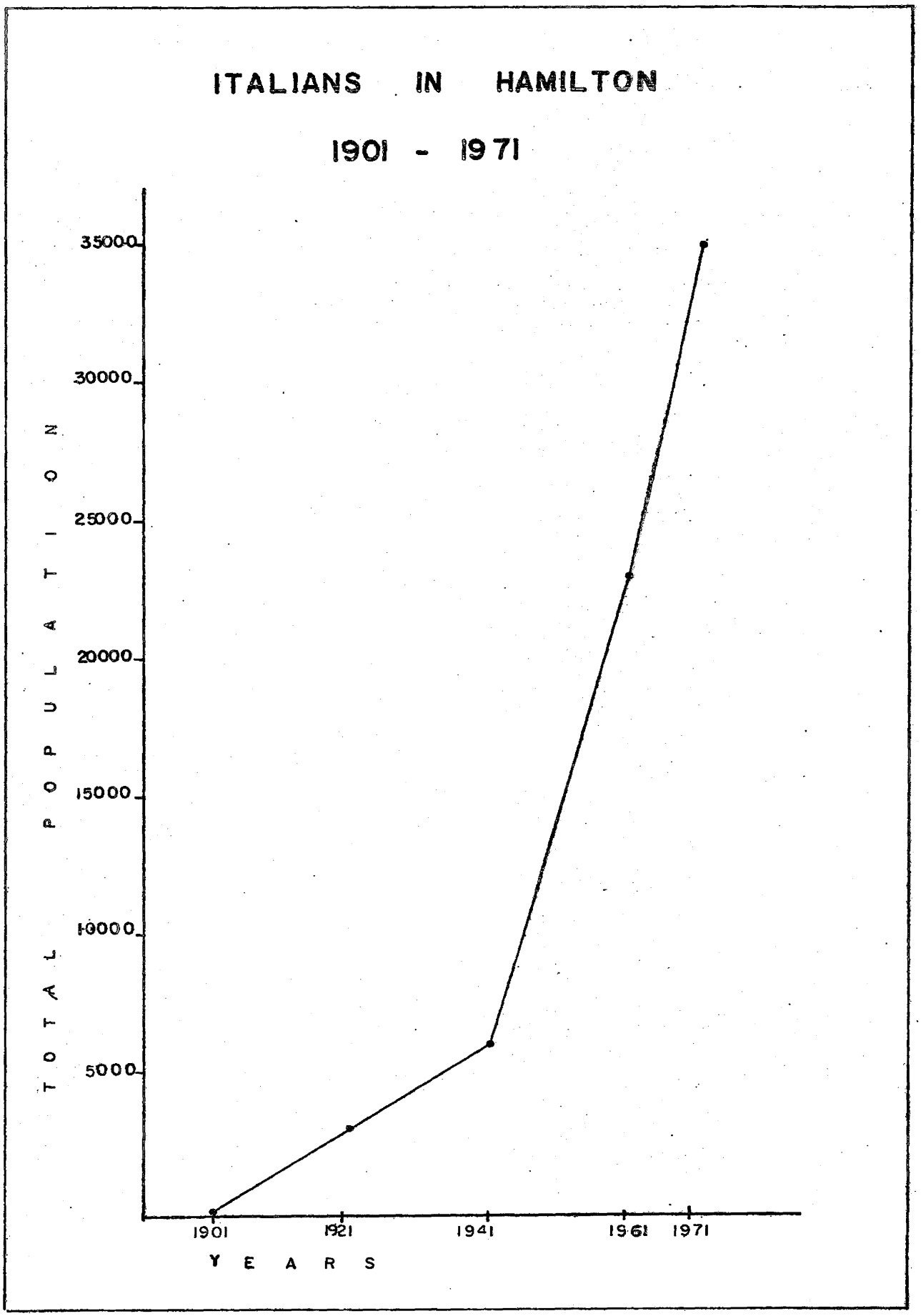
In 1971, 11.4% of the total Hamilton population was of Italian origin (fig. 5). This figure shows a marked increase over that for 1941 and demonstrates the magnitude of Italian immigration into Hamilton in the post 1945 period. The factors underlying this movement were everwhelmingly economic, with a rather larger number coming from the poorer southern provinces of Italy and from Sicily than from the realtively more prosperous central and northern provinces. Practically all these people have come in at a relatively low social and economic level (The New Perspective, Hamilton).

One result of this immigration has been to strengthen the existing Italian communities within the city. The general distribution of Italian population in Hamilton has already been discussed, noting the high degree of segregation and the high densities reached in some census tracts (map 6)

---

* much of the information about economic and social organizations has been gathered from the telephone directory, multiculture bulletins and club organizers.

FIGURE 5


ITALIANS IN HAMILTON
1901 - 1971
TOTAL POPULATION
35000
30000
25000
20000
15000
10000
5000
1901
1921
1941
1961
1971
YEARS

A few further comparisons will help to illustrate these points. In 1971, just over 10% of the total Italian population lived on the mountain. Over 65% percent of all Italians lived in the north west sector of Hamilton bounded by the harbour track in the west, Ottawa in the east and King as far as Wellington and Main as far as Ottawa in the south. In ten census tracts the Italian population exceeded 20% of the total tract population, a figure achieved by the Poles in only one tract and by no other non-British group anywhere in the city.

Harbour, York, Cannon, Dundurn, and Ottawa enclose the highest concentration of Italian settlement but it falls off somewhat east of Gage. These areas were much enlarged and the settlement had spread into previously untouched areas, such as Gage and between Elgin and Wentworth (Meeker, 1953). Obviously this expansion resulted from the heavy in-flow of post war immigratns.

It is important to note that within this broad framework there exist many subtle sub-area differences arising from the pattern of Italian immigration into Hamilton (Nagle, 1962). Family ties remain very strong and once a member is established in the area he begins to sponsor the immigration of other members of the family, who, on arrival, endeavour to settle as near as possible to their relatives. They may often live in the same house in the beginning and subsequently obtain houses of their own in the same or adjacent streets. The same forces operate among those who have come from the same Italian village of town. Consequently the general Italian settlement pattern should not be regarded as a homogeneous undifferentiated mass for it contains many shades of difference compounded by kinship, regional and even occupational factors.

Of the two main communities that exist in the Sherman-James area, more of the Sherman Avenue community are employed in the heavy industrial plants of the north end. By contrast the latter contains more general labourers particularly construction workers. This difference should not be stressed too much, however, as it is by no means universally applicable. It is difficult to say whether it has developed because of the different regional backgrounds of tradition and skills, or whether it has just developed between the two Hamilton communities because of their location relative to the north end heavy industry. The latter is more probable.

With the increase in Italian population by 1971 there was a corresponding increase in the number and range of Italian institutions and services (Ethnic Directory 1975). In the retail goods category the greatest increase was in non-food stores rather than in food stores as in the earlier years. This trend was partially countered by improved quality and size of some of the food outlets, a few even reaching small super-market status and selling a wide range of good quality foods. Apart from these, Italian bakeries appeared for the first time. The most marked feature was the unprecedented expansion of retail non-food outlets. Many of them were of very high quality specializing clothing and speciality goods such as gifts, music, cosmetics, shoes and shoe repair.

The professional and semi-professional categories expanded to provide the communities with a very good range of services. The comparatively large number of real estate and travel agencies is consistent with an expanding population group wishing to maintain close ties with the home country.

The number of restaurants has increased and typically function as informal social centres for the Italian communities. There are also cinemas which show Italian films exclusively. Of the other miscellaneous services perhaps the wine supplier is the most significant.

Several Italian churches exist and one has been recently rebuilt on a new site and each of the Catholic Churches has a nursery school attached. There are at least nineteen Italian clubs and organizations providing a range of social and cultural activities as well as financial aid. This great expansion of services and institutions was not only the result of increased population size but also of improved economic conditions.

Due to renewed immigration a large increase occurred in the total number of Italian households between 1951 and 1961 (figure 5). This resulted in an intensification of the two original settlement nuclei (Barton - James area and the north end of the city) and a diffusion into previously non-Italian occupied areas. The total number of services was almost tripled and new elements introduced into a more sophisticated ethnic structure. Besides an intensification of services in the two main communities there was expansion of establishments into the newly settled Italian districts. The impact of Italian occupance on the cultural landscape was greater than in any preceding period because of the increased number of store types with their specialized goods and their Italian language signs, "Qui si parla Italians".

Germans

In 1921, 2944 (2.6%) citizens of Hamilton claimed German origin. By contrast, in 1911, 4619 (5.6%) people claimed German origin. This

apparent decrease in Hamilton's German population during the 1911-21 decade may partly be explained by the fact that during and immediately after the 1914-18 war many people tended to conceal their German origin by switching to other groups. This seems to have been a fairly general phenomenon in Canada at the time.

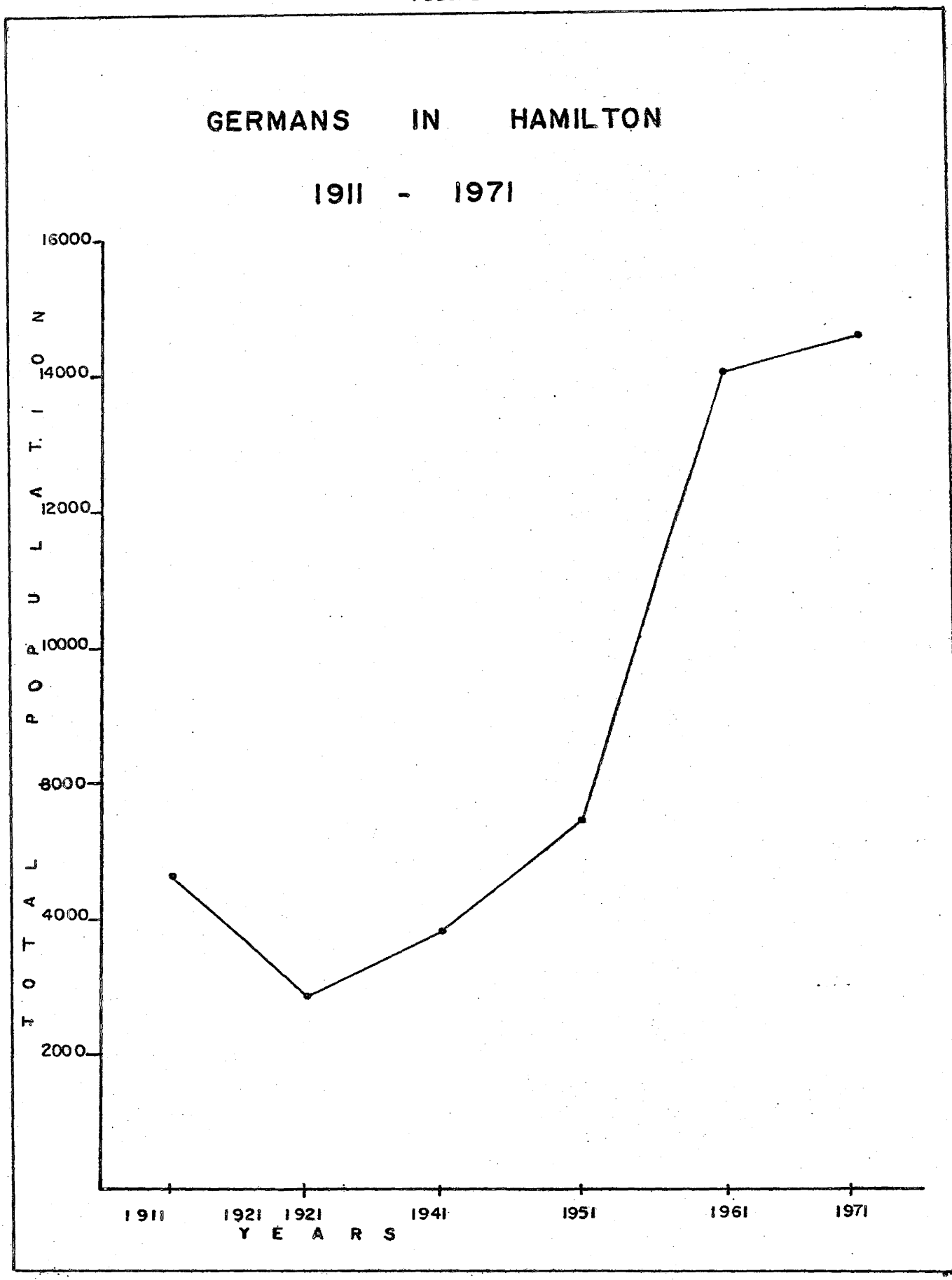
In the period 1941 to 1971 Hamilton's German population almost quadrupled. The Germans formed the second largest non-British group with about 5% of the city's population. This dramatic increase was due to large scale immigration after 1950 (figure 6).

This drastically changed the 1921-41 structure of German groups in that no longer were most Germans of early immigrant, that is pre-1911, background. Many of the newcomers were refugees from East Germany and beyond who had moved to West Germany and then on to Canada. Others were West Germans who came for purely economic reasons. During the previous periods considered there had been no strong German ties with the heavy industrial plants and this is perhaps a contributory reason for the fact that no significant German community developed within the Barton Street area (Foster 1965). However, a considerable number of post war German immigrants did go to work in the north end industrial plants. Many others arrived with training and took up skilled trades and industrial jobs.

Despite this influx, German settlement still tended to avoid the north end residential area. The areas of German concentration lay west of Ottawa between Main and the foot of the mountain and extended to the west end of the city and on to west end of the mountain. North of Main, German settlement was relatively light.

At no time did there appear to be any direct association between

FIGURE 6


GERMANS IN HAMILTON
1911 - 1971
TOTAL POPULATION
16000
14000
12000
10000
8000
4000
2000
1911
1921
1921
1941
1951
1961
1971
YEARS

the distribution of German households and the distribution of German service establishments. It seems that the services were directed not at anyone ethnic group but at the general public. Part of the reason lies with the early immigration history of the German group. They are one of the oldest ethnic groups in the city and it is likely that they had become fairly well assimilated before the group was strengthened by further immigration. For example before the early 1950's St. John's Lutheran was an English speaking church and it only switched back to German with the many new arrivals then.

Judging by the post 1945 developments, it is doubtful whether Germans ever were at any time localized in the sense that other groups were. A contributing reason may have been that before this period the group had no strong connection with the north end heavy industries and so was not attracted by factors of convenience to settle there like other groups. Nevertheless, the main reason is probably more fundamental and is closely bound up with the cultural attitude of the Germans themselves. They are less gregarious than other groups and show no strong desire to settle close to other German families or to other ethnic groups. They are more independent and less restrained by kinship and ethnic social ties (Nagle, 1962). They also make a stronger effort to settle in better residential areas than those adjacent to the industrial area. This is evident from the fact that, although many of the post war German immigrants have taken up employment in the iron and steel mills, this has not been enough to make many take up residence there also. When families do settle there it is usually regarded as a temporary measure and a shift is made as soon as possible. This is not to say, of course, that other groups do not move out of the

north end and into better areas, but the Germans seem to do this more quickly than most. It is true to say, then that they assimilate quite rapidly and they are aided in this because there is little if any discrimination shown to most Germans moving into better class residential areas as there probably is to some other groups (Pineo, 1966). In fact, most Germans show an active desire to assimilate quickly, a desire lacking among some other groups perhaps. However the Germans do have their own clubs and organizations.

The range of retail manual services is quite wide indicating a specialization in mechanical trades and services. Two of the small manufacturing businesses had direct ethnic association; the bakery specializing in rye breads for the German and Baltic population and the other plant specializing in sausage products.

There are several German churches, such as Redeemer Lutheran Church on Main East at Wexfad, St. John Evangelical Lutheran Church on Hughson North, the Baptist Mission Church on North Oval and St. Boniface Roman Catholic Church on Aberdeen. St. Johns Church was founded on its present site in 1859 and is easily the oldest non-British ethnic church in Hamilton.

Nowhere in Hamilton have the Germans developed an important local nucleus of commercial, professional and institutional facilities. In this respect too the Germans differ from every other large group except the Dutch.

Trans-Canada Alliance of German-Canadians help in the development of good citizenship and democratic ideals among Canadians of German ethnic origin, encourage immigration to Canada of persons of German origin, assist

them in assimilating to life in Canada, help in preserving valuable German cultural and religious traditions and promote cooperation with groups that have similiar aims, and use all available means of publication and communication to carry out these objectives.

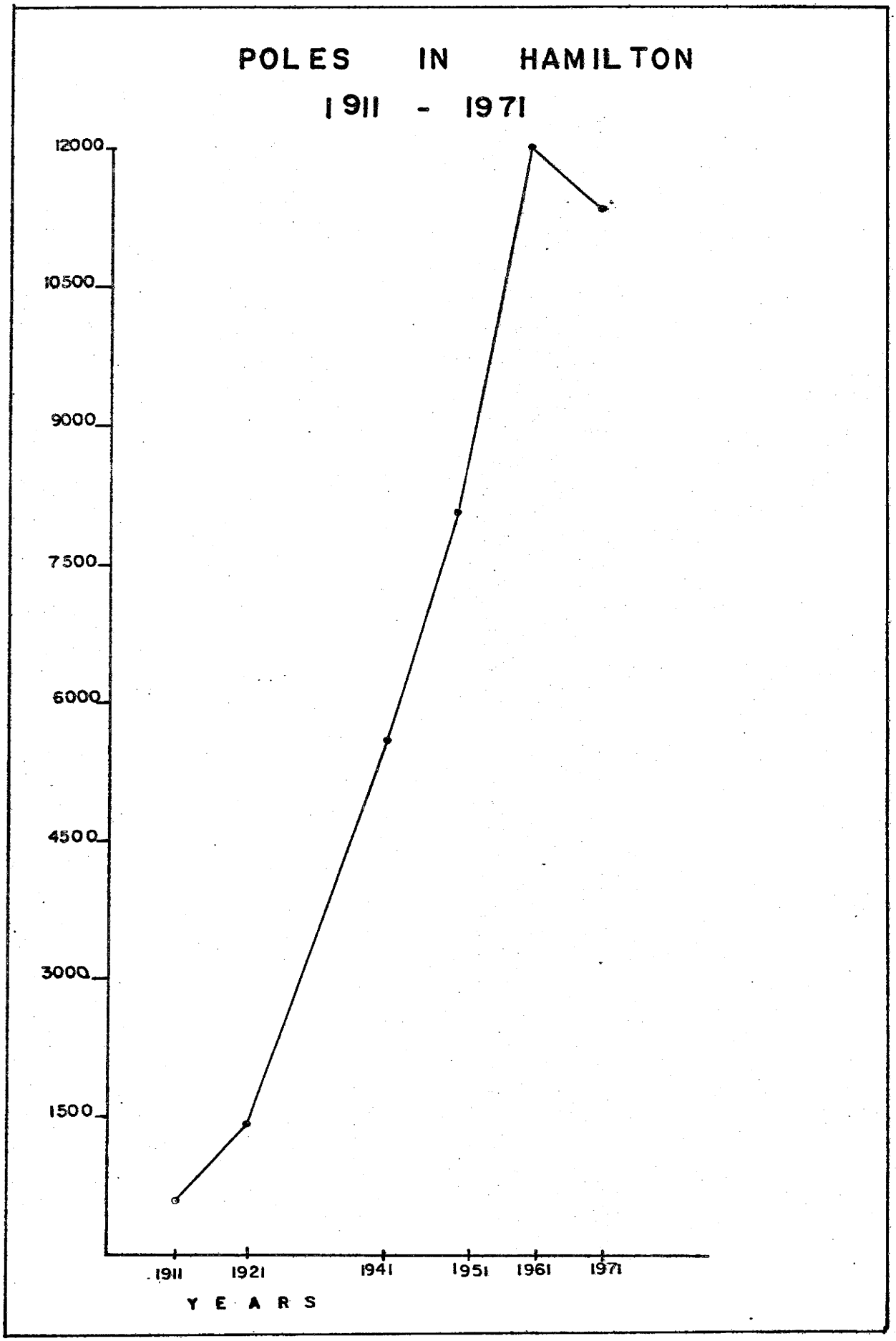
Poles

The first Poles arrived about 1884 but they remained a very small group by the turn of the century. By 1921 there were 1478 people of Polish origin living in Hamilton which was just about 1% of the total population forming the fifth largest non-British ethnic group in the city. With the beginning of a small stream of immigration they grew to 557 by 1911, to 1478 in 1921 and to 10,815 by 1971. It is now the fourth largest ethnic group (figure 7).

As in the case of the Italians, some of the first Polish immigrants moved to Hamilton from Buffalo and Chicago, the attraction of the city being, of course, the job opportunities provided by the industrial plants. However the main influx came from Europe itself. A small number arrived before 1914 but this was enlarged specially during 1921-31 decade.

Polish settlement, within the city, began in the residential pockets interspersed between the industrial plants of the north-east beyond the present Canadian National Railway tracks. The Polish group was in the beginning very closely attached to the major iron and steel plants which they entered usually as labourers. Consequently they settled in low income areas as close to these places of work as possible. By 1921 there was also Polish settlement south of the railway tracks and in fact there appeared to be the beginnings of two Polish residential communities there,

FIGURE 7


POLES IN HAMILTON
1911 - 1971
12000
10500
9000
7500
6000
4500
3000
1500
1911
1921
1941
1951
1961
1971
YEARS

a small one west of Bay Street and another, small but better defined, around the Sherman-Barton intersection. Elsewhere there was only a little scattered settlement between Wellington and Wentworth.

Between 1961 and 1971, the number of Poles almost doubled (from 5312 to 10,815 in 1971). There were 10,815 persons of Polish origin living in Hamilton in 1971 representing about 3.5% of the total population compared with 11,412 in 1961. This fall may be related to the out migration of Polish Jews who moved out with the rest of the Jewish community. In the pre-war years desire for economic improvement had been the main factor behind immigration in contrast to the post-war period when political reasons were dominant.

Although the Polish core area was still in the industrial north end, the Polish population was moving into the residential areas of the east end and the mountain. Approximately 57% of the total Polish population lived in that sector of Hamilton east of Sherman and below the mountain. Only 3% lived on the mountain and a very scanty number in the west end. So instead of further increasing the density within the core area, there was actually an out migration of Poles elsewhere. It is notable that this movement was eastward and southward rather than westward. It is difficult to say why expansion was so obviously directed toward the east and not west. The presence of Italian settlement there may have acted as a barrier, or it may just have been that the major industrial plants also lay east of Sherman and so drew settlement east also.

Associated with this Polish population were ethnic service establishments and institutions. The service structure was really very simple, the greater number consisting of retail food outlets of some kind with

stores dealing in apparel and several retail manual services. The food stores dominated the retail outlets category and remaining non-food outlets really showed a very small range for such a large group as the Poles compared especially with the Italians. In fact they did not develop such an intricate "shop keeping class" as the Italians.

The Polish Catholic Church of St. Stanislaus formed in 1911, was established when the Polish community was still very small. Polish and Italian religious institutions appeared in the same area about the same time. Its location in the St. Ann - St. Olga block of Barton was due to the fact that most of the original Polish community was living in the vicinity. Several churches were established, such as Polish Baptist Church, Holy Trinity Polish National Catholic Church. The Polish National Catholic Church is truely an "ethnic" church in that it sprang from the experiences of Polish Roman Catholic immigrants in U.S. and was later transplanted back to Poland itself. It began in Pennylavania at the close of 50's as a protest by Polish immigrants feeling discriminated against by the Irish-German Catholic hierarchy. As a splinter group from the main Roman Catholic body, they formed their own Polish National Church. From the U.S. this spread to Polish groups in Canada and so
to Hamilton.

Religious and social institutions have played an important part in preserving the area as the focus of Polish ethnic life in the city. For a long time St. Stanislaus was the largest and finest ethnic church in Hamilton. Until the very recent appearance of another church, the Poles showed a remarkable homogeneity with regard to religion.

The Polish clubs have never shown any regional influences as have

the Italians, nor have such influences been reflected in the Polish settlement pattern which has essentially remained one large community. The purpose of the clubs and organizations was not only social but also to maintain Polish cultural tradition, to acquaint new immigrants with the Canadian way of life and to teach the English language.

The Ukrainian

The official census figure for Hamilton in 1921 shows a Ukrainian population of 320. These figures are probably artificially low on account of the fragmented political nature of the territory from which the people of Ukrainian origin came. Therefore it is impossible to put an exact figure on the size of the city's Ukrainian group at that time, but it is small compared with the Poles or the Italians.

Ukrainians who entered Canada were predominantly agricultural workers and many of the people settled in the prairie provinces. Of a rather later date was a Ukrainian proletarian immigration consisting of single men, servants, landless workers and seasonal labourers. Most of these people did not settle on the land but in the cities. Some of the original agricultural settlers moved off the land and also settled in the cities. With its heavy industry, Hamilton was an attraction to Ukrainians as it was to other groups, and it attracted both the proletarian immigrants and the ex-agriculturalists.

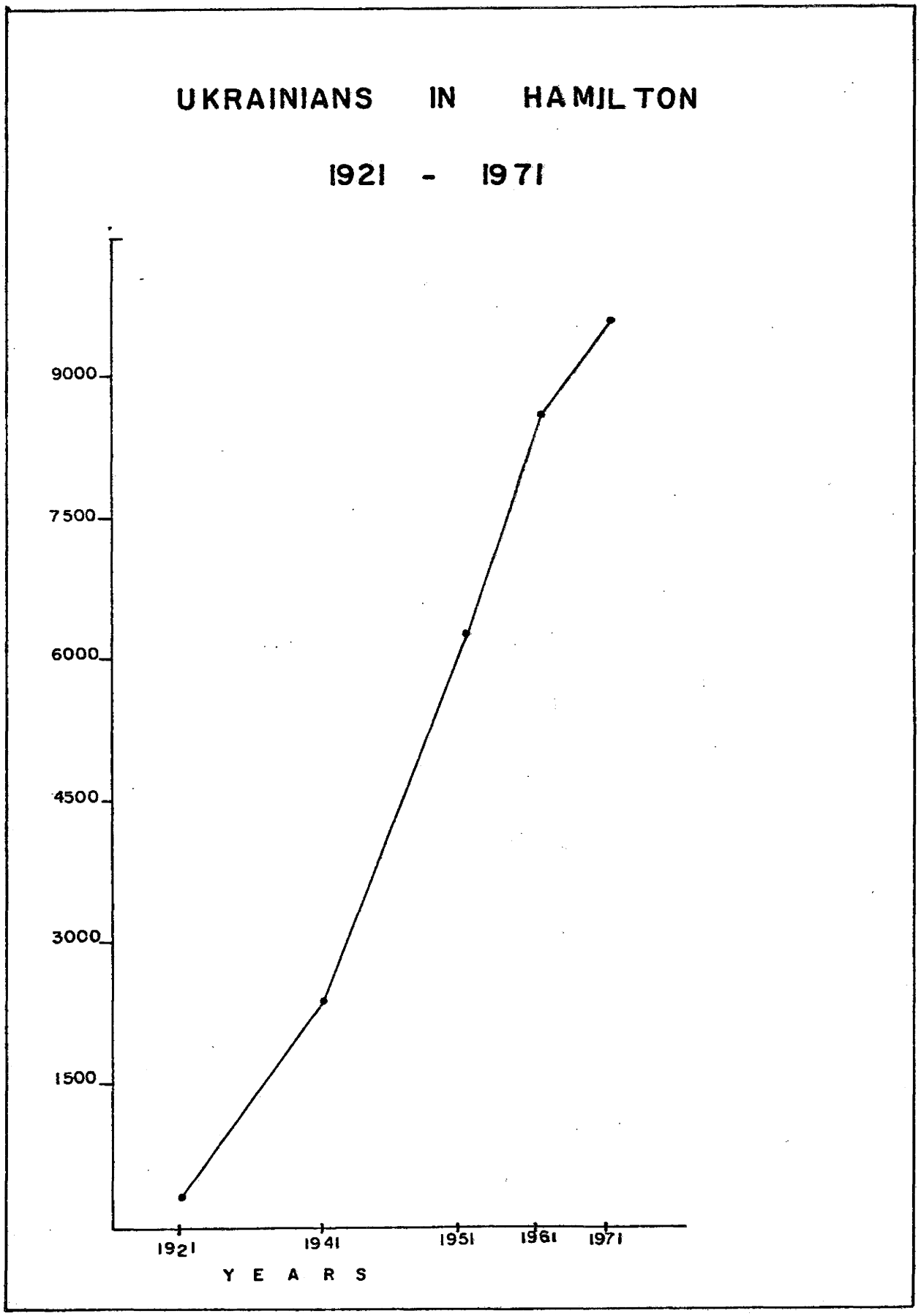
Like the Poles the first Ukrainian settlement in the city was closely associated with the industrial plants of the north east. It probably began in the residential pockets north of the railway tracks and then filtered south.

By 1971 Hamilton contained 9600 persons of Ukrainian origin, more than a fourfold increase over the 1941 figure. This gave them just over 3 percent of the total population making them the city's fifth largest non-British ethnic group (Figure 8).

The Ukrainian population showed a definite pattern of distribution which resembled that of the Polish group in some respects. The highest densities appeared in the north east section of Hamilton (map 8). Approximately 65 percent of the total Ukrainian population resided in the sector east of Wentworth and north of the mountain brow. The Ukrainian group had a larger proportion of its members on the mountain than either the Poles or the Italians.

There was a resemblance between the migration trends of the Ukrainian and the Poles. Both had their original nucleus in the north east industrial sector and both still retain their greatest concentration there. But there has been a general migration out of this area and in both cases this has been toward the residential zones of the east and south-east rather than toward the west. However a sizeable percentage of Ukrainian s has moved on to the mountain, as shown. With reference to this, it is of interest to note that there would appear to be less prejudice against Ukrainian group in the minds of the general public than against many other non-British ethnic groups. In a 1963 survey (Research Planning Council, 1970) of the north end of Hamilton it was found that 51% of the answers reflected unfavourable attitudes towards Italians, compared with 21% towards Ukrainian. Therefore, the latter seem to be among the potentially more socially mobile non-British groups in the city. Nevertheless, this factor of prejudice probably has much less influence

FIGURE 8


UKRAINIANS IN HAMILTON
1921 - 1971
9000
7500
6000
4500
3000
1500
1921
1941
1951
1961
1971
YEARS

over the mobility of a group than the economic status of its members and their own attitudes to such movement. The economic factor is an important one in turning Ukrainian and Polish migration east and south rather than west because the former areas are less expensive than the residential districts of the west end. The main nucleus is still located between Sherman and Lottridge.

The total number of Ukrainian service establishments and institutions increased through time. The proportion of retail goods outlets was very small compared with other groups and this applied even to food stores. The most interesting type of store was a Ukrainian parcel service which specialized in sending parcels to Eastern Europe and Baltic countries. There were also Ukrainian book stores and gift stores. The retail manual service range was quite wide. However, the most radical changes affected the professional services category and now medicine, law, accounting and real estate are all represented.

The location of these establishments remained substantially the same as in 1941, with a few qualifications. The main group was still on Barton between Earl and Lottridge, most of the commercial establishments being on the north side and the social and professional on the south. In extension of services had taken place eastward from Lottridge probably as a result of the increased Ukrainian residential population there. A contrast all but one of the 1941 Ukrainian services on James had disappeared.

In addition to the older Ukrainian churches, two had been added to the main Barton concentration. The much larger of the two was St. Uladimir's Ukrainian Orthodox Church housed in a fine new building between

Cavell and Gage. The addition of churches and the appearance of the medical services with the persistence of the older retail services, combined to keep this area the largest single Ukrainian service complex in the city. However its traditional dominance was being attacked by new developments farther east. On Cannon in the Rosslyn Balmoral block was the headquarters of several Ukrainian organizations including the Credit Union. This important social service then had moved away somewhat from the Sherman-Lottridge strip. Much farther east on Barton was the new St. Nicholas Ukrainian Greek Catholic Church just a few blocks east of Parkdale Avenue. On Parkdale itself was the new Ukrainian community centre founded in 1961 in a converted theatre. These cases illustrate the pull which the eastward and south-eastward migration of Ukrainian population was exerting on the 'old' Ukrainian centre on Barton.

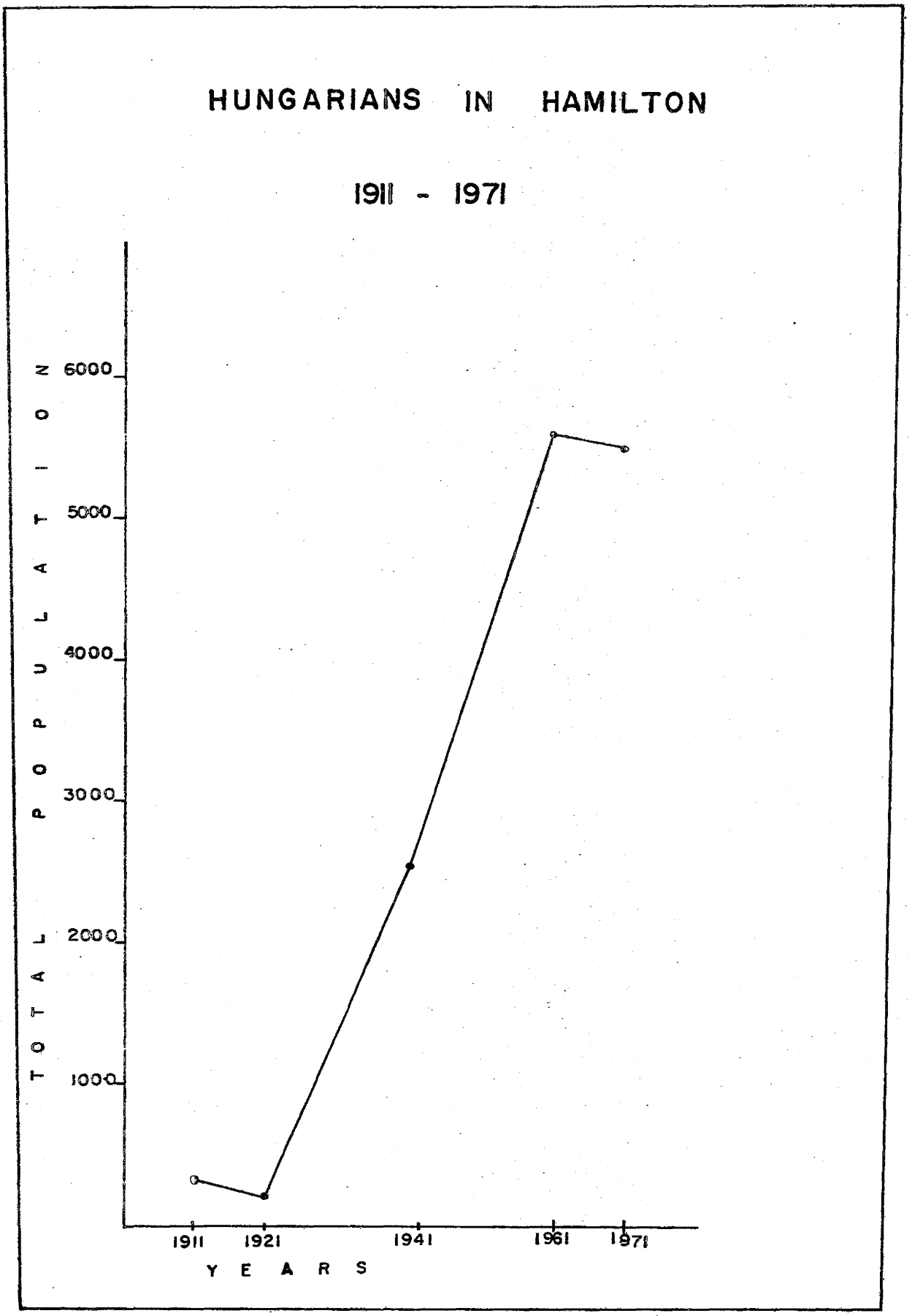
Hungarian

The first Hungarians arrived in Hamilton in 1892 making this one of their first settlements in Canada. They were few in number and farmers by occupation, although they were attracted to the city by the prospect of industrial jobs.

In 1971 the Hungarian population was 5540, more than double the 1941 figure, and comprising 1.8 percent of the total city population (figure 9). They formed the seventh largest non-British ethnic group. The rise in numbers was mainly due to a substantial post 1945 wave of immigration and to the change in U.S. immigration policy such that Canada became the chief destination of Hungarians.

The pre-war immigration was comprised largely of manual workers

FIGURE 9


HUNGARIANS IN HAMILTON
1911 - 1971
TOTAL POPULATION
6000
5000
4000
3000
2000
1000
1911
1921
1941
1961
1971
YEARS

arriving for economic reasons but after the war most came for political reasons including middle class and professional people (Losa, 1957). This later movement was especially evident after the 1956 revolt in Hungary and at that time Hamilton was one of the chief recipients of Hungarian refugees.

With the increase in the total number of Hungarian households several loose clusters developed, in the extreme west end, east and central sections of the city with no clear pattern.

There was considerable expansion in the range of retail outlets and a decline in the number of retail manual services. The professional and semi-professional category had expanded and the number of churches and halls increased.

The areal distribution of the establishments had changed somewhat with a definite concentration appearing on and adjacent to James. This street contained very important establishments such as a general store selling Hungarian books, records, and gifts and restaurants which played an important part in the local Hungarian social life, being used as informal social centres. It also contained stores selling imported shoes and clothes and the only Hungarian insurance agency, notary, real estate office and pharmacy.

St. Michael, St. Stephen's Roman Catholic Church (located within range of the highest concentrations of Hungarian residents) and John Calvin Presbyterian Church (which marked the eastern limit of the main Hungarian residential area) are some of the Hungarian Churches in Hamilton. Various clubs and organizations provide social, cultural and financial facilities and support.

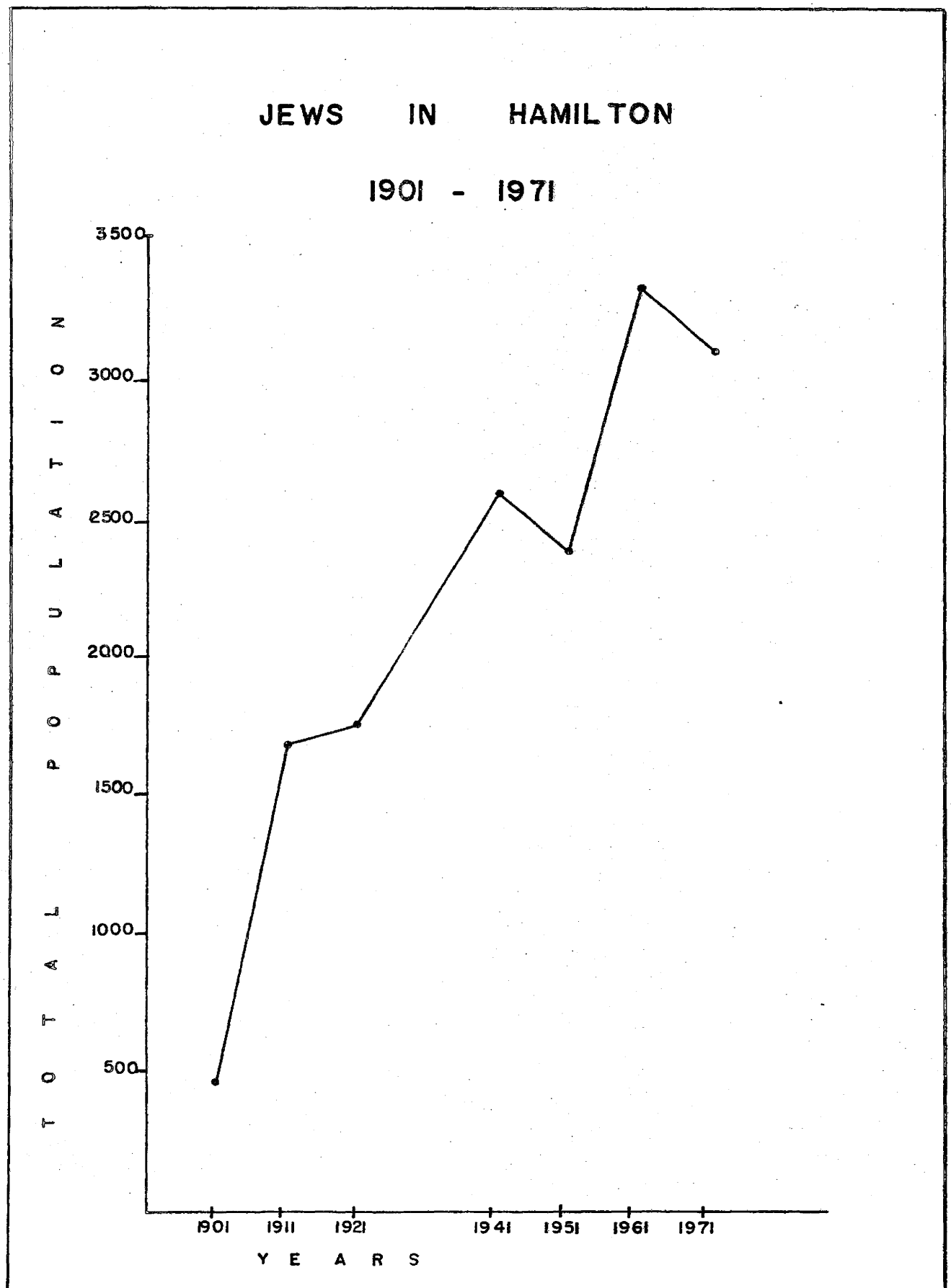
Jews

There were 1777 people of Jewish origin living in Hamilton in 1921. This figure had been 1681 in 1911 but only 484 in 1901. So it (Figure 10) seems that the major influx of Jewish population into the city came in the first decade of the century. As a group the Jews were by no means homogeneous as to national origin but most came from central and eastern European countries. Although many other ethnic groups came to Hamilton attracted by the prospects of employment in the iron and steel plants, few Jewish immigrants took up such jobs. Instead most of them entered the business life of the city in some capacity or other.

In 1971 there were 3085 people of Jewish origin in Hamilton and almost 60% of them lived in the west end of the city beyond the Chedoke ravine. Between 1941 and 1971 the increase in the number of Jews was small but this migration into west end was the largest of any non-British group. It made the Jews one of the most highly segregated ethnic or religious groups in the city, but unlike other groups, this was a segregation into a middle class residential district and not into the low income area fringing the industrial or commercial zones of Hamilton. West Hamilton now contains at least two synagogues and a variety of stores, mainly dealing in Kosher foods, to serve the Jewish population.

By 1941 all aspects of Jewish occupance in the Barton area had greatly decreased. During the 1941-61 period there had evidently been a general migration out of the area affecting both population and services. In fact by 1971 the area contained a very small number of Jewish people and the number of services establishments had greatly reduced. The former concentration of Jewish population

FIGURE 10


JEWS IN HAMILTON
1901 - 1971
TOTAL POPULATION
3500
3000
2500
2000
1500
1000
500
1901
1911
1921
1941
1951
1961
1971
YEARS

around James disappeared entirely.

The service structure showed an amazingly wide range. It reveals many services associated in the public mind with Jewish groups. Dry goods stores, men's clothing stores, millinery shops, fur shops and footwear stores are services long associated with Jews. Furniture stores, jewellery shops and even second hand stores and scrap metal dealers have also been traditional Jewish "speciality" services. No other group in Hamilton specialized in these services as much as the Jews.

In contrast to other groups only a small percentage of Jewish establishments dealt in foods and small convenience goods. No other group had so few single retail services i.e. barber, show repair shops etc..., compared with its total number of ethnic services. Both of these features were a result of the fact that the Jews were not just providing basic services for their own limited group but for the public in general.

The distribution of services has greatly changed with only a small concentration around the James area and on Ottawa and a few scattered establishments on Barton. The range of services has also declined although the traditional Jewish specialization in clothing, furs, jewellery and general dealing is still in evidence. Professional services were represented by medicine serving not only the Jewish population but the general public as a whole.

Not only had the Jewish population declined in the James Street area but also the number of services. Those remaining deal mainly in clothing goods. The synagogue on Cannon West was abandoned for those in the western part of the city as were the former clubs and Hebrew school just east of James. On Ottawa and Barton, Jewish establishments were also

fewer but the specialities still persisted i.e. apparell, fur, furniture and jewellery. The Jewish medical services in the area had become an additional speciality.

There are about 12-13 Jewish clubs and organizations. They are mainly concerned with social services, fund raising for Israel and community relations.

The Minor Ethnic Groups

The preceding sections have dealt with the characteristics of major non-British ethnic groups residing in the Hamilton area. There are a number of other groups making a minor contribution to the general ethnic diversity of the city. These included the French, Dutch, Chinese, Scandanavians and Russians. Some of these groups are very small and relatively insignificant but they all deserve brief mention.

French

The French did not develop a significant residential nucleus but not any significant range of ethnic services. They concentrated in the northern poorer areas of the city mainly, although they are also scattered in scanty clusters throughout Hamilton. It should be borne in mind that from the census data it has not been possible to distinguish between French and French Canadian. Total population of French is very low. Despite the fact that the French population in the city as a whole increased, this had little effect on French occupance. As actual immigration from France itself was very sparse, it is probable that the majority of French origin were French-Canadian who either at least partly assimilated or who looked

to other areas of Hamilton for their ethnic association. There are various French clubs and organizations involved with social, cultural and economic pursuits.

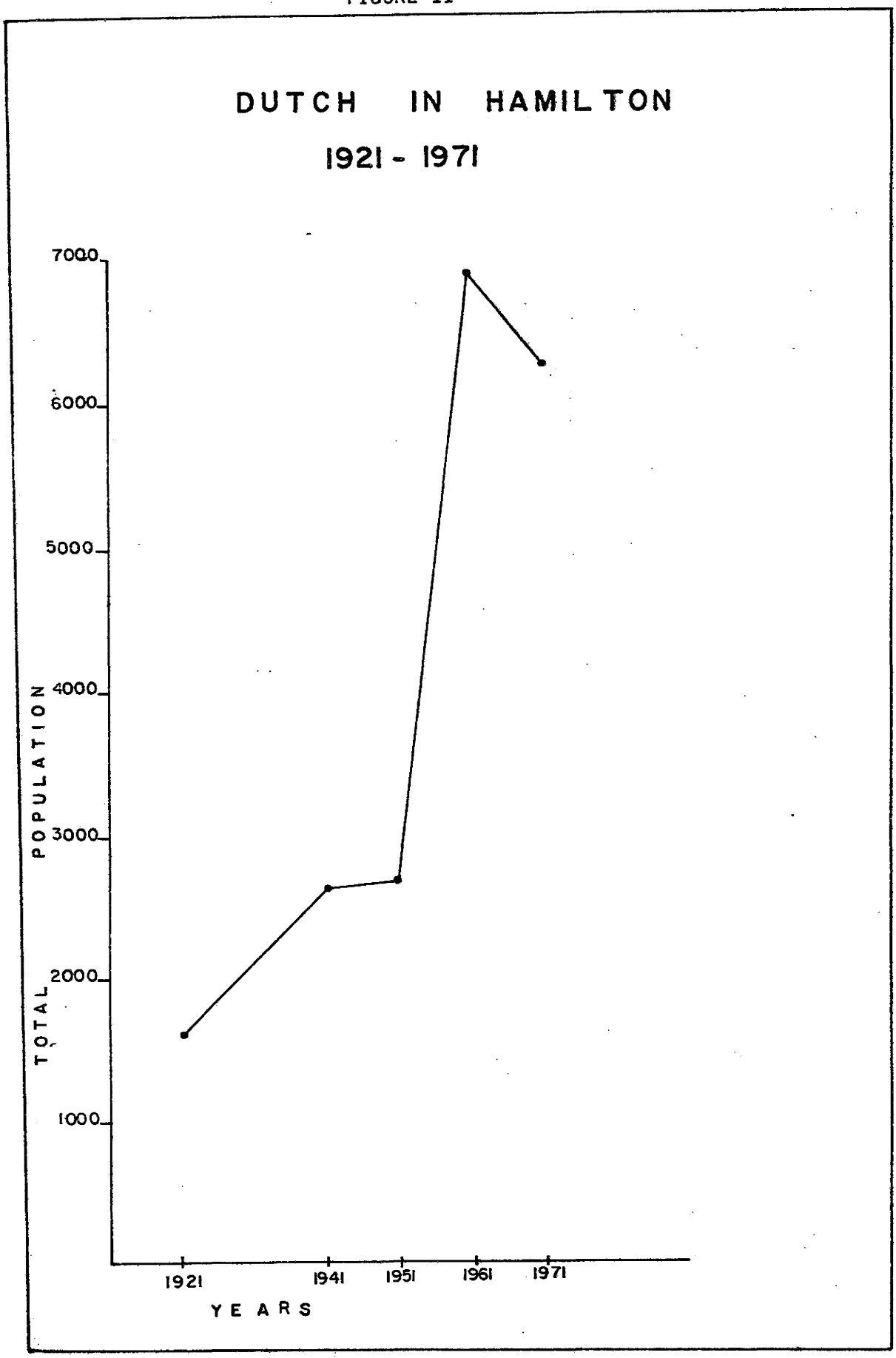
Netherlanders

The total Hamilton population of Dutch origin, which had been 1615 in 1921 increased to 2634 by 1941. By 1971 the total Dutch population had jumped to 6295, due mainly to the very high Dutch immigration rate of 1950's (Figure 11).

Like the Germans, the Dutch have always tended to avoid the north end of the city. They have never had very strong ties with the heavy industrial region and most of the post-war migrants have had some sort of training or skill (Meeker 1953). Therefore there has been no strong economic motive to make them settle there. Again like the Germans, the Dutch are much less gregarious than some other groups and have not really settled in distinctive residential communities anywhere in the city, so that Dutch churches and services establishments are widely scattered.

For example, the Dutch Christian Reformed Church is in the west end on Paradise and the Free Christian Reformed Church is on Mohawk in Ancaster, while the Canadian Reformed Church is on West Avenue. This congregation bought their building because it was central and available at the time and not because the church members lived in close proximity. In fact, they are scattered all over the city. The church does represent a certain regional background as most of the members originated from Holland. The Holland-Canada Club provides a range of social events as well as charter flights to Holland.

FIGURE 11


DUTCH IN HAMILTON
1921 - 1971
7000
6000
5000
4000
3000
2000
1000
POPULATION
TOTAL
1921
1941
1951
1961
1971
YEARS

Scandanavian

The Scandanavian elements in Hamilton have always remained very small and concentrated on the south part of the mountain (Figure 12). Only two Scandanavian business establishments exist, a restaurant on Barton and a Finnish steam bath also on Barton.

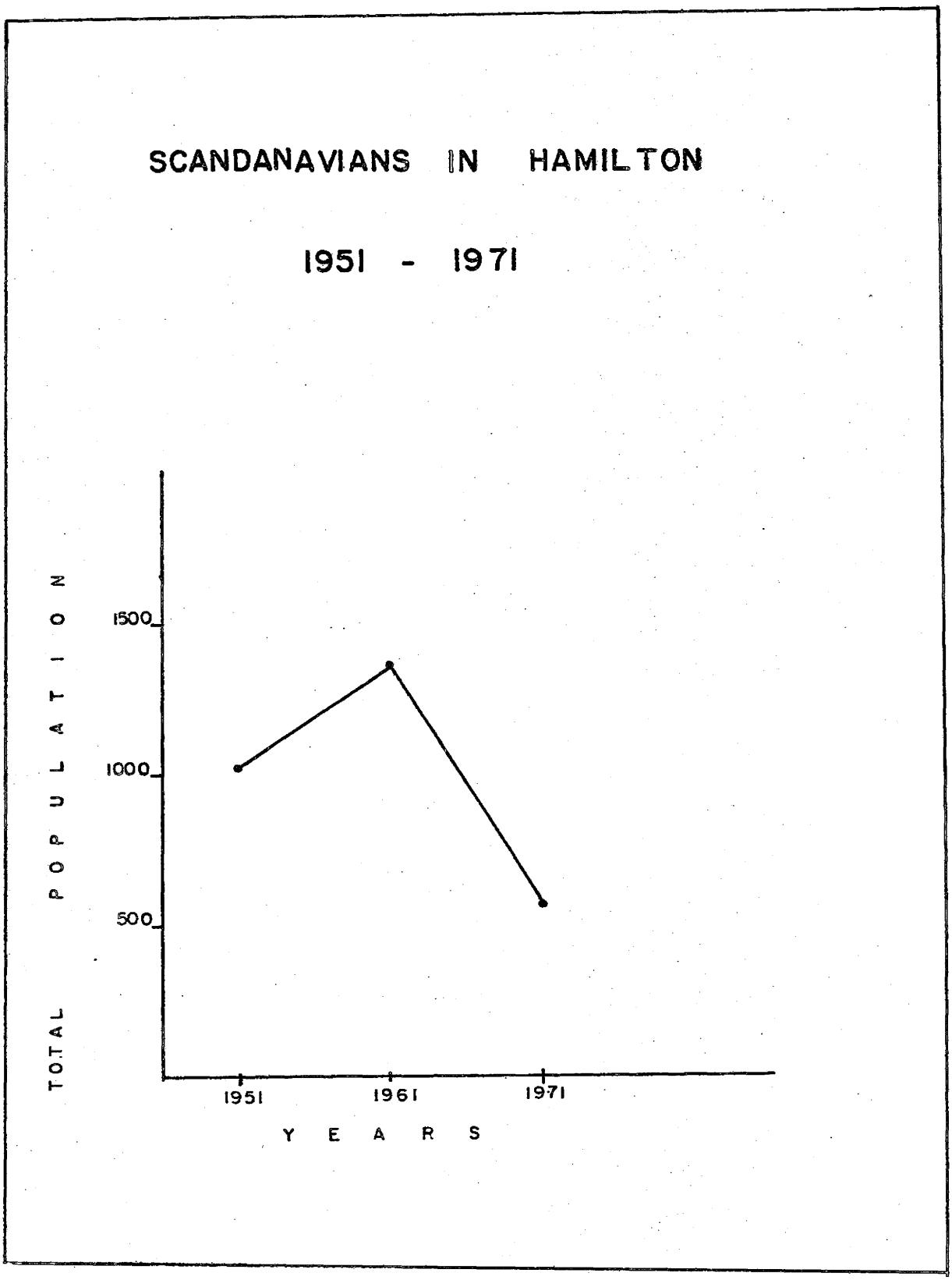
Chinese

Within the Barton area there has been a distinctive Chinese service element, yet concentration of Chinese residential settlement has been totally lacking. The reason is that the Chinese population in Hamilton has always been associated with certain types of services, mainly launderies and restaurants. This is not universally true at the present time where more Chinese have moved into other occupations, but it was true in the past.

As a result, the Chinese tended to live on their business premises and consequently they were scattered thinly over various parts of the city. There was one concentration, a small "Chinatown" on King William Street near the central business district, which had some Chinese stores and restaurants to serve a locally resident Chinese population, but elsewhere Chinese launderies and restaurants existed to serve the general public. No other group has had such an effect on the cultural landscape in proportion to its' population size, nor has any group had such an intensive specialization of service types. Chinese immigration has always been very limited and few of the immigrants have taken up the industrial work associated with other groups, but have concentrated mainly on these two specialized services instead.

The Chinese have about seven clubs with the purpose of mutual

FIGURE 12


SCANDANAVIANS IN HAMILTON
1951 - 1971
TOTAL POPULATION
1500
1000
500
1951
1961
1971
Y E A R S

assistance, and various cultural activities.

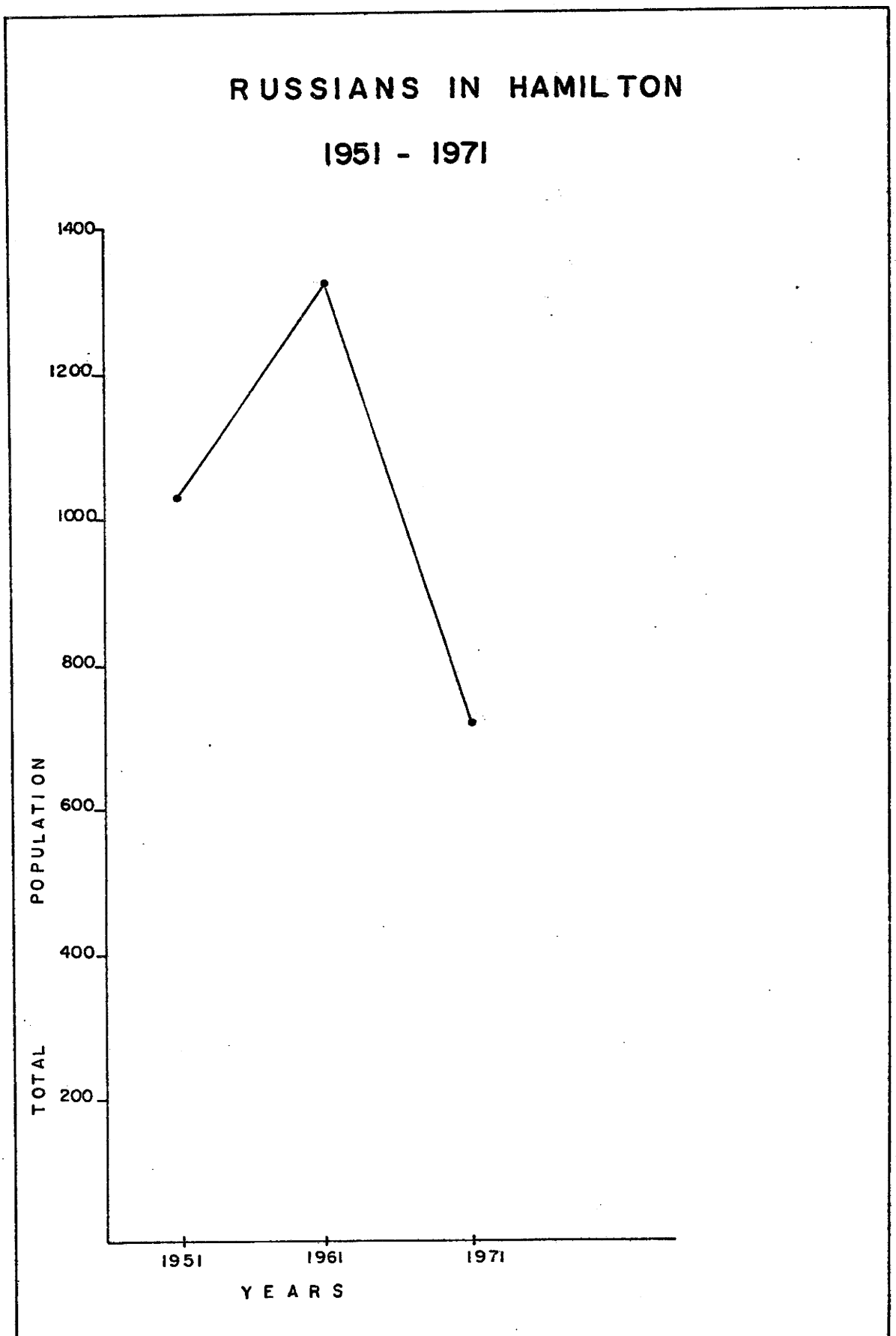
Russian

The Russian population has remained small in the city and has produced few services of their own. A few Russian institutions exist, such as the Russian Hall on Barton adjacent to Sherman and St. Mary's Russian Greek Orthodox Church on West Avenue. The hall was located in the core of the old Russian community. The Russians have not made a very significant contribution to the ethnic character of the area. However the statistics (figure 13) show a sharp fall in the Russian population from 1961 to 1971 in Hamilton. The only way we can explain this decline is by saying that the Russians must have moved from Hamilton to suburban areas like Dundas, Brantford, Burlington, and even maybe to Toronto.

This description of the various ethnic groups in Hamilton shows that definite ethnic residential areas exist within the city. It also appears that there is a general correlation between the spatial distribution of ethnic groups and the socio-economic structure of the city.

The escarpment and the Chedoke ravine are two sharp ethnic divides in the city. The strip between Main Street and the foot of the escarpment was an ethnic transition zone. Meeker (1953) found that some of the German population while not able to move into the high class residential areas on first arrival, nevertheless managed to avoid the region north of Main by concentrating in the area between Main Street and the mountain where housing conditions are better and proximity to industry not great.

FIGURE 13


RUSSIANS IN HAMILTON
1951 - 1971
1400
1200
1000
800
600
400
200
TOTAL POPULATION
1951
1961
1971
YEARS

In this respect the Germans differ from the Poles, Ukrainians, Italians and Russians. The Poles, Ukrainians, Russians and especially the Italians all have high concentrations in the north end. In fact the Italian group shows a very high degree of segregation, particularly in the low income north end. The Jews also displayed quite a high degree of segregation as over 60% of their number live west of the Chedoke ravine. Beyond the main area of concentration in the north end, the Italian population is found mainly in the east and south-east parts of the city and on the north end of the mountain. The Poles and Ukrainians whose range of segregation is less than the Italian, tend to move east and south-east avoiding the west end of Hamilton. The German population show a tendency to move west into west Hamilton and on to that end of the mountain.

It seems that underlying the present ethnic pattern there is a definite process of succession, but this did not work in similiar fashion for each individual ethnic group. When foriegn immigrants have entered the city, many have settled in colonies in the low cost north end convenient to many of the industrial plants. These congested areas of first settlement have been characterized by the perpetuation of many European cultural traits. After some years of residence in such areas a movement of the more prosperous began into more desirable residential districts. In fact the relative concentration or dispersion of the various immigrant groups usually furnishes an excellent indication of their length of residence in the city and the degree of assimilation which has taken place (Nagle, 1962). But this is a complex process varying with the different ethnic groups concerned.

This chapter has traced the distribution pattern of Hamilton's

ethnic population and from this discussion has emerged some of the complexity of the factors affecting ethnic movement and pattern. For a more detailed examination of these factors, factor analysis and step wise regression analysis have been employed in the following chapter.

CHAPTER 5

STRUCTURAL ANALYSIS

The spatial distribution of ethnic groups in relation to a range of social and economic variables is now examined. Factor analysis is used to examine the structure of interrelationships between 34 socio-economic and cultural characteristics using census tract data. A large number of variables were reduced into a few significant factors (7 in this case). This analysis represents a factorial ecology of Hamilton based on a selected set of census variables.

Factor Analysis

The analysis was performed for 1971. No data are available on the socio-economic characteristics of the various ethnic communities in the city of Hamilton, therefore general socio-economic and cultural variables are used as surrogates. The analysis used 34 variables. These included a wide range of characteristics such as housing, education, ethnicity, employment and general economic status. A complete list of variables in included in the Table 1. Where necessary, the figures for the variables were converted to percentages or proportions to standardize the figures. All of the data were obtained from published census materials. These were compiled for 72 census tracts shown on the map 4.

The analysis began with an examination of the initial factor loadings. The loadings represent the percentage of the variance for each variable accounted for by each factor and can be interpreted as the correlation between the variables and the factors. The loadings range from -1 to +1 where 0 means no correlation and +1 or -1 represents perfect correlation. In this study only those loadings $\geq .5$ (+ or -) were considered in interpreting the meaning of the factors. These were examined in terms of what variables loaded together and which ones loaded opposite. Through such an examination the factors were named.

Factor scores were examined. These were listed for 72 census tracts and showed the scores for each tract for the various factors. These were mapped and generalizations were made concerning the patterns observed (maps 12, 18, 19, 20).

Only the first two rotated factors were examined (table 1). These explained close to 2/3 of the common factor variance. Further, factors were not studied as they failed to significantly increase the proportion of variance explained and because very few, if any, variables loaded highly (i.e. $\geq \pm .50$).

The noteworthy factors for the study year were, in order of importance -

socio-economic status

housing characteristics.

Socio-Economic Status (table 2, map 17, 18)

This factor explained the largest proportion of common factor variance. The variables that loaded high positive were proportion of

TABLE 1

COMMUNALITIES AND FACTOR LOADINGS

NO.	VARIABLES	COMMUNALITY	FACTOR 1 SOCIO-ECONOMIC STATUS	FACTOR 2 HOUSING CHARACTER-ISTICS
1.	Sex ratio	.79	-.37	.37
2.	% single ≥ 15 years	.92	.09	-.37
3.	% dwellings as single, detached units	.96	.40	.72
4.	% dwellings with private use of bath	.88	.43	.47
5.	Number of children	.94	-.08	.17
6.	% Asian	.56	.03	-.63
7.	% French	.54	-.63	-.25
8.	% Italian	.58	-.48	-.03
9.	% Ukrainian	.67	.19	.19
10.	% of population with <9 years of schooling	.98	-.84	.19
11.	% of population with 12-13 years of schooling	.94	.77	-.01
12.	% of population with a university degree	.92	.39	-.12
13.	Average cash rent	.51	.64	-.05
14.	% of dwellings with <1 year occupancy	.80	-.13	-.82
15.	% of dwellings with >1 year occupancy	.88	-.05	.90
16.	% of dwellings built before 1945	.78	-.70	.89
17.	% of dwellings built after 1960	.88	.42	-.62
18.	% of dwellings with one auto	.86	.74	.07
19.	% of males ≥15 years unemployed	.79	-.87	-.10
20.	Female participation rate of unemployment	.89	.69	-.54
21.	% of male in administrative and management employment	.90	.61	.12
22.	% of males in manufacturing labour	.77	-.11	.37
23.	Median value of owner occupied dwellings	.81	.64	-.32
24.	Median value	.92	.88	.16
25.	% German	.69	.50	-.03
26.	% Hungarian	.44	.00	-.05
27.	% Dutch	.39	.34	.09
28.	% Polish	.60	.02	.24
29.	% Russian	.12	.05	.03
30.	% Scandanavian	.23	.24	.01
31.	% Jews	.78	.18	.03
32.	Total population	.45	.17	-.19
33.	Persons per room	.85	-.12	.11
34.	Persons per household	1.00	.11	.30

TABLE 1 cont'd

	FACTOR 1	FACTOR 2
Eigenvalue	8.9	6.6
Percent of total variance	26.8	19.9
Percent of common factor variance	35.8	26.3

TABLE 2

FACTOR 1: SOCIO-ECONOMIC STATUS

VARIABLE NAMES	FACTOR LOADING (ROTATED)
Median Income	.88
Proportion of population with 12-13 years of schooling	.77
Proportion of dwelling with one auto	.74
Female participation rate of employment	.69
Average cash rent	.64
Median value owner-occupied dwellings	.64
Proportion of male in administration and management	.61
Percent German	.50
Proportion of male >15 years of unemployment	-.87
Proportion of population with ≤9 years of school	-.84
Proportion of dwelling built before 1945	-.71
Percent French	-.63

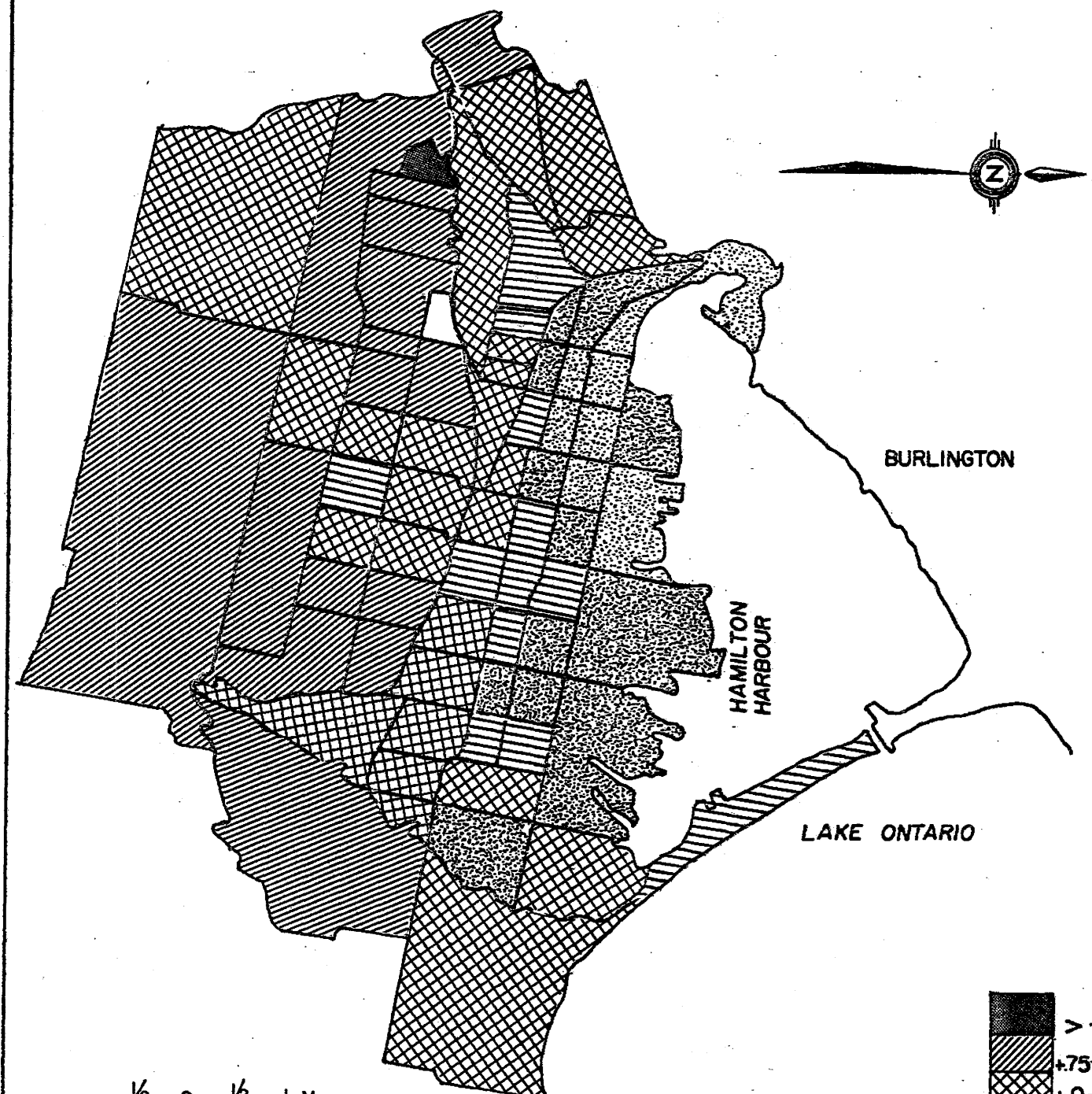
population with 12-13 years of schooling, average cash rent, dwelling with at least one auto, female participant rate of employment, males in administrative and management jobs, median value of owner-occupied dwellings median income and percent German. Loadings high negative were percent French, proportion of population with less than nine years of schooling, proportion of dwellings built before 1945 and proportion of males with greater than 15 years of unemployment.

When the factor scores were mapped (see maps 17, 18), it was found that there was generally high socio-economic status on the mountain, in the east and west ends and along the base of the escarpment. In contrast, those tracts along the industrial area, in the north end and throughout much of the central city south of Main Street were characterized by a lower socio-economic status.

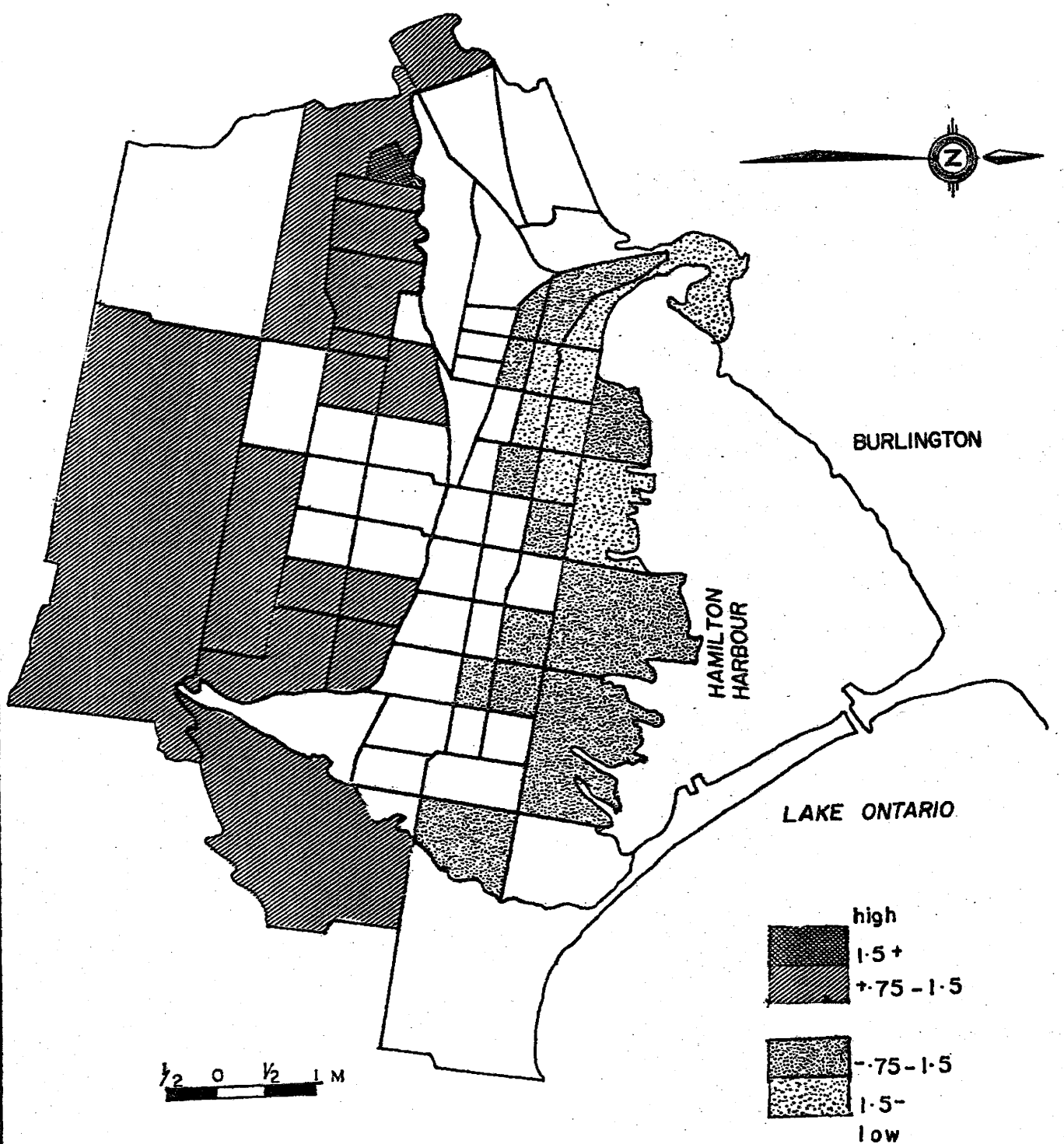
Many of the tracts on the mountain showed particularly high scores although, in general, it was tracts along the mountain brow that had the highest scores. This can be explained by the desirable views that homes along the top of the escarpment provide. The tract (tract 16) with the highest socio-economic status occupies the west mountain brow. It is distinct in having a very small population but a high proportion of professional, administrative and managerial occupations. Also high were tracts in the western end of the city.

The Westdale area was the final significant area in terms of socio-economic status. For a long period the social structure of this area was strongly influenced by the planning policy of the 1930's. The planners placed "restricted convenants" on the lots stating that "no negroes, Asiatics, East Mediteranean, Europeans nor Jews were allowed to buy a lot (Advertisement, 1926). Large expensive houses were built on spacious

FACTOR I_a : SOCIO-ECONOMIC STATUS



FACTOR 1b: SOCIO-ECONOMIC STATUS



1977

lots with a high price tag. The area, at present maintains to some extent a higher economic status due to the many professors who choose to live in this area because of its proximity to McMaster.

Very low economic status areas included York Street and the north end as well as substantial portion of the city just south of the industrial area.

In terms of ethnic population, high socio-economic status areas were, in general, related to percentage of German while low socio-economic status was associated with percentage of French living in that sector. Highest concentrations of several ethnic groups correspond to the areas of low socio-economic status in east and north end. Also noteworthy is the fact that the outward decrease of the very low socio-economic status can be related to decrease in several ethnic concentrationswith distance, as evident by the overlapping of the ethnic distribution and socio-economic status maps (see maps).

Housing Characteristics (table 3; maps 19, 20)

The housing factor appeared as the second most important factor. The variables having high positive loadings were proportion of single detached dwelling units and proportion of dwellingswith greater than a year of occupancy and those with high negative loadings were percent Asian, proportion of dwellings with less than a year occupancy, proportion dwelling built after 1960 and rate of female participation in the labour force. The spatial distribution of scores on this factor can be seen in maps 19 and 20. The 1971 housing maps show a predominance of single detached units and dwellings with greater than one year occupancy throughout much of the

TABLE 3

FACTOR 2: HOUSING CHARACTERISTICS

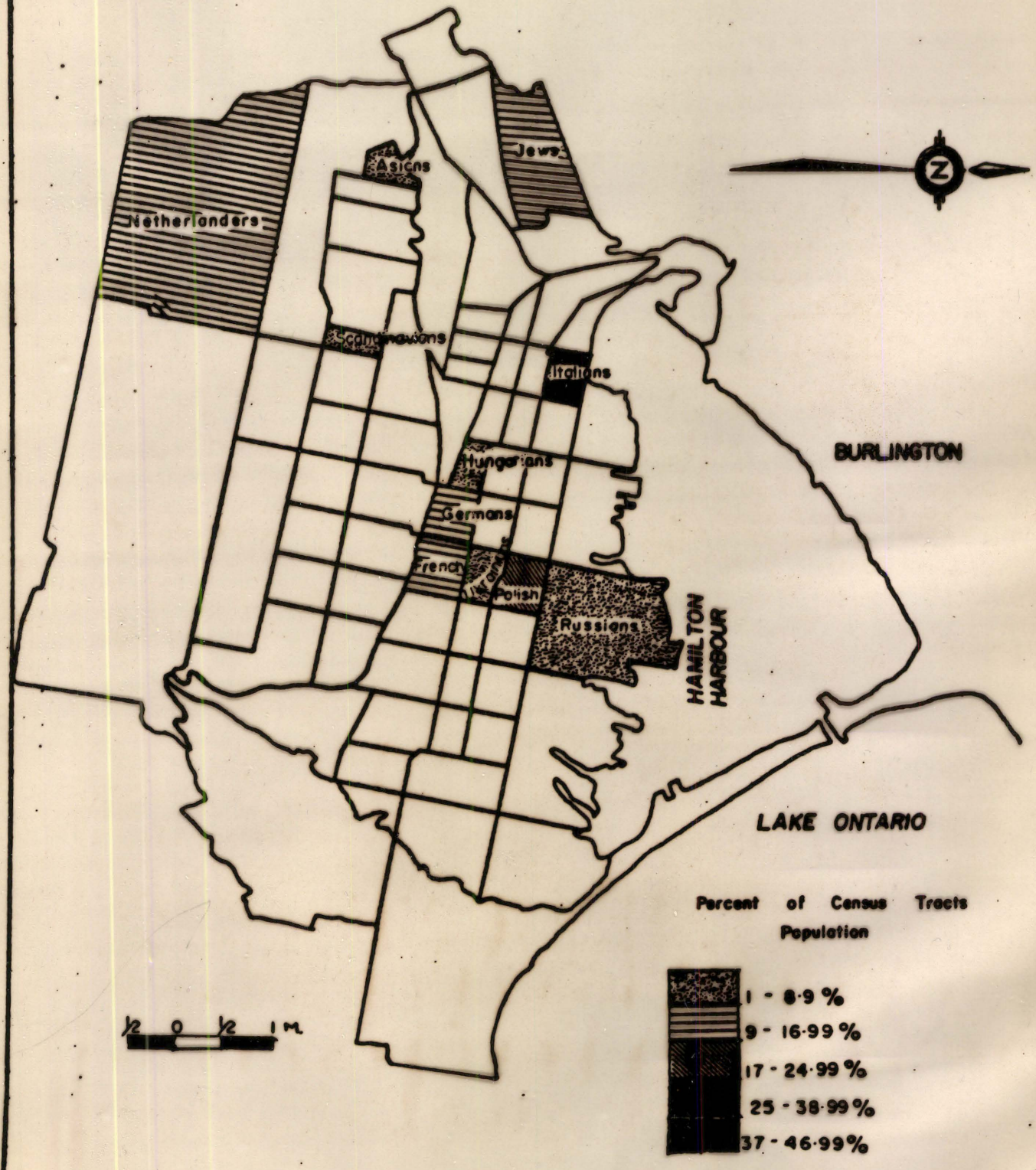
VARIABLE NAME	FACTOR LOADINGS (ROTATED)
Proportion of dwelling >1 year of occupancy	.90
Proportion of single detached unit	.77
Proportion of dwelling with <1 year occupancy	-.82
Percent Asian	-.63
Proportion of dwellings built after 1960	-.62
Female participation rate of employment	-.54

mountain, west end, parts of the north and industrial section and in the Aberdeen area. Again, parts of the mountain scored very highly in this direction, especially in the extreme south where several single detached housing developments have been built since 1960. The single detached housing in the industrial sector corresponds to the lower income, industrial housing constructed in the early part of the century.

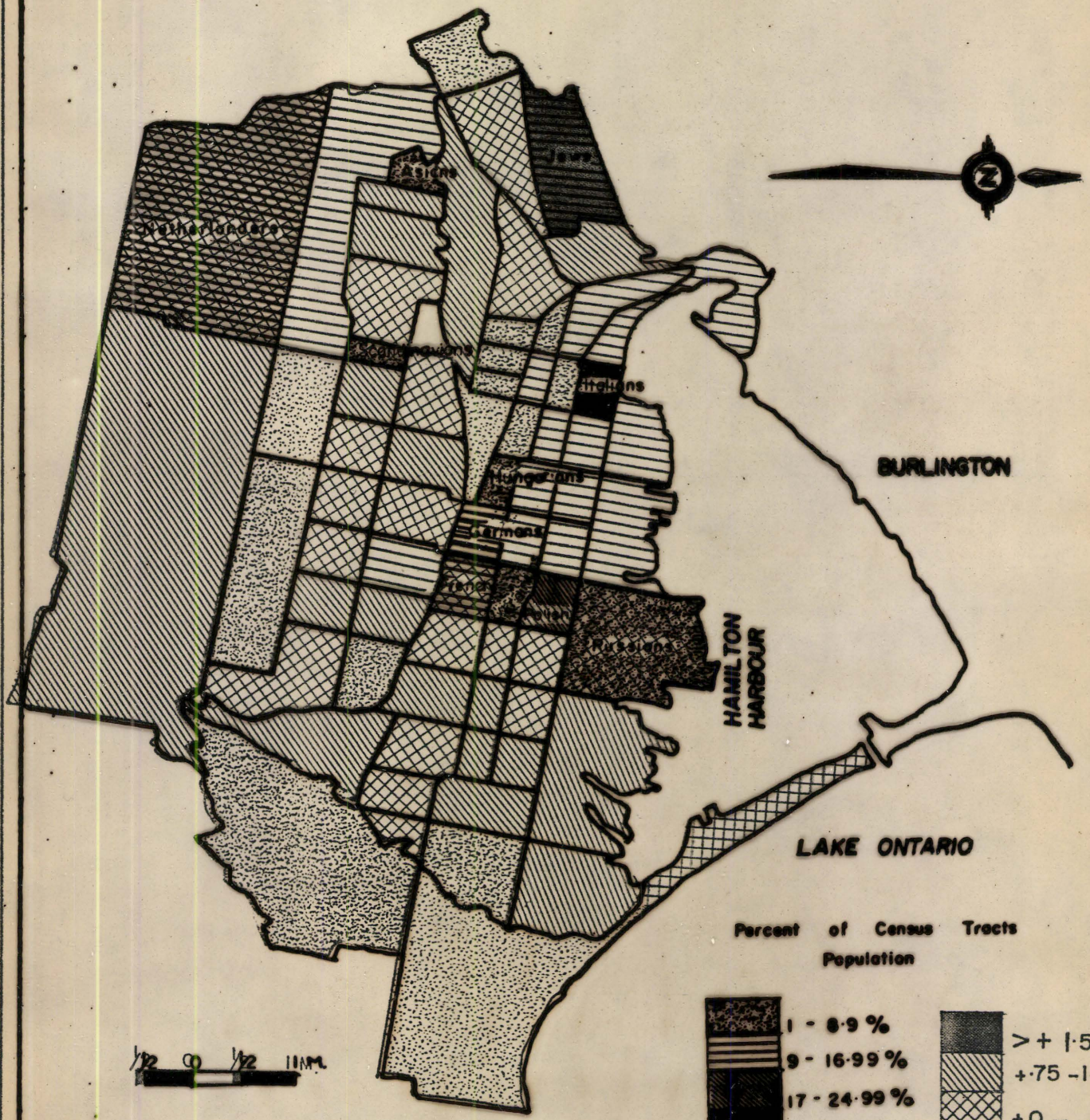
Areas of dwellings with less than a year occupancy built after 1960 with low female participant rate of employment were the eastern areas, particularly east of Baron Avenue, tract 44 in West Hamilton, several tracts on the central mountain and the central area between Wentworth and Chedoke Avenue. The highest scores for these were where there were many apartments and homes that had once been single family residences and are now multiple dwellings, such as tracts 24, 52 and several tracts beneath the escarpment between Kenilworth and Chedoke. Some of the tracts on the mountain brow have a relatively high percentage of dwellings occupied less than a year reflecting the modern apartments now present along the edge of the escarpment. Tract 43 in Westdale showed a change in housing characteristics away from predominantly single family dwellings. This was probably due to the increase in McMaster's enrolment during the 1960's and the need for student accommodation in the vicinity.

Superimposing maps of factor 2 on the distribution pattern of ethnic communities,shows that Asians tended to live in areas of newer housing (built after 1960), with a relatively mobile population and where female participation rate of employment was low. The Italians, Germans, Russians, Jews, Dutch, French and Polish tended to live in areas of single detached housing and where a large percentage of the housholds had

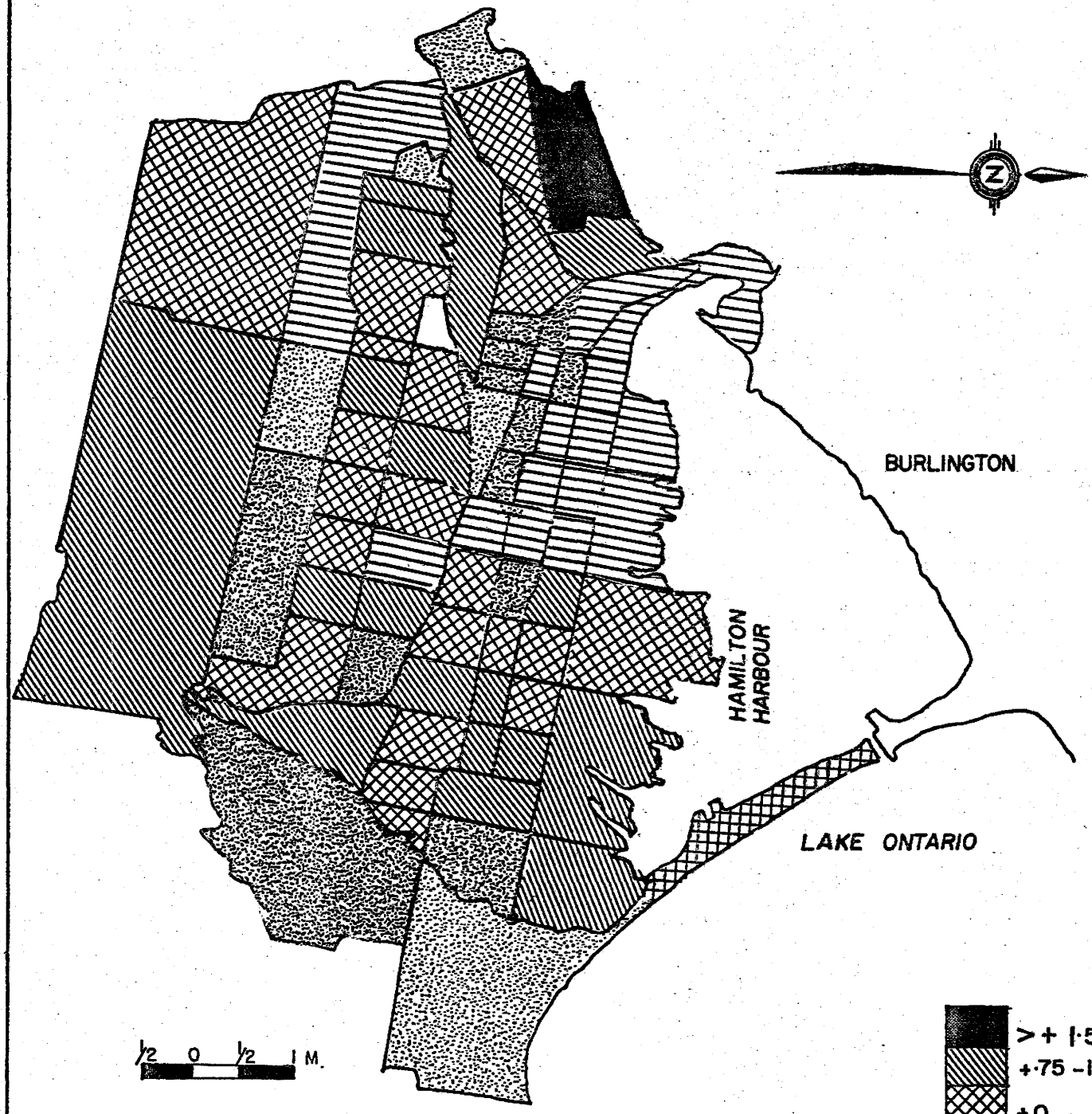
CONCENTRATION of ETHNIC GROUPS (1971)



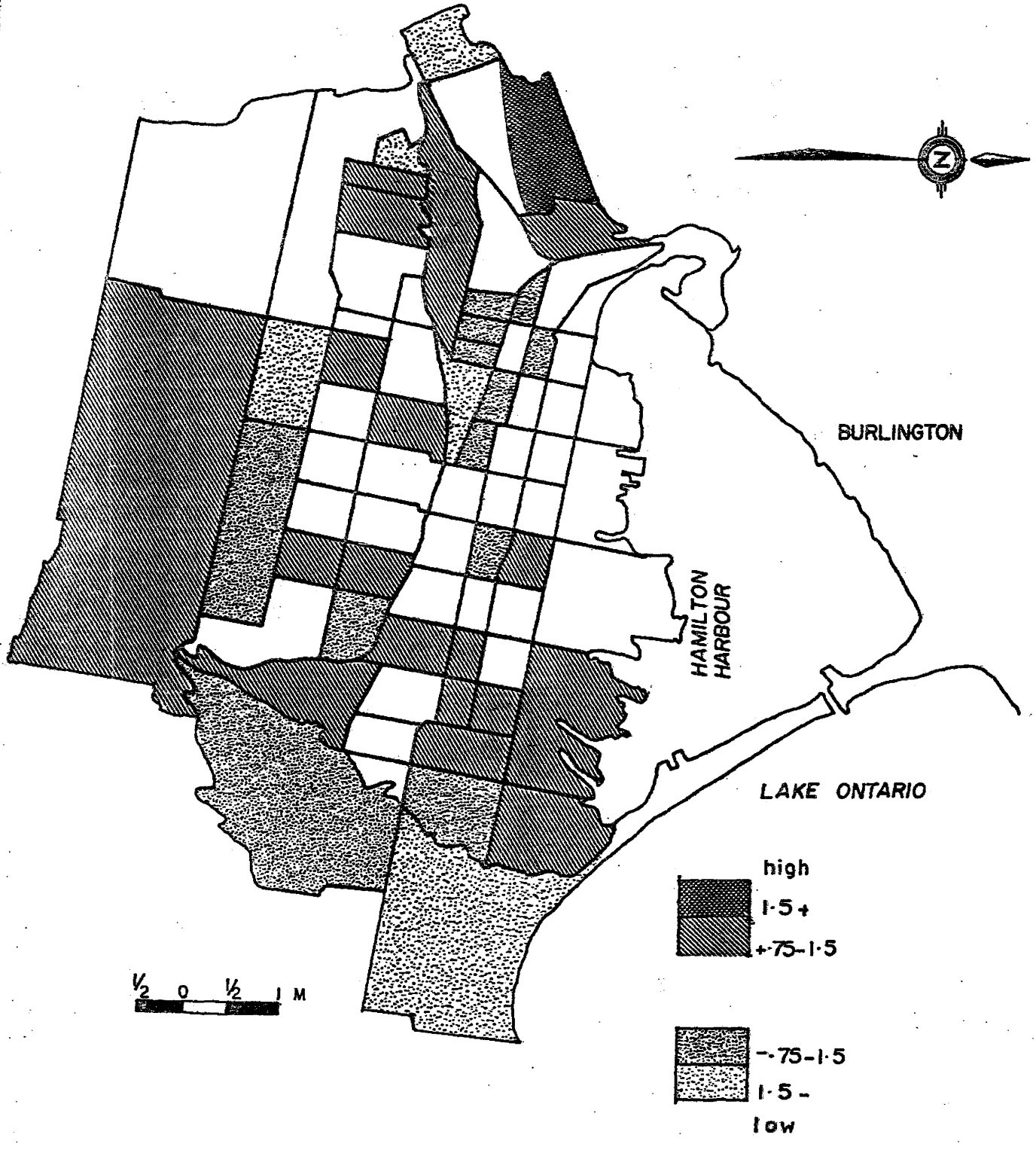
FACTOR ANALYSIS OF HOUSING CHARACTERTICS of ETHNIC GROUPS (1971)



FACTOR 2a : HOUSING CHARACTERTICS



FACTOR 2b : HOUSING CHARACTERISTICS



lived more than a year. In other words they are found in established and relatively stable neighbourhoods. Again inference cannot be made for the households based on this analysis of aggregate data.

Thus from the factor analysis, it was found that there was a relationship between German and French community and socio-economic status, between Asian and housing characteristics. High percentage of German origin was related to high socio-economic status (loading - .49884). Conversely, the French were predominant in areas of low socio-economic status (-.62587) as were the Italians (-.47831). Percent Asians loaded on the housing factor in the same direction as (-.62834) proportion of dwellings with less than a year of occupancy (-.82372), proportion of houses built after 1960 (-.62167) and female participation rate of employment (-.53811). Other ethnic groups failed to show any sort of relationship to socio-economic status, housing characteristics or among themselves. To explore the relationship surther a regression analysis was performed.

Regression

Multiple regression analyses were performed taking the percentage in an ethnic group as the dependent variable and the scores on factors 1 and 2 as the independent variables. The aim was to discover how accurately the percentage in each ethnic group within a census tract could be predicted from the composite measures of socio-economic status and housing characteristics provided by the factor scores.

The following table (table 4) shows the regression coefficients

TABLE 4

Note: Figure in the parenthesis indicate F-scores

* the coefficient is significantly different from zero at 99% confidence level

** significantly different from zero at 95% level

EQUATION NUMBER	DEPENDENT VARIABLES	CONSTANT	FACTOR 1	FACTOR 2	R^2	F	SIGNIFICANCE LEVEL
1.	% Asian	0.015* (121.56)	0.006 (0.200)	-0.009* (45.098)	.39	22.60	.000
2.	% French	0.045* (673.553)	-0.012* (7.884)	-0.005* (7.317)	.45	27.94	.000
3.	% Italian	0.114* (150.928)	-0.042 (20.249)	-0.002 (0.031)	.23	10.16	.000
4.	% Ukrainian	0.030* (252.588)	0.003 (2.610)	0.003 (2.519)	.04	2.61	.081
5.	% German	4.730* (592.776)	0.930** (22.739)	-0.740 (0.143)	.25	11.41	.000
6.	% Hungarian	1.732* (16.831)		-0.043 (0.419)	.003	0.18	.677
7.	% Dutch	2.051* (61.683)	0.758* (8.358)	0.184 (0.488)	.12	4.46	.015
8.	% Polish	3.521* (9.942)		0.769** (2.158)	.06	4.66	.034
9.	% Russian	0.169* (44.828)	0.010 (0.166)	0.007 (0.067)	.003	0.12	.889
10.	% Scandinavian	0.451* (138.613)	0.080 (4.313)	-0.005 (0.014)	.06	2.16	.123
11.	% Jews	0.999* (15.882)	3.888 (2.390)	0.055 (0.048)	.03	1.23	.300

with ethnic groups as dependent variables and factor 1 (socio-economic status), factor 2 (housing characteristic) as independent variables. The null hypothesis in this case being: factor 1, factor 2 have no influence on the dependent variables; percent Asian, French, Italian, Ukrainian, German, Hungarian, Dutch, Polish, Russian, Scandanavian, Jews. In other words the regression coefficients are not significantly different from zero.

Regression equation number (1) in table (4) shows the dependence of percent Asian on factor 1 and factor 2. Factor 1 (socio-economic status) has positive and factor 2 (housing characteristics) has negative relationship with percent Asian. The independent variables explain 39% of the variation of the dependent variable. The coefficient of factor 1 is not significantly different from zero even at 95% level of confidence level.

Equation 2 explains 45% of the total variation of the dependent variable percent French. Both the coefficient of factor 1 and factor 2 are significantly different from zero at 99% confidence level. Both the factors, socio-economic status and housing characteristics, have negative correlation with the dependent variable percent French.

Equation 3 explains 23 percent of the variation of the dependent variable, percent Italian. Equation 4 accounts for only 4 percent of the variation of the dependent variable. So, we can conclude that factor 1 and factor 2 are not significantly related to percent Ukrainian.

Equation 5 shows that factor 1 and factor 2 explains 25% of the variation of the dependent variable percent German. Factor 1 (socio-economic has positive correlation with the dependent variable percent German. Factor 2 (housing Characteristics) has negative correlation but the coefficient is not significantly different from zero.

Equations (6) to (11) - these six equations have very low R^2 values. In equation (7) factor 1, socio-economic status, has a positive correlation with the dependent variable percent Dutch and the coefficient is signficantly different from zero at 99% level. In equation (8) factor 2, housing characteristics, has positive correlation with the dependent variable percent Polish and the coefficient is significantly different from zero at 95% level of confidence.

In all the eleven equations the constant has a positive value and these values are significantly different from zero at 99% confidence level. This implies that we can improve the efficiency of the equations by adding other independent variables.

The coefficient of determination (R^2) in almost all the equations is very low. Based on the F ratios, six of the equations are significant at .05 level. (% Asian, % French, % Italian, % German, % Dutch and % Polish in Table 4). It is possible that the low R^2 could be increased by using lagged values of the independent variables (Johnston, 1972; Konenta, 1971). Moreover, one should not expect the two variables of socio-economic status and housing characteristics to totally explain the distribution of the ethnic groups. Other factors such as tastes, preference and nearness to place of work do influence the choice of locality. Unfortunately data pertaining to these relevant factors are not available. Nevertheless this study indicates that socio-economic status and housing characteristics are two important factors related to the spatial distribution of ethnic groups.

CHAPTER 6

CONCLUSION

Thirty four percent of the total population of Hamilton in 1971 was of non-British origin. The analysis of the 1971 census data showed well distributed homogeneous ethnic enclaves. Some had greater concentration than others. As a whole it may be described as a mosaic with a high concentration of ethnic groups in the northern part of the city, north-east and in the west end. The Italians congregated in the north end and in some tracts comprised the largest group. The Polish group were mainly found in the central and eastern part of the city, the Ukrainians in the east, the Dutch on the south mountain, the French in the north but south of the Italian group, the Jews in the higher income residential areas of the west end of the city and the other groups like the Germans were dispersed throughout the city. The Russian and Asian groups were very small and were scattered but with the main concentration in the north-central area and on the west mountain respectively.

Many of the ethnic groups who arrived early in the century, have their own socio-spatial organization. Some developed self-sufficient communities. They provide their own economic, social and recreational services, which channel the communication and social interaction among group members.

Factor analysis of the census data showed that socio-economic

status and housing characteristics were related to the distribution of certain ethnic groups. However, it should be kept in mind that the results obtained using 1971 census data is at an aggregate level and, therefore, inferences at the individual level cannot be made. Moreover, one cannot expect the two variables of socio-economic status and housing characteristics to explain why people of the same ethnic group tend to live in the same area of the city. It is quite possible that factors like tastes, preference, nearness to work place among others influence the choice of locality. Unfortunately data pertaining to these important factors were not available for the ethnic communities of the city. The main findings at the census tract level were that high socio-economic status was related to the percentage of German origin within the census tract, while low socio-economic status was related to the percentage of French origin. In addition it was found that percent Asian was positively related to new residential areas and low rate of female employment in the labour force.

Regression analysis showed that a significant proportion of the variation in the percentage of six ethnic groups was accounted for by socio-economic and housing scores; namely those of French, Italian, German, Dutch, Asian and Polish origin.

Thus, it was possible, not only to describe the distribution pattern of ethnic groups but also to provide a partial explanation of the factors related to the observed distribution. These results when compared with previous findings confirm:

1. the importance of the ethnic dimension within the social and spatial structure of the city;

2. the importance of socio-economic status and housing characteristics in influencing the distribution of ethnic groups.

With these findings in hand we can extend our research further in terms of understanding the spatial organization of ethnic groups at the neighbourhood scale as a basis for anticipating possible future changes in the spatial structure of ethnic communities in the city. We can investigate whether the ethnic enclaves of Hamilton are only the product of the past and will disintegrate in future, or whether the various ethnic groups are getting together to form a multicultural community. Census data are not of much help in this regard. A research design is needed and the approach taken by Suttles (1970) and Ley (1974) is useful to a certain extent. Field surveys at the neighbourhood scale, are needed to yield more detailed reliable results.

The present macro scale analysis has value in laying the foundation at the macro level for a study designed to investigate socio-spatial processes operating within ethnic enclaves.

BIBLIOGRAPHY

Advertisement (1926): *Beauty Spot in Westdale.* News publication, Hamilton.

Altman, I. (1975): *The Environment and Social Behavior - Privacy, Personal Space, Territory, Crowding.* Brooks/Cole, California.

Altman, I. (1970): "Territorial behavior in humans - An analysis of the concept". In L. Pastalan and D.H. Carson (eds.) *Spatial Behavior of Older People.* Ann Arbor: University Press, pp.1-24.

Altman, I., S. Haythern, W.W. (1967): "The ecology of isolated groups". *Behavioral Science*, 12, pp.169-182.

Altman, I., Taylor, D.A., S. Wheller, L. (1971): "Ecological aspects of group behavior in social isolation". *Journal of Applied Social Psychology*, 1, pp.26-100.

Baron, Milton Leon, ed. (1952): *American Minorities.* A textbook of readings in intergroup relation, 1st ed., New York.

Becker, F.D. (1973): "Study of Spatial Markers". *Journal of Personality and Social Psychology*, 26(3), pp.439-445.

Berry, B.J.L. and Brian, J.L., and Rees, D.H. (1969): "The Factorial Ecology of Calcutta". *American Journal of Sociology*, 74 (March), pp.445-491.

Berry, B.J.L. and Rees, D.H. (1968-69): "The Factorial Ecology of Calcutta". *American Journal of Sociology*, 74 (March), pp.445-91.

Blumenfeld, H. (1954): "The tidal wave of metropolitan expansion". *Journal of the American Institute of Planners*, XX, pp.3-14.

Bourne, L.S. (1967): *Private Redevelopment of Central City.* University of Chicago, Department of Geography, Research paper #112.

Brower, S.N. (1965): "Territoriality, the exterior space, the signs we learn to read". *Landscape*, 15, pp.9-12.

Burkholder, M. (1938): *The Story of Hamilton.* Davis Lisson, Hamilton.

Burney, E. (1967): *Housing on trait: A study of immigrants and local government.* London: Oxford University Press for the Institute of Race Relations.

Canada (1871 to 1971): *Dominion Bureau of Statistics*. Census of Canada.

Canada (1971): *Dominion Bureau of Statistics*. Population characteristics by census tracts. Hamilton.

Chapman, L.J. and Putman, D.F. (1951): *The Physiography of Southern Ontario*, Toronto.

Cattell, R.B. (1949): "The Dimensions of Culture Patterns by Factorization of National Characters". *Journal of Abnormal and Social Psychology*, 46, pp.443-69.

Cattell, R.B. (1950): "The Principal Culture Patterns Discoverable in the Syntal Dimensions of Existing Nations". *Journal of Social Psychology*, 32, pp.215-253.

Cavan, S. (1963): "Interaction in home territories". *Berkeley Journal of Sociology*, 8, pp.8-32.

Chan, M.W. Luke (1974). *Factor Analysis*. Paper prepared for Economics 768, McMaster University.

Clark, K.B. (1965): *Dark Ghetto: Dilemmas of Social Power*, New York: Harper and Row.

Collison, Peter (1967): "Emmigrants and Residence", *Sociology*, 1 (Sept.): 277-292.

Deutesch, K.W. (1969): *Nationalism and its Alternatives*, New York: Alfred A. Knopf.

Duncan, Otis Dudley and Lieberson, Stanley (1959): "Ethnic Segregation and Assimilation", *American Journal of Sociology*, Vol. LXIV, pp.364-374.

Gurevich, B.L. and Saushkin, Yu.G. (1966): "The Mathematical Method in Geography" *Soviet Geography*. Review and translation, Vol. 7, #4, pp.3-34.

Foster, M.J. (1962): *Ethnic Settlement in the Barton Street Region of Hamilton - 1921-1961*. M.A. thesis McMaster University, Hamilton.

Hamilton City Planning Committee, (1975): *Report on Existing Conditions Prepared as Base Material for Planning*. Hamilton town planning consultant Ltd.

Hamilton Spectator (1961 to 1971): Files, Hamilton.

Hamilton Telephone Directory (1976): Hamilton.

Herbert, David (1975): *Urban Geography* - a social perspective. Praeger Publisher, New York.

Hawley, A.H. and Duncan, O.D. (1957): Social Area Analysis: A Critical Appraisal, *Land Economics*, 33, pp.337-46.

Johnston, J. (1972): *Econometric Methods*, New York: McGraw-Hill.

Jones, Emerys (1960): *A Social Geography of Belfast.* London, Oxford University Press.

Jones, E.L. (1967): "Ethnic Concentration and Assimilation: An Australian Case Study", *Social Forces*, 45 (March), pp.412-423.

Jones, Philips N. (1976): "Coloured Minorities in Birmingham, England". *Annals of the Association of American Geographers*, Vol. 66, #1, March.

Kmenta, Jan (1971): *Elements of Econometrics*, Macmillan Publishing Co., Inc., New York.

Kosa, John (1957): *Land of Choice: The Hungarian in Canada.* Toronto: University of Toronto Press.

Laphan, V. (1975): "Do Blacks Pay More for Housing?" *Journal of Political Economy.*

Ley, D. (1974): *The Black Inner City as Frontier Outpost* - Images and Behavior of a Philadelphia Neighbourhood. A.A. Gr. Washington, D.C.

Lieberson, S. (1963): *Ethnic Patterns in American City*, New York: Free Press of Glenoce.

Lieberson, S. (1970): "Residence and Language Maintainace in Multilingual city", *South African Journal of Sociology*, 1 (Nov.), pp.13-22.

Meeker, J.P. (1953): *The Social Geography of the City of Hamilton.* B.A. thesis, McMaster University.

Minister of State Urban Affairs, Canada (1975): *Urban Indicators Quality of Life Comparison for Canadian Cities*, Ottawa.

Morril, R.L. (1965): "The Negro Ghetto: Problems and Alternatives", *Geographical Review*, Vol. LV (July), pp.339-61.

Murdie, R. (1969): *Factorial Ecology of Metropolitan Toronto: 1951-1961.* Chicago, University of Chicago Press.

Nagle R.W. (1962): *Cultural Areas and Neighbourhoods of Hamilton.* B.A. thesis, McMaster University.

Newman, O. (1972): *Defensible Space.* New York: MacMillan.

Pastalan, L.A. (1970): "Privacy as an expression of human territoriality". In L.A. Pastalan and D.H. Carson (ed.) *Spatial Behavior of Older People*, Ann Arbor: University of Michigan Press, pp.88-101.

Peterson, William (1955): *Planned Migration: The Social Determinants of the Dutch-Canadian Movement*. University of California Publications in Sociology and Social Institutions, Vol. 2, Berkeley and Los Angeles: University of California Press.

Pineo, Peter C. (1966): *Some Social Consequence of Urbanization*. Mimeograph, Carleton University.

Pineo, Peter C. (1970): *Attitudes to Ethnic Groups in Hamilton*. Draft, Social Planning and Research Council, Hamilton.

Putman, D.R. and Chapman, L.J. (1951): *Physiographic Regions of South Western Ontario*. University of Toronto Press, Toronto.

Rees, D.H. (1970): "Concepts of Social Space - toward an Urban Social Geography" in Berry, B.J.L. and Horton, F.E. (eds.) *Geographic Perspectives on Urban Systems*. Prentice Hall, pp.306-94.

Rex, John and Moore, Robert (1962): *Race, Community and Conflict - A study of Sparkbrook*. London, Oxford University Press.

Richmond, A.H. (1972): *Ethnic Residential Seperation in Metropolitan Toronto*. Institute for Behavioral Research, Sept., Toronto-York University.

Richmond, A.H. (1962): *Immigrants and Ethnic Groups in Metropolitan Toronto*. Report, Institute for Behavioral Research, Toronto-York University.

Rose, E.J.B. *et. al.* (1969): *Colour and Citizenship*. A Report on British Race Relations, Institute of Race Relation. Oxford University Press.

Rose, H.M. (1972): "The Spatial Development of Black Residential Subsystems". *Economic Geography*, Vol. 48, p.54.

Rosenthal, E. (1960): "Acculturation without Assimilation". *American Journal of Sociology*, 66 (Nov.), pp.275-288.

Rummel, R.J. (1970): *Applied Factor Analysis*. Evanston: Northwestern University Press.

Sawyer, J. and LeNine, R.A. (1966): "Cultural Dimensions - A Factor Analysis of the World Ethnographic Sample". *American Anthropologist*.

Seyfried, W.R. and Alfred N.D. (1970): *Urban Analysis*. Readings in housing and urban development. Scott, Foreman and Co.

Scott, R.L. and Brockieal, W. (1969): *Rhetoric of Black Power.* New York, Harper and Row.

Shevky, E. and Bell, W. (1953): *Social Area Analysis.* Theory Illustrative Application and Computation Procedures (Stratford).

Shevky, E. and William, M. (1953): *The Social Areas of Los Angeles* and Bell, W. "Social Areas of the San Francisco Bay Region" *American Sociological Review*, 18, pp.39-47.

Smith, W. (1956): *Traffic and Transportation.* Hamilton.

Stea, D. (1965): "Territoriality, the criterior aspect: space, territory and human movements". *Landscape* Autumn, pp.13-17.

Suttles, G.D. (1970): *The Social Order of Slum-Ethicity and Territory in the Inner City.* The University of Chicago Press, Chicago.

Suttles G.D. (1973): *The Social Construction of Communities.* The University of Chicago Press, Chicago.

Timms, D. (1971): *Urban Mosaic*, Cambridge University Press.

Toronto (1960): City Planning Board. *A Report on the Ethnic Origins of the Population of Toronto.*

The New Perspective (1970-1971), Hamilton, Ontario.

The Times Printing Co. (1892): *Hamilton, the Birmingham of Canada.* Hamilton.

Ware, C.F. (1931): "Ethnic communities", *Encyclopedia of Social Sciences*, ed. Edwin, R.A. Selegman, Vol. V; New York, McMillan Co. pp.602-613.

Wirth, L. (1964): "The Ghetto" in Reiss (ed.), Louis Wirth on *Cities and Social Life.* Selected Papers, Chicago: University of Chicago Press.

Wood, R.C. (1961): *1900 Government.* Cambridge, Harvard University Press.

Yeates, M. and Garner, B. (1971): *The North American City.* New York: Harper and Row.

Zorbaugh, W.H. (1929): *The Gold Coast and the Slums.* Chicago: University of Chicago Press.