

NEIGHBORHOOD ANALYSIS FOR METROPOLITAN AREAS

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and Technology, 1962

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A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF REGIONAL AND COMMUNITY PLANNING

College of Architecture and Design

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

1968

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## ACKNOWLEDGMENTS

The author wishes to express his deep sense of gratitude to Professor Eugene T. McGraw, College of Architecture and Design, Kansas State University, for his valuable guidance and instruction during the preparation of this report. Because a major part of this research was carried out in absentia, this work could never have been completed without Professor McGraw's sacrificing much of his own time to guide the author on many week ends during the summer.

Thanks are also due to Professor Vernon P. Deines, chairman, Regional and Community Planning, for arranging permission from the Graduate School to complete this research in absentia.

## INTRODUCTION

Frederick J. Adams, for a number of years head of the department of City and Regional Planning at the Massachusetts Institute of Technology, defined planning as a process which deals with the ways of guiding or controlling the use or development of land in such a way that maximum social and economic benefit may accrue to the people of a city being planned, through the improvement of its physical environment. In an urban area where such a viable physical environment does not exist, it is likely that the social and economic benefits of that area are retarded, and that the quality of urban life becomes substandard. The result is that the aim for a better life for citizens loses its vigor and direction. Among all obstructions hindering the betterment of life for millions of American urbanites, the obsolescence found in most of the major American cities ranks very high. The conditions attending metropolitan housing, schools, hospitals, transportation, and recreations are fast becoming intolerable. The worst of all are urban slums.

But however deep and fundamental may be the problem related to slums and their elimination, attempts must be made to eradicate them because unless they are eliminated, urbanites will be unable to enjoy the high quality of modern living offered by modern science and technology. In the process of eradicating slums, however, a tremendous task is imposed on the planner who must face the challenge presented by slums and blight. He must know that

The nature of the modern slums is a complex social and physical phenomenon, and the planner must approach the problem related to slum elimination in a manner which is not narrow or parochial in scope. He must reject the theory that slums will disappear if only enough new housing of higher quality can be built by the public or private enterprises. While contemplating a corrective course of action the planner must first learn to strike at the heart of the problem.<sup>1</sup>

The planner, therefore, must attempt to eliminate the germs of slums. To achieve this end, he must equip himself with a substantial amount of knowledge and information concerning the causes of slums, their development and growth. In order to trace the origin of the present slums of American cities, the planner must turn back to the days which were highlighted by the Industrial Revolution in the early nineteenth century. The development of the machine and the rapidity with which it began to outproduce the handicrafts attracted thousands of workers from rural areas to work in urban factories. It was then that the modern slums, as we know them, began to grow.

The low wages received by these workers were not enough to allow them to rent decent quarters, and the rapidly increasing industries continued to multiply the urban masses. Housing had to be provided but because of the rapid inflow of workers into these areas, housing was inadequate. New sections were created consisting entirely of tenements for manual workers. These tenements were poorly designed.... Living quarters were forced into basements, attics, or any other available space in these structures. The rooms were small, and ceilings low. What toilet facilities and water outlets existed had to be shared by several tenants. These so called "workers' houses" were fire traps which were unsanitary, and deteriorated rapidly.<sup>2</sup>

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<sup>1</sup>Eugene T. McGraw, Relocation As It Is Related to the Kerway Urban Renewal Project, Topeka, Kansas, Kansas State University, 1963, p. 1.

<sup>2</sup>E. E. Burgel, Urban Sociology, New York: McGraw-Hill Book Co., Inc., 1955, pp. 412-413.

The vigor of the Industrial Revolution in this country was greatly increased by the Civil War of the 1860's and the simultaneous development of the nation's railroads. These developments caused the mechanization of agriculture which increased farm size and reduced the number of farms. The obvious consequence of this process was that many farmers had to quit farming, and left for cities to earn their living. Thus, a process of rural-urban migration set in, with the southern farmers migrating to the north and northeastern cities.

This overcrowding of cities was made more serious by the great waves of immigration from overseas, mainly from the European countries. Most of these immigrants settled in urban areas. Because the housing supply was already limited, they not only filled the existing slums but also created new ones. These immigrants were educationally too backward to work at jobs paying higher wages. Consequently, they were compelled to live in poor housing. As a result of these conditions, slums developed quickly in urban areas, bringing with them their inevitable companions--epidemics, diseases and untimely deaths.

Continued growth of slums in these areas was also enhanced by another factor--the thriving business carried on by the slum landlords. They provided housing to the low income families for a high economic return on their investment. The keeping of these slum dwellings was a highly profitable business:

The returns on the investment of the owner of these slum dwellings rarely fell below 15 percent, and quite often it exceeded 30 percent per year. The complaints among tenants of these slum dwellings were universal that they were totally uncared for, and that requests to have maintenance performed fell on deaf ears. The rent agent's

instructions were simple: they were to collect rent in advance, and if they failed they were to have occupants ejected.<sup>3</sup>

The same fate was met by the southern rural Negroes who as a result of farm mechanization came to the northern cities. The only shelters they found were in blighted areas of the central cities, thus once again setting in motion a rapid process of further deterioration of the older sections of these metropolitan areas. The famous Black Belt of Chicago, and the area known as Harlem in New York City are two glaring examples of contemporary slums contributing to American urban deterioration. These areas and many others like them in the metropolitan areas of this country have been turned into "ghettos" for the Negro.

The development and growth of slums to make these areas disorganized socially, economically, and physically was accelerated by another new dimension--the automative explosion after World War II. Due to increased mobility, the higher and middle income white population left the central cities for the suburban outskirts in unprecedented numbers. This phenomenon dealt a heavy blow to the central cities, and was responsible for the "zone of transition" around the central business districts. The vacuum created by the flight of the privileged group was soon filled by lowincome groups, especially the nonwhite population whose depressed socioeconomic conditions along with the changing environment hastened the process of deterioration. Overcrowding, the conversion of structures into multiple dwellings and rooming houses coincident with mixed land uses, added to the deterioration of these once-satisfactory

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<sup>3</sup> Eugene T. McGraw, Relocation as It Is Related to the Keyway Urban Renewal Project, Topeka, Kansas, Kansas State University, 1963, p. 6.



areas. The result was that not only large cities but also the middle-sized ones experienced the growth of slum districts.

This is the situation concerning the development of blight and slums in the cities of this country presenting enormous problems to be resolved by the planners, sociologists, economists, and politicians alike. The United States as a nation, however, has not remained passive to this retarding aspect of their urban living. The Federal Government is spending millions of dollars a year in the form of aids and loans to the hundreds of local communities in launching an all-out attack to remove slums and blight. As a result, many communities across the nation are rapidly becoming involved in urban renewal.

However, in order to qualify for the federal grants to arrest and eradicate blight, local communities have to comply with certain requirements imposed on them. One of these is the Workable Program, as specified in the Federal Housing and Urban Renewal Act of 1954. The Neighborhood Analysis is one of the major elements in the Workable Program, and as a part of urban renewal planning, it is used as a device to provide a yardstick of measurement for determining the nature and extent of urban renewal necessary for a given community.

While developing a renewal plan the purpose of which is to eradicate blight, the planner needs to remember some of the basic facts related to his professional role. In rendering professional services to a community, his foremost function is to develop present and future positive courses of action which can be used as a basis for allowing a community to achieve its goals and objectives. It goes without saying that the goals and objectives of any community should constantly be con-

cerned with providing a high standard or quality of urban living. The term "quality of urban living" is used here to mean an urban environment under which a community can achieve maximum social and economic benefits. It will be agreed that a blighted environment retards the attainment of community goals in terms of raising the quality of urban life. A planner's primary task is to develop means to eradicate this undesirable environment; he is expected to perform this task in an optimum manner, i.e., at as low social and economic costs as possible. His secondary function as a professional is then to minimize costs for the community in achieving its objectives.

To attain this twofold goal it is necessary to develop the best possible plan for action, which in turn requires carefully and thoroughly analyzing the given situations prevailing within the community. The most appropriate plan will always depend on the best possible analysis of existing conditions.

From the standpoint of urban renewal planning, when a community aims at eradicating blight, the planner's function is to proceed systematically to explore where blight is, how intense it is, what its nature is, and what the causes are that have brought it into being and have allowed it to grow. Only then, after having been equipped with such information, will he be in a position to advise the community concerning possible corrective measures. The Neighborhood Analysis is the study that covers all these micro aspects of blight for a given community.

#### Purpose

The substance of this paper is to describe and present certain techniques by which a given community will be able to locate and measure

physically blighted areas within its locale from the available statistical information concerning that community. Accordingly, an attempt is made to investigate and ascertain the most appropriate courses of treatments necessary to arrest and eradicate blight and slums, and prevent their spread into healthy community areas, and ensure that a well balanced physical environment for the citizens of the community is, therefore, maintained.

#### Scope

The techniques to be discussed in this paper for the various stages of the Neighborhood Analysis will largely apply to cities of metropolitan level. The reason cities selected for this study have been limited to this level is that the U.S. Bureau of Census has not yet established census tracts for cities other than metropolitan areas. Since much of the information concerning various blight indicators is based on census tract information, cities other than the Standard Metropolitan Statistical Areas are likely to require different kinds of techniques to analyze and locate their blighted areas. The methodology adopted for the present study will, however, be inclusively applicable to cities greater than 100,000 population.

Chapter I of this paper is devoted to an analysis of the causes of blight. There is no one factor or set of factors which can be singled out as being the exclusive cause of blight. The causes of blight can be best understood from the standpoint of social, economic, political, and physical interrelationships that produce cause-effect relationships. An attempt is made in this chapter to ascertain whether people make slums

or slums make people. A blight cycle is presented to aid in understanding this phenomenon.

Chapter II is devoted to describing techniques that may be employed to tentatively delineate the blighted areas of a given city. In this chapter a concept called, "Preliminary Macro Analysis" is applied to ascertain the extent of blight in a given urban center by neighborhoods.

Chapter III is devoted to detailed in-depth studies for individual neighborhoods tentatively selected from the Preliminary Macro Analysis. Techniques are described how the neighborhood indices are determined, and how data are collected, analyzed, and correlated. The techniques of "weighting" and "ranking" are demonstrated how they may be applied to form a basis for measuring the degree or intensity of blight in each neighborhood.

Chapter IV focuses on techniques which demonstrate how to make a final delineation of blighted areas based on the in-depth studies discussed in Chapter III. The concept employed here is that of "Final Macro Analysis." It is suggested that this method be used to set the blighted neighborhoods apart in terms of hierarchy of problems. In the final chapter, a methodology for remedial action is concerned with the individual neighborhood. Criteria developed in this chapter will show when an area requires clearance, redevelopment, rehabilitation, conservation, or some combination of them. In conclusion a brief discussion is made about the implementation of the various recommendations suggested in a Neighborhood Analysis Report for a given community.

## CHAPTER I

### BLIGHT, AND ITS CAUSES

The purpose of this chapter is to describe blight in terms of its various physical, social and economic characteristics from which will be drawn a general definition of "blight" and "blighted areas." The second part of the chapter enumerates and explains the factors which demonstrate the condition of interplay within and among themselves in a cyclical fashion, intensifying the growth of blight in urban areas.

"Blight" and "blighted areas" are terms that have come into common use in recent years. Although they entered the vocabularies of planners, housers, realtors, and others before the concept of urban renewal came into being in 1954, the usages of these two terms have grown hand-in-hand. Blight is a generic term which is never applied to a single building. It refers to an area. It is not indicative of one characteristic or condition, nor even to a set of conditions or characteristics that are found in the same combination. Instead, it covers a fairly wide range of characteristics that are found in a variety of combinations from one situation to another. However, without trying to be too brief, it will probably be agreed that two basic characteristics of blighted areas are "substandardness," and either "stagnation" or "deterioration."

Substandardness is basically a condition in which an area falls below certain accepted standards or requirements of fitness for the purpose for which it is being used. Controversy still exists as to what these minimum standards or requirements should be for various kinds of

use, how they should be measured, and so forth. No one, however, denies that in more or less definite form such specifications on fitness do exist and that they are being applied. In almost any given community, substandardness can be identified with respect to:

- (a) Buildings: their design, equipment, structural soundness, repair, and maintenance.
- (b) Land subdivision and lay out: size and shape of lots, coverage, density, and sometimes even the amount and allocation of areas for new or expanding uses.
- (c) Community facilities and services: water, sewer, schools, recreation, transportation, etc.
- (d) Location: nearness to obnoxious uses, accessibility to other districts from which people and goods regularly go back and forth.
- (e) Land use patterns: Nonconforming uses--residential units located in industrial and commercial areas, commercial uses found in industrial areas, etc.

When a neighborhood or an area is markedly substandard in some or all of these respects, it is usually but not always blighted. If in addition to being substandard in these respects, an area is not improving but either stagnating or deteriorating, it fully qualifies for the label "blighted" in the physical sense.

On the basis of statistical correlation techniques, the human ecologists and anthropologists have attempted to precisely determine if there is any relationship between physically blighted areas as described above and the incidence of social disorganization. Their findings reveal

that incidence of social disorganization is positively correlated with deteriorated obsolete areas. Such areas are called socially disorganized areas, because such aberrations as delinquency, vice, suicide, mental disorders, alcoholism, divorce, desertion, poverty, mortality and diseases, etc., occur at a very high rate compared to other sections of the city.

This high incidence of social disorganization in blighted areas is ably demonstrated in a number of studies undertaken by British and American ecologists.

In the early 30's a survey showed that in the inner districts of Liverpool where slums are, there is a coincidence of high birth rate, overcrowding, poverty, physical and mental defects, alcoholism, chronic destitution, immorality, and criminality, whereas the outer districts show much lower rates.<sup>4</sup>

Traits of social disorganization have also been extensively studied in Chicago. Investigations of the distribution of delinquency rates resulted in important findings:

Crime and delinquency tend to be concentrated in specific areas of the city, not evenly distributed according to the density of population. Their incidence was highest near the central business district. The gang and gangster also thrive in such areas. They are found in Chicago in a semi-circle around the Loop in the zone of deterioration--an area of slight social control where there is lack of law and order.<sup>5</sup>

Thus we see that there exists a positive correlation between physically blighted obsolescent environments and the incidence of social disorganization. This is particularly true in the "zone of transition" which normally surrounds the present American city-centers. The various traits characteristic of this zone constitute urban blight, which begins

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<sup>4</sup>R. E. Dickinson, City and Region, London: Routledge and Kegan Paul Ltd., 1964, p. 183.

<sup>5</sup>Ibid., pp. 164-185.

at the edge of the central business district and spreads outward radially like a creeping paralysis to cover a large part of the urban area--particularly the areas with pre-1900 structures. Probably the best indicator of this condition of urban blight in this area is the fact of high population densities, mixed land uses, and decreasing population. A blighted area can, therefore, be defined as an area which is characterized by:<sup>6</sup>

- (a) High but falling land values.
- (b) Congested but decreasing population.
- (c) Obsolete and unfit housing.
- (d) An intensive intermingling of nonconforming land uses.
- (e) A large proportion of abandoned buildings.
- (f) Low average rentals.
- (g) Low economic status of inhabitants.
- (h) Excessive crime, mortality, and disease rates.
- (i) High per capita per acre government costs.

Such an area is obviously an economic and social liability to a community.

A slum connotes an extreme condition of blight in which housing is so unfit as to constitute a menace to the health and morals of a community.

#### Causes of Blight

The sagging roof, the cracked foundation, the peeling paint, the broken window--these are all outward signs of blight, not its causes. In any study of blight, the main objective is to form a comprehensive

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<sup>6</sup>ibid., p. 186.



understanding concerning the nature of it. On this understanding depends the means for its eradication. More important than discovering the areas of blight is therefore, determining the reasons why it exists in the first place.

The factors that are responsible for the development of blight and slums in this country have been in operation for a long time. Since these factors were not controlled in the past, they have with the passage of time helped to multiply the magnitude and intensity of blight. The inevitable consequence has been the blighted environment for the present generation. The brief historical development of slums reviewed in the introduction of this paper cited the way in which cities became overcrowded because of the heavy inflow of people from rural areas as well as from overseas. It was at that time that the modern slums, as we know them, began to grow.

This implies that at any given period of time when an observer looks into the causes of slums, he must look to the past in order to identify the original causes. It is to the economic, social, and political conditions under which people of that time lived which are chiefly responsible for the origin of the slums presently found in America's cities. When we speak about the people of past generations and the present and the part they play in the making of slums, we must consider their level of literacy, their culture, attitudes, and tastes as well as their sense of responsibility to themselves, their neighborhood, community, and society in general.

In the context of the historic development of slums, economic forces were the most responsible for causing the movement of people into

urban areas. Poorly, people migrated to cities with the hope of obtaining a higher income and a better way of life. But unfortunately the wages they received were so low that they could not afford good housing. Consequently, they were forced to live in substandard housing located in the increasingly substandard areas. This situation added to the already overcrowded tenements occupied by poor urban dwellers. Overcrowding thus was caused primarily by economic factors. This is characteristic of the history of slum development. In 1950, there were 10.5 million American families who lived on an income of less than \$2,000 a year.<sup>7</sup> In such a situation, the only alternative left to the poor urban dweller was and/or is to live in substandard overcrowded housing units.

The demand for low cost, low rent housing in the nation's cities created an incentive among housers and realtors to do a thriving business. They constructed houses that were poorly planned and designed, using cheap materials in the process. Their continued and deliberate negligence in maintenance and repairs produced structural and environmental deterioration. The intention behind all this was to minimize costs and maximize profits. Today the inevitable consequence of this process is forcing the United States, as a nation, to pay the price not only in millions of dollars a year, but also in huge unquantifiable social costs for the mistakes committed by its past generations.

While investigating the fundamental aspects of poverty, one, however, cannot help but discover the social forces which contribute to the cause of slum development. These social forces are represented by an

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<sup>7</sup>E. D. Burgel, Urban Sociology, New York: McGraw-Hill Book Co., Inc., 1955, p. 47.

interwoven fabric of race, low income, low educational attainment, and limited occupational abilities. The reasons for much of this lie partly with the social attitudes of the individuals themselves who reside in these slum areas, and with society as a whole. From its inception, the American social system has been designed and structured in such a way that all individuals while supposedly equal before the law are not alike or equally capable in terms of efficiency, merit, intelligence, hopes, or ambitions. In all societies there are those individuals who lack initiative, vigor, aims, and aspirations. They seem to be content with what they have or what is available to them. They do not mind living in sub-standard housing, because they are used to it. This sort of mentality possessed by some groups of people is, to a major extent, responsible for the growth and nourishment of blight, and certainly for its intensity.

The causes of slums can also be identified from a political perspective. Local governments do have control over land use and the development of urban land by virtue of "Eminent Domain," and zoning under the "Police Power" delegated to them by their respective state governments. But in the past, due to the inadequacy of design standards for the development of land and structures, such undesirable features as overbuilding, overcrowding, mixed land use, etc., which have led to haphazard and inconsistent growth patterns, have resulted. Each of these constitutes a blighting influence, and has caused the deterioration of the nation's urban appearance. To escape from this undesirable situation, the socially and economically privileged groups have moved out to the suburbs, leaving behind the older sections of the city in a state of being socially, economically, politically and physically unlivable for

area. This resulted in low levels of property values in the inner city. The vacant areas left by this blight had soon filled with people from less privileged places, some of whom were and are so socially and morally deprived that these areas have become the breeding grounds for all types of antisocial behavior. In this way, a blighted area soon becomes the locale for vice, crime, divorce, separation, robbery, theft, alcoholism, and so forth. The whole environment becomes culturally and socially so contaminated that

Shouting, roaring laughter, and loud songs become the familiar features which everybody living there seems to enjoy. Worst of all nice homes are less appreciated. At least, some negligence in maintenance is taken for granted.<sup>8</sup>

This is the grain of truth in the statement that "people make slums."<sup>9</sup>

To summarize, poverty is the most underlying and original cause of blight. The uneven distribution of economic opportunity keeps low socioeconomic groups depressed aesthetically, culturally, and socially in such a way that they lack in themselves a sense of responsibility towards the creation of a good environment for themselves and their neighborhood. To all this is added unplanned and inefficient governmental actions such as inadequate regulations and standards for zoning and subdivisions, inadequate provision for public service facilities, and so forth. It is thus revealed that the causes of slums or blight are interwoven with the socio-political and economic network of a given society. In order to understand the causes of blight for a given community, the planner, therefore, must analyze the social, economic, and

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<sup>8</sup>ibid., p. 12.

<sup>9</sup>ibid.

political conditions and trends of that community. These socio-political and economic forces are constantly changing, and their interplay sets in motion a process which definitely affects for good or bad the urban environment. It then follows that the physical development or lack of development of an urban environment is a direct result of the social, political, and economic forces that have guided the community's physical development over a prolonged period of time.

The planner's approach to the problem related to blight eradication should not, therefore, be governed by the tendency to improve the physical aspect alone. The so-called improvement of the physical environment will only temporarily eliminate the effects of blight, not the causes. In order to permanently eliminate the causes of blight, solutions to the problem must include ways of guiding the social and economic development of slum dwellers. It is the planner's task to break through the eccentric combination of the social, political and economic forces presently prevailing in the nation's slum areas, and to reshape and organize them into harmonious, well-balanced liveable areas. Corrective actions should be guided by the humanitarian principles of improving the mind and spirit of slum dwellers along with improving their living environment.

In order to prevent the future growth of blight, an all-out effort coming from all levels of society is necessary to help slum dwellers out of their dreary and oppressive life and to raise them economically, educationally, culturally, mentally, and socially. Indeed, they require complete social reeducation. This implies that the Federal Government must reevaluate its present policy towards urban renewal, which is still today no more than physical clearance of slums. The policy-makers in

Washington must foresee that if the present trend of urban development is allowed to continue, a larger number of communities than today's will undertake programs like urban renewal to eradicate blight from their cities, thus intensifying the need for a much deeper and thorough analysis of problems attending blight. This will involve the expenditure of huge sums of money and energy, a substantial portion of which will have to be borne by the Federal Government. It is, therefore, mandatory that they concern themselves today with adequate solutions to meet such future situations. The most appropriate procedure for this would be to formulate and implement adequate programs to socially reeducate millions of American slum dwellers. To eliminate slums, measures are needed that will raise the status of slum communities.<sup>10</sup>

In the context of planning solutions for eradicating existing slums and blight from urban areas, a series of factors is presented on the following pages that are generally believed to be contributing to the origin and perpetuation of blight. These factors are all interrelated by virtue of the links furnished by the social, political, and economic causes of blight. While all these factors are not found simultaneously in any given community at a given time, it is likely that individually or in combination they have significantly contributed to blight in the past, and/or are threatening to do so in the future.

It should be noted that these factors do not operate at the same stage in the development of blight for an area. Some are primary factors, i.e., they play major roles in the growth and development of blight.

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<sup>10</sup>Peter Morris, The Social Implications of Urban Renewal, Journal of the American Institute of Planners, vol. XXVIII, Number 3, August 1962, p. 180.

blighted are secondary. Their function is to perpetuate and intensify blighted areas as they developed. Most of the factors, however, may be either primary, or secondary, or both, depending on the circumstances involved. This is why, of course, it is hard to differentiate one type from the other. It is sufficient to say that any given instance of blight will be the end product of a complex interaction of factors such as the following:<sup>11</sup>

1. Improper Land Use Arrangements: Various factors may contribute to poor land use patterns. The lack of a properly enforced zoning regulation adversely affects an area by permitting an intermixture of incompatible land uses that contribute in a large measure to severe decline. The intermingling of industrial or heavy commercial uses with residential uses frequently results in blighted housing which in turn blights these areas, making them unsuitable places for industrial or commercial locations.

2. Poor Original Layout of Residential Areas: In the past, some subdivisions were developed according to the regulations that were valid at that time but which are now obsolete. Small lots, gridiron street patterns, excessive lot coverage--these constitute a blighting influence from the very beginning.

3. Conversion of Structures: Improper population densities resulting from poor subdivision designs or, as often happens, poor conversion of structures are among the most serious contributions to lowered

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<sup>11</sup>The Neighborhood Analysis Report for the city of Lincoln, Nebraska, pp. 7-9. The author of this paper was in charge of conducting the said study for Lincoln, where he was placed as a Summer Intern, 1966 by the Kansas State University department of Regional and Community Planning.

residential desirability. Even though such conversions are of sound construction, danger exists in that the increased population will overload the local school and park facilities, strain the capacity of municipal servicing, and result in congested streets for lack of off-street parking facilities.

4. The Absence, Inadequate Formulation, or Ineffective Enforcements of Codes, Ordinances and Regulations: The implementation of sound codes and ordinances such as building, plumbing and health codes, zoning, traffic, subdivision and air pollution regulations among others, are of vital importance in preventing or minimizing physical decay. In some cases, deterioration is accelerated by the absence of necessary codes and ordinances or by the failure to make them vigorous enough to deal with the problems for which they were intended. In other instances, poor enforcement of laws hinders the effectiveness of sound legislation.

5. Overbuilding of Land: While intensive coverage of the land with structures, at the expense of parks and open spaces, may seem economical at the time of development, it will prove generally costly in both human and financial terms in the long run. Tightly placed buildings, leaving little or no room for sunlight and fresh air, are hardly conducive to a healthy residential environment.

6. Overcrowding Within Buildings: Generally originating in times of housing shortage, overcrowded conditions often persist long after the demand for housing has ceased. Such conditions frequently occur in obsolete structures when they are converted from single to multi-family dwellings. Discrimination also contributes to overcrowding, since it greatly narrows the range of housing possibilities for the members of minority groups.



7. Obsolescence: Obsolescence with its undesirable effects, takes several forms. One form is known as "comparative" obsolescence. This results from the use of higher standards in one residential area as compared to another, as when a new residential area with more open space and a higher level of amenities leaves an older area in a state of lowered comparative desirability.

Style and economic obsolescence also contribute to decline. Many people find it more desirable or stylish to live in a newer neighborhood with the latest style of homes, or they may prefer to move to the newer home because the expense of maintaining the older, larger home has become excessive. These areas of older homes pose serious problems since they often have no market for single family use and pressure arises for rezoning to a higher density of population or to a non-residential use.

8. Absentee Ownership of Rental Property: When property owners reside in areas other than where their property investments are located, there is a likelihood that they will become uninformed or misinformed of changes that are taking place. The man who built the building took pride in it. He may have built it primarily as an investment, but it also serves as a contribution to the growth of his area. Through succeeding generations of heirs a watering-down process occurs which culminates in absentee owners frequently lacking the pride of ownership. Their chief interest is the profit to be gained. Lacking such pride, absentee owners tend to neglect their property and to allow it to eventually deteriorate.

9. Poor Traffic Conditions: Although all communities require major thoroughfares for the fast and efficient movement of traffic, the residences along such thoroughfares will nevertheless suffer from blighting

influences, such as noise, exhaust fumes, litter and safety hazards. Better neighborhoods are generally characterized by separation of residences from major thoroughfares, whether by large set backs, foliage screening, or other techniques for minimizing contact. Blighted neighborhoods on the other hand, commonly feature an unhappy mixture of narrow and unpaved streets, automobiles, and playing children.

10. Abuse of Property: One of the most serious factors of blight is abuse of property. There is little doubt that many declining or slum areas could have been well-maintained structurally and that deterioration has resulted primarily because of abuse.

The most prevalent type of abuse is lack of maintenance and repair. Sometimes, failure to maintain structures is due to low investment return. The rent payments of lower income families may not be adequate for proper maintenance. In other instances, the return may be more than ample to maintain structures in good repair, but because a strong market exists for low income group housing, the property owner can maintain a high return with only minimum maintenance. In still other cases, property owners may actually be in no financial condition to keep the structure in proper condition, or, as is found sometimes, there may be a lack of pride which results in a failure to maintain the structure properly. Whatever the reasons, lack of proper maintenance is a serious factor of blight and decline.

11. Inadequate Public Service and Facilities: All neighborhoods in a given community depend on adequate police and fire protection, recreational and educational facilities, health services, refuse removal, streets, sewers, water, and all the other essential public service functions. In any neighborhood or area where these services and

facilities are inadequate or where some are lacking, there is a lowering of the desirability of the neighborhood as a place for living, working, or doing business. A neighborhood that is neglected in terms of these service functions is the one in which decline results. Often there is a tendency to neglect areas that are already in an advanced stage of decline.

12. Rapid Growth of The Community: In general, it can be said that there is a relationship between the rate of population growth of an area and the urban shape, direction, and pattern. Moreover, the location of new housing will be determined to some degree by the rate-pattern of population increase. Another relationship exists--though not of logical necessity--between the rate of urban growth and the rate of deterioration of the residential neighborhoods. Rapid urban growth stimulates the transition of land uses within the communities and hastens the changes in the character of neighborhoods. The influx of newcomers causes a shifting and filtering process that profoundly affects every neighborhood in the urban areas.

13. Mobility of Families: Some of the urban areas' fundamental and perplexing problems stem from and are complicated by the mobility of families. The furnishing of public facilities and transportation facilities is made more difficult and expensive by the decentralization of population. Increased automobile and transit mobility has had deep-seated effects on older neighborhoods as growing population has sprawled to the peripheral areas around the established pattern of the city. These highly flexible modes of transportation have made it possible for people to apply this tendency to discard the old in favor of the new,

before full value has been gained from the old.

14. Apathy: Among all the factors which contribute to blight, this is perhaps the most important. Apathy operates both among the occupants of a blighted neighborhood, whose despair with their lot carries them beyond the point of caring about the condition of their neighborhood, and among citizens outside the blighted area who are simply too busy to be bothered with the problems of the blighted areas. Clearly, the development of widespread concern throughout the entire community must be the first step in any attempt to abolish blight.

Such are the adverse conditions which predominantly contribute toward neighborhood deterioration and adversely affect the environment of the people. When any of the above factors or conditions occur, they constitute what can be called a blighting influence since they destroy part of the usefulness, and consequently the desirability and value, of a neighborhood for proper family living. The continued spread of physical deterioration in an area is a menace to adjacent stable neighborhoods. Since the deterioration is in part the result of an uncontrolled process of neighborhood aging and obsolescence, and in part the result of forces and trends outside the neighborhoods, it obviously becomes a community problem.

A blight cycle<sup>12</sup> is presented which shows the interaction between the various physical, social, economic, and political factors as discussed in this chapter (Fig. 1). The end result of such interaction is blight.

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<sup>12</sup>Ibid., p. 10.

# BLIGHT CYCLE

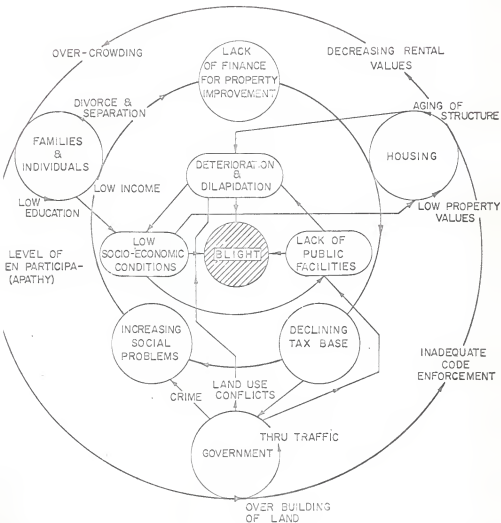


Fig. 1

## CHAPTER II

### PRELIMINARY MACRO-ANALYSIS

The terms "macro" and "micro" are relative concepts that are differentiated only in terms of scale. Macro concept is that which deals with big and wide phenomena. Micro concept is used to represent something which is relatively smaller in dimension. Their differentiation can be illustrated by regional, and city planning operating at macro and micro levels, respectively in a relative manner. While regional planning is concerned with the ordering of activities in supra-urban space, it deals with an area bigger than one city, and encompasses several cities within a given region. Relative to it, city planning operates in a micro scale in that it deals with the planning of various land use activities within a single city. City planning is thus a part of regional planning, and that "micro" unit is a part of the "macro unit."

The same concept can be applied for neighborhood analysis and planning of metropolitan areas, where the macro term may be employed to conceive the city as a collection of neighborhood units. The analysis and planning will be city-wide so as to encompass all the neighborhoods within the city limits. Contrary to it, micro term may be applied to deal with the analysis and planning for a given neighborhood within the metropolitan area. Since any given metropolitan area will have several neighborhoods, the planner concerned may easily apply the macro and micro concepts for the neighborhood analysis for that community.

The concept of preliminary macro analysis may be applied to tentatively delineate the neighborhoods that are blighted. The analysis at this stage will not, however, permit the planner to set any recommendations as to the types of treatment that are necessary to eradicate blight from a metropolitan area. Such analysis does not identify the degree and nature of blight within the tentatively delineated areas.

#### Definition of Neighborhood

In any study of neighborhood analysis or planning, a planner needs to know what a neighborhood is in terms of population size, geographic area, and other physical and social characteristics. This definition of a neighborhood will help the planner work out a criterion that may be used as a basis to accept or reject the census tracts which have been established by the Bureau of Census as the neighborhoods of Standard Metropolitan Statistical Areas for planning purposes.

A neighborhood may be defined as an area within which the people share the common social activities and services which are provided to make the area a self-sufficient unit. It is thus

A physical environment in which a mother knows that her child will have no traffic streets to cross on his way to school, a school which is within easy walking distance from home. It is an environment in which the housewife may have an easy walk to a shopping center where she may obtain the daily household goods, and man of the house may find convenient transportation to and from his work. It is an environment in which a well-equipped playground is located near the home where the children may play in safety with their friends...they need the facilities of recreation for the healthy development of their minds and spirit.<sup>13</sup>

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<sup>13</sup>Gallion and Bisner, *The Urban Pattern*, Princeton, New Jersey: D. Van Nostrand Company, Inc., Second Edition, 1963, p. 251.

The neighborhood unit concept as stated above attempts to create a residential neighborhood which will meet the needs of a family life, which is characterized by the following factors.

(1) An elementary school located in the center of a neighborhood within easy walking distance--not more than half a mile. This idea of a neighborhood unit with an elementary school as its principal focus was originated by Clarence A. Perry in 1929. He recommended that the size of a neighborhood should be that population for which one elementary school is needed. Its actual geographic area, however, depends on the standard of population density. Since this standard varies from city to city, or more precisely from one neighborhood of a given city to another, the geographic area of a neighborhood will vary to the extent that half a mile of radius is not exceeded.

(2) A centrally located playground-park, preferably attached to the school as a single unit. A community center associated with the facility of a library and a neighborhood club may also be located adjacent to this school-park complex.

(3) An internal street system of local and collector streets on which through traffic should not be permitted. Major through traffic arteries preferably should serve as neighborhood boundaries.

(4) A neighborhood shopping district adequate to serve the neighborhood population located at the intersection of the major arteries.

From the above features, it is evident that the neighborhood concept involves the application of "walking distance" as a planning principle. While designing a new community, however, it is possible to depict and create ideal neighborhoods. But in reality a neighborhood



is not so precisely defined. There are reasons for this lack of definition. Most of the American metropolitan areas are century old cities. Because their original layout was made in the mid-19th century or earlier, they did not get the benefit of planning theories or design which were developed at a much later date. Obviously, Clarence Perry's neighborhood unit design formulated in the late 1920's cannot be expected to fit the residential areas developed about 75 years before his time.

It is, therefore, true that in the case of many cities of this country, large or small, the existing neighborhoods are not complete, and deviate in many ways from the ideal ones.<sup>14</sup> The ideal picture for a neighborhood unit as visualized by Perry is, however, a valid theory, and can be best applied to new subdivision developments that are being built around the cities of this country. These new areas should be planned and developed in such a way that the possibilities of the emergence of future blight in these areas are nipped for ever. Achieving the objective of creating well-balanced, self-contained neighborhoods demands effort from all those who are concerned with the residential subdivision developments. Private developers and local governments have equally important roles to play in achieving this goal.

While subdividing land for residential use, the developers should keep the neighborhood concept in mind both as a way of making profit, and as a way of aiding in the sound growth of their city. The local decision

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<sup>14</sup>On an assignment from Prof. Eugene T. McGraw (Kansas State University), teaching the course Arch 630 City Planning Lab., fall 1966, the author of this paper made an evaluation of Perry's neighborhood unit theory in terms of its applicability to the present day cities, and applied the concept on an existing neighborhood of the city of Manhattan, Kansas. Hardly any similarity was observed between the two.

makers should design their zoning and subdivision regulations and standards in such a way that the eventual form of the newly developed residential areas will embrace and coincide with the unit scheme formulated by Perry. They should also keep in mind that the objective of having a balanced community as suggested by the principles of the neighborhood unit scheme, will be basic if a few ownerships or, more precisely, if one ownership of a subdivision is involved. However, this does not mean that the possibility of developing a complete neighborhood is slim, even though there may be a number of small subdivisions under separate ownership. In such events, the local government's subdivision standards and regulations should be set up carefully so that the end result is not lost.

However, though it has been emphasized that the new areas are better suited for the development of complete neighborhoods, this concept can also be applied to the replanning of the older sections of any given city. As many urban communities in this country are gradually becoming involved in urban renewal, they are clearing and renewing the older areas which are dilapidated, deteriorated, and obsolete. It is possible, therefore, to guide the redevelopment of these older sections in such a way that the renewed and rejuvenated neighborhoods will fit the ideal pictures of the balanced neighborhoods. By careful planning in terms of the application of adequate modern standards for the various spatial elements to be present in an ideal neighborhood, the older blighted sections of a metropolis can be redeveloped to eventually form the desired relations among the homes, schools, shops, recreations, and working places in a given community.

### Delineation of Neighborhoods

The delineation of neighborhoods is the first step of a planner responsible for conducting the neighborhood analysis study for a metropolitan community. In this section, an attempt is made to suggest how the neighborhoods are delineated, and how valid are the census tracts as neighborhood units used by the Federal Bureau of Census for the purpose of neighborhood analysis and planning for a given metropolitan area.

Any metropolitan community is a dynamic and mature city. The delineation of existing neighborhoods is, therefore, no doubt a complicated task. As a matter of fact, there is no perfect solution to it. In whatever way the delineation may be done, there will always be some residential areas left over which have to be more or less arbitrarily attached to an otherwise complete unit. There are always certain areas which are so fragmented by traffic and various land uses that there is little neighborhood identification.

However, for the determination of boundaries of neighborhoods within a given metropolitan area, the following criteria may be employed.

- (1) Natural boundaries--such as streams, rivers, or abrupt changes in topography.
- (2) Man-made boundaries--such as major thoroughfares, railroads, and major non-residential land uses.
- (3) Zoning district boundaries.
- (4) The identification of similar physical, economic, social or other characteristics which tend to make an area a single complete entity.

- (5) The geographic area of the service area of a single major shopping facility used as an elementary school or community center.

#### Census Tracts

Census tracts are small areas into which metropolitan areas have been divided for statistical purposes. This concept of census tracts was first originated by Dr. Walter Laidlaw in New York City in 1906. This concept was applied by the Bureau of Census for 8 different cities of the United States in 1910. The figure totaled 60 cities in 1940, and 180 in 1960.<sup>15</sup>

Tract boundaries for metropolitan areas of this country were established by the Bureau of Census in collaboration with a local community for each metropolitan area and were generally designed to be relatively uniform with respect to population characteristics, economic status, and living conditions. The average tract has about 4,000 population.<sup>16</sup>

The above paragraph reveals that a census tract almost satisfies the requirements of a complete neighborhood. From the definition of a neighborhood in the preceding section, it is clear that a neighborhood has to be uniform in terms of population characteristics, income status, and living conditions. These elements are mostly present in census tracts delineated by the Bureau of Census. This implies that "a census tract is a neighborhood of a metropolitan area" is an acceptable proposition. Moreover, the census tracts have the greatest advantage in that they furnish housing and population data which are most essential

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<sup>15</sup>Census Tracts, U.S. Office of Population and Housing: 1960, U.S. Department of Commerce, Final Report P&C (1) - 79, p. 1.

<sup>16</sup>Ibid.

For any one of the neighborhood analysis in any given metropolitan community.

The 1960 Census (Tables) deal with population and housing by census tracts for such items as race and color, nativity, foreign stock and ancestry of origin, age, marital status, married couples and families, school enrollment, months school years completed, income in 1959, employment status, occupation, industry, class of worker, place of work, means of transport used to work, and so forth. The data on housing are on tenure of housing units, color of occupants, vacancy rates, number of persons in the unit, persons per room, year structure built, basement in structure, condition of plumbing, heating equipment, value of property, contract rent, number of dilapidated housing units, deteriorated and deteriorating units, and so forth.

Without elaborating much, it will probably be agreed that the conducting of a neighborhood analysis study is practically impossible without much of the information as stated above.<sup>17</sup> Due to this single most importance of data availability factor, the planner, however, necessarily has to take a census tract for a neighborhood-unit. If he thinks otherwise, and proposes to delineate neighborhoods in a different way, he can perhaps do so; but the amount of time and funds available to him perhaps will not permit him to attempt a separate delineation of neighborhoods. Further, it is highly doubtful if the community can afford sufficient time and financial expenditure to allow him to do a separate neighborhood delineation study.

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<sup>17</sup>This fact will be revealed in a more explicit manner in the next chapter of this paper.

It may, therefore, be suggested that for all practical purposes of neighborhood analysis, the census tracts will serve the purpose without significant loss of accuracy. It has been observed that in terms of geographic area, population, size, and other criteria employed to delineate neighborhoods, the census tracts resemble neighborhoods of metropolitan areas quite accurately, though not perfectly. It is, therefore, proposed that the planner accept each census tract for each neighborhood, and from now on wherever in this paper the term "neighborhood" is used, it will mean a census tract and vice versa.

#### Tentative Delineation of Blighted Neighborhoods

In order to develop a program for eradicating blight, the first task for a given community is to know where blight is. This section of the chapter is devoted to describing certain techniques by which blighted areas in a metropolitan area can be located from the available statistical information. This location of blight will be tentative. In the following chapters it will be demonstrated how the final location is made and what treatments are necessary for different areas having varied degree and nature of blight.

In taking the first step in delineating neighborhoods that are blighted, the planner is required to work out a series of indices which will indicate the areas that are blighted. The following indices are suggested for this purpose.

- (1) Percent of unemployed persons in the civilian labor force.
- (2) Percent of persons 14 to 17 years old not enrolled in school.
- (3) Percent of unskilled sales (laborers and service workers) in the civilian labor force.

- (4) Percent of persons receiving public assistance and aid to families with dependent children.
- (5) Percent of eligible registered males rejected from military service.
- (6) Percent of males 25 years old and over with less than a third grade school education.
- (7) Percent of children under 18 years of age not living with both parents.
- (8) Percent of housing units dilapidated, and deteriorating.
- (9) Percent of housing units with 1.01 or more persons per room.
- (10) Percent of housing units lacking some or all plumbing facilities.

It will be agreed that each of the above indices is a prominent indicator of blight. However, it will be noticed that except for the last three, all the indices are directly or indirectly related to the social and economic aspects of the people living in a neighborhood. It also may have been observed in the previous chapter, which was devoted to a detailed enumeration of the causes of blight, that the original causes of blight in a given community owe their origin to the past social, political, and economic trends of that community. The above indices are suggested, keeping this basic fact in mind. Three physical factors have also been included, because the continued presence of such physical factors in a given neighborhood encourages the further socio-economic deterioration of the people. This deterioration in turn hastens the process of physical deterioration and intensifies the growth of blight.

After the neighborhood indices have been determined, the next step of the planner is to collect data on these indices. From the discussion on census tracts in the preceding section, it is evident that data for these indices will be available from the U.S. Bureau of Census sources. Here it is worth mentioning that the Bureau of Census publishes separate "census tract statistics" on housing and population for each standard metropolitan statistical area in the United States. The local planning agency must have such copies containing information on their community by census tract. After data have been collected, the next step will be to process and summarize them in a table. The following table illustrates how this can be done.

TABLE 1

Neighborhoods	: Indices 1 to 10 as determined in the previous page					
or	1	2	3	--	--	10
Census tracts	:					
1						
2						
.						
.						
n-1						
n						
Total	100%	100%	100%			100%

However, from the above table the planner cannot identify the neighborhoods that are blighted. He is required to devise some way to form a basis for identifying blighted neighborhoods. It is suggested



that the ranking technique be applied at this stage. Since he is not aiming to identify the degree and nature of blight at this stage, he need not apply the weighting technique here. Ranking technique may be applied in two ways.

(1) The neighborhood scoring the highest percent on a given index may be ranked 1, the neighborhood scoring next highest percent on the same index ranked 2, and so forth, so that the neighborhood scoring lowest percent on the same index will be ranked  $n$ . This implies that the higher the rank of a neighborhood on a given index, the more is the blight contained by that neighborhood in terms of that given index.

(2) Under the second technique, the lower the percent scored by a neighborhood on a given index, the higher is the rank held by that neighborhood on that index. This means the higher the rank of a neighborhood on a given index, the less is the blight contained by that neighborhood in terms of that given index. In either case, the ranks of a given neighborhood on all the indices will be added to demonstrate the presence of highest or least blight. This is illustrated by Table 2 in which hypothetical data on two indices are used for a hypothetical metropolitan area having  $n$  number of census tracts or neighborhoods.

Columns 9 and 11 in Table 2 reveal that neighborhoods 2 and  $n$  have highest and least blight respectively, regardless of whether the ranking is done according to the first or second technique.<sup>18</sup>

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<sup>18</sup>For the purpose of illustrating how ranking techniques may be applied, only two indices have been used. In actual practice, however, number of indices will be 20, and their way of application will remain the same as in Table 2.

TABLE 2

	Unemployed labor force : (index 1)		Displaced : (index 2)		Unemployed : (index 3)		Total score for (two indices)			
	2	3	4	5	6	7	8	9	10	11
Neighborhood :	% tech- nique I	Rank	% tech- nique II	Rank	% tech- nique I	Rank	Sum of ranks	Final rank	Sum of ranks	Final rank
								tech- nique I	tech- nique II	tech- nique II
1	5	3	2	18	1	4	4	2	6	2
2	21	1	4	15	2	3	3	1	7	1
3	17	2	3	1	4	1	6	3	4	3
.										
.										
n	2	4	1	7	3	3	7	4	3	4

The planner, who is faced with the problem of determining the number of neighborhoods from Table 2 that are being blighted, is likely to be faced with the problem as to where to place the line. In other words, if the number of neighborhoods, the problem is to determine how many of them can be labelled as blighted. This is, however, a difficult problem to solve, because in practice no clear-cut line exists between neighborhoods that are blighted and not blighted. Arbitration under such kind of circumstances is almost inevitable. Nevertheless, the planner must set out certain criteria in order to avoid complete arbitration and to substantiate his solution by certain planning principles or criteria. The following criteria are furnished for determining the neighborhoods that are blighted:

$$(1) \quad \frac{\text{No. of dilapidated and deteriorating Housing Units}}{\text{Total no. of Housing Units in the city}} \\ = \frac{\text{No. of blighted neighborhoods}}{\text{Total no. of neighborhoods in the city}} \\ \text{or } \frac{a}{b} = \frac{kn}{n} \quad \dots \dots \dots (A)$$

All the terms in A are known except  $kn$ , when  $kn$  (no. of blighted neighborhoods) can be computed.

$$(2) \quad \frac{\text{Area of mixed land uses in the city (in acres)}}{\text{Total area of the city (in acres)}} \\ = \frac{\text{No. of blighted neighborhoods}}{\text{Total no. of neighborhoods in city}} \\ \text{or } \frac{a_1}{b_1} = \frac{kn}{n} \quad \dots \dots \dots (B)$$

All the terms in B are known except  $kn$ , when  $kn$  (no. of blighted neighborhoods) can be computed.

$$(3) \quad \frac{\text{No. of families in the city of } a_{22} \text{ less than } \$3,000}{\text{Total no. of families in the city}}$$

$$= \frac{\text{No. of blighted neighborhoods}}{\text{Total no. of neighborhoods in the city}} .$$

$$\text{or } \frac{a_2}{b_2} = \frac{bn}{n} \dots\dots\dots (c)$$

All terms in C being known, bn can be calculated.

$$(4) \quad \text{Number of blighted neighborhoods in the city}$$

$$= \frac{bn \text{ (in A)} + bn \text{ (in B)} + bn \text{ (in C)}}{3} .$$

The criteria as suggested above for determining the number of blighted neighborhoods for a given city should not, however, be applied without reservation. Since each city is unique in terms of its land use pattern, physical characteristics, and nature and degree of blight, these criteria cannot and should not be used in an exclusive fashion. They may be used in a generalized way to substantiate the information already acquired by the planner through his personal acquaintance with the city's blighted areas. He must know where the blighted pockets in the city are and what neighborhoods or census tracts they belong to. Then, applying the above criteria if he finds that the calculated result coincides with his personal knowledge and belief, he is in a better and safer situation in terms of the accuracy of his analysis, for he is certain that he is not misleading the community as to the measurement and analysis of its blight. The nature and extent of the corrective courses of action for alleviating the community's blight will depend on the accuracy of the planner's study.

In whatever way the planner approaches determining the number of blighted neighborhoods, the information gathered and presented in Table 2 is extremely important because he is supposed to statistically prove where blight is. Assuming that he has determined the number of blighted neighborhoods from column 9 or 11 in Table 2 and that the city has a total number of 40 neighborhoods out of which 6 are blighted, his next step is to represent these blighted neighborhoods on a city map of suitable scale. Assuming that neighborhoods 19, 18, 7, 20, 17, and 6 are blighted, this can be illustrated as follows (Table 3).

TABLE 3

Rank (from column 9 or 11 of Table 2)	1	2	3	4	5	6
Blighted neighborhoods	19	18	7	20	17	6

The tentative delineation of the above blighted neighborhoods is shown on a hypothetical city map (see Fig. 2).

This delineation of blighted areas is, however, purely tentative and does not show the intensity and nature of blight. Despite the tentativeness of the delineation, the planner is required to check and verify the accuracy of this delineation because the precision and accuracy of the whole study depends on the accuracy of the work involved at each stage. This enables a given community to save both time and funds in the accomplishment of a study conducted for its present and future plans and programs. There are, however, two ways of checking

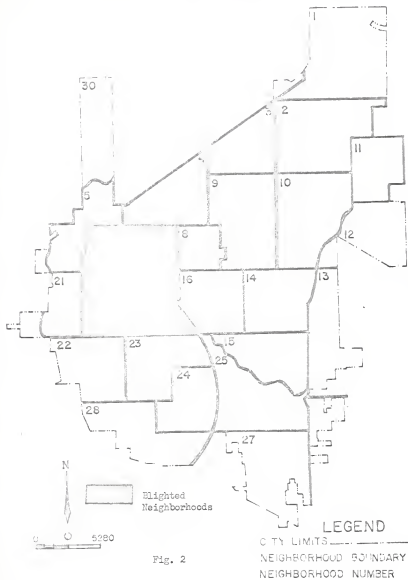


Fig. 2

Two sensitive techniques:

- (1) Check-in-office.
- (2) Check-in-field.

Under the check-in-office technique, the planner may verify the delineation of blighted areas from the following:

(a) Master plan. A separate chapter of a master plan is generally devoted to the "housing condition" in the city. The master plan locates the substandard areas in the city. Tentative delineation of blighted neighborhoods is comparable and verifiable with the master plan information.

(b) Zoning district map. Mixed land uses can be identified from such a map. Areas of mixed activities are likely to be compatible with blighted areas.

(c) Public facilities.

- (i) Areas of absence or inadequacy of water and sewer.

This information is available from the public works department of the local government. Identify such areas on water and sewer maps, and compare with blighted areas delineated.

(ii) Unpaved streets. Such information may be obtained from the traffic engineering department of the local government. Identify such areas on the street map of the city, and compare with the blighted areas delineated in Figure 2.

(iii) Parks and recreation. Areas deficient in such facilities are likely to be blighted. Obtain a parks map from the local parks and recreation department and check with the areas identified as blighted in Figure 2.

After checking with the information available from the various departments within the local government, the planner's next step is to go out and compare the information with the actual situation in the field. A windshield survey from a slow-moving automobile will serve the purpose. At this stage, the most important index the planner should use for calling a neighborhood blighted is the quality of housing in terms of dilapidation and deterioration. Since most of the data he has used comes from the Census materials for delineating the areas of blight, this field check is extremely necessary. Data received from the Census may not be up to date; this is particularly true if the period of analysis progresses towards the latter half of the decennial date.

However, the planner during the windshield survey should check not only the areas he has delineated as blighted, but also all the neighborhoods that were built before the 1930's, or, more precisely, before the 1940's. Such a check is only realistic on his part since areas other than he has delineated might also be blighted. In that case he should apply his own judgment as to whether or not such areas should be included in the areas originally delineated in the office, relying on his own observation to determine if such areas have the same degree of blight as is present in the delineated area.

After the tentative delineation of blighted areas has been done based on the statistical information concerning the community, and has been duly checked, verified, and modified, the planner then moves to the next phase of the analysis as it is described in the following chapter.



## CHAPTER III

### NEIGHBORHOOD MICRO-ANALYSIS

The preceding chapter was devoted to describing certain techniques as to how blighted areas in a metropolitan area can be delineated on a tentative basis. It has been observed that Neighborhoods 6, 7, 18, 19, 20, and 17 of the hypothetical city are blighted. But the degree and nature of blight in each of these areas were not known. The purpose of this chapter is, therefore, to describe and enumerate some techniques by which the degree and nature of blight can be determined for each blighted area. It is essential that these be identified, for unless they are, the types of treatment necessary for blight eradication cannot be correctly prescribed.

#### Determination of Neighborhood Indices

In identifying the nature and degree of blight, the first step of the planner is to determine a series of neighborhood indices. Each of these indices will indicate the degree of deterioration for each neighborhood in terms of that given index. In the following are suggested a series of indices which the planner may select, adopt, and employ for the neighborhood analysis of his city. However, since the nature of deterioration is possibly different for different cities, the planner concerned will decide what indices are suitable for his city, and select them accordingly. The indices enumerated below should be applicable to

are given in the following table:

- A. Population Characteristics:
  1. Total population in each neighborhood<sup>19</sup>
  2. Total number of families in a neighborhood<sup>20</sup>
  3. Total number of nonwhite population
  4. Age of population
  5. Density of population per acre
  6. Population changes (from 19xx - 19yy).
- B. Socioeconomic Characteristics:
  7. Low family income
  8. Low property values
  9. Low level of education
  10. Employed/unemployed ratio
  11. Incidence of major crimes
  12. Juvenile offenders
  13. Illegitimate births
  14. Infant deaths
  15. Venereal diseases
  16. Working mothers
  17. Welfare recipients
  18. Divorce and separation.
- C. Housing Quality Characteristics:
  19. Dilapidated housing units
  20. Deteriorating housing units

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<sup>19, 20</sup> These are not blight factors, but they will be useful in the determination of the extent and degree of neighborhood blight.

- XI. Housing units lacking all or some plumbing facilities
- 22. Aged housing
- 23. Outdoor plumbings.
- D. Housing Occupancy Characteristics:
  - 24. Renter occupied housing units
  - 25. Vacant housing units
  - 26. Overcrowded housing units.
- E. Traffic and Street Characteristics:
  - 27. Unpaved streets
  - 28. Narrow streets
  - 29. Pedestrian traffic accidents
  - 30. Traffic volume
  - 31. Through traffic
  - 32. Railroads
  - 33. Deteriorated and inadequate sidewalks.
- F. Neighborhood Facilities and Services:
  - 34. Lack of sanitary sewers
  - 35. Lack of water supply
  - 36. Lack of parks and recreation
  - 37. Lack of school facilities (elementary)
  - 38. Fire protection
  - 39. Police protection
  - 40. Street lighting.

It will be noticed from a glance at the above indices that they are all based on social, economic, or physical aspects of neighborhood living. The majority of the indices are, however, physical indices.

It has been stated elsewhere in this paper that physical blight is the result (effect) of the social, political, and economic factors that persisted in a community in the past. However, since the effect exists, it needs to be eliminated first, because, effect in turn generates further causes which again tend to accumulate further effects; in this way the cause-effect operation of blight moves in a cyclical process resulting in the intensification of blight in urban areas. This impells the planner to include the physical indices to measure the quantity of physical blight. Elimination of physical blight, however, must be accompanied by the attempts to eliminate socioeconomic and cultural deteriorations of neighborhoods. In this way, the corrective actions can eliminate both the cause and effect of blight, ensuring the creation and development of a healthy neighborhood environment socially, economically, and physically. The neighborhood indices should be determined with this purpose in mind--the elimination of both cause and effect.

After the neighborhood indices have been determined, the next step involved is the collection of data on the selected indices. Availability and extensive use of data is a factor which governs to a significant extent the success and accuracy of a study on blight analysis for a given community. The planner should remember that the corrective courses of action must be based on the analysis of facts, figures, and information concerning the nature and intensity of blight. The more information he can collect and analyze, the more precise and objective will be his solution. Without a thorough analysis on all aspects of blight, his solution to eradicate them is likely to be unsound, resulting in a significant deviation from achieving the goals and objectives

of the community. It is, therefore, required to collect and analyze as much information as possible, as possible. However, much of the data on the indices used in this study will be available from the following sources:

- Consolidated Traffic Publication for the Given Metropolitan Area
- The Local Planning Agency
- The Local Public Works Department
- The Traffic Engineering Department
- The Building Department
- The Local Housing Authority
- The Local Health Department
- The Parks and Recreation Department
- The State Health Department
- The State Labor and Welfare Department
- The Local Fire Department
- The Local Police Department
- The Local School Board
- The Action Program, if any, and
- The County Tax Assessment Department.

#### Determination of the Degree and Nature of Blight

After data on the selected indices have been collected, the next step will be to summarize them in the way as shown by the following table (Table 4).

TABLE 4

Neighborhoods <sup>21</sup>	Blighted areas from Fig. 2 <sup>22</sup>					
	Number (quantitative)			Percent (qualitative)		
	No.	%	No.	%	No.	%
6	1				38	
7					39	
17					40	
18						
19						
20						

Table 4 indicates that data on each index are to be summarized and arranged in two ways, both for quantitative and qualitative analysis. The reason for presenting data in these two ways will be enumerated in the following section.

After data have been processed and summarized in the way as shown in Table 4, the next step of the planner involves the devising of some ways by which he may form a basis or scale for the measurement of blight in terms of its degree and nature for each blighted area. This is one of the most difficult and complicated phases of the entire study of neighborhood analysis for a metropolitan community. However, two ways

<sup>21</sup>Neighborhoods tentatively considered blighted as revealed from the Preliminary Macro-Analysis (see Fig. 2).

<sup>22</sup>In this hypothetical case  $x = 40$ , see pp. 46-47.

are suggested which the planner may employ to do this.

- (1) Ranking technique
- (2) Weighting technique.

Ranking Technique. The underlying concept of ranking technique has been explained in the previous chapter where its application has been demonstrated to tentatively delineate blighted areas in a city. In measuring the degree and nature of blight, the 'principle' stated therein remains basically the same. In two possible ways as it may be applied, the end result, however, will remain the same in either case.<sup>23</sup> But unlike the previous case, here the ranking technique is suggested to be applied for measuring both the quantitative and qualitative degree of blight. The application of ranking technique in the measurement of blight is illustrated in Table 5.<sup>24</sup>

The table is self-explanatory. The reason for attempting to measure both the qualitative and quantitative degree of blight is that qualitative-wise (percent-wise) blight measurement alone is not realistic. It is not realistic because qualitative degree does not always represent the quantitative degree of blight. For instance, on the low income index (see columns 5, 6, 7, and 8, Table 5), 47 percent of the total families of Neighborhood 18 have an income of less than \$3,000 a year-- the highest figure qualitatively compared to the other five neighborhoods

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<sup>23</sup>This fact was revealed in the previous chapter, see Table 2, Columns 9 and 11, p. 38.

<sup>24</sup>To illustrate this, 6 sample indices were taken from 6 groups of indices A, B, . . . F, namely, 1. nonwhite population, 2. low level of income, 3. dilapidated housing units, 4. overcrowded housing units, 5. railroads, and 6. lack of parks and recreation.

TABLE 5. Application of Ranking Technique<sup>25</sup>

Income	(1) No. of nonwhite pop.	(2) Rank	(3) $\% = \frac{\text{Column 1}}{\text{N'hood pop.}} \times 100$	(4) Rank	(5) No. of families	(6) Rank	(7) $\% = \frac{\text{Column 5}}{\text{Tot. N'hoodfamilies}} \times 100$	(8) Rank
6	157	5	20	6	160	6	35	4
7	1,159	1	77	1	358	1	43	2
17	180	4	49	4	195	4	27	6
18	337	3	65	2	286	3	47	1
19	470	2	61	3	180	5	42	3
20	97	6	36	5	327	2	29	5

<sup>25</sup>hypothetical data used.



TABLE 5. (continued)

Indices :	Dilapidated Housing Units		Overcrowded Housing Units		Rank	Rank	Rank	
	(9)	(10)	(11)	(12)				(13)
Neighborhood :	Total	Rank	% = $\frac{\text{Column 2}}{\text{Tot. Hood H.U.}} \times 100$	Rank	Number	Rank	% = $\frac{\text{Column 13}}{\text{Hood F.U.}} \times 100$	Rank
hood :	Units							
6	76	4	19	3	51	6	42	3
7	198	2	45	1	144	1	46	2
17	51	5	13	5	84	5	41	4
18	336	1	42	2	99	4	51	1
19	184	3	19	3	114	2	37	5
20	64	6	14	4	113	3	36	6

TABLE 5. (continued)

Indices :	(17)	(18)	Railroad (19)	(20)	(21)	(22)	(23)	(24)
Neighbour- hood :	Acres for R'road	Rank	% = $\frac{\text{Col. 17}}{\text{Tot. R'hood}}$ acres	$\times 100$	Rank :	Acres for parks	Rank :	Rate = $\frac{\text{Col. 23}}{\text{R'hood pop.}}$ $\times 1000$
Lead :								Rank
6	130	1	37	1	4	1	0.65	1
7	96	2	25	2	8	4	1.10	4
17	37	4	9	4	7	3	1.00	3
15	45	3	12	3	6	2	0.93	2
19	29	6	7	6	8	4	1.10	5
20	35	5	8	5	9	5	1.25	6

TABLE 9. (continued)

Table	Results				
	(20)	(21)	(22)	(23)	(24)
File	(20)	(21)	(22)	(23)	(24)
Item	by quantity	Relative Banks for Col. 25	Col. Banks by quantity = Col. 4, %, 12, 16, 20, & 22	Indivisible Banks (Col. 27)	Sum of Banks for Col. 25 and 27
6	23	4	21	3	44
7	11	1	12	2	23
17	29	5	26	5	55
18	16	2	11	1	27
19	22	3	20	4	42
2	23	6	25	6	48
					Final, Total in 100 Cols. 20

under analysis. But, considering the number of families quantitatively, Neighborhood 7 has the highest figure (353)--the highest number compared to the other five neighborhoods. Thus, it is proven that qualitatively though one neighborhood has more blight on a given index, it may not have so quantitatively on the same index. Therefore, the planner will be justified in taking into consideration both the aspects for the determination of the depth of overall problems in a given neighborhood. This is expected to make his analysis more precise and accurate in determining the degree and nature of blight in a blighted neighborhood.

Column 30 of Table 5 reveals the fact that Neighborhood 7 has the highest degree of blight--the area most deteriorated in the hypothetical city. Its degree and nature of blight are identified as follows in terms of the indices used:

- : 77% of its population are nonwhite
- : 43% of its families have an annual income less than \$3,000
- : 45% of its housing units are dilapidated--possibly unfit for human habitation
- : 46% of its total housing structures have 1.01+ persons living per room--overcrowded
- : 25% of its total area is occupied by railroads and its r.o.v.
- : 1.10 acres of parks are available for its per 1,000 population.

Similarly, degree and nature of blight can be identified for all the remaining neighborhoods in terms of the indices used.<sup>26</sup>

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<sup>26</sup> For the purpose of illustrating how this technique can be used, only 6 indices have been considered. In actual practice, however, the planner concerned will consider all the indices from 1, 2, 3,.....x. The procedure demonstrated will remain the same.

Table 5 thus demonstrates how neighborhood blight can be identified both in terms of the degree and nature by the application of ranking technique. The greatest advantage of this technique in the identification of blight-intensity lies in the simplicity of the technique itself. But it has limitations too. The fundamental weakness of the ranking technique is that it assumes all the indices are equal in contributing to blight development in urban areas--an assumption not sufficiently realistic and true.

The second disadvantage lies in the fact that it does not take into account the difference of the levels of score by the competing neighborhoods on a given index. This can be illustrated by an example (consider the index low income, Table 5, columns 5 and 6):

Neighborhoods	No. of families	Rank
20	327	2
18	286	3
17	195	4

$$\begin{aligned} \text{Difference between ranks 2 and 3} &= 327 - 286 \\ &= 41 = a \text{ (say)} \end{aligned}$$

$$\begin{aligned} \text{Difference between ranks 3 and 4} &= 286 - 195 \\ &= 91 = b \text{ (say)} \end{aligned}$$

The application of ranking technique involves the assumption  $a = b$ , which is only incidentally, but not generally, true.

Several of these weaknesses present in the ranking technique, the planner must try the alternative. In the next section of this chapter an alternative technique is discussed, illustrating its application for determining the degree and nature of blight in a given neighborhood.

Weighting Technique. The underlying 'principle' of the weighting technique is that all the indices are not equal in their contribution to blight development in urban areas. In the first chapter of this study, it was observed that some of the factors of blight are primary, and that some are secondary. The primary factors play the predominant role in the growth of blight. Thus, such factors must carry relatively more weight in determining the total magnitude of blight. It is also apparent that the original causes of blight are more socioeconomic than physical. However, at this point, two concepts may be introduced to differentiate between the elimination of physical blight and the improvement of the socioeconomic and cultural elements of the slum dwellers. Under a short term measure, a given community may undertake actions to eradicate physical blight, while considering the long term measure for blight eradications community actions should be guided by attempts to upgrade the culture of the people living in blighted and slum areas. While assigning weights to the different indices, the planner needs to keep these two distinct concepts in mind.

In the following section, an attempt is made to demonstrate how the planner will assign weights to the various indices to determine the degree of blight in a given neighborhood. However, the purpose here is not to assign actual weights to all the factors of blight but to

illustrate how the intensity of blight can be ascertained and measured by applying the weighting technique. This method is a companion to the ranking technique in that the results obtained by the latter can be compared and verified by the weighting technique. Accordingly, all these six indices are considered; the arrangement of data on the indices is basically the same as shown in Table 5.

To assign "weights" to the various indices, the first step of the planner is to classify the indices. This may be done as suggested in Table 6.

TABLE 6

Indices	: Category :	Relation to blight as	
		Cause	Effect
1 Nonwhite Population	Social	x	
2 Lowincome (less than \$3,000/yr.)	Economic	x	
3 Dilapidated Housing Units	Physical		x
4 Overcrowding Housing Units	Physical		x
5 Railroads	Physical		x
6 Parks and Recreation	Physical		x

After the indices have been classified, as in Table 6, the next step is to assign "weights" to them. In assigning weights, the planner may assume that the given community is willing to adopt both short and long term policies in its program to eradicate blight,<sup>27</sup> and that it

<sup>27</sup> Short term policy is to eliminate physical blight, long term policy is to improve the socioeconomic status of the people of slum areas.

will give equal importance to both policies. Their willingness to accept these ideas will show that they consider the elimination of both effect and cause to be equally important. In other words, weights assigned to the physical indices will be equal to those assigned to socioeconomic indices.

According to the above proposition, 50 percent of the weights will be assigned to the indices 3, 4, 5, and 6 (see Table 6), and the remaining 50 percent to 1 and 2. Now, among the socioeconomic indices, since low income of families is more responsible for the development of blight, it should get more weight.<sup>28</sup> Let it be assigned with 30, leaving the remaining 20 for the index nonwhite population. It is important to note here that the nonwhite population itself is not the cause of blight. To say that it is, is to say that the nonwhite population should be eliminated from the city. The real causes for the development and operation of urban blight are the socioeconomic elements present in the nonwhite population. The term "nonwhite population" is thus used here as a label for representing the growth of blight.

About how the remaining weights can be distributed to the four physical indices, the planner will rely on his own judgment. It is, however, generally agreed that dilapidation of housing will carry more weight, for this is physically more obvious to the people as being the most undesirable element in terms of environmental deterioration. The next index in order of importance is possibly the overcrowding within the structures which rapidly deteriorates the structure once the blight has begun to develop. Between railroad and lack of parks, railroad is

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<sup>28</sup> Poverty is the fundamental cause of blight--as stated in the discussion of causes of blight, Chapter I.



followed up to some significant to maintain blight. Considering all these aspects in terms of their role of contributing to and perpetuating blight, the weights in this hypothetical case may be assigned as shown in Table 7.

TABLE 7

Indices category	Weights	Indices	Weights
Socioeconomic	50	Nonwhite Population	20
		Low-income	30
Physical	50	Dilapidated Housing Units	20
		Overcrowded Housing Units	15
		Railroad	10
		Parks and Recreation	5
Total	100		100

After the weights have been distributed to all the indices in accordance with their relative importance in causing and nourishing blight, the next step is to apply these assigned weights to the data in the indices--to form a basis for determining the intensity of blight in each blighted area. This is illustrated in Table 8.

Table 8 illustrates the application of weighting technique in the determination of the degree and nature of blight in each of the six neighborhoods tentatively labelled as blighted from the city-wide macro-analysis. Column 37 of Table 8 shows the degree of blight measured from the six indices selected for the purpose of illustration. Columns 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31, and 34 identify the nature of blight in each neighborhood.

TABLE 3. Application of weighting technique.<sup>29</sup>

Index	Number of Nonwhite Population (1)	Nonwhite Population (weight = 20)	Number of Nonwhite Population (2)	Weight scored by competing methods in 6 methods = Col. 2 x 20	Percent of total in Col. 4	% of total in Col. 4	Weight scored = Col. 5 x 20
6	157	6.50	1.31	1.31	20	6.50	1.30
7	1159	48.30	9.66	9.66	77	25.00	5.00
17	180	7.50	1.50	1.50	49	15.90	3.18
18	337	14.00	2.80	2.80	65	21.10	4.22
19	470	19.50	3.90	3.90	61	19.80	3.96
20	97	4.05	0.	0.	36	11.00	2.20
Total	2400	100.00	20	20	308	100.00	20

<sup>29</sup>Data used are same as in ranking technique, Table 5.

TABLE 8. (continued)

Neighborhood	Low-income (weight = 30)							
	(7)	(8)		(9)	(10)		(11)	(12)
	Number	% of total in Col. 7	Score = Col. 8 x 30	Score = Col. 8 x 30	Percent	% of total in Col. 10	Score = Col. 11 x 30	
6	160	10.60	3.18	35	15.60	4.70		
7	353	23.77	7.13	43	19.28	5.78		
17	195	12.95	3.88	27	12.10	3.63		
18	286	18.99	5.69	47	21.07	6.32		
19	180	11.95	3.58	42	18.83	.65		
20	327	21.71	6.51	29	13.00	3.90		
Total	1506	100.00	30	223	100.00	30		

TABLE 8. (continued)

Neighborhood	Dilapidated Housing Units (weight = 20)				Dilapidated Housing Units (weight = 20)			
	(12)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	Number	% of total in Col. 13	Score = Col. 14 × 20	Percent = Col. 15 × 20	Percent in Col. 16	% of total in Col. 16	Score = Col. 17 × 20	Score = Col. 17 × 20
6	76	8.21	1.64	19	12.50	2.50		
7	198	21.40	4.28	45	23.60	5.92		
17	67	7.24	1.44	13	8.55	1.71		
18	336	36.32	7.26	42	27.63	5.52		
19	184	19.89	3.98	19	12.50	2.50		
20	64	6.91	1.38	14	9.21	1.84		
Total	925	100.00	20	152	100.00	20		

Table 3. (continued)

Neighborhood No. 4	Overseas and Immigrant Births (total = 15)				
	(19) Number	(20) % of total in Col. 19	(21) Score = Col. 20 x 15	(22) % of total Foreign B.U. in Col. 22	(23) Total Foreign B.U. Score = Col. 22 x 15
6	51	8.43	1.26	42	16.60
7	144	23.80	3.57	46	18.18
17	84	13.83	2.08	41	16.20
18	99	16.36	2.45	51	20.15
19	114	18.84	2.82	37	14.62
20	113	18.67	2.80	36	14.23
Total	605	100.00	15	253	100.00

TABLE 8. (continued)

Neighborhood	(25) Area	(26) % of total in Col. 25	Score = Col. 26 x 10	(27) Railroad F.O.V.	(28) % of flood area in Col. 28	(29) % of total in Col. 28	(30) Score = Col. 29 x 10
6	130	34.95	349	37	37.15	371.5	3.71
7	96	25.80	258	25	25.51	255.1	2.55
17	37	9.94	99.9	9	9.18	91.8	0.91
18	45	12.09	120.9	12	12.36	123.6	1.23
19	29	7.79	77.9	7	7.14	71.4	0.71
20	35	9.40	94.0	8	8.16	81.6	0.81
Total	372	100.00	10	93	100.00	10	

TABLE 8. (continued)

Index	Parks and Recreation (1936-9)				
	(31)	(32)	(33)	(34)	(35)
Neighborhood	Ares	% of total in Col. 31	Score	Ares/1,000 in hood pos.	% of total in Col. 31
6	4	9.52	1.07	0.65	10.14
7	8	19.04	0.13	1.10	17.16
17	7	16.67	0.89	1.00	15.60
18	6	14.28	0.95	0.98	15.29
19	8	19.04	0.13	1.10	17.16
20	9	21.40	0.41	1.25	19.50
Total	42	100.00	5	6.41	100.00
					5

TABLE 2. (continued)

No. of beetles	Blight		(30)	(30)
	(37) Final total count = Cols. 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, and 36	(37) Register No. in order of the degree of blight		
6	27.68	(4)	13.84	
7	50.68	(1)	25.34	
17	23.57	(6)	11.79	
18	41.50	(2)	20.75	
19	31.31	(3)	15.70	
20	24.70	(5)	12.35	
Total	200		100	



From the six sample indices, it is revealed for the hypothetical city that Neighborhood 7 has the highest degree of blight. In order of the overall degree of problems, the neighborhoods run as follows: 7, 18, 19, 6, 20, and 17 (see Col. 38, Table 8). Incidentally, this is the same result as obtained by the ranking technique, indicating perhaps that the ranking technique as widely used by the planners has certain validity in terms of its utility as a technique. However, one especial advantage of the weighting technique over the ranking one is that it shows the absolute degree of blight among the competing neighborhoods. This is revealed by Column 37 of Table 8. For instance, Neighborhood 7 has as much as twice the amount of blight as Neighborhood 17. However, this information is not furnished by the ranking technique.

Further, weighting technique shows the quantity of blight in a given blighted area as against the total overall problems in the city. This fact is illustrated by Column 39 of Table 8. Neighborhood 7 alone has the concentration of about 26 percent of the total blight in the hypothetical city.

Lastly, the planner while applying weighting technique for identifying the degree and nature of blight in a neighborhood analysis study, must be cautious in distributing the weights to the various indices. He must be careful because the application and use of weighting in any study of social sciences where quantification<sup>30</sup> of facts poses a serious problem may mislead the planner if the relative importance of the individual indices cannot be precisely determined. Because of

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<sup>30</sup>Weighting itself is a qualitative concept, and difficult to express in quantified terms.

With almost difficulty, ~~weighting~~ technique is not widely used by the planners. Ranking technique, though not very accurate and precise is more popular because of the lesser degree of risk involved in its application and use. Nonetheless, the planner must try the weighting technique. For though in most cases it relies on arbitration for its application, it gives comparatively better results, and provides a sounder basis for identifying the magnitude and nature of blight for a given neighborhood.

## CHAPTER IV

## FINAL MICRO-ANALYSIS

The preceding chapter was devoted to the development of a methodology for identifying the degree and nature of blight for each of the blighted areas in a given metropolitan city. The substance of the present chapter is to describe and ascertain certain techniques that may be used for the final delineation of blighted areas based on the degree of blight identified in them.

Engaged in this phase of blight analysis, the planner's first step will be to refer back to Tables 5 and 8, where Columns 30 and 37 respectively, reveal the intensity of blight in each area. The information presented therein can be rearranged for the final delineation of blighted areas in the following order:

TABLE 9

Hierarchy of problem areas in order of the magnitude of blight	:	Blighted neighborhoods
1 (most blighted)	:	7
2	:	18
3	:	19
4	:	6
5	:	20
6 (least blighted)	:	17

After the problem areas have been put in hierarchy of the magnitude of blight as depicted by Table 9, the next step is to present them on a city map of suitable scale. For the hypothetical city this can be done as shown by Figure 3.

Theoretically the information presented in Figure 3 shows the final delineation of problem areas of the city based on the identified degree and nature of blight. But this delineation does not take into account that all the areas in a given blighted neighborhood or more precisely all the blocks of a given blighted area are not uniformly and equally blighted. In actual practice, however intense and deep may be the deterioration of a neighborhood, it is likely that there will be some blocks which are sound and as such cannot be included within the delineated areas. This demands another step of analysis to be taken by the planner in the best interest of the community not only in terms of saving its expenditures for improvement, but also to ensure a precise basis for determining the corrective courses of action for the elimination of blight. He is, therefore, required to identify those parts of the neighborhood which are sound and worth preserving. Two ways may be prescribed for doing this:

- (1) Identifying city block conditions from secondary information
- (2) Making field survey (block by block).

However, instead of attempting to do this in two separate ways, it is suggested that the second technique be used as a check to verify the results obtained by the first one. This is suggested because, despite the neighborhood analysis report for a given community designates an area for clearance and redevelopment, field surveys at the time of

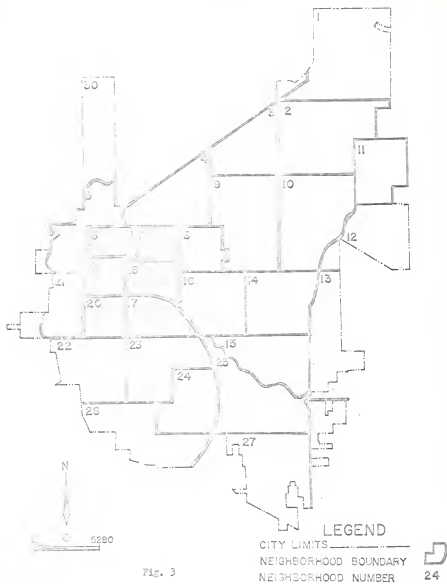


Fig. 3

making action into operations will be inevitable in terms of delineating project areas, acquiring land and buildings, determining fair market prices for them, planning relocation, and so forth. In order to avoid duplication of works, therefore, it is believed that a windshield check will suffice for the present stage.

However, to identify sound parts of a deteriorated neighborhood, the planner is referred back to the census tract information published under the heading, "United States Census of Housing--City Blocks." The 1960 U.S. Census has made a separate publication on the block characteristics in each census tract for each of the metropolitan areas of this country.<sup>31</sup> The way the information on block conditions is furnished by the census, can be presented as below<sup>32</sup> in Table 10.

From the information supplied in Table 10, the next step of the planner is to identify those blocks which are sound and worth conserving. Identifying these blocks involves the developing of a criterion by which a block can be labelled as good. However, the planner may adopt the criterion used by the U.S. Census to designate an area to be good. It defines an area as "sound" where less than 20 percent of the housing units are deteriorated.<sup>33</sup> A block can therefore be termed as sound where less than 20 percent of the housing units are deteriorated.

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<sup>31</sup>See any census publication for any metropolitan area in the United States.

<sup>32</sup>ibid.

<sup>33</sup>"United States Census of Housing--City Blocks." Department of Commerce, Bureau of the Census, p. xi.

TOTAL 100

Comptes	(1) P. U. P. (1)	(2) P. U. P. (2)	(3) P. U. P. (3)	(4) P. U. P. (4)	(5) P. U. P. (5)	(6) P. U. P. (6)	(7) P. U. P. (7)	(8) P. U. P. (8)	(9) P. U. P. (9)	(10) P. U. P. (10)
Comptes	Comptes	Comptes	Comptes	Comptes	Comptes	Comptes	Comptes	Comptes	Comptes	Comptes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

1

2

3

Say 5

nb

Thus, from Table 10 for any given block, if

$\frac{\text{column 3}}{\text{column 6}} < 100 > 80\%$ , the block can be considered as a sound one.

This way, the planner should identify all the blocks in a given neighborhood and categorize them as either "sound" or "blighted." This can be done in the way demonstrated by the following table<sup>34</sup> (Table 11).

TABLE 11

(1) Neighborhood	(2) Blocks	(3) Sound + H. U.	(4) Total H. U.	(5) $\frac{\text{col. 3}}{\text{col. 6}} \times 100$	Remarks	
					(6) Sound	(7) Blighted
	1			> 80%	x	
	2			> 80%	x	
	3			< 80%		x
x <sup>th</sup>	.			- 80%		x
	.			.		
	40			.		
	.			.		
	n <sub>0</sub>			< 80%		x

The next step is to pick out the sound blocks as identified in Column 6, Table 11, and present them on a map of the given neighborhood. To illustrate this, Neighborhood 7 of the hypothetical city is used here to show the blocks that are sound and may be excluded from being labelled as blighted (Figure 4).

<sup>34</sup>At this stage the planner, depending on the level of details desired, may identify the degree of blight within individual blocks by applying the ranking or weighting technique.

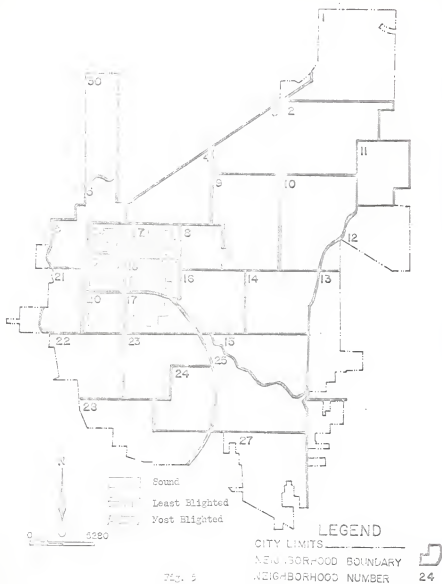


The planner is to repeat the above process for each of the blighted neighborhoods as illustrated in Table 11 and Figure 4. He is to exclude the parts which are not blighted from the areas that are finally delineated as being blighted. The planner's last step in the final delineation of blighted neighborhoods is to combine all of them after the stage shown in Figure 4. This can be done as shown by Figure 5.



Figure 4





## CHAPTER V

### REMEDIAL ACTION

The previous chapters of this paper were devoted to describing the techniques that may be employed by the planner to locate where blight is, how intense it is, and what its nature is. The purpose of this final chapter is to ascertain some techniques to determine as to what needs to be done about it.

In the process of designing an appropriate remedial program, the function of the planner is to identify the treatments and actions which a given community can undertake for eliminating deficient conditions and for improving neighborhoods. Such improvement programs may be classified in two general ways:

- (1) Existing local improvement programs
- (2) Urban renewal programs.

#### Existing Local Improvement Programs

Under the management of the local government, there are several elements which may be developed, adopted, and executed to ensure a sound program for the metropolitan improvement. These elements enable the metro-community to have its own plan of action through which the local resources may be utilized to eradicate present blight and to prevent future blight. These elements are as follows:

Codes and Ordinances. Most of the cities of metropolitan level must have adopted adequate codes and ordinances. If not, these

would be immediately enforced and put into operation. Such enforcement programs will inevitably result in the maintenance of standard housing and a vast amount of property will ensure the prevention of future blight and deterioration.

Plumbing, electrical, and electrical codes are all powerful tools to govern and control the new constructions, major repairs or additions, and alterations with adequate modern standards. There is hardly any doubt that the enforcement of a Housing Code is essential in order to bring existing unsound housing to safe, healthful standards. In addition, there are other regulatory measures which are also vital in combating urban blight and in enhancing the proper development of the community. These include the following:

(a) Subdivision regulations--to protect against scattered and unplanned uncontrolled land-use growth in the city, especially in areas where problems of water supply or sewage disposal exist or are anticipated; to protect against poor street layout, small lot size, and inadequate parks and playgrounds.

(b) The zoning ordinances--to control land-use and building intensity to increase the property values.

(c) Air pollution regulations--to protect against adverse influences of obnoxious fumes and odors.

(4) Public Improvement Programs. The provision of adequate public facilities and services such as water supply, sanitary sewers, street lighting, schools, recreational centers, etc., can stimulate and encourage private improvements. Although any given metropolitan city is likely to have an existing adequate program for public

improvements, more can be achieved by coordinating these improvements with those of the private investors. There is no denying the fact that the lack of necessary community facilities encourage and create neighborhood deficiencies in many forms. The correction of these problems by public action coupled with private efforts can do a lot towards the physical improvement of blighted neighborhoods.

#### Urban Renewal Programs

Urban renewal is a local program--locally conceived, planned and executed under state law with federal assistance when sought. It is a concerted effort by a given community to correct and prevent urban blight and to set in motion a long-range program of improvement in terms of the renewal of the land and structure. Federal assistance in the form of loans and grants is available to any city in its program of eradicating blight. Sums up to three-fourths of the net cost of the program are available for planning, acquisition, clearance, and installation of public facilities. The final decision as to whether or not a city will undertake such a program belongs to the city itself.

Basically, there are two types of renewal programs which may be undertaken by a city as a measure of rejuvenating its blighted areas. They are:

- (i) Rehabilitation/Conservation
- (ii) Clearance/Redevelopment.

#### Rehabilitation/Conservation

The purpose of this program is to preserve and conserve the elements of a neighborhood which are good, to eliminate those which

are bad, and to renew the area to the extent that it can be restored to sound and healthy conditions. The program consists of the repair or alteration of the deficient structures, the removal of the scattered pockets of sub-standard houses, and the application of the conservation techniques--codes and enforcements. An area designated for this type of treatment may be the entire project area or a section of the project area in which clearance and redevelopment may be the other type of treatment. To qualify for such type of action, an area must possess the following characteristics:

- (a) All properties to be conserved in the area must be capable of upgrading to property rehabilitation standards.<sup>35</sup>
- (b) Street and land-use patterns must be capable of adaptation to the present day needs and objectives.
- (c) The area must possess considerable residential qualities and desirable physical characteristics which ensure that the rehabilitation/conservation activities will be sufficient and adequate to restore the area to a long-term sound condition.

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<sup>35</sup>The definition of Property Rehabilitation Standards as furnished by the R.H.F.A. is as follows: "The term 'Property Rehabilitation Standards' means the combination of code standards and rehabilitation requirements, which are established for properties to be retained in the project area. Code Standards refer to the requirements of local building, zoning, plumbing, electrical, fire prevention, and other laws related to housing construction and to use, maintenance, and occupancy of properties. Rehabilitation requirements refers to the criteria, in addition to code standards, which are established for properties in the project area to assure their restoration to a sound condition. They shall be adapted to the physical condition prevailing in the area and the anticipated effect of the rehabilitation/conservation program on the individual properties."

#### Clearance/Redevelopment

This program is designed for areas of extreme blight which have arrived at a stage of dilapidation and environmental deficiencies. It involves the clearance of the dilapidated areas and their subsequent redevelopment so as to restore the area to a long-term sound condition. The program may encompass a complete project area, or a part thereof, when the other type of treatment is the rehabilitation/conservation. To qualify for this form of remedial action an area must possess the following conditions:

- (a) At least 50 percent of the buildings in the area must be substandard to a degree requiring clearance,<sup>36</sup>

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<sup>36</sup> *Ibid.* "Buildings classified as 'structurally substandard to a degree requiring clearance' must contain defects in structural elements and/or a combination of deficiencies in essential utilities and facilities, light and ventilation, fire protection (including adequate egress), layout and condition of interior partition, or similar factors, which defects and/or deficiencies are of sufficient total significance to justify clearance."

- (b) Or at least 25 percent of the buildings in the area must require clearance and the area must contain at least two environmental deficiencies,<sup>37</sup>
- (c) The proposed redevelopment must be guided by a sound redevelopment plan for the area.

#### Determination of Actions for Blighted Areas

After being familiar with the concepts related to the types of treatment as described and discussed in the foregoing sections of this chapter, the first step of the planner in the process of identifying the corrective courses of action needed to eradicate blight is to evaluate what improvement programs his community has adopted so far in terms of code enforcements, public facilities plan, zoning and subdivision regulations and so forth. These programs are not only essential for the improvement of the blighted areas, but are also extremely effective in preventing the spread of blight into other healthy community areas.

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<sup>37</sup> As per H.H.P.A. definition, an area becomes environmentally deficient when it contains any combination of the following characteristics: 1) overcrowding or improper location of structures on the land, 2) excessive dwelling unit density, 3) conversion to incompatible types of uses, such as rooming houses among family dwellings, 4) obsolete building types, e.g., large residences or other combinations of buildings which, through lack of use or maintenance, have a blighting influence, 5) detrimental land uses or conditions, such as incompatible uses, structures in mixed use, or adverse influences from noise, smoke or fumes, 6) unsafe, congested, poorly designed, or otherwise deficient streets, 7) inadequate public utilities or community facilities, contributing to unsatisfactory living conditions or economic decline, 8) other equally significant environmental deficiencies.

It will be noticed that the neighborhood indices suggested in Chapter II, pp. 46-47 include all the above characteristics as quoted above.



By difference between the needs of the given community and the ones it has already adopted in terms of these improvement programs, will constitute the planner's first recommendation for the city as a whole to arrest its present and prevent future blight.

Setting the general recommendations for the city as a whole, the planner must focus on the blighted and slum areas of the city as delineated in Figure 5, and to prescribe the specific treatments necessary for each of them. It is proposed that the planner, in the course of designing types of treatment, set the recommendations separately for each individual blighted area. At this stage he will have to refer back to Table 5 or 8, which shows the degree and nature of blight identified for each area, and on which are dependent the types of remedial action. This is demonstrated by Table 12 wherein is identified the type of treatment needed for Neighborhood 7--the area of highest blight in the hypothetical city.

The third step of the planner is to repeat the process as illustrated in Table 12 to arrive at the recommendation of treatments necessary for each of the remaining areas such as Neighborhoods 18, 19, 6, 20, and 17. For the hypothetical city, let it be assumed that the remedial actions for each of them are identified as shown in Table 13.

The final step is to present the information as depicted by Table 13 on a map of suitable scale of the given city. This may be done as shown in Figure 6.



TABLE 13

Blighted Area (neighborhoods)	Types of Treatments Recommended
7	Clearance/Redevelopment
18	Clearance/Redevelopment
19	Clearance/Rehabilitation
6	Clearance/Rehabilitation
20	Rehabilitation/Conservation
17	Rehabilitation/Conservation

#### Priority Determination for Action

The final phase of a neighborhood analysis study for a metropolitan area involves the developing of a priority program according to which community actions will be put into operation over a definite period of time. Although a detailed demonstration of this aspect is beyond the scope of this paper, it is briefly discussed here, pointing out some factors which the planner must take into consideration, evaluate and weigh them for establishing the priority of action for different areas of blight in the city.

It is likely that the neighborhood(s) most blighted in the city will demand immediate attention in terms of receiving action for improvement. For this type of area, the usual remedial actions should be clearance/redevelopment. The planner may place top priority in terms of launching action for these areas. The planner, however, should not ignore certain adverse implications which may accompany such actions

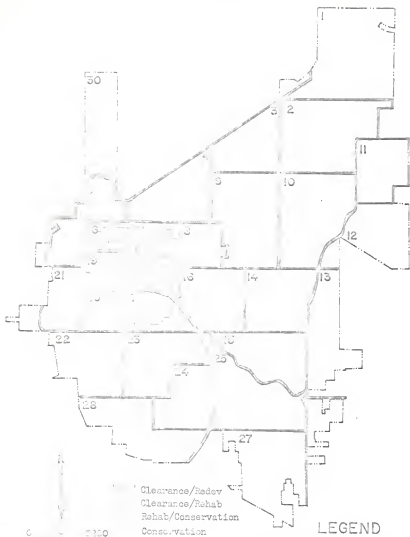


Fig. 6

and give rise to some community reaction, controversy, and even criticism. Apart from expecting heavy opposition from those who will be directly affected as a result of such programs, it is not unlikely that the community leaders and the people of the city at large may disapprove such extreme form of actions. The planner is aware of the much debated urban renewal programs which have already accumulated a great deal of criticism throughout this country.

In view of these circumstances, the planner may try the first renewal project as the one for which the remedial action centers on rehabilitation/conservation. Doing this will help break through the general apprehension if there is any, on urban renewal and will make the citizens familiar with the renewal activities. It will also give rise to a community-wide consensus about the merits of urban renewal, when it will be much easier to take up the areas requiring clearance and redevelopment.

Apparently, though this technique, which brings about a change in the traditional approach of treating the most deteriorated area first, may not sound suitable to many tradition-oriented planners, it has some significant advantages in implementing the planner's recommendation, which the traditional method may not be able to achieve.

In addition to this powerful factor, the planner also must consider other factors in the process of determining priority for action for the areas of blight in the city. These factors are enumerated as follows:

- (a) The ability to provide adequate housing for the displaced families.

- (w) The desire and ability of property owners to rehabilitate their own property.
- (x) The ability to improve housing and environmental conditions by the enforcement of codes and ordinances.
- (y) The ability to acquire, clear, and dispose of cleared land.
- (z) The opportunities for coordinating capital improvement works with community improvement actions to eradicate blight.
- (aa) The determining of how many people will be benefited through a neighborhood development as against how many losers.
- (ab) The identifying of what area or areas will attract the private developer most.
- (ac) The determining of how many people in the city desire what area should be taken as first urban renewal project.
- (ad) For what area, citizen participation will be rendered most.
- (ae) What the policy makers think about the various blighted neighborhoods in terms of putting priority for action.

After carefully evaluating and weighing the above factors, the planner will set the priority program and accordingly schedule action for improving the blighted areas in the city so that blight is eliminated, eradicated, and prevented from recurrence, hopefully, forever.

## CONCLUSIONS

The attempt has been made in this paper to design a comprehensive methodology of neighborhood analysis for cities of metropolitan level. Techniques required at various phases of the blight analysis and measurement, have been described and discussed in the light of their merits, demerits and applicabilities. As the initial part of urban revitalization planning, when the planner is setting out to undertake a neighborhood analysis study for a given metropolitan area, he may find this methodological research helpful in attaining his objective. However, since all cities are not alike in terms of the nature and degree of their decay, the techniques enumerated in this paper may not be applied in an exclusive manner.

The field of urban planning is still in its evolutionary stage. The techniques available to the planner are not as perfectly and scientifically well-established and precise as we want them to be. Apart from the recency of planning as a discipline, it is a highly complex field in that it gears itself to a series of social science disciplines such as economics, sociology, political science, law, and so forth, where uncontrollable variables are too many, and where quantification of facts and information poses a serious problem. This implies that in many occasions, the planner needs to develop his own criterion, including the tempering of or modifying the available techniques to fit the characteristics of his city. The techniques of neighborhood analysis as discussed in this paper

should go forward, taking into account those basic constraints which are inherently present at any stage of city and regional planning.

The program of blight eradication is a process which traditionally started with the analysis of blight and ends in the implementation of recommendations. All points in this continuum are highlighted by the functional role of the metropolitan planner as the guide of metropolitan redevelopment. In the past the planners believed that their functional role should cease to operate once the analysis and the development phases of the plan have been completed. This happened because planners tended to think that the execution of the plan rests entirely on the community itself, viz., on its power structure. However, this concept of the planner's role as the guide of urban development does not seem to make the planning process a complete entity. His comprehensive functional role should necessarily include the implementation of the plan or recommendations. This is true because, as a professional, the planner needs to feel an ethical responsibility towards the community in getting its plan implemented.

There is little doubt that the implementation of plans becomes impossible without active support and cooperation from the citizens of the community. Developing ways of gaining cooperation from them is indeed a technique deeply imbedded in the planning process about which there is much to learn. In the past, planners could develop and implement plans without involving themselves much directly with public relations. This was true, partly because there was less complexity in urban life, the power structure was less complex, interest groups were fewer. In addition, planning was mainly devoted to physical planning,



having little or no consistency with the social, political, and economic trends of the society.

But the situation is different today. Changes have evolved from the rapid growth of urbanization during the last two decades all over this country, especially in metropolitan areas. The urbanites have become more and more aware politically, socially, economically and in all aspects of urban life. This demands a change in the traditional role of the urban planner so as to cope with the new situation concerning urban planning and development. This is especially true at the metropolitan level where the interest groups are so widely present that the planner must involve himself in politics to the extent that the development of the community is properly planned and implemented. The wise planner today can certainly not allow the prepared plans to simply acquire dust in the shelves of City Hall. They need to be implemented in order to achieve the goals and objectives of the community.

In the context of blight eradication program, the implementation phase in the planning process is of paramount importance in that without the proper implementation of recommendations, blight can never be wiped out, and will consequently lead to the failure of raising the quality of urban living. There is no doubt that the professional utility of the planner is bound to lose much of its meaning under such circumstances. Further, some of the actions concerning the eradication of blight are likely to give rise to certain implications which are subject to much controversy and debate. Some outstanding critics of urban renewal in this country already have influenced urban communities to a certain extent to avoid involvement in such programs. This implies that the

planned and necessary counter-arguments to convince the community not to abandon the benefits of such programs which in the long run, usually carry more benefits than costs. It is obvious that the planner will hardly be in a position to get them convinced until he maintains a close relation with them, gets them acquainted with their needs, and thereby relates himself to the community's power structure, interest groups, as well as other community leaders and civic groups. To gather cooperation and coordination from all these quarters is extremely important for the implementation of recommendations. As a matter of fact, the planner of today needs to possess some public relations quality in him--a technique whose utility can scarcely be offset by anything else.

Finally, American metropolitan areas are facing the serious threat of blight today. Their revitalization is necessary. But revitalized forms of cities will never come into reality until and unless actions can be put into effect. Actions can never be put into effect until and unless there is achieved a high degree of citizen participation. Indeed, the eradication of blight needs a concerted and combined effort by planners, policy-makers, and citizens alike. It is time that they all go hand-in-hand in their approach to combat urban blight and be fully determined to eradicate blight, hopefully forever, to ensure the creation of an optimum urban environment which will eventually give rise to the development of a balanced relationship between the place of work, place of sleep, and place of recreation in the American metropolis.

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AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF REGIONAL AND COMMUNITY PLANNING

College of Architecture and Design

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

The mission of urban planning is to raise the quality of urban living through the improvement of the physical environment. Among all the characteristics hindering the betterment of life for millions of American people, the obsolescence found in most of the major American cities ranks very high. The conditions attending metropolitan housing, transportation, schools, and hospitals are fast becoming intolerable. The worst of all urban deteriorations are slums and blight.

To ensure the development of a healthy urban environment, corrective actions are, therefore, necessary for the eradication of blight. Actions emerge from plans, plans emerge from thoroughly analyzing the existing situations concerning the nature and magnitude of the urban problem. Neighborhood analysis as a part of urban renewal planning is the study which provides information as to where blight exists, how intense it is, what its nature is, and what needs to be done for its eradication. This report is an investigation of a methodology for analyzing neighborhood blight for cities of metropolitan size. An attempt has been made to point out various techniques required in various phases of a neighborhood analysis for a given metropolitan area.

There are of course variations in the scope and techniques of neighborhood analysis. The techniques will depend on such factors as conditions peculiar to the community, the availability of information, and to a certain extent on personal judgment. Various techniques have been presented with the hope that they will be of use to those metropolitan communities on the verge of conducting a neighborhood analysis study.

The terms "macro" and "micro" are relative concepts that are differentiated only in terms of scale. The macro concept is used in this context to consider the city as an aggregate of neighborhood units. Techniques are discussed how the delineation of blighted areas, both tentative and final, can be made by employing this concept. The micro concept is used to deal with the analysis of blight for a given neighborhood. In so doing, it concerns itself with the depth and breadth of problems in the individual neighborhoods.

Blight is a qualitative concept, and difficult to measure in quantifiable terms. However, it is felt that it is possible to identify, with considerable degree of accuracy, its extent by the application of the various indices as suggested in this study. Each of these indices indicate the degree of blight in a given neighborhood in terms of that given index.

Based on the extent of blight and its component factors, evolves the necessary type of remedial action. Rehabilitation-and-conservation is concerned with the preservation of elements of a neighborhood which are sound and worth conserving. Clearance-and-redevelopment is designed for those areas of extreme blight which are in acute stage of dilapidation.

In establishing goals and priorities for action, the planner may try the first renewal project as the one which relates to rehabilitation-and-conservation. The reason for choosing this less drastic action first is to help eliminate whatever apprehension may exist in the community with respect to renewal action. It is hoped that this will give rise to a community-wide acceptance about the merits of urban renewal, thus



and the more active forms of action, clearance and renewal.

There is little doubt that the implementation of renewal programs is impossible without active support and cooperation of the citizens of the community. In metropolitan areas the power structure is so complex, interest groups are so diverse, and there exists such a great deal of public apathy concerning planning and community development that it is essential for the planner to establish good lines of communication with all segments of society concerning planning and the planning process. The security for gaining public acceptance is paramount to the planning process about which there is much to be learned and recognized by the planners of the day.