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LAND USE PATTERNS
IN THE DETROIT DOWNTOWN DISTRICT
FROM 1853 TO 1889:
AN ARCHAEOLOGICAL AND HISTORICAL PERSPECTIVE
presented by

## Julie Durkin Montague

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    IN THE DETROIT DOWNTOWN DISTRICT
            FROM 1853 TO 1889:
AN ARCHAEOLOGICAL AND HISTORICAL PERSPECTIVE
                    By
            Julie Durkin Montague
                    A THESIS
            Submitted to
        Michigan State University
            in partial fulfillment of the requirements
            for the degree of
            MASTER OF ARTS
            Department of Anthropology
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                1985
    
## Copywrite by JULIE DURKIN MONTAGUE 1985

## ABSTRACT

LAND USE PATTERNS
IN THE DETROIT DOWNTOWN DISTRICT
FROM 1853 TO 1889:

AN ARCHAEOLOGICAL AIND HISTORICAL PERSPECTIVE
By
Julie Durkin Montague

This thesis is a land use study of the Detroit Downtown District during its transition from a commercial to an industrial city. The goal was to determine changes in land use structure from 1853 to 1889 , describe historical and geographical factors responsible for the changes, and suggest archaeological topics based on these conclusions.

Color coded maps of the study area were created, one each for the commercial and industrial periods, using twenty-two land use categories. The SYMAP computer mapping program utilized this data to generate contour maps of each land use type. Conclusions about the land use structure of the study area and its changes between 1853 and 1889 were based on both the color coded and computer generated maps.

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    The study revealed six important changes that distin- guish the two periods. These changes are all related to the development of industry and its effects on population growth, retail activities, and city expansion.
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To my husband, Wayne and my parents, John and Mary Jule Durkin, whose support was instrumental in the completion of this thesis.

## ACKNOWLEDGEMENTS

Although my name alone appears on this thesis, without the contributions of numerous individuals, this research would not have been possible. In particular, I would like to express my gratitude to the following:

To Dr. Charles Cleland and Dr. Moreau Maxwell, my committee members, for suggesting this topic and for their continued support and suggestions;

To Dr. Rollin Baker and Dr. Kurt Dewhurst, past and present directors of Michigan State University Museum, for making space and supplies available to me during my research;

To Dr. William Lovis, Curator of Great Lakes Archaeology at Michigan State University Museum, and Dr. Vergil Noble, Director of the Midwest Archaeological Research Center at Illinois State University, for their advice in using the Synagraphic Mapping System. Vergil also read a draft of this thesis and offered helpful suggestions;

To my colleagues in the Anthropology Division of the Micnigan State University Museum, and especially to Pnil Franz, my friend and office-mate, who all cheered me on in my work;

To my husband, wayne and my parents, John and Mary

Durkin, for their constant support and encouragement of my work. This thesis is dedicated to them.

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## CHAPTER 1

## INTRODUCTION AND PROBLEM STATEMENT

Archaeological interest in the study of urban settlements is not a recent phenomenon. It extends at least as far back as 1946, when V. Gordon Childe formulated the concept of the Urban Revolution. Since then most urban archaeological research has focused on ancient Old World, Mesoamerican, and South American cities. Kramer (1957) studied the Sumerian cities of the third millenium B.C. and Millon (1967) described the Mesoamerican settlement of Teotihuacan. Morris (1975) investigated sampling procedures in urban Huanuco Pampa. Man, Settlement and Urbanism edited by Ucko, Tringham, and Dimbleby (1972) includes studies by Trigger, McC. Adams, and Johnson concerning such topics as urban growth in preindustrial societies, urbanization in southern Mesopotamia, and the utility of Central Place Theory in studying ancient urban settlements.

These urban studies fall into three categories. Much of the literature concerns the rise of urbanism and the origins of urban life (Blouet 1972; Trigger 1972; Sjoberg 1965; McC. Adams 1960). Other works involve a regional approach, investigating the patterns of urbanization in specific areas and the relationships between cities (John-
son 1972; McC. Adams 1972; Kramer 1957). The final category includes research pertaining to specific urban locations. Millon's study of Teotihuacan (1967) falls into this category as does the analysis of the early Iranian city of Tepe Yaha (Lamberg-Karlovsky and Lamberg Karlovsky 1971). Biddle (1974) followed the expansion of Winchester, England from the Iron Age through Roman rule and Norman rule into the Victorian period. Raper (1977) analyzed the internal structure of Pompeli at the time of its destruction in A.D., searching for the "underlying social processes" responsible for the city's structure.

Other disciplines which have contributed to an understanding of urban life, both present and past, include geography, sociology, cultural anthropology, and history. Archaeologists will find information from these disciplines useful in their analysis of uriban areas. The modern city has been studied extensively by geographers, sociologists, and anthropologists. Urban geographical study has two major foci--interurban and intraurban analysis. The former includes the study of the spatial organization of regional, national, and international urban systems, and their hierarchical organization (for example, Rugg 1972/79, Brush 1953, Christaller 1933/66). The development and testing of models of spatial structure, land use, and urban growth are included in the category of intraurban analysis. These models include Burgess' concentric zone theory (1925), Hoyt's sector theory (1939), Harris and Ullman's multiple
nuclei theory (1945), Haig's cost of friction model (1926), and Alonso's individudal preference model (1964). Some geographers (especially Berry 1973, Berry et. al. 1963) study the social structure of cities in relation to their spatial structure. The third area of intraurban analysis involves analyzing the factors responsible for and influencing the spatial and social structure of cities. These factors can be economic, political, social/cultural, physical/topographical, and religious.

Urban sociologists study how people organize their lives in the apparent disorder of an urban landscape (Greeley 1977; Suttles 1972). They "aspire to a scientific representation of the urban community" which is also "useful for future planning" (Suttles 1972: 6). Urban anthropologists have concentrated mainly on cities in developing countries, studying such topics as migration from rural to urban areas, family and kin structure and relationships, and class structure (for example, Safa 1974, Clinget 1966, Abu-Lughod 1961).

The study of historic cities involves the combination of a number of disciplines--archaeology, geography, history, and sociology. Historical geography encompasses a variety of topics in inter and intraurban analysis, including spatial changes in urban retailing (Conzen and Conzen 1979), the effects of immigration on the structure of the city (Hershberg et. al 1976; Ward 1971), and the geography of crime (Schneider 1980). History, sociology, and geogra-
phy combine in the study of urban social history. Topics in this area include family and class structure and relationships (Katz l975), the social and spatial effects of commercialization and industrialization (Davey and Doucet 1975), and migration and mobility (Katz 1975).

While archaeologists have focused mainly on ancient and Old world cities, they have until recently virtually ignored the historic American city. In the past ten years, however, interest in the archaeology of urban America has expanded. In 1973, Bert Salwen called for a shift in the emphasis of urban archaeological analysis from archaeology in the city to archaeology of the city. Archaeologists should view the city itself as an important archaeological entity instead of concentrating on "the frustrating attempt to snatch scraps of information about prehistoric aboriginal cultural systems from the path of advancing urban sprawl" (Salwen 1973: 151). Excavations have demonstrated that rich archaeological deposits remain in many cities despite decades of construction. These cities include: Pittsburgh (Alexandrowicz and Alexandrowicz, 1983), Philadelphia (Orr 1977; Cotter and Orr 1975), Sacramento (Schulz 1982; Schulz and Gust 1983), Providence (Rubertone and Gallagher 1981; Rubertone 1982), Atlanta (Dickens and Crimmins 1982; Dickens and Bowen 1980), New York (Rothschild and Rockman 1982), St. Augustine (Deagan 1982), Alexandria (Cressey 1979a, 1979b, 1979c; Cressey and Stephens 1982), Boston (Bower and Rusing 1979, l980), and Ventura, Cali-
fornia (Greenwood 1980). These urban excavations have demonstrated that American cities provide the potential for addressing important archaeological questions. Salwen presents the "rich possibilities for urban archaeology in New York--both historical/evolutionary studies of the development of the city and structural/functional studies of the relationships between this giant product of hurian behavior and the sociocultural configurations that produced and were modified by it" (1973: 154). Dickens and Bowen's research in Atlanta led them to suggest two complementary values of urban archaeology:

1) to "help elucidate the processes of urban cultural evolution, thereby making archaeology relevant to studies of present behavior and to planning for future behaviors";
2) to "contribute to the development of better method and theory for all archaeology, since those behaviors being studied are part of a still active continuum for which the material-behavioral corollaries often can be identified through docunients and informants" (1980: 5l).

American urban archaeolocy, archaeology of the city, can address a wide variety of problems and topics, some related to the development of the city and others of a more general archaeological and anthropological nature. These topics include:

1) the overall processes of urban growth (Schuyler 1982; Rubertone and Gallagher 1981; Fitch et.al. 1980);
2) socioeconomic status and the degree of stratification among economic groups and their changes over time (Cressey and Stephens 1982; Cressey 1979a);
3) effects of industrialization on an urban population (Cressey l979a);
4) ethnicity/assimilation/acculturation (Schulz and Gust 1983; Baker 1980; Bower and Rushing 1980; Greenwood 1980; Langenwalter 1980; Otto 1980; Mason 1976);
5) settlement patterns and spatial organization of the city (Deagen 1982);
6) urban behavioral patterns and processes--their reflection in the archaeological record and their influence on artifact deposition (Rubertone 1982; Rubertone and Gallagher 1981);
7) comparisons of remains from different contexts-urban vs. rural, commercial vs. industrial (Fitch et.al. 1980).

Most urban archaeological excavations are salvage in nature, especially due to public transportation and other construction projects, and are therefore under severe time and money constraints. In addition, a city contains a vast amount of data over a large area. To deal effectively with these constraints and to address important archaeological questions while staying anead of the bulldozers requires well-developed research designs similiar to those suggested by Cressey (1979a) and Dickens and Bowen (1980). The first step in an urban archaeological research design is the formulation of working hypotheses based on the potential problems to be addressed. These hypotheses may be based on previously studied archaeological and/or historial data (Dickens and Bowen 1980: 51). The archaeologists must then undertake extensive historical research to identify potential archaeological sites, and to determine the possible impact of any future construction. Field testing and excavation to collect data are the next steps, followed by analysis of the data in relation to specific problems, hypo-
theses, and models. The final step involves the formation of new hypotheses and models.

Within an urban research design, archaeologists must view the city as an integrated unit, a city-site (Cressey 1979a). It is not enough to just focus on individual sites within the city. By discussing only individual sites, "little is known of the relationship between such sites, much less the relationship between each individual site and its own urban and regional setting. It is as if these sites were dug without regard for the fact that they each are only one locus in a city site" (Cressey 1979a: 1). Although a city may seem too large to be considered a site, it qualifies as one according to Clarke's definition:
"A site is a geographical locus which contained an articulated set of human activities or their consequences and often an associated set of structures" (1977: 11).

A city is a complex, ever-changing entity--a system.
This idea was borrowed from ecological theory and maintains that "the city's cultural components (socioeconomic, political, technological, ideological, etc.) and physical components (physiographic, hydrologic, climatic, geologic, etc.) are interrelated in a dynamic system" (Dickens and Crimmins 1982: 107). Archaeologists must study the components of a city in relation to each other and to the whole system. In order to address the urban archaeological topics outlined above, they must analyze the structure of the city through time and determine how changes in parts of the system affected the other components and hence, the whole city.

Land use maps provide an excellent instrument for viewing the structure of a city through time. This method is called for by Salwen (1982) and employed by Rubertone and Gallagher (1981) and Rubertone (1982) in Providence, Rhode Island, and by Deagan (1982) in St. Augustine. Land use maps illustrating urban structure over time are valuable tools in archaeological analysis. They are the link between spatial organization, the factors influencing it, changes in that spatial structure, and urban archaeological remains. They provide insight into historical and cultural developments which affected and were affected by people's behavior (Salwen 1980: xiv). This behavior is reflected in both land use maps and in the archaeological record. Land use maps are also important for sampling purposes. The archaeologist can define the components of a city, such as residential, commercial, industrial, and public land, and then stratify the sample to analyze different urban behaviors. Urban land use maps studied sequentially are most valuable in that they provide a framework for assessing the potential of urban archaeological deposits.

An American city that holds enormous potential for urban archaeologists is Detroit, Michigan. First settled by the French in 1701, it later passed through the British into American hands. The city's transitions from trading and frontier post to commercial merchant center and to industrial city make it possible to view urban evolutionary growth and the behavioral and material changes that coincid-
ed.
Archaeology in Detroit, as in most cities, has been mainly small in scale, usually single site salvage excavation. Detroit archaeological sites include the Pontchartrain Hotel site (Pilling l965b, l966b), Fort Lernoult (Pilling l965a, l966a), the Civic Center Plaza (Martinez 1977), Riverfront West (Martinez 1979), Joe Louis Arena (Demeter 1980a, 1980b), the Sneridan Place Development Site (Demeter and Barnard 1980), the Detroit Boatyard (Demeter and Albers 1981), and the Renaissance Center (no publications). Other more general, theoretical studies of Detroit archaeology have also been published (e.g. Pilling 1954, 1982). In spite of the large number of sites, no real archaeological research design exists for the city. Resource Analysts completed literature cultural resource surveys of eight parcels of land in Detroit (described by Gram et. al. 1981). These general land use overviews were compiled to determine the archaeological sensitivity of specific areas of the city, but time and money constraints prevented the undertaking of more detailed land use histories (Gram et.al. 1981: l). While the authors developed a management program to determine if subsurface remains should be investigated before the city begins construction projects, the studies do not deal with the potential of Detroit excavations to address important topics in urban archaeology. They do not constitute a systematic research design.

As previously discussed, archaeologists (Cressey l979a and Dickens and Bowen 1980) have called for urban research designs that view the city as a site, a system. The structure of the city-site through time must be determined through the analysis of a series of land used maps. The archaeologist must define the components of the city system, how they influenced and articulated with each other, and how their relationships changed over time. This understanding allows for analysis more detailed than just determining areas of archaeological sensitivity.

A research design for Detroit, therefore, requires an understanding of the city's structure over time. A detailed land use history that includes land use maps is the first step in analyzing the historical structure of the city. The land use history will act as a guide to the types of archaeological problems that can be addressed. It will lead to the development of hypotheses from which to work and ultimately to the formation of models that explain behavioral and material variability.

Analyzing the structure of Detroit throughout its entire history is too large a task to deal with here. It is possible, however, to undertake a detailed land use study of one section of the city as a starting point and as a guide to further studies in the remaining sections. The modern central business district represents the oldest part of Detroit and therefore holds enormous potential for recovering archaeological materials from all time periods
and types of activities. Gram et. al. (1981) designated the Detroit Downtown District as an area of high archaeological sensitivity, for which a more detailed land use study is required. The boundaries of this area are the John Lodge Freeway and Brooklyn Street ( 7 th Avenue) on the west, the Walter $P$. Chrysler Freeway on the east, the Fisher Freeway on the north, and the Detroit River on the south.

A detailed land use study of the Detroit Downtown District throughout its entire history is also too massive to undertake here. The period from 1853 to 1889 has been chosen for analysis because it represents Detroit's transition from a commercial center to an industrial city. An analysis of this great transitional period offers a chance to view changes in the structure of the city and the coinciding changes in the archaeological record. In addition, a good deal of archival information exists for this period in the form of maps, city directories, and secondary sources.

The determination of changes in spatial organization of 1 and between 1853 and 1889 will lead to an analysis of the structure of the city system and its changes. Using geographical locational analysis and historical information on Detroit and the United States in general, it will be possible to suggest factors responsible for these alterations. The archaeologist can then relate the factors involv-
ed in the structural changes to the archaeological topics outlined above. Individual topics such as the effects of industrialization on spatial organization and artifact deposition patterns can be addressed. In addition, larger, more general problems such as the overall processes of urban growth and their influence on the archaeological record can be pursued. Like archaeologists in general, a goal of urban archaeologists is to determine and analyze the past behavior which is reflected in the archaeological record. How did the changing structure of the city and the factors responsible for the changes influence the lifestyles of Detroit's inhabitants? The detailed land use study of one area in Detroit is an initial step toward answering that question.

Chapter Two of this study outlines the history of Detroit before 1855. It describes the political, economic, and social factors that shaped the city into an important commercial center and influenced its structure and its land use organization. Outside factors that influenced the growth of Detroit are also discussed.

Chapter Three presents a description and analysis of the two land use maps--1835/55 and 1885/89--and explains why they each cover more than one year. It includes an explanation of the methods of compilation and analysis of the maps. Finally, this chapter presents conclusions regarding the changes in land use during the transition from commercial to industrial Detroit and compares them to
related studies in geography, history, and sociology.
A brief history of Detroit from 1855 to 1889 in light of the conclusions drawn in Chapter Three is presented in Chapter Four. Possible factors responsible for changes in the structure of the city and its land use are explored. A final chapter discusses the research potential of this study for Detroit archaeology and urban archaeology in general.
An understanding of the structure of Detroit in the mid-eighteenth century requires knowledge of the events leading up to its development as a commercial center. This chapter outlines the history of Detroit from its founding in 1701 up to 1855, at which point it was a developed commercial city. This time span can be divided into two stages. The first stage, 1701 to 1818, covers the time period from the founding of the settlement to the arrival of the first steamboat. In spite of the major events such as the French, British, and American occupations, the British occupation during the War of l812, and the city's recapture by the Americans, there was little growth in the size of the settlement or in its economy during this stage.
The second period includes events from the arrival of the first steamboat in 1818 up to the mid-l850's, prior to the Civil War and the expansion of industry. The city experienced rapid growth during this stage, enlarging from a small settlement of less than 700 to a merchant center with a population of more than 26,000 . The factors responsible for this expansion will be examined along with the
physical and social consequences of this growth.

## 1701-1818

The French occupied Detroit from 1701 until the British captured it in 1760. On July 24,1701 Antoine de La Mothe Cadillac founded a settlement on a broad, deep river which formed the straits between Lake Huron and Lake Erie. He named the settlement Fort Pontchartrain du Detroit after French Colonial Minister Pontchartrain. The fort was founded as a commercial colony for the profitable New World fur trade. Its location on the straits and near the eastern entrance of the Maumee-Wabash outlet channel provided excellent access to Indian trade from present day Ohio, Indiana and Illinois, as well as a portion of the upper Great Lakes (Parkins 1918: 314). Excluding the fur trade, however, there was little commerce and no real industry in Detroit during the French occupation.

The French government granted Cadillac the land he needed to build the fort and the settlement. The grant included the area bounded on the east by what is now Brush Street, on the west by present day Cass Street, and north from the river to Adams Street. The original fort stood between what is now Jefferson and Woodbridge, Griswold and Shelby, but was expanded numerous times as the number of settlers increased. Within the fort, streets and buildings were small, most of the former measuring 12 to 15 feet wide (Farmer 1890/1969: 926).

Cadillac received permission to grant farm land outside of the fort beginning in 1706. In 1716 the French king revoked these grants and the land was regranted beginning in 1734. The farms acquired the name "ribbon farms" because of their long and narrow shape which gave river frontage to as many owners as possible. The farm houses were usually on the riverfront, although some farmers kept houses in the fort for protection (Farmer 1890/1969: 21). Detroit's inhabitants used the land between the fort and the farms--the commons--mainly for cattle grazing.

The fort attracted some settlement to Detroit in its early years, providing both a market for fur traders and protection for settlers. In addition, many Indian groups moved near the fort for the same reasons. Sixty three people lived in the settlement in l708, and this figure grew to approximately two hundred in 1709 (Farmer 1890/1969: 333). Cadillac was appointed Governor of Louisiana and left Detroit in 171l. His departure resulted in a decline in the fort's commercial base. His successor, Tonty, demanded larger taxes on the fur trade, and consequently, the Indians began to trade more with the English at Albany (Farmer 1890/1969: 766).

When Cadillac left Detroit many settlers followed him because they feared the settlement would close (Farmer 1890/1969: 333). The French government offered incentives to counter this movement and to expand the dwindling
population. Tools, animals, seed and support money were provided for anyone who would move to Detroit. The program resulted in some moderate growth, and the addition of 46 people in 1749 necessitated the enlargement of the fort. The population grew to 483 by 1750 , but beginning in 1752, movement to Detroit slowed due to the war with the English (Farmer 1890/1969: 334).

In 1760 the French surrendered Fort Pontchartrain du Detroit to the British, who remained in power there until 1796. When the British moved into Detroit they banished many of the French Canadian farmers and as a result, agriculture declined. After the French surrender the British enlarged the fort to include approximately 80 houses. Farmer (1890/1969: 766) claims that Detroit under British rule became a great center of Indian trade. The only industry consisted of military shipbuilding along the river outside of the settlement. A few blacksmiths, locksmiths, and brewers manufactured goods for the local population.

Fear of an American attack on Detroit during the Revolutionary War led Major Lernoult, a British official, to order the building of a new fort in 1778. Fort Lernoult was erected between present Fort and Lafayette streets, from Griswold to Washington, and the stockade was extended from the old fort to meet the new one. Because of Detroit's strategic importance, the British increased the number of soldiers and supplies in the fort. Burton et. al. (1930:
1238) claim that the settlement became a lively frontier post at this time, but money and supplies were still scarce. Money and supplies were not the only scarce items in Detroit during the British occupation. The population of the settlement and the surrounding area declined from 2500 to 800. In addition to the loss of some banished French Canadian farmers, many Detroiters moved to St. Louis after its founding in 1764 (Farmer 1890/1969: 334). To add to the population decline, many American loyalists left during the Revolutionary War. Except for the construction of a new fort and the expansion of the stockade, the physical layout of Detroit did not change much under British rule. The streets within the fort were still small, and the commons and farms made up the land outside the fort.

The American victory in the Revolutionary War forced the British evacuation of Detroit on July 11, 1796. Detroit and the surrounding region underwent some major political divisions during the first American occupation from 1796 to 1812. In 1800 the settlement was part of the Indiana Territory. The town of Detroit was chartered in 1802 and encompassed all the land between modern Cass and Brush streets two miles north from the river, although most of this land was still unsettled. The town did not grow much in the first years of the American occupation and streets and buildings within the town remained small. In 1805 the federal government divided the Indiana Territory into the Michigan and Indiana territories. Detroit became part of
the new Michigan Territory, which was administered by a governor and territorial judges.

In 1805, shortly after Governor William Hull took office, a major fire destroyed most of Detroit. The town at this time covered approximately 20 acres and housed 551 people (Farmer 1890/1969: 26). After the fire Hull feared that nearby Canadian towns would surpass Detroit in importance, so he traveled to washington along with Judge Augustus Woodward and Judge Frederick Bates and requested permission from Congress to lay out a new town and grant new homesteads (Parkins 1918: 130). The plan called for circuses and broad streets radiating like spokes, with public squares and parks. Congress approved the new plan with the stipulation that the Military Reserve of Fort Lernoult would not be platted. In addition, Congress granted the governor and judges a 10,000 acre tract of land north of the town to sell to the inhabitants.

Many of Detroit's citizens opposed the Governor and Judges' Plan to lay out a new Detroit. They wanted their old lots back and objected to the platting of the commons. As a compromise, the land along the river was laid out in a regular grid fashion. When Congress granted the Military Reserve to the city in 1826 it was also platted in a conventional fashion.

The economy of Detroit during the early American period remained mainly commercial. The United States Government's naming of the town as a port of entry in 1799
influenced the economy to diversify into more areas of trade than just the exporting of fur. Detroit also became an entrepot for the area around the town although this was only sparsely settled (Parkins 1918: 316). Scarce capital, high interests rates, and the absence of markets for manufactured goods restricted the development of any major industries. Some residents manufactured items such as flax, hemp, and woolen goods, hats, liquor, soap, candles, leather goods, saddles, and bridles in their home for sale to the local market (Parkins 1918: 281). While industry remained insignificant, the number of retail business increased during the early American occupation. These commercial establishments depended heavily on the soldiers stationed in town for most of their business (Dain 1956: 124). The retail streets at this time were lower Woodward, Woodbridge, and Atwater, with Atwater being the principal retail street (Burton et. al. 1930: 1288). Most commercial activity took place along the riverfront.

The British regained control of Detroit during the War of 1812, capturing the town on August 16, 1812. They forced some leading American citizens to leave and rationed food and supplies. Farm lands and buildings were confiscated, the population scattered, and money remained scarce. The war disrupted trade routes resulting in a decline in commerce and limiting the amount of capital in the town. Political instability during the war also deterred immigration to Detroit (Parkins 1918: 142).

Before the Americans recaptured Detroit on September 28, l813, the British burned part of Fort Lernoult, including the barracks. The Americans promptly rebuilt the fort and renamed it fort Shelby after the new governor of Kentucky who had led troops to relieve Detroit after the British abandoned the town. However, it took much longer to rebuild the town's economic base. The British occupation during the war had taken its toll on the small town. Shortages of food, provisions, and shelter left Detroit in a shambles. Unfortunately, conditions did not improve when the Americans regained power. Skyrocketing prices and the cost of living impeded a quick economic recovery. To make matters worse, a disease broke out and killed approximately 700 soldiers stationed at the fort.

Detroit's economy worsened during the period from 1813 to l818, the years immediately before the first steamship arrived. After the war, many of the farmers whose land had been confiscated and homes destroyed did not return to agriculture. The town, therefore, depended on imported food, but lacked the export goods to balance trade (Dain 1956: 14). Competition from foreign goods had diminished the importance of the fur trade in the Great Lakes area (Dain 1956: 5). In addition, for several years after the war, trade relations with other countries remained unstable, hindering Detroit merchants from importing and exporting many goods (Burton et. al. 1930: 1298). Industry was still at a small scale because of the continu-
ing high interest rates, lack of capital, and absence of markets, so no manufactured goods were exported. This shortage of money and capital forced Detroiters to use the barter system. All available cash came from Ohio banks and was discounted by eastern creditors. The value of money in Detroit declined even further after the Ohio banks failed in 1817.

Few people settled in Detroit, even after the British surrender. In fact, the population declined after the war because the British moved across the river and offered land grants there to Detroit's French farmers (Dain 1956: 5). Only about 750 people resided in the town in 1810 and the population grew to only 770 by l8l8. Detroit's incorporation as a city in 1815 was mainly a morale booster for the ailing population. At this time most of the inhabitants still lived on the south end of town, close to the river. The majority of the land in the 10,000 acre tract granted to the governor and judges remained unsold. Because of the small population and the location far from the river, there was no real demand for the land. In $1818,8,300$ of the 10,000 acres were still unsold.

Slow growth characterized Detroit in the period from its founding in 1701 to the arrival of the first steamboat in 1818. Three major related factors were responsible for the comparative lack of settlement in the eighteenth and early nineteenth centuries: isolation, lack of a developed hinterland, and bad publicity. Poor transportation to the
east and the hinterland left Detroit isolated from the outside world. Boat and land transportation for both people and goods was dangerous and unreliable. This hindered the movement of people in and out of Detroit and also resulted in high freight costs for imported and exported goods. The Black Swamp along the southwest shore of Lake Erie from Sandusky Bay to the Miami River provided the only access to Ohio but was impassable most of the year. In addition, travel was dangerous because unfriendly Indians controlled most of the land between the Michigan Territory and the east (Dain 1956: 12). The Treaty of the Rapids of the Miami negotiated in 1871 between the United States and the Wyandotte, Seneca, Delaware, Shawnee, Pottawatamie, Ottawa, and Chippewa helped alleviate some of this problem (Dain 1956: 61). A good deal of land in Detroit's hinterland was still occupied by Indians, however, which deterred white settlement there. The isolation, which resulted from poor transportation and Indian occupation of nearby land, hindered the growth of Detroit. The westward movement of settlers virtually stopped in Ohio, with few moving on to Detroit. In addition, difficulty in exporting and importing goods to and from the east stunted Detroit's commercial growth.

As Dain (1956: 66) suggests, Detroit's second major problem during the period 1701 to 1818 was the absence of a developed hinterland. People simply could not get there because of the poor transportation. Even if they could reach the hinterland, the land there was unsurveyed and
not for sale. This resulted in little agricultural growth in the area around Detroit. The scarcity of agricultural goods for sale forced Detroiters to import most of their food. The absence of a developed hinterland also stunted the growth of industry in Detroit, because there was no real market for goods manufactured in the city. In addition, because of its small population, the city lacked the labor necessary for industry. According to Parkins (1918: 291):
"The industrial development of the region was greatly hindered by the lack of factory workers.... Until there should come a surplus of workers upon which the industries could draw, the chief industries of the city would be of secondary concern and only such as would supply the most pressing local needs of the people."

These two related problems forced Detroit to import most of its manufactured goods.

Early settlers and government surveyors brought back to the east unfavorable reports about Detroit and the Michigan Territory. They said the land was unfit for agriculture, the Indians were unfriendly, and disease was prevalent. This bad publicity deterred immigration to Detroit from the east. Soldiers returning from the war of 1812 helped to ease this problem slightly by relating more favorable stories of the Michigan Territory. However, it would take more than good publicity to encourage the growth of Detroit and the surrounding area. Better transportation to bring setlers from the east and saleable land on which they could live were necessary for expansion of the city and development of its hinterland. The docking of the
first steamboat at Detroit in 1818 and the first sale of public lands in that same year were the first steps in fulfilling these two requirements.

1818-1855

An expansion in population and physical size characterizes Detroit in the period 1818 to 1855. In addition, the city's economic base diversified further with the beginning of wholesaling and development of the first real industry. In 1855 Detroit was a commercial center on its way to becoming a major industrial city. The factors responsible for Detroit's growth at this time are the sale of public lands, the signing of treaties with Indians in the surrounding area, steamboat transportation, and the opening of the Erie Canal.

The first sale of public lands in the Michigan Territory occurred in Detroit on July 6, 1818. Originally, most of the land sales were speculative due to a liberal credit system and a required minimum sale of 160 acres (Dain 1956: 78). Small farmers simply could not afford to buy a plot of land that large. A change in the land laws in 1820 allowing a minimum sale of only 80 acres bought on a cash only basis encouraged settlement in the Michigan Territory (Dain 1956: 79). In addition, a treaty with the Chippewa Indians in 1819 awarded the United States a large area of land in Central Michigan and the Saginaw Bay area (Dain 1956: 77). The removal of Indians from Detroit's hinterland
opened this area to white settlement.
Transportation to Detroit from the east became easier, faster, and cheaper with the development of the steamboat. The first steamboat, Walk-in-the-Water, docked at the Detroit harbor in 1818. Detroit's position as the western terminus of steamboat travel encouraged the growth of both the city and the surrounding area. Many settlers who came to Detroit with plans of moving farther west remained in the city. Completion of the Erie Canal provic even more important to the growth of the city than the arrival of the first steamboat. The opening of the canal in 1825 allowed relatively easy travel to and from Detroit. Hundreds of travelers a day reached the city via the Erie Canal, especially in the l830's. In 1830 alone, 15,000 people docked at Detroit, the majority of whom settled in the Michigan interior (Farmer 1890/l969). Their arrival had major economic and social consequences.

Easy transportation, combined with the availability of cheap, rich agricultural land, brought a flood of people to Detroit. Many of these new settlers were European immigrants, the Germans arriving first in 1832 and the Irish following in 1833 (Farmer 1890/l969: 336). The city experienced an enormous expansion in the period 1830 to 1840 as the population increased 309 percent from 2,222 to 9,102 (Parkins 1918: 170). It was a time "when entrepreneurs turned every building they could find into a hotel, a boarding house, or a general store for the wifi:ing of
settlers" (Scjo...der 1980: 9). The city grew another 130 percent in the following decade to a population of 21,019 (Parkins 1918: 170). The newly arrived German and Irish immigrants contributed to these two decades of growth. In 1850, when Detroit ranked as the 23 rd largest city in the nation, 47 percent of its population was foreign born (Parkins l918: 190). The city directory of 1853 lists 26,648 people, many of whom were immigrants and transient workers attracted to Detroit by an economic boom from 1847 to 1853.

Along with the population boom in the period 1818 to 1855, Detroit's physical size also expanded. In 1824 the city was enlarged to provide space for the 1300 people who called Detroit home. The boundary lines of the city moved west to the Forsyth Farm, east to include all the land in the Brush Farm, and north three miles from the river. The United States Government granted the Military Reserve to the city in 1826. The reserve encompassed all the land north from Larned Street to Michigan Avenue between Griswold and the Cass Farm (the edge of which is now Cass Street). This land was then sold to settlers and speculators. Detroit's continuously growing population necessitated further expansion of the city's boundaries in 1832, 1842, and 1849 and the platting of some old farm lands. In 1835 the Brush Farm from the river to High Street was laid out. Platting of the Cass Farm from the river to Grand River Avenue occurred from 1835 to 1851.

The growth of Detroit's population and city boundaries necessitated an expansion of public services, which indicates increasing urbanization (Warner 1972: 25). The first waterworks were built in 1817 at the corner of Jefferson and Randolph, but the pipes from the reservoir reached only a small segment of the population (Parkins 1918: 179). Due to increased demand for water, the city constructed a new reservoir in 1830 near the southeast corner of Wayne and Fort streets. The first Board of Water Commissioners took office in 1853 with the task of controlling the city's waterworks.

The growing population of Detroit also created major health problems, which forced the city government to undertake major public works projects. For many years the citizens of Detroit had dumped their garbage in the river. This created not only an eyesore along the riverfront but also a serious health hazard. To alleviate this problem, the riverfront between Randolph and Griswold was filled in, in 1826 with additional riverfront improvements continuing into the l830's. Savoyard Creek, which ran through the center of what is now downtown Detroit, became an open sewer and was covered over in 1836. In 1844 the city created Grand Circus Park out of a marsh that had also presented a potential health hazard.

Other major public works projects that influenced Detroit included the building of roads and railroads. Along with the Erie Canal, construction of roads and
railroads into the interior and to the east assisted in the growth of Detroit, its economic base, and its hinterland. The Detroit to Chicago Road (now Michigan Avenue) opened in 1833 and encouraged settlement to the west of the city. Other roads were constructed into the hinterlands north and south of the city and thus influenced the development of those areas. The Detroit and Pontiac Railroad, begun in 1836 , connected Detroit with rich agricultural land to the north. The Michigan Central Railroad reached Chicago in 1852 and further encouraged settlement west of Detroit. The Great Western Railway, which ran from windsor through Canada to the east, further reduced the city's isolation from the outside and encouraged movement west. Beginning in 1850, trunk lines linked Detroit to most railways in the east (Parkins 1918: 270).

By encouraging settlement in the interior, the Erie Canal, railroads, and roads helped to expand Detroit's economic base. As more farmers settled in the hinterland, Detroit became an important market for their agricultural products because the roads and railroads into the city supplied the only outlet for the surplus goods (Parkins 1918: 262). Improved transportation and resulting cheaper freight rates allowed easier movement of goods in and out of the city. In return, Detroit became the major supplier of goods and services to the interior (Parkins 1918: 262). Locally produced goods and services were transported from the city into the hinterland. In addition, all imports
from the east passed through Detroit on their way to the interior. The Erie Canal made possible the cheaper exporting of agricultural and manufactured goods from Detroit to the east. This alleviated the trade imbalance that was such a problem in the early 1800 's. As a result, in the 1830's Detroit became a major Great Lakes shipping and trade center.

With an expanded market and increased consumer demand resulting from the development of the hinterland and the rising population in the city, Detroit merchants entered the commission merchant and wholesale jobbing businesses. The commission merchants bought goods in large quantities and sold them in smaller quantities to jobbers who in turn sold the goods in even smaller portions to retailers. By 1840 Detroit was an important whoiesaling center, with the number of wholesalers increasing further during the economic boom of 1847 to 1853.

The rapid growth of the city also resulted in a boom in retail businesses. According to Farmer (1890/1969: 770): "The rush of immigration...caused such a demand for goods of all kinds that every house that could be obtained on Jefferson Avenue from Shelby to Randolph Street was fitted up for a store or filled with goods." In 1837, in addition to 4 banks, Detroit had 27 dry goods stores, 25 grocery and provision stores, 10 commission warehouses, 14 hardware stores, 3 markets, 6 drugstores, 4 hotels, 3 bookstores, 7 clothing stores, 8 jewelery shops, 4 printing offices, 2
daily newspapers, 4 weekly newspapers, 1 semi-weekly newspaper, 1 tri-weekly newspaper, 1 education magazine, 37 lawyers, and 22 physicians (Parkins 1918: 182).

The real development of industry in Detroit did not begin until the l840's. Metal and woodworking factories, along with grist and sawmills, comprised the major manufacturing establishments of the l830's and the majority of these produced mainly for the local market. In the 1840 's consumer demand and the market for manufactured goods expanded. Improved transportation allowed both easier access to raw materials and cheaper shipping rates for manufactured goods. Industry developed even further in the 1850's, but Detroit's commercial businesses continued to be more important than manufacturing. Burton et. al. (1922: 530) claim that large scale industry in Detroit began only after the organization of the national banking system in 1861. Although commerce remained the city's chief interest, a shift toward large scale industry began in the 1840's and 1850's.

In the twenty years prior to the Civil War, lumber replaced fur as Detroit's most important export item (Parkins 1918: 180). The Erie Canal provided the means for easy and cheap shipment of lumber to the east. Local factors also added to the expansion of the lumber industry. The growth of the city and the hinterland increased the demand for construction of homes and businesses. The construction business boomed and this benefited the lumber
industry.
The exporting of whitefish also gained importance after the development of cheaper and faster transportation. The whitefish industry began after the war of 1812 to serve the local market because fresh fish could not be imported from the east. The opening of the Erie Canal expanded the market for whitefish and allowed its shipment east beginning in 1826 (Parkins 1918: 180).

Detroit's copper smelting and tobacco processing industries first developed in the 1840's and 1850's. The mining of copper in Michigan dates to 1845 and the first copper smelting in Detroit occurred in 1850 (Parkins 1918: 293). The city was an excellent location for copper smelting because it had transportation connections with Lake Superior and was the nearest big city to the copper deposits of the Upper Peninsula and the Upper Great Lakes in general (Parkins 1918: 294). Tobacco grown in the region was first processed in Detroit in 1840 by George Miller (Farmer 1890/1969). The industry became important in the 1850's and l860's. Lumber, whitefish, copper, and tobacco were Detroit's most important exports in the years prior to the Civil war. However, other industries, such as tanning, meat packing, and clothing and shoe manufacturing, gained importance early in the second half of the nineteenth century.

The iron industry began in Detroit prior to 1840 but because of the poor quality of the bog iron ore, the
industry remained insignificant (Parkins 1918: 298). In 1854, however, high quality Lake Superior iron ore was first smelted and the iron industry in Michigan expanded. The Fulton Iron and Engine Works opened in the early 1850's on the southeast corner of woodbridge and Brush Streets (Farmer 1890/1969: 807). In 1854 the Eureka Iron and Steel works commenced production in wyandotte, twelve miles from the city (Farmer 1890/1969: 813).

Detroit's finances fluctuated from boom to bust following the growth of the city and its hinterland. These fluctuations corresponded with boom and bust periods nationwide. Land speculation went wild in the $1830^{\prime} s$, especially between 1834 and 1836. The expanding population and growing commerce provided speculators with an increased money supply with which to buy land. Speculation resulted in inflated prices for land, which led to further demand for money.

In response to the demand for cash and capital, an important financial institution, the Bank of Michigan, opened its doors in 1819. The bank provided a means to transact business directly with the east instead of through Ohio banks and it supplied the capital that Detroit badly needed to finance its growth. In fact, the bank had to increase its capital in 1833 to meet rising credit demands (Dain 1956: 108). A number of other banks were incorporated in Detroit between 1827 and 1835, including the Farmer's and Mechanics' Bank (1829) and the Michigan State Bank (1835).

Many of the nations' banks collapsed during the panic of 1837. A series of actions by the federal government led to the financial disasters of the late 1830's. In 1832 President Jackson revoked the charter of the United States Bank and put federal money into state and territorial banks. Detroit's Farmers' and Mechanics' Bank and the Bank of Michigan became federal deposit banks. The increased availability of money in state and territorial banks and the general prosperity of the nation resulted in the wild land speculation of 1834 to 1836 and the corresponding inflation. Prices rose to such an extent that in 1837 Jackson declared that paper money was no longer acceptable to the government. This decision led to the collapse of many banks, including the Bank of Michigan and others in Detroit. Many businesses went under and unemployment escalated. Detroit's finances suffered so much that local banks had to issue their own currency. The panic of 1837 was followed by a period of economic stagnation. Business was back to normal by 1845 and the nation experienced an economic boom from 1847 to 1853. This boom, however, remained free of the frantic speculation that wreaked such havoc ten years earlier.

Detroit's land use pattern from the l830's to the 1850's reflects many of the economic and social changes that occurred during this period. Mixed land use characterized Detroit in the l830's and l840's but this was changing as the city expanded (Schneider 1980: 11). Segrega-
tion by class had not yet developed, and in general the wealthy and the working class lived side by side, dispersed throughout the city (Schneider 1980: ll). The small commercial district remained south of Jefferson Avenue. Wholesale, retail, and mixed wholesale/retail stores lined Jefferson, the main street at this time, and the forwarding and commission businesses concentrated their warehouses along the river.

In spite of the generally mixed character of land, some spatial differentiation existed in the 1830's and 40's in Detroit. Griswold Street above Jefferson and Jefferson east of Randolph became the residential areas of merchants, lawyers, and gentlemen (Schneider 1980: 9). The homes of these wealthier citizens were located close to their owners' businesses. East Franklin Street and East Larned Avenue housed working class families (Schneider 1980: 9). The land above Michigan and Gratiot remained largely undeveloped because people were not yet willing to move that far north.

The real beginning of spatial differentiation in Detroit occurred in the late 1840's and the l850's (Schneider 1980: 33). The Michigan Central Railroad built its terminal at the western end of Jefferson Avenue near Third Street in the late l840's. This move attracted businesses to the lower west side, including big wholesale/retail stores and warehouses. In the 1850's the city's land became more differentiated. This increasing spatial diffe-
rentiation was the result of the economic boom period of 1847 to 1853 and the expansion and growth of business. This period "was critical in redesigning the city's central and riverfront areas" (Schneider 1980: 33). Trade and other commercial establishments still concentrated along the river for easy access to transportation but were expanding northward. Jefferson remained the main business street but some businesses moved up woodward after the City Hall and city market were built on what is now Cadillac Square (Gram et.al. 1981: 18).

The growth of Detroit after the opening of the Erie Canal and the economic boom of 1847 to 1853 created a large number of jobs. The employment opportunities attracted many young, unmarried men to the city, most of whom moved from eastern cities or from rural areas. To accomodate this influx, boarding houses and cheap hotels sprang up near the commercial district where the majority of the jobs were located. In 1853 one out of every seven people lived in a boarding house (Schneider 1980: 37). Surrounding the boarding houses and commercial district were brothels, saloons, billiard halls, and other amusements that catered to the transient population.

The expansion of the business district coincided with a residential retreat from the city center. This exodus expanded in the 1850's as competition for space among businesses pushed up the price of land in the center (Parkins 1918: 199). Many wealthy citizens left their
townhouses near the commercial district and moved into mansions along west Fort, Congress, and Lafayette streets. Not all of the rich moved, however; many still lived near the center, but now their homes bordered on the housing and amusements of the growing "bachelor subculture" (Schneider 1980: 40).

Many of the immigrants who came to Detroit in the late l840's and l850's also settled away from the city center, in contrast to earlier immigrants. The Irish and Germans who immigrated to Detroit in the 1830's and 1840's were skilled and fairly well off. They mixed peacefully with the native born and their homes were scattered throughout the city, not concentrated in ethnic neighborhoods (Schneider 1980: 12). The Irish and German immigrants of the l850's, however, settled in the sparsely populated outskirts of the city, where land was cheaper than near the business district. These people created distinct ethnic neighborhoods within walking distance of the commercial center--Detroit's first subcommunities. Both the Germans and Irish could afford to live in single family homes because the availability of lumber made construction fairly cheap. The Germans settled on the east side of the city east of Randolph Street in an area that became known as Dutchtown. They worked in shops in or near their homes and created neighborhoods similar to those in Milwaukee descrided by Kathleen Conzen as "self contained, complex, largely self-supporting, self-servicing, and culturally se-
cure" (Schneider 1980). Detroit's small black population lived near the German immigrants. The Irish settled on the west side of the city, between Fifth and Sixth streets near Michigan Avenue in a neighborhood nicknamed Corktown. They were less skilled than the Germans and worked in the factories or on the docks (Schneider 1980: 19).

The growth of Detroit from 1818 to 1855 provided the city with a great economic boost, expanding its commercial base and allowing the development of manufacturing, but it also resulted in some social problems. One of these dilemas was the competition for space by an increasingly heterogeneous population in the $1850^{\prime} s$. The large population of transient workers who lived near the city center were serviced by brothels, saloons, and billiard halls. These amusements did not bother the rest of the population until they expanded so much that they bordered the residential neighborhoods, both immigrant and wealthy. Schneider states that "many of the areas in which vice established a foothold had been relatively unsettled until the $1850^{\prime}$ s. Now they were precisely those areas coveted for residential space by the working class, particularly the Germans" (1980: 21). The tension that this closeness caused was responsible for the twelve major riots in or near immigrant neighborhoods between 1849 and 1863 (Schneider 1980: 121). Mob violence was uncommon during the $1830^{\prime \prime} s$ and $40^{\prime} s$ but grew dramatically in the following decade. The increase was related to the growth of the city, the development of
distinct residential neighborhoods, and the desire to separate them from the vices.

Crime grew in the l840's and 50's, especially in the downtown area. The respectable citizens of the nearby fashionable neighborhoods viewed the robberies and muggings in this area as a threat to their peaceful existence. They blamed the crime waves on the transients who worked on the riverfront and wandered the empty downtown streets at night. Many of the wealthier citizens called for the formation of a professional police force but by 1855 their demands had not been met.

The l850's mark the beginning of the formation of class divisions and group identity in Detroit. The wealthy bound together to fight the crime and vice that existed close to their homes. Schneider claims that the group identity of the elite had a spatial perspective, one that "had as its focus those things that symbolized and outlined the city's elite space: the impressive facades along woodward and Jefferson avenues, the massive complex of the Michigan Central Railroad, the bustling warehouse district, and the mansions of Fort Street west and other fashionable residential areas" (1980: 49). Strong ethnic identities also formed when immigrants settled into their own neighborhoods, separate from the wealthy and other ethnic groups, and lashed out against the vices that threatened them.

Detroit in the early l850's was a city undergoing major changes. It was still a commercial city but industry
was expanding. The city had recovered from the financial crisis of the past decade. The growing population resulted in the development of new residential neighborhoods and an expanding business district. Population growth, competition for land, and group identity resulted in previously unknown mob violence and crime waves. The events which formed this city in transition created the structure described and analyzed in the following chapter.

## CHAPTER 3

## ANALYSIS OF LAND USE MAPS

Chapter Two discussed the development of Detroit from a frontier trading post to a commercial city. This cnapter describes and analyzes the spatial structure of this commercial center and of its industrial counterpart thirty years later. Two land use maps were employed to determine the spatial organization of the city at these two points in time. The first map, $1853 / 55$, was compiled from the Hart Map of 1853 and the 1855 Detroit city directory. The Hart Map shows the location of all buildings within the study area in 1853. The 1855 city directory was consulted because it lists complete addresses of buildings rather than just locations (e.g., "corner of Jefferson and woodward"). The $1853 / 55$ land use map covers most of Detroit at this time. The second map, $1885 / 89$, includes what was the central area of the city after the growth of industry. It was compiled from the 1885 RoDinson-Pidgeon Atlas and the 1889 city directory. The atlas shows the location of all the city's buildings and their addresses. It often includes the name of a building's occupant if it belonged to a business or civic establishment. The 1889 directory was chosen because it contains a listing of addresses arranged
by streets. Because the $1885 / 89$ land use map does not include the majority of the city, the directory arranged by streets was more valuable than the alphabetical listing of residents and businesses.

Detroit is divided into wards, sections and lots of varying sizes, with the lots averaging 50 by 100 feet. To compile the land use maps, each lot in the study area, the Detroit Downtown District, was color coded by land use type on a city engineering map, with 1 inch equal to 200 feet. If a lot contained more than one land use type, it was coded accordingly.

Seven major land use types were observed from the maps and directories. The retail/service type includes all retail stores, professionals such as doctors and lawyers, services such as painters, barbers, undertakers, and blacksmiths, and amusements like saloons and billiard halls. A lot was coded single family residence if the city directory listed only one name at a residence, while the multiple residence category includes addresses with more than one family, a single family with boarders, and boarding houses. The wholesale type consists of all stores listed as such plus commission agents, jobbers, and warehouses. However, as Davey and Doucet note, "distinctions between retail and wholesale activities in the commercial city cannot be made with precision. Some wholesalers did sell directly to the public, and artisans often sold their own products in
their shops" (1975: 33l). Businesses listed in the directory as wholesale may also have engaged in retail activities and vice versa, although this was difficult to discern. The fifth land use type, manufacturing, includes both small and large industrial establishments. Churches, schools, parks, and government buildings belong to the public/civic category. Vacant land, the final major category, refers to all lots that did not contain any buildings.

In addition to the seven major land use types, combinations of types were prevalent. Buildings that housed both a single family and a retail business or service were categorized as single residence/retail. The multiple residence/retail category refers to a multiple residence in the same building with a retail store or service establishment. Hotels also belong in this category because while having rooms for travelers, hotels also housed some city inhabitants on a more permanent basis. In addition, most hotels also housed retail establishments.

Businesses that sold products to the general public as well as on a wholesale basis belong to the wholesale/retail category. This classification also applies to buildings that contained separate wholesale and retail concerns. The retail/public type contains combinations of retail businesses or services and public activities such as schools or government offices.

Manufacturing establishments that sold their goods directly to the public were classified as manufactur-
ing/retail. Buildings that housed separate manufacturing and retail businesses also fit into this category. The second manufacturing combination, manufacturing/residence, refers to a manufacturing establishment, usually of a small scale, housed in a building along with a single family or multiple residence. Buildings in which both wholesale and manufacturing occurred, either as separate of joint activities, comprise the wholesale/manufacturing type. In some cases wholesalers lived and worked in the same building. These instances belong to the wholesale/residence category.

The land use types in this study include some threecombination categories. They are retail/wholesale/residence, manufacturing/retail/residence, and wholesale/retail/manufacturing. The activities within these three categories were either related or separate. For example, a lot coded as retail/wholesale/residence might refer to three separate activities or it could characterize a retail/wholesale establishment and a residence within the same building. The final land use type, the block category, denotes large buildings, sometimes occupying a whole block, which might have housed wholesale, retail, and manufacturing concerns as well as residences.

Color coding of the different land use types observed in the Detroit Downtown District resulted in two detailed land use maps, one for the commercial city of $1853 / 55$ and the second for the industrial center of 1885/89. These
maps are on file in the Anthropology Division of the Michigan State University Museum, East Lansing, Michigan. In order to view objectively the locations of and relationships among the different land use types and to determine the structure of the study area, the SYMAP computer package (Dougenik and Sheehan 1975) was applied. The Synagraphic Mapping System was designed for individuals such as geographers, geologists, and planners involved in analyzing spatial data. Rubertone and Gallagher (198l) employed this package in their archaeological analysis of Roger williams National Park in Providnce, Rhode Island, Cressey and Stephens (1982) used it for the Alexandria Urban Archaeology Program, and Paynter (1982) generated maps of the Middle Connecticut River Valley with SYMAP. One of the SYMAP functions creates contour maps by mathematically "interpolating a continuous surface in the regions where there are no data points, basing these interpolated values upon the distance to and the values of the neighboring data points" (Dougenik and Sheehan 1975: Section II,I).

To create contour maps of the different land use types in the Detroit Downtown District, data points were placed at intervals of approximately two square blocks. This method resulted in the recording of 146 data points with a point distribution coefficient of 1.31 , a random to uniform distribution. The values assigned to each data point were the percentages of each land use type, based on the number of lots within each two square block unit. The
appendix lists the location of the data points. The SYMAP program recorded the value of a data point and assigned values to the area between it and the nearest data point by interpolating between the two points. This information generated a map of each land use type with contours preset at five equal intervals of: 0-19 percent, 20-39 percent, 40-59 percent, 60-79 percent, and 80-100 percent.

The methods employed in SYMAP contour mapping present some distortion problems. For example, a data point was placed on a heavily commercial street dividing two residential neighborhoods. This four block unit contained part of an important commercial strip but because of the residential nature of the remainder of the area, the contour maps failed to show the existence of the commercial concentration. Because of this type of distortion, it was necessary to rely on the color coded maps for additional information. It is also important to remember that the contour maps are based on the number of lots within each four olock unit that oelong to each land use type, not on the actual measured area of each type. Lots vary in size and this may also result in some distortion.

Computer mapping revealed that some land use types had no concentrations greater than 20 percent and the maps for these types show no contours. Although certain land use categories were not present in significant concentrations, their locations in relation to other types might prove to be important in revealing information on the
structure of Detroit. For this reason, these types were remapped in five equal intervals with the limits free to be set by SYMAP. For example, if the highest value for a category was 15 percent, SYMAP created five equal intervals of 3 percent.

The maps generated by color coding and contour mapping provide insight into the relationships between the different land use types and ultimately to the structure of Detroit during an important transitional period. Inspection was the method used to compare the maps within each time period and between the two periods. Paynter (1982) employed this method in comparing model maps with empirical maps in the Middle Connecticut River Valley.

The land use map descriptions contain a summary of the location of each land use type and its relationship to the other types. This is followed by a structural analysis of the study area in $1853 / 55$ and then in 1885/89. Some of Detroit's street names have changed since 1889; in these cases, the former name is followed by the present name in parenthesis. All concentrations discussed in the descriptions are above the first interval, greater than 20 percent of a four square block unit. Figure 1 is a map of the study area showing street names.

The $1853 / 55$ retail/service category (hereafter, retail) includes no concentrations greater than the third interval, 40 to 60 percent (Figure 2). The largest retail section is a small third and second interval core between

## Figure 1

## Detroit Downtown District

Note:

The streets south of Jefferson Avenue do not exist today as they did in the l800's. At that time, woodbridge extended from its present location west to First; Atwater extended to Shelby; and Franklin ran as far west as Brush. Front Street was located halfway between the river and Jefferson, from Third to First.


## Figure 2

Detroit Downtown District
$1853 / 55$

Retail/Service


Griswold and Bates from Larned to Michigan Grand (Cadillac Square). A smaller concentration of third and second interval retail land is located south of the major core, between Woodbridge and Jefferson streets from Griswold to Bates. A block type concentration separates the two major retail locations. A smaller second interval concentration appears along the river from Brush street to just west of Beaubien.

Although retail activities comprise no more than 60 percent of any four square block unit, the retail concentrations do not combine significantly with any other land use concentrations greater than 20 percent. This indicates that the retail core areas are mixtures of different land use types, with retail being the most prevalent. The $1853 / 55$ color coded map confirms this. The highest retail concentrations are all located in areas of low single family residence with one exception. A second interval retail concentration along Macomb Avenue (Bagley) and Grand River Avenue coincides with a third interval single family residence section. This represents the only area where retail and single family residence mix in any significant combination. Both single family and multiple residence concentrations appear to the east and west of, but remain separate from, the major retail core north of Jefferson Avenue. Manufacturing, wholesale, and wholesale/retail concentrations surround the retail land south of Jefferson Avenue but again do not coincide with these retail activ-
ities.
Second interval, 20 to 40 percent, multiple residence/retail concentrations surround the main retail core north of Jefferson Avenue in 1853/55 (Figure 3). They are, for the most part, located between Cass and Beaubien streets south of Michigan and Monroe. These concentrations represent hotels, many of which housed transients who worked in the city's commercial center. The contour map reveals two other second interval multiple residence/retail concentrations. The first is between First and Cass from Jefferson to Larned and the other is at Second Avenue between Woodbridge and Jefferson. Both are near wholesale, manufacturing, and wholesale/retail/manufacturing activities. Hotels comprise a major part of the multiple residence/retail concentrations west of Cass Street, especially those close to the Michigan Central Railroad depot at Third Street. These hotels housed both travelers and the transients who worked on the riverfront.

No multiple residence/retail concentrations appear in single family residential areas, although two are located near multiple residences. Multiple residences surround the small multiple residence/retail concentration at michigan and Shelby. The second interval multiple residence/retail concentration between Larned and Jefferson from Bates to Brush adjoins a multiple residence area to the north. Most multiple residence/retail concentrations are situated along the major thoroughfares of Woodward, Jefferson, and Michigan avenues.

## Figure 3

Detroit Downtown District
$1853 / 55$

Multiple Residence/Retail


## Figure 3

## Detroit Downtown District

1853/55

Multiple Residence/Retail


Although most of Detroit's retail/service establishments remained in a centrally located core in 1853/55, single residence/retail activities began to spread out from this core (Figure 4). All concentrations of this category are of the second interval and most appear along major streets, such as Gratiot and Michigan avenues, leading out of the retail core. These concentrations represent the beginning of Detroit's first commercial strips, located in residential areas, and perhaps serving the local interests of the developing neighborhoods. The second interval single residence/retail concentration at the foot of Cass Street, however, mixes with commercial and manufacturing activities south of Jefferson Avenue, not with residences.

Two third interval concentrations surrounded and connected by a second interval concentration comprise the one large block type section in 1853/55 (Figure 5). It extends from Griswold to Bates between Woodbridge and Larned and then dips down from Woodbridge to Jefferson between Bates and Randolph, separating the two major retail concentrations. Other commercial and manufacturing types, such as wholesale, wholesale/retail/manufacturing, and manufacturing, adjoin the block concentration.

All of the wholesale and wholesale/retail/manufacturing and most of the wholesale/retail and manufacturing concentrations are located south of Jefferson Avenue, near the river. A major wholesale/retail concentration appears between Griswold and Bates streets from the river to

Figure 4

## Detroit Downtown District

$1853 / 55$

Single Residence/Retail


## Figure 5

Detroit Downtown District

1853/55

Block

woodbridge, just south of the retail and block cores (Figure 6). The only significant occurrence north of Jefferson Avenue is on the former location of the Michigan Central Railroad depot where wholesale/retail activities took place.

The location of wholesale land in $1853 / 55$ coincides with the wholesale/retail area south of Jefferson Avenue. The only wholesale concentration is of the second interval and extends in a strip between the river and woodbridge from Third to Bates (Figure 7). It mixes with a second interval wholesale/retail/manufacturing concentration between First and Wayne (Washington) streets and with the wholesale/retail activities from Griswold to Bates. This concentration is not associated with any other land use types. The only wholesale/retail/manufacturing concentration is located west of the major wholesale area (Figure 8). A section of the Michigan Central Railroad depot where a combination of activities occurred creates this second and third interval concentration. It is associated with a manufacturing concentration to the north and is surrounded by vacant land.

Two major manufacturing concentrations are located directly east and west of the wholesale districts (Figure 9). A second and third interval concentration appears on the east side of the city, between Bates and St. Antoine from the river to Atwater and Franklin streets. The west side also contains a third and second interval manufactur-

## Figure 6

Detroit Downtown District
$1853 / 55$

Wholesale/Retail


## Figure 7

## Detroit Downtown District

1853/55

Wholesale


Figure 8

## Detroit Downtown District

1853/55

Wholesale/Retail/Manufacturing


## Figure 9

Detroit Downtown District
$1853 / 55$

Manufacturing

ing concentration, this one from Third Street to Second Street between the river and Congress. This includes the Michigan Central Railroad depot where some manufacturing activities occurred. On the east side, both multiple and single family residences are adjacent to the manufacturing concentration. On the west side, single family residences are separated from manufacturing activities by a small buffer of vacant land. Here residences and industry remain close but are not adjacent. The small second interval manufacturing concentration between Larned and Congress along Cass Street, which coincides with a second interval single family residential area, is an exception.

As discussed in the previous chapter, manufacturing in Detroit in $1853 / 55$ was mainly small in scale. Most manufacturing activities did not require large amounts of space and could therefore locate in buildings that housed other activities. The largest manufacturing establishments existed along the riverfront, close to but separate from residential neighborhoods. The $1853 / 55$ color coded map reveals other small scale manufacturing activities scattered throughout the city although not in any significant concentrations.

Grand Circus Park comprises the largest public/civic (hereafter, public) concentration in 1853/55 Detroit (Figure 10). Other concentrations include parks, churches, and schools. The third interval public area between Clinton

# Figure 10 <br> Detroit Downtown District 

1853/55

Public/Civic

and Gratiot from Beaubien to St. Antoine contains the Wayne County jail and a hospital. All public concentrations are associated with residential areas, some with combinations of single family and multiple residences, others with combinations of single family residences and vacant land. The contour maps indicate that Detroit's public activities were not associated with commercial and manufacturing establishments except in the area near Grand River and Macomb Avenue (Bagley) where retail stores and single family residences mixed. This lack of public and commercial association is misleading, however. A number of public lots exist in and near the core retail area, especially between Shelby and Griswold from Larned to Fort. The city hall area on Michigan Grand (Cadillac Square) is also public land. SYMAP did not record these instances as significant concentrations due to the distortive nature previously described. Although public lots occur in the same area as retail businesses, they do not constitute a major portion of any four square block unit in the retail core. The association between the two land use types is therefore masked.

Multiple residences appear throughout Detroit in 1853/55. The contour map for this category reveals two large second and third interval and nine smaller second interval concentrations (Figure ll). The first covers the area from Randolph Street to Beaubien between Lafayette and Mechanic, and then continues between Beaubien and

Figure ll

# Detroit Downtown District 

1853/55

Multiple Residence


Hastings from Fort to Clinton. This concentration coincides with a second and third interval single family residential zone. Just above Gratiot Street it meets a second interval public section, while at Randolph and Croghan (Monroe) it is just east of a second interval single residence/retail area. The second large multiple residence concentration extends from Congress to Fort between Wayne (Washington) and Shelby and continues northeast between Washington and Rowland (Griswold) from Michigan to Grand River and then from Grand River to Park between Rowland (Griswold) and Farmer. This large sector is mainly second interval multiple residence with a small third interval concentration at the intersection of Shelby and Fort streets.

Most multiple residence concentrations are associated with single family neighborhoods, while some combine with both single family residences and vacant land. The only multiple residence and retail association appears at the eastern edge of the retail core at Randolph between Larned and Congress. A large number of boarding houses for transient workers may account for the multiple residence concentration in this area.

The abundance of vacant land in commercial Detroit allows an easier discussion of the areas which lack vacant land than of those areas where it is present. The contour map generated by SYMAP reveals that most nonvacant land is located east of Cass Street and south of Michigan and

Gratiot Avenues (Figure 12). Mixed land use and residential neighborhoods characterize the area between Cass and woodward Avenues from Woodbridge to Michigan. The area from Woodward to Hastings between Franklin and Gratiot, especially east of Beaubien, contains mainly residential land with little vacant land. The farms located east of Woodward Avenue were platted in the l830's and developed earlier than those on the west side. This accounts for the greater abundance of vacant land on the west side of the city. The retail core also lacks a significant amount of vacant land. The one vacant concentration between Bates and Randolph just east of the retail section represents the empty land separating a church and school. This may more properly be considered public land attached to these buildings.

The largest section of vacant land, a fifth interval concentration, covers the area between Fifth street and Cass Avenue from Jones (Bagley) north to the study area limit. A number of fifth, fourth, third, and second interval vacant concentrations south of Michigan Avenue between Seventh (Brooklyn) and Cass mix with mainly single family residential areas. This section of Detroit once contained the Cass, Jones, Forsythe, and Labrosse farms, which were not platted until the late l830's, and were not settled until even later. The second and third interval vacant concentrations south of Jefferson Avenue coincide with manufacturing, wholesale, and wholesale/retail/manufacturing activities. Even the important commercial district

Figure 12

Detroit Downtown District

1853/55

Vacant

along the river contained vacant land, much of which probably represents post-1826 riverfront fill that had not yet been developed.

The vacant land on the east and west sides of Detroit differ in their relationship to other land use types. On the west side, the vacant land between Seventh (Brooklyn) and Third Streets buffers the manufacturing establishments from the residential neighborhoods. There is a gradual movement northward from manufacturing activities to heabily vacant land to a mixture of vacant land and residences into a heavily residential area. Where the fifth and fourth interval vacant concentration ends, the second, third, and fourth interval single family residences begin. The homes in this area, especially along Fort and Congress streets, belonged to the wealthy who wished to put some distance between their domestic lives and industry. Because Detroit in $1853 / 55$ was still a compact city, the wealthy had to live close to the center. The buffer of vacant land was most likely the best distance they could put between their homes and the developing industries. On the east side of the city, however, vacant land did not form a buffer zone between residences and manufacturing, perhaps because residences filled this area earlier than on the west side. Working class citizens lived in the homes along Franklin and woodbridge, close to their jobs in the commercial and industrial businesses near the river and in the retail core.

The $1853 / 55$ contour map reveals an abundance of single family residential land in Detroit (Figure 13). Like the vacant land, it is easier to discuss sections of the city that lack significant single family residence concentrations. These areas include most of the land south of Jefferson Avenue (except between Brush and Hastings), between Seventh (Brooklyn) and Third from the river to Fort (mainly manufacturing and wholesale land), and between Third and Griswold from the river to Larned (a mixture of commercial and manufacturing activities). The areas between Griswold and Brush from the river to Gratiot Avenue (including the retail core) and along Michigan Avenue west to Washington (mainly mixed land use) contain some single family homes but not in any significant concentrations. All other units of the study area in which single family residences comprise less than 20 percent of the total number of lots show third, fourth, or fifth interval concentrations of vacant land.

Single family residences and vacant land mix west of Cass Street. This area includes Corktown, the Irish neighborhood, around Sixth and Seventh (Broadway) Streets on both sides of Michigan Avenue. In the German section, on the east side south of Adams Street, single family and multiple residence concentrations coincide. The area north of Gratiot Avenue and State Street between Cass and Hastings contains mixtures of single family homes, multiple residences, and vacant land, except for a section around

Detroit Downtown District

## 1853/55

Single Family Residence


Macomb (Bagley) and Grand River where public land substitutes for the vacant land. The high concentration of single family residences south of Jefferson between Brush and Hastings is associated with vacant land and multiple residences.

Four land use types present in $1853 / 55$ lack concentrations above the first interval. The contour maps were recomputed to determine the locations of these types and their relationships to the other categories. All retail/wholesale/residence activities located near or within the wholesale area along the river, separate from residential neighborhoods (Figure 14). Manufacturing/retail land appears in generally mixed land use areas near the retail core (Figure 15). The manufacturing/residence land use type appears in four locations (Figure 16). They are all in or near residential neighborhoods and probably represent small manufacturing establishments in or close to the owners' homes. The final $1853 / 55$ land use type is the manufacturing/residence/retail category (Figure 17). Six locations of this type are associated with retail or residential land on or near major Detroit streets. The seventh is in the commercial and manufacturing section east of the Michigan Central Railroad depot.

The descriptions of the different land use types and their locations in $1853 / 55$ reveal some important information about the structure of commercial Detroit. warner

## Figure 14

Detroit Downtown District
$1853 / 55$

Retail/Wholesale/Residence


## Figure 15

## Detroit Downtown District

1853/55

Manufacturing/Retail


## Figure 16

Detroit Downtown District
$1853 / 55$

Manufacturing/Residence


## Figure 17

Detroit Downtown District

1853/55

Manufacturing/Residence/Retail

(1972: 81) describes American commercial cities of 1820 to 1870 as jumbles organized by nothing more than a primitive land use specialization. Ward (1971: 89) agrees with this characterization, concluding that prior to 1870 the commercial city experienced only "a minimal internal differentiation of activities" with retail businesses dispersed throughout the city. Conzen and Conzen (1979: 45) also conclude that unspecialized retailers were scattered throughout the commercial city. The results of a study of Hamilton, Ontario, ca. 1853 (Davey and Doucet 1975) argue to the contrary. The authors characterize this commercial city as having a large degree of spatial differentiation. There was a central core with specialized wholesale and financial sub-areas and a well-defined retail district surrounded by hotels and boarding houses. The core contained most of the city's economic activities (Davey and Doucet 1975: 326).

The land use contour maps of Detroit in 1853/55 reveal an internal differentiation similiar to that found in Hamilton. Land use was more than primitively specialized but lacked the more complete differentiation of later industrial cities. A combination of mixed and specialized land use characterizes the organization of commercial Detroit. There were distinct areas of retail, wholesale, and residential activities. Small-scale manufacturing occurred throughout the city but large scale industry was developing along the riverfront. Detroit also contained
sections of mixed land use, such as residential neighborhoods that contained some manufacturing activities. Some areas accomodated four or five land use types. These mixtures were the "jumble" Warner describes but they separated distinct specialized units.

The structure of Detroit in $1853 / 55$ can be divided into six basic units. The first is a small retail core with 20 to 60 percent of its area devoted to retail/service activities, located between Griswold and Bates from Larned to Michigan Grand (Cadillac Square). This core was not yet the large central business district of later cities which contained large office buildings and corporations. Warner (1972: 82) and Davey and Doucet (1975: 327) claim that commercial downtowns housed a large number of factories. In Detroit, however, the retail core contained only some block buildings with small scale manufacturing, while the larger factories located along the riverfront. The majority of retail establishments concentrated in the center of the city and were not dispersed throughout the city in any great number.

The second unit in the structure of commercial Detroit consists of a mixed area surrounding the retail core on the north, east, and west. The land use types in this mixture include retail, single family residence, multiple residence, multiple residence/retail, and vacant land. The multiple residence and multiple residence/retail lots most likely represent hotels and boarding houses for the tran-
sient workers, a situation similiar to that described for Hamilton. The retail lots in this unit include amusements such as saloons and billiard halls.

The mixed area surrounding the retail core separates the core from the third structural unit of commercial Detroit, the distinct residential areas composed of single family and multiple residences in varying combinations. Between Cass and Hastings these single family/multiple residence sections extend as far north as Gratiot Avenue and Grand Circus Park. In general, their western limit is Cass Avenue. On the east side of the city this combination of residential types extends from Fort Street north to Gratiot Avenue. West of Woodward it starts at Congress and moves north to Grand Circus Park. The residential areas closest to the retail core represent a mixture of single family residences and boarding houses. This situation illustrates a case of wealthier native-born white families and young transients living side by side before the movement of the more established families out of the center was complete. The single family/multiple residence combination on the east side farther from the retail core housed Germans. Many of the multiple residences in this area represent single families that took in boarders, usually young German immigrants.

The one exception to this pattern of mixed land use bordering on $a$ combination of single family and multiple residences is the section between Jefferson and Fort from

Beaubien to $S t$. Antoine. This area just east of the retail center contains third and fourth interval single family residences but no concentration of multiple residences. Native-born white families who desired close proximity to the center of the city lived here. This residential neighborhood, which developed before the German immigrants moved into the previously unsettled land to the north, is separated from the retail core by a mixture of hotels, boarding houses, and amusements.

The $1853 / 55$ contour maps reveal small mixed concentrations of single family residences, multiple residences, and vacant land to the north and west of the single family/multiple residence neighborhoods. The portions of the city between Adams and Elizabeth streets from Clifford to Woodward and between Gratiot and Adams from Beaubien to St. Antoine contain this fourth structural unit of commercial Detroit. The area between the river and Jefferson from Beaubien to Hastings also contains a combination of these land use types bordering a manufacturing concentration. The area west of woodward Avenue south of Michigan Avenue, however, does not fit this pattern. The single family/multiple residence mixture that ends at Cass Street borders a single family residence/vacant combination with no concentration of multiple residences.

The mixed single family residence/multiple residence/vacant sections of commercial Detroit border areas of the fifth structural unit, the combination of single
family residences and vacant land. East of Cass Street these neighborhoods begin, in general, north of Adams, although this mixture also characterized the area between Miami (Broadway) and Beaubien from John R./Harriet (Madison) to Adams. On the west side of the city this land use combination extends from Seventh (Brooklyn) to Cass except for a mixture of single family and multiple residences between Seventh (Brooklyn) and Sixth from Abbott to Porter. The multiple residences in this area probably were homes of Irish immigrants who took in boarders, similiar to the Germans on the east side.

All of Detroit's 1853/55 residential neighborhoods, whatever the combination of single family residences, multiple residences, and vacant land, lack any real concentrations of retail land with the exception of the area around Macomb (Bagley) and Grand River. Both the SYMAP contour maps and the lot-by-lot color coded maps support this conclusion. Retail businesses rarely located in residential neighborhoods, even in small numbers. The development of wealthy neighborhoods was just beginning along Fort and Congress streets on the west side and Jefferson Avenue on the east, but most residential sections housed a mixture of classes. This phenomenon of classes living side by side Characterizes many North American commercial cities in the mid-1800's (Davey and Doucet 1975: 334; Warner 1962: 19). These were walking cities and even if space was available on the outskirts, the inadequacy of transportation forced
most people to live close to the center. Davey and Doucet show that, in commercial cities, the homes of the distinct social and ethnic groups intermingled (1975: 334).

The section of Detroit south of Jefferson Avenue constitutes the sixth and final $1853 / 55$ structural unit. This area is separate, for the most part, from residential neighborhoods but is close to some. It contains basically distinct wholesale and manufacturing activities which located south of Jefferson Avenue to take advantage of the cheap transportation offered by the river and the Michigan Central Railroad. The manufacturing and wholesale activities also established themselves here to take advantage of the linkages between similar businesses and industries. This area and the retail core above Jefferson Avenue supplied most of the city's employment during its commercial stage.

Although most of Detroit's commercial businesses concentrated in the retail core and south of Jefferson Avenue, the $1853 / 55$ contour maps reveal some movement of retail establishments away from the central core in the form of single residence/retail and multiple residence/retail activities. These land use types are located along the major routes which lead out of the city in a spoke-like fashion and constitute the beginning of commercial strips in the city. This spoke-like expansion characterizes other commercial cities such as Milwaukee (Conzen and Conzen 1979) and Hamilton (Davey and Doucet 1975). In Detroit, some of the
people who settled along these major routes leading from the city center lived and worked in the same building. The contour and color coded maps for $1853 / 55$ show that these arteries generally contain mixed land use and most split up residential neighborhoods which lack retail businesses. Mixed land use also characterizes Jefferson Avenue between Cass and Brush. This street divides the retail core from other distinct commercial and manufacturing sections, unlike the other strips which divide residential neighborhoods.

The descriptions and analysis of land use in commercial Detroit reveal a simple internal structure. This compact pedestrian city contained a definite retail core and well-defined wholesale and manufacturing areas which were separate from, although close to, distinct residential neighborhoods. Both the computer generated contour maps and the lot-by-lot color coded maps reveal this spatial differentiation. Detroit in $1853 / 55$ was more than a jumble with a primitive specialization of land use.

Detroit in 1885/89, the industrial stage of this study, was no longer a pedestrian city. Horsedrawn streetcar transportation had aided in the expansion of the city's physical size and people could no longer walk everywhere in the city with ease. The study area covers only the central business district and the surrounding sections at this time, not the whole city as in $1853 / 55$. Although certain important changes in land use occurred,
the industrial city of $1885 / 89$ retains some structural characteristics of the commercial city.

The reduction in the amount of vacant land is one of the most notable differences between 1853/55 and 1885/89 (Figure 18). Most of the vacant land now occurs in the western section of the study area but is considerably less than in commercial Detroit. The area between Cass and Grand River avenues from Elizabeth to Columbia contains a second interval vacant concentration. Between Congress and Lafayette from Fifth to Third is a third interval vacant concentration surrounded by a second interval concentration that extends north to Howard Street and south to Jefferson Avenue. This concentration also includes strips along Lafayette to second and along Congress between Fourth and Third. These areas all contained high concentrations of vacant land in $1853 / 55$. The second interval vacant land from Franklin to Jefferson between Brush and St. Antoine replaces a previous concentration of single family and multiple residences. The area north of Adams Street between Cass and Hastings no longer contains concentrations of vacant land.

In contrast to its vanishing vacant space, during the period $1853 / 55$ to $1885 / 89$ Detroit experienced the expansion of wholesale activities from the riverfront north to Jefferson Avenue and even north of Jefferson. The contour map reveals a concentration extending along the river from First to Randolph as far north as Jefferson Avenue (Figure

Figure 18

## Detroit Downtown District

$1885 / 89$

Vacant

19). This is second and third interval wholesale with a small first interval section at woodward and Woodbridge which coincides with a third interval manufacturing concentration. Two smaller second interval concentrations are located above Jefferson Avenue. The first, between Griswold and Bates at Larned, replaces an area that was residential and mixed in $1853 / 55$. The second concentration is located between Randolph and Brush from Champlain (Lafayette) to Croghan (Monroe) in an area that previously contained mainly retail businesses.

The $1885 / 89$ multiple residence concentrations differ from their $1853 / 55$ counterparts in density (Figure 20). All concentrations of this type are of the second interval. In contrast to commercial Detroit, there are no third interval multiple residence areas. Like the earlier time period, nowever, most of these concentrations represent boarding houses for the large number of transients who worked downtown. Multiple residence concentrations appear in some new locations, but some of the old concentrations shrunk and others disappeared. The large east side multiple residence concentration receded to the area between Beaubien and Hastings from Monroe to Madison. This area was a port of entry for many small immigrant groups who settled in Detroit after the Civil war, many of whom may have boarded with previous immigrants or lived in other multiple residences (Zunz 1982: 57). Retail businesses and single family residences now replace the multiple residence concen-

## Figure 19

## Detroit Downtown District

1885/89

Wholesale


## Figure 20

# Detroit Downtown District 

1885/89

Multiple Residence

tration that extended from Randolph to Hastings in 1853/55. Likewise, the large concentration between Cass and Woodward to Grand Circus Park disappeared as retail stores moved into that area.

New 1885/89 multiple residence concentrations appear in previously vacant areas. Examples of this pattern include the section of 1 and between Jones and Orchard (Elizabeth) from Fifth to Third and the area near Second and Howard. In another instance, multiple residences replaced single family residences. The new concentration which extends from Randolph to Beaubien between Madison and Gratiot replaces an $1853 / 55$ third and fourth interval single family residential area. Two new concentrations border areas of the city that contained a significant number of multiple residences in 1853/55--from Franklin to Jefferson between St. Antoine and Hastings and from Third to First between Congress and Fort. The first is east of, the second north of, former multiple residence concentrations.

Between 1853/55 and 1885/89 new wholesale/retail concentrations developed in Detroit near the old wholesale district (Figure 2l). This land use type remains south of Michigan and Monroe and does not form a distinct district. The four wholesale/retail concentrations are located in or near areas that contain significant amounts of either wholesale or retail businesses. The second interval concentration between Randolph and Bates from the river to Atwater Street was part of the manufacturing district in

Figure 21

Detroit Downtown District

1885/89

Wholesale/Retail


1853/55 while the new third and second interval concentration extending from the river to Front Street between Third and Second replaces wholesale land. The mixed land use section between wayne (Washington) and Shelby from Jefferson to woodbridge changed to wholesale/retail land by $1885 / 89$. The new second and third interval wholesale/retail area between Larned and Monroe from Bates to Randolph was predominately retail and multiple residence/retail land during Detroit's commercial stage.

Two wholesale/retail/manufacturing concentrations appear on the $1885 / 89$ map (Figure 22). The Michigan Central Railroad depot, which covers the area from the river to Jefferson between Seventh (Brooklyn) and Third, contains second, third, and fourth intervals of this land use combination. The $1853 / 55$ map shows the depot as only a second and third interval concentration, however, and the color coded map includes separate manufacturing, retail, and wholesale areas for the depot. The entire location was coded as wholesale/retail/manufacturing in 1885/89 because the Robinson-Pidgeon Atlas, unlike the 1853 Hart map, does not distinguish separate activities within the depot. The Detroit and Milwaukee Railroad depot accounts for the second and third interval wholesale/retail/manufacturing concentration between Brush and St. Antoine from the river to Woodbridge, the only other concentration of this type. This area formerly contained factories bordering on a

## Figure 22

## Detroit Downtown District

1885/89

Wholesale/Retail/Manufacturing

residential neighborhood. Excluding the train depots, the combination of wholesale/retail/manufacturing activities is uncommon in 1885/89. The growth of the wholesale, retail, and manufacturing districts and the coinciding decline in the importance of the wholesale/retail/manufacturing category indicates that the combination of these activities in one place is no longer significant and that they now occupy separate locations.

The number of multiple residence/retail concentrations decreased from six to four between Detroit's commercial and industrial stages, although in general their size grew (Figure 23). All of the concentrations occur near the retail area, as in $1853 / 55$, and are not associated with multiple residence locations. Most of these second interval concentrations represent hotels. A new concentration developed north of Michigan and Monroe, between Grand River and Cass from Adams to Columbia in a previously unsettled area. The large $1853 / 55$ multiple residence/retail area between Congress and Campus Martius (Cadillac Square) from Griswold to Bates is still present thirty years later but on a smaller scale. On the other hand, the small concentration around Randolph and Farmer existed in commercial Detroit but expanded between $1853 / 55$ and 1885/89. The Biddle Hotel accounts for the multiple residence/retail concentration between Bates and Randolph from Jefferson to Atwater, replacing previously vacant land and block activities.

## Figure 23

## Detroit Downtown District

## 1885/89

Multiple Residence/Retail


Between $1853 / 55$ and $1885 / 89$ manufacturing activities expanded considerably, moving north of Jefferson Avenue into areas that had previously contained residences or vacant land (Figure 24). Some pockets of industry now occur along the major streets leading out of the city center. Three of the eight manufacturing areas are large second and third interval concentrations. The first extends from Shelby to Brush streets with its northern boundary fluctuating between the river and Jefferson Avenue. The factories between Bates and Brush replace an earlier block concentration that was located north of manufacturing activities in 1853/55. The land between Shelby and Bates formerly contained retail, wholesale/retail, and wholesale businesses.

The second $1885 / 89$ manufacturing concentration extends in a long strip from Seventh to Griswold between Front and Fort streets. The heaviest density is located between Seventh and First from Jefferson to Congress. In $1853 / 55$ manufacturing activities covered the area between Seventh and Third from Front to Congress. At this time the section between Congress and Fort contained a buffer of vacant land separating residences from industry. The manufacturing concentration between Third and Griswold replaces single family residences, vacant land, and mixed land use that occupied this area in 1853/55.

The area between Randolph and St. Antoine from Fort to Champlain (Lafayette) comprises the third large second

## Figure 24

Detroit Downtown District

## 1885/89

Manufacturing

and third interval manufacturing concentration, replacing single family and multiple residences. East of Beaubien Street these light industrial establishments intermingle with single family residences. The small manufacturing concentrations along Michigan and Gratiot avenues are also located in or near residential neighborhoods. Unlike commercial Detroit, the industrial city contains some manufacturing concentrations interspersed with and located close to both single family and multiple residences. There is no longer the large buffer of vacant land between the residences and factories on the west side from the river to Fort Street. More manufacturing establishments are located close to residences on the east side of the city, especially between Beaubien and St. Antoine from Fort Street to Champlain (Lafayette). It is important to note, however, that most of Detroit's large scale manufacturing at this time located outside of the city center, far from the heavily residential neighborhoods in the study area. As industry expanded in the 1860's and 1870's the larger factories required more space than was available in or near the city center so they settled on the outskirts. Because of the expansion of both the city's population and its industry, the factories that located near the center could not remain far from residences.

The number of public/civic (public) concentrations increased slightly between $1853 / 55$ and 1885/89 (Figure 25). Most public land is associated with residences north

## Figure 25

## Detroit Downtown District

1885/89

Public/Civic

of Jefferson Avenue with the exception of two concentrations in the retail center. Government iuildings comprise most of the second to fifth interval area between Congress and Campus Martius (Cadillac Square). The fifth interval section between Fort, Michigan, Griswold, and woodward represents the new city hall built in 1873 to replace the old one on Cadillac Square. The public concentration from Farmer to Randolph is a park that was vacant land in 1853/55.

The biggest expansion in any land use type between commercial and industrial Detroit was in the retail/service (retail) category (Figure 26). The development of a central business district after the Civil war resulted in a large retail core between Griswold and Randolph streets, spread out along Woodward, Campus Martius (Cadillac Square), Monroe, Grand River, and Jefferson. A second, third, and fourth interval section extends along woodward Avenue from just south of Jefferson Avenue to Grand Circus Park. There is a new second and third interval retail expansion along Michigan Avenue, with the third interval concentration extending as far west as Cass Street. $A$ new second and third interval retail area developed along Gratiot, with the third interval concentration extending to Randolph Street. Between $1853 / 55$ and $1885 / 89$ retail activities also expanded along Monroe between Randolph and Hastings and along Grand River from First Avenue to Park Place. The latter area is an enlargement of the $1853 / 55$ combination

Figure 26

## Detroit Downtown District

1885/89

Retail/Service

retail and single family residence section at Macomb (Bagley) and Grand River avenues. There is also a new fourth interval retail concentration between Campus Martius (Cadillac Square) and Gratiot from Griswold to Randolph. Second and third interval retail activities expanded along Jefferson Avenue from Third to Beaubien, extending from the river to Larned between Third and First. New large retail concentrations also developed between Brush and St. Antoine from the river to woodbridge.

The $1885 / 89$ retail concentration along Michigan Avenue as far west as washington Boulevard was a mixed and multiple residence area in 1853/55. West of Washington Boulevard the new retail concentration replaces single family residences and vacant land. The retail concentration along Gratiot Avenue grew at the expense of the single family and multiple residences located there in 1853/55. The expansion of retail activities up Woodward Avenue displaced the previously mixed land use south of Gratiot Avenue and the single family and multiple residences north of Gratiot. The new retail area along Jefferson Avenue contained a mixture of commercial activities in 1853/55 and the concentration between Brush and $S t$. Antoine south of Woodbridge included retail and manufacturing activities, multiple residences, and vacant land.

In summary, Detroit's 1885/89 retail/service land use category includes a third and fourth interval core area which expands in decreasing intervals along major arteries
such as Michigan and Gratiot avenues. Between 1853/55 and 1885/89 retail activities expanded considerably at the expense of single family residences and vacant land. The major retail core is separate from any significant concentration of homes but some retail businesses moved into residential neighborhoods via the major arteries leading out of the city center.

The two retail concentrations along the river housed saloons, brothels, and other amusements catering to the young male transient population. Schneider (1980: 44) characterizes the Potomac Quarter, the area along Franklin and Atwater streets near the Detroit and Milwaukee Railroad depot, as "the largest and most notorious amusement center" in the city. The major vice area was located on the east side both north and south of Jefferson Avenue, but the west side near the Michigan Central Railroad depot also contained amusements. The most exclusive bordellos, however, did business downtown (Schneider 1980: 21). Jefferson Avenue in $1885 / 89$ contained mainly retail stores, as did Woodward. Jefferson Avenue, with its "legitimate" businesses "became an oasis of opulence in a generally deprived area" (Schneider 1980: 45). Banking, insurance, and legal activities located along Griswold Street.

The concentrations of single family residences grew in number and density between $1853 / 55$ and 1885/89. The contour map for the industrial period shows six fifth interval concentrations and four very large fourth interval
concentrations of this land use category (Figure 27). In contrast, the commercial map contained mainly second and third interval but no fifth interval concentrations. The new single family residential neighborhoods occupy previously vacant land.

The absence of a significant number of single family residences in the center of Detroit and along the river is greater in 1885/89 than in 1853/55. Retail activities replaced single family residences as demand for retail space inflated the price of land in the city center. The areas that lack single family residence concentrations in 1885/89 are: Michigan Avenue from Washington Boulevard to Woodward, Woodward between the river and Grand River Avenue, Gratiot Avenue east to Brush Street, from the river to Franklin between Brush and Hastings, and between the north side of Jefferson and Congress from Fifth to Shelby. In general, these low single family residence sections contain the highest retail concentrations. In fact, the large central retail core corresponds almost exactly to the lowest single residence areas described above. The east side of the city between Beaubien and Hastings from Woodbridge to Gratiot also contains a smaller density of single family residences than it did in commercial Detroit. What was third and fourth interval single family residence became mainly second interval residence mixed with manufacturing and retail activities.

## Figure 27

# Detroit Downtown District 

1885/89

## Single Family Residence



In general, the contour maps show that the major streets leading from the city center contain significant concentrations of single family residences in 1885/89. However, there are some low density pockets. The three first and second interval single residence concentrations along Michigan Avenue correspond to second interval retail activities, while the two westernmost concentrations are also second interval manufacturing areas. The small first interval (less than 20 percent) single family residence pocket along Gratiot matches a third interval public concentration, which includes the Wayne Coutny jail and a hospital. Grand Circus Park at Woodward and Adams is 100 percent public land which creates a pocket of first interval single family residence at this location.

The second and third interval single family residence concentrations which appear in 1885/89 along the major arteries of Michigan, Grand River, Gratiot, and Woodward north of Adams are misleading. In fact, these streets contain mainly mixed land use with retail, manufacturing, single family residence/retail, manufacturing/retail, and multiple residence/retail activities but few single family residences. However, these commercial strips of mixed land use are surrounded by and divide high concentrations of single family residences. This results in the distortion of the contour maps which causes the streets to appear residential. For example, Woodward Avenue north of Adams Street contains only six single family residence lots.

Studies by Zunz (1982) and Schneider (1980) provide a view of the demographics of Detroit's residential areas in the l880's. The study area contains some of the major wealthy sections at this time, although there was a continuing residential movement out of the city center and beyond the study limits. The new elite residences north of Grand Circus Park and Adams Street, especially the Piety Hill area along upper Woodward north of Adams and Cass north of Grand River, are extensions of older wealthy neighborhoods on the west side. Jefferson Avenue east of Brush Street also contained homes of the rich. A new elite section grew up northeast of the intersection of Miami (Broadway) and Gratiot, just north of the central business district. The older wealthy neighborhood on the west side expanded as the rich built homes between Cass and Griswold from Congress north to the study area, from Third to Cass between Congress and Abbott, and between Seventh and Third along Fort and Lafayette streets.

Zunz (1982: 52) characterizes the elite who lived in the wealthy areas of Detroit in the 1880's as native-born Whites and British immigrants. The elite neighborhoods of the study area, which belong to this residential center type because of their proximity to the central business district, also housed some native-born white and British working class families. The wealthy who remained near the center of the industrial city, therefore, continued to mix with some members of the working class. The homes in the
study area outside of the wealthy residential center type belonged to immigrant working class families.

The contour maps for commercial Detroit revealed four land use types with no concentrations above 20 percent. This figure increased to six in 1885/89. Two of these land use categories were not present in $1853 / 55$, two previously had concentrations greater than the first interval, and two others had no significant densities. The three and a half lots of the new wholesale/residence category appear only in one area, between Monroe and Fort streets from Farmer to Beaubien (Figure 28). This is a mixed land use section near a small wholesale concentration, retail and manufacturing activities, and single family residences. The other new category, wholesale/manufacturing, occurs between First and Bates from the river to Larned (Figure 29). Lots of this type are located close to retail, wholesale, and manufacturing establishments.

In $1853 / 55$ the density of the block land use category was high enough to form a concentration greater than 20 percent of the lots in a two square block area. The lack of any significant concentrations thirty years later indicates a decrease in the mixture of a number of activities within one building. This decrease is related to the expansion of the wholesale and manufacturing districts. These activities grew to such an extent that they required more space than was available within the block buildings. The blocks that are present in $1885 / 89$ remain either in

# Detroit Downtown District 

## 1885/89

Wholesale/Residence


## Figure 29

Detroit Downtown District

1885/89

Wholesale/Manufacturing


the central business district or in the mixed areas along Michigan and Gratiot (Figure 30). The movement toward a greater separation of commercial and industrial activities reflects the increased specialization of land use in the industrial city, at least in the study area.

In 1885/89, as in 1853/55, the manufacturing/residence category only appears in or near residential areas (Figure 31). The industries which compose this land use type are mainly small in scale. Some manufacturing/residence lots are mixed with other land use types on the major streets leading out of the city. Manufacturing/retail activities are no longer found south of Jefferson Avenue as they were in $1853 / 55$ (Figure 32). In industrial Detroit, this land use category is associated more with retail stores than with factories, and the manufacturing is of a small scale. Manufacturing/retail lots are also found on major arteries such as Grand River and Gratiot avenues.

Single residence/retail activities comprise a large portion of the mixed land use along Detroit's commercial strips (Figure 33). Although no longer concentrated enough to form contours above the first interval, single residence/retail activities remain an important part of Detroit's major streets in l885/89. In fact, they comprise a large portion of the mixed land use along Michigan, Grand River, Woodward, and Gratiot avenues. Single residence/retail lots occur throughout the study area, in residential neighborhoods and retail areas, and near factories and

Figure 30

## Detroit Downtown District

1885/89

Block


## Figure 31

## Detroit Downtown District

1885/89

Manufacturing/Residence


Detroit Downtown District

1885/89

Manufacturing/Retail


## Figure 33

Detroit Downtown District

1885/89

Single Residence/Retail

public places, but are not associated with the large wholesale, retail, and manufacturing areas along the river.

When analyzing land use in industrial Detroit it is important to remember that the descriptions of the study area in 1885/89 aid in discussing the structure of the downtown and surrounding residential neighborhoods and manufacturing section, not the entire city. What was almost the whole city in $1853 / 55$ covers only a small portion in 1885/89. While important differences in land use exist between the two periods, the structure of the study area remains similar. The central section of the industrial city reflects the basic structure of the entire commercial city, although the former is more specialized.

The structure of the study area in 1885/89 can be divided into four basic units. The much expanded retail core contains mainly third and fourth interval retail concentrations and extends from Griswold to Randolph along Woodward from Jefferson Avenue north to Grand River, branching out along Michigan Avenue as far west as Washington and along Monroe and Gratiot avenues as far east as Randolph. Some wholesale and multiple residence/retail activities (in the form of hotels) occur in the core but it lacks single family residences as evidenced by both the computer generated and the color coded maps. This welldeveloped central business district still contains most of the city's employment as did the smaller retail core of the commercial city.


#### Abstract

The mixed land use areas surrounding the central business district to the north, east, and west comprise the second structural unit of the study area in 1885/89. In general, these mixed sections contain second interval retail activities and second interval single family residences combined with a number of other land use types. Where retail concentrations fall below the second interval, the mixed areas also end--west of Cass, east of Beaubien, and north of John $R$. This mixture of land use types serves to separate the central business district from the nearby residential neighborhoods. This same function existed in $1853 / 55$ but due to the major expansion of retail businesses, the combination areas are now smaller.

The residential neighborhoods buffered from the retail core contain mainly single family residences. The concentration of multiple residences in the study area diminished between $1853 / 55$ and $1885 / 89$, another victim of the expanding central business district. The $1853 / 55$ pattern of a mixture of single family and multiple residences bordering on an area of single family residences and vacant land has disappeared. The abundant vacant land on the outskirts of the commercial city filled in with single family residences by 1885/89, a result of the city's increased population. Commercial strips such as Michigan and Gratiot avenues divide some of the single family residential neighborhoods. These mixtures of manufacturing, retail, and other commer-


cial activities, which appeared in the beginning stages in $1853 / 55$, developed fully by $1885 / 89$.

The expanded wholesale and manufacturing districts comprise the final $1885 / 89$ structural unit. In general, these activities remain south of Jefferson Avenue as they did in $1853 / 55$, although some manufacturers and wholesalers moved north. The factories between Seventh and Griswold north of Jefferson are near the financial district and homes of the wealthy. Vacant land no longer separates these activities. Retail businesses in industrial Detroit are associated more with the wholesale and manufacturing sections than in the commercial city, as reflected in the retail concentrations south of Jefferson Avenue.

The basic structure of commercial Detroit still exists in 1885/89, at least in the study area. The remainder of the city, however, may fit into a different, larger pattern. The retail core is surrounded on three sides by residential neighborhoods and on the south by a wholesale and manufacturing area. Although the basic structure remains the same, six important structural differences distinguish the industrial city from its commercial predecessor.

1) The first major difference in Detroit's land use organization between $1853 / 55$ and $1885 / 89$ is the expansion of the retail core and the development of the central business district. This expansion occurred at the expense of single family and multiple residences which moved far-
ther out from the city center. Davey and Doucet (1975: 329) claim that the central business district of industrial cities did not just expand from an earlier retail core. The new central business district contained new types of businesses, such as department stores and greater financial services.
2) Associated with the growth of retail activities is the second major difference between commercial and industrial Detroit--the presence of fully developed commercial strips which led out from the retail core and divided residential neighborhoods.
3) Manufacturing and wholesale activities grew in size and importance between $1853 / 55$ and $1885 / 89$, another important change. Factories moved into and near some residential neighborhoods and wholesale businesses expanded into the central business district.
4) The fourth major difference between commercial and industrial Detroit is the diminished amount of vacant space in the study area. New factories and wholesale businesses and expanding older ones filled in the vacant land along the waterfront, diminishing the buffer between these activities and residences. However, increasing numbers of single family residences account for most of the disappearance of vacant land.
5) The study area of industrial Detroit contained less of a mixture of land use types than in the commercial stage. The expanding retail, wholesale, and manufacturing
sections, along with the declining importance of certain combination types, e.g., blocks, reflect the increasing specialization of land use. The smaller area of mixed land use surrounding the retail core and the decrease in the mixture of single family residences with multiple residences and/or vacant land also indicate increasing specialization. The mixture of land use types which separated distinct, specialized areas in $1853 / 55$ diminished by 1885/89.
6) The final structural difference between 1853/55 and 1885/89 is the increasing segregation of ethnic groups. The contour and color-coded maps do not reveal this phenomenon but it is obvious from studies by Zunz (1982, 1977) and Schneider (1980). The immigrant neighborhoods that began in the l850's developed into distinct communities, housing mainly the working class. The elite residential sections of the city became more segregated from the immigrant households. These wealthy areas were ethnic neighborhoods in that they housed native-born whites and British immigrants, most of whom were well off, but some of whom belong to the working class. In fact, Zunz (1982: 50) claims that ethnicity, more than occupation, affected residential location in Detroit. In all immigrant neighborhoods, the skilled and the unskilled lived side by side. Detroit in $1885 / 89$ was "made up largely of cross-class ethnic communities which were able to retain their upwardly mobile members" (Zunz 1982: 55).

The important structural changes in Detroit between $1853 / 55$ and $1885 / 89$ were shaped by local and national forces which led the city through its transition from a commercial center to an industrial city. The following chapter discusses the history of Detroit from 1855 to 1889 and suggests some possible causes for the changes in spatial structure. Geographical literature on location and spatial organization will also be discussed in order to shed light on this important transitional period.

## CHAPTER 4

DETROIT FROM 1855 to 1889


#### Abstract

A comparison of land use maps of the Detroit Downtown District in $1853 / 55$ and $1885 / 89$ revealed six important changes in spatial structure between the commercial and industrial city: l) expansion of the retail core; 2) development of commercial strips radiating from the central retail core; 3) growth in manufacturing and wholesale activities; 4) filling in of previously vacant land; 5) greater specialization of land use with less mixture of land use types; and 6) increased segregation of ethnic groups. Industrial Detroit was no longer the pedestrian city of the commercial era. Horse-drawn street railways, introduced in the city in 1863 with the opening of the Jefferson Avenue line, helped create an urban sprawl with its accompanying alterations in spatial organization (Schneider 1980: 1). Detroit did not undergo these changes alone. The events which influenced the development of industrial Detroit occurred nationwide and parallels in the growth of Detroit and other American cities are numerous. For example, in both Boston (Warner 1962) and Milwaukee (Conzen and Conzen 1979) the late nineteenth century


business district covered most of the old settlement of the early to mid-l800's, as it did in Detroit. Nationwide, the "pedestrian city" became the "axial city" due to the expansion of businesses along major axes (Rugg 1972/79: 59). The factors which created the new industrial cities resulted from expansions in manufacturing and finance, along with the growth of new business organizations, and the increase in consumer buying power, all of which occurred after the Civil War. These developments affected the spatial arrangement of people and activities within American cities and led to the six important structural changes in Detroit.

In the decade before the Civil War, the United States underwent a period of boom, bust, and modernization. In Detroit, as in the rest of the country, immigration increased, resulting in continuing tension between the newcomers, the expanding railroads, and vice activities, all of which were competing for increasingly crowded urban space (Schneider 1980: 8). Economic conditions in the late 1850's added to these heightened tensions. The Panic of 1857, which led to a national depression, began with the failure of the Ohio Life and Trust Company on August 24. New York banks began calling in loans in response to the closing and many businesses were ruined. Unemployment skyrocketed nationwide, especially among immigrants.

Before the economy had a chance to recover, the Civil War broke out. The United States Government financed the
war for the Union side by issuing greenbacks from 1860 to 1863 and by levying new taxes on the public and on businesses (Kirikland 1961: 20). To further deal with the scarcity of money, the government also reorganized the national bank system. An economic boom period followed the end of the Civil War and the value of government notes doubled, resulting in high prices for most goods. Railroad construction increased drastically after the war and the new national railroad network strongly benefited the economy (Kirkland 1961: 51). Prosperity came to Detroit and to other northern cities. Immigration, which had declined during the war, now escalated. In 1873, over 400 thousand people immigrated to the United States, most of them settling in urban areas (Ward 1971: 65). Before the war, most newcomers settled on the east coast. However, improvements in the railroad system after the war made Midwestern cities like Detroit more easily accessible to the newly arriving immigrants.

The immigrants who came to the United States following the Civil War were attracted by job opportunities available in the newly prosperous cities. The Civil War had created a large demand for industrial goods. Consumers' desire for manufactured products continued after the war and "the civilian economy with its pent-up needs hurried to satisfy them" (Kirkland 1961: 3). Technological advances such as Bessemer steel production, electricity, and new refining techniques led to a growth in manufacturing activities, an
increase in the number of available jobs, and the resulting urban spatial and population growth (Warner 1972: 86).

Warner (1972: 85) marks 1870 as the beginning of fully mechanized production in the United States. Conzen and Conzen (1979: 47) also claim that manufacturing first dominated the national economy in the 1870's. In Michigan, however, some industries gained importance prior to 1870. In 1860, the state ranked fourth in the nation in iron production and in the following year the Upper Peninsula provided 89.5 percent of the copper for American production (Kirkland 1961: 139-140). Detroit became an important industrial center in the 1860's and l870's. The amount of capital invested in industry in Wayne County (most of it in Detroit) rose 256 percent between 1860 and 1870 while the value of manufactured goods increased 303 percent (Burton et. al. 1922: 533). The city was located near a wealth of natural resources such as iron, copper, and lead, and deposits of sand and wood, the chief materials for manufacturing (Zunz 1982: 16). Salt and limestone deposits, used in manufacturing such items as baking soda, were also mined near Detroit (Parkins 1918: 168).

After 1860, Detroit specialized in the manufacture of iron and steel products. In 1880 it ranked nineteenth in the nation in the value of manufactured goods and by 1890 it had risen to sixteenth (Leake 1912: 208). In the decade following 1880, Detroit boomed as a manufacturer of railroad cars and wheels, and boasted the largest copper
smelting works in the nation (Farmer 1890/1969: 802). The market value of goods manufactured in Detroit rose from \$6,498,593 in 1869 to $\$ 77,351,546$ in 1890 (Leake 1912: 225). The list of the top 169 articles manufactured in Detroit in 1890 includes everything from awnings to yeast (Farmer 1890/1969: 804). By this date, the paint, varnish, drug, and tobacco industries had also gained significance.

The growth in industry which followed the Civil War resulted in one of the important differences between commercial and industrial Detroit--the increased number and size of manufacturing concentrations within the study area. Not all of the city's industrial establishments located within the study area, however. In fact, factories were scattered throughout the city in the 1880's (Schneider 1980: 92). Parkins (1918: 200) claims that Detroit contained no single manufacturing district at this time. Most of the heavy industry located along the riverfront, outside the study area. The new expanded industries required large spaces for factories, but with the growth of the retail district the center of Detroit became more crowded. Less land was available for heavy manufacturing. Competition for space in the study area also drove up the price of land, making it very expensive for factories to locate there. Geographers (Rugg 1972/1979, Alonso 1964, Haig 1926) discuss the principle of minimizing costs of friction (site rental plus transportation costs) in location. Industries were able to minimize these costs of friction by locating
outside of a city center and along transport axes such as rivers, railroad lines, and canals. Locating on these axes not only minimized transport costs, but offered easy access to raw materials and labor (Rugg 1972/1979: 59). After the rise of manufacturing, most heavy industries nationwide built factories on or close to important transport routes, away not only from city centers but also from residences (Hudson 1970: 245). This resulted in the segregation of residential and manufacturing areas.

Most of Detroit's industries built factories along the riverfront outside of the central business district in the second half of the nineteenth century. Nevertheless, as the contour maps show, manufacturing expanded within the study area, especially near the Michigan Central Railroad depot and on the east side. In general, this new manufacturing filled in vacant land or took over residential space.

Some lighter industries required less space than larger factories and could, therefore, rent central space at lower prices. Locating in or near the city center awarded certain advantages to industries. Kiang (1964: ll2) points out that sites along a waterfront near a central business district provide access to raw materials, labor, and public services. The Detroit River remained an important transport route in the l880's and locations along the waterfront within the study area were attractive to some lighter industries. The factories that located near the Michigan

Central and Detroit and Milwaukee depots were able to take advantage of both the river and these important railroads that linked up with other routes nationwide.

In Detroit, some light manufacturing also located on the east side of the study area, north of Jefferson Avenue. These industries took advantage of not only the river and the railroads, but also of the large labor pool of immigrants who settled on the east side. The 1885/89 contour maps revealed that these factories were mixed in among residential neighborhoods.

Railroad mileage in the United States tripled in the 25 years following the Civil War (McKelvey 1963: 23). In this period the railroads had helped to expand the scope of urban markets, creating greater demand for manufactured goods and increasing the importance of wholesale activities. As the $1885 / 89$ contour maps reveal, wholesale businesses expanded within the study area, filling in some of the vacant land along the riverfront and moving into the business district. Although Ward (l971: 99) claims that in American cities "the manufacturers of mass-produced goods stimulated the growth of the retail sector at the expense of the wholesale secor of urban commerce", this did not occur in Detroit. In the 1860's and l870's the city became a regional entrepot and a transfer point on major east-west trade routes, and wholesale activities continued to be important to its economy (Schneider 1980: 87). As previously mentioned, the growing impact of manu-
facturing on the national economy, the resulting urban prosperity, and the demand for unskilled, low paid labor attracted an increasing number of foreign immigrants and rural migrants to American cities. In 1880, the majority of immigrants to the United States came from Germany, Scandanavia, Britain, and Canada (Ward l971: 71). In the next ten years over 5.3 million people settled in the United States with ever-growing numbers coming from Central, Southern, and Eastern Europe (Ward 1971: 65). These new immigrants provided the cheap, unskilled labor pool demanded by the increasingly mechanized factory production of the 1880's (Warner 1972: l69).

Detroit was a stopping point for many immigrants in the second half of the nineteenth century. Between 1860 and 1870, the city's population rose 74 percent, from 45,619 to 79,577 (Leake 1912: 210). In 1870, 40 to 50 percent of that population was foreign born (Ward 1971: 77). Detroit was the eighteenth largest American city in 1880 and it housed 116,340 people (Zunz 1982: 3). By 1890 that figure had risen to 205,876 (Leake 1912: 210). The five major groups composing the population of the city in 1880 were: Germans ( 28 percent), Whites of native-born parents (19 percent), Irish (12.3 percent), British (9.7 percent), and Canadians (4.3 percent) (Zunz 1982: 34). Poles made up. 2.6 percent of the population and Blacks totaled 2.4 percent (Zunz 1982: 35).

The national population growth in the second half of
the nineteenth century and the expanded purchasing power of the urban population created new consumer markets and new consumer demands. Nationwide, new marketing techniques, such as department and variety stores, developed to serve the new market for mass-produced goods. By dealing directly with manufacturers, these new retail stores were able to cut out the middlemen (commission agents and jobbers) and reduce costs to consumers (ward 1971: 94). Most of these new stores located in the major retail districts of cities, creating economies of scale and further reducing the price of their goods. These new marketing techniques made their way to Detroit with the opening of variety and department stores, most of which located on Woodward Avenue north of Jefferson.

New marketing techniques were only a part of the changing business practices that accompanied the expansion in manufacturing and the growth of cities. The conventional small scale businesses and partnerships were unable to deal with the increasing importance of large scale manufacturing and the numerous employees it required. To this end, a new type of business organization, the corporation, developed. Corporations had their roots in the business world's need to gather large amounts of capital through the sale of stocks and bonds and the limited liability of stockholders (Warner 1972: 92). Railroads were some of the first American corporations.

The rise of corporations in the late l800's prompted
the development of new financial facilities to deal with the increasing size and complexity of business. Brokerage firms and companies dealing in insurance, real estate, and legal matters concentrated in the financial districts of cities. In most cities, these districts located in the specialized retail and service core, the new central business district, along with the department and variety stores.

In Detroit, the new financial institutions located along Griswold Street. They were part of the city's central business district, the retail/service core which had changed character and expanded considerably since 1853/55. A comparison of the contour maps revealed this important structural difference between commercial and industrial Detroit. Economics played a major role in the development of the central business district in Detroit as well as in other American cities. The best location for growing retail and service activities was the point of maximum accessibility to the largest number of consumers and their increased purchasing power (ward 1971: 86). The advent of the streetcar rendered central retail areas easily accessible to the general urban population and encouraged businesses to settle there. Increased accessibility reduced the costs of goods to both retailers and consumers.

Competition for highly accessible space drove up the price of land in central business districts. Rents in this area were generally the most expensive in the city. The increased costs excluded most residences, large manufactur-
ers, and some small businesses from locating in the central business district. Some businesses, however, were willing to trade off the high rents for maximum accessibility and low transport costs. Many businesses relied on the railroads and waterfronts near the central business district for their supplies. They could not locate far from these because horse and wagon transport remained expensive. Centrally located businesses also benefited from the geographical principles of agglomeration and external economies. Similar businesses concentrated in one area shared access to information on market conditions, consumer needs, and "financial, technical, and distributional facilities which individual firms were unable to support" (Ward 1971: 87). The financial district along Griswold Street in Detroit in the l880's is an example of businesses creating agglomeration and external economies.

In commercial cities most jobs were located in the retail/service core. After the rise of industry, the central retail area remained the major area of employment. However, the number and types of available jobs had increased. New commercial and service activities developed in the central business district as a result of the "differentiation of production and distribution, the rapid enlargement of market areas, and an increase in per capita wealth" (Ward 1971: 86). Jobs opened up in marketing, construction, utilities, laboring, and tertiary activities. With the development of new technology, manufacturing became more
mechanized and the more skilled labor was transferred from factories to new jobs in the central business district (Warner 1972: 86).

All of the factors discussed above--expansion of industry, rise in immigration, increased consumer purchasing power and wider markets, new business organizations, competition for space in the retail area, the advent of the streetcar, and the development of new retail and service activities--combined to create Detroit's central business district. Housing new types of activities, it was more than just the physical expansion of the commercial retail/service core of $1853 / 55$. The new business district was centered along Woodward Avenue and moved north of Campus Martius (Cadillac Square) after 1870 (Farmer 1890/1969: 773).

Retail/service activities in industrial Detroit also expanded out from the central business district along major thoroughfares such as Michigan and Gratiot avenues. The contour maps revealed that these commercial strips were more developed than the single residence/retail concentrations located along these streets in 1853/55. The development of commercial strips was a common urban phenomenon in the second half of the l800's. In general, the expansion occurred in a spoke-like fashion which geographers call "ribbon development". The ribbons generally followed new transportation lines which made them accessible to the growing population and suppliers and ideal for commer-


#### Abstract

cial development. Businesses were also attracted to these major thoroughfares because the rents were usually cheaper than in the central business district (Conzen and Conzen 1979: 64).


The color coded and contour maps of the study area show that when Detroit's retail activities expanded, they did so at the expense of residential and mixed land use areas. The movement of retail activities into these areas follows the geographical principle of succession. Burgess (1925) developed the concentric zone theory of city expansion which maintains that a city is composed of four zones, with the central business district in the center. Succession occurs when an inner zone expands into the next outer zone. This happened in Detroit when, as the retail core expanded, residents were driven from the center by increasing land values and their homes were replaced by businesses (Parkins 1918: 199). Succession also characterizes the growth of other major American cities such as Boston (Warner 1962: 34).

In addition to expanded size and new activities, the retail core of industrial Detroit also differed from its commercial predecessor in that it was more highly differentiated. Although the $1853 / 55$ contour maps revealed land use differentiation in commercial Detroit, there was an even greater segregation of land use types in the industrial city. This is one of the major structural differ-
ences between the two eras. As previously discussed, high rents in the central business district drove away residences, large factories, and some small businesses. Large factories located away not only from the center of the city but also from residences. Most of the residential neighborhoods in the study area lacked manufacturing activities, although those residences near Jefferson Avenue and the riverfront were close to some factories. Manufacturing in the study area had definitely expanded but these new factories were generally concentrated rather than dispersed throughout the neighborhoods. The greater differentiation of land use between the commercial and industrial stages occurred in most major cities. In fact, "segregation of industrial, commercial, and residential land became the hallmark of the metropolis" (Warner 1972: 104). Rugg (1972/79: 60) claims that a laissez-faire philosophy left each part of the city to develop by itself and resulted in the differentiation of commercial, industrial, and residential areas. In Detroit, this segregation led to distinct residential, manufacturing, and retail/service concentrations within the study area.

The social consequences of Detroit's rapidly growing population in the second half of the nineteenth century include a rise in mob violence. From the late l850's into the 1870's mob violence increased, especially in immigrant neighborhoods (Schneider 1980). The violence resulted from increasing tension between the growing number of people
and businesses competing for space. For example, German immigrants destroyed bordellos near their homes and drove prostitution from their neighborhoods in a series of riots between 1855 and 1859. This vice had encroached too far into the residential neighborhoods and threatened their stability. Hard economic times and nigh unemployment also added fuel to the fire. Mob violence occurred in other American cities such as Boston, where economic tensions "led many lower class Bostonians to attack...each other" (Warner 1962: 10).

The growing population of Detroit also resulted in a rise in crime, especially burglaries and robberies. These crimes continued to occur mainly in the central business district and were blamed on the growing number of transients who lived in or near downtown (Schneider 1980: 68). In 1865 a police department was formed for the purpose of protecting the downtown businesses of the wealthy and their nearby homes. Higher unemployment due to the nationwide depression of 1873 to 1878 resulted in even greater problems with the transient population. Rising crime threatened the spatial exclusivity of the elite whole class identity was further strengthened by industrialization and its consequences (Schneider 1980: 84). They desired strictly residential neighborhoods protected from the immigrant population and the vice areas of the transients. The growing identity of the wealthy native-born Whites as a separate class intensified their social and
spatial segregation from the immigrant population.
The immigrant neighborhoods that first developed in Detroit in the l850's grew and solidified by the mid1800's. Spatially and culturally the segregation between the neighborhoods intensified, which is another important difference between commercial and industrial Detroit. The Irish remained west of the central retail core, the Germans stayed on the east side, and the smaller, newer immigrant groups settled on the near east side. Blacks lived in their own neighborhood, called "Kentucky", northeast of the study area. Northeast of "Kentucky" was the Polish neighborhood, "Polacktown". These neighborhoods grew and solidified culturally as a result of increasing immigration. Land in the central business district was too expensive, so the newcomers moved to the outskirts, near their friends and family who had settled earlier. This served to increase the size of immigrant neighborhoods and intensify their segregation from one another. This physical separation of ethnic groups occurred in cities nationwide and resulted from "a process of distribution...which sift(ed) and sort(ed) and relocate(d) individuals and groups by residence and occupation" (Burgess 1925: 54). In fact, Burgess claims that it is this "differentiation into natural economic and cultural groupings" which "gives form and character to the city" (1925: 56). As discussed in Chapter 3, nowever, these residential groupings were more cultural (ethnic) than they were economic or occupational (zunz

1982: 50).
Ironically, the continued physical growth of Detroit and the segregation of ethnic groups served to decrease the incidence of mob violence in the neighborhoods. By 1880 both crime and mob violence were under control and in comparison to 1860, Detroit was "a model of law and order" (Schneider 1980: l2l). Expanding city limits allowed different groups to live away from each other and from the growing business district. Competition for space decreased and the threat of encroachment by vices and other immigrants diminished. Schneider (1980: 136) points out, for example, that Detroit's Irish immigrants and Blacks did not get along very well. However, they lived on different sides of town and their physical separation prevented any major clashes between the two groups. The Germans and the Blacks both lived on the east side and experienced greater tension. In addition, as immigrant groups and the native born became more segregated, "chances for disorder arising out of anti-immigrant feelings were minimized" (Schneider 1980: 136).

Detroit's physical growth began after the Civil War, along with its population growth. In 1860 most residents lived within a mile and a half of the city center but by 1880 the boundaries extended out more than three miles (Zunz 1977: 446). However, the most densely populated areas did not extend out that far and there was still a good deal of vacant land on the city's periphery. A
comparison of the $1853 / 55$ and $1885 / 89$ contour maps revealed a large decrease in the amount of vacant land in the study area. As Detroit's population increased, the vacant land closest to the city center filled in first. In addition, some industries and wholesalers expanded into the vacant land along the riverfront near the central business district.

In spite of the large population increases, Detroit in the 1880's was not a crowded city, with an average density of only 11.3 people per acre and 5.7 people per dwelling (Zunz 1982: 20). In most major American cities in the l880's poor immigrants crowed into tenements near the central business district. However, this phenomenon did not occur in Detroit. Cheap land and building materials allowed most residents to live in single family homes. In 1880, 92.6 percent of all homes in Detroit were single residences (Zunz 1982: 32). This explains the small number of multiple residence concentrations in the $1885 / 89$ study area and the expansion of single family residences into previously vacant land.

While the land use structure of the study area in 1885/89 retains many characteristics of commercial Detroit, the differences between these two time periods are significant. Industrial Detroit was not merely an expansion of the Detroit of $1853 / 55$. In many ways it was a new city, with new activities and different emphasis. The land use changes over this thirty year period are all related to
the increased importance of manufacturing. The employment opportunities provided by industrial development in Detroit attracted large numbers of immigrants, most of whom built single family homes on previously abundant vacant land. As immigrant neighborhoods grew, the segregation between ethnic groups intensified. The population boom created a large market for a greater number and variety of retail activities. These businesses, along with expanded financial institutions, concentrated together in a new, larger retail/service area. High prices in the central business district due to competition for accessiole space drove away most residences and factories, resulting in a greater segregation of land use than in the commercial city. Retail and service activities also spread out in "ribbons" where land was cheaper than in the central business district yet still accessible to the consumer population.

The process of expansion and segregation which Detroit experienced from $1853 / 55$ to $1885 / 89$ cnaracterizes American urban life in the Industrial Age. Ward points out that:
> "Any increase in the rate of urbanization or population concentration tends to encourage the selective growth and internal differentiation of urban cities. Thus, changes are produced not only in their locational patterns and hierarchical ordering but also in the internal arrangement of their populations and functions" (1971: 4).

These changes in urban spatial structure "have been related to the new locational possibilities created by advances in technology and organization" (Ward 1971: 4). Technological and organizational advances allowed Detroit to grow from a
commercial center with a simple, although recognizable,
internal organization to an industrial city with a highly
specialized land use structure.

## CHAPTER 5

CONCLUSION

The goal of this study was to determine, through color coded and computer generated maps, the land use structure of the Detroit Downtown District during its commercial and industrial stages. The study is necessary as the first step in developing an urban research design that views the city of Detroit as a site. The patterns discerned from the maps of $1853 / 55$ and $1885 / 89$ were compared and changes in the study area's land use structure during Detroit's transition from a commercial to an industrial city were discussed. Historical research uncovered factors that were responsible for the differences in land use. While the basic structure of the study area remained similiar over the thirty year period, six important changes occurred. These changes were all related to the development of industry and its wide-ranging effects on urban life.

Important changes in land use, such as increases in the amount of industrial, wholesale, and retail activities with a corresponding decrease in vacant space, undoubtedly influenced the lifestyles and behavior of Detroit's residents. Results of the land use and historical study of the Detroit Downtown District suggest topics that archaeolo-
gists, using historical, geographical, and sociological information, should investigate in order to uncover the behavior that accompanied the land use structure.

The land use maps of the study area show an increase in retail activities between $1853 / 55$ and 1885/89. Commercial Detroit's retail core expanded into the central business district of the industrial stage. Historical research revealed that the central business district differed from the commercial core not only in size, but also in number and types of activities.

Another major change that occurred over the thirty year period was the development of commercial strips radiating from the city center. The land use maps and historical research do not, however, explain the relationship between these strips and the central business district. Archaeological investigation of these components may shed some light on this problem. By sampling the $1885 / 89$ central business district and the strips that extended from it, archaeologists could compare the quantity, quality, and types of goods and services available in these retail centers. The central business district at this time covered the area from Griswold to Randolph between the river and Grand Circus Park. Major commercial strips included Gratiot on the east, Michigan and Grand River on the west, Jefferson Avenue, and Woodward north of Grand Circus Park. Were the strips merely extensions of the central business district, offering the same goods and services, or did they serve a
different purpose? The strips ran through and divided residential neighborhoods. Were they, therefore, neighborhood and community centers for nearby residents or did people from other parts of the city shop there?

Who shopped where is another question that Detroit archaeologists can address. Did Detroit's richer citizens shop mainly in the central business district or did the demand for goods absent from downtown stores draw them to the commercial spokes? If the same types of goods were available in both the central business district and the strips, differences in the quality of these goods would indicate that different classes may not have shopped in the same locale. In addition, if goods that only the wealthy could afford or only the poor would buy were discovered in one retail area but not in the other, this would also suggest that the classes had different shopping habits. A comparison of data from residential sites of the wealthy and the less well off may show that the classes bought different goods sold in separate retail areas.

If archaeological data suggests that the central business district was the shopping district for the wealthy, and the strips catered to the immigrant neighborhoods, the next step is to determine why this occurred. Was it because rent prices in the city center caused goods sold there to be too expensive for the less wealthy? The wealthy may also have been drawn to the central business district by financial services that were not offered along
the commercial strips. Perhaps the strips were more than just shopping districts. They may have been social and cultural centers for the neighborhoods and, therefore, had a stronger draw for local residents than did the central business district. In a similiar way, perhaps the central business district had social meaning and pull for the wealthy. It would be interesting to discover where the elite who lived near the commercial strips (e.g., the neighborhoods near Grand River, and woodward north of Adams) shopped. Did they buy goods strictly in the central business district or along the strips, or did they diversify their shopping activities? How much of a role, if any, did shopping in a specific retail area play in class and ethnic identity? Researchers, utilizing archaeological, historical, sociological, and geographical studies, may provide insights into the relationship between class status and shopping areas, and how these relationships shaped urban lifestyles and identities.

Detroit in $1853 / 55$ contained a small retail core and the very beginning of commercial strips. By 1885/89, the core had expanded and changed character, and the commercial strips were fully developed. The change in size, location, and scope of retail activities must have influenced the shopping habits of Detroit residents. In addition, new technology and marketing practices along with increased purchasing power resulted in a variety of mass-produced goods with higher consumer demand. People had more money
to purchase a greater number of goods. Land use maps show the changes in retail patterns, and historical research revealed the development of mass-produced consumer goods. Archaeological investigations can address the ways in which these changes affected the lifestyles of Detroiters. By investigating residential sites of families with the same ethnic and economic composition from the commercial and industrial periods, archaeologists may be better able to explain how the development of new marketing techniques, mass-produced goods, and the expansion of retail land influenced life in Detroit.

A comparison of the $1853 / 55$ and $1885 / 89$ land use maps indicates an increase in the amount of industrial land in the study area but a decrease in the amount of single residence/retail land. Even though Detroit's population grew considerably after the Civil War, there were less people living and working in the same place. The rapid growth of industry was most likely responsible for this decreàse. The immigrants and rural migrants who moved to Detroit did so because of the large demand for unskilled labor in factories. They did not come to set up their own shops. In addition, the expansion in size and types of retail and service activities within the study area may have done away with some of the need for smaller retailers who lived and worked in the same shop. In fact, one of the most profound consequences of industrialization was the separation of home from work (Katz 1975: 21).

Although most of Detroit's major industries located away from the city center, the $1885 / 89$ maps reveal that some large factories located in the study area. The increase in the amount of industrial land, its closeness to residential neighborhoods, and its pull of workers away from the home must have had profound effects on lives of those who lived near and worked in the factories. Detroit archaeologists have the opportunity to discover some of these effects. By sampling residences of factory workers in the industrial stage and comparing them to sites which belonged to the more skilled non-factory workers in the commercial stage, archaeologists may be able to explain some of the changes that occurred in family structure and family life as a result of industrialization. How did workers' lifestyles change when they moved from working in the home or a small business to working in a factory? How did they cope with the "heartless rationalization" that Warner (1972: 98) claims was part of factory work? In order to address these topics, archaeologists should sample residential sites between Beaubien and Hastings from Jefferson to Gratiot. This area contained residences in both $1853 / 55$ and $1885 / 89$ but housed more factories in the industrial stage than in the commercial stage. Many of the area's residents worked in these factories.

The topics discussed above, related to changes in retail and industrial use, are only a few of the areas of study suggested by the land use and historical analysis of
the Detroit Downtown District. Archaeologists, working with other scholars, could also investigate the effects of the decrease in vacant space. Did Detroiters living and working in the study area in 1889 feel more crowded than in 1853 , and if so, how did they compensate for this? Researchers could also address the increased isolation of ethnic groups from one another. Other than a reduction in mob violence, what changes occurred due to the separation of these groups? Historical research showed that ethnic neighborhoods housed both the well-to-do and poorer members of the ethnic groups. The question of the relationship between the classes remains unanswered, however. Were the more elite ethnics a separate group within the neighborhoods? How did their lifestyles differ from the poorer members and how did they differ from the wealthy native born Whites? The study presented here provides analysis of a limited area in Detroit within a limited time frame. An historical land use study of the entire city over a greater length of time should be a major goal of any research plan for Detroit. A study of this scope will allow archaeologists to approach the city as a site, to tie research in one area to the whole city, and reveal, on a broader scale, how components of the city related to each other. For example, consider the question concerning the relationship of the central business district to the commercial strips. The land use study of the Detroit Downtown District describes only a portion of the strips;
nothing is known about the sections farther away from the city center. Upon investigating a larger area, patterns that were not discernable in the study area may emerge and shed some light on the relationship between the central business district and commercial strips.

A land use study of the entire city is also necessary because it will provide a better understanding of Detroit's evolutionary growtn. The pattern of growth can not be determined from analysis limited to the study area. While it includes most of the city in $1853 / 55$, the study area contains only a small portion of Detroit in 1885/89. A more expanded land use analysis will allow archaeologists to compare Detroit's growth to geographical models of urban expansion. Does the city's evolution support Burgess' (1925) model of concentric zones and succession? Is Hoyt's (1939) sector theory, which maintains that urban growth is axial and occurs in sectors that expand outward, a better model for Detroit's growth? Perhaps the city's expansion fits best with Harris and Ullman's (1945) multiple nuclei theory. This theory claims that as a city grows, a hierarchy of retail, wholesale, industrial, and residential districts develop. The growth of Detroit may support none of these theories and the land use study may suggest a new model. Once the patterns of evolutionary growth are identified, archaeologists can then ask question$s$ about the behavior and social structure that accompanied the growth. As Burgess stated, urban expansion "may be
studied not only in the physical growth and business development but also in the consequent changes in the social organization and in personality types" (1925: 53).

This land use and historical analysis of the Detroit Downtown District has suggested possible areas of archaeological investigation. Detroit archaeologists, whether studying the lives of factory workers or retail development in the city, must develop a broad-based research design. They must work with historians, geographers, sociologists, and city planners. Those who begin with a detailed land use analysis, work within a well-developed research design, and utilize information from other fields of urban study will best be able to address archaeological problems that are specifically related to the growth and development of Detroit. They will also be the most successful in uncovering general patterns and processes of urban life, and ultimately, in contributing to archaeological and anthropological theory.

APPENDIX

## APPENDIX

The contour mapping procedures of SYMAP require the placing of data points at approximately equal intervals. For the land use study of the Detroit Downtown District, 146 data points were placed at approximately two square block intervals. The exact locations of these points are listed below. For each location, the data point is the center of the area bounded by the streets listed.

Portions of the streets south of Jefferson Avenue-Woodbridge, Atwater, Franklin, and Front--no longer exist as they did during the 1853 to 1889 time frame. The Lodge Freeway, Cobo Hall, Joe Louis Arena, the Veterans Building, Hart Plaza, the Renaissance Center, and other developments stand where these streets formerly ran. In addition, some of the streets at the north, west, and east ends of the study area have been obliterated by freeways. Portions of other streets have been lost to urban renewal construction. The data points in these areas are listed as bounded by the former streets. Their locations on a modern map are also indicated.

## DATA POINT LOCATIONS

1. between Cherry and the northern boundary of the study area, from Brooklyn to Fifth (now part of John

Lodge and Fisher freeways);
2. between Plum and Cherry, from Brooklyn to Fifth (now part of John Lodge Freeway);
3. between Elizabeth and Plum, from Brooklyn to Fifth (a portion of which is now part of John Lodge Freeway);
4. between Beech and Elizabeth, from Brooklyn to Fifth (a portion of which is now part of John Lodge Freeway);
5. between Michigan and Beech, from Brooklyn to Fifth (a portion of which is now part of John Lodge Freeway);
6. between Bagley and Michigan, from Brooklyn to Fifth (a portion of which is now part of John Lodge Freeway);
7. between Labrosse and Bagley, from Brooklyn to Fifth (a portion of which is now part of John Lodge Freeway);
8. between Porter and Labrosse, from Brooklyn to Fifth (a portion of which is now part of John Lodge Freeway);
9. between Abbott and Porter, from Brooklyn to Fifth (a portion of which is now part of John Lodge Freeway);
10. between Howard and Abbott, from Brooklyn to Fifth (a portion of which is now part of John Lodge Freeway);
11. between Lafayette and Howard, from Brooklyn to Fifth;
12. between Fort and Lafayette, from Brooklyn to Fifth;
13. between Congress and Fort, from Brooklyn to Fifth (now part of Wayne County Community College);
14. between Jefferson and Congress, from Brooklyn to Fifth (now part of Wayne Community College);
15. between the river and Jefferson, from Brooklyn to Fifth (now part of the Riverfront apartment development);
16. between Cherry and the northern boundary of the study area, from Fifth to Third (now part of Fisher Freeway);
17. between Plum and Cherry, from Fifth to Third (a portion of which is now part of Fisher Freeway);
18. between Elizabeth and Plum, from Fifth to Third;
19. between Beech and Elizabeth, from Fifth to Third;
20. between Jones and Beech, from Fifth to Third;
21. between Bagley and Jones, from Fifth to Third;
22. between Labrosse and Bagley, from Fifth to Third (Labrosse no longer exists at this location);
23. between Porter and Labrosse, from Fifth to Third (neither Porter nor Labrosse now exist at this location);
24. between Abbott and Porter, from Fifth to Third (Porter no longer exists at this location);
25. between Howard and Abbott, from Fifth to Third (a portion of which is now part of John Lodge Freeway);
26. between Lafayette and Howard, from Fifth to Third (a portion of which is now part of John Lodge Freeway);
27. between Fort and Lafayette, from Fifth to Third (a portion of which is now part of Jonn Lodge Freeway);
28. between Congress and Fort, from Fifth to Third (now part of Wayne County Community College);
29. between Larned and Congress, from Fifth to Third (now part of Wayne County Community College);
30. between the river and Larned, from Fifth to Third (now part of Civic Center parking);
31. between Plum and the northern boundary of the study area, from Third to Grand River (a portion of which is now part of Fisher Freeway);
32. between Elizabeth and Plum, from Third to Grand River;
33. between Beech and Elizabeth, from Third to First;
34. between Jones and Beech, from Third to First;
35. between Bagley and Jones, from Third to First;
36. between Michigan and Bagley, from Third to First;
37. between Abbott and Michigan, from Third to First;
38. between Howard and Abbott, from Third to First;
39. between Lafayette and Howard, from Third to First;
40. between Fort and Lafayette, from Third to First;
41. between Congress and Fort, from Third to First;
42. between Larned and Congress, from Third to First (a portion of which is now part of John Lodge Freeway);
43. between Jefferson and Larned, from Third to First (now part of Joe Louis Arena and John Lodge Freeway);
44. between Front and Jefferson, from Third to First (now part of Joe Louis Arena and Cobo Hall);
45. between the river and Front, from Third to First (now part of Joe Louis Arena and Cobo Hall);
46. between Columbia and the northern boundary of the study area, from Grand River to Cass (a portion of which is now part of Fisher Freeway);
47. between Elizabeth and Columbia, from Grand River to Cass;
48. between Adams and Elizabeth, from Grand River to Cass;
49. center point of triangle bounded by Jones, Grand River and First;
50. between State and Jones, from First to Cass;
51. between Michigan and State, from First to Cass;
52. between Lafayette and Michigan, from First to Cass;
53. between Fort and Lafayette, from First to Washington Blvd.;
54. between Congress and Fort, from First to Washington Blvd.;
55. between Larned and Congress, from First to Washington Blvd.;
56. between Jefferson and Larned, from First to Washington Blvd. (now part of Cobo Hall);
57. between Woodbridge and Jefferson, from First to Washington Blvd. (now part of Cobo Hall);
58. between the river and woodbridge, from First to Washington Blvd. (now part of Cobo Hall);
59. between Montcalm and the northern boundary of the study area, from Cass to Park;
60. between Columbia and Montcalm, from Cass to Park;
61. between Elizabeth and Columbia, from Cass to Park;
62. between Adams and Elizabeth, from Cass to Park;
63. between Middle and Adams, from Cass to Clifford;
64. between Washington Blvd. and Adams, from Clifford to Park;
65. between Grand River and Clifford, from Times Square to Middle;
66. between Cass and Grand River, from Times Square to Bagley;
67. between Times Square and Griswold, from Grand River to Clifford;
68. between State and Grand River, from Park Place to Griswold;
69. between Cass and Washington Blvd., from Michigan to State;
70. between Washington Blvd. and Griswold, from Michigan to State;
71. between Cass and Washington Blvd., from Lafayette to Michigan;
72. between Lafayette and Michigan, from Washington Blvd. to Griswold;
73. between Fort and Lafayette, from washington Blvd. to Griswold;
74. between Congress and Fort, from Washington Blvd. to Griswold;
75. between Larned and Congress, from Washington Blvd. to Griswold;
76. between Jefferson and Larned, from washington Blvd. to Griswold;
77. between Woodbridge and Jefferson, from Washington

Blvd. to Griswold (now part of Cobo Hall and Hart Plaza);
79. between Montcalm and the northern boundary of the study area, from Park to Witherell (Witherell no longer exists at this location);
80. between Columbia and Montcalm, from Park to Witherell;
81. between Elizabeth and Columbia, from Park to Witherell;
82. between Adams and Elizabeth, from Park to Witherell;
83. on Woodward, center point of Grand Circus Park;
84. between Clifford/John R and Park/Witherell, from Washington Blvd. to Broadway;
85. between Grand River and Clifford, from Griswold to Farmer:
86. between State and Grand River, from Griswold to Farmer;
87. between Michigan/Monroe and State, from Griswold to Farmer;
88. between Fort and Michigan, from Griswold to Woodward;
89. between Congress and Fort/Cadillac Square, from Griswold to Bates;
90. between Larned and Congress, from Griswold to Bates;
91. between Jefferson and Larned, from Griswold to Bates;
92. between woodbridge and Jefferson, from Griswold to Bates (now part of Hart Plaza);
93. between Atwater and woodbridge, from Griswold to Bates (now part of Hart Plaza);
94. between the river and Atwater, from Griswold to Bates (now part of Hart Plaza);
95. between Montcalm and the northern boundary of the study area, from Witherell to Brush (Witherell no longer exists at this location);
96. between Columbia and Montcalm, from witherell to Brush;
97. between Elizabeth and Columbia, from witherell to

Brush;
98. between Adams and Elizabeth, from Witherell to Brush;
99. between Broadway and Adams, from John $R$ to Witherell;
100. between Centre and Adams, from Grand River to John R;
101. between Farmer and Centre, from Grand River to John R;
102. between Gratiot and Grand River, from Farmer to Randolph;
103. between Monroe and Gratiot, from Farmer to Randolph;
104. between Bates and Monroe, from Farmer and Randolph;
105. between Cadillac Square and Farmer, from Bates to Monroe;
106. center point of triangle bounded by Cadillac Square, Bates, and Randolph;
107. between Congress and Cadillac Square, from Bates to Randolph;
108. between Larned and Congress, from Bates to Brush;
109. between Jefferson and Larned, from Bates to Brush (Bates no longer exists at this location);
110. between Woodbridge and Jefferson, from Bates to Brush (now part of Hart Plaza and Renaissance Center);
111. between Atwater and woodbridge, from Bates to Brush (now part of Hart Plaza and Renaissance Center);
112. between the river and Atwater, from Bates to Brush (now part of Hart Plaza and Renaissance Center);
113. between Madison and Adams, from Randolph to Brush;
114. between Gratiot and Madison, from Randolph to Brush;
115. between Macomb and Gratiot, from Randolph to Brush;
116. between Monroe and Macomb, from Randolph to Beaubien;
117. between Lafayette and Monroe, from Randolph to Beaubien;
118. between Forth and Lafayette, from Randolph to Beaubien;
119. between Congress and Fort, from Randolph to Beaubien; 154
120. between Montcalm and the northern boundary of the study area, from Brush to St. Antione (a portion of which is now part of Fisher Freeway);
121. between Columbia and Montcalm, from Brush to St. Antione;
122. between Elizabeth and Columbia, from Brush to St. Antoine;
123. between Adams and Elizabeth, from Brush to St. Antione;
124. between Madison and Adams, from Brush to Beaubien;
125. between Madison and Adams, from Beaubien to St. Antoine;
126. between Gratiot and Madison, from Brush to Beaubien;
127. between Clinton and Madison, from Beaubien to St. Antoine;
128. between Macomb and Gratiot, from Brush to Beaubien;
129. between Clinton and Mullett, from St. Antoine to the eastern boundary of the study area;
130. between Macomb and Clinton, from Beaubien to the eastern boundary of the study area;
131. between Monroe and Macomb, from Beaubien to the eastern boundary of the study area;
132. between Lafayette and Monroe, from Beaubien to the eastern boundary of the study;
133. between Fort and Lafayette, from Beaubien to the eastern boundary of the study area (Fort no longer exists at this location);
134. between Congress and Fort, from Beaubien to the eastern boundary of the study area;
135. between Larned and Congress, from Brush to St. Antione;
136. between Jefferson and Congress, from St. Antione to the eastern boundary of the study area;
137. between Jefferson and Larned, from Brush to St. Antione;
138. between Woodbridge and Jefferson, from Brush to St. 155

Antione (now part of Renaissance Center);
139. between Franklin and Jefferson, from St. Antoine to the eastern boundary of the study area;
140. between Franklin and Woodbridge, from Brush to St. Antoine (now part of Renaissance Center);
141. between the river and Franklin, from Brush to St. Antione (now part of Renaissance Center);
142. between the river and Franklin, from St. Antoine to the eastern boundary of the study area;
143. between Columbia and the northern boundary of the study area, from St. Antione to the eastern boundary of the study area (a portion of which is now part of Fisher and Chrysler freeways);
144. between Adams and Columbia, from St. Antione to the eastern boundary of the study area (a portion of which is now part of Chrysler Freeway);
145. between Gratiot and Adams, from St. Antoine to the eastern boundary of the study area (a portion of which is now part of Chrysler Freeway);
146. between Mullett and Gratiot, from St. Antoine to the eastern boundary of the study area (a portion of which is now part of Chrysler Freeway).

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