TOWARD AN INTEGRATED THEORY OF NEIGHBOURHOOD PLANNING

A Thesis
Submitted to the Faculty of Graduate Studies
in Partial Fulfillment of the Requirements for the Degree of

Master of City Planning

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Department of City Planning
University of Manitoba
August, 1977
TOWARD AN INTEGRATED THEORY OF NEIGHBOURHOOD PLANNING

BY

YUE-KWONG, MICHAEL, CHAN

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To my parents

who taught me to see things

from more than one perspective

and inspired me with the teaching of

"only connect."
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Finally, to my parents a belated recognition of the obvious, that
in endeavour like this, they bear all the costs and derive none of the
pleasures. To them, I dedicate this work.
Abstract

The main purpose of this study is to assess the validity of the neighbourhood unit theory in explaining the growth of community spirit, and to formulate a more complete theoretical model which will suggest more meaningful policy implications for neighbourhood planning in the future.

In order to arrive at an adequate assessment of the neighbourhood unit theory, a critical examination of not only the concept itself but also of its history, origin, and its diffusion have been undertaken. Moreover, past approaches to the whole notion of the growth of community spirit are also critically reviewed considering both theoretical and empirical knowledge. These approaches have been categorized as The Theory of Design Determinism; The Theory of Social Homogeneity; The Theory of Community Eclipse; and The Theory of Social Space. As integrated interdisciplinary theoretical model based upon these various theories is then hypothesized and presented.

An empirical study, which draws data from an exceptionally large number of neighbourhood studies as compared to past research, has been undertaken to operationalize the hypothesized model and to test out the interrelationships among the independent variables and the dependent variable in the model. The independent variables in the model are delineated from factor analysis, which are then labelled as Perceptibility of Site Characteristics, Provision of Physical Amenities, Social Homogeneity of Residents, and Social Space Among Residents. These
independent variables are hypothesized to have a positive relationship with the dependent variable; Growth of Community Spirit. They are also hypothesized as being related to each other. In order to test out the hypotheses, a path analytic technique was employed and path coefficient were calculated with the use of computer. All of the independent variables were found to be positively and significantly related to growth of community spirit. The relationships with the physical factors, however, were found to be not as strong as the social factors. Policy implications arrived from these findings were then suggested and presented.

The conclusion was reached that the study undertaken here did serve its purpose quite well, that is, it has injected a new theoretical perspective in neighbourhood planning theory in place of the traditional neighbourhood unit theory so as to enable neighbourhood planners to penetrate further in their understanding and practice other than they would have been by only adhering to the conventional neighbourhood unit concept.
It seems as if on the planning side we have a desire to create communities through physical means while on the sociological side there is a desire--equally strong--to assert that physical planned environment is not a causative agent in the fostering of community and that the social structure and relationships are paramount. Clearly both these views reflect the interest of the proponents. What more natural than for sociologist to be concerned about social relationships and for planners to be concerned with the physical, built environment? The discussion of neighbourhood certainly seems to be not short of dogmatic and doctrinaire views on both sides. Is there a solution?

INTRODUCTION

Problem

Since the beginning of the century, the concept of neighbourhood has been a lively issue among planners and architects. It has been an intractable problem in sociological study since the 1920's and has remained ever since to be the focus of interest for a large amount of research and literature in both the social science and planning circles. Despite the volume of research, theory, and case study, our understanding of the problem of neighbourhood feeling remains embarrassingly incomplete. "Its very complexity," as Buttmer points out, "baffles the investigator. One merely carves out slices of the problem and investigates them according to the concepts and procedures of specific disciplines."

Indeed, many different aspects of the neighbourhood have been analyzed from a variety of perspectives, each giving emphasis to those parts of the concepts which the authors feel are most significant. At the same time, many different types of neighbourhoods have been studied, the settings ranging from slums to suburbs to high rise apartments, many of which have been analyzed from a variety of perspectives, ranging from design determinism perspective to social determinism perspective; and the degree of community spirit ranging from strong local attachment and neighbourliness to very limited ties and weak sense of belonging. Likewise, neighbourhoods differing along such variables as social class and ethnicity have been analyzed and compared. The result of this large amount of research cannot be simply assessed
in a few words, but it appears that it does not form an organized body of knowledge. Few attempts have been made to relate research findings either within or between disciplines.\(^2\) The situation has not only hindered the advancement of scientific knowledge about the neighbourhood but findings are almost useless for more practical purpose such as urban planning.

Traditionally, urban neighbourhood have been studied at a purely morphological level as Burgess\(^3\) and Hoyt\(^4\) did, and also within the framework of urban land use structure as the land economists have done.\(^5\) Of late, serious efforts have been made to suggest that there are important relationships between physical design and social behaviours. Researchers like Festinger, Schachter and Back, Whyte, Young and Willmott, Rainwater, Schorr, Yancey, and Lee have all suggested that social behaviour and thus community spirit could be shaped by the physical environment.\(^6\) However, there are also other researchers who hold that little or no relationship is found between neighbourhood design and social life. Among them are noted scholars such as Gans, Gutman, Broady, Mann, and Perraton.\(^7\) Confusion abounds partly because there is still no comprehensive framework within which research on different facets of the question can be co-ordinated and upon which meaningful planning implications could be yielded.

Meanwhile, the planner, charged with the responsibility for designing residential environments, combs through this vast amount of literature for insight into practical issues, often only to abandon it, finding traditional "standards" and the neighbourhood unit concept proposed by Clarence Perry a much more convenient and better
Guides for action.

Almost forty-eighty years have passed since the neighbourhood unit concept has been conceived, but it still remains a very influential blueprint for the design of residential areas up till today. One only needs to look at the various new towns and planned neighbourhoods all over the world, and, in a less encompassing manner, the many recently-built suburban areas. Moreover, the neighbourhood unit as a planning principle has become very much embodied in the ideas of many planners and influential architectural thinkers. Unable to find another planning "formula" with the Perry-type clarity, simplicity, and straightforwardness, and also being unable to derive any common threads of meaning from the diverse bodies of literature, many a planner has found that neighbourhood unit principle is at hand to fill the vacuum and readily welcome it with open arms. This old planning concept is currently enjoying a new popularity, especially as a part of the growing new towns movement in North America.

Objectives of the Study

In view of such widespread acceptance of this planning concept at home and abroad, the author of this study is prompted to ask the following questions: Is the neighbourhood unit accepted because it could be shown to be valid? Or is it simply because it was hoped that it would be so? Could it be simply blind faith on the part of the physical planners that adequate provision of physical amenities would foster the growth of community spirit among residents of each neighbourhood? Or is it based on persuasive evidence that it would be so? Is the assumption
that perceptibility of site characteristics could promote a sense of belonging simply an uncontested assertion of the conventional planning wisdom of the time? Or could it still be proven valid with respect to today's neighbourhood? Is the physical environment the only mechanism at work for sustaining community spirit? Or is community spirit a combined result of the influences of the physical environment, the social environment, and the subjective perception of the residents themselves as well? Should the single-variable design determinism model as being postulated in the neighbourhood unit concept be the only model in explaining the variation in community spirit? Or should we avail ourselves of a more complicated and integrated multi-variable model to guide our endeavours in understanding the relationships between environment and behaviour? If the neighbourhood unit concept is not the only model, can a more viable and integrated model be spelled out for explaining the growth of community spirit? These are the questions that we should be asking ourselves and be able to answer before we can reject or accept the neighbourhood unit concept with any degree of confidence.

These are also, precisely, the kinds of questions for which the present study is addressing itself. Apparently thus, there are not one but two closely related objectives in this research endeavour. First, it is the purpose of this study to examine the most important of all modern town planning theories, namely that which embodies the neighbourhood unit principle, and to assess its validity in terms of its design deterministic assumption—that physical planning could promote the growth of community spirit. The second objective is to
arrive at a more viable and integrated interdisciplinary theoretical model than the design determinism model of the neighbourhood unit concept in explaining the growth of community spirit.

Organization of the Study

In order to accomplish the first objective and to answer some of the questions posed above, the present study would subject the neighbourhood unit concept not only to a close scrutiny in terms of its principle, history, origin and its diffusion, but would also examine the various criticisms launched against the concept as well as the alternative theoretical postulates being advanced for explaining the growth of community spirit in urban neighbourhoods. As far as the second objective is concerned, this thesis will (1) glean from existing theories and models of the growth of community spirit those physical and social variables to formulate an integrated theoretical model and (2) subject these delineated variables to empirical verification to see the extent on which the growth of community spirit can be explained by the hypothesized integrated theoretical model.

It is hoped, therefore, by empirically verifying the integrated model hypothesized here, this thesis would not only shed light onto the question of the validity of neighbourhood unit concept for the promotion of community spirit, but would also provide neighbourhood planners a more viable and a more comprehensive model on which practice can be based. By trying to come to terms with the awkward duality of the social and physical dimensions of the neighbourhood, it is
believed that an integrated model thus developed would be able to address itself specifically to the challenge of resolving the classical controversy in the field of neighbourhood research, and would also have the potential of providing usable information for the planners.

However, although it is the intention of this study to resolve the stalemate that has developed around the controversial concept of neighbourhood unit, it does not claim to be an exhaustive survey of sociological studies nor to touch on all the relevant issues in this highly controversial field. It only hopes to inject a new theoretical perspective in neighbourhood planning theory in place of the neighbourhood unit theory so as to enable neighbourhood planners to penetrate further in their understanding and practice. To this end, the present study is divided into ten chapters. Chapter one examines the principle, the history and origin, and the diffusion of the neighbourhood unit concept in order to set the context for this study. Chapters two, three, four, and five present a review of some of the existing theories in explaining the growth of community spirit, and also try to summarize a range of sociological evidences for and against the design-deterministic neighbourhood unit concept. The aim of this review is to utilize them as a guideline for the delineation of the most plausible variables in explaining the growth of community spirit. Based on the above review, chapter six presents the integrated theoretical framework to be employed in this thesis. Chapter seven describes the empirical study undertaken to operationalize the hypothesized model, the findings of which are presented in chapter eight. Chapters nine
and ten discuss the implication and conclusions of the findings for the benefit of physical planners.

**Assumption of the Study**

Before turning to the substance of this thesis, we shall briefly consider the one fundamental underlying assumption of the present study, i.e. that modern urban men are still capable to develop a feeling of belonging to their neighbourhoods, and a sense of community spirit among themselves. Only if this assumption is accepted does it make any sense in proceeding with the discussion of searching the theoretical explanations in the growth of community spirit.

In the view of the author, this assumption is not at all unfounded. Man has never lived alone, and being a social creature basically, he is unable to live independently. As Charles Sanders Peirce puts it beautifully,

> The individual man, since his separate existence is manifested only by ignorance and error, so far as he is anything apart from his fellows, and from what he and they are to be, is only a negation.  

As such, community spirit has always existed, and will continue to do so. Jessie Bernard concurred on this point: "Unless everything we have learned so far about human relationship is dated ... communities will persist." It is true that recently there has been a great deal of discussion suggesting that the circumstances of modern societies seem totally inimical to a sense of community and that community spirit has been lost in today's urban neighbourhood. In the present discussion we shall not assume that these critics are right, we shall assume that local community spirit is far from being anachronistic; the present
investigation is a meaningful undertaking only if we have certain faith in modern urban man and accept this assumption.

For the purpose of this study, community spirit is then defined not only as a feeling of identity among people in the same neighbourhood but also refers to a sense of belonging, an attachment to the area around the home. Moreover, it may even relate to contacts among neighbours which may involve intimate or frequent contacts or simply being on friendly speaking terms with those living nearby. Thus, one cannot really say that community spirit is something that is unattainable in the face of metropolitanization. The major concern here is not whether community spirit can be attained, but, given that it can be achieved, what are the necessary preconditions and paths that would lead to its formation and growth.

In order to discover the various preconditions and paths that would lead to the growth of community spirit, we need to know not only the different preconditions for the growth of community spirit, but also the intricate links among these preconditioning factors. Perhaps E. M. Forster's famous motto - "Only Connect" - should also be the motto of the present search for an explanation of the formation and growth of community spirit. As Abraham Kaplan indicates in his now widely-read book, *The Conduct of Inquiry*,

In the present stage of our knowledge, human behaviour is often seen as the outcome of the joint working of a number of distinct and often unrelated factors...We need to know, not only the separated factors that are determinative of behaviour, but also how they interact with one another. [Thus] to arrive at a good theory may call for as much boldness as imagination.10
It is with these elements of boldness and imagination that we proceed with the present research.
PART I.  THE NEIGHBOURHOOD UNIT CONCEPT
CHAPTER 1

THE NEIGHBOURHOOD UNIT CONCEPT

The Concept

Almost from its inception, the neighbourhood unit concept has enjoyed wide currency. Not only has the concept become a *sine qua non* in town planning theory, but it may fairly be said to have shaped and directed town planning practice in many countries. Its theoretical acceptance is indicated by E. A. Powdrill in *Vocabulary of Land Planning*, who calls the neighbourhood unit a "fundamental concept of town and country planning". On a more practical level, the concept is broadly accepted by planners and planning authorities charged with the realization of theory in practical terms. The neighbourhood unit as a planning principle became very much embodied in the ideas of architectural thinkers such as Lewis Mumford, Clarence Stein, Frank Lloyd Wright, and Walter Gropius. The concept was applied as the central theme for the planning of a number of cities around the world such as the British New Towns, Vallingby in Sweden, Sabende in Guinea, Sputnik in Russia, Radburn and Reston in United States, Chandigarh in the Punjib, Brasilia in Latin America, Sasolburg in South Africa, Elizabeth in Australia, and Kitimat in Canada. As a matter of fact, the impact of the neighbourhood as a planning concept goes much beyond only these new cities. It can be seen quite clearly, although in a less encompassing manner, in many recently built suburban areas. Little wonder thus, Gilbert Herbert has gone so far to comment that,
Whether in advanced economy or under-developed country, in the Capital west or the Communist east, the neighbourhood unit concept constitutes orthodoxy which apparently spans the gulf between widely divergent situations.  

The reason for the widespread acceptance of the concept is probably owing to the fact that it appealed to diverse groups and individuals including the adherents of the Garden City Movement, social workers coping with settlement house work in slums and immigrant districts, traffic experts, large-scale real estate developers seeking to protect their investments, architects and engineers favouring its economy of design and construction, and moralists and poets at war with what Mumford has called the "devitalized mechanisms, desocialized organisms, and depersonalized societies." In particular, the neighbourhood unit was seen as a means to end the drab monotony of uncontrolled mass housing by breaking up these large areas of architectural and social homogeneity.

The main functions of the neighbourhood unit are to be as follows:

(1) Introduce a principle of physical order into the chaotic, fragmented urban aggregate.

(2) Reintroduce local, face-to-face types of contacts into the anonymous urban society, thereby helping to regain some sense of community.

(3) Encourage the formation of local loyalties and attachments and thereby offset the impact of social and residential mobility.

(4) Stimulate feelings of identity, security, stability and
rootedness in an environment which threatens such feelings.

(5) Provide a local training ground for the development of larger loyalties to city and nation.

From the start, therefore, the neighbourhood unit was both a social and planning concept. What is aimed at is a social unit of sufficient size to support (from the point of view of use and social cost, rather than mere profit and loss calculation) a varied range of communal facilities, and to provide for what is called a satisfactory balance of income group among the residents. The unit is to be small enough to bring the communal establishments within easy reach of the groups of houses, and to have its own character and a well-balanced community life. Thus, the main function of such a unit is to supply the immediate needs of its inhabitants by the convenient location of its components both in relation to the areas of housing, and to its surrounds. The idea is to organize the physical form of a town so as to encourage the full development of community life.

The classic formulation of the neighbourhood unit concept is, of course, that of Clarence Perry, who, accepting the sociological premise of the need for primary social contacts within a prescribed geographical area, defines the neighbourhood unit in terms of its planning characteristics. Perry defined what he meant by neighbourhood as "that area which embraces all the public facilities and conditions required by the average family for its comfort and proper development within the vicinity of its dwellings." These facilities Perry delineates as an elementary school, retail stores and public
recreation facilities. The conditions "which the family most consciously seeks" are open and street safety. Perry saw the value to be derived from such a deliberately planned neighbourhood, in which amenities and layout would combine to give a definite feeling of locality. As he once commented,

When residents are brought together through the use of common recreational facilities they come to know one another better and friendly relations ensue. Existing developments with neighbourhood unit features have consistently produced face-to-face social conditions.10

In order to create such a neighbourhood, Perry has in fact stated six planning principles and standards in terms of definite objectives. The first full statement of these principles appeared in the Regional Survey of New York.11 Perry gave the title of neighbourhood unit to "the scheme of arrangement for a family life" and defined this as being based on the following principles: (see figure 1)

(1) Size, in relation to the population required to maintain one primary school. Perry claimed that, on the average, in American cities about one sixth of the population would be of elementary school age and this gives a neighbourhood population of between 6,000 and 9,600. Perry in fact suggests a range of between 3,000 to 10,000 in order to give latitude to the educational service.

(2) Boundaries, which should define, separate and articulate the neighbourhood within the body of the town. Perry believed that such boundary would best be in the form of arterial streets which could serve the dual function of enabling traffic to by-pass the centre of the neighbourhood and to serve the psychological function
Figure 1
The Neighbourhood Unit — Clarence Perry

of allowing residents and strangers alike to "visualize it as a distinct entity."

(3) Open space and a system of small parks which would provide for recreational needs. Perry suggested around 10 per cent of the neighbourhood space should be used for this purpose. The major social objective of this is to provide play space for the "children and youths" of the apartment-house districts.

(4) Institutional buildings providing educational and social services to the neighbourhood should be grouped at the center. Perry even suggested that the school, the community center, the library, and the church should be grouped together in the center which could serve as the focal point for local celebration.

(5) Local shops should be laid out on the periphery of the unit. The shops would thus be aligned with the "portals" of the neighbourhood. They would receive their supplies from vehicles using the arterial road system and the shops themselves would not defile the high residential quality of the neighbourhood.

(6) An internal street system which should be proportional to their traffic load. They should discourage through traffic but facilitate internal circulation.

In view of these principles, Perry's proposal is indeed clear, simple and straightforward, and perhaps it is these very qualities of his proposals which have made the concept of the neighbourhood unit such an influential one. The Perry-type simplicity is all the more apparent in the underlying assumptions on which the neighbourhood unit is based. One of the basic assumptions of the neighbour-
hood unit philosophy is that it is of course possible to create "community neighbourhood" through physical design. It is assumed that the fulfilment of the neighbourhood unit principles would enable the neighbourhood unit to stand out geographically as a distinct entity, and the residents would have an affection for it. To quote Perry,

When it has complete equipment for the vicinity needs of its families; when the public services are nicely adapted to population requirements and all its component parts are integrated by a comprehensive plan -- then you have a neighbourhood community that is bound to be marked because of the esteem in which it is held by its residents.¹²

The neighbourhood unit concept also rests upon other basic assumptions: that there is an optimum size for a community; that the community is geographically based; that it is identified with the area in which its residences are located and, consequently, it is important to maintain the identity of the community, by making it introspective, locally self-contained, and especially by the clear expression of its boundaries; that the city is a federation of neighbourhood units together with specialized units such as industrial areas and the town centre; and finally, that the social integration of the inhabitants of these areas will be facilitated by "physically delineated units, each with certain amenities, such as schools, shops, and other services appropriate to their size and population".¹³

Such are the principles and the basic assumption of the neighbourhood unit concept. But, are these assumptions soundly based upon fact, or are they derived from speculation, stimulated by intuition, and nourished by sentiment? These are the questions that one should ask.
Before jumping into any wholehearted commitment or condemnation of the concept. Indeed, the idea that because people will use common recreational facilities (if they do indeed?) then they will get to know each other and friendly relations will ensue, is a point for debate. The concept basically appears to assume that physical planning produces an integrated community life, which may or may not be true, and is rather a hypothesis to be tested than a proven fact. This is precisely the kind of question that the present research is addressing itself to.

Before doing so, we must necessarily subject the neighbourhood unit concept in its original, classic form to a closer scrutiny, we must necessarily touch upon the origins and developments of the theory, so that we may extract from them the principal attributes of the neighbourhood unit idea. It is not the author's intention here to expand in too great a detail upon the genesis of the idea historically, for its antecedents have been documented fairly comprehensively by Perry himself,14 by Lewis Mumford,15 and by James Dahir.16 It is important, however, for this thesis to be able to separate out the various components of the neighbourhood unit idea, therefore, it would be profitable for this research to at least try to re-examine and classify the various lines of thought which has culminated in the neighbourhood unit concept.

Origins and History

The neighbourhood unit has diverse origin.17 Although Clarence Perry gave to the concept its definitive form, it should not be re-
garded as the product of one mind. The neighbourhood unit concept is the end product of several streams of thought, which having their sources in widely divergent strands of practical and theoretical works, ultimately converge in one broad concept. As G. Herbert puts it succinctly,

(Perry's) definition is not a statement of single principle but a catalogue of desiderata for physical, social and educational planning. As such it should be regarded as a unique synthesis: and Perry's claim to fame rest upon this attribute, much as Howard's does in relation to the Garden City.18

Indeed, the idea of some unit of residential area, some theory of organized growth of settlements is by no means new. As James V. Cunningham asserts, "The history of urban neighbourhoods is a long one. The contemporary neighbourhood is more than a survival from rural and small town America. In part, its roots go back to the cities of Europe, and to the Mediterranean world of antiquity."19 In a sense neighbourhoods have always been present in cities beginning, as Mumford points out, in the various 'quarters' of the medieval city.20 One might trace the germ of the concept as far back as to such medieval era and to writing as early as Thomas More's Utopia21 and others. But this would be little more than an academic exercise; for all practical purpose, the neighbourhood unit, as a planning concept, emanates from different strands of theoretical and practical work undertaken as early as the nineteenth century.

The political and social theorists of the nineteenth century, who reacted to the onslaught of industrialism, frequently sought to
express and achieve their alternative forms of social and industrial organization in what we might call "planning units" or "community neighbourhoods". Thus, as early as 1816, Robert Owen suggested co-operative communities which were to combat the evils of post-war unemployment by combining small-scale factories with agricultural pursuits, and which were to contain 1,200 people, with a high standard of community provision. The origins of the self-supporting community neighbourhood may also be traced to writings of Buckingham, Henry George, and may be even to that of Fourier, who in 1822 produced his idea of a complete and standard dwelling unit, the association of about 1,800 people in "Phalansteries", living a communal life in one settlement, holding about ten square miles, and being able to reduce costs of distribution to a minimum in their dealings with the rest of society and other similar community neighbourhoods.

Meanwhile, that aspect of the neighbourhood unit theory concerned with the provision of community buildings was developing. In 1885, in Toynbee Hall, London, the Settlement House movement began and was later adapted by Jane Addams in The U.S.A. as the Neighbourhood House; Patrick Ruskin aided the work of Octavia Hill in the slums of London, where she began a "community center" in Southwark, and attempted to carry out ideas which resemble current theory on housing management. Similarly in 1907, Edward J. Ward in Rochester, attempted to establish a school as a neighbourhood center. He believed that in this way a great community interest could be created and kept up.
The Garden City Movement represented another influence on the neighbourhood unit idea. It was the culmination of a number of suggestions and experiments which, during the nineteenth century, attempted to eradicate the tragic ugliness of human life "barricaded evenmore within the walls of cities."\(^{26}\) These experiments were basically schemes to the housing and moral standards of the working classes. But it was Ebenezer Howard who first evolved the principles of design in which the antecedents of the neighbourhood unit were to be found. Howard's *Tomorrow: A Peaceful Path to Real Reform* in 1898 pointed to the need for local facilities for community life which is one of the bases of current neighbourhood unit theory. Howard gave a remarkably precise description of Garden City (see Figure 2). Circular in shape, his ideal town for 30,000 inhabitants was to be divided into six 'wards' each of which was to contain open space, a school, a church and shops, and the boundaries of each ward were to be the major radial roads of the town. This plan anticipates some of the important ingredients of the neighbourhood unit -- the central open space around the school; the segregation of residential and commercial land uses; the principle of easy access to facilities from all parts of the residential area, while at the same time "reducing the traffic on the roads of the town", and giving attention to "varied architecture and design which the houses and group of houses display."\(^{27}\) In all these aspects, it parallels the later suggestions of the neighbourhood unit concept. English admirers of Howard have noted and commented upon this similarity.\(^{28}\)

Same can be said as to the influence of the work of some British
Figure 2

The Garden City Concept—Ebenezer Howard

philanthropists such as the Barnetts in the East End of London. In their works, one may trace the origins of the idea of a socially balanced neighbourhood. Their utopian ideas helped to inspire the development of Hampstead Garden Suburb where they hoped people "of all classes of society, of all sorts of opinion, and all standards of means, can live in helpful neighbourliness". The influence of such utopian thinking was so persuasive that practical planners such as Raymond Unwin and Barry Parker were undoubtedly inspired by such philosophy in their designs of Hampstead Garden Suburb, and later of Letchworth, both of which have tremendous influence on the conception of the neighbourhood unit idea.

The influence on the development of the neighbourhood unit was not confined to the practical level only. On a more theoretical level the work of the sociologists emphasized the significance of the primary community and the natural human tendency for relationships to have a territorial expression in the form of neighbourhoods. The study of "local community life" with which the neighbourhood unit concept was concerned, was in fact a primary area of investigation of social scientists such as Charles Horton Cooley, Park and Burgess, Woods and Ward. They were concerned with the weakening of social bonds in the rapidly-expanding cities, with the substitution of indirect for direct social relations, and the development of what Emile Durkheim called an "anomic society." According to Cooley, the formative factor in the development of human personality was primary, face-to-face association such as was
to be found in "the family, the play group of children, and the
neighbourhood or community of elders". The role of this group
was to make the individual aware of the standards of behaviour that
were acceptable to the society. The neighbourhood unit concept was
very much influenced by Cooley's theory of the importance of the
primary group. One of the concept's underlying assumption is that
the present pattern of urban growth was destroying these important
primary group relationships, and that, through the form and struc-
ture of the neighbourhood unit, it will be possible to "discover the
physical basis for that kind of face-to-face association which char-
acterized the old village community, and which the large city finds
it so difficult to recreate." What it is trying to achieve, and
what is essential in every interpretation, is the kind of whole
society envisaged by Cooley, where individualities are merged by
fusion within the group, by a process which "involves the sort of
sympathy and mutual identification for which 'we' (as a term) is the
natural expression."}

Now there is little doubt that Cooley is the acknowledged
forerunner of the neighbourhood unit theory and that the same things
can be said as to the influence of Park, Woods and Ward. As G.
Herbert has documented, the neighbourhood unit concept and Park
"were associated at least as early as 1923" and that the concept's
"concordance with the hierarchical theories of Woods and Ward was
complete." Also as early as 1913, J. H. Ward has already proposed
the multiple use of the schoolhouse as a social centre. Ward saw
the relationship of school to the neighbourhood as reciprocal: the
school as social centre was to benefit the community while the
social centre enhanced the school as a place of education. In
view of this background, it is not surprising that the neighbour-
hood unit concept is school-centred, and fixed its population in
terms of that required for a primary school. Thus, it is indeed
fair to regard Cooley, Park, Woods and Ward as setting the socio-
logical framework within which the neighbourhood unit concept took
shape.

Indeed, from these various strands of theoretical and practi-
cal works, there emerged some of the distinctive elements of neigh-
bourhood planning theory. This definitive statement of neighbour-
hood planning principles by Clarence Perry was made in the 1920s.
The work of these mentioned sociologists focussed Perry's attention
upon the nature of the social problem in the creation of neighbour-
hoods; the lines of a possible planning solution to the problem
were suggested in the ready-to-hand example of the New York garden
suburb, Forest Hills Gardens. These projects, which reflected the
philosophy of Ebenezer Howard and the Garden City Movement, was
acknowledged by Perry as a seminal influence on his thinking.

When Perry came to examine Forest Hills Gardens, in his search for
an appropriate physical form for the neighbourhood concept, he
found that it embodied many desirable characteristics -- its "ar-
chitectural harmony, its planned community facilities, small inter-
spersed neighbourhood parks, and the specialized character of most
of its streets". There is no question that Perry was very much
impressed by these actual projects, and being further influenced
by the works of the sociologists, he finally went ahead and developed the six cardinal points of his now famous neighbourhood unit concept.

The Diffusion of the Concept

The neighbourhood unit concept diffused slowly at first and was largely confined to the U.S.A. and Great Britain. The American endorsement of the principle has been thoroughly documented, and its advocates range from pioneer Clarence Stein, Henry Wright to the American Public Health Association which accepts "the neighbourhood as a basis for environmental standards". In Great Britain, the neighbourhood unit principle is enshrined in official planning policy statements, and constitutes the town planning theory upon which most of the New Town plans have been postulated.

However, the acceptance of the neighbourhood unit concept was by no means immediate either in America or Europe. The design for Radburn by Clarence Stein, adopted Perry's idea very fully; the town was to consist of three neighbourhoods of 7,500 to 10,000 each within a radius of half a mile centered on elementary schools and playgrounds; through-traffic was to be canalized on the main roads of the town and shopping centers were to be placed on those roads; the building blocks were opened up by the intelligent use of the cul-de-sac, and contained interior parks for local residents, well related to a school, playground, and swimming pool. (see Figure 3, Figure 4). It was only since then that support for the neighbourhood unit scheme grew steadily in the United States up to the outbreak of the war.
Figure 3

The Neighbourhood Unit -- Clarence Stein

Figure 4

The Radburn Layout -- Clarence Stein

Powerful advocates of the neighbourhood unit concept were found in Lewis Mumford, Walter Gropius, and Frank Lloyd Wright. The story of such a remarkable success of the concept has been concisely summarized by P. Collison,

"Stemming from a number of sources and given definite expression by Perry in 1929, the idea had, by 1947, attracted widespread and favourable attention and was employed in countries as diverse as Poland and Algeria, and the USSR and Canada, as well as in the U.S.A., the country of its origin. The acceptance of the principle was not only extensive, but complete in that there appeared to be no sustained or emphatic opposition to it."45

In 1948, it was still possible for Catherine Bauer to write: "The neighbourhood idea rests on a solid base. Hardly any other concrete modern proposal, perhaps, has developed from such a variety of trends and circumstances, been blessed by so many kinds of experts, or arrived at such universal acceptance."46

In Britain a parallel movement had been taken place, the first evidence of which is to be found at the Wythenshawe.47 Discussions of the neighbourhood principle achieved widespread acceptance in Britain in the 1930's. Sir Raymond Unwin, to the end of his life, looked to the neighbourhood idea as a means of giving coherence to urban design is shown by his remarks in 1938: "(The Town Planning Institute) had to think more of the grouping of the population in neighbourhoods where they could have some social intercourse, and where people of different classes could mix together: and they should avoid by segregations of one class in one district and one in another".48
Complete recognition of the idea was given in the Dudley Report of 1944 and the final seal of official approval was given in the opening paragraphs of the *Housing Manual 1944*: A "target" population of 5,000 to 10,000 was recommended. Each neighbourhood would be 'self-contained' providing in addition to schools a number of local services such as churches, a library, a public house, a clinic, and shops at the neighbourhood 'centre'. Monotony in the layout would be avoided through a varied street pattern and open spaces would be scattered throughout. The Report also suggested that social balance could be achieved through neighbourhood planning. "... Each neighbourhood should be 'socially balanced', inhabited by families belonging to different ranges of income groups ... The way to success would lie... in so arranging the dwellings within the neighbourhood plan..." In fact, application of these principles was further encouraged in three other influential planning documents: County of London Plan (1943); The Greater London Plan (1944); and The New Towns Commission Final Report (1946). They all emphasized the need for physically defined neighbourhood units in order to inculcate a sense of community. Indeed, for some years the popularity of the neighbourhood unit planning continued unabated, and as late as 1948 Thomas Sharp considered that the conception of organizing a town on the basis of a structure of neighbourhoods was "perhaps the most important single conception that has been developed since towns began to be deliberately planned."51

By the early 1950s, the neighbourhood plan had achieved widespread acceptance. The neighbourhood planning unit was widely ac-
cepted by planners both here and abroad. Almost every major book on city planning which was published before 1960 devoted several chapters to this concept. Forty-eight years have passed since the neighbourhood unit concept have been conceived, it still remains very much alive in the minds of many a planners and is in fact still a very influential factor in the design of residential areas and new towns. In the United States, Perry's scheme was applied to a number of developments. As of December, 1971 HUD had selected six communities for loan guarantees. Of these six, all but two are based upon a neighbourhood unit design concept. In Britain, the neighbourhood planning unit, perhaps only with slight modifications, formed the basis for the planning of a number of the early British new towns.

Whereas here in Canada, the neighbourhood concept is currently enjoying a new popularity, especially as a part of the growing new towns movement and the neighbourhood improvement movement.

It is true that the neighbourhood plan as it was applied in those post-war years differed somewhat from Perry's model, the differences are fairly minor, and the few basic components of the concept (the elementary school, open space, convenient shopping, community centre, safe roads, etc.) are still very much emphasized in all of these plans. (See Figure 5). In fact, Collison has discovered that four-fifths of the planning authorities in England and Wales did employ the concept to some extent and that a third of the county borough authorities adopted it in every development scheme. The influence of the concept on the North American planners is equally impressive. In describing the North American scene, Gerald D.
Figure 5

Today's Typical Neighbourhood Design in North America.

Source: Principles of Small House Grouping, Central Mortgage and Housing Corp., Ottawa, Canada.
Suttles has this to say:

The model described by Perry seems to have had a profound and widespread effect on planning commissions, zoning boards, and those who sought to bring together the traditions of physical and social planning... Perry's critics pay him the tribute of saying that his model became an accepted doctrine for city planners; it is doubtful that any subsequent thinker on the problem of community design has had such widespread social acceptance.55

In view of such a persuasive influence of the concept on planning, it is difficult not to share the perhaps slightly cynical view of C. B. Purdom: "One receives the impression that the idea of the neighbourhood unit was a godsend, for it enabled the planners to work on a constructive principle and one wonders what they would have done without it."56

However, should this widespread acceptance of the concept at home and abroad lead one to a wholehearted commitment to the neighbourhood unit concept? Perhaps caution should be exercised before jumping into any conclusion about the social validity of the concept. After all, as Jean Perraton points out, there is a general lack of conclusive evidence in support or against the neighbourhood unit theory.57 Even Anthony Goss, who was convinced that the neighbourhood units represented a "qualitative advance over most post-war housing estates", was unsure of the social values of the units because of the "general lack of information about how communities work."58 It could simply be blind faith, on the part of the planners, to assert that physical design and layout could attain certain social objectives, and that sense of belonging would be promoted by social
balance and by the physical plan of the neighbourhood. This belief in the social determinism of physical planning rests largely upon the unproven assertions and uncontested assumptions of the conventional planning wisdom of the time. As Waldorf remarks, "(Perry's) assumption that close intimate relationships would develop was just that, an assumption." Indeed, in a careful review of the evidence in favour and against the Perry-type ideology, J. Perraton concludes, "the research available tends to confirm doubts about the effectiveness of certain planning policies aimed at promoting local attachment, neighbourliness and community activity."  

In light of these doubts, and in view of the potential scope of applying the concept into practice, we must necessarily subject the neighbourhood unit to a closer scrutiny and to a more vigorous analysis before accepting or rejecting it as a sound planning principle in promoting the growth of community spirit. Such an analysis is deemed necessary, for unless the neighbourhood unit theory is given a fair trial, inadequate analysis would only hinder sound thinking about design problem. The necessity of such a scrutiny has been clearly pointed out by John Slidell in 1972, "I feel that the functioning of the neighbourhood concept to date must be examined closely because many of the new towns now being proposed are adopting this principle in one form or another."  

With this in mind, it is felt to be necessary to investigate the extent to which the neighbourhood unit theory could be relied upon as a sound planning concept for the promotion of the growth of community spirit. It is believed by the author that the development of commun-
nity spirit as was postulated by the neighbourhood unit theory is far too simplistic a view. It is hypothesized here, therefore, that the growth of community spirit is far more complex a phenomenon than it has been conceptualized by the neighbourhood unit concept, and that a more comprehensive theoretical model should be developed to arrive at a better understanding of the phenomenon. In order to arrive at such a comprehensive multi-variable theoretical model, it is necessary to review and examine critically not only the neighbourhood unit concept itself but also some other neighbourhood theories which have dealt with, in one way or another, the intricate phenomenon of the growth of community spirit. Such is the task being undertaken by the second part of this thesis.
PART II

REVIEW OF EXISTING THEORIES

OF THE GROWTH OF COMMUNITY SPIRIT
Introductory Statement

It has been shown from the above that despite the fact that neighbourhood unit concept has proved very popular amongst many a planner, it still remains, a relatively simple idea. Its assertions rest largely upon uncontested assumptions. Having in mind that growth of community spirit is far more complex a phenomenon than it has been conceptualized by the neighbourhood unit theory, the following four chapters attempt to review the existing theories of the growth of community spirit, namely, the Theory of Design Determinism, the Theory of Social Homogeneity, the Theory of Community Eclipse, and the Theory of Social Space. It is hoped that in undertaking such a review would enable one to arrive at a more comprehensive theoretical model in explaining the growth of community spirit. The purpose of the following review, therefore, is threefold. It is, first, to examine the arguments in support and against the neighbourhood unit concept as a causative factor to the growth of community spirit; secondly, to evaluate the extent to which criticisms of the concept can be relied upon as possible alternative theories; and thirdly and most important, to utilize these alternative theories or perspectives as guidelines for the development of a more viable theoretical model in explaining the growth of community spirit. Such an approach is believed to be the most appropriate for it allows us not only to evaluate the validity of the neighbourhood unit concept in the promotion of community spirit, but also serve the purpose of paving the way for the development of a more comprehensive and integrated model in explaining the growth of community spirit in today's urban neighbourhoods.
CHAPTER II

The Theory of Design Determinism

Introduction

The theory of design determinism in the urban setting ranges from a consideration of the effect of overcrowding and high density on humans and other animals\(^1\) to the influence of the physical milieu on the formation of attitudes.\(^2\) According to this theory, social interaction, and thus community spirit, is closely influenced in both degree and direction by the physical environment. It is based on the familiar premise that "we shape our environment, then it shapes us." This theory, as Broady succinctly points out, "asserts that architectural design has a direct and determinate effect on the way people behave. It implies a one-way process in which the physical environment is the independent, and human behaviour the dependent variable. It suggests that those human beings for whom architects and planners create their designs are simply moulded by the environment which is provided for them."\(^3\) In short, the design determinism theory contends that the social behaviour of building users is influenced and even determined by the physical environment in which the behaviour occurs.

With respect to the growth of community spirit, this theory postulates that the neighbourhood site plan, and the way in which amenities are allocated within it, would foster a sense of belonging and community spirit among the residents of each neighbourhood. Robert Gutman's short review of site planning and social behaviour notes that the dominant research direction has been conceived of as the influence
the site plans exert through their regulation of the communication process. The site plan blocks off certain avenues of contact between persons, while others are open, even emphasized. The influence of barriers or open paths in specific places influences the probability of contact, which would lead to communication.

**Empirical Studies**

William Michelson has summarized a number of classic studies on the relationship between acquaintanceship and propinquity in a variety of settings ranging from student dormitory to a suburban cul-de-sac. In most cases, the vital factor affecting social interaction between occupants of nearby dwelling units was often found to be the functional distance between units, the positioning of doors and windows, the siting of houses, their ecological location at a corner or in a central place, and shared use of facilities (for example, stairways, footpaths, lobbies, or bus stops). There is, for example, an inverse relation between the distance separating potential marriage partners and the number of marriages. Kennedy in a paper entitled *Premarital Residential Propinquity* showed that for New Haven, 76% of the marriages were contracted between people who lived within twenty blocks of each other and 35 per cent were between people living within five blocks.

The role of propinquity in the promotion of social relations has also been stressed by William H. Whyte, Jr. in his book, *The Organization Man*. There he illustrates how location in a particular position of the site plan may determine who is likely to get together with whom.
and the clique to which one belongs. (See Figures 6 and 7). People living on corners, he asserts, are much more likely to be isolated from other people than are those who live in the middle of blocks. The initial physical factors that produced the friendship patterns noted by Whyte are such things as the placement of a stoop or the direction of a street, the placement of play areas selected by children, adjacent driveways or adjoining lawns. Once formed, the social patterns may persist in spite of a constant turnover of residents. Thus, Whyte found that each court tended to produce its own pattern of behaviour, and "whether newcomers become civic leaders or bridge fans or churchgoers will be determined to a large extent by the gang to which chance has now joined them." 

The persistence of particular behaviour patterns in specific settings has led Whyte to some overwhelmingly deterministic conclusions. As he states that "in suburb friendship has become almost predictable," and,

> Given a few physical clues about the area, you can come close to determining what could be called its flow of 'social traffic,' and once you have determined this you may come up with an unsettlingly accurate diagnosis of who is in the gang and who isn't. 

The city planner, according to Whyte's conception of determinism, therefore, has the power to determine the nature of intensity of people's social lives, or the problems they face from resisting the ascribed intensity.

Other investigations have been equally convincing. For example, an investigation carried out by Caplow and Forman in 1950. Caplow
Figure 6
How Homeowners Get Together

Figure 7
What Makes A Court Clique

and Forman chose a student housing project (University Villages) consisting of fifty married couples with children. (See Figure 8). They found that friendship followed along the lines dictated by the orientation of the front doors. Everyone sharing a given sidewalk was extremely likely to know everyone else whose front door looked out on that same sidewalk. Such observation has led Caplow and Forman to conclude: "Interaction rises to an extremely high level and organizes itself with almost molecular simplicity in terms of the spatial pattern of the community."12

Another major assertion of environmental design determinism was Leo Kuper's survey of post-war housing outside Coventry in England.13 Kuper studied semi-detached housing built along a standardized plan. Each two attached houses were oriented to each other as illustrated in Figure 9. It was found in this study that people had the most frequent and intense relations with their side neighbours, not their party neighbours even though the party neighbours were physically closer.14 The functional link that brought this about was the placement of doors which brought people together all on their own "turf," where they could talk, wave to each other, and eventually initiate more complicated forms of social relationships. Kuper also points out in this study that residents of a cul-de-sac were generally less satisfied with their housing than were those who lived in a longer straight line on the side of an external roadway. (See Figure 10). He attributes this difference to the lack of privacy which residents of a cul-de-sac undergo as a function of the placement of their windows and doors. Very simply, then, as Kuper has proved, the placement of
Figure 8
University Village: Plan of a Sample Block

Figure 9

Ground Floor Plan, Adjacent Houses, Coventry, England.

Figure 10

General Site Plan of Braydon Road Residential Unit, Coventry, England.

doors and windows do have an influence on people's social relation.

The classic study, however, is that of Festinger, Schachter and Back in 1950, carried out in an exserviceman's housing project at the M.I.T. This was a homogeneous community, in the sense that all the residents had similar experiences from the past and ambitions for the future. They had also been allocated to their houses by random selection instead of choosing to live near their friends or income groups, so that the project was an ideal natural laboratory for studying the effects of the spatial distribution of housing upon behaviour. There were two types of building layout. (See Figure 11). One of these, called Westgate, was a cul-de-sac court containing about a dozen small pre-fab houses in a grouped arrangement. The other type, called Westgate West, was a two-storey block, converted from naval barracks, each one containing five flats on each floor. (See Figure 12). When the residents were asked to specify for whom, in the entire project, they had most sociable interaction -- the majority of friendships were found to have been formed within the same block or court. But what is more, in Westgate West, the position of the staircases which connected the two floors influenced the traffic flow, as did also the position of the mail boxes. These two factors had appreciable effects on the social patterns that developed. Similarly, in the pre-fab courts of Westgate, there were two houses at the end of the U which faced, not into the courtyard, but outwards on to the service road. Inevitably, there was less passive contact between the residents in these end houses and the others, and they became socially far more isolated, although in units of physical distance they were very close indeed.16
Figure 11

Site Plan of Westgate and Westgate West

Figure 12

Schematic Diagram of a Westgate West Building

The Theory

We have thus seen that there have been a number of strong statements, backed by painstaking and at times ingenious research, which support the theory of design determinism. True indeed, the aforementioned research do provide the empirical basis of what Broady was to call "architectural determinism", and what Mercer later called "architecture/planning determinism" and "design determinism". In fact, this theory has been explicitly expressed in one of these empirical studies as follows:

The architect who builds a house or who designs a site plan, who decides where the roads will and will not go, and who decides which directions the houses will face and how close together they will be, also is, to a large extent deciding the pattern of social life among the people who will live in those houses.

The findings that accidental contact which is facilitated by physical closeness is an important determinant of what friendships develop and what social groups form is seemingly relevant to a large number of problem areas. Wherever the physical inter-relationships among people are subject to change, either by planning or by accident, we may expect changes in social patterns of interaction to occur. Work groups in industry, the geography of the suburb of a city, the allocation of people in a new housing project or new community, the distribution of facilities in a military establishment, all will have their effect on the formation of informal grouping among the people concerned.

On the basis of such findings and conclusion, the theory of design determinism was readily and widely accepted by planners and architects. They have regarded these findings from social scientists not only as proofs of design determinism but also as a reinforcement of
their belief. Dealing inter alia with the phenomena of clique formation, neighbourliness, and social interaction in which "the layout was the major factor determining (social) groupings", Noble draws on, among other, W. H. Whyte's studies.21 Similarly, Gedde, Dean of the School of Architecture at Princeton, draws on psychological studies to prove that "the layout... [has] direct bearing on the formation and maintenance of informal social groups".22

In terms of neighbourhood design, the widespread influence of the theory has led many a planner to believe he can maximize human interaction with a particular site plan, street layout or building arrangement. These planners believe that 'sense of belonging' and 'community spirit' in urban neighbourhood can be promoted by subscribing to neighbourhood unit theory which is indeed "the classic case of architectural determinism":23 (i) by planning on a 'human scale'; (ii) by arranging residential areas to form clearly defined 'entities'; (iii) by designing layouts to encourage neighbourly contacts; and (iv) by providing community buildings and other local amenities.

These planners who subscribe to such a design deterministic neighbourhood unit theory do believe that an ideal neighbourhood should have a set population which should be of such a size that one elementary school is required. In adherence to the theory, the figure of 3,000 to 10,000 as a suitable number of people for a neighbourhood was adopted in many plans: the County of London Plan in Britain, the 'micro-district' plan in U.S.S.R. and the replanning scheme in South Africa.24 This postulates on neighbourhood size implies an assumption
that neighbourhood of such a scale would foster a healthy social environment, with local attachment, intense neighbourliness and strong community spirit.

Closely related to the question of size is the theoretical postulate that by clear demarcation of the residential area one can produce an entity to which the inhabitants will feel they belong, and which will encourage contacts between them. This aspect of the theory was in fact put into practice, particularly in British New Towns, in Australian examples such as the Elizabeth, South Australia, and in South African New Towns such as Vanderbijlpark and Sasolburg, where green strips and wedges were introduced to accentuate the social and visual barrier of individual neighbourhood.\(^\text{25}\) It is believed that living in such an entity will encourage people to take part in local affairs and activities. Such an area may even be given a degree of unity in architectural design on the assumption that this will also help to create feelings of social unity.

The design deterministic neighbourhood unit concept has also claimed that layouts with small intimate groupings of houses would encourage and even create feelings of belonging and friendly contacts between neighbours. It also claims that sense of belonging and neighbourliness are more likely to develop in Radburn or path-access layouts, free from the disruptive effects of motor traffic. As E. T. Rashleigh points out, referring to areas in Canada such as the district in Edmonton which once was the municipality of Strathcona, the old centre of Sandwich in Windsor, the Rockcliffe Village in Ottawa, Wildwood in Win-
nipeg, and Walker Ville in Windsor,

This sense of community is not simply a product of age; a study of these communities reveals that physical layout, though often natural and unintentional growth over the years, is responsible to a considerable extent. If, therefore, one observes that few recently built districts possess a sense of community, it implies a criticism of their design.26

Several other studies have shown that detailed siting factors do influence patterns of neighbourly contacts. A study by Ritter, for example, found that the number of contacts was significantly higher among families living in path-access houses than those living in road-access houses.27

Finally, also according to this design determinism theory, generous provision of community facilities for local community activities is advocated not only as desirable in itself because of its obvious economic advantages, but also because of the belief that it would help to promote sense of belonging, social integration and community spirit. It has "the advantage of bringing people in the community together at a central point and encourages their social identity."28 Speaking from a design determinism perspective, Rashleigh points out to us the importance of neighbourhood centre, comprising schools, shops, churches and community clubs for the fostering of community spirit,

Even more important than a clear-cut boundary is the centre about which the neighbourhood clusters. It is a point of identification for the neighbourhood; one of the few places where all the residents come together; the place where the local community comes to a head. Most community centres in Canada have grown naturally, along a main road and usually at an intersection, but the more successful ones, from a planning viewpoint, are much more than a line of stores. From these it can be generalized that a
good community centre is not just a retail centre, but the place where most of the institutions serving the community are concentrated, and therefore the main centre of local community activity.  

Here the idea of promoting social integration within a functional neighbourhood in order to develop a sense of community is evident.

**Summary**

In summary, the design determinism theory regarding neighbourhood planning has proposed a city whose residential areas are human in scale, healthy, with adequate provisions of community facilities and open space; safe, with the elimination of dangerous through traffic; locally self-contained, with shops and schools; and identifiable, through the definition of precise boundaries and the presence of perceptible urban images. From this general point of view, the theory cannot be faulted. However, these aspects of the neighbourhood unit theory by themselves are not the major reasons why the theory was being criticized. What makes one to criticize and cast doubt on the validity of the theory is in fact the dubious design determinism aspect grafted onto it, i.e. the simple idea that a good physical environment will necessarily produce good social effects such as neighbourliness, sense of belonging, and community spirit. This theory of design determinism might simply have overstated the importance of physical design for facilitating an integrated community life. It is perhaps not for us to contest the theory here by adjudicating upon the value of such an integrated community life, but rather to question, if such an integrated community life be the objective, whether the form and function of the neighbourhood unit be the most effective by which to realize it.
Criticism

Not surprisingly perhaps, there are social scientist who are sceptical, if not incredulous, about the varying uncontested assumptions and unproven assertions which the theory of design determinism has made. The neighbourhood unit thesis seems to have generated its own antithesis soon after it was applied. It was argued that the clear physical definition of neighbourhoods, even together with the provision of amenities such as community centres and churches, was unlikely to develop feeling of responsibility for, and belonging to, the neighbourhood as such. The neighbourhood unit theory could simply be just "a concept having administrative convenience rather than a basis in the knowledge of human relations".

As early as in 1948, Lord Silkin, then Minister of Town and Country Planning addressed the Town Planning Institute. He took the opportunity provided by this occasion to caution the planners:

In every plan now it is fashionable to provide neighbourhoods. The assumption is that by dividing up your population into groups of 10,000 to 20,000 and surrounding them by open spaces, railways and main roads you will get nice little communities living happily and sociably together. On what evidence is that based?... Do we really get a good life that way? What steps do you take to ensure that people inside these little areas do mix freely together and do all the things one think it good for them to do? I would like more thought to be given to the question of neighbourhoods, even to the whole conception of the idea. I have fallen for it myself, but I would like to think it out again.

Indeed, the Minister's caution has not fallen on deaf ears but was in fact well-heeded. Many a social scientist has called for a second
thought of the theory and expressed alarm about the wide acceptance of the concept among planners and architects. Broady, a sociologist, criticizes the theory in the following terms:

The chief weakness of this theory is its assumption that social characteristics are determined by physical form. The neighbourliness of the slums, however, depended much less on their physical structure of small houses and mean streets or on the fact that they were well-endowed with pubs and corner shops than it did upon the sociological facts that the people who lived in the slums had frequently lived in the same street for one or two generations and that people who share conditions of economic hardship are prone to band together for mutual help and protection. The elements of the environment that are relevant are not physical but economic and sociological. To suppose that the physical factors are the most important, as the neighbourhood theory does, is to attribute causal significance to a purely adventitious phenomenon.

True indeed, even if it be admitted that architectural design may influence, it cannot be said to determine social behaviour. The relationship between proximity and community spirit is obviously not absolute, for community spirit is developed among people who lived in the area; whether the layout of the neighbourhood has the effect that the planner intends depends primarily upon the attitudes of the people involved, and not the physical design per se. How the resident will react to the physical environment of the neighbourhood depends on so much more than physical design; and if propinquity provides the occasion for neighbouring, how that interaction develops depend chiefly on social factors. Such democratic notion that how people will react is important, together with evidence that altering the spatial environment alone may have little effect upon behaviour patterns, has led writers such as Herbert Gans, Jane Jacobs, F. J. Langdon and Melvin Webber to
attack the notion of design determinism.

Planners who subscribe to the design determinism theory have tenaciously held to the idea that there is an optimum size for a community (given by Perry as that capable of maintaining a primary school). But, we must ask, what support is there for Perry's assumption that the population required to maintain a primary school is of an order of magnitude commensurate with that of an ideal community? Do sociologists generally support the contention that a community of 3,000 (or even 10,000) is an optimum one?

Perry's hypothesis as to the population of the neighbourhood group, deriving from the primary school, now appears to be unsupported and arbitrary, and seems to rest upon a misconception of Cooley's primary group. However, as Dewey points out, "this misconception is integral to the thinking of those who would plan our cities in terms of neighbourhoods." In the light of Queen and Carpenter's classic definition of a neighbourhood as "an area in which the residents are personally well acquainted with each other, and are in the habit of visiting one another, exchanging articles and services, and in general, of doing things together," the concept of neighbourhood of 3,000 to 10,000 people is patently and seriously in error. Many a sociologist has questioned the effectiveness of such large primary group, and even gone so far as to doubt their reality as social entities. Here we have the doubt expressed as to the validity of Perry's interpretation of the neighbourhood in terms of some 3,000 - 10,000 persons, as being far too large to constitute a primary social group. The revealing studies by George C. Homan, Peter Willmott, and William Whyte on human groups all
indicate that primary social groups are of a most intimate nature, and on a much more smaller scale than that of a neighbourhood, as the Stevenage survey suggests, "the important physical area is a much smaller one within the neighbourhood". 39

Uneasiness as to the scale of Perry's neighbourhood unit has led to many alternative prognostications of an optimum size of neighbourhoods, they range from the socially minute "patriarchal degree" of Bardet, of 5-10 families, through Herrey's neighbourhood of 30-60 families, Gibberd's "housing group", Gropius' "superhousehold", and Saarinen's "basic unit" of 200 homes to British New Town neighbourhood of 10,000 people. 40 Perhaps all these figures are arbitrary: there is little evidence to support any one conclusively. The range, from 50 people to 10,000 is so absurdly wide as to make comment unnecessary. Even if differences could be shown in the degree of community feeling in neighbourhoods of different sizes, it would still open to doubt whether such differences were caused, or even directly influenced by the size of the neighbourhoods.

Same kind of doubts can be cast on the effectiveness of clear-cut boundaries in promoting feeling of belongings to the area by the inhabitants. The existence of physically well defined neighbourhood has led some to suggest that living in such an entity will encourage people to take part in local activities and feel belong. This is not necessarily so as Dennis asserts, "People seem to find it extraordinarily difficult to realize that mere living together in the same locality can result in a conglomeration of very little sociological importance." 41 Indeed, Kuper found that the clear demarcation of the Braydon Road Area
(a unit of ninety families focused on a common green) did not appear to have had the desired effect; there was little local attachment and the stable relationships which did develop were not co-extensive with the unit as a whole or any of its physically separate sub-divisions.\textsuperscript{42}

Again, there is little evidence to suggest that details of street layout alone have much positive effect upon community spirit. There may be studies\textsuperscript{43} indicating that Radburn-type of layout may be more conducive to active neighbourly relations and sense of belonging, but the evidence is inconclusive and sometimes conflicting. The question still remain, however, to what extent that neighbourliness may have been the result of factors other than Radburn layout, such as the higher proportion of families with children, or even whether more sociable families had been attracted to the footpath areas. Moreover, conflicting evidence was presented by Whyte, who found that in Park Forest those people who were active in overall community affairs did not come from the 'happy' courts (cul-de-sac). In short, as Kuper writes, "The sitting factors, with their planned and unplanned consequence, only provide a potential base for neighbour relations. There is no simple mechanical determination by the physical environment."\textsuperscript{44} We have, thus no basis for claiming a consistent and automatic role for the effects of street layout on community spirit.

The effects of the provision of community facilities upon local attachment and neighbourly relationships are more difficult to evaluate. Of course, where no community facilities are provided the establishment of any form of association becomes hampered. Lack of such facilities such as schools, community clubs, and churches may well
have encouraged the trend toward 'home-centredness'. But the mere provision of facilities for voluntary association is not, in itself, enough to engender a sense of belonging and community spirit among the residents of each neighbourhood. In Sweden, where new communities have been built with an even fuller complement of community facilities, it has been found that participation in local social activities is moderate -- about the same as in older communities. Thus, it is not totally unfounded when Suzanne Keller asserts that it is doubtful "that provision of adequate local facilities per se will increase attachment to a local area among people not otherwise favourably disposed to it" for other reasons. Critics like Keller find it curious that so many planners would still cling tenaciously to the belief that adequate provision of community facilities will promote community spirit. In the minds of these critics, community spirit is not so easily created in a neighbourhood. Convincing evidence was given in a study of Lower Overbrook in West Philadelphia where adequate community facilities did not lead to a greater sense of community among their users, and where contacts between neighbours as a result of attending the same churches or schools were slight and superficial.

According to these critics, there is more to a neighbourhood for feelings of belongings to develop than simply generous provision for local community activities. Even Young and Willmott, whose study has lent support to the theory of design determinism, have this to say:

...even where the town planners have set themselves to create communities anew as houses, they have still put their faith in buildings, sometimes speaking as though all that was necessary for neighbourliness was a neighbourhood unit, for community spirit a
community centre... But there is surely more to a community than that. The sense of loyalty to each other amongst the inhabitants of Bethanal Green is not due to buildings. It is due far more to ties of kinship and friendship which connect the people of one household to the people of another. In such a district, community does not have to be fostered it is already there.48

In light of such observation and evidence, many a critic of design determinism has charged the theory as sheer speculation masquerading as sociological truth. They point out that "the influence of the environment has been somewhat over-estimated" by too many planners and architects and that there is a "need to study social values and requirements and to embody the results in design."49 From the standpoint of these critics, the need to study social factors and to embody the results in design is obvious because human beings are a good deal more autonomous and adaptable than a deterministic theory would lead one to suppose. "Human behaviour is like running jelly -- not formless, but wobbly and changeable;... the designer has to allow as best he can for such new demands as may come to be made on his buildings."50 This point applies particularly to neighbourhood planning. The achievement of community spirit in the planning of neighbourhood must take into account not only of physical design but also of the people who are involved and of the patterns of social organization that are in those areas. Neighbourhood design, as Broady aptly puts it, "like music to a film, is complementary to human activity; it does not shape it."51 The failure to recognize and appreciate this point is the chief weakness of the theory of design determinism.

The physical form of a neighbourhood, according to Herbert Gans, a strong critic of design determinism, is only a potential environment
since it simply provides possibilities or cues for social behaviour, but only under rare and unusual circumstances will it also engender an active community life. In fact, one is tempted to conclude that only where the social preconditions are favourable for such a community can physical design and siting play its intended role at all. Many have in fact argued that physical design and siting become significant for social relations only when a certain degree of social homogeneity and social similarity has prepared the ground for it.

In a thoughtful review of the literature, William Michelson assesses the degree to which design determinism is valid. He points out that proximity becomes a factor in friendship under preconditions of homogeneity or perceived homogeneity. Interestingly enough, this pre-condition was present in all the studies which were often quoted in support of design determinism. All the people observed in each of these studies were very similar in age, income, social class, and life style, it really makes one wonder of the possibility that physical design would be of minor importance if the population were a different one, i.e. not as obviously homogeneous. In fact, Festinger, Schachter, and Back themselves have admitted of such a possibility,

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\text{We emphasize... that where the community is heterogeneous one would expect the ecological factors to have considerably less weight than they do in communities where there is a high degree of homogeneity and common interests among the residents.}
\]

Indeed, this would appear to be the case. Carey and Mapes's study of social activity on new housing estates in 1971 shows that similarity of people in terms of age and stage in life cycle means more visiting and more friendships. The physical factors play a far less important
role. A more recent study by R. Athanasio and Gary Yoshioka provides further evidence to weigh in the controversy regarding physical determinism. Their carefully designed study in an Ann Arbor suburb lent some support to the conclusion that homogeneity or perceived homogeneity is an important factor in friendship formation. They found, for example, that propinquity did not overcome differences in stage of life cycle. In short, proximity factors would be far less important in influencing friendship formation where the population is socially heterogeneous. The challenge to the theoretical underpinnings of the theory of design determinism is perhaps best summed up by Charles Mercer, Design determinism as a philosophy will be perfectly adequate in certain fairly constrained situations; in others it may well be irrelevant. Its danger is its simple-minded quality. Its central assertion, that physical design is shaper of social processes, taken out of context, without the social precondition of homogeneity might lead the unwary to a naive policy of environmental transformation in the hope that change in behaviour will inevitably follow.

It is obvious thus, that the relationship between physical planning and community spirit is far more complex than it has been conceptualized by the theory of design determinism.

Criticisms advanced against the Theory of Design Determinism, in summary, have pointed out that the physical form of a neighbourhood, at the most could only provide possibilities and clues for community spirit to develop; whether it would also lead to an active community life depends very much on whether the social preconditions are favourable at all. It is believed by many of the critics that physical design become significant for the growth of community spirit only when a
certain degree of social homogeneity and social similarity has prepared the ground for it. In order to come to grasp more closely to what these critics have to say, it is felt to be necessary to turn our attention to the next chapter in which the Theory of Social Homogeneity is examined.
CHAPTER III

THE THEORY OF SOCIAL HOMOGENEITY

The Theory

In light of the criticisms advanced against the theory of design determinism, alternative theoretical explanations of the growth of community spirit have been suggested. The more critical planners, perhaps a bit puzzled that men are less responsive to physical environments than they had supposed, readily admit that there is a disturbing gap between their expectations and achievements, between intention and fact. To close this gap, they have increasingly come to pay attention to the human factor and are gradually incorporating the insights of the social and behavioural sciences into their work. One of them is Herbert Gans.

Gans, whose work in the theory of social homogeneity is invaluable, argues that neighbourhood design and site plans can encourage or discourage neighbourliness and community spirit only when a certain degree of homogeneity of social class, life style, and stage in the life cycle has prepared the ground for it.¹ This theory postulates that homogeneity of background and life styles is necessary for neighbouring to develop into anything more than a polite exchange of greetings. It asserts that social homogeneity is more fundamental than physical design in the growth of community spirit. Without such homogeneity, more intensive social relations are not likely to develop, and excessive heterogeneity can lead to coolness between neighbours, regardless of their propinquity. As Gans himself stresses, "Unless neighbours are
homogeneous, they do not choose their friends on the basis of physical closeness, and one site plan is about as good as another in its impact on social life."2 Such assertion is echoed by Ruth Glass, a distinctive British urban sociologist, "The mere shortening of the physical distance between different social groups can hardly bring them together unless, at the same time, the social distance between them is also reduced."3 Perhaps the theory of social homogeneity could best be summarized in the following two statements by John Dyckman, a noted planning theorist in the U.S.,

(1) Where a population is socially, culturally, and economically very homogeneous, and of uniform family condition, physical proximity and physical arrangements may ... influence interpersonal patterns of affiliative behaviour.
(2) But where social, cultural, economic, and familial differences are great, these will outweigh physical-spatial factors in affiliative behaviour.

Indeed, this is the substance of the findings of veterans' housing projects5 and student communities.6 As Gans has again asserted, "propinquity brings neighbours into contact, but it is because of homogeneity that the contact is maintained on a positive base.7 Similarly, Schorr has found that physical proximity can lead to social interaction among neighbours only when the neighbourhood is fairly homogeneous. Where neighbourhoods are stratified, physical proximity among socially unequal neighbours may even lead to hostility and conflict among them.8

Evidences in Support of the Theory

Socially speaking, the natural thing is for birds of a feather to
flock together. Evidence on the complete intermingling of contrasting class groups, age groups and races is decidedly negative. In one racially mixed area of West Philadelphia, for example, it was found that the single playground was not used by white children, that community spirits developed as a result of using the same community facility were weak and superficial, and that the community civic association was used only by the negro residents. The differences in race has led to a rejection of available community facilities and services and so prevent their serving as promoters of intergroup and class contacts and sociability.9

Similar observations have been made elsewhere. Not infrequently, it has been observed that where unequal status groups find themselves sharing facilities and services or are brought into unwanted proximity, a number of unfavourable, unwanted consequences result. The better-off withdraw from contact with those they consider inferior while the latter feel resentful and ill at ease. This withdrawal and mutual avoidance may lead to social tension and conflict, ranging from verbal and physical hostility among children and adults to destructive assaults on property. It may result in a reluctance to co-operate in solving pressing common problems, since status unequals often cannot use the same community facilities or participate in the same community organizations successfully owing to fears of status contamination and/or status embarrassment. As Broady observes, "These antagonisms sometimes produce more obvious social tensions when divergent interests of the two groups in the population find their expression in local organizations."10
There is little doubt, that mixing groups of different social class backgrounds, having diverse conception of family life, child-rearing and life styles in the same neighbourhood would not be marked by conspicuous success. Studies done by various scholars such as Leo Kuper,\(^1\) Janet Madge,\(^2\) J. H. Wilson,\(^3\) Mary Herman,\(^4\) and Roger Wilson\(^5\) have all indicated that mixing status unequal and different life style groups may actually lead to hostility and conflict, "bewilderment, loneliness and sometimes fear"\(^6\) rather than to a more interesting and varied communal life.

The evidence gathered from new towns and housing estates throughout the world echo these findings too. Describing a pre-war English borough, an observer comments: "There were streets in which, as a child, one walked only one side of the road: the other side was hostile territory. There were shops and cinemas that were socially out of bounds, and turns of phrase that cut one off from other boys as sharply as any foreign language."\(^7\) Similarly, Michelson cited the case in Sweden, where new housing tracts are filled without reference to social class, but the middle class tenants nevertheless still aspire to retreat into homogeneous communities as soon as they are able.\(^8\) In almost all Brazilian cities, it has been observed, the public garden, which is usually the central square, gradually gets subdivided into subsections, each confined to a single social class.\(^9\) In Tokyo, Dore suggests that increasing social differentiation has led to growing social distance among formerly intimate near neighbours: "The green-grocer and the rich businessman could in former times have warm relations because both had a clear and an identical definition of the status differences between
them, and accepted such differences as part of the natural order. Now, with industrialization, the natural order of inequality has been superseded by the desirable order of equality and by that very token unequals can no longer interact with ease".20 Closer to home, a study in Toronto by Goldblatt indicated that neighbourhood facilities to be shared jointly by two groups with a class difference, would accomplish their aim only if there were strong reasons why these socially unequal people should in fact use the facility, otherwise, they would simply avoid using it altogether and thus inhibit the development of potential community feeling.21

The available evidence does build up a strong case in support of the theory of social homogeneity. There is little doubt that people prefer to make friends among their own kind and that community feeling is greater in a socially homogeneous neighbourhood than that in a neighbourhood with socially incompatible residents. As Anne Buttimer, a distinguished urban sociologist in Britain, points out,

Despite a continuing ideological predilection for 'social balance', 'integration' and equality of opportunity there is considerable empirical evidence on the wishes of people to live with people of their own class with whom they can feel at ease.22

It is understandable why neighbourhood of relatively homogeneous social, ethnic, or racial characteristics is a favourable area for community spirit to develop among its residents. Security is one of the reasons. Familiarity is another. According to the theory of social homogeneity, the inhabitant would have a stronger sense of belonging in an area of relatively homogeneous social, ethnic, life
style and age characteristics because security can be increased. The equating of homogeneity and security is one of the factors lying at the root of the suburban flight of many white Americans and, to a lesser extent, Canadians. This point is made by Gold in a recent paper on urban violence: "Suburban neighbourhoods, geographically removed from the central city, would be safe areas, protected mainly by racial and economic homogeneity ..."23 Harold Jackson makes the same point in the Northern Ireland context when he says that "the family packs its belongings and seeks the security of living among its own kind, where there is both group and territorial protection".24 Historically the Jewish ghetto in North America clearly functioned in this way. As Louis Wirth has noted, "In some instances it was the fear of the remainder of the population, perhaps, which induced them to seek each others company for the sake of security."25

Along with security, familiarity is another reason why a stronger community feeling would emerge from socially homogeneous neighbourhood. For instance, Deakin when discussing coloured immigrant concentrations in British cities comments, "They are, after all a number of good reasons for choosing the familiar surroundings in preference to the dubious honour of integrating a housing estate, with the possibility of hostile or at best anxious neighbours. It is psychologically supportive to have neighbours from a familiar background ..."26 The psychologically supportive role of the condition of social homogeneity has also been referred to in many different contexts. Barry Wellman, a professor in the University of Toronto commenting on the Canadian scene, has this to say, "An in-migrant or an immigrant is likely to
move into an area in which his countrymen live. There he is more apt to have specialized services close at hand which have been attracted by the concentration of his countrymen. It is especially in immigrant enclaves that personal communities will be confined within neighbourhood boundaries and the closest approximations to "urban villages" are likely to occur."²⁷ Louis Wirth, the eminent pioneer urban sociologist, has the same kind of observation some twenty years ago:

To the Jews the geographically separated and socially isolated community seemed to offer the best opportunity for following their religious precepts, of preparing their food according to the established religious ritual, of following their dietary laws, of attending the synagogue for prayer three times a day, and of participating in the numerous functions of communal life which religious duty imposed upon every member of the community... freedom from hostile criticism and the backing of a group of kindred spirit.²⁸

The negro ghetto in the United States would appear to have a similar "cushioning" function because of familiarity reason. In Black Metropolis, Drake and Clayton claim that black people "escape from the tensions of contact with white people" and "the pressure of the white world is lifted" by residence in the ghetto and its associated social networks.²⁹ Indeed, when people feel they know "who" the people around them are, it is easier to co-operate in solving community problem, to agree on standards, to establish consensus and people are less suspicious. This is precisely the reason for wanting "to live among one's own kind", and precisely the reason why community spirits are more readily developed in socially homogeneous areas.
The theory of social homogeneity has also postulated that negative consequences would have emerged from socially heterogeneous neighbourhood. Evidence on the complete intermingling of different ethnic or race group has been shown as decidedly negative. The same thing can be said as to the mixing of contrasting class groups, life style groups and groups in different stages of the life cycle. Gans sees the establishment of heterogeneous community as simply an opportunity for destructive social conflict, "Total heterogeneity is likely to be so uncomfortable that only those who want no social contact with neighbours would wish to live under such conditions."\textsuperscript{30}

As far as the mixing of groups in different stages of the life cycle is concerned, the results are not always positive. For example, as one observer notes, "Put young marrieds with infants in the same development with single people and old couples, and you wind up with an almost impossible mixture."\textsuperscript{31} Similarly, old people who lived in a community of child-raising adults are said to have resented the youngsters' noise and the young adults' differences in opinion from theirs. As Michelson asserts, "This pattern sets an old person in the open for the often unconscious, but nonetheless vicious, cuts that develop in contact with middle aged people and young adults."\textsuperscript{32} In fact, the available evidence suggests that the old should be able to live near people of their own age groups. It argues that segregated age groupings would provide a more complete social environment for older people despite potentially morbid aspects. Not only that such a social environment would provide them the necessary psychological support, it insulates them from external barbs and it provides a significantly
greater pool of age-mates from which to draw friends." Messer, for example, found lower anomie among older people in an age-segregated apartment complex in Chicago than in an integrated one. Likewise, Rosow, studied the friendship patterns of old people in neighbourhoods in Cleveland, Ohio. He found that where old people were concentrated they were able to make more friendships than in those situations where old people is a minority. He concluded that "since the aged suffer from lower status in the larger society in several respects, placing them in the position of neighbours with young people would inhibit the development of friendship." 

Mixing different class and life style groups is also believed to have led to undesirable consequences. As the theory of social homogeneity postulates, the mixing of all class and life style groups is likely to produce at best a polite but cool social climate, lacking the consensus and intensity of relations that are necessary to engender community spirit, and at worst, may actually lead to hostility, conflict, resentment and withdrawal. Robert Gutman, for example, shows that working class wives had considerable trouble in adjusting to a mixed class suburb in New Jersey that he studied. They simply did not have the necessary social skills to interact on a free and easy basis with the middle class women around. Gans also notes that neighbour dispute could stem from differences in child-rearing norms among classes and among parents of different educational background. In the same vein, Michelson found that community dispute may also ensue where a given locality is divided among people of house-centred and community-centred life styles. The latter are likely to demand
services they particularly desire, while the former oppose them because they don't possess the marginal dollars to pay for them. 38 Perhaps the negative consequences of complete intermingling of contrasting class, age, and life style groups are best epitomized in the following conclusion by Keller after an extensive review on this subject,

... the better off, no matter how defined or measured, refuse to live side by side, not to say co-operate in community clubs and projects, with those they consider inferior to them, and that those whose conceptions of privacy and friendship, sociability and neighbouring are opposed will soon find themselves pitted against each other in resentment or withdrawing into loneliness. Social contrasts do not, apparently, automatically foster either creative self- or community development. 39

Bringing unwilling contrasting class, age, life style and ethnic groups closer together in physical space or encouraging their participation in common activities and organizations is not always crowned with success. Often, in fact, these efforts may actually lead to even "greater schisms and potentially explosive divisions." 40 Evidence does show that a markedly heterogeneous neighbourhood may "provoke discord and exacerbate latent conflict," 41 and may also mean "endless bickering and unsettled feuds to the people who actually lived in it," 42 and that enough social homogeneity must be present in any neighbourhood to allow institutions to function, facilities to be used at ease, interest groups to reach workable compromise and individuals to feel belong.
Summary

In light of such decidedly negative evidences against social heterogeneity, and in view of the fact that social homogeneity continues to play such a highly dynamic and significant role in the growth of community spirit, it seems that homogeneity in social composition of residents does play a decisive role in patterns of neighbouring, friendship, community feelings and sense of belonging in today's neighbourhoods. This is not to deny the great changes in social stratification, opportunity, and social mobility in recent decades, nor the forces of urbanization and industrialization, but only to insist that the theory of social homogeneity still remains valid in explaining the growth of community spirit in today's urban neighbourhoods. Perhaps Robert Angell is right when he asserts in his classic study of moral and social integration of cities that social homogeneity is the major determinant of social integration in American neighbourhoods. Such findings, together with those reviewed above, have not only lent support to the validity of the theory of social homogeneity, but have also made us aware of the importance in incorporating such a theory in any vigorous analysis of the growth of community spirit in urban neighbourhoods.
The Theory

Not all social scientists or planners, however, are convinced by the theory of social homogeneity. They criticize that theory for having overlooked a new spatial order emerging as a response to changing technology and changing social norms, for denying the great changes in social stratification, opportunity, and social mobility in recent decades, and finally, for underestimating the impact of the recent technological advances in both transportation and communication fields. They believe that the process of metropolitanization has undermined not only the validity of the theory of social homogeneity, but also the whole notion of community neighbourhood. Metropolitanization, they postulate, has had important consequences for homogeneous neighbourhood as it is traditionally conceived. Modern neighbourhoods are not as visible and as clearly defined as in the past. Such factors as geographical isolation, ethnic differences, common dedication to a total life-scheme, tradition, continuous association, and distinctive life-styles are no longer the sole dominating characteristics of modern association. According to the theory of community eclipse, the level and intensity of intra-neighbourhood transactions relative to extra-neighbourhood transactions would decline as the range of urban opportunities widen. Shared sentiment is no longer a distinguishing feature of even the socially homogeneous neighbourhoods, let alone the heterogeneous one.
Writers such as Dennis, Webber, and Wirth have drawn attention to such a theory of community eclipse in which the whole attempt in finding the appropriate theoretical model for explaining the formation of community spirit is viewed as an irrelevant, ideological academic exercise. The search for an explanation or theory in the growth of community spirit is viewed by these community eclipse theorists, in retrospect, to be little more than intellectual snobbery when one takes into consideration the realities that interactions are increasingly translocal and metropolitan in scale. Neighbouring, in any case, tends to be rather limited. Both the theory of design determinism and the theory of social homogeneity thus appear to the community eclipse theorists as irrelevant and inappropriate to be a model for understanding community feeling at the metropolitan scale. Implicit in both the theory of design determinism and the theory of social homogeneity is the assumption that community neighbourhood is possible to be created and persisted, and it is precisely this assumption that is accused by the community eclipse theorists as being ideological and removed from realities of today's urban environment. It remains, as Norman Dennis criticizes, "an ideology which can attract research funds, and catch the ear of established opinion. It is a minor example of a 'myth' in Sorel's sense—a social belief which is not necessarily invalid (though it is likely to be so to some extent) but which is believed for reasons other than its objective validity." 1

Probably the most prominent theoretical spokesman for the theory of community eclipse is Maurice Stein. In his classic, The Eclipse
of the Community, Stein purports to document the decline of the community neighbourhood, a decline oriented by the forces of bureaucracy, urbanization, and industrialization. Stein believes that such an "eclipse" has already taken place. This belief in the demise of the neighbourhood as an important social unit, is predicated upon the assumption that the neighbourhood is exclusively a primary group and therefore should possess the "face-to-face", intimate effective relations which characterize all primary groups. It would appear, then given the validity of this notion, that many of today's neighbourhoods have moved away from this form of social organization. Authorities like Queen and Thomas have agreed on this postulate: "... As yet, it is too early to say with assurance that neighbourhood groups and practices are disappearing from American cities, but such evidence as we possess indicates that they have been declining and may be expected to diminish further." These writers all believed that the neighbourhoods today depend far less on the kind of mutual dependence, social control, and emotional give-and-take among neighbours which we described in connection with the pre-industrial or rural town. Instead, the whole life of the neighbourhood--as it emerges from the various studies of the neighbourhood in the modern city--tends to be permeated by behavioural patterns of aloofness, and that its social relationships are characteristically short-lived, utilitarian, and limited in nature and scope.

Theoretical Arguments

Writers who subscribed to such a theory of community eclipse
generally point to three features of metropolitanization in order to make their case. They point to the way in which cities grow, the high rates of mobility within cities, the size of cities, and the diversity of people who live in cities. Let us take each of these points in turn because cumulatively they make the theory of community eclipse a very convincing one.

(a) Cities have generally grown because of migration, that is, rural-urban migration. The individual migrant must disrupt his social ties as he leaves his rural home, and may not be able to establish new friendship in the city without a great deal of difficulty. Writers who argue this way generally mourn the demise of the traditional society with its more meaningful social relationships and identify the rural-to-urban migrant as a 'marginal' man, a person who is no longer part of a 'folk' or small scale society, yet who is marginal to and lacks integration with a meaningful web of friendship relationship in the urban area. The problems of adjustment for migrants to urban areas were also identified by N. H. Lithwick in his report prepared for the Minister Responsible for Housing in Canada, he concludes, "One need only to reflect upon the serious urban problems of native peoples, or of rural migrants, to be aware that 'citification' may be a much greater ordeal for them than for formerly urbanized, highly educated, skilled immigrants from the United Kingdom, the United States, and other countries." Thus, present cities that are characterized by such a pattern of growth are also believed to be characterized by "a general feeling of aimlessness, a frantic, almost pathetic search for originality over preoccupation with anything capable of providing
short-term entertainment, and beneath it all a feeling of hopelessness of the futility of all effort."\(^7\)

(b) Neighbourhood life has also been affected by increasing spatial mobility of individuals. Urban man, liberated by the mobility conferred by modern technology, increasingly locates his home far from work, stores, friends, and kin, and the North American middle-class urban life style is believed by many to be approximating what Webber has described as "community without propinquity."\(^8\) There is no doubt, Webber claims, that personal mobility has overcome distance constraints and reduced dependence on locality, and that people, for the middle-class at least, can build networks of social relationships in ever wider region. The implication of this is that community will be further divorced from place as time goes on. As Toffler, the author of the famous book Future Shock, asserts,

...Commitment to place has weakened and people have become more nomadic, shifting from place-related social structures (city, state, nation or neighbourhood) to those (corporation, profession, friendship, network) that are themselves mobile, fluid, and for all practical purpose, place-less.\(^9\)

Such is also the message of Marshall McLuhan's "global village."\(^10\) He points out that the new media forms provide man with the freedom to accept or reject place as he wishes—it is not a social 'given.' The anthropologist Margaret Mead feels the same way. She feels that the erosion of place as a focus of social activities has been so swift that we have been unable to see it in its finality.\(^11\) In other words, the bodies of people might be in one spatial area, but not their social worlds. The concepts of locale and neighbourhood have little meaning
in this context. In fact, the concepts of "communality" or "despatialized community" were proposed by the community eclipse theorists to refer to these locale-independent relationships.  

Systematic investigation indicates that personal relationship in the city have become "despatialized". Research in Toronto's East York, for example, has found that only 13% of the respondents' intimates lived in the same neighbourhood; the great majority, 63% lived in other parts of Metropolitan Toronto and 24% lived outside of Metro. Clearly the neighbourhood is not the basis of the majority of intimate personal relationships for these urbanites. As Barry Wellman elaborates, "whatever claims on such ties the neighbourhood previously had have been vitiated by easy-to-use transportation and communication facilities. The car, the subway, and the telephone, have helped people to maintain ties with each other even though they are separated by substantial differences." In light of this increasing spatial mobility of urban man, as well as the increasing social mobility within and between classes and cultural mobility within and between particular groups and wider collectivities, it is believed that today's neighbourhoods are no longer the stable enduring collectivities of the past, rooted to a fixed place, and fixed in both composition and direction. Canadian neighbourhoods are no exception in this respect. As Jack Wayne, a Canadian sociologist who is currently teaching at the University of Toronto, observes,

It is not uncommon to find neighbourhood in Canadian cities where one household in five moves each year, and in some
districts the movement in and out is greater still. This means, according to the argument, that even when social ties with others are established the frequent moves that people make will lead to these relationships being easily disrupted.15

(c) The large size of city together with its diversity of population type is the third feature of metropolitanization pointed to by the proponents of the community-eclipse position. For example, Wirth claimed that large numbers of people in a city led to "the relative absence of intimate personal acquaintance",16 and "the segmentalization of human relations which are large anonymous, superficial, and transitory."17 Similarly, Max Weber pointed out, that from a sociological point of view, large numbers of inhabitants and density of settlement may remove personal mutual acquaintance between the inhabitants which ordinarily inhere in a neighbourhood. Georg Simmel, another noted German sociologist, spoke of the "blasé attitude"18 of urban man. With all the bustle amid the profusion of people, he argued, urban men were forced into perennial state of distrust and reserve and have withdrawn behind a critical facade. As a result only certain specific forms of behaviour and contact are cultivated. In this connection, Klages has coined the expression of "ceremonial behaviour", which is only a non-committal (ceremonial) form of politeness which does not involve obligation or self-revelation.19

Summary

In sum, as mobility increased owing to better communications and transport systems, as ethnic and class groups become mixed and their
social boundaries blurred, and as more interpersonal relationships are cultivated on the basis of practised aloofness and "ceremonial behaviour", the theory of community eclipse postulates that the neighbourhood approach to community studies has become less useful in understanding social relationships in metropolitan areas. It is more fruitful, instead, to think in terms of the "personal communities" of city dwellers, consisting of their networks of personal ties, rather than concentrate on communities based neighbourhoods. The size and variety of the city increases the likelihood that others with similar interests are available and will be found; transportation and communication facilities enable one to go afar for such links. It is therefore, as Barry Wellman argues, "fruitless to concentrate on the neighbourhood as the fundamental area of personal relationships. Too many people are moving beyond its confines for too many personal relationships."20 As one urban planner explains:

The open society is no longer centred around place based groups: and the very slight acquaintances that do form around an artificial neighbourhood are at once trivial: they are not based on genuine desire. Though these pseudo groups may serve certain ancillary purposes (neighbours may look after one another's houses while they are away) there is no possible hope that they could sustain intimate contact.21

Norman Dennis carries the point even further by questioning the need for neighbours amongst urban man who, he argues, prefer "to preserve the opacity of their domestic lives", and regard neighbours "as expendable in the search for ... success."22 Neighbourhood behaviour in the old sense scarcely exist, and neither is modern man's
freedom to select between alternatives based upon place. Louis Wirth again observed, "Freedom in the epochs preceding our own was not primarily or solely a matter of persons but of areas ... the house, the man, the village." Modern freedom of choice rests with the individual and is probably best expressed in the form of interest groups. In fact, as Melvin Webber says, "We may not be far from the time when the vernacular [locale-based] meaning of 'community' will be archaic and disappear from common usage. It has already lost much of the traditional meaning for a great many of those on the leading edge of the society." The allegedly anachronistic nature of the local concept of the community was being noted even by Saul Alinsky, who had himself pioneered neighbourhood action groups: "I do not think the idea of geographical areas, especially of neighbourhoods, is any longer applicable ... People no longer really live their lives in neighbourhoods ... The life of the people is elsewhere." What all these mean is that metropolitanization is a powerful factor in the scale of modern society and the culture of city-dwellers, society that comes through, then, is of a great locale-independent sea of contacts with little vestigial locale-anchored pockets of community neighbourhood here and there; a great impersonal world where groups, classes, coalitions, and alliances form and re-form, but remain always in flux, unanchored to any settled locale. According to the theory of community eclipse, it is a conception of a society in which it makes little difference to people where they live. If the housekeeping were in good order and all the amenities observed, one place could be as good as another. Attachment to locale and neighbourhood feeling as such would have little
significance and relevance.

Criticisms

It is true that the proponents of the theory of community eclipse who argue against the relevance of locale have put up a very persuasive case, and it may well be that they do indeed presage a disappearance of community neighbourhoods, but nonetheless, not many people seem to be ready yet for complete abandonment of locale. And so long as locale means anything for many people, it is argued, the theory of community eclipse has lost much of its validity and a good case can still be made for the retention of the locale-anchored conceptualization, at least for the present.

Gerald Suttles, for example, argues that the neighbourhood remains "an independent feature of social organization which must be examined in its own right." Physical boundaries are still meaningful to residents and, "in this sense, territorial boundaries between neighbourhoods are a proper element of social structure." In another study by Suttles in 1968 of neighbourhoods occupied by four different ethnic groups in Chicago also confirms his own thesis that the neighbourhood is a living and vital force in the lives of many urban inhabitants.

On the theoretical level, the work of the sociologists Tönnies and Cooley emphasized the significance of the primary community and the natural human tendency for relationship to have a territorial expression in the form of neighbourhoods. As Cooley asserts,
... Of the neighbourhood group it may be said, in general, that from the time men formed permanent settlements upon the land, down, at least to the rise of modern industrial cities, it has played a main part in the primary, heart-to-heart life of the people.²⁹ Morris Janowitz concurred. Commenting on the decline of interest in urban community studies in the 1960s, he noted that the intrinsic vitality of the subject kept it alive nevertheless; interest in the local community, in fact, was now reviving and he concluded that "community study remains a basic vehicle for holistic and comprehensive understanding of the metropolitan condition."³⁰

Indeed, militating against the rejection of the neighbourhood as a useful concept is the fact that numerous studies continue to affirm that the neighbourhood is an important force in shaping individual behaviour. So far from having obliterated the community, modern life was calling for more of it; many a researcher who went out to study neighbourhoods found residents almost pathetically eager to make some sort of local identification, to attach some sort of significance to locale. Sussman and White, for example, in a study carried out in 1959, found that anonymity and impersonality, believed to exist among people living in the same urban areas, did not in fact exist. Nearly all of their sample knew at least one neighbour, while at least half knew four or more neighbours.³¹ Similarly, Herbert Gans' classic study of Boston's West End, The Urban Villagers,³² offers an important rebuttal to those who declare that the neighbourhood is dead as an important concept. Scott Greer also was finding locale still a key concept in studying the urban community.³³ Similar studies by Litwak and his colleagues
continue to support the contention that the neighbourhood is an important force in terms of individual social mobility. Even today researchers in large cities are finding "some cells with a unity similar to that of the medieval town." Thus, despite the vehemence with which some observers were conceptualizing the community neighbourhood out of existence, there were other who were still finding it indispensable.

Reasons are advanced to explain why neighbourhood feelings and community spirits can still be fostered even in a highly industrialized society. The first is the speed of reaction possible between neighbours in dealing with special or common problem. The advantage of easy physical and social access range from the venerable "cup of sugar" to Jane Jacobs' ideal of neighbourly social control and protection. The second is the fact that parents tend to view neighbourhood as the major arenas for the socializing experience of their children. They rely on the sorting functions of neighbourhoods to provide access for their children to the 'right companions' and will acquire the 'right' outlook on life. The third reason is the fact that neighbourhoods themselves may often be the locale of a community of interest. Home-owners, for example, may band together to preserve their way of life by fighting high rise developments or expressways; apartment-dwellers may find a community of interest in seeking to make their landlords more responsive and their environment more humane; local parents can work together to protect their children from the intrusion of families they deem undesirable. Thus, in a variety of case neighbourhood attachments and community does get develop even in face of the force of
metropolitanization. After all, as Jessie Bernard succinctly puts it,

At the local community level there is confrontation, visual if not tactile, emotional if not intellectual. People still live next door to others, they eat, sleep, live, hate, avoid, or seek one another in a given locale. Whether or not they have much to do with their neighbours, they use the same grocery store or supermarket, ... Owners or renters, they depend on the same community services such as, humble as they may be, garbage collection, street cleaning, and police protection. However emancipated from spatial barriers and however independent of locale the elite may be, it is still on the community scene that for most human beings interaction takes place. These phenomena cannot be just read out of the discipline.

Unless everything we have learned so far about human relationships is dated ... communities will persist. Nor is the concept of local community irrelevant in the Gemeinschaft sense. Our attention is being increasingly called to the almost compulsive 'quest for community' among thousands of seekers in rural and urban communes of many kinds all across the country, and to them the concept of local community is far from anachronistic. 39

It appears thus, that so long as people do live somewhere, it is always possible for community spirit to develop among them. It has always existed--and will continue to do so--because man is basically a social creature, unable to live independently. "Man is not unless he is social." 40 Man's need for the small scale, for an intimate face-to-face frame of reference is, apparently, innate and essential.

As Ward and Dubos assert,
... a community in which different families and individuals can meet and get to know each other face-to-face, band together for common enterprises, support each other against outside interventions and experience a sense of the more profound significance of their daily living has been seen to be a need among living creatures ever since man emerged from the primal groups of herd and pack.41

All in all, thus, despite all those arguments advanced in the theory of community eclipse, community spirit, for most people at least, can and do form in today's neighbourhoods. As Gerald Suttles points out, "In some populations it is reasonable to assume that people can and do remain heavily engrossed in their local neighbourhood as a separate and rather distinct moral world."42 Bearing in mind that community spirit are still possible to be developed among modern urban man, perhaps the next most important question to be asked is who would be those people most likely to develop community spirit among themselves? Even given the fact that community spirit could be developed in today's metropolitan setting, is it true that community spirit would still vary from those neighbourhoods whose residents have a much more cosmopolitan social space? Attempts in answering these questions have led us directly into the realm of the next theory we are going to examine, namely, the relationship between residents' subjective social space and the growth of community spirit.
CHAPTER V

THE THEORY OF SOCIAL SPACE

Introduction

Theoretical developments in the analysis of the growth of community spirit thus far discussed share in common an emphasis on the objective environment or more specifically, the external characteristics of the physical and social environment. Recently within the social sciences, however, a trend may be discerned towards questioning whether or not measuring and explaining objective social reality is sufficient. Instead, some researchers have attempted to explore and incorporate subjective dimensions into a number of theories. Man, in this light, is not viewed as an unknown constant about which certain assumption can be made in order to understand the growth of community. Rather, a more realistic concept of man is employed, where man becomes an intervening factor between environment and behaviour and his variable nature is recognized.

This trend in the social sciences has resulted in new approaches to a number of research problems, such as the analysis of the growth of community spirit. Studies on the perception of social space are one expression of these new approaches. Such studies have been described as concentrating "on the cognitive understanding that man has of his environment and the way in which this knowledge is stored and organized in the mind: that is, they are concerned with the image of the real world." Several studies have shown that most individuals carry in their heads a "mental map" or "image of the real world" of their
physical environment. Perception of social space, therefore, is made up of a complex of individual feelings and images about and reactions towards the objective space which surrounds that individual. As Fried and Gleicher have pointed out quite rightly that different kinds of people will use the same spatial patterns in quite different ways depending on their orientations. For example, the walls of homes are perceived as much stronger by middle class people than by working class people because less of their everyday living is carried out into streets. Thus, Theodorson and Theodorson are right when they say, "Social space is determined by the individual's perception of his social world." This definition implies a close connection with the theory that perception of social space is in fact a reflection of the individual's values, aspirations, cultural tradition and life style which consciously or unconsciously distorted the objective dimensions of the environment.

The Theory

Perhaps the most articulated on this theory is Paul Henri Chombart de Lauwe. In his famous study of Paris in 1952, he identified two distinct components of social space: (1) An objective component, "the spatial framework within which groups live: groups whose social structure and organization have been conditioned by ecological and cultural factors." and (2) A subjective component, "space as perceived by members of particular groups." Practically, then, urban spatial pattern in totality can be seen in two levels: first in objective terms—that is, the spatial setting with its physical boundaries and communication network—and then in terms of the perceived dimensions and
characteristics of that segment as these were subjectively identified by the occupants. It has frequently been observed that, however, a particular objective space, for instance, a physical well-defined urban neighbourhood, fails to coincide spatially with subjective social space; that is, social neighbourhood as perceived by neighbourhood residents.

The extent of congruence between the objective and the subjective social space has a lot to do with the values and life styles of the individuals. The values and life styles of the individuals not only influence the subjective perception of space but also have a strong bearing on the degree of congruence between the objective and the subjective social space. According to the theory of social space, spatial and structural congruence between the objective and the subjective spaces was expected to be greatest among those who espoused a locally-oriented life style and least among the non-locally oriented cosmopolitan. Hence territorial identification and community spirit would be greater among the former than among the latter. It was also expected that people whose activity spaces which reflected a locally oriented value would be associated with a propensity to develop sense of belonging to their local neighbourhood, whereas diffuse patterns of activity, reflecting a cosmopolitan life style, would perhaps involve greater concern for the city as a whole but would place little emphasis on local neighbourhood interaction. (See figure 13) Thus, according to the theory of social space, an analysis of life style orientations and the associated activity spaces of the residents, ranging from the polar types of localite to cosmopolites, could yield
Subjective Social Space of Localite and Urbanite (Cosmopolite)

the most meaningful explanation of the variation in the growth of community spirit.

Max Weber originated the term "style of life" in his analysis of German social and economic strata to denote the elements and pattern of a behavioural style which was common to members of various "status groups." Although the term has remained in the lexicon of social scientists, it has, until recently, been used relatively infrequently, and been given a variety of different and often inconsistent meanings and applications. This wide variety of meanings imputed to life style is reflected in the diversity of life style used by researchers. Life style typologies are myriad. Ginzberg identifies four life styles found among working women: individualistic, influential, supportive, and communal.11 Havighurst and Feigenbaum identified four life style patterns of role performance which they labelled, "balanced high", "home-centred high", "home-centred medium", and "low".12 A study by Williams and Wirths of the aging process suggested "world of work", "familism", "living alone", "couplehood", and "easing through life" as salient life styles.13 Herbert Gans, in his famous paper, distinguishes five different classes of inner-city residents: "the cosmopolites", "the unmarried or childless", "the ethnic villagers", "the deprived", and "the trapped and downwardly mobile."14 Handel and Rainwater suggested "modern" and "traditional" categories of life style among blue-collar workers.15 Scott Greer claims that 90 per cent of most urban population falls into one of three "social types": "isolates", "neighbours", and "community actors".16 Having some of the elements of life style types are Tönnies' "Gemeinschaft" and
"Gesellschaft", Redfield's "folk" and "urban" dimensions, Riesman's "inner-" and "outer-directed" individuals, and Merton's "local" and "cosmopolitans".

In terms of the present analysis of the growth of community spirit and local attachment, the "local-cosmopolitan" dimension probably is the most useful and appropriate framework in which to view the growth of community spirit in today's neighbourhoods. The local-cosmopolitan dimension refers to the scale of social environment in which the individual sees himself as well as to the scale of the individual activity space. Such a subjective perception of social space would determine the extent to which an individual would feel belonged and attached to the local areas. There are those who subscribe to a locally-oriented life-style and as a result would have perceived a much more compact and localized social space, and would more likely to view themselves as members of local community. Whereas there will also be a few who espouse a non-locally-oriented cosmopolitan life style such as the merchant mariners and the "jet-settlers", and consequently would likely to have a diffuse conception of social space and would think of themselves as altogether rootless or as belonging only to communities which have no territorial boundaries.

The concept of local and cosmopolitan life style type is by no means a recent contribution to social science literature. Dobriner traces the development of this concept from Tönnies classic definition between rural Gemeinschaft solidarity relationships and urban Gesellschaft associational-contractual relationships. More recently,
Robert K. Merton has employed local and cosmopolitan as concepts to differentiate types of persons with contrasting involvement and identification with local or national social structures. Merton describes the local as "parochial", confined in his interest to one community, "preoccupied with local problems to the virtual exclusion of the national and international scene."22 The cosmopolitan on the other hand, identifies and relates himself to issues, events, and social organization outside of his local community.

These differences in outlook and orientation were found by Merton to result in differences in their sociability. Whereas localites took great pride in the number of their friends and acquaintances, the cosmopolitans were found to have little interest in meeting as many people as possible. They were more selective in their choice of friends and acquaintances and stressed the importance of confining themselves to friends with whom they could have fruitful intellectual interchange. Thus, it is always much more easier and likely for community spirit to develop among localite than it is the case of the cosmopolitans.

A similar sort of division was put forward by Melvin Webber and Carolyn Webber in their paper: Culture, Territoriality, and the Elastic Mile.23 Perhaps the most interesting feature in their paper, apart from the basic thesis that distance, space and place have different socio-cultural groups, is that there exists a life style continuum which is class-based. He asserts that the different life styles of different social classes are important determinant of behavioural
propensities with respect to space. When considering the social organization of the working class for instance, Webber maintains that it is "territorially coterminous with neighbourhood place", and that, in marked contrast to cosmopolitan "intellectual elite class", the numbers of this social class "rarely leave their spatial environs", and their basic thoughtways and style of life "are oriented to that which is here, and that which is here now."

So far, the theory of social space have been dealt with in some very general fashion, perhaps in the following sections of this chapter, we should look further into how these two contrasting dimensions of social space would affect the growth of community spirit.

A. The Localite Social Space

Consistent findings indicate that a great many of the residents of some American and British working-class neighbourhoods have retained the "intense localism" and the limited "close knit-networks" of social relations that are also found in many peasant societies. All of them described a way of life circumscribed by immobility and relative material deprivation. In such circumstances people come to depend upon each other and neighbourly relationships are as much an obligatory system of mutual aid as a source of social contact. As Anne Buttmer asserts, "... social space may be more compact and localized for the [localites] and more diffuse for the [cosmopolites]. This may also suggest a higher density of social interaction within the social spaces of the former, and lower density of interaction within the social spaces of the latter." Hardly the hard-boiled businessman,
as Gans observes, the working class residents were person oriented--interested primarily in the people in their group, not in anything abstract or objective such as is often involved in the occupational world. They were always on call for spontaneous get togethers and responded enthusiastically to other people. The values under this life style are said to be expressiveness and group integration, not achievement. In the study of Bethnal Green by Young and Willmott, for instance, individual was linked through his parents to a kinship network or extended family. These formed "a bridge between the individual and the community."...

...In Bethnal Green the person who says he 'knows everyone' is, of course, exaggerating, but pardonably so. He does, with various degrees of intimacy, know many people outside (but often through) his family, and it is this which makes it, in the view of many informants, a 'friendly place'... There is a sense of community, that is a feeling of solidarity between people who occupy the common territory which springs from the fact that people and their families have lived there a long time [and are locally-oriented in their life style].

True enough, therefore, sense of community is most likely to develop among working class residents and among those towards the lower end of the status spectrum largely because of their extremely locally-oriented life style. "The geographic horizon of the working class is more restricted" and together with their limited degree of mobility, these people have had to follow a parochial and present-oriented style of life. For them, the immediate neighbourhood is far more important to them than the area beyond. According to the social space theory, community spirit and social interactions are most likely to develop...
among localites' neighbourhood because the life style of these localites has been one that is territorially bounded and largely localized. As Webber puts it, "For them only the spatially concrete and the temporally immediate are understandable and read." Interactions and visitings among localites are so localized that they reverberate at such places as corridors, front stoops, streets, taverns, stores, and, among woman localites, from window-to-window and window-to-street. Gerald Suttles makes the same observation, "The broad pattern has been one where informal meeting places (the tavern or carry-out place), street corner gangs, church groups and precinct politics tend to dominate the collective forms of communal life." Not only interactions among localites are highly localized, even activity space for shopping, entertainment, and recreation are also largely confined to the local neighbourhood. Of course, the job holder may have to leave neighbourhood daily, but even then, "he follows a fixed transit course to his destination, and returns with little intercourse en route." Consequently, as Chester W. Hartman concludes,

... there was considerable interaction with the surrounding physical and social environment, an interaction which formed an integral part of the lives of the people ... Among a population for whom sitting on stoops, congregating on street corners, hanging out of windows, talking with shopkeepers, and strolling in the local area formed a critical part of the modus vivendi.

It is postulated by the social space theory that such frequent interaction with the immediate physical and social environment would
undoubtedly lead one to develop a strong sense of attachment to the local area. Where one's activity space is intensely and inextricably tied to the local neighbourhood, and where one's experiences are largely limited to social contacts with others who are but minutes away, the local neighbourhood space is likely to become reified as aspects of the social group. As Treinen explains,

Through the frequent repetition of social behaviour in the same situational context, certain phenomena, terminologies, or objects may be brought into such close association with that particular, specific series of social actions as to appear to be a stable element in that particular social context. One such element may then come to be taken as the symbol for that series of interactions.38

Put rather more simply, this means that if people always meet, converse, work, or generally spend their time together in the same place, that place (an inn, a particular park, or in fact the whole neighbourhood) is in the imaginations of those who meet there so inextricably bound up with their own group as to have become simply part of it. Thus, from the standpoint of the social space theorist, it comes as no surprise for sense of attachment to place to develop more readily among those who cherish a locally-oriented life style than among cosmopolitans. As the social space theorists see it, people form attachment to an area simply because they have had extended exposure to it, not so much because of the 'magical' power of attraction inherent in the site. As a psychology report puts it,

... men and animals do not so much stay near what they love as they love what is near and familiar.39
B. The Cosmopolitan Social Space

It is true that there are some people who are citizens of their local area, with limited horizons, but then of course, there are also some other people who may "claim the whole city as their empire, if not more." These are the cosmopolitans as were depicted by Merton, and they are the ones of whom Webber and others refer to as "the intellectual elites". The "multi-dimensional and supraterritorial" life-space of these intellectual elites is in sharp contrast to the locality-based life space of the localites. According to Webber these individuals "approximate the true cosmopolites for whom territorial distance is a minor barrier to interaction and whose professional social communities are the least shaped by territorialism. For these, social propinquity is least dependent upon spatial propinquity."41

According to the theory of social space, the life spaces of these highly mobile cosmopolites are indeed "multi-dimensional and supraterritorial." Although most of their colleagues and associates are physically distant in space, their contacts with them are maintained. As with all other cosmopolites, the primary group is not based on kinship, ethnicity, neighbouring, nationality, or place. Rather it is a voluntary association of men joined by shared interests and shared values. Their ties of common interest transcend the shackles of space so that the spatial bonds of local neighbourhood have been shattered. The cosmopolite may work in an office in the distant city centre, his wife may teach in one part of the city and attend evening course in another part of it, they will both entertain their work colleagues who
live in various parts of the city, spend occasional week-ends visiting old friends or parents who live over 100 miles away. "As 'neighbour' he may have virtually no contact with those who live on his block, for he probably selects his social friends largely, if not solely, on the basis of common interests; and he may therefore travel dozens of miles for an evening visit." 42

As long ago as 1935 Caroline F. Ware, in her book Greenwich Village, depicted the life style of the cosmopolites as,

... intensely individualistic in both their social relations and their point of view. Their social contacts were confined to more or less purposeful relations with those who had common interests. Independent of virtually all institutions and scorning the joining habit, taking full advantage of both the selectiveness and the anonymity which the city offered, they avoided the usual casual contacts with family, neighbours ... Instead, they maintained individual ties with friends scattered all over the city. 43

Even in his leisure time pursuits, the cosmopolite is largely freed from the restraints of territorial place. These activities included were: "watching sports events in person; participating in social and civic organizations; attending movies and the legitimate theatre; participating in active sports; cultural activities, such as visiting art shows and museums or attending concerts and the opera; visiting friends and relatives; dancing at night clubs and country clubs; eating in restaurants for pleasure." 44 Indeed, as the theorists of social space observe, the cosmopolite's life space "is not only geographically extensive; it also extends forward (as well as backward) in time." 45
In the opinion of those who advance the theory of social space, the result of such a spatially diffused life space together with a dispersion of activities and relationship is that the subjective social space as perceived often exceeds beyond the confines of the objective space of the local neighbourhood. Neighbours no longer know one another as well and are less important to one another and their attachment to the neighbourhood decrease; the idea of "turf" of territory, while it is crucial to the understanding of the localites, is not a useful concept in understanding the life style of this growing urban sub-population of cosmopolites. As Fried and Gleicher point out that, while the locally-oriented working classes will use a street as living and congregating space, the cosmopolites will use it as a corridor to travel elsewhere. According to the theory of social space therefore, cosmopolitan-oriented people travel so frequently and so far that they have little time for localized transaction and neighbourhood interaction. The fact that they spend relatively little time in the prolonged association and close observation that familiarity with place demands has probably diminished the likelihood for neighbourhood feeling to develop among them. Anne Buttimer probably is not far from truth when she says that sense of belonging and "territorial identification would be greater among the localites than among the cosmopolites."

Summary

Apparently thus, the local-cosmopolitan dichotomy in the theory of social space discussed above illustrates clearly that we cannot judge whether people will develop sense of belonging to local neighbourhood
until we have discovered their orientation of their life style and activity space. We cannot assume that all people will travel afar to regional shopping centre or that a locally-oriented way of life will be considered equally desirable by all. In short, according to the theory of social space, the social structure of society, by its very nature, gives rise to different styles of life and different definitions of the situation. As R. E. Pahl put it, "The managing director and the man on the assembly line may each have a car and, on a Sunday, have the same mobility potential but that does not mean that they will use it in the same way." What it does mean is that people do have varied perspectives on their environment: they construct mental maps of their respective home areas which reflect their background, social mobility and life style, and they form attachment to place through their normal orbits of movement. As the foregoing discussion of the theory of social space perhaps illustrates, the local-cosmopolitan orientation do serve as filters through which the physical environment is known, evaluated, and used. "Geodesic space is expanded and contracted by the ties of kinship, language, and special interests ... Distance shrink or expand according to the frequency of use and the importance of destinations." Thus, for the cosmopolites, having a life style and activity space that are oriented to the whole of the metropolitan terrain and beyond, the place of residence may be simply that and nothing more. Whereas for the localites, whose life spaces and orientations are spatially-circumscribed within the confines of the local neighbourhood space, it is more likely for community spirit to develop. As Oswald asserts, "a locally oriented population is not necessarily integrated, but it does have a
better chance of achieving a higher degree of integration."  

Studies of the interrelationships of the subjective life space of the residents to the objective space of the physical environment at this point in time are still in their infancy, although the need for them appear to be becoming increasingly recognized. As Buttmer emphasizes, "We need an empathetic understanding of urban life as existential reality, as lived experience."  

Such research on the theory of social space would not only add considerable knowledge to the scientific understanding of urban neighbourhoods which has been traditionally objective in manner, but would also be of practical value. The problem of determining residents' relationships to their immediate environment is one that has confronted planners who as of late are attempting to elicit some input into the decision-making process from those residents affected by plans. This often means trying to reconcile very different interests and needs of different sorts of people without the knowledge of how these different groups may be expected to relate to and use area.  

It might be said that the theory of social space, which involves a dialogue of the subjective and the objective social space, provides us one of the more realistic theoretical frameworks for understanding the intricate process of the development of community spirit in today's neighbourhood. Such a theory, therefore, should also be considered seriously in order to arrive at a comprehensive theoretical model in explaining the growth of community spirit.
PART III : THE EMPIRICAL STUDY
Summary of the Review of the Theories

The foregoing review has examined some theoretical models and studies of the dynamic process of the growth of community spirit. In order to arrive at an adequate evaluation of these theories, their associated criticisms are also scrutinized. Previous research on the explanation of the growth of community spirit is relevant and germane to the present thesis because it is a useful guideline for the delimitation of the set of variables which would be applicable to the analysis of the validity of the neighbourhood unit concept as well as adding insights into the present attempt of developing an integrated and comprehensive theoretical framework.

Based on the above review, the findings of research studies do reveal that the growth of community spirit is related to site characteristics, provision of physical amenities, social homogeneity of residents, and the subjective social space as perceived by the residents. These findings could be summarized as follows: It was found that growth of community spirit at the neighbourhood level could best be promoted

(a) where the neighbourhood is clearly defined by strongly perceptible physical boundaries;

(b) where there are strongly identifiable urban images within the neighbourhood;

(c) where the neighbourhood has an adequate provision of community facilities such as community centers, churches, schools, and
other local amenities such as parks and open space.

(d) where the neighbourhood has a Radburn type of street layout;

(e) where the neighbourhood population is of homogeneous social characteristics such as in terms of life style, social class, stage in the life cycle, ethnicity and religious belief; and,

(f) where the life style and activity space of the neighbourhood residents is locally oriented.

However, these findings must be put into context before drawing any conclusion. It is true that the site characteristics and provision of physical amenities do relate to the growth of community spirit but the relationship is never found to be an absolute and conclusive one. Social homogeneity and the subjective social space of the residents seem to be the more significant variables in explaining the growth of community spirit. Previous findings have indicated not only that social homogeneity and subjective social space are highly related to the growth of community spirit, but also that physical design factors may influence community spirit indirectly through their relationships with the social variables. Thus, while it is valuable to investigate the direct relationships between these independent variables and the growth of community spirit, it is equally important for one to look into the intricate interrelationships among the variables and their combined indirect effects on the growth of community spirit.
Theoretical Framework Employed in This Thesis

The theoretical framework postulated here is based upon the various models and studies of the growth of community spirit reviewed above. From the standpoint of the theory of design determinism, variations in the degree of community spirit are affected on the one hand by site characteristics such as physical boundaries, street layout, and urban images of the area, and on the other hand by the adequacy of the provision of physical amenities in the neighbourhood such as community centres, churches, schools, halls, grocery stores, shopping centres, bars and parks, etc. It was postulated that a neighbourhood such as that suggested in the neighbourhood unit concept would generate and foster a strong sense of belonging and community spirit among the residents. According to this concept, therefore, neighbourhood site characteristics such as identifiable physical boundaries, strongly perceptible urban images, and street layout that is free of disruptive through traffic are believed to have a direct positive effect on the growth of community spirit; similarly, a generous provision of neighbourhood facilities such as shopping facilities, community facilities, school facilities, and park facilities are also believed to affect the growth of community spirit directly and positively. (See Figure 14)

Apart from the model postulated by the theory of design determinism, alternative theoretical explanation of the growth of community spirit is advanced. Homogeneity of residents in terms of class, life style, ethnicity, religious belief, and stage in the life cycle has been postulated as the major determinant on the growth of community spirit. It is
Perceptibility of Site Characteristics

Provision of Physical Amenities

Growth of Community Spirit

Theoretical Model Postulated in the Theory of Design Determinism
believed that the greater the degree of social homogeneity among the residents, the greater the possibility for community spirit to develop and flourish among them. Such is the case largely because of the psychologically supportive role of social homogeneity which tends to give the residents a stronger feeling of security and familiarity, and therefore, a stronger sense of belonging. Under the same token, a socially heterogeneous population is postulated to have a negative effect on the development of community spirit. Thus in short, social homogeneity of residents is claimed to have a direct positive effect on community spirit. Not only that, social homogeneity is also believed to be a function of the site characteristics of the area as well as a function of the provision of local facilities. Centering the neighbourhood on certain particular institutions or certain particular street layout may work to gather together peoples of similar life style, value, class, race and stage in the life style. For example, the design of a neighbourhood on a bay street pattern and centering around institutions such as schools may have attracted young families with children, and those people who value quiet, safety, green spaces, and pedestrian access more than anything else. As a result, there is a high degree of homogeneity of residents by life style, by class as well as by family composition. Accordingly, the variations in the growth of community spirit is related to the physical variables and the social variable as shown in the following path diagram (see Figure 15) in which,

(1) Site characteristics and physical amenities have direct and indirect effects on the growth of community spirit. The indirect effects consist of the influence on the intermediate variable of social
Theoretical Model Postulated in the Theory of Social Homogeneity

Perceptibility of Site Characteristics

Social Homogeneity Among Residents

Growth of Community Spirit

Provision of Physical Amenities
homogeneity.

(2) Social homogeneity is a function of both site characteristics and physical amenities; and also affects the growth of community spirit directly.

Owing to the recent research approach adopted by the social scientists, a second intervening variable could be introduced into the so far discussed theoretical framework. It is believed that by injecting the intervening factor of the residents' subjective social space, one could arrive at a more complete and a more realistic theoretical framework in explaining the variations in the growth of community spirit. On the one hand, the residents' subjective social space is postulated to have a direct effect on the growth of community spirit. The more locally-oriented the life style and activity space of the residents is, the stronger the sense of community spirit is to be found in the area. Likewise, community spirit is less likely to grow and flourish in an area where its residents have adopted a non-locally oriented way of life and thus have a very diffuse and cosmopolitan subjective social space.

The variable of subjective social space not only directly affects the growth of community spirit, but is also in turn influenced by the previously mentioned variables, namely, social homogeneity among the residents, provision of physical amenities in the area, and site characteristics. Studies have indicated that subjective social space varies according to the degree of homogeneity of the local population, to the level of provision of physical amenities, and may even vary according to the degree of perceptibility of the site characteristics.
It has been postulated that a high degree of social homogeneity among the residents, and adequate provision of physical amenities, and a strongly perceptible and identifiable site would each lead to a more localized social space, which in turn would affect the intensity of the growth of community spirit. In view of this aforementioned intricate relationship between the independent variables (perceptibility of site characteristics, provision of physical amenities, social homogeneity among residents, subjective social space of residents) and the dependent variable (the growth of community spirit), as well as the interrelationships among the independent variables themselves, the following more elaborate and more realistic theoretical framework could be postulated. (See Figure 16)

According to the path diagram as indicated in Figure 14, the hypothesized relationships among the independent and the dependent variables are specified below:

(1) Perceptibility of site characteristics and provision of physical amenities have direct and indirect effects on community spirit. The indirect effects consist of the influence on the intermediate variables of social homogeneity among residents and the subjective social space of the residents.

(2) Social homogeneity among residents is a function of planning of site characteristics and provision of physical amenities; and also affect the subjective social space of the residents and the growth of community spirit directly.

(3) Subjective Social Space of the residents directly affects the growth of community spirit, and is in turn influenced by the planning of site characteristics, provision of physical amenities, and social
A More Comprehensive Theoretical Model

In Explaining the Growth of Community Spirit
homogeneity among the residents.

The notation of this path diagram conforms to Wright's conventions. The two headed curvilinear arrows indicate non-causal correlation among the independent variables. The unidirectional arrows represent a casual relation between each determining variable and each variable dependent upon it.

It should be noted that the theoretical framework postulated here is strictly based on the various theoretical models as were suggested in past research. The primary concern of this thesis is not only to evaluate the relative influence of the various delineated variables on the growth of community feeling but also to reassess the validity of these models postulated in past research. It is hoped that in doing so, meaningful policy implications could be derived for future neighbourhood planning and research.

It should also be noted that the set of variables considered in this proposed theoretical framework is by no means an exhaustive list of the social and physical determinants of the growth of community spirit. As Land, a noted authority on social research methodology points out,

... the essential idea of the causal model involves the construction of an oversimplified model of reality in the sense that the model considers only a limited number of variables and relations out of the universe of social reality. The five variables considered in this thesis are delineated from past research and theories. The analysis of the effects of other variables on the growth of community spirit lies beyond the scope of the present.
study. For the present purpose, all other plausible variables which may affect the growth of community spirit are relegated to the category of "residual" variables. The operationalization of the delineated variables and the research methodology used in the verification of this hypothesized theoretical framework are discussed in the next chapter.
CHAPTER VII

Research Methodology

Introduction

Neighbourhood, it has been shown, has been studied from a variety of perspectives. Unfortunately, as was mentioned earlier, individual pieces of research based on this variety of perspective generally have not been conducted in a comprehensive and integrated fashion within which research on different facets of the question can be co-ordinated and comparative studies implemented. Individual researchers merely carves out slices of the problem and investigates them according to the concepts and procedures of specific discipline. In order to avoid these same mistakes, it is believed that the integrated theoretical framework as is represented by the aforementioned path model could best serve the purpose, enriching the total understanding of the neighbourhood as well as yielding a better understanding of each of the theoretical perspective and their related perspective. The research problem in this thesis is to investigate the relative influence of the underlying factors affecting the growth of community spirit. Findings of previous research generally indicate that variation in community spirit is associated with either only the physical characteristics of the area or only the social composition of the neighbourhood population. In the present study variations in the growth of community spirit is conceptualized as the combined results of both the influences of the physical factors and the social factors, rather than just any one of them. They are: Perceptibility of Site Characteristics (PSC), Provision of Physical Amenities (PPA), Social Homogeneity Among the Residents (SHR), and
the Subjective Social Space of the Residents (SSS). The following sections of this chapter describe the research methodology employed in verifying this hypothesized conceptual framework.

**Source of Data and the Study Area**

Thirty neighbourhood studies carried out in the City of Winnipeg are the sources of data. (See Map 1 and Table 1). These neighbourhood studies were conducted in the past ten years (1967-1977) by graduate students in the Department of City Planning, University of Manitoba. There are several reasons for using these neighbourhood studies as the source of data. First, since the primary objective of these studies was consistently set on the purpose of achieving "some understanding of the relationship between the socio-economic and physical aspects of a neighbourhood", they are indeed very much in line with the research problem of this thesis, and also because of this same reason, much of the data pertaining to the socio-economic and physical aspects of the neighbourhoods were readily available to be used to operationalize the hypothesized conceptual framework. Another reason for employing these neighbourhood studies is the fact that these exceptionally large number of studies do represent a fairly wide cross-section of different types of urban neighbourhoods, and thereby lending weight to the conclusion to be drawn.

These neighbourhood studies were carried out in the past ten years in a fairly consistent manner. Basically, much of the information was obtained from four sources. Besides personal observations by the study team, three other sources could be identified, namely, interviewing community resource people (such as the councillors, district planners,
Table 1

NEIGHBOURHOODS IN THE SAMPLE

<table>
<thead>
<tr>
<th>Identification</th>
<th>Neighbourhood Name</th>
<th>Year of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Armstrong's Point</td>
<td>1972</td>
</tr>
<tr>
<td>2</td>
<td>Beaumont</td>
<td>1967</td>
</tr>
<tr>
<td>3</td>
<td>Chinatown</td>
<td>1970</td>
</tr>
<tr>
<td>4</td>
<td>Clarence</td>
<td>1968</td>
</tr>
<tr>
<td>5</td>
<td>Crane</td>
<td>1968</td>
</tr>
<tr>
<td>6</td>
<td>Elmwood</td>
<td>1974</td>
</tr>
<tr>
<td>7</td>
<td>Fort Richmond I</td>
<td>1967</td>
</tr>
<tr>
<td>8</td>
<td>Fort Richmond II</td>
<td>1975</td>
</tr>
<tr>
<td>9</td>
<td>Lount Subdivision</td>
<td>1968</td>
</tr>
<tr>
<td>10</td>
<td>Lord Roberts</td>
<td>1971</td>
</tr>
<tr>
<td>11</td>
<td>McKenzie-Mountain</td>
<td>1973</td>
</tr>
<tr>
<td>12</td>
<td>Main Street</td>
<td>1970</td>
</tr>
<tr>
<td>13</td>
<td>Main Street Commercial</td>
<td>1973</td>
</tr>
<tr>
<td>14</td>
<td>Marshall</td>
<td>1968</td>
</tr>
<tr>
<td>15</td>
<td>North Centre St. Boniface</td>
<td>1974</td>
</tr>
<tr>
<td>16</td>
<td>North Point Douglas</td>
<td>1969</td>
</tr>
<tr>
<td>17</td>
<td>North St. Boniface</td>
<td>1970</td>
</tr>
<tr>
<td>18</td>
<td>Norwood St. Boniface</td>
<td>1976</td>
</tr>
<tr>
<td>19</td>
<td>Park La Salle</td>
<td>1976</td>
</tr>
<tr>
<td>20</td>
<td>River-Osborne East</td>
<td>1972</td>
</tr>
<tr>
<td>21</td>
<td>River-Osborne West</td>
<td>1972</td>
</tr>
<tr>
<td>22</td>
<td>Riverview</td>
<td>1971</td>
</tr>
<tr>
<td>23</td>
<td>Roslyn Road Area</td>
<td>1970</td>
</tr>
<tr>
<td>24</td>
<td>St. Mary's Road Area</td>
<td>1974</td>
</tr>
<tr>
<td>25</td>
<td>St. Norbert</td>
<td>1968</td>
</tr>
<tr>
<td>26</td>
<td>Selkirk-McGregor</td>
<td>1973</td>
</tr>
<tr>
<td>27</td>
<td>West Kildonan</td>
<td>1973</td>
</tr>
<tr>
<td>28</td>
<td>Weston</td>
<td>1976</td>
</tr>
<tr>
<td>29</td>
<td>Wildwood Park</td>
<td>1967</td>
</tr>
<tr>
<td>30</td>
<td>Windsor Park</td>
<td>1975</td>
</tr>
</tbody>
</table>
Map 1. Locations of Study Neighbourhoods, City of Winnipeg.
engineers and ministers), referring to published data (census information, zoning maps, and land titles), and finally, surveying residents of the area.

In general, data collected in these studies could be classified into four overlapping categories:

(1) The visual appearance and physical characteristics of the neighbourhood.

(2) The functional characteristics of the neighbourhood.

(3) The social, economic, and demographic characteristics of the neighbourhood.

(4) The activity patterns and attitudes of the residents in the area.

The study areas selected have illustrated the diverse characters and the rich variation of local neighbourhoods in urban areas. A brief description of each of these study neighbourhoods is given in Appendix A and B. Suffice enough to say here is the fact that the study neighbourhoods do in fact differ not only in location, size, age of development, but also in design features, amenities, and social compositions. Moreover, they do also vary in terms of the degree of community spirit and social cohesion, ranging from an "integral" type of a neighbourhood to a very "diffuse" one.² It is believed that these rich variations of local neighbourhoods in the City of Winnipeg would allow the present study to arrive at much more significant and meaningful conclusions and policy implications from its findings than it would otherwise be.
Selection of Key Variables

The selection of the variables for empirical analysis in this study is based on two considerations. First, there is of course the consideration of their relevance to the problem to be examined in this thesis. In this case, past research has provided the empirical grounds for the inclusion of the independent variables in the analysis. The second consideration is the availability of the type of data. As was previously mentioned, data collected in the neighbourhood studies were confined to the socio-economic, functional, demographic, and physical characteristics of the area as well as the activity patterns of the residents. As a result selection of key variables would have to take into account this limitation.

Based on the above considerations, twelve independent variables and one dependent variable were specifically chosen for analysis. Seven of the independent variables selected belong to the physical dimension of a neighbourhood. They are: (1) Boundary: physical boundaries in the neighbourhood; (2) Park: provision of open space and parks in the locality; (3) Community: provision of community and church facilities in the locality; (4) School: provision of schools in the locality; (5) Shop: provision of shopping facilities in the locality; (6) Street: the predominant pattern of street layout in the neighbourhood; and (7) Image: presence of urban images in the neighbourhood. These seven physical variables were selected in close correspondence to the basic principles embodied in the neighbourhood unit concept. As far as the variables delineating the social dimension of a neighbourhood is concerned, five variables were selected. They are: (1) SES: socio-economic
status homogeneity among the residents; (2) Style: life style homogeneity among the residents; (3) Life-cycle: stage in the life cycle homogeneity among the residents; (4) Ethno-religion: ethno-religious homogeneity among the residents and (5) SSS: the subjective social space of the residents in the neighbourhood. "Growth of Community Spirit" is the dependent variable.

Operationalization of the Variables and Factor Analysis

The twelve aforementioned independent variables together with the dependent variables were coded in order that the data, which was mainly of a qualitative nature could be transformed into numerical values necessary for statistical analysis. The scaling scheme, in general, does involve value judgement, but nevertheless is not at all arbitrary. Indicators are used in assigning values to each variable, and the scaling scheme did take into account certain established relationships. The list of indicators for each individual variable and the total scaling scheme is contained in Appendix C and Appendix D respectively, but an example at this point could serve to clarify the above statement. (See Table 2 and Table 3).

A data matrix was then structured with the dimensions of 30 cases by 13 variables. In view of the fact that sample size has only 30 cases, it is believed that the relatively large number of independent variable has had to be reduced into a smaller range of significantly-associated variables. In view of this problem, the statistical technique of factor analysis is called for. This technique is employed largely because of its data-reduction capability. Given an array of
<table>
<thead>
<tr>
<th>Variable</th>
<th>Provision of Church and Community Facilities</th>
<th>Life Style Homogeneity</th>
<th>Subjective Social Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scaling Scheme</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 adequate</td>
<td>1 high homogeneity</td>
<td>1 highly community-centred</td>
<td></td>
</tr>
<tr>
<td>2. moderately adequate</td>
<td>2 medium homogeneity</td>
<td>2 moderately community-centred</td>
<td></td>
</tr>
<tr>
<td>3 fairly inadequate</td>
<td>3 low homogeneity</td>
<td>3 moderately cosmopolitan-oriented</td>
<td></td>
</tr>
<tr>
<td>4 inadequate</td>
<td>4 heterogeneity</td>
<td>4 strongly cosmopolitan-oriented</td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 3

**EXAMPLE OF INDICATORS FOR THREE SELECTED VARIABLES**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Provision of Open Space and Park</th>
<th>Socio-economic Status Homogeneity</th>
<th>Presence of Urban Images</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicators</td>
<td>(a) provision</td>
<td>(a) occupation</td>
<td>(a) path</td>
</tr>
<tr>
<td></td>
<td>(b) accessibility</td>
<td>(b) income</td>
<td>(b) edge</td>
</tr>
<tr>
<td></td>
<td>(c) quality</td>
<td>(c) education</td>
<td>(c) node</td>
</tr>
<tr>
<td></td>
<td>(d) user's satisfaction</td>
<td></td>
<td>(d) district</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(e) landmark</td>
</tr>
</tbody>
</table>
correlation coefficient for a set of variables, factor-analytic technique enables us to see whether some underlying pattern of relationships exists such that the data may be "rearranged" or "reduced" to a smaller set of factors or components. It is not feasible here (it is far from the purpose of this thesis), to review statistical techniques. There are many sources where factor analysis is considered; it is only necessary to insist here that the factor (components) extracted from this technique still is dictated by what variables are initially included for analysis. If data on social homogeneity and physical amenities of a neighbourhood are put into analysis, it will not be very surprising if social homogeneity and physical amenities emerge as the main components of variation.

Employing the factor-analytic technique, the data matrix was analyzed and have yielded an unrotated factor matrix as is shown in Table 4. The unrotated factors extracted have proved to be difficult to interpret and do not give rise to a meaningful patterning of variables, it was decided to apply the rotational method to the factoring solutions. It was also decided that the oblique rotational method was to be used rather than the orthogonal rotation procedure. It is true that the ultimate goal of any rotation is to obtain some theoretically meaningful factors but the oblique rotational method is used here basically because it is more flexible and more realistic a method. It is more flexible because the factor axes need not be orthogonal (uncorrelated) and is more realistic because the theoretically important underlying dimensions are not assumed to be unrelated to each other.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boundary</td>
<td>0.78208</td>
<td>-0.32621</td>
<td>0.34030</td>
</tr>
<tr>
<td>Park</td>
<td>0.72031</td>
<td>-0.39932</td>
<td>-0.27386</td>
</tr>
<tr>
<td>Community</td>
<td>0.76884</td>
<td>-0.39089</td>
<td>-0.32587</td>
</tr>
<tr>
<td>School</td>
<td>0.72814</td>
<td>-0.52891</td>
<td>-0.30691</td>
</tr>
<tr>
<td>Shop</td>
<td>0.73780</td>
<td>-0.02036</td>
<td>-0.35441</td>
</tr>
<tr>
<td>Street</td>
<td>0.43190</td>
<td>-0.54938</td>
<td>0.51208</td>
</tr>
<tr>
<td>Image</td>
<td>0.78230</td>
<td>-0.16673</td>
<td>0.46635</td>
</tr>
<tr>
<td>SES</td>
<td>0.50363</td>
<td>0.71794</td>
<td>-0.03919</td>
</tr>
<tr>
<td>Style</td>
<td>0.62375</td>
<td>0.72890</td>
<td>-0.04807</td>
</tr>
<tr>
<td>Ethno-religion</td>
<td>0.71975</td>
<td>0.56895</td>
<td>0.02837</td>
</tr>
<tr>
<td>Life cycle</td>
<td>0.61831</td>
<td>0.62336</td>
<td>0.17780</td>
</tr>
</tbody>
</table>
As a result of the oblique rotational procedure and using an eigenvalue of 1.00 as the cut-off point, three factors were maintained for rotation. Table 5 revealed that 81.4 percent of the variability was accounted for by these first three factors, and factors which explained less than 9.4 percent of the total variance were not maintained for rotation. Having arrived at three terminal factors, the next real problem, as with all factor analysis, is the interpretation of the factors.

The interpretation and the labelling of the factors, although related to the loading of the variables, is as Carter asserts, "subjective." However, in view of the loadings of the variables on each of these three factors as shown in Table 6, it is reasonably enough to identify the first factor as a dimension of the provision of physical amenities, the second factor as a dimension of the social homogeneity of the residents, and to label the third one as a dimension of the perceptibility of site characteristics. These three factors and the substantial loadings used to interpret them are presented in Table 7.

Having identified and labelled each of these factors, each neighbourhood case was then rated on each of these factors through the calculation of factor-scores. Note that it has been customary to build factor-scores employing only those variables that have substantial loadings on a given factor. It seems, however, that the complete estimation method of employing all the variables (as used in the present study) would have some advantage over such shorthand method. As Kim asserts, "In the shorter method, the influence of variables not included in the scale construction is not controlled; they will affect the scale through
### TABLE 5

**Eigenvalues, and proportion of total and common variance accounted for by unrotated factors**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Eigenvalue</th>
<th>Percent of Variance</th>
<th>Cumulative Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.13774</td>
<td>46.7</td>
<td>46.7</td>
</tr>
<tr>
<td>2</td>
<td>2.78747</td>
<td>25.3</td>
<td>72.0</td>
</tr>
<tr>
<td>3</td>
<td>1.03278</td>
<td>9.4</td>
<td>81.4</td>
</tr>
<tr>
<td>4</td>
<td>0.74898</td>
<td>6.8</td>
<td>88.2</td>
</tr>
<tr>
<td>5</td>
<td>0.47225</td>
<td>4.3</td>
<td>92.5</td>
</tr>
<tr>
<td>6</td>
<td>0.33248</td>
<td>3.0</td>
<td>95.6</td>
</tr>
<tr>
<td>7</td>
<td>0.15097</td>
<td>1.4</td>
<td>96.9</td>
</tr>
<tr>
<td>8</td>
<td>0.11992</td>
<td>1.1</td>
<td>98.0</td>
</tr>
<tr>
<td>9</td>
<td>0.08412</td>
<td>0.8</td>
<td>98.8</td>
</tr>
<tr>
<td>10</td>
<td>0.07181</td>
<td>0.7</td>
<td>99.4</td>
</tr>
<tr>
<td>11</td>
<td>0.06141</td>
<td>0.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Variable</td>
<td>Factor 1</td>
<td>Factor 2</td>
<td>Factor 3</td>
</tr>
<tr>
<td>---------------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Boundary</td>
<td>0.64587</td>
<td>0.28143</td>
<td>0.86610</td>
</tr>
<tr>
<td>Park</td>
<td>0.86288</td>
<td>0.17069</td>
<td>0.49324</td>
</tr>
<tr>
<td>Community</td>
<td>0.92059</td>
<td>0.20785</td>
<td>0.49000</td>
</tr>
<tr>
<td>School</td>
<td>0.93213</td>
<td>0.07795</td>
<td>0.53894</td>
</tr>
<tr>
<td>Shop</td>
<td>0.76355</td>
<td>0.46426</td>
<td>0.28023</td>
</tr>
<tr>
<td>Street</td>
<td>0.37147</td>
<td>-0.11330</td>
<td>0.84359</td>
</tr>
<tr>
<td>Image</td>
<td>0.53544</td>
<td>0.40418</td>
<td>0.86725</td>
</tr>
<tr>
<td>SES</td>
<td>0.16078</td>
<td>0.87028</td>
<td>-0.02832</td>
</tr>
<tr>
<td>Style</td>
<td>0.26049</td>
<td>0.95776</td>
<td>0.03980</td>
</tr>
<tr>
<td>Ethno-religion</td>
<td>0.37222</td>
<td>0.90331</td>
<td>0.22261</td>
</tr>
<tr>
<td>Life cycle</td>
<td>0.20798</td>
<td>0.88063</td>
<td>0.22016</td>
</tr>
<tr>
<td>Factor</td>
<td>Label</td>
<td>Significant Variables</td>
<td>Loadings</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>1</td>
<td>Provision of Physical Amenities</td>
<td>Parks and Open Space</td>
<td>0.86288</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community &amp; Church</td>
<td>0.92059</td>
</tr>
<tr>
<td></td>
<td></td>
<td>School Facilities</td>
<td>0.93213</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shopping Facilities</td>
<td>0.76355</td>
</tr>
<tr>
<td>2</td>
<td>Social Homogeneity Among the Residents</td>
<td>Socio-Economic Status</td>
<td>0.87028</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Life style</td>
<td>0.95776</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ethno-religion</td>
<td>0.90331</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stage in Life Cycle</td>
<td>0.88063</td>
</tr>
<tr>
<td>3</td>
<td>Perceptibility of the Site Characteristics</td>
<td>Physical Boundary</td>
<td>0.86610</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Street Layout</td>
<td>0.84359</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urban Images</td>
<td>0.86725</td>
</tr>
</tbody>
</table>
their intercorrelations with the variables used in the scale. In the complete estimation method, on the other hand, some variables are simply used as suppression variables to give the best estimate of the given factor.5 In view of this comment, factor scores are calculated by employing all variables on the factor.

The factor scores thus calculated indicated how a particular neighbourhood rated on each of the factors. These, in turn, were used as independent variables to explain the dependent variable of community spirit. In sum, with the help of the factor-analytic technique, the originally large number of variables has been reduced into a smaller range of factors. The factor thus derived not only fitted well into the hypothesized path model but, also owing to the fact that they are smaller in number, the hypothesized conceptual framework could then be operationalized in a much more manageable fashion.

The Path Model and Hypothesis

The path model employed in this thesis represents the postulated relationships between the growth of community spirit and the independent variables and the causal ordering of the independent variables. The basic assumption of a path model is that a set of variables can be arranged in a causal sequence such that a set of structural equations can be written which reflect the structural relations. Within the structure, certain variables are considered to be dependent on the remainder. These internally determined variables are called endogenous variables. It is assumed that their total variation is determined by some linear combination of the remaining variables called exogenous
variables whose variation in turn is determined by variables outside the set under consideration. If, as is usually the case, the endogenous variables are not completely explained by variables in the system, a residual variable is added to show the variation which is not explained.

As far as this model is concerned then, it is assumed that:

(1) Perceptibility of Site Characteristics ($X_1$), and Provision of Physical Amenities ($X_2$) are exogenous; that is, they are completely determined by factors outside of the postulated system, and none of the other variables in the model has any effect on them. The remaining two independent variables (Social Homogeneity Among Residents, and Subjective Social Space of Residents) are endogenous in that they are determined by at least one other measured variable in the system.

(2) Social Homogeneity Among the Residents ($X_3$) is influenced by Perceptibility of Site Characteristics and Provision of Physical Amenities. The arrows (paths) leading from $X_1$ and $X_2$ to $X_3$ contain path coefficients (standardized regression coefficients or beta weights) which indicate the direct effects of $X_1$ and $X_2$ on $X_3$.

(3) Similarly, Subjectively Social Space of Residents ($X_4$) is influenced by Perceptibility of Neighbourhood, Provision of Physical Amenities as well as Social Homogeneity Among the Residents. The direct effect of $X_1$, $X_2$ and $X_3$ on $X_4$ are measured by the path coefficients in each of the paths leading from $X_1$, $X_2$ and $X_3$ to $X_4$.

This postulated model can be stated in operational form in the following hypotheses:
(1) Perceptibility of Site Characteristics (PSC) and Provision of Physical Amenities (PPA) have direct and indirect effects on the Growth of Community Spirit (GCS). The indirect effects consist of the influence on the intermediate variables: Social Homogeneity Among the Residents (SHR), and Subjective Social Space of the Residents (SSS).

(2) SHR is a function of PSC and PPA, and also affect SSS and Growth of Community Spirit.

(3) SSS directly affect the Growth of Community Spirit and is in turn influenced by PCS, PPA and SHR.

In mathematical terms, these hypothesized relationships among the variable can be restated by the following set of recursive regression equations:

\[ X_1 \text{ (Perceptibility of Site Characteristics)} = e_1 \]
\[ X_2 \text{ (Provision of Physical Amenities)} = e_2 \]
\[ X_3 \text{ (Social Homogeneity Among the Residents)} = P_{31}X_1 + P_{32}X_2 + e_3 \]
\[ X_4 \text{ (Subjective Social Space of the Residents)} = P_{41}X_1 + P_{42}X_2 + P_{43}X_3 + e_4 \]
\[ Y \text{ (Growth of Community Spirit)} = P_{y1}X_1 + P_{y2}X_2 + P_{y3}X_3 + P_{y4}X_4 + e_y \]

where \( P \) is the path coefficient of a specific path and the \( e \)'s the error in measurement or the effect of the residuals.

These postulated relationships among the independent and the dependent variables are presented in diagrammatic form in Figure 17. As mentioned earlier, this path diagrams are drawn according to the following Wright's conventions:

(1) The implied causal relations among variables are
where $X_1 = \text{Perceptibility of Site Characteristics}$

$X_2 = \text{Provision of Physical Amenities}$

$X_3 = \text{Social Homogeneity Among the Residents}$

$Y = \text{Growth of Community Spirit}$

$e's = \text{Residuals}$
represented by unidirectional arrows extending from each independent
variable to each variable dependent upon it.

(2) The postulated non-causal correlations between exogenous
variables of the system are symbolized by two-headed curvilinear arrows
to distinguish them from causal arrows.

(3) Residual variables are represented by unidirectional
arrows leading from the residual variable to the dependent variable.

(4) The quantities entered beside the arrows on a path diagram
are the symbolic or numerical values of the path and correlation co-
efficients of the postulated causal and correlational relationships.
The direction of the linear selections are indicated as positive by a
plus sign and negative by a minus sign.

Techniques of Analysis : Path Analysis

Path Analysis is used to test the proposed path model. Excellent
detailed treatment of the principles of path analysis are found in
works by Land,\(^7\) Heise,\(^8\) Duncan,\(^9\) Li,\(^10\) and Blalock.\(^11\) A brief des-
cription of this analysis is given below.

In essence, the primary purpose of path analysis is stated by
Sewell Wright, the geneticist who developed the technique; it is,
a method of measuring the direct influence along each
separated path in such a system and thus of finding
the degree to which variation of a given effect is
determined by each particular cause. The method
depends on the combination of knowledge of the degree
of correlation among the variables in a system with
such knowledge as may be possessed of the causal
relations are uncertain, the method can be used to
find the logical consequences of any particular hy-
pothesis in regard to them.\(^12\)
That is to say, path analysis is used to test the theoretical model consisting of direct and indirect relationships that are presumed to hold between variables in the model. It has been emphasized that the path model represents a particular (subjective) point of view concerning the relationships of the variables. Whether it makes sense or not depends much upon our subject matter knowledge. Once a particular viewpoint has been taken, the path analysis must be performed accordingly, so that we may ascertain the logical consequences of such a structure. In Wright's own words, "The method of path coefficients is not intended to accomplish the impossible task of deducing causal relations from the values of the correlation coefficients."¹³ "The purpose of path analysis is to determine whether a proposed set of interpretation is consistent throughout."¹⁴

Thus, the objective of path analysis is to force the internal consistency of an argument. Perhaps Duncan summarized it best,

As a pattern of interpretation ... path analysis is invaluable in making explicit the rationale for a set of regression calculations. The great merit of the path scheme ... is that it makes the assumptions explicit and tends to force the discussion to be at least internally consistent, so that mutually incompatible assumptions are not introduced surreptitiously into different parts of an argument ...¹⁵

Apart from forcing the internal consistency of the argument, path analysis has also contributed to the refinement of explanation by looking at the strength of relationships among variables. In the analysis, correlation coefficients are used to describe the strength between variables which are not causally related. Path coefficients are used for the causal relationships. These path coefficients are the standardized beta coefficients from the normal equations of
regression theory. Where the correlation coefficient is a measure of the amount of variation explained by one independent variable, the beta coefficient, i.e. path coefficient, indicates how much change in one of the independent variables when the others are controlled.

In understanding the technique of path analysis, several other specific notations and calculations have had to be recognized. Firstly, the coefficient of determination $R^2$ is given for the dependent variable and each intervening variable. This indicates the percentage of variation in the variable explained by the prior variables in the model. Secondly, the residual path coefficient is $\sqrt{1 - R^2}$ and is usually interpreted as a measure of success in explaining the phenomenon under study. Thirdly, the square of the residual path coefficient represents the proportion of unexplained variance. Last, but not least, the mathematical adequacy of the path model has to be tested by applying the path theorem:

$$r_{ij} = k_{1k} p_{jk}$$

where $r$ = the zero-order correlation.

$i$ = the number of the dependent variable.

$j$ = the number of the independent variable.

$k$ = the number for all the variables between $i$ and $j$, including $j$.

$p$ = the path coefficient.

Depending on its mathematical adequacy, the model is either retained or modified for further tests. If modification of the model is required, "the inadequacies of the model should precipitate a reconstruction of the substantive theory that generated the causal model at
the outset.\textsuperscript{17} The reader should bear in mind of these various notations of the technique of path analysis before coming to grasp the results of the path analysis, which are presented in the following chapter.
CHAPTER VIII

PRESENTATION OF FINDINGS

Introduction

The results of the statistical analysis of the proposed path model are reported in this chapter. The empirical results presented here are generated with the SPSS computer program at the University of Manitoba.

For theoretical reasons it has been postulated that the variables in the proposed model are interrelated. The assumed causal ordering of the variables are specified by the directions of the paths. Testing the hypothesized path model involved (a) demonstrating the inter-relationships among the variables, (b) finding the specific direct effects of the independent variables on the dependent variable, (c) finding the specific indirect effects of the independent variables on the dependent variable, and (d) examining the mathematical adequacy of the model. The following report is comprised of such findings. The observed inter-relationships among the variables are indicated by the zero-order correlation matrix, whereas the estimated correlations are calculated according to the path theorem. By comparing the observed and the estimated correlations, we can get some idea of the mathematical adequacy of the proposed model. Results of the regression analysis are presented in summary tables showing the standardized regression coefficients, the population of variance explained and the standard errors of the variables. Path diagram with the calculated path coefficients accompany the summary tables.
A. Correlation Analysis

Present in Table 8 is the zero-order correlation matrix. The correlation coefficients \( r' \) indicate the degree of association among the variables. The directions of the relationships are indicated by the \( (+) \) signs. The values in bracket are the corresponding F values, from which the researcher could find out the level of significance of his findings.

Findings

It can be seen that the growth of community spirit does strongly correlated with PCS \( (r = 0.533; \alpha \leq 0.01) \) and PPA \( (r = 0.556; \alpha \leq 0.01) \). The degree of association with Subjective Social Space of the Residents, however, appear to be even stronger \( (0.688; \alpha \leq 0.01) \) while the relationship with Social Homogeneity Among the Residents is the strongest \( (0.704; \alpha \leq 0.01) \). Also note that the correlations between Growth of Community Spirit and the independent variables are all positive. This conforms to the expected directions of the relationships.

The \( r' \)'s for the independent variables signify their inter-relationships. Both Perceptibility of Site Characteristics and Provision of Physical Amenities are significantly correlated with Subjective Social Space of the Residents, the \( r' \)'s being 0.490 and 0.565 respectively \( (\alpha \leq 0.01) \). As far as their own inter-relationship is concerned, their correlation is fairly high \( (r = 0.621; \alpha \leq 0.01) \) and so is the correlation between SHR and SSS \( (r = 0.496; \alpha \leq 0.01) \).
TABLE 8
Zero-Order Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>Site</th>
<th>Facility</th>
<th>People</th>
<th>Space</th>
<th>Spirit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSC</td>
<td>PCS</td>
<td>PPA</td>
<td>SHR</td>
<td>SSS</td>
<td>GCS</td>
</tr>
<tr>
<td>X₁</td>
<td>1.00</td>
<td>.621 (16.8)ᵃ</td>
<td>.251 (1.88)</td>
<td>.490 (8.85)</td>
<td>.533 (11.1)</td>
</tr>
<tr>
<td>PPA</td>
<td>1.00</td>
<td></td>
<td>.275 (2.29)</td>
<td>.565 (13.1)</td>
<td>.556 (12.5)</td>
</tr>
<tr>
<td>SHR</td>
<td>1.00</td>
<td></td>
<td></td>
<td>.496 (9.14)</td>
<td>.704 (27.5)</td>
</tr>
<tr>
<td>SSS</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td>.688 (25.2)</td>
</tr>
<tr>
<td>GCS</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

WHERE X₁ = Perceptibility of Site Characteristics

X₂ = Provision of Physical Amenities

X₃ = Social Homogeneity Among the Residents

Y = Growth of Community Spirit

ᵃValues in bracket are the corresponding F values.

F values > 7.63 are significant at the 99% level.
Interpretation of Findings

The findings can be interpreted in the following way. In view of the fairly significant correlation of the Growth of Community Spirit with Perceptibility of Site Characteristics and Provision of Physical Amenities, perhaps there is indeed a grain of truth in the thesis of the theory of design determinism. It confirms the various studies\(^2\) which concluded that detailed siting factors such as street layout and presence of urban images do influence the intensity of community spirit and the sense of belonging in the neighbourhood. The fairly high correlation coefficient between the Growth of Community Spirit and Provision of Physical Amenities (0.556) seems to indicate that a generous provision of physical amenities, such as parks, churches, community centres, and schools, can promote a stronger sense of belonging to the locality. The significant positive finding here appears to confirm Lee's classical study in which he finds that "there is an increase in the ratio of 'joiners' to 'non-joiners' that is directly proportional to the absolute number of amenity buildings in the locality which shows no evidence of saturation over a range of provision extending as high as sixty-five amenity buildings per locality."\(^3\)

However, these findings have had to be put into context. The relationship between Perceptibility of Site Characteristics, Provision of Physical Amenities and Growth of Community Spirit is more complex than was conceptualized by the theory of design determinism. The findings here can only mean that physical planning, with their intentional and unintentional consequences, may provide a potential base for the growth of community feeling. "Like music to a film," it is "complementary
to human activity, it does not shape it." Physical planning may play
its intended role to the fullest extent only where the social conditions
are favourable and the people are disposed to it. This perhaps explains
the stronger correlation of Growth of Community Spirit with Social
Homogeneity Among the Residents and Subjective Social Space of the
Residents.

The strong correlation between Growth of Community Spirit and Social
Homogeneity Among the Residents ($r = 0.704; \leq 0.01$) does build up a
strong case in support of the previously discussed theory of social
homogeneity. For reason of security and familiarity, people tend to
feel more attached in an area of relatively homogeneous social and racial
characteristics. Stated differently, a high degree of social hetero-
geneity among residents in terms of status, life style, race, or even
age would have a negative effect on the growth of community spirit.
The stronger correlation of SHR with Growth of Community Spirit as com-
pared to PSC and PPA may indicate that homogeneity in social composition
of the neighbourhood population is more fundamental in the growth of
community spirit than physical planning.

The same can be said, to a slightly lesser degree, of the effects
of Subjective Social Space of the Residents. The significant positive
correlation of Growth of Community Spirit with SSS ($r = 0.688; \leq 0.01$)
supports the theory that the more localized one's subjective social
space is, the more likely he would feel attached and belong to the
local community. In other words, where the residents' subjective social
space is cosmopolitan-oriented and geographically extensive, their
feeling of attachment to local neighbourhood would probably decrease.
The reason is obvious. Where the subjective social space of the residents is intensely and inextricably tied to the local neighbourhood, there certainly is a greater likelihood for community feeling to develop than it would otherwise be.

As is also expected, SSS is positively correlated with all the other independent variables. It has already been demonstrated by Lee that the use of local amenities is directly related to the number of amenities provided in the locality. It has also been demonstrated that residents tend to have a more localized social space when they are socially, culturally, and economically homogeneous. The positive findings here seem to be in support of these past studies. The weak correlation of SHR with PSC and PPA (r = 0.251 and 0.275 respectively) do not lend themselves to any ready interpretation. It should be noted, however, that social composition of the neighbourhood population is more likely to be caused by sociological forces such as "selective recruitment," "socialization" and "selective repulsion" than merely physical design. The positive findings here, nevertheless, could mean that certain type or class of people may come together because of their common attraction to a particular site characteristic or provision of certain particular physical amenities.

All in all, the positive correlations between Growth of Community Spirit and Perceptibility of Site Characteristics, Provision of Physical Amenities, Social Homogeneity Among the Residents do signify that these are the conditions which would influence the Growth of Community Spirit.
B. Regression Analysis

The results of the regression analysis are summarized in Table 9. In this table, the coefficient of determination ($R^2$) indicates the proportion of variation in the dependent variable explained by the independent variables. The column $R^2$ Change shows the changes in the amount of variance explained by the addition of the independent variables in the regression analysis. That is, each statistic in this column refers to the additional variance explained by the introduction of that independent variable into the regression equation.

The Beta weights are the path coefficients (i.e., the standardized regression coefficients). Each beta weight represents the amount of standardized unit of change in the dependent variable brought about by one standardized unit of change in the independent variable when the effects of the other independent variables are controlled for. The path coefficients (beta weights) can be interpreted as measures of the direct influence of each independent variable upon Growth of Community Spirit with adjustment made for all other independent variables. The path coefficients for all the paths in the hypothesized model were calculated according to the set of recursive regression equations listed in Chapter 7, and are presented here in Figure 18. The (+) signs pertaining to the beta weights in Table 9 indicate the direction of the relationship. In regression analysis, the positive and negative signs refer to the direction of the slope of the regression line.

**Findings**

Table 9 shows that the cumulative $R^2$ for all four independent
<table>
<thead>
<tr>
<th>Variable</th>
<th>Multiple R</th>
<th>$R^2$</th>
<th>$R^2$ Change</th>
<th>Simple R</th>
<th>Beta Weight</th>
<th>Standard Error</th>
<th>F Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site</td>
<td>.533</td>
<td>.284</td>
<td>.284</td>
<td>.533</td>
<td>.181</td>
<td>.132</td>
<td>1.642</td>
</tr>
<tr>
<td>Facility</td>
<td>.606</td>
<td>.367</td>
<td>.083</td>
<td>.556</td>
<td>.159</td>
<td>.139</td>
<td>1.136</td>
</tr>
<tr>
<td>People</td>
<td>.818</td>
<td>.669</td>
<td>.303</td>
<td>.704</td>
<td>.480</td>
<td>.116</td>
<td>14.938</td>
</tr>
<tr>
<td>Space</td>
<td>.842</td>
<td>.709</td>
<td>.039</td>
<td>.688</td>
<td>.272</td>
<td>.138</td>
<td>3.392</td>
</tr>
</tbody>
</table>
Figure 18

Path Coefficients

\[ X_1 = e_1 = 1.00 \]
\[ X_2 = e_2 = 1.00 \]
\[ X_3 = 0.131 + 0.193 + 0.956 (e_3) \]
\[ X_4 = 0.180 + 0.356 + 0.353 + 0.731 (e_4) \]
\[ Y = 0.181 + 0.159 + 0.480 + 0.272 + 0.539 (e_y) \]

where

\[ X_1 = \text{PSC} \]
\[ X_2 = \text{PPA} \]
\[ X_3 = \text{SHR} \]
\[ X_4 = \text{SSS} \]
\[ Y = \text{GCS} \]
variables is 0.709. This means that all the independent variables together account for 70.9 percent of the total variation in Growth of Community Spirit. It also means that 39.1 percent of the total 39.1 percent of the total variation is unexplained for. However, we should not be at all disappointed if we, as Duncan and Blau suggest, "reflect on what it would mean to live in a society where nearly perfect explanation ... could be secured by studying causal variables." This would mean that people or communities could "by no effort of their own ... materially alter the course of destiny, nor could any stroke of fortune, good or ill, lead to an outcome not already in the cards."6

As far as more specific information regarding the amount of variation in Growth of Community Spirit explained by each independent variable is concerned, it is provided by the statistics listed in the \( R^2 \) change column. Of the four independent variables PSC (\( R^2 \) change = 0.284) and SHR (\( R^2 \) change = 0.303) are the two variables with the greatest explanatory power. The introduction of PPA and SSS into the regression equation only increases the amount of explained variance by 8.3 percent and 3.9 percent respectively.

The beta weights in Table 9 show that Social Homogeneity Among the Residents (beta = 0.480; \( \alpha \leq 0.01 \)) has the largest direct effect on Growth of Community Spirit, followed by Subjective Social Space of the Residents (beta = 0.272; \( \alpha \leq 0.1 \)). In relative terms, Perceptibility of Site Characteristics (beta = 0.181; \( \alpha \leq 0.2 \)) and Provision of Physical Amenities (beta = 0.159; \( \alpha \leq 0.2 \)) have comparatively less direct influence on Growth of Community Spirit. An examination of both the \( R^2 \)'s and the path coefficients reveals that Social Homogeneity Among the Residents
not only shows the largest path coefficient, but also has the greatest explanatory power \( R^2 \text{ change} = 0.303 \)

**Interpretation of Findings**

The path coefficients presented here signify some important aspects regarding the relationships of the variables. It can be seen that, other things being equal, the effect of the Social Homogeneity Among the Residents significantly influence the Growth of Community Spirit. Socially speaking, the natural thing is for birds of the same feather to flock together and that they would prefer to make friends among their own kind, with whom they can feel at ease. As Gans argues, homogeneity of background, life style, status, age and race among the residents is necessary for neighbouring to develop into anything more than a polite exchange of greetings. Without such homogeneity, more intensive social relations are not likely to develop, and excessive heterogeneity can lead to coolness between neighbours. Evidence on the complete intermingling of contrasting class groups, age groups and races is decidedly negative. Not infrequently, it has been observed that status unequal groups or different race groups refuse to use the same community facilities and services, thus leading to withdrawal, mutual avoidance and even social tension. The positive effect of Social Homogeneity Among the Residents on Subjective Social Space of the Residents \( \beta = 0.353; \alpha \leq 0.05 \) lends some support to such findings reported in past research. For reason of security and familiarity, residents tend to have a locally-oriented life style and a neighbourhood oriented activity space if they are or perceive themselves as socially homogeneous. In turn, the effect of such a localized social space among the residents on Growth of Community Spirit
is significant. Where the activity space and life orientation of the residents is inextricably tied to the local neighbourhood, there certainly is a greater chance for community spirit to develop. The positive path coefficient here between CGS and GCS (beta = 0.272; \( \alpha \leq 0.1 \)) certainly indicates that it is so. Thus, we can safely conclude that both Social Homogeneity Among the Residents and localized subjective social space of the residents are conditions that are conducive to Growth of Community Spirit.

Perhaps the same can be said, to a lesser extent though, of the effect of the two physical factors: Perceptibility of Site Characteristics and Provision of Physical Amenities (beta weights = 0.181 and 0.159 respectively; \( \alpha \leq 0.2 \)). Quite contrary to the criticism launched against the theory of design determinism, the path coefficients for these two physical factors show that their direct effects on Growth of Community Effect are positive. The findings in the present study lend some support to the argument that physical factors have a positive influence on the Growth of Community Spirit. Perhaps it is true that the presence of physical barriers or open paths in specific places do influence the probability of contact which in turn would lead to communication, sociability, and eventually community feeling. Studies have indicated that site characteristics such as clear-out physical boundaries, strong urban images and local-traffic oriented street layout would encourage social identity and sense of belonging among the residents.\(^{11}\) It has also demonstrated that adequate provision of physical amenities would have a positive effect on the formation and development of not only a functionally self-sufficient neighbourhood but also of a socially integrated one.\(^{12}\) The positive path coefficients between Growth of Community Spirit
and Perceptibility of Site Characteristics and Provision of Physical Amenities in the present study appears to have confirmed most of these arguments.

It should be noted, however, that the path coefficients for these two physical factors is not as strong as Social Homogeneity among the Residents and Subjective Social Space of the Residents. The direct effect of physical planning should therefore not be overstated. The findings here can only be interpreted as a suggestion that poor site planning and an inadequate provision of physical amenities is likely to be inhibitive on the growth of community spirit. The findings here should not lead us to draw any deterministic conclusions as the proponents of the theory of design determinism did. True enough, even if it be admitted that physical design may influence, it cannot be said to determine sociability and community spirit. The relationship is obviously not absolute. Perhaps a more meaningful approach is to investigate the indirect effects of these independent variables on the dependent variable. The computation of the Total Indirect Effects (TIE) is described below.

C. Analysis of Indirect Effects

In path analysis, the bivariate correlation between an exogenous variable \(X_i\) and an endogenous variable \(X_j\) is defined as the total effect of \(X_i\) on \(X_j\). The total effect consists of the direct and indirect effects. Hence, given the knowledge of the direct effect (the path coefficient) and the bivariate correlation, the Total Indirect Effect (TIE) of \(X_i\) on \(X_j\) can be calculated by applying the equation:

\[
\text{Total Indirect Effect (TIE) of } X_i \text{ on } X_j = r_{ji} - p_{ji}
\]
where \( r \) is the bivariate correlation, and \( p \) the path coefficient.

Findings

For the study here, the TIE of the independent variables are:

\[
\begin{align*}
\text{TIE of } X_1 \text{ on } Y &= r_{y1} - p_{y1} = (.533) - (.181) = .352 \\
\text{TIE of } X_2 \text{ on } Y &= r_{y2} - p_{y2} = (.556) - (.159) = .397 \\
\text{TIE of } X_3 \text{ on } Y &= r_{y3} - p_{y3} = (.704) - (.480) = .224 \\
\text{TIE of } X_4 \text{ on } Y &= r_{y4} - p_{y4} = (.688) - (.272) = .416
\end{align*}
\]

Interpretation of Findings

It can be seen that through their association with the intermediate variables, both Perceptibility of Site Characteristics and Provision of Physical Amenities have a strong indirect effect on the Growth of Community Spirit. In view of the stronger indirect effects as compared to the direct effects of these two variables on the Growth of Community Spirit, one is tempted to argue that only when the other social preconditions are present can physical design and planning play its intended role in influencing the growth of community spirit. Physical planning, as Gans maintains, simply provides possibility or cues for social behaviour, it only provides a potential environment for community spirit to develop; whether or not the potential environment would turn into an "effective" one depends, among many other things, upon the social composition of the neighbourhood population and their subjective social space. The relatively strong indirect effects of the two physical factors upon Growth of Community Spirit signify that they can play their intended roles most effectively especially through their association with the intermediate variables of Social Homogeneity Among the Residents.
and the Subjective Social Space of the Residents. The physical factors by themselves are not as significant in influencing the Growth of Community Spirit.

The same can be said of the variable of Subjective Social Space of the Residents. Its relatively large indirect effect reveals that the effects of SSS is affected by the association of this variable with the causally antecedent variables. Its effects on Growth of Community Spirit depends on its association with Social Homogeneity among the Residents as well as with the physical factors. Needless to elaborate too much, the Subjective Social Space of Residents is obviously affected by the degree of social homogeneity among the residents and by the level of provision of physical amenities in the local area. The strong path coefficient for PPA and SHR with SSS in the present analysis certainly indicates that this is so. (.356 and .353 respectively). It can be seen, thus, the independent variables delineated in the present study not only influenced the Growth of Community Spirit directly but also indirectly through their association with each other.

D. Analysis of Mathematical Adequacy of the Model

The findings of the correlation and regression analysis having been presented, the next step in the analysis is to test the mathematical adequacy of the model. This involves calculating estimates of the correlations from the path coefficients. The path theorem is applied to the proposed model, and the correlations are estimated according to the following equations:
The values of the estimated correlations thus derived are presented in the below-diagonal matrix in Table 10 whereas the observed correlations appear in the above-diagonal matrix.

It can be seen that in general the estimated correlations are very similar to the observed correlations. The differences are very small, and may be simply attributed to rounding errors in calculation. The similarity between the observed and estimated correlations suggests that the model is mathematically adequate for the computation of the postulated direct and indirect effects of the causally antecedent variables and the variables dependent upon them. It is safe to assume that we have achieved a very respectable goodness-of-fit. To complete the presentation of findings, the arithmetic differences between the observed and estimated correlations are given in Table 11.

Summary of Statistical Analysis

To summarize, the variables in the model explain 70.9 percent of the
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<th>Site</th>
<th>Facility</th>
<th>People</th>
<th>Space</th>
<th>Spirit</th>
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</thead>
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<td>0.704</td>
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<td>0.491</td>
<td>1.00</td>
<td>0.688</td>
</tr>
<tr>
<td>Spirit</td>
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<td>0.557</td>
<td>0.704</td>
<td>0.689</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Table 10

Observed Correlations (above-diagonal) and Correlations Estimated From Path Coefficients (below-diagonal)
TABLE 11

Differences Between Observed and Estimated Correlations

<table>
<thead>
<tr>
<th></th>
<th>X_1</th>
<th>X_2</th>
<th>X_3</th>
<th>X_4</th>
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<td></td>
<td></td>
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</tr>
<tr>
<td>X_4</td>
<td>.001</td>
<td>.00</td>
<td>.00</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>.00</td>
<td>.001</td>
<td>.00</td>
<td>.001</td>
<td>---</td>
</tr>
</tbody>
</table>
total variance in the dependent variable. Social Homogeneity Among the Residents has the strongest explanatory power, and accounts for 30.3% of the variation in the Growth of Community Spirit. The inter-correlations among the independent variables indicate that they are highly correlated with one another. With respect to the relationships between Growth of Community Spirit and the other variables, the positive correlation conform to the expected directions of the relationships. The findings lend support to the postulate that these variables are the necessary preconditions for the Growth of Community Spirit.

Results of the path analysis also show that Social Homogeneity Among the Residents has the largest direct effect on Growth of Community Spirit. The positive path coefficient suggest that, other things being equal, the Social Homogeneity Among the Residents is an influential factor for the Growth of Community Spirit. Subjective Social Space of the Residents also has a significant direct effect on Growth of Community Spirit. As compared to these two variables, the factors of Perceptibility of Site Characteristics and Provision of Physical Amenities are relatively weak. Nevertheless, computation of the total indirect effects reveals that Perceptibility of Site Characteristics and Provision of Physical Amenities can significantly influence the growth of community spirit through their association with other independent variables in the model, namely, Social Homogeneity Among the Residents, and Subjective Social Space of the Residents.

The path theorem is used to test the mathematical adequacy of the model. It is found that the estimated correlations are strikingly similar to the observed correlations, thus, indicating that the
postulated paths in the model are statistically sound. The mathematical adequacy of the hypothesized model stands. Being supported by favourable results on the goodness-of-fit test, this model will then become the base for deduction of policy implications.

Empirical Verification of the Model

Given that the hypothesized theoretical model is mathematically sound, perhaps the next step in the discussion is to establish the empirical relevance and applicability of the abstract propositions by subjecting the model to empirical verification through a series of actual case studies of existing neighbourhoods. Thus, in the following section of this chapter, attempts are made to test the model with four case studies of existing neighbourhoods in the City of Winnipeg in order to assess the extent of the relevance and applicability of the abstract model in reality. By empirically verifying the hypothesized model in this manner, it is believed that it would not only add weight to the positive statistical findings as discussed above, but would also facilitate the task of translating the abstract theoretical findings into policy suggestions. The four neighbourhoods chosen for study are: Chinatown, North Centre St. Boniface, Armstrong's Point, and Wildwood Park; these areas are selected basically because they represent various levels of site perceptibility, provision of community amenities, social homogeneity and subjective social space of the residents in their respective areas. Verification of the model in all of these very different environmental contexts would, of course, lend more weight to the conclusion to be drawn.
Chinatown

Chinatown is made up of an eight block area lying some six blocks north of the centre of downtown Winnipeg (see map 2). However, owing to the fact that the area is dissected by streets carrying heavy through traffic, many of the residents in the area are unable to identify the exact boundaries of the neighbourhood. Not only that the area does not have strongly defined boundaries, the heavy traffic volumes in and around the study area tend to isolate it from community facilities. Worst still, there is a general lack of provision of community facilities in the area such as school, cultural centre, parks and playgrounds, creating thus a situation where the residents of the area are unable to find a major focus for their activities. However, despite all these drawbacks, Chinatown still remains very much a community neighbourhood. It still remains an ethnic enclave in which the residents have developed a strong spirit of fellowship and cohesiveness among themselves. They feel a strong regional attachment to the area and what it represents to them. They also place great emphasis on day-to-day contact with relatives, friends and neighbours in the area. In fact, an interview carried out in the neighbourhood study of this area reveals that fully 40% of the respondents were relatives or close friends. Moreover, the spare time activity pattern of the residents in this area is highly localized. Most of them patronize the local grocery stores and spend a great deal of time to meet with friends in the area to talk, read or play games such as mah jong. There exists indeed a strong and viable community life in Chinatown.
Figure 19. Empirical Verification of the Model: Chinatown
The case study presented here does lend support to the findings that a socially homogeneous population would have a strong influence on the growth of community spirit. (see figure 19). In this neighbourhood, the inhabitants develop a strong sense of community feeling largely because it is an area of relatively homogeneous social, ethnic, life style and age characteristics. Not only the majority of the residents in the area is Chinese and elderly in age, but that 98.7% of them earn less than $6,000 a year and share a very similar life style. They feel they know "who" the people around them are, and they also feel that it is much easier for them to interact, to establish consensus, and to co-operate with other residents in such a social environment. The psychologically supportive role of social homogeneity not only has given the residents in Chinatown a stronger feeling of community, but has also induced them to be more locally oriented in their activity patterns; such frequent interaction with the immediate physical and social environment has in turn led these residents to develop a strong sense of attachment to the local area. Apparently thus, the case study of Chinatown has empirically verified one of the most important propositions of the model, i.e. that Social Homogeneity Among the Residents is the most significant variable in facilitating the growth of community spirit; not only does it have a direct effect on the development of community spirit, it also can affect its growth indirectly by encouraging the residents of the area to engage in locally-oriented activity pattern.
North Center St. Boniface

Largely because of the relatively adequate provision of community facilities in the area, North Center St. Boniface is chosen as one of the case studies in order to test out the model with regard to the effects of physical elements in the area on the promotion of the growth of community spirit. North Center St. Boniface is considered to be well-provided with physical amenities. Not only is the area adequately served by a neighbourhood shopping center, but also by a number of other smaller shops and stores. Educational facilities within the area include three elementary schools, a high school, and a university level institute known as St. Boniface College. Some of the quasi-public and public buildings in the study area are the Native Sons Club, the Belgian Club, Le Club La Verendrye, a museum and a cultural centre which provide the residents of the area ample opportunity to socialize with other members of the community. The many churches and institutional buildings also represent a very strong element in the neighbourhood. Moreover, the area is also well-served by four major landscaped parks. (see map 3).

As far as the population characteristics of the area is concerned, it has been found that French is by far the dominant cultural group, encompassing 62% of the neighbourhood, and the majority of which are Roman Catholic. It has also been found that the residents of the area is locally oriented in their activity space, and that most of them have developed a strong cultural attachment to the area.

Once again, the strong community feeling developed in this area could be attributed to the ethnic homogeneity of the residents,
Perceptibility of Site Characteristics

Social Homogeneity of Residents

Subjective Social Space

Growth of Community Spirit

Provision of Physical Amenities

Figure 20. Empirical Verification of the Model: North Center—St. Boniface.
however, one could also attribute this strong feeling of community to the direct and indirect effects of the "imageability" of the site characteristics and the provision of physical facilities in the area. Churches like the St. Boniface Cathedral has always been a significant focus for the French Roman Catholics in the area. The adequate provision of parks and clubs may not have a direct bearing on the growth of community spirit, but they nevertheless do provide residents in the area a greater opportunity to socialize with other members of the community. Moreover, the French stores, the French street names, and the many French restaurants all seem to accentuate the image of the area as a French cultural centre and thus encouraging many a French speaking residents to come and reside in the area, and inducing those who already lived there to develop a locally oriented activity space. As a result, the inhabitants of the area are becoming increasingly homogeneous and increasingly locally-oriented in their social space; the combined effects of all these factors have probably led to the development of community spirit and a strong sense of attachment to the area among the residents. (see figure 20).

The case study presented here tends to verify the postulates that the visual form or "imageability" of neighbourhood could indirectly facilitate the growth of community spirit. Moreover, it also tends to confirm the findings that an adequate provision of physical amenities such as parks, playgrounds, community centre does indeed increase the potential of meeting neighbours in the area. These physical factors, as seen in the present case, are not totally irrelevant in the promotion of greater social satisfaction and community feeling. They do, as the model has postulated, have a direct and indirect effect on the growth of community spirit in urban neighbourhood.
Armstrong's Point

The effect of Perceptibility of Site Characteristics on the Growth of Community Spirit as postulated in the model could best be verified by the case study of Armstrong's Point. Armstrong's Point is a peninsula of land bounded by the Assiniboine River to the south, west, and east and the "Gates" or Cornish Avenue to the north. (see map 4). The area is aesthetically pleasing due primarily to the presence of relatively heavy vegetational growth; upon entering Armstrong's Point one is quick to sense the deep naturalistic appeal of the area. It is an area of strong visual impact with large lots and local-traffic oriented street layout. Judging from the physical appearance of the area, the neighbourhood does possess an upper middle class aura. Indeed, the residents in the area are predominantly of upper-middle class status. These residents, when asked whether or not they feel their area is a "strong" neighbourhood, responded "yes" 90% of the time, and that they also feel that the physical image of the area is a prime factor in this strength. That the boundaries of the neighbourhood is well-defined by the river is felt by the residents to be a constant asset in isolating the area and to have lent additional attractiveness to all inhabitants of the area. Within these highly perceptible boundaries, there is the immediate realization that the area is "different" or "unique" in comparison to the adjacent community and most of Winnipeg for that matter.

The magnificence of the Dutch Elms in the area is felt by many of its residents to be an obvious asset which is not only aesthetically pleasing but functional in giving identity to the area, to which many a residents have eventually developed a strong sense of
Figure 21. Empirical Verification of the Model: Armstrong's Point.
attachment. Moreover, the large well kept gardens and lawns in the area have not only given the area an aura of a upper-middle class neighbourhood but have also given the residents of the area an added impetus to get organized to maintain the RI status and to keep their neighbourhood "exclusive". In fact, the formation of the Armstrong's Point Homeowner Association (AHOA) is the direct result of this desire. The site characteristics of the area have therefore indeed brought a common stem of interest in the neighbourhood. This common stem of interest has in turn facilitated the residents to associate on more personal terms. Indeed, the residents of the area not only have interacted formally because of their relationship with AHOA but have even organized occasional afternoon tea, bridge games, and annual cocktail party among themselves. Undoubtedly, the physical image of the area has been the most definite force in nurturing and instigating such social interaction and cohesion in this neighbourhood. (See figure 21).

Wildwood Park

Wildwood Park is probably one of the best case studies to verify the proposed theoretical model. It is a planned neighbourhood with a Radburn type of layout. It has an unique park-like district with distinct paths and edges. (See map 5). The area is well serviced by an adequate provision of churches, open space, schools and shops. The district is also characterized by a relatively high level of social interaction and cohesion. Bay parties are held from time to time, and bridge groups are formed among many a residents in the area. Indeed, there exist a strong sense of community and an esprit-de-corps in the neighbourhood.
Figure 22. Empirical Verification of the Model: Wildwood Park
Perhaps one could explain such intense feeling of community in this neighbourhood by subscribing the proposed integrated model. First, it could be explained by the fact that the residents are already strongly oriented to the local community in their activity patterns. It has been found that a great percentage of the residents in fact went to churches and schools in the local area and purchased their groceries locally. Their recreational activities also centered around the local community club which from time to time appear of interest to the children of the area as well as to their parents. Such a locally oriented activity pattern have undoubtedly facilitated the residents to form a strong sense of belonging to the area and to have a better chance of making contacts with others in the neighbourhood. A locally oriented population is not necessarily integrated, but it does have a better chance of achieving a high degree of integration.

Of course, the fact that the residents are locally oriented in their activity space depends a lot on the reason that there is an adequate provision of community facilities and that they do share more or less the same life style and same stage in the life cycle. (See figure 22). The majority of the households in Wildwood Park do share more or less the same social class background, a similar conception of family life, child rearing and life style, and it comes as no surprise that many a residents are so readily to participate in common activities and organizations in the local area.

Again, perhaps indirectly, the physical elements of the neighbourhood also do play a role in facilitating the growth of community spirit in this area. As discussed above, the adequate
provision of community facilities such as the community club, churches and parks could have induced the residents of the area to get involved in the activities of the local community and given them a better chance to meet one another. The interviews carried out in the neighbourhood study tend to confirm this observation. Many of those interviewed have in fact indicated that their interactions with others in the area were largely through church affiliation, community club, the Wildwood Club, and other local organizations.

Not only that, the provision of the community club such as that of Wildwood Park and the Radburn type of street layout tends to have a positive effect on the Social Homogeneity of the Residents, which, in turn, has a positive effect on the Growth of Community Spirit. In the case of Wildwood Park, the Radburn type of street layout coupled with a children-oriented community club tend to attract peoples of similar life style, value, class and stage in the life cycle, people who value quiet, safety, green spaces, and pedestrian access more than anything else, and people who have chosen a life style emphasizing familism over other alternatives. As a result, there is in this neighbourhood a relatively high degree of social homogeneity among its residents, who not only found themselves much more easier to co-operate in solving community problem such as the case in the great flooding in 1950, but also found themselves much more capable and inclined to agree on standards, to establish consensus, and to interact.

All in all thus, the four aforementioned case studies have indeed empirically verified the theoretical postulates that the
Growth of Community Spirit is related to Site Characteristics, Provision of Physical Amenities, Social Homogeneity Among the Residents, and the Subjective Social Space of the Residents. All these case studies, particularly that of Chinatown and North Center St. Boniface, have indicated very clearly that Social Homogeneity and Subjective Social Space of the Residents are the more significant variables in explaining the Growth of Community Spirit. Nonetheless, all of these case studies have also indicated that physical design factors may influence community spirit indirectly through their relationships with the social variables. One only needs to look at the case study of Wildwood Park in order to verify this theoretical postulate. The empirical verifications of the theoretical model by the four case studies here has not only confirmed the statistical findings of the research being done, but has also added weight to the empirical relevance and applicability of the model and therefore enhanced the degree of confidence in the deduction of policy implications from it.
PART IV: IMPLICATIONS AND CONCLUSION
CHAPTER 9

POLICY IMPLICATIONS FOR PLANNING

The hypothesized path model which was operationalized in the empirical study has been demonstrated as being a useful framework for assessing the extent to which growth of community spirit can be accounted for by the delineated variables. The empirical study confirmed the existence of relationships among the independent and the dependent variables, and also operationalized the model so that a holistic integrated approach could be taken to study community spirit formation. The result has been that new knowledge has been gained about not only the relationships between independent and dependent variables but also those among the independent variables themselves. At this stage, it is likely that the question will be put as, to what use there is in these sort of studies, for are they not just another passing academic exercise?

The findings in this thesis do have implications for planners attempting to work with the neighbourhood unit. In the following discussion, the most salient findings of this thesis will be scrutinized for their possible implications for neighbourhood planning. The task of deducing policy implications from a theoretical model such as the present path model is primarily a task of translating the theoretical findings into policy suggestions. This intermediate step of deducing policy implication is in itself an area that needs a great deal more research. We can in the study only skim the surface in making the transition between the abstract conceptual model and the policy actions.
Perhaps the brief discussion here will at least pinpoint the issues for further study.

**Implications For Approaches in Neighbourhood Planning**

First and foremost, the evidence from the path model does suggest that planners should avoid subscribing any simplistic theories of society to guide their endeavours in neighbourhood planning. The single-variable cause-and-effect model such as the one postulated in the Design Determinism theory is not only over-simplistic but also anachronistic. A radically new education is needed for both planner and social scientist. Each has to develop a more comprehensive understanding of urban life and the dynamics of urban systems than they have in the past. "The discussion of neighbourhood certainly seems to be not short of dogmatic and doctrinaire views on both sides."¹ Thus, we have the planners' insistence on the physical substance which they can manipulate and the sociologist concern with social relationships because they have tools to understand or manipulate the processes. The integrated theoretical framework employed in the present study indicates that community neighbourhood formation is the result of a far more dynamic and complex processes than any brand of determinism, be it "sociological determinism"² or "architectural determinism". Interdisciplinary co-operation -- i.e. collaboration between experts across the frontiers of their particular specialist domains -- is in fact the only way in which we are going to be able to deal with the problems of our society and of our environment.

This has not been the case in the past. Both planners and socio-
logists as Buttimer asserts, "have tended to develop self-images and languages which differentiate their approaches to the explanation of problems common to both; each has developed an image and language about the other which has often impeded rather than facilitated mutual understanding." Both are to be blamed for this state of affairs. On the one hand, many a sociologists, as Waldorf points out, "have not participated in planning as one would expect and when they have it has generally been primarily as critics of assumptions and little more." On the other hand, planners "have not been able to specify the kinds of information or assessments they need"; and even if they do, they usually do not regard "social science as an integrated and inseparable part of the total planning process." As a result, there has been little real communication between the two.

This lack of interdisciplinary co-operation in the sphere of neighbourhood planning had important consequences. In 1950, Dewey was able to comment that "the divorce has not only accrued to the disadvantage of the planner, but has lulled the urban sociologist, among other social scientists, into an uncritical complacency." The situation has not only hindered the advancement of scientific knowledge about the neighbourhood but findings are almost useless for more practical planning purposes. The absence of an interdisciplinary planning process would have a profound effect on the built environment and less visibly and measurably upon people's lives as well. The evidence in this thesis clearly demonstrated that community spirit formation is not as simple as the proponents of design determinism or sociological determinism has postulated but is far more complicated than any brand of determinism.
A multidisciplinary approach has to be adopted in planning residential areas so as to enable the residents to come together in neighbourhoods not merely to live, but in Aristotle's phrase, "to stay to live the good life."

In view of this, planners and sociologists must work together much more than they have in the past. It is not that planners have got to become sociologists or vice versa, but rather they should work in close collaboration with one another. When planning authorities have architects and planners working on the design of neighbourhood, they should also have a sociologist as member of a team, doing research in day-to-day collaboration with the designers. Robert Gutman suggests that "real dialogue can only began when both groups working together learn to overcome, or to benefit from, their differing professional rearing practices."8 Perhaps this kind of active collaboration should even be started at an earlier phase, i.e. in the training of planners and architects. There is indeed an important place for sociologist in telling planning students about the relevant sociological work, and about how one goes about making surveys in connection with their planning and architectural projects. As Willmott and Cooney conclude, "Direct collaboration of these kinds seems to us to offer the best hope of real advance in bridging the gap between sociological research and planning."9

**Implications For Urban Renewal Policy**

The findings in this thesis also have important implications for urban renewal policy. The findings here do indicate that people having a non-localized activity space and a cosmopolitan life style are less
likely to develop a sense of belonging. In view of this kind of findings and in light of the tremendous increase in spatial mobility of urban man conferred by modern technology in recent decades, one might be tempted to argue that community life is no longer significant or relevant and that the search for community spirit is, by its very nature, a futile one. This, we hasten to note, should not be the kind of implication to come out of the present study. It is true that the process of metropolitanization in recent decades does involve the distinct rise in dependence upon the auto, reliance upon the ubiquitous telephone, the pervasive impact of television, and, for many, the capabilities of air travel. But to say that the "place community", i.e. the local neighbourhood, is going to be rubbed out by the ease of communication is indeed a very dangerous fallacy. The range in mobility potential between people living in the same metropolitan setting is enormous. Class and the family's stage in life cycle are fundamental variable in determining mobility potential. We need to realize the wide spectrum of mobility potential extending from those of the cosmopolites to those of the localites. If, in the determination of public policies, it were possible to take account of these differences, our public policies might be more sensitively tuned to the underlying wants of the many different publics we need to serve.

The positive findings in this thesis between Growth of Community Spirit and a localized subjective social space of the residents seems to indicate to us that neighbourhood still continues to figure importantly to those people who, by reason of their household or personal characteristics, find themselves seriously deprived with respect to
accessibility. These persons may lack financial resources, they may have personal physical disabilities, they may lack the knowledge and the coping abilities to get along in the complex metropolis, and they may lack the most versatile transportation -- the auto. Interestingly enough, it is also these residents, as scholars like M. Webber, E. Bott and P. Mogly have found out, who feel strongly attached to the area and retained "intense localism" in their social space.

The public policy implication of this situation particularly suggest the need to take a second look at our urban renewal policy for these people who are either too poor to afford or too old to drive a car. Owing to their lack of mobility, they usually live out their lives in territorially bounded and territorially perceived societies. Any forced relocation of these people would bound to disrupt the complex networks of social interconnections that existed within them. "Friends and relatives were dispersed. The familiar habitat of corner drugstore, tavern, church and social hall went down with the houses. The small neighbourhood shopkeepers, who provided informal caretaker services or small loan in emergencies, lost their sites and patronage."17 Lacking the support of familiar surroundings and association, the evictees perceived the new neighbourhoods as hostile; their recollection of the old ones were sometimes tinged with a "grief" reaction akin to the stresses of mourning for a loved friend or relative.18 Indeed, forced evacuation of such people having a locally-oriented life style surely induced costs far greater than the immediate pecuniary cost of the move. Any forced relocation policy for these people should therefore be more concern in providing increased opportunity for maintaining a sense of continuity
for them whose residential areas are being renewed. The policy implication thus made here is not to suggest that people in dilapidated sections of our cities should be ignored, "saved" from the redevelopment bulldozer, simply because they appear content with their traditional and locally-oriented life style, it is only suggesting that planners whose personal understandings of social value systems and their personal perceptions of space and time probably come closer to those of the cosmopolites than to those of the localites, should make an effort to be more sensitive to the underlying preferences of the localites they seek to serve.

Implications For the Design of Neighbourhood Development Projects

The results of this study have a number of implications for the planning, design, and implementation of new neighbourhood development projects. The 30 neighbourhoods evaluated in the research provided invaluable policy implications for design and program approaches to population composition, site perceptibility, and the provision of community facilities in new neighbourhood developments. By taking into account these policy implications, developers, planners and other professionals involved in the development process should be better able to produce new neighbourhood design that are responsive to the needs of all of their residents.

A. Design for Site Perceptibility

The findings in the present study lend some support to the argument that site perceptibility would have a positive influence on Community Spirit. They might not be the determining factors, but neverthe-
less do have a role to play in facilitating the growth of community spirit. The positive relationship between site perceptibility and growth of community spirit might indicate that the visual form or "imageability" of a neighbourhood could facilitate the formation of community spirit. The imageability of a locality depends on the presence of "imageable" elements of the environment. In his important book published in 1968 and appropriately entitled, The Image of the City, Kevin Lynch has classified these "imageable" elements of the environment as one of five major types -- paths, nodes (focal points), landmarks, districts and edges.\textsuperscript{10} It is believed by many that these physical elements would provide the necessary psychological image around which a community may focus. According to Lynch, people can only feel at home and attached in an environment of which they have a sound perceptual image and in which they feel emotionally secure. "By appearing as a remarkable and well-knit place, the city could provide a ground for the clustering and organization of these meanings and associations. Such a sense of place in itself enhances every human activity that occurs there, and encourages the deposit of a memory trace."\textsuperscript{11}

Thus, it was important from this point of view that everyone be offered some fixed points of perception in their surroundings. It is assumed by Lynch that an area with clear, permanent, and coherent image is one that is a pleasure to live in, with no distress from dis-orientation. British scholars such as Alison and Peter Smithson agree on this. They believe that, against the time-scale of community changes the "fine" or permanent physical elements such as historical buildings
and buildings of unchanging functions should be preserved to enhance the "comprehensibility" of the area.12 "Just as our mental processes need fix points (fixed in the sense of change over a relatively long period) to enable them to classify and value transient information, and thus remain sane and lucid, so too, the city needs 'fixes' -- identifying points with a long cycle of change, by means of which things changing on a shorter cycle can be valued and identified. With a few things fixed and clear, the transients no longer menace the sense of urban structure or the citizens' security, but can unhinderedly reflect short-term needs and moods."13

Indeed, individual does require "imageable" elements or distinctive physical features in the locality to which he can relate. In Fleeting Glimpses Denis Wood describe a Mexican city that is loved by its inhabitants and possesses an exceptionally clear image.14 Likewise, Michelson also points out that focal points such as statues, parks, and shopping centres do symbolically form the centre of a cluster of land uses, holding together a larger area which otherwise might not have any unifying force.15 "To bind and give meaning" to the area, as James Pratt asserts, "we must develop a strong focus for the neighbourhood... We need a new architectural equivalent of the Italian piazza or of the New England white spire and its village green with which to focus the neighbourhood."16 James Pratt's assertion might carry a bit to the extreme, but in the light of the present findings and the work of K. Lynch, perhaps one of the implication for urban design is to make the neighbourhood legible to its residents, and to offer them repeated pleasant perception. An interesting path, a clearly defined edge such
as riverfronts, railroad tracks; an identifiable district such as that of Boston's Beacon Hill, London's Soho, New York's Greenwich Village, and Paris's Montmartre, a unique node such as Piccadilly Circus, Times Square, Portage and Main; and strong landmarks such as a historic building or a church can each burn into one's memory and the combination of several such images can become a compelling force behind resident's attachment to the area.

However, a few words of caution should be said here.

It is true that there is a positive relationship Perceptibility of Site Characteristics and Growth of Community Spirit, but this should not lead urban designers to force an excess of urban images into any environment, the result could only be confusion. However, essential it may be that the thinking of Lynch be absorbed into our general awareness, theoretical findings should never be hastily transposed into planning terms. Landmarks, statues can be dotted all over our residential quarters without even producing the desired result. In fact, it can under certain circumstances lead to exactly the kind of inappropriate drawing-board planning we were seeking to avoid. Let this be made quite clear, because the cry for "imageability" in urban surroundings and for the appealing environment could lead to the planners simply giving us aesthetically frivolous show-fronts rather than an environment of its citizens' attachment.

B. Provision of Community Facilities

According to the present findings, the provision of community facilities should not be viewed as totally irrelevant in inducing greater
social satisfaction, interaction, or participation. The findings do suggest that interaction with neighbours and community spirit were heightened when facilities that increased the potential of meeting neighbours, such as parks, playgrounds, community centers, transportation facilities (particularly internal path systems), and more neighbourhood facilities, were available. In view of these findings, perhaps the following suggestions could be made with respect to the provision of community facilities in the design of new neighbourhoods:

(1) Provision of recreational facilities.

In designing recreational service systems, the needs of children, young adults, and adults must be considered, as well as those of various population target groups. In order to maximize the use of child play totlots and playgrounds, these facilities should be located within one-eighth mile of children's homes, the provision of such totlots is especially important in the design of townhouse and apartment projects where children lack individual yard space for outdoor play.

Meeting young adults' recreational and leisure needs is one of the most challenging and least adequate aspects of new neighbourhood recreational service systems. The neighbourhoods in the study indicate that young adults like informal meeting places. They also like to congregate at shopping centres and commercial recreational facilities. Benches for sitting and informal socializing should therefore be made available for young adults at shopping facilities, path intersections, and other locations where pedestrian traffic is high. Inexpensive dining facilities, such as quick-food restaurants and coffee shops,
should be developed as early as possible in new neighbourhoods.

In meeting the recreational demands of adults in the neighbourhood, there is a need for both decentralized and centralized recreational facilities and centers in new neighbourhoods. Frequent participation in outdoor activities, such as swimming and tennis, can be maximized by locating smaller, less elaborate facilities within one-eighth mile of prospective users. However, there is also a demand for quality recreational facilities, such as indoor arenas, and facilities with active social programs. To accommodate this demand and to maximize satisfaction with the community recreational system, a major community recreational complex could be included in the neighbourhood development program.

On the whole, however, more than building particular facilities for recreation in the neighbourhood, one need to structure the other basic components to double for this purpose. Park and school facilities can be united to encourage adult use for sports and evening classes, and separate facilities need not be built. Path intersections or crossroads should have a sitting place to allow older people to enjoy passive participation. And linear parks could be developed to connect various districts in the neighbourhood so as to give the child recreational potential as well as safe communication.

(2) Provision of Educational Facilities

In view of the findings that school could provide a focus for community cultural and recreational activities and also could reinforce neighbourhood identity, it is suggested here that school could be
developed as community resources which can serve a number of functions in addition to education. Recreational use of the schools were noted above. In addition, schools should initiate community school programs that offer residents a variety of academic and leisure-interest courses and activities. Since school plants are not in session for a large part of the time, they offer convenient settings for the activities of various community groups -- from newly formed churches who may meet in schools' multipurpose rooms to various recreational organizations who may use gymnasiums and athletic fields. Perhaps another step in integrating schools and other community functions and services could be closer physical integration of facilities. The development of schools in conjunction with neighbourhood and community parks is a notable example. School could also be grouped with other community-service functions, such as preschool education, day care, recreational facilities, health care, shared-use religious facilities, and some types of shopping in separate buildings on the same site, thus allowing for shared parking, joint use of recreational facilities, and savings in user transportation costs. Alternatively, these and other functions might be housed in the same physical structures, with each function sharing in the cost of the building. Both of these alternatives would save school districts and developers money from decreased site acquisition costs, as well as in overall construction and maintenance costs.

(3) Provision of Shopping Facilities

In view of the important roles that shopping facilities can play in making a new neighbourhood a good place to live, the provision of shopping facilities in neighbourhood design should be carefully
considered. Adequate provision of shopping facilities would not only make living in the neighbourhood more convenient, thereby enhancing its attractiveness, but would also add interest to the design of the community and provide a focal point and logical location for many other community facilities and activities. In order to meet the shopping needs of the residents adequately, small neighbourhood centers anchored by convenience food store should be developed. Such centers should be located at the periphery of neighbourhood along major streets, as well as in interior locations adjacent to neighbourhood elementary schools and recreational facilities. They should be designed to meet families' needs for day-to-day shopping items as well as serving an important social function. For example, they could act as social gathering places and as community service centers. In addition to commercial services, the stores were to act as receiving points for deliveries into the neighbourhood, and would also perform some managerial and caretaker functions.

However, inasmuch as most people prefer to drive to shopping centers, the development of small neighbourhood convenience centers to encourage walking should be undertaken with caution. Larger neighbourhood and village centers which combine commercial functions with other community facilities and services are more useful to neighbourhood residents. Community functions that can be successfully combined with a supermarket in a neighbourhood center include medical-dental buildings with doctors' offices, intermediate and high schools, religious facilities, postal facilities, branch libraries, major community and commercial recreational facilities, social service agencies, and governmental
offices. Moreover, such shopping centers should be designed to accommodate young adults' needs for places to gather and socialize with their peers. This may be accomplished by the provision of inexpensive eating facilities and meeting places.

In sum, the suggestions offered here with respect to provision of community facilities are intended as guidelines and not as directives for planning new neighbourhood. In addition, the guidelines are not intended to serve as cookbook solutions to very complex design and development problems. Rather they point to important factors that should be considered in neighbourhood design and development which might help to promote a stronger sense of community spirit among its residents. All in all, the application of these guidelines will depend on the imagination and skill of the many professionals and public officials who contribute to planning and development decisions and may vary depending on the unique set of circumstances that characterize individual development programs.

C. Population Composition

The findings of the present study also have meaningful implications for the planning of population mix in neighbourhoods. It has already been demonstrated in the above findings that there is a strong positive relationship between social homogeneity and Growth of Community Spirit. Since homogeneity is an important determinant of the development of a sense of community, some degree of homogeneity in the neighbourhood would seem to be desirable. Planners can influence the achievement of this social goal by controlling or seeking to influence the population
structure through the housing allocation mechanism or through the development of a particular dwelling mix and density designed to attract people of the same incomes and family size. The characteristics of the residents can be affected to a certain degree by subdivision regulation, lot-size provisions, location and provision of facilities, or by any other planning tools which determine the uniformity of the housing to be built and the facilities to be provided -- and can therefore affect the degree of homogeneity among the eventual occupants.

However, this does not mean that planner should be planning for complete homogeneity. It is time as is confirmed by the present findings, that enough homogeneity must be present to foster the development of a sense of community. But to suggest for complete homogeneity is indeed pernicious. As Gans points out, extreme form of social homogeneity or heterogeneity are undesirable. "Complete, or near complete homogeneity, as in a company town where everyone has the same kind of job, is clearly objectionable. Total heterogeneity is likely to be so uncomfortable that only those who want no social contact with neighbour would wish to live under such conditions." The proper solution is a moderate degree of homogeneity, although at this point no one knows how to define this degree operationally. Some guides can be suggested, however.

One may plan for heterogeneous population at an area-wide neighbourhood level, and a homogeneous one at the block level. For economic, social, and cultural reasons, at the area-wide neighbourhood level, heterogeneity is clearly desirable, whereas at the block level, since sociability thrives under conditions of likemindedness, homogeneity is
to be preferred. Some such scheme has been proposed for Islamabad. In this way, there will be, according to Gans, sufficient homogeneity to prevent severe stress or conflict, and enough heterogeneity to prevent serious inequalities.

One might also take a population homogeneous as to social class but strive for heterogeneity with respect to its ethnic, religious, educational and cultural characteristics, thereby achieving variations on a common theme. This apparently has happened naturally in many unplanned middle class suburbs where there is considerable cultural, religious, and occupational variety among inhabitants of quite similar economic resources and moral values. This heterogeneity, according to one observer, "does not mean that neighbourhood relationships are less than warm and cordial. Common interests of home, car, and child-care provide a strong basis for conversational 'give and take' ...".

A third suggestion is to combine, within limits, individuals of varied social and cultural characteristics but having similar conceptions of neighbouring. According to Leo Kuper, if one demands fairly general, and thus interchangeable, characteristics in one's neighbours, mixing is less of a problem than if one is very exacting in the qualities demanded. Furthermore, he proposes that compatibility rather than social homogeneity or similarity matters most. Residents need not have the same expectations nor need they be homogeneous with respect to occupation, family composition, class position, and so on. But their different ways of life and bearing to neighbours, according to Kuper, must be mutually tolerable. In light of this, perhaps one should avoid mixing the "locally-oriented with the urban-oriented individuals",
"the respectable with the rough residents" and "the sociable with the reserved neighbours". In the newer suburbs, such compatibility appears to be particularly important, according to Gans, in the domain of child-rearing, leisure time pursuits, and cultural and intellectual interests.

The planning policy guides suggested here on behalf of promoting community spirit are based on the positive findings in the present study as well as on the value judgement that community spirit should be fostered, sense of belonging should be encouraged, and neighbouring should be facilitated. Of course, there is always the possibility that this value may not coincide with those of the residents one is planning for; there is always the possibility that many a residents would rather seek anonymity and resent neighbouring as an intrusion upon their privacy. In view of this possibility, perhaps a final word of caution should be stressed here, i.e. planner should only make available the opportunity for community spirit to develop, but should never force any one into any relationship not of his own choosing. As Gans rightly points out, "Whether neighbours become friends, whether they remain friendly, or whether they are only polite to each other should be left up to the people who come to live together." The planners' values of community life are difficult to impose on those unwilling to accept them. Consent is necessary for success, and planning policies, if they are to succeed, must be regarded as the effects of and not the cause of social changes.
CHAPTER 10

CONCLUSIONS

The study began with two objectives. The first was to assess the validity of the neighborhood unit principles for the planning of residential areas. Based upon the evidences and findings in this study, the neighborhood unit concept appears to be over-simplistic and an anachronism. The simple idea that a good physical environment will necessarily produce good social effect was really ideological. It is true that the findings in this thesis do suggest that there is a positive relationship between physical factors and Growth of Community Spirit, but to go as far as to assert that neighborhood unit design is the determining factor for the Growth of Community Spirit is indeed a dogmatic assertion. Even if it be admitted that physical design may influence, it cannot be said to determine social behaviour.

The physical form of a neighborhood unit is only a "potential environment" rather than an "effective environment", since it simply provides possibilities or cues for social behaviour. As Herbert Gans points out, "The site planner can create propinquity, he can only determine which houses are to be adjacent. He can thus affect visual contact and initial social contacts among their occupants, but he cannot determine the intensity or quality of the relationships." Neighborhood unit design, therefore, has no kind of magic by which community neighborhood created or community spirit engendered.

Are neighborhood unit principles of no use, then? Can we look with urbane disinterest at the slashing of major thoroughfares through neighborhoods and an inadequate provision of physical amenities in lo-
cal areas? The answer is "No," for even after we have discounted the excessive claims of the neighbourhood unit theory, it is still easy to see the importance of a strongly perceptible and identifiable neighbourhood with an adequate provision of facilities. Even critics like P. Mann, S. Keller, and M. Broady have realized its importance particularly with respect to those residents who are "immobilized by old age, family responsibilities, ill health", or monetary restraints.2 "We are more likely to feel comfortable and 'right' in a well structured environment than in an environment which we cannot grasp."3

Our analysis here has indicated that neighbourhood unit principles can, if wisely and positively conceived, encourage and facilitate the growth of that spirit of community in neighbourhood. It has been the major contention of this study, though, that the neighbourhood unit principles cannot by themselves create community spirit among people. The goal of making people to interact and feel attached to their local area is scarcely going to be achieved through any once-and-for-all neighbourhood design. The first conclusion here, then, is that the planners need not to discard altogether their traditional preoccupation with the neighbourhood unit concept for people do concern themselves with an adequate provision of shops and community facilities, well-equipped schools, adequate open space and safe street layout. However, neither should the planners commit themselves wholeheartedly and uncritically to the concept of neighbourhood unit design. As Constance Perin, in her now well-known book With Man in Mind: An Interdisciplinary Prospectus for Environmental Design, succinctly puts it, "What we abhor most in the environment is precisely the use of formula, as it were, to prescribe uniform,
undifferentiated, stereotyped, and insensitive environments for what is the essential human condition of diversity, growth, and autonomy."  

The second objective of this study was to arrive at a more viable theory which future neighbourhood planning can be based. As M. Broady rightly indicates, "If negative criticism is to avoid the charge of being merely destructive, it must be followed up by an attempt to spell out a more viable theory on which practice can be based." Bearing this in mind, the present study has attempted to develop an integrated theoretical model which could explain the variation in the growth of community spirit in urban neighbourhoods.

The present study has been quite successful in this attempt. Any study which explains 71 percent of the variance in its object variable definitely has some merit. It is also clear that the method of path analysis is a useful one for developing policy-oriented theories. The integrated, theoretical model introduced here certainly indicates that, given the appropriate physical and social environment, community spirit could be fostered. It has been found out in this study that the growth of community spirit is a function of not only the physical environment, but also the social composition of the population and the subjective perception of the residents in that environment. An adequate provision of community facilities, a perceptible site, a socially homogeneous resident composition, and a locally-oriented neighbourhood population is believed to be the necessary prerequisites for an integrated community life to develop. However, fulfilling just anyone of these prerequisites would not bring about the desired result. The integrated path model in this study certainly suggests that all of these prerequisites must be fulfilled in order for community spirit to develop.
Nevertheless, one must come to appreciate the merit as well as the limitation of the present study. In view of the fact that people are fickle and recalling the old saying that "you can lead a horse to water but you can't make him drink", the positive findings in this study should not lead us to the conclusion that the model developed in this thesis is the blueprint for planning an integrated community neighbourhood. The aforementioned factors in the model is just a necessary but may not be sufficient cause of the growth of community spirit. Thus, without being too cynical about the present study, perhaps the most realistic conclusion one can draw from this study is that the integrated theoretical model developed in this thesis certainly have offered significant policy guidelines to set the stage for community spirit to develop, but then, to set the stage is not to write the play.

It is good, as indicated above, for a researcher to conclude with a degree of cynicism about his work. This dare not, however, hide the useful contribution he does make. What he has attempted to point out with this study is that development of community spirit in urban neighbourhoods is much more complex and various than both sociologists and planners have thought and that an integrated interdisciplinary theory is needed so that research on different facets of the question can be co-ordinated and comparative studies implemented. Hopefully, the integrated path model presented in this study not only has pointed the directions toward the more adequate theories which surely must follow, but has already taken us one more step closer toward the more complete theory.
Appendix A

A Brief Description of
the Study Neighbourhoods
This appendix presents in more precise terms the physical and functional characteristics of the neighbourhoods under study, as well as the socio-economic characteristics of the residents therein. Only a brief description is presented here. These descriptions should be read in conjunction with the accompanying maps in Appendix B.

1. Armstrong Point. This neighbourhood is a peninsular of land bounded by the Assiniboine River to the south, west, and east and the "Gates" to the north. It is located in the vicinity of Maryland Bridge. The total area encompasses approximately 55.2 acres with a population of 474 individuals. As aesthetically pleasing area with large lots and local-traffic oriented street layout. Armstrong's Point shows a strong visual impact. There is a lack of park space, otherwise the neighbourhood could be considered as adequate in terms of the provision of physical amenities. Most of the residents there are married and are predominantly upper-middle class. There is also a high proportion of Anglo-Saxon and Protestants. They pursue most of their recreational activities at home. Most of them, however, feel their area is a "strong" neighbourhood and that the Armstrong's Point Homeowner Association (AHOA) is a prime factor in this strength. The AHOA is the most definite force for cohesion and nurturing social interaction in this neighbourhood, consequently, there is an impetus among residents to associate on more personal terms and even organize annual cocktail party among themselves.

2. Beaumont. Beaumont is a small 270 acre parcel of land. The CNR yards on the north, the hydro lines on the west, McGillivery Highway on the south, and the CNR tracks on the east clearly defines the area. The community in terms of its physical configuration could be divided into an older and a newer areas but they do mingle well together. This community with a population of 2,500 people is predominated by people of British origin (54.8%). Serving the area's educational, religious and recreational needs are: one primary school, two churches, a community club and a small park. There is no group cleavage evident except for different status groups. Interaction among families, however, appears to be minimal.

3. Chinatown. Chinatown is made up of an eight block area which is threatened by serious structural deterioration. The heavy traffic volumes in and around the study area tend to isolate it from community facilities. Nevertheless, there were four groceries and six restaurants in the area which serve as a major focus of activities for the Chinese residents in the area. Residents in the area have very low disposable income for the simple reason that 98.7% of them earn less than $6,000.
Most of them are elderly who spend a great deal of their time in the various Chinese social or friendship clubs in the area to meet informally, to talk, to read, or play games together such as mah jong.

4. **Clarence.** This area has a large portion of older homes and is fairly heterogeneous in house types. The street is laid out on a grid pattern. There is one church within the neighbourhood which is attended by only 22% of the residents. The adults get most of their recreation outside the area. It is generally agreed that residents oriented away from the neighbourhood for the fulfillment of most functions, despite the fact they do perceive that the provision of physical amenities in the area is adequate. The residents are fairly heterogeneous in terms of socio-economic characteristic. Almost half of the residents interviewed expressed no specific feeling towards neighbourhood.

5. **Crane.** The study area is distinguished by a homogeneity of single family residences totalling 406. 93.5% of these are owner-occupied while only 6.5% are rented. The area has a total population of 1699 and there are distinctive ethnic or cultural group in the area. 66% of the wage earners in the area are employed in professional vocations. Physical amenities in the area are considered as adequate. However, residents are more dependent on outside area for the fulfillment of their cultural and recreational needs. Friendship patterns still exist on bays but personal leisure and privacy is now on a higher priority.

6. **Elmwood.** Elmwood is an older section of Winnipeg, lying just east of the Red River. Elmwood has a mixture of land use. Only about 60% of this land use is residential. It is well served by several major arteries but they also tend to carve the area into small segments. Several neighbourhood retail and service establishments are scattered throughout the residential area. The area is also well-serviced by 4 schools and 3 community clubs. Of the 11,225 residents in the area, the predominant ethnic group is British (46%) and the majority of the wage earners in Elmwood are in the lower-middle income range. Although the area is an older, partially declining area of Winnipeg, it is nevertheless a very viable community with a substantial amount of community pride present.

7. **Fort Richmond I.** The area is located adjacent to the University of Manitoba. The association of the residents with the University appears as a significant factor in attracting them to the area. The university provides 24% of the employment of the residents. From the survey, there were hardly any shopping facilities within the neighbourhood. The only interchange among the residents appeared to be related to the Community Centre in the area and, in particular the skating rink and playground facilities.
8. **Fort Richmond II.** The area is well-defined not only by the definitiveness of its boundaries but by the relative absence of development around it. Its functions essentially as a new and fast growing dormitory suburb for young middle-income families. The predominant occupations of males in the area are in sales, managerial, and engineering. Within the area, there are 3 elementary schools, five churches, two community clubs, 161 acres of parks, and one community shopping centre. It is mainly through the children that adults in the area meet other parents and learn about other families. In this way they become part of the social "grapevine", the backbone of neighbourhood formation and perpetuation.

9. **Lount Subdivision.** The subdivision consists of approximately five acres of land and fourplexes are the only house type in the area. The area as a whole presents a rather bare appearance. The total population of the subdivision is 1,036 of which 67% is British. The households are occupied mainly by married couples with fairly large families. The most predominant occupational groups in the area are clerical and craftsman which account for about 40% of the wage earners. The study area is advantageously situated with regard to a school, shop, park and recreational facilities. Personal interviews indicate a high degree of social interaction among residents which is particularly evident within the bays themselves.

10. **Lord Roberts.** The area is comprised of 7,586 people, 45.3% of whom is single. This is due to the influx of younger people attracted by the low rents and easy accessibility to downtown. In the area 48.5% of the population earn between $3,000 and $6,000 a year. The area is well serviced by a school, church, shop, and community club. However, the study area is believed to be more accurately described as a "dormitory suburb" because most of the residents leave the area for general shopping recreation, and services.

11. **McKenzie-Mountain.** This neighbourhood may be described as a healthy stable neighbourhood with a population of district, identifiable and common characteristics. The population is predominantly of Ukrainian ethnic origin and Ukrainian Catholic or Roman Catholic in religious affiliation. The majority of people have resided in the area over five years and also because of common social and cultural characteristics, neighbourliness is an essential feature in the area. A drawing force in the neighbourhood is the YMCA and the Canadian Club. Together with the local commercial establishments, they provide a potential meeting place for neighbourhood residents.

12. **Main Street** (South Point Douglas). The area is described by the study as a physically socially and functionally depressed area. Physically, there is a conflict of land use. Functionally, the area
serve as a light industrial and commercial area which has been developed at the expense of residential uses. Socially, we see a declining population with declining families and a high proportion of welfare cases. Despite the fact that the area has no school, no recreational facilities and a general blighted appearance, the area does have an attraction for those with low incomes because of its low rental structures. Moreover, the multiplicity of beverage rooms, billiard halls and restaurants in the area have served as a focal point for socializing among the residents. Many of them may perhaps be attracted to the area because of this very reason and may be reluctant to leave even if offered alternative accommodations.

13. Main Street Commercial. The overall image of this area is that of a rundown place, with a general lack of physical amenities. The only neighbourhood elements that could be said as adequate are those restaurants, billiard halls, and beverage rooms. The area is also dissected by the six major arterials in the area. The accompanying noise, pollution, and pedestrian problems detract from the area as a shopping district or a residential area. The population characteristics are fairly homogeneous with a large proportion of older and single people. Value judgement aside, the beverage rooms in the area do serve these peoples well by providing them with the necessary recreation outlets.

14. Marshall. This area is laid out largely on bay patterned streets. Only a few grocery stores are located within the boundaries of the neighbourhood. Recreation, religious, and educational facilities are viewed by most residents as adequate. However, most residents orient away from the neighbourhood for their recreational activities, and only 43% of the respondents in the survey expressed special feelings towards the neighbourhood. Consequently only 15% of those interviewed said they have friends located in the same neighbourhood.

15. North Centre St. Boniface. The area is believed to be an area in transition. Formerly single family residential is rapidly giving way to multiple family one. This is largely owing to the fact that the nature of the population, early 20's or post retirement age, demand fairly inexpensive rental accommodations. Counteracting this trend, many of the residents in the area do feel that the area is their "home". They have an historical and cultural attachment to the area. The small French stores, the French street names, French restaurants all seem to accentuate the image of the area as a French cultural centre. Institutions like the Cathedral, the Hospital and the St. Boniface College do serve as strong neighbourhood images for many a French speaking residents in the area.
16. North Point Douglas. Although the buildings in this area are old and in some cases run down, the provisions of physical facilities seem to be adequate. The large churches, Immaculate Conception and St. Andrews, the elementary school, the Mount Carmel Clinic, the Ukrainian Hall and the Norquay Park all seem to serve the residents well. In North Point Douglas, there appears to be a preponderance of old people and the overall income of the population of the district is extremely low. The fact that the neighbourhood is an older type does not discourage the growth of local attachment in the area. In fact, over 50% of those interviewed had lived in the area for 16 years or longer.

17. North St. Boniface. The area is primarily residential and the streets form a basic rectilinear pattern. The population of the area is predominantly Roman Catholics with the bulk of which is employed in blue collar job. Recreational activities of the residents centre about the church and the cultural centre in the area. Existing shopping facilities and open space are viewed as adequate. All in all, the area is characterize by a strong French cultural identity, and its residents strongly are attached to the area.

18. Norwood St. Boniface. The area has obvious and quite definite physical boundaries. The journey pattern of the area's residents indicate that the grocery shopping, education and worship functions are concentrated to a large degree within the boundaries of the area. Owing to the mobility of the residents, however, socializing and recreational functions occur within a much wider community. In addition, the area is characterized by a high measure of ethnic and linguistic diversity, as well as a mixture of apartment dwellers and single family home occupants; the heterogeneity of the area itself mitigates against it being a "community neighbourhood".

19. Park La Salle. The area is a discrete physical unit with distinct boundaries, which may, in Perry's terms, be considered a neighbourhood as it has an elementary school at the centre and close access to basic services. However, within this discrete physical entity, there are two sub-neighbourhoods—the inner ring of single family dwelling and the outer ring of duplexes and row houses. Consequently, there is a general apathy on the part of the residents who share no common interest on community affairs.

20. River–Osborne East. The area as a whole is unique in character. Large proportion of the area's population are young adult and retired persons, with high percentage of single and widowed people as compared to Winnipeg as a whole. Significant proportion of the work force are employed in professional and technical occupations or as clerical workers. Since the area is comprised of a large number of apartment buildings, the population is highly mobile. The existing infrastructure is considered to be adequate and capable of sustaining
about the area. However, the heterogeneity of life style among the residents in the area, means that they find no common interest to interact with each other on a more intense level.

21. River Osborne West. The population in this area has been growing very rapidly. It is a mixture of several cultures or life styles. The four most visible are those of the jean-clad students and transient youth, the cluster of Italian families, the senior citizens and the young people who inhabit the luxury highrise apartments. The facilities and services in this area are recognized to be inadequate. However, the area contains many interesting shops which not only serve the local residents but become a strong urban image for them as well. Most residents have very favourable opinions about the area, they particularly appreciate the area's proximity to downtown which is in fact the main area of their activities. The population is highly mobile.

22. Riverview. The area is predominantly a residential sector with an easily identifiable and concentrated commercial zone. An elementary school and large park are centrally located in the area. Riverview demonstrates, as a whole, a relatively homogeneous population. It may be described as middle class, white Anglo-Saxon and Protestant. Owing to the adequate provision of physical facilities, most residents have their activity space oriented towards the local neighbourhood. Through a household survey of the area, the neighbourhood is found to possess a collective sentiment and group solidarity among its residents.

23. Roslyn Road Area. The district is a valued living spot partly because of its attractive landscape and partly because of its accessibility to the city centre. Because of the proximity of the area to downtown, most residents have recreational activities away from the district. 86% of dwellings in the area are tenant occupied. There are a number of inadequacies in the area which inhibit a friendly social climate. The lack of public parks or open space results in the establishment of separate recreational facilities in each apartment block. Thus the area tends to function not as a social unity but is separated rather into a number of isolated parts. Moreover, social interaction between homeowners and apartment dwellers in the area is also limited.

24. St. Mary's Road Area. Land use appears varied in this area, which include residential, commercial, and even agricultural. There are many community facilities and institutions which to some extent, do meet the needs and desires of the residents. The demographic data of the area indicates that there is a great percentage of the population in the child-producing age and a large percentage of the residents have lived there for quite a long time. However, most adults recreate outside the area. The bulk of shopping by residents were done in department stores downtown and in supermarkets, in shopping centres not even on St. Mary's
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Road. Dakota Village Shopping Centre was the only area at all which residents identified. Otherwise, the development in the area is too haphazard to provide a focal point for neighbourhood.

25. St. Norbert. The area is predominantly a French community with two distinct districts—the older lower middle income section and the newer upper middle income section. There was an extremely small amount of land use. Most of the residents there were homeowners rather than tenants and the population in the area is thus relatively non-transient. Recreation and shopping appeared to be a localized activity for most. Surveys of their visiting pattern did indicate that the people were friendly with one another and identified with the neighbourhood in general.

26. Selkirk-McGregor. The area was an area of widely varied land use. The majority of the buildings were in fair or poor condition particularly the residential buildings. There were many churches in the neighbourhood which did act as a binding force to the area. However, the population has a high degree of transiency and it is therefore very hard to maintain a strong neighbourhood spirit.

27. West Kildonan. This area is divided, not only by physical barriers, but also by socio-economic and political ones. On the whole, the area has stagnated for a number of years and there is an almost complete lack of some facilities within the area itself. The population in the area is found to be a highly mobile one, both physically and socially. As a "neighbourhood", this area, even in a loose definition of the term, cannot qualify for the title.

28. Weston. Weston has existed as a relatively cohesive unit whose residents have been primarily working class. For years, Weston has been identified with the CNR shops and surrounding industries. Most residents could identify the neighbourhood boundaries. The physical distinctiveness of the area is accompanied by a socially homogeneous population, especially with respect to ethnicity, income, and length of occupancy. The Weston area contains the major functions required to service the area (shopping, education, churches, leisure, recreation, and entertainment). However, adult and teenage participation rate are low in using the local recreational activities largely because of their home-centred life style. Social interaction through informal contact is difficult to determine given that there is approximately 50/50 split between respondents who know their neighbors and those who do not. Nevertheless, a significant proportion of them indicated that they feel attached to the area.
29. **Wildwood Park.** The area has a Radburn type of layout which added to the beauty of the natural surroundings. The community attracted a large number of upper middle class families of professional and managerial background. The area is quite close to all churches. Provision of schools is viewed as adequate by residents. The community club is organized in such a manner that all families in the neighbourhood are automatically members. All parents participate in the supervision of the activities on a rotation basis. This participation in the club is the focus for the social interaction in the community and helps to keep the people in contact with one another.

30. **Windsor Park.** The boundaries of the area are very well defined. Within these boundaries, there are three smaller shopping centres which do meet the local needs adequately. Population in the area is characterized by a middle to upper middle socio-economic status and a high degree of familism. Owing to the fact that most residents have their activity pattern oriented to the local areas, the level of social interaction and cultural involvement is fairly high. Resident survey indicates that 86.5% of the respondents belonged to a church and that 46% of them were active in church affairs. Moreover, neighbourhood identification is further reinforced by the strongly perceptible urban images such as churches, shopping centres within the locality.
APPENDIX B

MAPS OF STUDIED NEIGHBOURHOODS

In the following pages of this appendix are presented a map of the locations of the neighbourhoods studied and an outline of the site plan of each individual neighbourhood.

Legend:

- - - - River
- - - - - Railway
- - Major Thoroughfare
- Minor Street and Collector
- - Bridge
- - - - Boundaries of Neighbourhood
Appendix B. Location of Study Neighbourhoods City of Winnipeg.

*KEYS:*

1. Armstrong's Point
2. Beaumont
3. Chinatown
4. Clarence
5. Crane
6. Elmwood
7. Fort Richmond I
8. Fort Richmond II
9. Lount
10. Lord Roberts
11. McKenzie-Mountain
12. Main Street
13. Main Street - Commercial
14. Marshall
15. North Center St. Boniface
16. N. Point Douglas
17. N. St. Boniface
18. Norwood St. Boniface
19. Park La Salle
20. River Osborne E.
21. River Osborne W.
22. Riverview
23. Roslyn Road
24. St. Mary's Road
25. St. Norbert
26. Selkirk-McGregor
27. West Kildonan
28. Weston
29. Wildwood Park
30. Windsor Park
Appendix C

Variables Employed in the Empirical Study and Their Indicators
Variable 1: Identifiable Physical Boundaries of the Neighbourhood (BOUNDARY)

Indicators: 1. Presence of rivers, railway tracks, thoroughfares, as physical boundaries of the neighbourhood.
2. Existence of Physical Elements such as railway tracks or major highways which bisect the neighbourhood and render it less recognizable.

Variable 2: Provision of Open Space and Parks in the Locality (PARK)

Indicators: 1. Provision
2. Accessibility
3. Quality
4. Users' Satisfaction

Variable 3: Provision of Community and Church Facilities in the Locality (COMMUNITY)

Indicators: 1. Provision
2. Accessibility
3. Quality
4. Users' Satisfaction

Variable 4: Provision of Schools in the Locality (SCHOOL)

Indicators: 1. Provision
2. Accessibility
3. Users' Satisfaction

Variable 5: Provision of Shopping Facilities in the Locality (SHOP)
Indicators: 1. Provision
2. Accessibility
3. Variety and Choice
4. Users' Satisfaction

**Variable 6:** Predominant Pattern of Street Layout in Neighbourhood (STREET)

Indicators: 1. Street Pattern
2. Traffic Volume
3. Residents' Opinion

**Variable 7:** Presence of Strong Urban Images in the Neighbourhood (IMAGE)

Indicators: 1. Presence of Perceptible Paths
2. Presence of Identifiable Edges
3. Presence of Strong Nodes
4. Presence of Distinctive District
5. Presence of Strong Landmarks

**Variable 8:** Socio-economic Homogeneity Among the Residents (SES)

Indicators: 1. Homogeneity in Occupation
2. Homogeneity in Income
3. Homogeneity in Education

**Variable 9:** Life Style Homogeneity Among the Residents (STYLE)

Indicators: 1. Marital Status of Residents
2. Tenancy of Occupants
Variable 10: Stage in the Life Cycle Homogeneity (LIFE CYCLE)

Indicators: 1. Age of Household Heads
2. Marital Status of Household Heads
3. Presence of Children in Households

Variable 11: Ethno-religious Homogeneity Among the Residents (ETHNO-RELIGION)

Indicators: 1. Ethnicity of Residents
2. Religious Beliefs of Residents

Variable 12: Subjective Social Space of Residents in Neighbourhood (SPACE)

Indicators: 1. Residents' Recreational Activity Pattern
2. Residents' Leisure Activity Pattern
3. Residents' Shopping Activity Pattern
4. Residents' Worship Activity Pattern

Dependent Variable: Growth of Community Spirit (SPIRIT)

Indicators: 1. Residents' Attachment to the Area
2. Social Interaction Among Residents
3. Formal and/or Informal Involvement with Neighbourhood Affairs
4. Age of Residence
Appendix D

The Scaling Scheme
Variable 1: Identifiable Physical Boundaries of the Neighbourhood

Ranking: 4. Highly Perceptible
         3. Fairly Perceptible
         2. Fairly Unidentifiable
         1. Unidentifiable

Variable 2: Provision of Open Space and Parks in the Locality

Ranking: 4. Adequate
         3. Moderately Adequate
         2. Fairly Inadequate
         1. Inadequate

Variable 3: Provision of Community and Church Facilities in the Locality

Ranking: 4. Adequate
         3. Moderately Adequate
         2. Fairly Inadequate
         1. Inadequate

Variable 4: Provision of Schools in the Locality

Ranking: 4. Adequate
         3. Moderately Adequate
         2. Fairly Inadequate
         1. Inadequate
Variable 5: Provision of Shopping Facilities in the Locality

Ranking: 4. Adequate
3. Moderately Adequate
2. Fairly Inadequate
1. Inadequate

Variable 6: Predominant Pattern of Street Layout in Neighbourhood

Ranking: 4. Predominated by Cul-de-sac, bay, curved layout.
3. Grid pattern with quiet, and sage volume traffic movement.
2. Grid pattern with high volume traffic movement.
1. Residential area being cut across by major arterials, highways, and through traffic routes.

Variable 7: Urban Images in the Neighbourhood

Ranking: 4. Present and Strongly Perceptible
3. Present and Moderately Perceptible
2. Present but Weakly Identifiable
1. Absent or Unidentifiable

Variable 8: Socio-economic Status Homogeneity Among Residents

Ranking: 4. High Homogeneity
3. Medium Homogeneity
2. Low Homogeneity
1. Heterogeneity
Variable 9: Life Style Homogeneity Among Residents

Ranking:
4. High Homogeneity
3. Medium Homogeneity
2. Low Homogeneity
1. Heterogeneity

Variable 10: Stage in the Life Cycle Homogeneity

Ranking:
4. High Homogeneity
3. Medium Homogeneity
2. Low Homogeneity
1. Heterogeneity

Variable 11: Ethno-religious Homogeneity Among Residents

Ranking:
4. High Homogeneity
3. Medium Homogeneity
2. Low Homogeneity
1. Heterogeneity

Variable 12: Subjective Social Space of Residents in Neighbourhood

Ranking:
4. Community-centred High
3. Community-centred Medium
2. Moderately Cosmopolitan-oriented
1. Strongly Cosmopolitan-oriented
Dependent Variable: Growth of Community Spirit

Ranking:
4. Very Intense
3. Intense
2. Moderately Intense
1. Weak
NOTES

Introduction


2. Ibid., p. 280.


Chapter 1


5. Ibid. p. 166


23. Ibid., pp. 56-64.


27. Ibid., p. 53


39. Ibid.
48. Sir Raymond Unwin, Remarks in Town Planning Institute, (June, 1938)
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8. Ibid., p. 332.


10. Ibid.


12. Ibid., p. 365.


16. Ibid.


20. Ibid., p. 177.


25. Ibid., pp. 174-175.


51. Ibid., p. 22.
56. R. Athanasiou, G. A. Yoshioka, "The Spatial Character of Friendship 

Chapter 3

4. John W. Dyckman, "On Men, and Mice and Moles: Notes on Physical 
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p. 103.
Department of Health, Education and Welfare, Social Security 
11. Leo Kuper, "Blueprint for Living Together," Living in Towns, ed. by 
18. William Michelson, Op. cit., p. 120.
33. Ibid., p. 108.


Chapter 4


17. Ibid.

27. Ibid.


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Chapter 5


3. Ibid., p. 70.


7. Writings by Paul Henri Chombart de Lauwe are not available in English.


12. Ibid.

13. Ibid.


18. Ibid.
19. Ibid.


24. Ibid., p. 42.

25. Ibid.

26. Ibid., p. 46.


32. Ibid., pp. 112-113.


42. Ibid.


Chapter 6


Chapter 7

1. Course outline given by Professor B. Rotoff to students in the Department of City Planning explaining the objective of the neighbourhood studies to be carried out.


16. Ibid.

Chapter 8

1. See supra, figure 15.


8. See Supra, Chapter 3, pp. 44-45.


Chapter 9


5. Ibid.


11. Ibid., p. 119.


13. Ibid., p. 437.


Chapter 10


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