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THE CENTRAL BUSINESS DISTRICT OF CHATHAM, ONTARIO

AN EMPIRICAL STUDY

BY

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UNIVERSITY OF WINDSOR

1968

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INTRODUCTION

The Central Business District, commonly referred to as the CBD, is the heart of any city. The district possesses the highest concentration of retail, office, and financial activities to be found within the city. Although the shape and extent of CBD's may vary, each possesses characteristics that are common to all. ¹ Each has its business functions located in the same general area of its district. Each experiences similar functional changes in land-use as the distance increases away from the central or peak intersection. The districts possess comparable land-use functions which tend to identify a zone of transition from the commercial activities of the core of the district, and the non-commercial activities which are located around the CBD.

This paper will deal with the CBD of the City of Chatham, Ontario. Owing to the size of the City (population 33,000), the role of the CBD within the urban morphology is more dominant than in the larger metropolitan cities. The CBD of large cities must compete with the large planned shopping centers and the local shopping districts in the surrounding towns. The CBD of Chatham is the dominant shopping district for the whole of Kent County. In spite of the rise of planned shopping centers on the fringe of the city, the downtown district remains the main customer attraction within the city. This is due to the large variety in both the mix and quality of goods that are found in the retail outlets within

the CBD, and the lack of same in the outlying shopping
plazas.

FOOTNOTES

¹ See Raymond E. Murphy and J. E. Vance, "A Comparative Study of Nine CBD's" in Economic Geography Vol. XXX 1954. pp 301-336.

CHAPTER ONE

PURPOSE AND SCOPE OF THE STUDY

The central theme of this paper is an empirical study of the CBD of the City of Chatham. CBD studies of large cities, having a population over 100,000, and general urban studies of small towns are common. The characteristics, however, of the CBD's of small cities have never been studied in detail. The purpose of this paper is to present an in depth study of CBD of Chatham in an attempt to compensate at least in part, for this apparent deficiency in the field of urban geography.

The major characteristics of the CBD such as the present dimensions of the district, the subregions in both the hard core and fringe area of the district, and the district's place in the urban complex will be studied to test the validity of methods that have been developed to define and describe the CBD's of large metropolitan areas. With the exception of a discussion of the city's historical growth done in Chapter Two, the study will be confined to the present situation of the CBD, and therefore, no consideration will be given to any future developments that might influence either the structure or composition of the district.

The discussion of the CBD will be limited to five main topics. The first subject will be the development of the city, and the major factors affecting the growth of the CBD. The methods developed to delimit CBD's of large cities will

next be tested for their acceptability in the small cities. The various subregions within the district will then be considered to discover whether or not there are any similarities in their structure and location, when compared with similar subregions in large cities. The last subject to be considered is the role of the CBD within the urban complex.

SOURCES OF DATA

This study is based on data derived from several sources. Data for assessed land values, lot areas and front footages was obtained at the Assessment Department of the City. The original base map from which the land-use and delimitation maps were constructed was obtained at the Planning Department of the City. Data needed for the land-use maps was obtained by field work. The field work consisted of classifying the functions located on the floors of each block. This classification is based upon the method developed by Raymond E. Murphy and J. E. Vance in which they classified the functions within a district as either central business, or non-central business in nature.¹ The material used to construct the trade area maps was obtained from customer files of the various stores. In order to acquire a true sampling, every tenth address was chosen.

REVIEW OF THE LITERATURE

The most important background material for a study of this nature would be a series of articles on the CBD written

by Raymond E. Murphy, J. E. Vance, Jr., and B. J. Epstein. The first article was written by Murphy and Vance.² The main purpose of this paper was to arrive at a method of delimiting CBD's which could be applied to all major cities, and then some basis for comparison would be established. It is in this article that the Central Business Index Method is developed.³ The second article was also written by Murphy and Vance.⁴ This article attempted to arrive at some general conclusions regarding function, location, and land-use characteristics within the CBD's of nine cities of various sizes. In the third article of this series, Murphy and Epstein gave further consideration to the land-use patterns which occurred within the CBD.⁵ An article written by Cohen and Applebaum proved quite useful regarding retail store locations within the CBD.⁶ The main theme of this article was the relationship between the type of goods being sold and the desired amount of accessibility.

METHODOLOGY

The first problem posed by a CBD study is connected with its delimitation. Several methods have been employed by urban geographers.

Murphy and Vance formulated The Central Business Index Method in an effort to establish a uniform delimitation technique.⁷ It is based on land-use within the CBD. Murphy and Vance classified the various land-uses into two main categories: central business uses and non-central business uses.⁸ The

various functions were compiled by field observation. The data was organized into block units and then transferred to maps, one map for the ground floor land-use functions and the other generalized map for the remaining floors. Once the information was collected and mapped, the calculations could be made for the two components of the method. The first component is the Central Business Height Index which is found by dividing the total floor area of the CBD functions by the total ground floor area of the block.⁹ If a block is to be considered as part of the CBD it must have a Central Business Height Index of one, or more. The second part of the method is the Central Business Intensity Index which is obtained by calculating what percentage the total floor area devoted to CBD uses, is of the total floor area of the block.¹⁰ By this method the block must have a Central Business Intensity Index of 50 percent or more if it is to be included in the CBD. Both indexes must be employed if the Central Business Index Method is to be properly used. The main reason for this, is that a block might have a high Central Business Height Index resulting from the fact that it may have two stories of CBD uses, and four stories of apartments. It can be seen that the Central Business Height Index fails to consider the upper floor usage within the block. The Central Business Intensity Index corrects this failure by insisting that at least one half of all the floor space in the block be devoted to central business uses.

The next method employed is based upon assessed land values. The assessed land value is normally highest at the peak intersection and decreases as the distance increases from the peak intersection. The decline in values is rapid at first, then gradually tapers off. Owing to the various sizes of lots found along the streets leading away from the peak intersection, the assessed values are computed in front-foot assessed values; that is, the total frontage is divided into the total assessment. The resulting figure is the assessed value of the lot in regards to its frontage.

The Worcester planner, in the early 1950's, devised a method of delimiting the CBD of that city, based upon the front-foot assessed land values.¹¹ He not only attempted to delimit the entire district, but also the hard-core of the district. The boundary of the district was set at lots with a front-foot assessed value of \$300 and the outer limit of the hard core had lot values of more than \$2000. Attempts will be made to apply both the outer limit and hard care principles to the City of Chatham.

The last method employed for delimiting the CBD is based upon land-use. The various land uses are classified according to the Murphy and Vance functional classification.¹² The line delimiting the CBD is drawn through the zone where there is a change of functions from CBD uses to non-CBD uses.

FOOTNOTES

¹ Raymond E. Murphy and J. E. Vance, Jr. "Delimiting The CBD," Economic Geography, Vol. XXX, July 1954 pp. 189-222.

² ibid.

³ ibid. p 213-214.

⁴ Raymond E. Murphy and J. E. Vance, Jr. "A Comparative Study of Nine Central Business Districts," Economic Geography, Vol. XXX, 1954, pp. 301-336.

⁵ Raymond E. Murphy and B. J. Epstein "Internal Structure of the CBD," Economic Geography, Vol. 31, 1955, pp. 21-46.

⁶ Saul B. Cohen and William Applebaum, "Evaluating Store Sites and Determining Store Rents," Economic Geography, Vol. XXXVI, 1960, pp. 1-35.

⁷ Raymond E. Murphy and J. E. Vance, Jr., "Delimiting the CBD," op.cit.

⁸ See Appendix

⁹ Raymond E. Murphy and J. E. Vance, Jr., "Delimiting the CBD," op.cit. p. 213-214.

¹⁰ ibid. p. 214

¹¹ Owing to the fact that the original source could not be located the summary of the work found in Raymond E. Murphy's The American City An Urban Geography, McGraw-Hill 1966, p. 297 was utilized.

¹² Raymond E. Murphy and J. E. Vance, Jr., "Delimiting the CBD," op.cit. pp. 200-202.

CHAPTER TWO

A HISTORY OF THE CITY OF CHATHAM

Finding the junction of the Thames River and McGregor's Creek an established trading center, and recognizing this point as the most strategic location for defence and development, Governor Simcoe in 1794 had a town site surveyed, and named it Chatham. There was little development in the area during the first two decades of the nineteenth century. Throughout its history, the city has shown a trend of gradual development, and has been spared the boom rates of growth characteristic of many towns in southwestern Ontario.¹

There are several major factors which have contributed to the growth of the city. The rich soils that are found throughout the area attracted the early settlers to the district surrounding Chatham. The role of the City as a market center for the area resulted from the presence of grinding mills which drew the pioneer farmers to the town. Added to this was the town's location at the head of navigation for the Thames River. As the trade within the area developed, Chatham became the main distribution point.² McGregor's Creek also played an important role in the early growth of the City. It not only provided water power for the various milling operations, but also provided the means by which logs were transported to mills located in the town.³ In 1850 Chatham officially became a town, and in the same year was designated as the county seat for Kent County. By this time, Chatham was the dominant urban centre in the

county, a distinction that it has maintained to the present day. With the construction of the Great Western Railway in 1854 Chatham's central location was further enhanced. The railway connected it with Niagara Falls, Brantford, Woodstock, London and Windsor. Owing to the speed and regularity of the railway service, its importance as a port declined. During the next three decades railway connections were increased. The Canadian Pacific Railway which reached the town in 1889 was the last new railway.

With the railway came many of the businesses which contributed to the industrial development. Many of the industries depended upon the farm products of the surrounding area for their raw materials.⁴ Owing to the excellent rail and road systems, these products were easily distributed to the distant markets. With the growth of the automobile industry in Windsor and Detroit, feeder plants were located in Chatham to utilize the inexpensive labor supply. In spite of these recent developments Chatham's growth has resulted from its role as the major market and distribution centre for Kent County.

FACTORS AFFECTING THE GROWTH OF THE CBD

The CBD presently occupies approximately thirty nine acres within the heart of the city. The peak point is located at the intersection of Fifth and King Streets. The northern boundary of the district is the Thames River, the

eastern limit is William Street, and Third Street serves as the western boundary. The southern boundary is marked by Wellington, Queen, and Harvey Streets.

Many of the original structures were erected along both sides of King Street, between Fifth and William Streets. This was due to the fact that the remainder of the town site could not be immediately utilized. The area southeast of the Queen and Wellington Street intersection was the town's school reserve, while the area east of this, along Wellington Street, was too marshy. The low flood plain of the Thames River discouraged any permanent settlement on the north side of the river. Development of the commercial district east of William Street was hindered because of flour milling and logging activities which were being carried out in that vicinity. As a result of these barriers, growth of the CBD was forced to proceed west along King Street. The present extent of the district is a clear illustration of the continual pressure exerted by factors similar to these already mentioned, such as, the milling activities east of William Street and the government and church functions located along Wellington Street.

Many of the factors that have influenced the development of Chatham in the past continue to play an important role in the growth and economy of the city. This is especially true in regards to the industries which depend upon the agricultural production of the surrounding districts for

its raw materials. The growth and extent of the CBD continues to be influenced by the Thames River and the milling activities located east of William Street both of which prohibit expansion of the CBD along these boundaries. Southward expansion of the district has been curtailed to a great extent by the public and church properties located near the intersection of Fifth and Wellington Streets. The future growth of the CBD will continue to move westward along King Street as it has done in the past.

FOOTNOTES

1 William M. Gray, Industrial Bureau, The City of Chatham 1948, p. 3.

2 C. O. Ermatinger, The Talbot Regime, St. Thomas, Ontario, 1904, p. 267.

3 Hugh Cowan, The City of Chatham, an unpublished history of the City of Chatham, Chatham Public Library, p. 6.

4 ibid. p. 3

CHAPTER THREE

THE DELIMITATION OF THE CBD

The variety of methods so far employed in delimiting CBD's illustrates the fact that no single method has proven to be entirely successful when applied to CBD's of various sizes. This is the main failure of the Central Business Index Method formulated by Murphy and Vance. If correctly employed, the method would delete some essential or significant blocks of CBD's in small cities, and include unnecessary blocks in the CBD of extremely large cities. The various methods based upon assessed land values fail to gain universal acceptance owing to the fact that the required data is not available in all cities, and if available they are not readily accessible to everyone. An example of this would be the total sales figures available to Malcolm J. Proudfoot in his study of the CBD of Philadelphia, Pa.¹ Such statistics are not available for all towns, and hence planning departments of various cities have adopted their own indices for outlining their CBD's. In some cases, no specific indices are evolved at all. For example, the CBD in the City of Chatham was described as simply an area in which most of the retailing is carried out. No attempt was made to differentiate the variety of retail, office, industrial and residential functions which occur within the area. This chapter will attempt to provide more specific boundaries by applying methods formulated to delimit the CBD's of large cities. Once specific boundaries have been formulated, the land-use studies, found in Chapter Four, will relate to specific areas. The methods used were

chosen on the basis of available information such as lot sizes, assessed land values and field land-use mapping.

NATURAL BOUNDARIES OF THE CBD

Before considering the more complicated techniques which were described in Chapter One, the natural and manmade features of the city that act as barriers to the spread of the district will be studied. These consist of such items as railways, water bodies, parks, public buildings, and relief features. Surprisingly enough, Chatham's central business district is basically outlined by many of these barriers. The most obvious of these is the Thames River, which has prevented the development of the district northward. Expansion south and east has been limited by the combined presence of a railway line, and a concentration of public buildings. There is no apparent boundary inhibiting the westward expansion of the district, hence its growth has been in that direction. This trend may be reinforced by the eventual location of the new city hall on King Street, just west of Third Street.

THE CENTRAL BUSINESS INDEX METHOD

The first specific method that was applied in order to delimit the extent of the central business district was the Central Business Index Method. After the two components - namely, The Central Business Height Index, and the Central Business Intensity Index - had been calculated for each of the blocks, the result of each index was mapped. It becomes quite

apparent from the map that this method is not effective for a city the size of Chatham, due to the fact that it left out large areas of the district where CBD functions are found. The Central Business Height Index is more realistic in its results than is the Central Business Intensity Index, since the latter excluded approximately sixty percent of the area designated by the land-use method as part of the central business district. This will be considered later in this chapter.

METHODS BASED ON ASSESSED LAND VALUES

The next type of data under study is based upon assessed land values. As pointed out in Chapter One, an attempt will be made to delimit both the outer boundary and the hard core of the district. This will be done by assigning a certain assessed land value as the outer limit of each area.

An attempt to find an individual lot value to delimit the CBD, was unsuccessful. This was due to the fact that if the value of a lot, where a definite break in functions occurred, e.g., Third and King Street intersection, was applied to the remainder of the city, some of the areas on which CBD functions persisted would have been excluded. When it became apparent that this method would not work, the technique was modified by using the front-foot, assessed values of one hundred foot intervals leading away from the peak intersection. This also failed to provide a realistic boundary to the district. The feasibility of using front-

foot assessed values was tested once more by use of percentages. The value assigned to the peak intersection (King and Sixth Street) was one hundred percent. The remaining lots were assigned percentage values in proportion of that of the peak intersection. The results were similar to the two previous attempts. Obviously, at least in the case of Chatham, delimitation of the CBD based upon front-foot assessed values is not possible.

This is not to say that the delimitation techniques based upon land valuation were a total failure, because some small success was obtained in delimiting the hard-core of the district, by means of employed assessed land values.

In doing field work required for the land-use study (found in Chapter Four), it became evident that there was a marked shift from central business functions to non-central business functions on the upper floor space, as the distance increased from the peak intersection. By studying the assessed land values in the areas where this break occurred, a pattern began to emerge. The afore-mentioned shift seemed to occur at a point where lot values began to decline below \$10,000.00. Thus, a hard-core district was established with the outer limit being the lots with an assessed land value of more than \$10,000.00. By studying the enclosed maps, the only noticeable discrepancy to the above generalization is seen to occur along the east side of Fourth Street where the assessed land values tend to be below the required figure.³ Although this value of \$10,000.00 serves to delimit the hard core of the CBD of

Chatham, it cannot necessarily be assumed that it would work in another town of a comparable size.

FUNCTIONAL CHANGES OF LAND USES

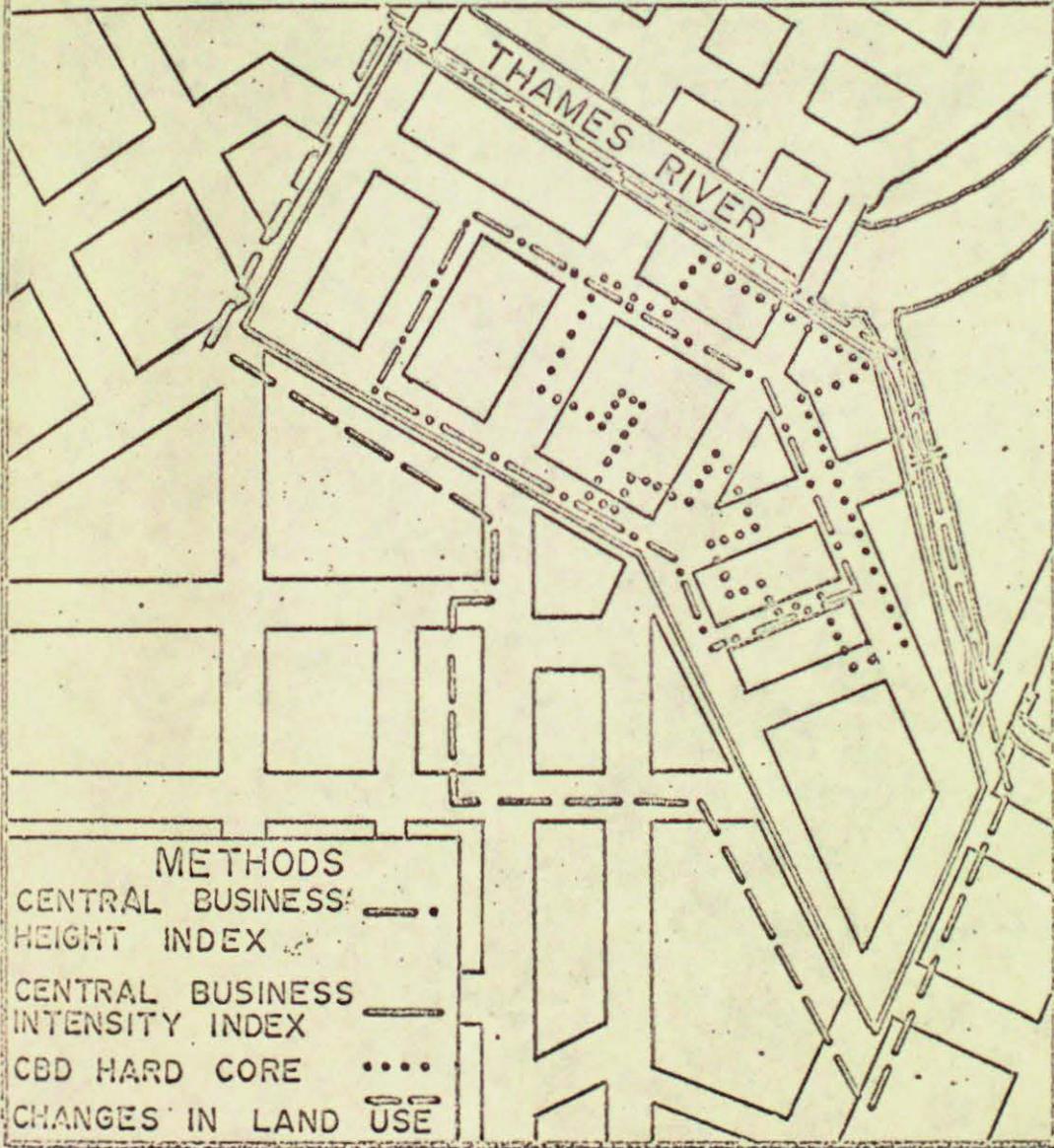
The most successful technique employed to delimit the CBD was based upon changes in land-uses. The north, east, and west boundaries of the district are quite apparent if one examines the land-uses in these areas. At the east end of the district, where King and William Streets intersect, there is a shift from retailing functions to commercial storage and vacant land. The shift does not occur abruptly along the west side of William Street, where a transitional zone occurs between King Street and the Canadian Pacific Railway tracks. The east side of William Street is occupied by a train depot, and automobile service facilities. These functions serve as a buffer zone between the central business, and non-central business usages.

The northern boundary, the Thames River, as already pointed out, is a natural boundary. Land use on the north side of the river clearly indicates the effectiveness of this boundary. Large city parking lots are situated at the north end of the Third and Fifth Street bridges. A cluster of gas stations are located on the north side of the Fifth Street Bridge. Although these are CBD functions, they tend to locate near the fringe of the district, because of their large requirements for low cost land. The city owns most of the land immediately adjacent to the north side of the

river, and plans to eventually convert the land into a park. The land-use north of this area is characterized by small metal fabricating plants and wholesale warehouses. The remainder of the area is composed of low-grade housing, with an insignificant amount of retailing. In regards to retail functions, there is evidence of ribbon development along St. Clair Street, most of which is a low-grade type. Exceptions to this are a wool shop, a men's store, and a radio and television store. The future construction of a high rise apartment building to the east of Third Street bridge will also serve to strengthen the boundary role of the block. The western boundary, namely Third Street, is in a transitional stage. Over the last decade, there has been a change from purely residential functions to a mixture of residential and commercial functions. As a result, the area bounded by Third, Wellington, and King Streets has been rezoned from residential to commercial functions.

The sharpest break in the CBD functions occurs at the Wellington and Third Street intersection, for beyond this is a purely residential area. Wellington Street serves as the district's southern boundary from Queen Street to Third Street, but the CBD functions that occur along the south side of the street are also included within the district. The extensive church property at the Wellington and Queen Street intersection, plus the large Federal Post Office at the Center and Wellington Street intersection have effectively prevented the central

DELIMITATION OF THE CBD



Business functions from spreading along Center and Queen Streets. They have thus had to locate along Queen Street, south of both the Church and Post Office property. This spread of central business functions must be characterized as ribbon development. The functions have been forced to remain along this street because of the existing residential development that was present in the area when the original central functions began to be located. The Harvey, - Queen Street intersection was chosen as the boundary for the CBD, mainly due to the fact that the area surrounding Queen Street south of this intersection is devoted exclusively to non-central functions. Thus, the boundary includes the west side of Queen Street, exclusive of residential activities, to Harvey Street, and from here to the Harvey-Wellington intersection. The boundary line then follows Wellington Street to William Street. The functions east and south of this intersection are primarily non-CBD in nature. This fact also holds true for the area south of Harvey Street. From the accompanying map, it can be seen that the changes in land-use from central business to non-central business are probably the most reliable indications of the CBD boundary for a city the size of Chatham.¹² As it has been pointed out, the boundary does not occur along a sharp break in functions, with the possible exception along Third Street, but rather, results from the selection of points within the transitional zone surrounding the district. It may, therefore, be

concluded that the best technique to delimit the CBD is to rely on changes of land-use functions, according to Murphy and Vance's classification method.

FOOTNOTES

¹ U.S. Bureau of the Census, Inter-City Business Census Statistics For Philadelphia, Pa., prepared under supervision of Malcolm J. Proudfoot, Research Geographer, May 1937.

CHAPTER FOUR
LAND-USE WITHIN THE CBD

It is a well known fact that the downtown area of any city is composed of a variety of stores, offices, and banks. It seems, at first glance, that there is little, if any, pattern in the arrangement of these facilities; but, upon closer observation certain associations begin to appear. This point was clearly presented in a study by Murphy and Vance.¹ In this study, the CBD's of nine cities were compared to see if any similarities could be found in their components. The key point of any CBD is the peak land value intersection, which Murphy and Vance found to be within a few hundred feet of the district's geographic center. It was from this point that the various similarities began to appear, as the distance increased away from this peak point. The total space occupied by retailing tended to decrease as the distance from the peak intersection increased, and, office space increased at first and then decreased. Following this, non-central business functions begin to appear. As Murphy and Vance emphasized throughout their study, the changes in functions in the CBD are gradual, and do not occur abruptly. Thus, without detailing the specifics of land-use, the above generalizations are valid for most CBD's.

Owing to the comparatively small size of Chatham in relation to those studied by Vance and Murphy, some alterations may be necessary in the above statements.² The general office

and financial zone is for the most part, completely eliminated unless this zone is accepted as being found on the second floor of buildings leading away from the peak intersection. This might be considered as a possible modification of the Vance-Murphy study, because there is a definite occurrence of office and financial activities in the upper floors of the retail establishments. It is at the point where these establishments begin to decline, and non-central business functions increase in the upper stories, that this author has delimited the hard-core of the district.³ Therefore, as the distance from the peak intersection increases, the ground floor land use tends to remain constant, while the upper floor functions tend to reflect the various zones of land-use which are found in the large metropolitan CBD's. There is a shift from retailing to service, financial, and office uses, to non-central business functions as the distance increases from the peak intersection. As can be seen on the land-use map for the upper floors, central business functions are concentrated around the Fifth and King Street intersections, and for the most part, are found within a distance of 500 feet from the main intersection.⁴

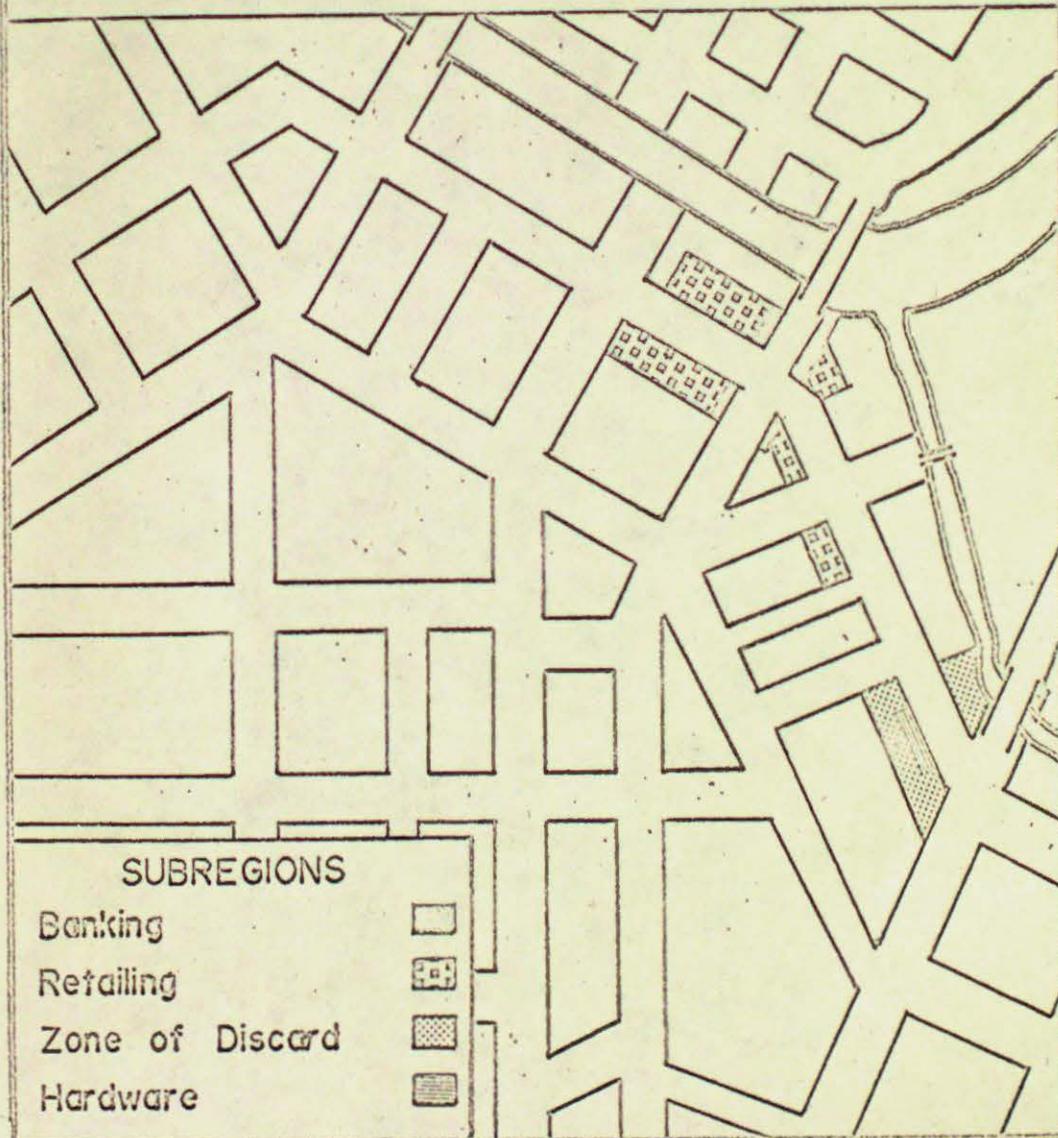
If any benefit is to be derived from a land-use study, the above general classifications of functions must be analyzed in greater detail. In the city of Chatham, the peak intersection is located at the juncture of King and Fifth Streets. Its position is unique, for no other corner within the CBD

even begins to approach it in combined land values; that is, the total assessed land value for each of the four lots on the intersection. Since assessed land values are based on the location of the property within the central district, it has a direct effect on the total rent a person must pay. Another characteristic of the peak value intersection is that it usually is the location of the highest traffic and pedestrian densities to be found within the CBD. Therefore, these facts, high land costs, high traffic, and pedestrian densities are the main characteristics of the peak value point of a CBD. These values tend to decline sharply at first, and then more gradually as the distance from the peak intersection increases.

Some general observations regarding types of functions and their location in relation to land values, traffic, and pedestrian densities will now be made. Some functions, such as banking, require a prestige location, and are thus willing to pay the required price for the "best" land. They must also be near the financial, as well as, the retail center of the CBD. This is particularly true of the main branch of the bank. In large urban centers, the financial district is therefore located within the heart of the CBD, because of the high interaction between it and the retailing and office functions within the area. Regarding retailing, certain functions such as women's shops, men's wear, restaurants, department stores, and shoe stores tend to locate quite close to the peak intersection. Likewise, similar functions tend

to locate near each other to take advantage of comparison shopping. To the question why the merchants are willing to pay the high land costs found near the peak intersection, the answer is quite simple. The peak point has the highest pedestrian and traffic densities, as well as being the focal point for any mass transportation system which might be operating in the city. These types of retailing depend upon high exposure to the public if they are to remain in business. With these generalizations in mind, a study can be made of the sub-regions within the CBD of Chatham.

SUBREGIONS OF CBD



SUBREGIONS WITHIN THE HARDCORE

There are three dominant subregions in the hardcore of Chatham's CBD. The one most apparent is the retailing subregion. The banking subregion is the most highly concentrated. The third subregion is comprised of the general office functions located on the upper floors of the building within the hardcore.

Owing to its dominant role in the hardcore the retailing subregion will be dealt with first. Almost every facet of retailing is located within the hardcore, whether it be men's or women's wearing apparel, children's outfitting, department, variety, or discount facilities. This clustering of retail facilities is a result of the efforts of the retail merchants to gain the maximum amount of exposure and accessibility to the customer. The quality and price of the goods varies from medium to high. This facilitates easy comparison shopping for the customer. The women's wear shops have tended to polarize in regards to quality and price. The better stores have located on King Street just east of Fifth Street, while the lower priced goods have located to the west of Fifth. This polarization is not found in the men's clothing stores owing to the fact that both of the stores within the hardcore are of a higher quality and prices range than the remaining stores found throughout the CBD. The type of retailing established within the hardcore of the CBD of Chatham is quite similar to the retail functions located within the hardcores of the cities studied by Murphy and Vance.⁴

The banking and financial functions provide the most strongly concentrated subregion within the hardcore. The four functions are situated on the peak intersection. This was a common occurrence in the cities studied by Murphy and Vance. It is felt that financial functions, especially main branches desire to be located on the most prestigious spot and therefore tend to be concentrated on or immediately adjacent to the peak intersection.

The third subregion within the hardcore district of the CBD is composed of general office functions. In the cities studied by Murphy and Vance this subregion occupied ground floor space near the peak intersection. Owing to the size of the city of Chatham, in comparison to those studied by Murphy and Vance, these functions (due to the pressure of retailing within the hardcore) have been forced to utilize the upper floor space of buildings. In spite of this, the general office functions still form a distinct subregion within the hardcore of the CBD, because the boundary of the hardcore district is marked by the transition from the CBD functions, such as general offices, to non CBD functions, especially permanent residential facilities.

SUBREGIONS BEYOND HARDCORE

There are two subregions outside the hardcore that merit consideration. Both subregions are located on King Street between Market Square and Williams Street, and one district or subregion is located within the other. The hardware

district is situated within the zone of discard.⁵

It is in this latter subregion that the importance of CBD functions is declining. The more important functions are being replaced by low quality shops and restaurants. The upper floors reflect the low level of housing which is found east of William Street. The vacancy rate on the ground floor level is the highest to be found within the entire district. The buildings are old, with the result that the heating and plumbing systems are poor. The block's overall appearance is shabby and little could be done to improve it. Even with these drawbacks, a certain type of retailing can be found which is utilizing this type of location. It is basically a low-grade mix of retail goods that mutually benefit each other because of their similar economic level. Each of the cities in the Murphy-Vance study possessed a zone of discard within its CBD.⁶

The retail hardware complex, with the associated compatible flooring, paint, and plumbing stores, represents a subregion within this zone of discard. The hardware stores have an equal mix of goods which are sold at comparable prices, and thus serve as mutual attraction for each other. The three comprise what might be called the hardware district. As a result of this reputation, the paint, floor, and plumbing facilities are benefiting from the inertia of the district.

Many of the CBD land-use patterns observed by Murphy and Vance are also found in the city of Chatham. Owing to their greater size, the cities studied by Murphy and Vance had

distinctive CBD subregions, such as banking, general office functions, and retailing. In spite of Chatham's smaller size in relation to those mentioned above, its CBD possesses similar subregions, even though they are of a less distinct nature.

FOOTNOTES

1 Raymond E. Murphy and J. E. Vance, Jr., "A Comparative Study of Nine Central Business Districts" op.cit.

2 ibid p 305

3 Refer to Chapter Three, p. 18

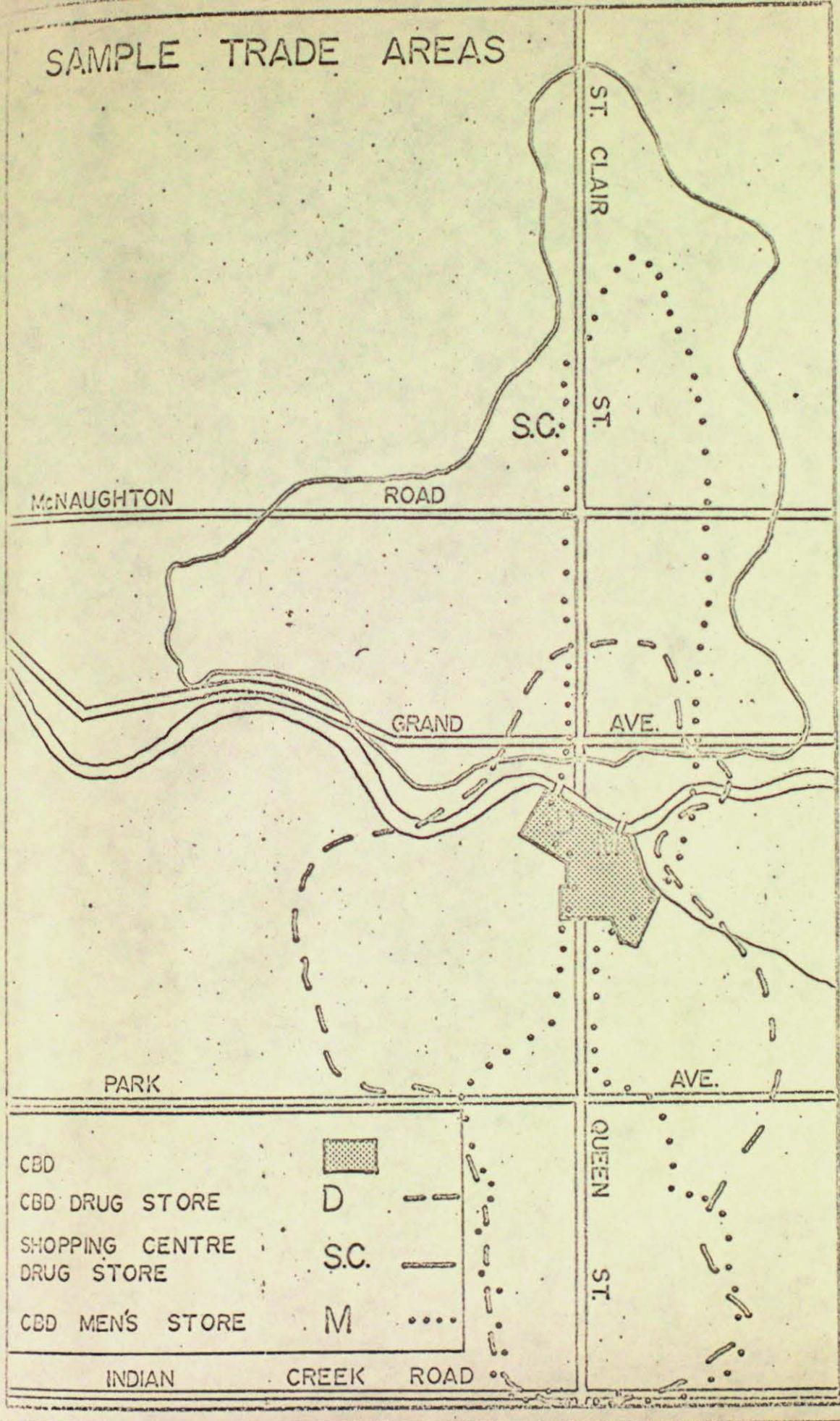
4 See Appendix, Figures 1 and 2

5 Raymond E. Murphy and J. E. Vance, Jr. op.cit.

6 Raymond E. Murphy and J. E. Vance, Jr.; "Delimiting the CBD." op.cit. p. 190

7 Raymond E. Murphy and J. E. Vance, Jr., "A Comparative Study of Nine Central Business Districts" op.cit.

SAMPLE TRADE AREAS



CBD



CBD DRUG STORE

D



SHOPPING CENTRE
DRUG STORE

S.C.



CBD MEN'S STORE

M



CHAPTER FIVE

THE ROLE OF THE CBD WITHIN THE CITY

With all that has been written regarding the problems associated with the core areas of large cities, the role of the CBD itself has come under close scrutiny. The problems are a complex mixture of crime, slum conditions, traffic congestion, and outdated structures. Added to this, is the competition that retailing functions within the downtown area must face from the planned suburban shopping centers. Chatham's CBD faces many of these problems, but since this study is not planning oriented, the solutions to the district's problems will have to be subject matter for future studies.

Although no attempt has been made to solve these problems, the effects of recent developments, such as planned shopping centers, upon the core area will be briefly considered. In the decades, following World War II, the increased use of the automobile in the United States and Canada has superimposed a new retail structure upon the retail pattern developed in the decades, prior to the development of mass transportation. The CBD was located at the converging point of all major transit lines.¹ This occurred mainly in the large metropolitan cities. Since Chatham's bus transportation system was not inaugurated until after World War II, its presence had little effect on the growth of the CBD. The congestion that is characteristic of CBD's in large cities is due mainly to the fact that people have abandoned mass transportation

system in favour of the convenience of the automobile.

It has caused similar problems in smaller cities, since mass transportation in these cities is a recent development. Even with the advent of the bus system in Chatham, private means of conveyance remained dominant, due to the inefficiency of the public system. As a result of increased use of the automobile, tremendous pressures were exerted on the narrow streets, and limited parking facilities of the downtown area. The shopping centers began to appear in the suburbs, with easily accessible parking and a large mix of goods as their main attraction.

THE EFFECT OF PLANNED SHOPPING

CENTRES ON THE CBD

Although there are two shopping centers in Chatham, the effects of the center located on St. Clair Street will be studied. This decision was based on the presence of a drugstore within the center, which provided delivery service, because the author wished to compare its trade area with that of a similar drugstore within the CBD. The resultant trade area study consisted of one hundred delivery addresses, which were then plotted on a map. The pattern was scattered in nature, having the highest concentration within the immediate vicinity of the store.

The important point to note is that the drugstore located in the shopping center has most of the trade north of Grand

Avenue, while the downtown store depends upon the area south of that artery for its customers. If the premise is acceptable that the drugstore is representative of the general retail establishments in the city, the effect is evident. The functions, or outlets, in the shopping centers are making serious inroads into the trade area that was at one time controlled entirely by the CBD. The main reason for this is not a better mix of goods, because it is quite similar in both locations, but rather, the availability of accessible parking found at the shopping centers. Since the trend is towards one-stop shopping, especially in regards to high turnover goods such as children's clothing and toys, the consumer tends to depend more and more on the shopping centers to provide this service. This has resulted from the congestion that is found in the CBD, especially during the rush hour periods.

The one factor that is still attracting people downtown is the lack of high quality goods within the shopping centers. The CBD is the only place where the customer can take advantage of comparison shopping for such goods. The question arises whether the CBD can draw customers of such merchandise from all parts of the city, or just from higher income areas of the city. In an effort to answer this, the trade area of a high quality men's wear store was mapped. The scatter pattern of the drugstore trade areas was replaced by a more nucleated pattern, since more than sixty

percent of the samples were located in two sections of the city. One section was bounded by McNaughton Avenue, St. Clair Street, Grand Avenue, and Taylor Avenue; the other, by Park Avenue, the C. and O. Railway Line, and Indian Creek Road. Although income statistics were not available, these areas contain the middle and upper class residential dwellings. It can be seen that as the price and quality of the merchandise increases, its trade area becomes more restricted.

In spite of the changes occurring within the city, the CBD will retain its importance as the main retail district. This is due to the fact that Chatham is the main retail district for the County of Kent. People from the outlying towns will continue to come into Chatham for items not obtainable in their respective shopping districts.

FOOTNOTES

1 Homer Hoyt "Classification and Significant Characteristics of Shopping Centres" in Reading In Urban Geography, edited by Harold M. Mayer and C. F. Koim, The University of Chicago Press 1959, p. 454.

CHAPTER SIX

CONCLUSIONS.

It is felt that this paper has made some contributions to the field of urban geography. No one had attempted to test the validity of the various methods evolved for large metropolitan areas in cities with populations of less than 50,000. Both components of the Central Business Index Method were applied and proven to be unrealistic in their results regarding the CBD of Chatham. A variety of methods based on assessed land values were tested and the results indicated that they were of little value in delimiting the CBD. A limited amount of success was attained in delimiting the hard core of the CBD at the point where the assessed land value for individual lots dropped below \$10,000.00. The functional change in land uses proved to be the most successful method of delimiting the CBD. This is the most realistic method for cities the size of Chatham. The land use within the CBD reflects many of the patterns described by Murphy, Vance and Epstein in the series of articles on the CBD. Owing to the size of Chatham, these land use patterns are not as distinct as those in the cities described in the above mentioned articles. The advent of planned shopping centres with easily accessible parking has attracted customers in search of a more general mix of goods from the CBD, but those who demand high quality goods depend upon the CBD for these items.

Cities the size of Chatham are extremely fertile ground for future research. They share many similar problems and are usually limited in the amount of funds that can be appropriated to find solutions to them. Once this area of study has been more fully exposed to urban geographers and town planners possibly greater cooperation will be nurtured between the smaller cities in an attempt to solve problems shared by all of them.

APPENDIX

'MURPHY-VANCE LAND-USE CLASSIFICATION

CBD FUNCTIONS

Restaurant	FA
Supermarket	FB
General Food	FC
Food Specialty	FD
Delicatessen	FE
Bar	FF

CLOTHING

Women's Clothing	CA
Men's Clothing	CB
Clothing Specialty	CD
General Shoe Store	CE

HOUSEHOLD

Furniture	HA
Hardware and Appliances	HB
Dry Goods, Rugs, Curtains	HC
Heating Sales	HD
Used Furniture	HE

AUTOMOTIVE

New and Used Car Sales	AA
Service Station or Garage	AB
Accessory Tire & Battery Sales	AC

VARIETY

Department Store	VA
Five and Dime	VB
Drugstore	VC
Cigars and News	VD

PUBLIC AND ORGANIZATIONAL

Public Building Space and Public Ground Space	GA
Organizational and Charitable Institutional	GB

INDUSTRIAL	IA
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WHOLESALE	WA
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VACANCY

Vacant Building or Store	XA
Vacant Lot	XB
Commercial Storage	XC

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