

AN ANNOTATED BIBLIOGRAPHY OF THE LITERATURE ON
LIVABILITY, WITH AN INTRODUCTION AND AN
ANALYSIS OF THE LITERATURE

by

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B. A., University of Tennessee, 1966

A NON-THESIS PROJECT

submitted in partial fulfillment of the

requirements for the degree

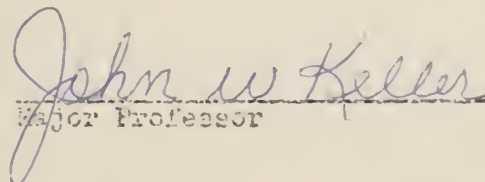
MASTER OF REGIONAL AND COMMUNITY PLANNING

Department of Regional and Community Planning

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1975

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ABSTRACT

The proliferation of literature on livability over the last decade and a half has led to this attempt to define and categorize this literature in bibliographic form. The categories into which the bibliographic entries are divided are (1) Attitudes toward and Perceptions of the City and the Neighborhood, (2) Environmental Influences on Behavior, (3) Measurement, (4) Density and Overcrowding, (5) Urban Design, (6) Urban Form, (7) Relocation and the Journey to Work, (8) Territory and Personal Space, (9) Noise, and (10) Landscape Preferences. A source bibliography has been included in which publications containing considerable literature on livability are listed.

Preceding the bibliography are an introductory statement in which the scope and purpose of this endeavor are discussed and a literature analysis which focuses on unresolved issues and questions within several sub-areas of livability having relevance to some of the problems our society faces. Topics covered in the literature analysis are (1) The Measurement of Livability, (2) Density and Overcrowding, (3) Neighborhood Homogeneity or Heterogeneity, (4) Urban Design Esthetics and Livability, (5) The Anti-Urban Bias in American Society, (6) Stability and Change, and (7) Values.

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INTRODUCTION

The concept of livability is an elusive one. The word itself, however, may be defined quite simply, though very broadly, as "the qualities of the urban environment which tend to induce in a citizen a state of well-being and satisfaction."¹ The distinction between livability and the "quality of life" is a very fine one, and one might easily argue that the two terms are always synonymous and interchangeable. However, it is this writer's opinion that livability refers primarily to the physical, usually built, environment and its arrangement in space, and to those social elements relating to neighborhood composition and the extent and quality of neighbor interaction. Quality of life, on the other hand, can be said to refer to a far wider array of elements.

A brief survey of the array of topics covered by planning and related publications over the last decade and a half will reveal a growing body of literature on livability. The proliferation of the literature on this subject suggests an increasing interest in it by planners, urban designers and practitioners of other disciplines. Also suggested is an awareness among them that the presence or absence of perceived livability in a neighborhood, city or region is influenced by certain physical, social, psychological and cultural variables subject to manipulation, once they have been identified and explicitly defined.

The relevance of knowledge of these variables to the practice of planning becomes obvious when the nature of the varied tasks of the planner are considered. For example, when the planner drafts comprehensive plans or zoning and subdivision regulations, his or her ultimate goal is to achieve

or enhance livability in the eyes of those affected by the result. Such questions as how a city's growth should be guided, what priorities should be established in correcting environmental deficiencies, and how land uses should be segregated, can be answered more accurately by a knowledge of livability and its components.

The preceding statement should not be construed to mean that all of the components of livability are known or that they have been operationally defined. Much knowledge in this area remains to be acquired, and what knowledge we do have is more appropriate for use as a conceptual guide rather than as ironclad rules from which no deviation is acceptable. Terrence Lee once observed that what the planner lacks most is "the ability to predict the consequences of his decisions for human behavior."² A knowledge and understanding of livability concepts and components may in some measure enable us to overcome this deficiency.

The study attempted herein represents an effort to collect and categorize the literature on livability and to analyse and comment on broad segments of it which have particular relevance to some of the problems our society is facing today. Hopefully it will serve as a guide to the practicing planner and as a point of departure for the researcher in discovering what has been accomplished and what remains to be accomplished in the study of livability. Content and organization are presented with this purpose in mind.

The bibliographic entries cover a very broad scope, and their subject matter is highly varied. All of them have been published since 1955 and most of them since 1965. Their comparative currentness reflects the recent emergence of livability as an area of concern and interest. The organization of the bibliography is not a scientific taxonomy. Many of the entries do not

fall clearly into a single category, and many of them could be appropriately fitted into two or more categories. This has been done in a few cases where no single dominant theme could be identified. The reader should keep in mind that organization is based on broad themes. If it were based on the minute details of content, many of the entries would fall into several categories, thereby negating altogether the value of organization. With the exception of those entries in which no prevailing theme could be identified, entries within each category are felt to be more similar to each other with regard to content than to entries in other categories. Entries which are annotated are felt to be the most significant within the collection and, taken collectively, provide the reader with a broad base of knowledge of livability. The contents of the first two sections, entitled "Attitudes toward and Perceptions of the City and Neighborhood" and "Environmental Influences on Behavior," might be said to be the heart of the literature on livability and contain most of those publications usually associated with its study. The remaining sections are nonetheless important, however, since they are concerned with related subjects crucial to the understanding of livability.

The concluding section is a brief source bibliography in which those periodicals and books which contain vast amounts of relevant literature are identified. These sources will enable the interested reader to discover additional literature which has not been included within this report.

LITERATURE ANALYSIS

I. The Measurement of Livability

The measurement of livability and the construction of livability indicators are rare phenomena. In spite of their rarity, considerable attention is devoted to such indicators because of their impressive potential for the application of what is known, or believed to be known, about livability and as an influence on the development of public policy and program evaluation. Most of the interest and progress in this area must be subsumed under the broader category of what shall be referred to as quality of life indicators. The phrase "quality of life" can be construed to be synonymous with the meaning of livability in its broadest sense: all characteristics of the environment and all other variables which induce in an individual a perceived state of well-being and satisfaction. Prior to a discussion of some specific quality of life indicators, a discussion of social indicators in general is needed in order to clarify some inherent difficulties in such attempts at measurement. Their relationship to the measurement of livability will become apparent.

According to Sawhill, "social indicators are quantitative measures of social conditions designed to guide choices at several levels of decision making."¹ There has been considerable interest in and discussion of social indicators in recent years, but there is some controversy surrounding their usefulness and their desirability. Among the most fundamental arguments against social indicators is that posed by Kopkind:

There is no general agreement on human values. But the people who frame the questions about society and plan the future can easily, and unconsciously, inject their own values into the answers they receive. . . . The danger is that government and corporate elites will monopolize the

business of question asking, and so manipulate the attitudes of the society they are pretending to serve as disinterested technicians.²

Other critics contend that quantification of non-objective phenomena is utterly impossible. Indeed, the choice of what to measure, how to quantify what is measured, and how much importance to attach to the results are weighty questions which can never be answered permanently or with certainty.

The proponents of social indicators claim that

Indicators can improve the quality and expand the quantity of data available to the planner so that he may make increasingly rational policy and resource-allocation decisions with increasingly greater independence from political considerations and an increasingly accurate idea of the impact of his programs.³

The interest in the development of social indicators can be partially attributed to dissatisfaction with quantitative economic indicators as a measure of urban problems due to their detraction from non-economic, qualitative data. Economic indicators simply do not measure the consequences of pollution, urban congestion, or dehumanization resulting from automation and computerization, except in dollar terms. Social indicators can perhaps offer considerably more promise in the measurement of such phenomena.⁴

Among the proponents of social indicators, there is widespread disagreement in at least two areas: Some proponents believe that the use of indicators should be instituted immediately, regardless of their present high potential for inaccuracy. Others are firmly convinced that not until rigorous theory construction and scientific hypothesis testing have been accomplished can the use of indicators be meaningful.⁵ The second area of disagreement revolves around the mutually exclusive necessities of concentrating attention upon a few strategic variables versus a comprehensive view, with attention dispersed over a far wider array of variables. With regard to this problem, Gross observes that

A passion for detailed comprehensiveness . . . can result in a loss rather than a gain of perspective, in document and data orientation for their own sake, and a serious waste of resources. On the other hand, strategic selection without a comprehensive view is extremely dangerous. Both top policy makers and technicians . . . may too readily fasten upon a badly selected set of variables.⁶

The usefulness of the quality of life concept as a tool is dependent upon our ability to

1. Define the concept in terms of its constituent components and factors.
2. Develop indicators to measure the state of each quality of life component for a given demographic group or geographic entity.
3. Relate the indicators to relevant quality standards and aggregate them into a single quality of life index or at least into a set of weighted multiple quality of life indices.
4. Relate an overall quality of life concept and quality of life quantification techniques to the policy and program decisions of government.⁷

Problems associated with the development and use of quality of life indicators are best illustrated by the inclusion of one example of such an indicator. The matrix on the following page was constructed to describe and evaluate urban blight and its interrelationships for the Los Angeles area. One can see that it provides an example of the first two steps outlined above: the components of the quality of life have been defined and indicators have been chosen which presumably measure each component. As explained by its developers,

This tool views the urban system in terms of its constituent functional sub-systems such as education, public safety, etc. Each system is further subdivided into its various aspects or manifestations (physical, economic, social, etc.) In this indicator it is possible to sum up the effects by either column or row and thereby measure each aspect of each function examined.⁸

Presumably, levels of adequacy for each item measured have been set, although they are not indicated in this matrix. It is also presumed that some method has been devised for quantifying these measures so that they are additive. For example, the sector labeled "5 Yr. Proposed Cap. Improv. Program for

Manifestations	Accessibility	Law Enforcement	Fire Protection	Health Care	Recreation	Education	Housing and Neighborhood	Income Production
Attitudinal	Modal Preference of Transportation	Juvenile Probations per Pop. 20-21	Malicious False Alarms	Inoculable Diseases (under 13)	Vandalism: \$ per Park Acre	High School Dropout Rates	Elementary School Enrollment	% White Collar Employment
Societal	Traffic Arrests/Total Street Miles	Juvenile Dependents per Pop. 20-21	Arsons per 100 Pop.	Suicides per 100,000 Pop.	% Pop. for Different Age Groups	Largest Ethnic % Nonwhite Enrollment	Elementary School Transiency Rates	% Households with Working Wives
Political	Deficient System/Total Streets	Total Arrests per 100 Pop.	Fire Engine Companies per 1000 Pop.	% Public Hospital Care	5-Yr. Proposed Cap. Imp. Program for Parks	Voter Participation Rates	Non-residential Uses on Residential Parcels	% Children 4-5 Yrs. Age on Welfare
Economic	%By-passed Employment Due to Lack of Transportation	Losses Due to Burglary and Robbery	No. of Fires Greater Than \$1000	Deaths in 25-44 Age Group	Private Recreation Investment per 100 Pop.	% People 25+ Yrs. Completed College	Median Imputed Rent per Median Income	Unemployment Rate
Physical	Median Work Trip Time by Private Transportation	Part I Felonies per 100 Pop.	Structural Fires per 100 Structures	Infant Mortality Rate	No. of Types of Facilities per 100 Pop.	Median 6th Grade Reading Achievement	% Sound Housing. % Lacking Facilities	No. Households under \$1000 per Capita

Set of Measures of the Quality of Life¹⁵

Parks" would have to be quantified in such a way that it is additive with whatever quantification has been devised for "% Public Hospital Care."

Numerous questions arise in an examination of this matrix, the most obvious one being the rationale behind the use of these particular measures. Why these, rather than other measures? This question represents the manifestation of one of the inherent difficulties with social indicators, i.e., the question of what to measure. Does the concentration upon the variables believed to be strategic result in the ignoring of other variables which might later be found to be more strategic? A thoroughly comprehensive set of variables would automatically make the matrix too cumbersome to be of much use, however. Why is the "% Children 4-5 Yrs. Age on Welfare" considered a political aspect of income production? Why not an economic or societal manifestation? Moreover, why not the number of children under 18 on welfare, rather than the seemingly arbitrary number of them who are 4-5 years old? The use of accessibility as an indicator of the quality of life is also questionable, particularly in view of its rather negligible impact on neighborhood satisfaction identified by Wilson and Zehner.⁹ One justification might be that neighborhood isolation has been identified as a possible cause of the Watts riots of 1965. However, if the use of accessibility can be justified, how are the means used to measure it justified? Similar questions could be raised about every measure of every component. More than likely the decision to use these measures and these components was reached only after careful study and deliberation. Plausible arguments and perhaps hard facts can be cited in their defense, but equal study and equal deliberation by someone else who is equally qualified to devise such an indicator might yield another set of components and component measures whose validity would be no more and no less open

to question.

In spite of all the doubt that can be cast on the validity of this particular indicator, its development and its use will contribute to the further refinement of quality of life indicators. It can be justified on these grounds:

Rather than do nothing it is preferable to start out with bad data, warn everyone about the defects and limitations, and aim at gradual improvement through use.¹⁰

A less conventional approach to quality of life indicators was taken by Chapin in 1971.¹¹ Briefly, Chapin's indicator is based on activity patterns of residents. He assumes that people's evaluation of their life situation is reflected in their use of their free time. Therefore, the quality of life in an area can be assessed on these limited criteria: the amount of leisure time one pattern of urban spatial organization offers over others and the variety of opportunities for use of this leisure time that this pattern offers in comparison with others. This formulation is claimed to provide urban planners with an evaluation technique for making a choice among two or more alternative plans which could take into account certain factors that cannot be analysed by costs and benefits.

According to Etzioni and Lehman, any measurement of a social science concept relying on a single indicator should be viewed as dubious.¹² The possible consequences of doing so may be observed by an examination of Coughlin's work.¹³ Coughlin found income indicators to be the best single measures of the extent to which metropolitan goals are attained. However, these income indicators are unrelated to, or negatively correlated with, a number of other goal attainment indicators.

Chapin's assumption that "man's own evaluation of his life situation is . . . reflected in his choices for use of his 'free' time" is certainly

open to conjecture, and he offers us no justification for this assumption. Implicit in the assumption is the value judgment that some uses of free time are superior to other uses. Moreover, the amount of uncommitted time one has is not solely dependent on the pattern of urban spatial organization. Frequently free time as a result of ease of access is traded off for diminished ease of access in order to obtain certain amenities considered more important than access or the free time which ease of access affords. Free time can also be traded off for economic benefits.

Just as income indicators do not reflect physical goal attainment, according to Coughlin,¹⁴ the variety of opportunities for the use of free time does not take into account other environmental characteristics influencing the extent of one's pleasure in this variety. No place in the world offers a wider variety of free time activities than New York. Yet the appeal of this variety is negated to an extent by certain other qualities of the environment that have nothing to do with free time or the variety of opportunities for its use, e.g., air pollution and fear of crime, to mention only two. The fact that New Yorkers engage in this wide assortment of leisure time activities (otherwise there would be no wide assortment) does not permit us to discount these negative aspects of the environment in evaluating the quality of life there.

Chapin's approach is interesting, however. While it is in itself probably not a very valid indicator of the quality of life, it does serve to point out two components, i.e., amount of free time and variety of opportunities for its use, which might be significant enough to be incorporated into a more comprehensive model of the quality of life.

II. Density and Overcrowding

In view of the emerging consensus on the necessity for energy conservation, the question of the impact of density and crowding on livability acquires great significance. The association between high densities and social pathologies in America's central cities is well known.¹ The fundamental question with regard to density is whether it is high density, as measured in population per acre or dwelling units per acre, which causes these pathologies, or the entirely different phenomenon of overcrowding within the dwelling unit itself, regardless of dwelling units or population per acre, or, in fact, some other variables yet to be identified. A conclusive answer to this question has thus far evaded us, and there is as yet no indication of a growing consensus of opinion in one direction or another.

The stress, discomfort, and other assorted negative effects induced by crowding within enclosed areas is fairly well documented.² It is not so clear, however, that a high dwelling unit or population density per acre is equally detrimental, in and of itself, to the quality of the social environment. A well known challenge to the wisdom of the orthodox planners' support of low population and dwelling unit densities was presented by Jacobs in The Death and Life of Great American Cities:

Proper city dwelling densities are a matter of performance. They cannot be based on abstractions about the quantities of land that ideally should be allotted for so-and-so many people (living in some docile, imaginary society).

Densities are too low, or too high, when they frustrate city diversity instead of abetting it. This flaw in performance is why they are too low or too high. We ought to look at densities in much the same way we look at calories and vitamins. Right amounts are right amounts because of how they perform. And what is right differs in specific instances.³

Although one may question the necessity of attaching such importance to diversity, Jacobs does have a point in saying that proper densities differ in

specific instances. Her opinion was based on personal observation and experience. It has since been somewhat substantiated by empirical investigation and research. For example, Winsborough found that high densities were actually negatively associated with death rates, TB rates and overall public assistance rates, when socio-economic status and housing quality were controlled for.⁴ These results say nothing, however, about such problems as crime rates and alcohol and drug addiction. Results of Schmitt's study of the implications of density in Hong Kong indicate that Hong Kong natives can tolerate densities at rates that today seem unbearable to Americans and that these high densities are not inevitably correlated with social pathologies.⁵

Rather opposite results were obtained in a later study by Schmitt when he attempted to distinguish between the effects of density per net acre on pathologies and the effect of overcrowding in terms of population per room on the same pathologies. He found that

Population per net residential acre continued to reveal a close association with morbidity, mortality and social breakdown rates when overcrowding, as measured by the percent of occupied units with 1.01 or more persons per room was held constant.⁶

Michelson concludes that the overall results of current research indicate that high densities seem more related to social pathologies than residential overcrowding, but that this effect is modified by personal and cultural factors.⁷

Whatever the association between density and pathology, and overcrowding and pathology, an overview of the literature on the subject leaves the impression that the relationships are not simple. A complex mixture of variables comes into play, and precisely how these variables interact is not known with certainty. At this stage of our knowledge it seems reasonable to speculate that if workable means of minimizing social interference from high

densities can be developed and implemented, if perception of density can be manipulated, and if the perceived important benefits of low density living can be incorporated into high density situations, Americans' tolerance for much higher densities may be significantly increased. The exceedingly high densities in Hong Kong, which apparently do not result in social pathologies, lead to the conjecture that perhaps there are some elements in our culture, our social organization, or our system of values which, when combined with high densities, lead to undesirable results. Once these elements are isolated and understood, our ability to tolerate greater densities may well be improved.

III. Neighborhood Homogeneity or Heterogeneity

Considerable attention has been devoted to the question of whether homogeneity or heterogeneity is more desirable at the neighborhood level. It is clear that this question does not hinge on whether homogeneity or heterogeneity is more closely associated with livability. As William Michelson has observed, and as a survey of the literature will reveal, "evidence on the complete intermingling of contrasting class groups is decidedly negative."¹ It should be noted that Michelson is referring to social class mixtures rather than to mixtures of racial, ethnic, age or other groups. There are problems associated with the integration of these other groups, but solutions are not so difficult to devise. For example, in multi-family housing developments where residents are similar with regard to social class but mixed with regard to age, conflicts between young families with children and older couples are likely to occur. These conflicts are frequently the result of noisy and boisterous behavior by the children which the older residents find annoying. This situation might be ameliorated by a site plan in which play areas are

well removed from the location of the smaller apartments in which the older residents are likely to live. On the other hand, within housing developments where children of both middle and lower social status reside, class variations in the behavior norms the children are expected to conform to can lead to difficulties which are not so easily remedied by design modifications. The problems which arise from the mixing of any two or more groups are associated with differences in values and life styles which sometimes clash when juxtaposed. However, few would argue with Lee's observation that heterogeneous mixtures have the advantage of providing a variety of people to fit community roles and to enhance mutual awareness.²

Zoning laws tend to perpetuate the tendency for us to segregate ourselves by social class, or rather for the middle and upper classes to segregate themselves from the lower class. In view of the negative results of social class mixtures cited by Michelson, these zoning regulations are not altogether irrational and detrimental to livability for members of the middle and upper classes. However, the dream of a home in the suburbs is not the exclusive ambition of these two classes, and the lower classes are all too frequently denied the opportunity to obtain inexpensive suburban housing because of these exclusionary zoning regulations. The problem thus becomes how to achieve a greater equality of residential locational choice, thereby providing the lower classes with a wider array of areas where they can afford to live and bringing about the advantages of a mixed community, without a corresponding decrease in livability for those of higher status.

Herbert Gans has devoted considerable attention to this problem and suggests that homogeneity at the block level should be encouraged, but that heterogeneity should be encouraged at the higher levels of the neighborhood and the community.³ One problem with this suggestion, as Michelson points

out, is that property values on one block could be adversely affected by circumstances on an adjacent block.⁴ Moreover, resistance would certainly be encountered from the higher social classes. Perhaps, as Gans has suggested, the real solution to this problem lies largely in the solution of "the basic metropolitan area social problem."⁵ Suzanne Keller has suggested that we strive for a social class mixture at the community level.⁶ By community level she means a level higher than that of the neighborhood. This mixture at the community level may be achieved through linking common services and facilities to a single community. However, she fails to give any examples of services and facilities encouraging any significant degree of interaction which those with choice will not avoid in order to avoid contact with lower classes.

Warren Boeschstein has developed some guidelines for the design of socially mixed housing when it is attempted.⁷ One of his suggestions is that design and construction features of individual structures should not imply social or economic differences among the various classes of occupants. One wonders, however, whether middle and upper class occupants would be willing to accept the absence of those features which serve to call attention to their higher status.

Another of Boeschstein's suggestions is that opportunities for social mixing should be made available, and groups whose cohesion is based on factors other than social class should be encouraged, as well as opportunities for their creation. If such groups could be formed, and after their formation could flourish, they would go a long way towards the enhancement of what Lee refers to as "mutual awareness."

IV. Urban Design Esthetics and Livability

One prevailing principle of urban design esthetics that emerges within

the literature included in this bibliography is that visual complexity in the urban environment is an important component of visual appeal. Rapoport clarifies this principle: "Stimuli which are too simple lead to quick boredom; those which are too complex lead to confusion and avoidance."¹ Elsewhere he defines complexity as

a function of violated expectations. . . . The notion of building up expectations and then noticeably departing from them is the principle behind the creation of complexity through the manipulation of variety.²

Considerable psychological evidence is presented in the literature to support the hypothesis that humans do indeed become bored with excessive simplicity or confused with excessive chaos and that a perceptually complex environment is more desirable than either.³ This evidence is highly compatible with Jacobs's intuitive outcry against simplicity and regularity and her plea for diversity. While her remarks quoted below are in reference to the need for some mixtures in land uses, she clearly states the case against monotony:

Superficially, this monotony might be thought of as a sort of order, however dull. But esthetically, it unfortunately also carries with it a deep disorder: the disorder of conveying no direction. In places stamped with the monotony and repetition of sameness you move, but in moving you seem to have gotten nowhere. North is the same as south, or east as west. . . . It takes differences--- many differences--- cropping up in different directions to keep us oriented. Scenes of thoroughgoing sameness lack these natural announcements of direction and movement, or are scantily furnished with them, and so they are deeply confusing. This is a kind of chaos.⁴

A modification of this sentiment is expressed by Lynch in an explanation of the concept of imageability:

The concept of imageability does not necessarily connote something fixed, limited, precise, unified or regularly ordered, although it may sometimes have these qualities. Nor does it mean apparent at a glance, obvious, patent, or plain.⁵

Thus we see that Lynch feels there is a place for both complexity and simplicity within the environment.

Elsewhere Lynch attempts to define and structure the proper limits of complexity and to clarify the difference between complexity and chaos:

Many of us enjoy the House of Mirrors, and there is a certain charm in the crooked streets of Boston. This is so, however, only under two conditions. First, there must be no danger of losing basic form or orientation, of never coming out. The surprise must occur in an overall framework; the confusions must be small regions in a visible whole. Furthermore, the labyrinth or mystery must in itself have some form that can be explored and in time be apprehended. Complete chaos without hint of connection is never pleasurable.⁶

Rapoport acknowledges that there are individual and cultural differences which affect the perception of complexity. However, his analysis of pertinent psychological literature leads him to suggest that "for each person there is an optimal perceptual rate . . . of which there is a consensual point of visual preference among humans as opposed to a random scatter."⁷

Clearly, an operational definition of complexity is essential before the perceptual richness of proposed and existing environments can be precisely evaluated. Rapoport gets at this problem somewhat,⁸ but more work is needed before the idea of measuring complexity can be empirically applied.

Virtually omnipresent with the literature on the esthetics of urban design are lamentations over the sad state of American urban physical structure. Typical of this attitude is that expressed by Nairn.⁹ According to him, the most basic elements in the esthetic drabness of our built environment are the lack of significant formal relationships among buildings and the sameness and monotony of American cities regardless of their geographic location. Because of this sameness identifiability is precluded and boredom is rampant.

A decidedly minority opinion on this subject is that of Denise Scott Brown, who exhorts us not to disdain the urban sprawl we have: "When the artistic fashions move on, we shall still be here because this pop city, this here [sic] is what we have."¹⁰ Implicit within this statement is the belief

that the built environment should be an expression of a society's values and lifestyle. If this is indeed the case, then it is difficult to deny that the physical structure of contemporary Americana is a roaring success. What we have is largely a reflection of our devotion to the single family detached dwelling and the private automobile. These two elements, combined with our failure to make design a public policy issue, as suggested by Holland,¹¹ seem to assure the continuing existence of the pop city to which Brown refers.

The major issue surrounding the relationship between urban design esthetics and livability is whether, in fact, there is one. The literature is replete with discussions of how a city should be designed for esthetic appeal, how humans react to various simulated and actual design situations, the role of meaning in the urban image, the deficiencies in America's built environment and similar topics. This question of the association of design esthetics with livability is rarely asked. Most designers tend to assume that there is an association. Results of psychological studies indicate that complex environments high in visual information are preferred by humans.¹² However, in other sections of this analysis we see that there are a multitude of other factors which take precedence over design considerations when choices must be made. Other factors not dealt with here are budgetary considerations, the inclination to equate proper functioning with visual appeal, and the belief that such superficial and facelifting measures as dressing up facades and planting trees will effectively camouflage tastelessness.¹³ Perhaps Gordon's belief that livable means comfortable is accurate.¹⁴ So long as we can achieve accessibility, health and safety, desired goods and services, employment, privacy, adequate space and the desired level of social interaction, do esthetics really matter? Somehow we have found it necessary to sacrifice a visually varied and stimulating environment in order to obtain

these other components of livability, and most of us are not grieving over the sacrifice.

V. The Anti-Urban Bias in American Society

Although there is a dearth of literature on livability dealing directly with this subject, the literature considered in its entirety tends to reveal an anti-urban bias in American society. This bias has exerted a strong influence on the evolution of our cities, and for this reason deserves some attention.

The most concrete expression of this bias is the overwhelming preference among our population for the owner occupied single family detached dwelling in the suburbs. Meyerson, Terrett and Wheaton have observed that the "ideal of owning a piece of land and the dwelling on it is tightly woven into our whole cultural pattern."¹ Accompanying the attachment to this ideal are the widespread preferences for spaciousness, a country-like character, greenery, etc., documented by Wilson,² which are perceived to be associated with the detached dwelling unit. As Rapoport has noted,

Given a certain climate, the availability of certain materials, and the constraints and capabilities of a given level of technology, what finally decides the form of a dwelling, and molds the spaces and their relationships is the vision that people have of the ideal life.³

It seems clear that in the American vision of the ideal life there is no place for the city in its traditional form of diversity and compactness, for diversity and compactness are perceived to be incompatible with this ideal. This preference of ours for non-urban places seems to stem from a feeling rather deeply ingrained in our national character that the city is something of a moral vacuum. According to one observer, the metropolis

toils weary one, [sic] not into wholesome fatigue, but into desponding

exhaustion; its pleasures excite without interesting, and stimulate only to waste.⁴

This quote is obviously from another century, but the sentiment prevails to this day that there is an inherently decadent quality about the city, a quality perhaps reminiscent of the Berlin of the 1930's as portrayed in Cabaret.

The antithesis to the city's decadence is the country's wholesomeness, as implied in the rather dated quote which follows: "There are many attributes of a moral cast belonging to the rearing of plants."⁵ While most of us would be too sophisticated to admit we believe that gardening is somehow morally uplifting, the belief in the overall wholesomeness of non-urban places is implicit in our abandonment of the city at the earliest opportunity, not merely as a place of residence but as a cultural mecca as well. Results of Zikmund's study of suburbanites' use of the central city indicated that 50% of the population of Radnor, Pennsylvania use the central city (Philadelphia) once per month or less.⁶

Few would deny that central cities have become threats to health and safety, not to mention morals. Pollution levels, traffic congestion, and crime statistics are frequently sufficiently disheartening to repel the most confirmed urbanites. However, it seems conceivable, as Jacobs suggests,⁷ that the decay of the city is a self-fulfilling prophesy, and that if those with choice had elected to remain there, the demise of the inner core would not have come about.

This association between livability and non-urban places has serious implications for our urban pattern. The most obvious outgrowth of this association is of course the suburbs, which seem to represent an acceptable blend of the virtues of small town living with the economic opportunities afforded by large cities. The resultant strangulation which suburban expansion has in-

flicted on the central city is widely lamented, yet the place of the suburban house in the American Dream seems as entrenched as ever. Assuming that this component of our national character should not be tampered with or controlled or manipulated in any way, one wonders whether our resources can continue to support such quasi-bucolic ideals. The private automobile has been instrumental in fashioning our communities to conform to this ideal, yet it is not clear that we can continue to rely on it to the extent that we have in the past without wreaking havoc on the environment in terms of pollution and resource depletion. The enormous expanses of land that are gobbled up for suburban expansion are not limitless and are not replenishable. Doxiadis observes that "we must learn how to plan and build our cities in such a way as to give all of us the maximum choices."⁸ Yet one problem in providing ourselves with a maximum array of choices is that, if past trends are any indication, there would be an even greater demand for more private indoor and outdoor living space. The question thus becomes not whether suburban dispersion is the most desirable urban pattern, for it is clear that a pattern which accommodates large amounts of individual turfs represents a value consensus in our society, but rather is it possible to provide the choice of a suburban living environment to all who want it? Can we continue to trade off the macroenvironment for the microenvironment? Perloff has suggested that

For many purposes and for many situations, 'microenvironments' serve as actual or potential substitutes for the 'macroenvironment.' . . . The question of trade-offs between micro- and macroenvironments thus becomes a critical one in the urban setting.⁹

The macroenvironment cannot be entirely destroyed without a simultaneous destruction of the microenvironment which it supports. In essence, this is the problem we all face.

VI. Stability and Change

Throughout the literature on livability one finds scattered references to the concept of attachment to place. This concept is given various names such as topophilia, or sense of place, or simply at homeness. It can be defined as a "human being's affective ties with the material environment."¹ Rarely is the subject dealt with in and of itself. Most commonly it is considered in conjunction with the study of residential satisfaction.

This sentiment of attachment to place as a component of residential satisfaction is quite elusive and rather difficult to document. Perhaps the most successful attempt was made by Fried and Gleicher in their study of the effect of forced relocation upon the former residents of Boston's now demolished West End.² They found that many of these relocatees experienced an emotion very similar to grief when forced out of their homes, and this grief was caused by their loss of the sense of identity they had acquired from living in the West End and the satisfactions they had experienced there.

Buttimer claims that the most significant variables associated with residential satisfaction are related to this attachment to place.³ They vary among districts, families and social classes but they "appeared to be consistently related to the subjective experience of 'at homeness.'"⁴ Some of these variables were found to be duration of residence, location of the district, stage in the life cycle and the type of social interaction experienced. Thus, according to Buttimer, the central implication of these findings is that

the success of a residential development is contingent on the existential meaning it acquires for its residents. . . . Only when a particular area design has acquired social meaning, only when its neighborhoods and physiognomy are stamped with the character of its residents and its service facilities are attuned to its needs does an ecological harmony between

people and milieu emerge.⁵

Although this idea of attachment to place as a result of a continuity of satisfying experience can be an important component of livability at the neighborhood scale, the idea should be extended to the city-wide scale to include the attractiveness of a place, not as a result of familiarity, but rather as a result of an elusive charm which the area exudes and which is readily apparent to the visitor. The most obvious examples of such places are tourist meccas such as La Rive Gauche of Paris, Boston's Beacon Hill or Quebec. Less well known examples include the older residential sections of thousands of sleepy and obscure Southern towns. The key to the charm of such places clearly lies in what Gutheim refers to as a "residue of the past" and a "setting in time and place."⁶ Yet it is not so clear that it is charm which has enabled them to survive. In speaking of Georgetown, Gutheim wonders

What parts of the extra value of the Georgetown house are due to its location in a community with definite boundaries, quiet streets, shade trees, ample gardens, historical associations and architectural homogeneity, and what parts are due to its location in a community of high income families, high property values and accessibility.⁷

Regardless of those factors which have enabled such places to thrive, there seems to be some fulfillment in experiencing places which are unique to time and space, regardless of whether the individual's personal history is bound up in them. Temporal and spatial uniqueness is a characteristic notably absent from too much of the developed American landscape. The phenomenal expansion of suburbia since 1945 has few geographic variations. Shopping centers, parking lots, strip commercial developments and suburban bungalows look the same from Maine to California. Differences among regions in appearance exist largely in the topography, vegetation, climate, and in the architectural and engineering adaptations necessary to accommodate them. Moreover, most of suburbia has not existed long enough to acquire any historical associations

or to evoke in its residents any feeling for its past. Our enchantment with such places as Williamsburg or the old but intact and vibrant areas of our older cities might be interpreted as an expression of the need to experience places which are temporally and spatially unique. Margaret Mead has observed that "the need to be bound to the past is a basic human need."⁸ She observes elsewhere that

Real community is based on memory. . . .The community is based on shared experience over time, that is continually revived by comment, by reference, by telling the story over again.⁹

It might be added that we also delight in the perception of such a "real community" with which we have no personal association.

This need for a sense of continuity in our lives and in our cities frequently clashes with the equally important need for change. The psychologically devastating effects of change, particularly forced change and its rapidly accelerating pace, are occasionally discussed in the literature, most notably by Fried and Gleicher,¹⁰ Toffler¹¹ and Lin.¹² Lin warns that

Any failure to meet the change--- which implies disruption of old habits and acquisition of new ways of adjustment to the new situations--- will result in emotional tension that is characterized by some degree of instability, feeling of insecurity or disharmony of one's beliefs, attitudes and activities.¹³

Few would argue that change is unnecessary or even undesirable, yet, as Lin suggests, the achievement of a livable environment requires the ability to conserve those elements of traditional culture which can be conserved and to devise ways of making change more acceptable. The literature included within this bibliography is limited in this respect. Lin, Toffler and Fried and Gleicher are the only ones who deal with this subject at length.

VII. Values

Throughout this discussion of livability, implicit and explicit references to values have been made. In fact, it is almost impossible to separate the subject of livability from the subject of values, for, aside from the very basic human needs for food, clothing, shelter, etc., it is our values which dictate our notions of livability. The following comment by Michelson clarifies the importance of values:

As part of the cultural system, values are conceptions of what ought to be. They are rules, guidelines for behavior. They are not group structures, nor lifestyles; they are the abstract goals which people seek to achieve via social groupings.¹

Michelson later observes that social scientists disagree on whether values are "orientations or objects, actions or internalized guides to action."² No attempt will be made here to resolve this point of contention, and the word values as it is used in this section will usually refer to both objects and orientations.

Values are created by numerous influences: social class, culture, age, stage in the life cycle, for example. Thus as these influences vary, so can values. For example, cultural variations as to what constitutes adequate privacy of family members from each other may dictate the interior spatial arrangement of the dwelling unit. On the other hand, it has been suggested by Wilson that perhaps there is with regard to certain elements of livability a broad consensus of values within our society.³ A prime example of such a consensus would be the very widespread desire among many population sub-groups for the single-family detached house. Its popularity has been consistent for many decades, and it is congruent with the emphasis we now place on the nuclear family as an independent unit.

Architects, designers and planners are becoming increasingly aware of the need for taking into consideration the values of those who are affected by their plans. Their failure to do so in the past has resulted in considerable dissatisfaction and discontent among clients. Perhaps the best known example of such an instance is the destruction of Boston's West End. By middle class criteria the area was a slum in many respects: densities were considered too high; many of the buildings (though not individual apartments within buildings) were substandard; children played in the streets; and back alleys were littered with garbage. Yet the West End enabled its residents to achieve their idea of "the good life," and indeed, by some orthodox measures, the area as a whole was not a slum; disease and crime rates were comparatively low, and social organization was strong. The forced eviction of these people resulted in a great deal of personal anguish because many elements of their life style, which was quite satisfactory to them, were destroyed and were impossible to replicate in the scattered neighborhoods to which they were relocated.⁴

The widespread discontent among residents of federally financed low income public housing is partially the result of a conflict in values between the management and the tenants. In such cases, tenants who were moved into new housing from squalid tenements with which they were clearly dissatisfied have simply traded one set of problems for another. Prior to the move they may have had to contend with problems of physical dilapidation, crowding, and filth. After the move the problem became one of coping with rules and restrictions which were not compatible with their behavior norms.⁵ Fellman and Brandt note that

Upper middle class professionals appear to make policy decisions affecting others on the basis of their own social-class values and life style, that is, they ignore or are oblivious to the different but equally valid desires or life styles of the people affected by their decisions.⁶

A similar fear is expressed by Kopkind:

There is no general agreement on human values. But the people who frame the questions about society and plan the future can easily, and unconsciously inject their own values into the answers they receive.⁷

The literature on livability is thus beginning to reflect an awareness of the importance of the consideration of values.

A number of studies are to be found which document different values among population sub-groups.⁸ However, what knowledge we have seems to be rather fragmented and disorganized. No one has undertaken a thorough synthesis of our knowledge of values and how this knowledge can be applied in the design of housing, neighborhoods and cities. The closest we have come to such a synthesis lies with Michelson's treatment of values, yet his work is too brief to be used as a guide except in an extremely limited number of circumstances.

Much less attention has been devoted to the study of how values might change in response to a change in environment. This area is clearly one in which managers and creators of urban environments should have an abiding interest, for it has implications for the extent to which behavior can be controlled and determined. Even more relevant to the practice of planning is how changes in the physical environment, as opposed to the non-physical, influence value modifications. For example, to what extent would our worship of the private automobile be affected by the development of a public transit system which incorporated specific advantages of the automobile? To what extent would the importance of the automobile be diminished by spatial arrangements which minimized the need for it? The high valuation we place on the automobile is in all likelihood indicative of much broader and more basic values. How would these broader and more basic values be influenced by the

aforementioned environmental changes?

Changes in the physical environment require changes in behavior. The ease with which society can proceed from one form of behavior to another in response to an environmental change would seem to be one measure of the viability of that change.

Sherman observes that

We used to think that attitudes are hidden reasons behind behavior. But in the last 10 years, this has been turned around. Behavior serves as input for attitude. . . . If people can be encouraged to engage in various types of behavior, the subsequent fears and feelings can be changed.

The implication in the quote above is that behavior precedes attitude, rather than the reverse. However, it might be proved more accurate to say that behavior and attitude can interact to produce values and that values are the result of both.

CONCLUSION

In the preceding pages an attempt has been made to isolate broad aspects of livability which are not yet clearly understood or which pose crucial, yet unresolved, problems to planners. These aspects and the questions they engender are summarily stated below. It is within these broad areas that research seems most needed and most urgent.

- (1) The measurement of livability holds considerable promise as a means of putting to practical use the knowledge we have acquired about livability. However, reliance on present-day measurement techniques is hazardous because we are so uncertain about what should be measured, how to quantify what is measured, and how much weight to attach to these measurements.
- (2) Our ability to tolerate much higher densities than we are accustomed to is crucial to the more efficient use of land and of energy, both of which are in short supply. Yet past research on the effects of higher densities in our culture is not particularly promising in this respect. The literature on density and its effects is abundant, yet we still do not know whether workable means of minimizing social interference from high densities can be developed for our culture. Exhaustive as research has been to date, much more is needed.
- (3) Neighborhoods which are homogeneous in social class and equality of locational choice of residency are mutually exclusive phenomena. No one has yet devised spatial arrangements in which widely disparate income groups are mixed very successfully. Even the "new towns," which seemed to hold so much promise in this respect, are a disappointment.¹ At this time it appears that a greater degree of income equalization holds more promise for the solution of this problem than ingenuous site designs.
- (4) The major issue surrounding the relationship between urban design esthetics and livability is whether, in fact, there is one. Research on what types of visual environments people prefer will continue, but it is not likely that future findings will be sufficiently earth shaking to alter the back seat position that esthetics has taken among urban concerns. Mass priorities lie elsewhere. Moreover, the pattern of land uses in urban areas, catering as it does to single family detached houses and the automobile, is not particularly conducive to visual excitement or clarity. Any realistic hope we might nourish for improvement in the visual appeal of urban areas lies in a modification of land use patterns.
- (5) An anti-urban bias exists in American society and has had considerable impact on the evolution of our cities. Ultimately, it is a costly bias in terms of the inner city decay it has engendered and the wasteful land

use pattern it is at least partially responsible for.

- (6) The havoc wrought on human lives because of forced change is well-documented by Fried and Gleicher. Drastic change and even forced change are essential for some individuals if urban environments are to be improved. Clearly, research on how the devastating effects of forced change may be minimized is direly needed.
- (7) Considerable research has been accomplished on the subject of values. Most of it has been concentrated on one particular influence on values at a time. What is needed now is research on how these influences interact, on how values created by culture, for example, interact with or are modified by values created by age or stage in the life cycle or whatever. In addition, the theory that value modification can be achieved by behavior modification is a tantalizing one and holds serious implications for those in a position to shape our life styles. Prior to any attempt at a practical application of this theory, however, we must give careful thought to the extent to which anyone has the right to exercise such power.

Most of the knowledge to date on livability is too vague and too limited in scope to be used as much more than a conceptual guide in the practice of planning. The planner cannot, from an examination of the literature on livability, learn how a city or neighborhood with given demographic characteristics should be zoned. He or she cannot learn from the literature what density standards to set for a renewal area or how best to mix, for example, poor blacks with young children with childless and middle aged affluent whites. Too much is unknown about social and physical variables and their interaction for the situation to be otherwise. For example, two of Michelson's conclusions are:

- (1) Adults, before and after raising children (as well as those who are childless), frequently rate centrality (i.e., access to consumer goods and services) more highly than do families with growing children.²

and

- (2) People who highly value convenience are likely to prefer more mixed land uses and small lot sizes. People who highly value individualism prefer larger lot sizes.³

The question that immediately emerges from these two statements, without ques-

tioning the veracity of either, is how much importance do adults who highly value convenience and who also have growing children attach to easy access to consumer goods and services? Does the need among these people for the accessibility obtained from mixed land uses outweigh the (implied) advantages of child-rearing in non-central areas where land uses are homogeneous in character? Or is the opposite the case?

On the other hand, the value of the literature as a conceptual guide should not be underestimated. General principles do emerge which have practical applications as a basis, or a starting point, for more detailed plans. For example, Rapoport, Lynch and Jacobs expostulate on the need for greater diversity and complexity in order to achieve clarity in urban environments. Although the ideal forms which diversity and complexity may take may differ among the three, the advantages of eschewing extreme simplicity become apparent. Thus, within the constraints of budgets, politics and popular tastes, designers, assuming they agree that there is a need for diversity and complexity, will be so influenced.

The literature, while hardly providing us with a detailed picture of what every demographic group in every circumstance may regard as desirable or undesirable, does reveal certain characteristic likes and dislikes among certain groups. Returning once again to the subject of the single family detached house, it is clear that its popularity represents a value consensus. Site planners designing multi-family housing to be occupied by moderate income groups who would buy detached houses if they could afford them would do well to keep this in mind. Incorporation of as many of the detached house's attributes as possible is indicated.

Research on the many aspects of livability will undoubtedly continue.

If past trends are any indication, it will continue to be accomplished in bits and pieces and in a rather disorganized fashion. The continuing failure of researchers to do replication studies in order to validate previously obtained results adds to the confusion and doubt in many areas. Gradually, however, the quantity of our knowledge will increase as more and more variables are explored, and our understanding of livability will be slowly enhanced. However, the highly subjective nature of livability renders it virtually immune to the establishment of many strict guidelines. There will always be unanswered questions, conflicting opinions and conflicting results on separately undertaken studies of similar phenomena. Moreover, the changes wrought by time will lead to new problems and new questions. The literature will never be so complete that a planner can look to it for answers to every question. As is the case with any social or physical science, while the total picture becomes more complete, emerging details will lead to more questions, and so on, ad infinitum.

NOTES

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This book presents a detailed analysis of the housing problems we face. Particularly relevant to the study of livability are the discussions of the mounting pressure for internal and external space, and consumers' differences and preferences as to the city, the suburbs, and the dwelling unit.

Fried, Marc, and Gleicher, Peggy. "Some Sources of Residential Satisfaction in an Urban Slum." Journal of the American Institute of Planners 27 (1961): 305-315.

Data from a sample of residents from the West End of Boston is evaluated in an attempt to understand the meaning to the residents of the area's social and physical environment. There is considerable evidence of an attachment of slum dwellers to their environment which is incomprehensible in terms of middle class values. Two major components emerge among the reasons for the attachment of these people to their neighborhood: (1) The area composes an extensive and interrelated set of localized social networks, and (2) the physical area has considerable meaning among the residents as an extension of home. Its various parts are mentally delineated and structured on the basis of a sense of belonging.

Gans, Herbert J. "Effects of the Move from City to Suburbs." In The Urban Condition, pp. 184-200. Edited by Leonard J. Duhl. New York: Basic Books, Inc., 1963.

This article is a description of the major problems of suburban residents and the types of people who are likely to be satisfied or dissatisfied with their move from city to suburbs. Gans concludes that few of these problems are limited to the suburbs and that many of the problems generally associated with suburbia are simply myths.

Gold, Seymour. "Nonuse of Neighborhood Parks." Journal of the American Institute of Planners 38 (1972): 369-378.

Gordon, W. "Middletown, USA and Good Architecture." Trans-action 6 (May 1969): 39-42, 63.

The reasons for the insipid architecture of American cities are explored.

Hamovitch, Maurice B., and Peterson, James E. "Housing Needs and Satisfaction of the Elderly." The Gerontologist 9 (1969): 30-32.

Hartman, Chester. "The Limitations of Public Housing: Relocation Choices in

a Working Class Community." Journal of the American Institute of Planners 29 (1963): 283.

A decisive majority of Boston's relocated West End population refused to consider moving into public housing. Their objections to public housing are explored.

Hartman, Chester. "Social Values and Housing Orientations." Journal of Social Issues 19 (April 1963): 115-131.

Analysis of studies performed on residents of Boston's West End demonstrates that social and cultural values influence housing preferences. The rich communal life of this neighborhood and the extension of one's territory beyond the dwelling unit serve to differentiate the housing preferences of residents from middle class preferences.

Hinshaw, Mark, and Allott, Kathryn. "Environmental Preferences of Future Housing Consumers." Journal of the American Institute of Planners 38 (1972): 102-107.

Hirschon, Renee, and Thakurdesai. "Society, Culture and Spatial Organization: An Athens Community." Ekistics 30 (1970): 187-196.

Hollingshead, A. B., and Rogler, L. H. "Attitudes toward Slums and Public Housing in Puerto Rico." In The Urban Condition, pp. 229-245. Edited by Leonard J. Dahl. New York: Basic Books, Inc., 1963.

A comparison of attitudes toward housing between slum residents and public housing residents reveals that slum residents are less dissatisfied with their neighborhoods than residents of public housing. The dissatisfaction with public housing is attributed to rules imposed on the residents by a bureaucracy with different values and behavior norms.

Kasl, Stanislav, and Harburg, Ernest. "Perceptions of the Neighborhood and the Desire to Move Out." Journal of the American Institute of Planners 38 (1972): 318-324.

Keller, Suzanne. The Urban Neighborhood. New York: Random House, 1968.

Sociological findings on neighbors, neighboring and neighborhoods which have relevance for planners are synthesized. Topics covered include factors affecting neighboring, neighborhood attachment and satisfaction, and the factors associated with attachment and satisfaction. The final chapter is devoted to a discussion of the implications of existing knowledge of neighborhoods for planning practice.

Ladd, Florence. "Black Youths View Their Environments." Journal of the American Institute of Planners 38 (1972): 103-116.

Lamanna, Richard. "Value Consensus among Urban Residents." Journal of the American Institute of Planners. 30 (1964): 317-323.

Livability values of urban dwellers are analysed with regard to (1) the most important attributes of the ideal city and (2) the amount of consensus between population subgroups on the relative importance of certain specified attributes. Results revealed that non-physical values outweigh physical values in importance and that there is consensus between population subgroups in the ranking of attributes.

Lansing, John B., and Marans, Robert. "Evaluation of Neighborhood Quality." Journal of the American Institute of Planners 35 (1966): 195-199.

This research was undertaken to develop a method to evaluate neighborhood quality throughout a metropolitan area. Among the more significant findings is that the best predictor of how well people like their neighborhood is the maintenance level of the structures as rated by an architect-planner.

Lansing, John B.; Marans, Robert W.; and Zehner, Robert B. Planned Residential Communities. Ann Arbor, Michigan: University of Michigan, Survey Research Center, 1970.

Residents' responses to planned residential environments are assessed to determine the impact on residential satisfaction of certain variables (dwelling unit density, dwelling unit type and site arrangement) which can be manipulated by planners. An attempt is also made to determine what factors are most closely associated with the perception of neighbors as compatible and what influence compatibility has on satisfaction.

Levine, Daniel et al. "Are the Black Poor Satisfied with Conditions in Their Neighborhood?" Journal of the American Institute of Planners 38 (1972): 168-171.

Study results suggest that dissatisfaction with local neighborhood services among young people in poor black neighborhoods is fairly widespread.

Lowenthal, David, ed. Environmental Perception and Behavior. Chicago: University of Chicago, Department of Geography, Research Paper no. 109, 1967.

People's attitudes toward the environment are dealt with in this collection of essays. Stress is placed upon the subjective, unconscious and culturally dominated forces that so strongly influence one's perception and behavior.

Lowenthal, David, and Riel, Marquita. "The Nature of Perceived and Imagined Environments." Environment and Behavior 4 (1972): 189-207.

Study results revealed that there are differences between how an environment is believed to look and how it actually looks.

Maimon, Zvi. "The Inner City Impact." Urban Affairs Quarterly (December 1970): 233-249.

Maurer, Robert, and Baxter, James C. "Images of the Neighborhood and City among Black-, Anglo-, and Mexican-American Children." Environment and

Behavior 4 (1972): 351-388.

Michelson, William. "An Empirical Analysis of Urban Environmental Preferences." Journal of the American Institute of Planners 32 (1966): 355-360.

This study represents an attempt to clarify the association between social variables and ideal physical environment. A number of significant conclusions are drawn which indicate that value orientations and the nature of past social interaction account for differences among people which must be considered by planners. A conceptual scheme is also proposed for the urban physical environment.

Michelson, William. Man and His Urban Environment: A Sociological Approach. Reading, Massachusetts: Addison Wesley Publishing Company, 1970.

In Michelson's own words, this book is an attempt to present a synthesis of past research efforts linking the social characteristics and activities of people with the home, neighborhood, and other aspects of physical environment in which urbanites live, which have been and can be shaped by . . . all men who modify the landscape. (p. xi)

He begins by establishing in Section I a frame of reference through which past studies are related to each other and future research can be delineated. Section II comprises a synthesis of past research efforts on the urban environment, grouped under the broad headings of life style, stage in the life cycle, social class, values, pathology, and determinism. The final section is devoted to analysis of where we stand in our understanding of human beings in an urban environment and how future research should proceed.

Michelson, William. "Most People Don't Want What Architects Want." Transaction 5 (July-August 1968): 39-43.

Michelson, William. "Potential Candidates for the Designer's Paradise: A Social Analysis from a Nationwide Survey." Social Forces 46 (December 1967): 190-196.

There is little or no support for the assumption of some designers that there are many people who prefer multiple dwellings to single family dwellings, desire smaller amounts of private open space than they now have, prefer central city locations, and prefer mass transit to the private automobile. The people who do have these preferences can be identified by their stage in the life cycle and life style.

Montgomery, Roger. "Comment on 'Fear and the House-as-Haven in the Lower Class.'" Journal of the American Institute of Planners 32 (1966): 31.

Fyron, Bernard. "Form and Diversity in Human Habitats." Environment and Behavior 3 (1971): 382-411 and 4 (1972): 87-120.

Rainwater, Lee. "Fear and the House-as-Haven in the Lower Class." Journal of the American Institute of Planners 32 (1966): 23.

The lower class attitude towards housing is one in which the housing unit provides a haven from the human and non-human threats from the outside world. Once the home is perceived as a safe place, the desire to extend the bounds of safety beyond the dwelling unit is likely to be expressed.

Rapoport, Amos. House Forms and Culture. Englewood Cliffs, New Jersey: Prentice Hall, 1969.

The basic hypothesis of this book, according to its author, is given a certain climate, the availability of certain materials, and the constraints and capabilities of a given level of technology, what finally decides the form of a dwelling, and molds the spaces and their relationships, is the vision that people have of the ideal life. (p. viii)

Sonnenfeld, Joseph. "Equivalence and Distortion of the Perceptual Environment." Environment and Behavior 1 (1969): 83-99.

Tuan, Yi-Fu. "Structuralism, Existentialism, and Environmental Perception." Environment and Behavior 4 (1972): 319-331.

Tuan, Yi-Fu. Topophilia. Englewood Cliffs, New Jersey: Prentice Hall, 1974.

Topophilia refers to the bond of affection between people and places. Tuan explores this bond from the standpoint of the individual and the group as it is manifested in wilderness, rural and urban environments. Most relevant to the study of livability are the chapters entitled (1) Topophilia and Environment, (2) American Cities: Symbolism, Imagery and Perception, and (3) Suburbs and New Towns: the Search for Environment.

Virirakis, John. "The Human Community--- Study of Satisfactoriness of Communities: Effects of Education, Income, Sex." Ekistics 24 (1967): 97-109.

Virirakis, John; Crothers, R. J.; and Botka, D. "Residents' Satisfaction with Their Community." Ekistics 33 (1972): 499-502.

Wilson, Robert L. "Livability of the City: Attitudes and Urban Development." In Urban Growth Dynamics pp. 359-399. Edited by F. Stuart Chapin and Shirley F. Weiss. New York: John Wiley and Sons, 1962.

Wilson's publication is a seminal work in the study of residential satisfaction and has served as a point of departure for subsequent studies by others. Many significant findings emerge from his analysis of hypothetical preferences, aspirations and environmental evaluations expressed by his respondents.

Zehner, Robert B. "Neighborhood and Community Satisfaction in New Towns and Less Planned Suburbs." Journal of the American Institute of Planners 37 (1971): 379-386.

This study is an attempt to document the impact on residential satisfaction of new towns as compared with less planned neighborhoods to determine what characteristics are most closely associated with satisfaction. Residents of

the new towns were found to give higher overall ratings to their communities than residents of less planned areas. The maintenance level of the neighborhood as rated by the respondents was found to be the best predictor of neighborhood satisfaction.

Zikmund, Joseph H. "Do Suburbanites Use the Central City?" Journal of the American Institute of Planners 37 (1971): 192-195.

Gans's assertion that suburban residents return to the city to support its cultural offerings is examined. Results of a survey indicate that fifty percent of the respondents use the central city only once per month or less.

II. ENVIRONMENTAL INFLUENCES ON BEHAVIOR

Appleyard, Donald. "Why Buildings Are Known: A Predictive Tool for Architects and Planners." Environment and Behavior 1 (1969): 131-156.

Athanasidou, Robert, and Yoshioka, Gary A. "The Spatial Character of Friendship Formation." Environment and Behavior 5 (1973): 43-65.

Boeschstein, Warren. "Design of Socially Mixed Housing." Journal of the American Institute of Planners 37 (1971): 311-318.

Successful and unsuccessful elements of socially mixed housing at Brookline, Massachusetts, are discussed. These elements suggest criteria which should be followed in the design of future housing which is socially mixed.

Burns, Leland S., and Tjioe, B. Khing. "Housing and Human Resource Development." Journal of the American Institute of Planners 34 (1968): 396-401.

Cappon, Daniel. "Mental Health in the Hi-rise." Ekistics 33 (1972): 192-195.

High-rise living has many detrimental influences on mental health.

Fried, Marc. "Grieving for a Lost Home." In The Urban Condition, pp. 151-171. Edited by Leonard J. Duhl. New York: Basic Books, Inc., 1963.

Forced dislocation is a highly disruptive and disturbing experience. The grief suffered by former occupants of Boston's now demolished West End is analysed and documented in this study.

Gans, Herbert J. "The Balanced Community: Homogeneity or Heterogeneity in Residential Areas." Journal of the American Institute of Planners 27 (1961): 176-184.

The advantages of heterogeneity and the disadvantages of homogeneity have been exaggerated, but extreme forms of both are undesirable. The author favors some degree of homogeneity at the block level (with certain qualifications), as opposed to some degree of heterogeneity at the community level. Homo-

ogeneity at the block level will reduce conflict between neighbors and encourage positive relationships between them. Heterogeneity at the community level is desirable because it discourages undesirable inequalities.

Gans, Herbert. "The Potential Environment and the Effective Environment." In People and Plans, pp. 4-11. Edited by Herbert J. Gans. New York: Basic Books, Inc., 1968.

The physical environment is relevant to behavior because it affects the social systems of its users. However, what the designer creates is only a potential environment. How it is used determines its character.

Gans, Herbert. "Planning and Social Life: Friendship and Neighbor Relations in Suburban Communities." Journal of the American Institute of Planners 27 (1961): 134-140.

Planners can encourage social life among neighbors through site plans which create perceived propinquity. Planners should not, however, assume that everyone desires social interaction with neighbors. Therefore, the site designer should provide a variety of house to house relationships so that both the desire for contact and the desire for isolation can be satisfied. Homogeneity is far more instrumental in the creation of strong social relationships than site design. Site design can bring people together initially, but is insufficient in itself for sustained contact. Homogeneity with regard to what is not known.

Gold, Robert. "Urban Violence and Contemporary Defensive Cities." Journal of the American Institute of Planners 36 (1970): 146-159.

Urban violence has led to a fortification of the urban environment through such defensive measures as maximizing distance from high crime areas, limiting access to space, and other crime control devices. However, the consequences of such measures are socially destructive. Among the more undesirable results are a greater fragmentation of the urban environment and greater segregations by race and class. More positive forms of environmental management for crime control are discussed.

Gutman, Robert, ed. People and Buildings. New York: Basic Books, Inc., 1968.

People and Buildings is a series of essays by planners, designers, architects, and others with the unifying theme of the impact of the built environment on our lives.

Gutman, Robert. "Site Planning and Social Behavior." Journal of Social Issues 22,4 (1966): 103-115.

The author addresses the question of whether the style and character of housing and neighborhoods influence the lives of occupants and critiques research to date in this area.

Hare, E. H., and Shaw, G. K. Mental Health on a New Housing Estate. London: Oxford University Press, 1965.

Keller, Suzanne. "Social Class and Physical Planning." International Social Science Journal 18 (1966): 494-512.

The success of physical planning may well depend on the incorporation of social considerations in plans. The presence of social distinctions among neighborhood residents will result in the division of houses and tenants quite differently from the planned design. Ignoring these social distinctions in the design of neighborhoods creates problems among residents due to differences among social classes which are manifested in various modes of behavior and value systems. A number of measures through which successful mixing might be achieved are discussed.

Keller, Suzanne. The Urban Neighborhood. New York: Random House, 1968.

(For annotation, see p. 41)

Kriesburg, Louis. "Neighborhood Setting and the Isolation of Public Housing Tenants." Journal of the American Institute of Planners 34 (1968): 43-48.

Kuper, Leo. "Neighbor on the Hearth." In Environmental Psychology, pp. 246-255. Edited by Harold M. Proshansky, William H. Ittelson, and Leanne G. Rivlin. New York: Holt, Rinehart and Winston, Inc., 1970.

Lee, Terrence. "The Effect of the Built Environment on Behavior." Ekistics 34 (1972): 20-24.

Lee, Terrence. "Perceived Distance as a Function of Direction in the City." Environment and Behavior 2 (1970): 40-51.

The principle of least effort does not necessarily apply to shopping centers since residents have a focal orientation to the city. The attractions of the center city cause shoppers to gravitate towards it, to shopping centers which are closer in, rather than to more outlying shopping centers which might actually be nearer.

Lin, Tsung-Yi. "Effects of Urbanization on Mental Health." Ekistics 29 (1970): 205-208.

The problems brought about by too rapid change are explored.

Mead, Margaret. "Neighborhoods and Human Needs." Ekistics 21 (1966): 124-126.

Michelson, William. Man and His Urban Environment: A Sociological Approach. Reading, Massachusetts: Addison Wesley Publishing Company, 1970.

(For annotation, see p. 43)

Moller, Clifford B. Architectural Environment and Our Mental Health. New York: Horizon Press, 1968.

The author's theme is that the architectural environment has a significant

impact on the mental health of its occupants.

Moore, William Jr. The Vertical Ghetto. New York: Random House, 1969.

The gross deficiencies in the design of Pruitt-Igoe are reported in detail and related to the undesirable forms of behavior of many of its occupants.

Raven, John. "Sociological Evidence on the House." Architectural Review 142, 845 (July 1967): 68-72; and 142,847 (September 1967): 236-240.

Rosow, Irving. "The Social Effects of the Physical Environment." Journal of the American Institute of Planners 27 (1961): 127-133.

The assumption that manipulation of the physical environment can change social patterns is only selectively true. It applies mainly to extreme housing situations, such as removing people from substandard housing. It applies less to average housing situations. Assumptions relating to (1) social pathologies and social efficiency, (2) livability of the dwelling unit, (3) neighborhood structure and integration, and (4) esthetics are examined with regard to their effectiveness in realizing social policies.

Schorr, Alvin L. "Housing and Its Effects." In Environmental Psychology, pp. 319-333. Edited by Harold M. Proshansky, William H. Ittelson, and Leanne G. Rivlin. New York: Holt, Rinehart and Winston, Inc., 1970.

Schorr, Alvin L. Slums and Social Insecurity. Washington: U. S. Government Printing Office, 1963.

Sonnenfeld, Joseph. "Social Interaction and Environmental Relationship." Environment and Behavior 4 (1972): 267-277.

Studer, Raymond G. Jr., and Stea, D. "Architectural Programming and Human Behavior." Journal of Social Issues 22 (October 1966).

Behavioral needs provide the only reasonable basis for design, and problems in design are meaningful only when formulated in behavioral terms.

Toffler, Alvin. Future Shock. New York: Random House, 1970.

Future shock refers to the psychologically devastating effects of rapid change. The book deals with the types of change we can expect in the future and means of diminishing their negative impacts.

Tuan, Yi-Fu. Topophilia. Englewood Cliffs, New Jersey: Prentice Hall, 1974.

(For annotation, see p. 44)

Willmott, Peter, and Cooney, Edmund. "Community Planning and Sociological Research: A Problem of Collaboration." Journal of the American Institute of Planners 29 (1963): 123-126.

The title of this paper is misleading. Subject matter deals largely with

results of surveys on the relative importance of the social aspects of livability. Major findings are (1) the social groups to which people belong are more important to them than the physical setting in which they live, although design can influence social relationships to some extent; and (2) in the very large residential development, small and scattered facilities are more conducive to social interaction than larger and more centrally located facilities.

Wilner, D. M. The Housing Environment and Family Life. Baltimore: Johns-Hopkins Press, 1962.

Wohwill, Joachim F. "The Physical Environment: A Problem for a Psychology of Stimulation." Journal of Social Issues 22 (1966): 29-34.

Findings on the effects of the physical environment on behavior are analysed in the light of recent psychological work on the stimulus correlates of the arousal of behavior and exploratory activity.

III. MEASUREMENT

Bauer, Raymond, ed. Social Indicators. Cambridge: MIT Press, 1966.

Blumenfeld, Hans. "Criteria for Judging the Quality of the Urban Environment." In Urban Studies, pp. 502-527. Edited by Louis K. Loewenstein. New York: The Free Press, 1971.

Chapin, F. Stuart. "Free Time Activities and Quality of Urban Life." Journal of the American Institute of Planners 37 (1971): 411-417.

Coughlin, Robert. "Attainment along Goal Dimensions in 101 Metropolitan Areas." Journal of the American Institute of Planners 39 (1973): 413-425.

Environmental Protection Agency, Office of Research and Monitoring, Environmental Studies Division. The Quality of Life Concept. Washington: U. S. Government Printing Office, 1973.

This publication offers an exhaustive treatment of the problems and promise involved in the measurement of the quality of life. Both theoretical considerations and practical application of measurement techniques are dealt with.

Haythorn, William. "A 'Needs' by 'Sources of Satisfaction' Analysis of Environmental Habitability." Ekistics 30 (1970): 200-202.

Higham, Sally. "Level of Living Indexes: Five Metropolitan Case Studies." Ekistics 32 (1971): 32-40.

House, Peter, and Patterson, Philip D. "An Environmental Gaming Simulation Laboratory." Journal of the American Institute of Planners 35 (1969):

383.

- Mills, Scott. "Residential Satisfaction with the Livability of Urban Neighborhoods." Master's thesis, Kansas State University, 1975.
- Onibokun, Adepoju G. "Evaluating Consumers' Satisfaction with Housing: An Application of a Systems Approach." Journal of the American Institute of Planners 40 (1974): 189-200.
- Onibokun, Adepoju. "A System for Evaluating the Relative Habitability of Housing." Ekistics 36 (1973): 313-317.
- Perle, Eugene D. "Introduction." Urban Affairs Quarterly (December 1970): 135-143.
- Plessas, Demetrius J., and Fein, Ricca. "An Evaluation of Social Indicators." Journal of the American Institute of Planners 38 (1972): 43-51.
- The state of the art of social indicators is reviewed in this article. Topics covered include theoretical dichotomies, the problem of inducing objectivity from subjective phenomena, problems of social definition, uses and misuses of indicators, and attempts to operationalize the indicators concept.
- Smith, David M. The Geography of Social Well-Being. New York: McGraw-Hill, 1973.
- Stagner, Ross. "Perceptions, Aspirations, Frustrations, and Satisfaction: An Approach to Urban Indicators." Ekistics 30 (1970): 197-199.
- Terleckyj, Nestor E. "Measuring Progress towards Social Goals." Management Science 16 (August 1970).
- Vandermark, E. H. "Measuring the Quality of Urban Environment." Australian Journal of Social Issues 5 (1970): 179-200.

IV. DENSITY AND OVERCROWDING

- "Delos III." Journal of the American Institute of Planners 32 (1966): 344.
- Dubos, Rene. "The Social Environment." In Environmental Psychology, pp. 202-208. Edited by Harold M. Proshansky, William H. Ittelson, and Leanne G. Rivlin. New York: Holt, Rinehart and Winston, Inc., 1970.
- Casparini, Alberto. "Influence of the Dwelling on Family Life." Ekistics 36 (1973): 344-348.
- Hutt, C., and Vaisey, M. "Differential Effects of Group Density on Social Behavior." Nature 209 (March 26, 1966): 1371-1372.
- Miller, J. Marshall. "Residential Density: Relating People to Space Rather

Rather Than to Ground Area." Journal of the American Institute of Planners 27 (1961): 77-78.

Mitchell, R. "Some Social Implications of High Density Housing." American Sociological Review 36 (February 1971): 18-29.

Schmitt, Robert C. "Density, Health and Social Disorganization." Journal of the American Institute of Planners 32 (1966): 38-40.

This study is an attempt to distinguish between the effects of density per net acre on pathologies and the effects of overcrowding within rooms on these same pathologies. Results of the study revealed that population per net residential acre continued to reveal a close association with morbidity, mortality and social breakdown rates when overcrowding, as measured by the percent of occupied units with 1.01 or more persons per room, was held constant. The reverse was not true, however; with net density kept constant, the correlations between overcrowding and nine related variables approached zero. Controlling for education and income had a similar effect. (p. 39)

Schmitt, Robert C. "Implications of Density in Hong Kong." Journal of the American Institute of Planners 29 (1963): 210-217.

Hong Kong statistics on morbidity, mortality and social disorganization indicate that some urban populations can easily tolerate and even thrive in densities which seem unthinkable to most Americans.

Smith, Wallace F. "How to Stretch a Tatami." Journal of the American Institute of Planners 34 (1968): 389-395.

Sommer, Robert, and Becker, Franklin D. "Room Density and User Satisfaction." Environment and Behavior 3 (1971): 412-417.

Stokols, Daniel. "A Social Psychological Model of Human Crowding Phenomena." Journal of the American Institute of Planners 38 (1972): 72-83.

Stokols, Daniel et al. "Physical, Social and Personal Determinants of the Perception of Crowding." Environment and Behavior 5 (1973): 87-115.

Valins, Stuart, and Baum, Andrew. "Residential Group Size, Social Interaction and Crowding." Environment and Behavior 5 (1973): 421-439.

Winsborough, H. "The Social Consequences of High Population Density." Law and Contemporary Problems 30 (1965): 120-126.

V. URBAN DESIGN

Alexander, Christopher. "A City Is Not a Tree." Architectural Forum 122 Part I (April 1965): 58-62, and Part II (May 1965): 58-61.

Alexander, Christopher, and Chermayeff, Serge. Community and Privacy. Garden City, New York: Doubleday, 1963.

Appleyard, Donald; Lynch, Kevin; and Meyer, John R. The View from the Road. Cambridge: MIT Press, 1964.

The establishment of order and coherence to the urban form is possible through greater attention to and concern with the esthetics of highways. Chapter I contains a summary of findings and conjectures on present highways and people's reactions to them. Chapter II presents a system of graphic notation for recording highway visual sequences. Chapters III and IV utilize the concepts and notation system presented in the two previous chapters to analyse the assets and deficiencies of an existing road and to illustrate how new roads might be designed.

Baird, John C. et al. "Student Planning of Town Configurations." Environment and Behavior 4 (1972): 159-188.

Blumenfeld, Hans. "The Role of Design." Journal of the American Institute of Planners 33 (1967): 304-310.

Brolin, Brent C., and Zeisel, John. "Mass Housing: Social Research and Design." Architectural Forum 129 (July-August 1968): 66-71.

Brown, Denise Scott. "On Pop Art, Permissiveness and Planning." Journal of the American Institute of Planners 35 (1969): 184-186.

Carr, Stephen. "The City of the Mind." In Environmental Psychology, pp. 518-533. Edited by Harold M. Froshansky, William E. Ittelson, and Leanne G. Rivlin. New York: Holt, Rinehart and Winston, Inc., 1970.

Carr, Stephen, and Schissler, Dale. "The City as a Trip." Environment and Behavior 1 (1969): 7-35.

DeJonge, D. "Images of Urban Areas: Their Structure and Psychological Foundations." Journal of the American Institute of Planners 28 (1962): 266-276.

Elmer, Frank L., and Sutherland, Duncan B. Jr. "Urban Design and Environmental Structuring." Journal of the American Institute of Planners 37 (1971): 38-41.

There is a need for the individual to manipulate his/her environment, not only for the sake of survival but also to achieve a balance between the world as it is perceived and the individual's values and emotions. Several means of achieving this balance are outlined, and their implications for urban design are briefly discussed.

Harrison, James D., and Howard, William A. "The Role of Meaning in the Urban Image." Environment and Behavior 4 (1972): 389-411.

Holland, Laurence, ed. Who Designs America? Garden City, New York: Double-

day and Company, 1966.

Katz, Robert. Intensity of Development and Livability of Multi-Family Housing Projects: Design Qualities of European and American Housing Projects. Washington: U. S. Government Printing Office, 1963.

Lerup, Lars. "Environmental and Behavioral Congruence as a Measure of Goodness in Public Space: The Case of Stockholm." Ekistics 34 (1972): 341-358.

Lynch, Kevin. The Image of the City. Cambridge: MIT Press, 1960.

The legibility or clarity of an urban setting is crucial to its inhabitants since we must be able to structure and identify and clarify an environment before we can function within it. Components of city legibility are defined, and three American cities are analysed with regard to the legibility, or the lack of it, of their physical form.

Nairn, Ian. The American Landscape: A Critical View. New York: Random House, 1965.

Rapoport, Amos, and Hawkes, Ron. "The Perception of Urban Complexity." Journal of the American Institute of Planners 36 (1970): 106-112.

Since there is some indication that complex design is more preferable to people than excessively simple or excessively chaotic design, designers should strive to achieve complexity. Complexity is a function of violated expectations. . . . The notion of building up expectations and then noticeably departing from them is the principle behind the creation of complexity through the manipulation of variety. (p. 108, 109)

Rapoport, Amos, and Kantor, Robert I. "Complexity and Ambiguity in Environmental Design." Journal of the American Institute of Planners 33 (1967): 210-221.

Ambiguity and complexity are important components of a visually good environment. Humans, when given a choice, consistently choose environments which are changing and interesting. This preference for the ambiguous and the complex is not unlimited, however, and a balance must be struck between extreme simplicity and extreme complexity.

Soleri, Paolo. The City and the Image of Man. Cambridge: MIT Press, 1969.

New town designs are presented which are based on the author's concept of arcology. Basic to this concept is the minimization of nature disturbance through advanced technology. The new town designs stress urban compactness and population concentration in monumental and highly mechanized structures.

Venturi, Robert. Complexity and Contradiction in Architecture. New York: Museum of Modern Art, 1966.

VI. URBAN FORM

Bloomberg, Warner, and Schmandt, Henry J., eds. The Quality of Urban Life. Beverly Hills, California: Sage Publications, Inc., 1969.

Cappon, Daniel. "Health, Malaise, and Promise of Cities: A Comparison of Baltimore and Toronto." Ekistics 32 (1971): 48-50.

Duhl, Leonard J. "The Human Measure: Man and Family in Megalopolis." In Cities and Space, pp. 133-152. Edited by Lowdon Wingo, Jr. Baltimore: Johns-Hopkins Press, 1963.

Gutheim, Frederick. "Urban Space and Urban Design." In Cities and Space, pp. 103-132. Edited by Lowdon Wingo, Jr. Baltimore: Johns-Hopkins Press, 1963.

Herfindahl, Orris C., and Kneese, Allen V. Quality of the Environment. Washington: Resources for the Future, Inc., 1965.

Jacobs, Jane. The Death and Life of Great American Cities. New York: Random House, 1961.

The failure of large American cities is attributed to orthodox planners' adherence to principles, ideals, and rules which have no relevance to the highly complex mechanism that a city is. Segregated land uses, long blocks, deserted open spaces, and urban renewal are discredited as a result of their failure to create the diversity and round the clock liveliness which are essential to the healthful functioning of a city. Radical alternatives to current planning practice are developed.

Lee, Terrence. "Urban Neighborhood as a Socio-Spatial Schema." In Environmental Psychology, pp. 349-370. Edited by Harold M. Proshansky, William H. Ittelson, and Leanne G. Rivlin. New York: Holt, Rinehart and Winston, Inc., 1970.

McHarg, Ian L. Design with Nature. Garden City, New York: Natural History Press, 1969.

Mead, Margaret. "The Kind of City We Want." Ekistics 35 (1973): 204-207.

Meyerson, M.; Terrett, B.; and Wheaton, W. Housing People and Cities. New York: McGraw-Hill, 1962.

Perloff, Harvey S., ed. The Quality of the Urban Environment: Essays on "New Resources" in an Urban Age. Baltimore: Johns-Hopkins Press, 1969.

These three themes give some unifying impact for this series of essays: (1) New resources for our urban age, (2) trading off the macroenvironment for microenvironmental benefits, and (3) the search for improved informational and measurement tools for use in decision making.

Proshansky, Harold M.; Ittelson, William H.; and Rivlin, Leanne G. "Freedom of Choice and Behavior in a Physical Setting." In Environmental Psychology, pp. 173-183. Edited by Harold M. Proshansky, William H. Ittelson, and Leanne G. Rivlin. New York: Holt, Rinehart and Winston, Inc., 1970.

Strauss, Anselm L. Images of the American City. New York: Free Press, 1961.

Attitudes of Americans towards American cities from many different perspectives are explored. In Part I a framework for the consideration of urban symbolism is established. Part II centers around how Americans of different eras and from different regions perceived the rapid trend towards urbanization. Considerable attention is devoted to the origins in American thinking of a pro-rural, anti-urban bias and the emergence of the suburbs in an attempt to create a satisfactory union of rural and urban attributes.

Tallent, Margaret. "The Factor of the Quality of the Physical Environment as an Index of Growth Potential." Existics 29 (1970): 286-288.

VII. RELOCATION AND THE JOURNEY TO WORK

Booth, Alan, and Camp, Henry. "Housing Relocation and Family Social Integration Patterns." Journal of the American Institute of Planners 40 (1974): 124-128.

The consequences of the relocation of low-status families into higher status neighborhoods are investigated with focus on the extent to which such relocation strains family relationships and disrupts friendship patterns of the relocatees. Study data show that conjugal stress does result and that friendship patterns are altered more than they would be if the move were to an area whose status was similar to that of the neighborhood of origin.

Boyce, R. R. "Residential Mobility and Its Implications for Urban Spatial Change." Proceedings of the Association of American Geographers 1 (1969): 22-26.

Catanese, Anthony J. "Home and Workplace Separation in Four Urban Regions." Journal of the American Institute of Planners 37 (1971): 331-337.

Clark, W. A. V., and Cadwallader, Martin. "Locational Stress and Residential Mobility." Environment and Behavior 5 (1973): 29-41.

An attempt is made to develop an operational handling of stress and to examine the relationship between stress and the desire to move. The actual decision to move is determined to be a function of the difference between the household's level of satisfaction and the level of satisfaction believed to be attainable elsewhere. This difference is a measure of locational stress. Factors which have the highest correlations with the desire to move out are (1) size and facilities of the dwelling unit, (2) the kind of people living in the neighborhood, (3) distance from friends and relatives, (4) amount of smog, and (5) distance from work.

Clark, W. A. V. "Measurement and Explanation in Intra-urban Residential Mobility." Journal of the American Institute of Planners 37 (1971): 319-325.

Fried, Marc. "Grieving for a Lost Home." In The Urban Condition, pp. 151-171. Edited by Leonard J. Duhl. New York: Basic Books, Inc., 1963.

(For annotation, see p. 45)

Frieden, Bernard J. "Locational Preferences in the Urban Housing Market." Journal of the American Institute of Planners 27 (1961): 316-325.

Goldstein, S., and Mayer, K. "Migration and the Journey to Work." Social Forces 42 (1964): 472-481.

Gutman, Robert. "Population Mobility in the American Middle Class." In The Urban Condition, pp. 172-183. Edited by Leonard J. Duhl. New York: Basic Books, Inc., 1963.

Kain, John F. The Journey to Work as a Determinant of Residential Location. Berkeley, California: University of California, Real Estate Research Program, 1961.

Post, Arnold R. "Mobility Analysis." Journal of the American Institute of Planners 35 (1969): 417-421.

Rossi, Peter. Why Families Move: A Study in the Social Psychology of Urban Residential Mobility. Glencoe, Illinois: Free Press, 1955.

Rossi's publication is a seminal work in the study of urban residential mobility and is very widely quoted. Topics covered include the immediate impact of area mobility on households and organizations, the determinants of mobility inclinations, the choice of a new dwelling, and the decision to move process.

Stegman, Michael A. "Accessibility Models and Residential Location." Journal of the American Institute of Planners 35 (1969): 22-29.

Residential location models which rely on the minimization of the journey to work to explain consumer housing behavior are criticized on the basis of new evidence. This new evidence indicates that the majority of changes in residence are not work related and that neighborhood considerations were more significant in family location decisions than considerations of employment accessibility.

Wolpert, J. "Migration as an Adjustment to Environmental Stress." Journal of Social Issues 22 (1966): 92-102.

VIII. TERRITORY AND PERSONAL SPACE

Brower, Sidney N. "Territoriality, the Exterior Spaces, the Signs We Learn to Read." Landscape 15 (Autumn 1965): 9-12.

Greenbie, Barrie B. "Social Territory, Community Health and Urban Planning." Journal of the American Institute of Planners 40 (1974): 74-82.

Greenbie, Barrie B. "What We Can Learn from Other Animals." Journal of the American Institute of Planners 37 (1971): 162-168.

Ethological theories on territory and aggression may have important implications for land use planning and urban design which have hitherto been disregarded. By relating the attachment to territory with the control of undesirable forms of aggression, new ways of considering property and land use are suggested.

Hall, Edward T. The Hidden Dimension. Garden City, New York: Doubleday, 1966.

This book provides a conceptual outline of the subject of proxemics, which is the study of man's use of space. Hall's basic idea is that we demonstrate territorial and personal distance behavior just as animals do, and that this behavior has implications for the way in which space should be arranged.

Flachsbart, Peter G. "Urban Territorial Behavior." Journal of the American Institute of Planners 35 (1969): 412-416.

Lipman, Alan. "Territoriality: A Useful Architectural Concept?" RIBA Journal 77 (February 1970): 68-70.

Sommer, Robert. Personal Space: The Behavioral Basis of Design. Englewood Cliffs, New Jersey: Prentice Hall, 1969.

The author shows how personal space needs and territorial needs should and could be brought to bear on the arrangement of space. Numerous examples are utilized for the purpose of demonstrating how spatial arrangements encourage or discourage certain activities.

Suttles, Gerald D. The Social Order of the Slum: Ethnicity and Territory in the Inner City. Chicago: University of Chicago Press, 1968.

Yancy, W. L. "Architecture, Interaction and Social Control." Environment and Behavior 3 (1971): 3-22.

Informal social networks among residents of lower and working class neighborhoods are one means of coping with material deprivation and of achieving a sense of security and control. These networks are partially dependent on the existence of semi-public space around which a sense of turf can be organized. When this semi-public space does not exist, trouble can be expected.

IX. NOISE

Appleyard, Donald, and Lintell, Mark. "The Environmental Quality of City Streets: The Residents' Viewpoint." Journal of the American Institute of Planners 33 (1972): 84-101.

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Bragdon, Clifford R. Noise Pollution. Philadelphia: University of Pennsylvania Press, 1971.

Chalupnik, James D. Transportation Noises: A Symposium on Acceptability Criteria. Seattle: University of Washington Press, 1970.

Glass, David C.; Singer, Jerome E.; and Friedman, Lucy N. "Psychic Cost of Adaptation to an Environmental Stressor." Journal of Personality and Social Psychology 12 (July 1969): 200-210.

Kryter, Karl D. The Effects of Noise on Man. New York: Academic Press, 1970.

Southworth, Michael. "The Sonic Environment of Cities." Environment and Behavior 1 (1969): 49-70.

This study explores the perceived variety and character of city sounds and how they influence visual perception of the city. Results suggest that the visual experience of a city is closely related to its accompanying sounds, although more extensive research is needed before it is known how important sonic design would be for cities. Several hypotheses as to the critical elements and behavioral consequences of design are offered.

X. LANDSCAPE PREFERENCES

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Gould, P. R. "Structuring Information on Spacio-temporal Preferences." Journal of Regional Science 7 (1967): 259-274.

Leopold, Luna B. "Landscape Esthetics." Esthetics 29 (1970): 271-277.

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International Social Science Journal (Published quarterly by UNESCO, Paris).

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Journal of Social Issues (Published quarterly by the Society for the Psychological Study of Social Issues, Ann Arbor, Michigan).

Social Forces (Published quarterly by the Southern Sociological Society, Chapel Hill, North Carolina).

Urban Affairs Quarterly (Published quarterly by Sage Publications, Beverly Hills, California).

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Duhl, Leonard J., ed. The Urban Condition. New York: Basic Books, Inc., 1963.

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