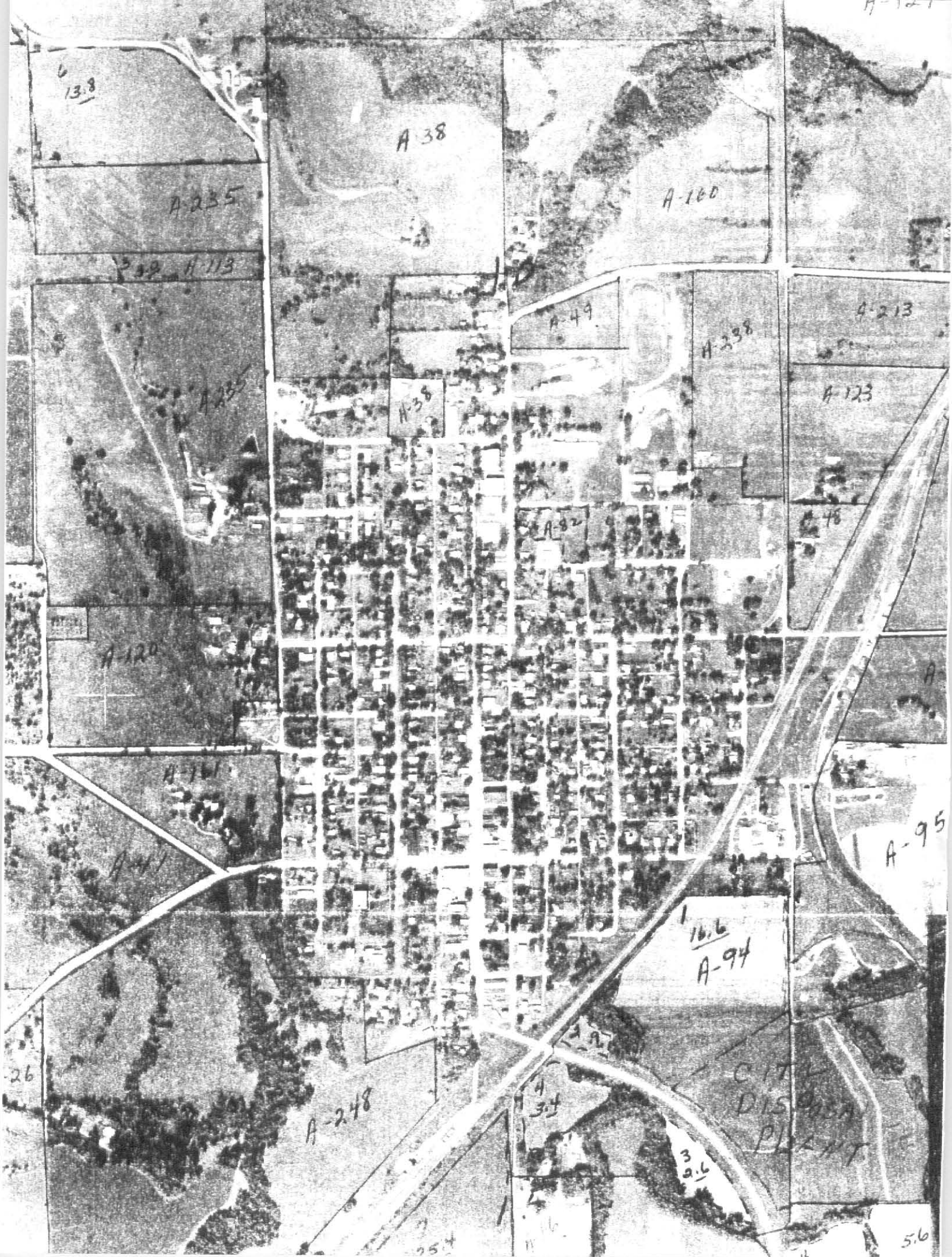




NEIGHBORHOOD CHARACTERISTICS AND THEIR EFFECTS ON
THE WELL-BEING OF ELDERLY RESIDENTS
IN A SMALL TOWN

by

JAMES STUART EDSON

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A MASTER'S THESIS

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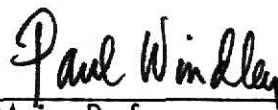
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This work is dedicated to Kathy and Megan for
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CHAPTER 1

THE ELDERLY IN RURAL ENVIRONMENTS

INTRODUCTION

Designing for the elderly implies that the elderly constitute a subgroup which has certain characteristics in common and some shared notion of an ideal environment. This raises the initial question of whether age is more important than membership in groups based on life style, income, ethnic origin, specific culture or whatever? One is then faced with a more general question about the conditions under which one can generalize so-called human needs and the extent to which one must be specific (Rapoport, 1974). This question is especially salient to the study of the relationships between rural elderly and the environment. Since nearly all of the person-environment research in aging that has surfaced thus far has dealt with older people in urban environments, in specialized housing, or in institutions--the inclination to generalize such findings to rural situations by researchers, policy-makers, service planners and environmental designers may be overly presumptuous. To be sure, this stream of research has only recently gained momentum and it is not surprising that it has not dealt with the rural aged. However, one may well ask whether the behavior of rural or small-town older people is associated with variations in environmental attributes, and whether the associations differ from those found for urban residents. This thesis will probe the answers to these questions and investigate their implications to environmental policy and design for small-town elderly.

This chapter will present evidence that there are differences in basic demographic characteristics, social dimensions and life styles between urban and rural elderly which support a cultural distinction between these groups as well as to suggest differential environmental and human needs.

THE AGING POPULATION

The increasing proportion of persons, age 65 and over, during the past century is a dramatic phenomena for the population of the United States. The numbers of people in this older age group have increased at a rate 2-1/2 times that of the total population, increasing from 4% of the nation as a whole in 1900 to 10% in 1974. The current 21.7 million elderly citizens in the United States is projected to reach 35.5 million by the year 2000, making up 11.1% of the total estimated population. At present, Kansas ranks 7th in the nation in the proportion of older citizens with 12% of its own population over 65 years of age (Erickson & Flora, 1972). While the number of older people will continue to rise over the next few decades, the proportion of the population sixty-five and older may actually increase more than projected if the birth rate decline which began in 1958 continues (Atchley, 1972).

Another population phenomena that has had a dramatic effect on life in the United States is urbanization. In 1900 only about 40% of the total population lived in cities. By 1960 this figure had risen to 70%, and by the year 2000 we can expect to find approximately 90% of our population living in metropolitan areas. In 1960, 70% of the population 65 years of age and older was urban, the exact figure that applied for the general population. This indicates that as the rest

of the nation moved into urban areas, its older people moved as well. However, among areas of different size, older people do appear to differ slightly from the general population. They tend to be slightly over-represented in central cities and in cities of less than 10,000 population, while they tend to be under-represented in the urban fringe (Atchley, 1972).

Brotman (1971) cites that while urbanization brought the population into the city where it has aged, suburbanization has taken the younger population out of the city and into the suburbs, leaving the elderly behind. Yet, on a national basis, a slightly larger proportion of older people live in non-metropolitan areas than do younger (40% vs. 35%) and they live in small towns rather than on farms-- a trend made possible by social security coverage which permits most farmers to retire.

While 34% of the Kansas population is considered rural, 60% of its older segment live in rural areas and in towns of 10,000 or less -- a proportion atypical for the United States as a whole. Only seven other states have more rural elderly while nine have more of their rural elderly living in small towns (Atchley, 1975). Census data have shown that the proportion of older people in rural non-farm areas has grown much more rapidly than either rural farm or urban areas, again, supported by the trend of rural farm to rural non-farm or small town migration (Adams, 1975).

Given this trend, it becomes clear that as the small town continues to become populated with retired farmers and farm widows, major issues dealing with the environmental needs of the elderly will need to be researched to properly establish the programs and policies that will be needed.

IMPORTANCE OF ELDERLY LIVING ARRANGEMENTS

Problems of daily living, whether urban or rural, present special difficulties to older persons. These may best be conceptualized in terms of two sets of changes, the first being changes in the individual through the course of aging. Here we are dealing with decreasing capacities to function, reducing the alternatives by which the individual can manipulate his environment to meet his instrumental and social needs. Lawton (1970) conceptualizes this ecological phenomena of aging in his environmental docility hypothesis which states that as the organism experiences reductions in competence (limitation in health, cognitive skills, ego strength and status, social role performance, etc.), the more his behavior will be influenced by environmental factors. In general, good health and financial, as well as emotional security, appear to be factors which enable the older person to remain relatively independent in his local environment. However, as his independence begins to erode through age - or health-related changes, the local environment or neighborhood begins to assume greater importance.

The second set of changes that relate to aging and the residential environment are those physical and social changes which take place both in the domicile and in the surrounding community. These might include changes in the dwelling unit or neighborhood state of repair, the neighborhood composition, the dislocation or loss of friends, and the accessibility of needed health, social and other services to the older person.

Some of these problems may be eased or magnified by the living arrangements of the older person. Although we do not know which living arrangements are best

for which people, we do know that more than 80% of older men live in a family setting with 70% living with their wives. Another 16% live alone or with non-relatives, only 4% are in institutions. Older women, on the other hand, are more likely to be living alone than their male cohorts. Only 61% live in a family setting and only 34% with a husband present. Another 35% live alone or with non-relatives and only 4% are in institutions. Thus, quite contrary to one of the most troublesome and false stereotypes, over 95% of older Americans do live in the community -- not in the institutions -- and they depend on community resources and services for support.

URBAN VS. RURAL: People and Environments

Although population statistics are available for the "rural" aged, no single operational definition of the "rural" aged can serve all purposes. Quantitatively, rural has been an excepted description for towns of less than 2,500 people and, of course, those living in open country. Qualitatively, rural areas are conceptualized as being small in scale, and dominated by social patterns which emphasize personalized interaction, informality, simplicity, slow social change, and little social differentiation (Atchley, 1975). Urban areas are defined as any incorporated towns of more than 2,500 persons. Given these distinctions, how do rural elderly and urban elderly differ along demographic, sociocultural and other characteristics and what are the implications in terms of environmental policy for the two groups.

Personal Variables. Several studies have identified differences between older urban and rural populations along such demographic variables as income (Atchley, 1975; Schooler, 1975), marital status, education, national origin,

health (Schooler, 1975) and life expectancy (Adams, 1975). Compared to urban older people, the rural elderly have a more balanced sex ratio, are more likely to be married and living on lower incomes, have less educational experience, are less likely to be foreign-born, and are more likely to be in poor health with a lower life expectancy. Differences relative to living arrangements are reflected by differences found with respect to home ownership (Schooler, 1975), household composition (Shanas, et al., 1968; Powers, et al., 1975), size of household, type of housing, age of residence and length of residence (Atchley & Miller, 1975). Older rural people are more likely to live in owned homes alone and to have housing that is older, of lower quality and that is a single-family unit.

Social Dimensions. Looking for items to distinguish between ruralism and urbanism, Dewey (1960) surveyed works dealing with rural-urban sociology. Among these he found the concepts of population homogeneity/heterogeneity; intimate/impersonal social relations; familiarity/anonymity; simple/complex division of labor; and symbols of status independent of personal acquaintances as primary discriminating dimensions. Adams (1975) has also identified differences in general socialization processes and suggests that the urban vs. rural background of the respective individual would explain much of the variance in their current values and lifestyles.

Indices of Well-Being. Although the concept of well-being will be dealt with in more depth later in this report, it seems appropriate at this point to cite urban-rural differences that have been identified in previous studies. Differences have been found in measures of familial contact (Youmans, 1968; Shanas, et al.,

1968; Bultena, 1969), friendship patterns (Youmans, 1968; Schooler, 1970; Lawton, 1975), morale (Schooler, 1970), activity participation (Schooler, 1970; Lawton, et al., 1975) and housing satisfaction (Lawton, et al., 1975). Compared to urban elderly, rural older people have been found to have lower levels of morale, activity participation and slightly less familial contact while they have higher levels of social relationships with their peers and are more satisfied with their housing.

Environmental Factors. While the differences between the physical characteristics of urban and rural environments are somewhat obvious, there have been very few attempts to systematically measure the physical environment for the purposes of further distinguishing their respective characteristics. However, two major discriminating features lie in the predominate types of housing found in each (Atchley & Miller, 1975) and the existence and availability of service facilities, social services (Taiezt, 1975) and health care services (Oliver, 1975). Compared to urban areas, facilities and services for older people in rural areas are deficient in availability, accessibility, and quality.

LIFE IN THE SMALL TOWN

To give an overall view of how small town older people live, Lawton (1975) presents a brief scenario using research data supplemented by his own observations:

"The older person living in a small town easily qualifies for the classification "poor". She is highly likely to own her own home and even to have excess space in it -- sometimes a substantial burden. On the other hand, her greater like-

lihood of being able to live on the ground floor is an advantage to the disabled, as compared to urban dwellers and their more frequently unavoidable stairs. She is also likely to be equipped with the most important household facilities. . . . Her health allows her to be independent in most ways, though she is measurably less independent than the urban dweller. Even though she rates her own health as less good than that of the average senior citizen, she receives less health care. The general sparse nature of services in non-metropolitan areas, especially the transportation that links the person to the services, puts her more on her own. On the other hand, there are clear compensations to her financial and health-care deprivations. Children and other relatives are more likely to live within day-visit distance, and most friends are local. The small-town resident has a higher amount of social contact than any other group does; daily contact with both family and friends is the rule. Since small towns have somewhat higher concentrations of older people than do urban areas, the senior adult's total social integration is aided. She is likely to belong to a formal organization, particularly a church." (pp. 47-48)

To be sure, the communities in which these older residents now live have changed greatly from the environment and milieu in which they spent their childhood and youth -- more, perhaps, than any other larger or smaller. The penetration of the mass media, a much more widespread circulation of metropolitan daily newspapers, the automobile and the hard surfaced highway, and more travel by the villager, have tended to erase rural and urban differences and to absorb these communities into the mass society. Important decisions are now largely made by national and state agencies over which the local resident has little control and the county "poor farm" is no longer the last refuge. Yet, as has been shown in this chapter, differences do exist on many levels suggesting that the "rural aged" do constitute a sub-group with certain characteristics and needs.

SUMMARY

It is easy to see from the research presented that the rural segment of our older population should not be overlooked, as it has been in the past. Very few programs, and even less research, has been carried out to serve the rural or small-town aged person. The great distances, sometimes over-sized housing units, and the scarcity of services make the organization of a supportive environment very difficult. Ecological studies are badly needed of the way the older individual in the small-town setting copes with his environment, utilizes the available resources and how his well-being compares with urban residents. There is also a need to identify environmental constraints and incentives which might hinder or aid the older person in maintaining an independent and congruous living arrangement. The remainder of this report will address these issues.

CHAPTER 2

THE RELATIONSHIP BETWEEN WELL-BEING AND THE PHYSICAL ENVIRONMENT

INTRODUCTION

Many ecologists, sociologists, psychologists, environmental planners and designers have long been aware that the well-being of the individual may be profoundly affected by the social and physical environment in which he lives and works. Few, however, have developed concrete information concerning the good and bad effects of present environments and the design of new environments. Fewer, still, have attempted to identify environmental factors that may enhance, maintain or, on the other hand, threaten the user's well-being. This is especially true for those environment factors that can be manipulated by planners and designers, as well as, clients and users.

In order for environmental designers and managers to be able to systematically understand the social and behavioral implications of their design schemes, the identification of these factors and the assessment of their effects on well-being become paramount. Therefore, the primary objective of this thesis was to examine the relationship between well-being and the socio-physical characteristics of the neighborhood in a small Kansas town.

The remainder of this chapter will present the conceptual framework on which this study was based.

THEORETICAL ISSUES FOR CONCEPTUALIZING ENVIRONMENTAL INFLUENCES ON WELL-BEING

Although the need for theory to link man and environment has been well argued (Rapoport, 1973; Archea, 1975), at present there are only fragments of theories dealing with the interface of behavior and environment. As in the general behavioral sciences, the development of theories to give direction to research in the environmental psychology of aging has been slow. Evidence for this points to the generally incomplete incorporation of physical environmental stimuli in explanations of variations of behavior (Lawton, 1975). The behavioral scientists have consistently favored a more limited definition of "environment"--usually other individuals or groups of individuals--excluding the organizational and configurational characteristics of the physical environment. Until recently, little attempt had been made to differentiate between the personal, social and physical aspects of environment.

This study incorporates the comprehensive theoretical efforts of Lawton, Kahana and others (Lawton & Simon, 1967; Lawton, 1970; Lawton and Nahemow, 1973; Lawton, 1975; Kahana, 1975) in linking the physical environment to the behavior of the older person. Recent works have dealt with the familiar ecological equation,

$$B = f(P, E, Px E)$$

where, B is the behavior of the individual including covert behavior; P is the person including competence, health, past experiences and other intra-psychic processes; E is the environment including both social and physical aspects; and PxE includes the concepts which account for the personal processing of information from the

environment: personality style and environmental cognition (Lawton, 1975). That is, behavior is a function of the person, the environment and the interaction between the person and his environment.

Here, the equation itself is in simplistic form, since it implies a one-way causation, with behavior as the dependent variable. Certainly the transaction is much more complex as any element represented in the equation may cause an affect and in turn be affected by the other elements. However, for the purposes of testing the research relationship previously stated, the equation, as it stands, constitutes the conceptual framework of this investigation. For the purpose of this study, B is represented in the indices of well-being measured; P consists of personal and background variables including a measure of functional health; and E represents the social and physical dimensions of the neighborhood. It should be noted here that PxE processes are not categorized or measured separately in this investigation. Rather, it is postulated that less complex levels of this interaction will be implicit in the measures of past experiences, health (self-reported) and in the more connotative dimensions of the physical environment while more complex levels are represented in the measures of well-being and satisfaction.

REASONS FOR SUSPECTING THAT NEIGHBORHOOD CHARACTERISTICS INFLUENCE WELL-BEING

The question of whether one residential environment is not only different, but more or less preferable to another, has not been a matter of only recent discussion. Numerous studies have documented the importance of the physical aspects of the neighborhood for older persons. Typically, however, they have not dealt with rural neighborhoods.

Accessibility to facilities and other neighborhood conditions have been positively related to morale (Lawton & Kleban, 1971; Schooler, 1970); crucial facilities include grocery stores, bus stops, churches, drug stores, banks, and doctors (Langford, 1962; Regnier, 1974). Regnier (1974) also noted that older persons usually use these facilities within the immediate neighborhood. The familiarity of the neighborhood setting also facilitates valuable social contact and use of neighborhood resources (Christensen, 1975). In general, older people having mobility and other functional impairments depend on the neighborhood as the principle resource base within which they meet most of their everyday needs (Kendig, 1976).

In terms of the social environment, age and class congruency between the older person and the neighborhood population facilitates social contact (Rosenberg, 1970; Rosow, 1967), which in turn is related to morale (Maddox, 1963). Assistance in emergencies and every day tasks frequently is provided by neighbors (Cantor, 1973; Langford, 1962). On the other hand, the presence of youth is related to both crime and fear of crime (Newman, 1972) which can severely restrict mobility and neighborhood use (Regnier, 1973). As alternatives or supplements to recreational and social services, compatible neighbors in a quality setting can also facilitate valuable social contact and can provide emergency assistance. It is generally felt that a more explicitly scientific understanding of the types of neighborhoods within which older people reside, from the vantage point of the older adult is needed. As some evidence exists that the neighborhood may be the most important variable (Langford, 1962) (Carp, 1969), the focus of this study is on neighborhood characteristics and effects on the well-being of elderly individuals living in a small town environment.

SPECIFIC RESEARCH OBJECTIVES

The specific objectives of this pilot investigation are 1) to examine the relevance of the concept of neighborhood in a small-town environment; 2) identify the effects of neighborhood characteristics on the well-being of its elderly residents; 3) to evaluate the significance of those effects; and 4) to assess the usefulness of this study for further investigation and implications for environmental design in small-town environments.

CHAPTER 3

RESEARCH DESIGN:
A Small-Town Case Study

RESEARCH STRATEGY

Planning and design decisions have frequently been judged on the basis of the legitimacy of their objectives. Collaborative study of person-environment relationships can be especially useful in drawing attention to satisfactory criteria for evaluating environmental alternatives. The development of operational indicators of environmental quality based on widely accepted social goals offers the potential of placing environmental decision making on much more firm defensible grounds. The objective of this research is to contribute to an information base on the influence of neighborhood features in the residential environment and their impact on the sense of well-being of older people living in small-town communities.

The research strategy is 1) to probe the relationship between the environment and well-being by collecting and analyzing information available which, by face validity, seems to be potentially relevant to the objectives of this study, 2) to express the findings in a form that provides a convenient starting point for collecting more extensive data for deeper probing, and 3) to provide some tentative information for use by planners, designers and, perhaps, public officials in avoiding environmental change that is likely to have adverse effects on well-being and that, on the other hand, can be used in promoting change that is likely to have beneficial effects.

VARIABLES AND METHODOLOGY

Well-Being. Gerontologists have devoted considerable attention to developing definitions and indicators of the well-being of elderly people (Cumming, et al, 1958; Neugarten, et al, 1961; Lawton, 1972). However, the difficulty of trying to assess "individual well-being" has resulted in a variety of concepts, definitions and measurements, most of which are related either semantically or empirically. Adams (1971) in reviewing the correlates of well-being and looking for consistencies in gerontological literature found among the concepts of satisfaction, happiness, morale, self-concept and continuity of life-style, social relations and activities.

In recent studies, (Lawton & Cohen, 1974; Lawton et al, 1975) have developed, through the use of factorial analysis, multi-item indices of well-being, six of which are used in this study -- neighborhood satisfaction, housing satisfaction, satisfaction with present living arrangement, morale, activity participation, friendship, and familial contact. Table one lists these indexes by name plus other indentifying information.¹ For the purposes of this study, housing satisfaction was broken down into three semi-independent indices reflecting separate evaluations of the dwelling unit, the neighborhood and the individual's overall living arrangement. The items selected were self-report items which loaded highest on the factors described in Lawton, et al, (1975).

¹Item descriptions and item-index correlations may be found in Table 3. The entire instrument may be found in Appendix A.

TABLE 1
INDICES OF WELL-BEING
WITH IDENTIFYING INFORMATION^a

Indices	No. of items	Representative Question
Neighborhood satisfaction	3	From your own point of view, how would you rate your neighborhood as a place to live?
Housing satisfaction	2	If you could live in any type of housing you pleased, what type would you live in?
Satisfaction with present living arrangement	2	With things the way they are now would you like to move?
Morale	6	Do you have a lot to be sad about?
Activity participation	2	How many clubs or organizations would you say you are involved with?
Friendship	3	During an average month, how often do you visit with friends?
Familial contact	4	Do you feel that your contacts with your children are (often enough)?

^a Each index was maintained as a separate criterion in the analysis.

- 1) Neighborhood satisfaction consists of items that elicit evaluations of the residential setting defined by the respondent as his neighborhood. The items attempt to measure both subjectively and objectively the neighborhood from his "own point of view", a retired person or couple's point of view and how people from outside the neighborhood might view it.
- 2) Housing satisfaction deals with the dwelling itself as the unit for evaluation. A non-preference for other types of housing was included as an indication of satisfaction.
- 3) Satisfaction with overall living arrangement considers the total living situation of the respondent including psychosocial based evaluations.
- 4) Morale consists of six items from the Philadelphia Geriatric Center's Morale Scale (Lawton, 1972, 1975). The items in this index measure symptoms of agitation and lonely dissatisfaction, and attitudes toward the person's own aging.
- 5) Activity participation measures external involvement as the investment of time in organizational activities that maintain a link to the world outside of themselves.
- 6) Friendship describes the person's relationships and interaction level with peers. Satisfaction with the frequency of peer contact is included in the items.
- 7) Familial contact contains items similar to those in the Friendship index except that they are related explicitly to children and other relatives.

High index scores indicate high levels of satisfaction, morale, involvement and contact.

Neighborhood Characteristics. One aspect of the physical community which has been both revered and studied by planners and designers is the concept of neighborhood. Ecological studies using the neighborhood as the unit of analysis date back to the Chicago School of Sociology and Robert Park's The City (1925). Central to Park's thinking was what he called "natural ecological units", or neighborhoods. Yet both in physical planning and in sociology, the term has been used widely, variously, and often inconsistently. At times it seems to refer to an area having certain physical properties; at times to a set of human activities or relationships; and then again, to an area in which activities or relationships may, but need not, occur (Keller, 1972). To be sure, the concept is ambiguous, yet firmly resists any one of these better-definable concepts.

Lee (1970), in a number of planning surveys in Great Britain, found that the neighborhood evaded singular concepts. As a piece of territory, there is often little or no relationship to the neighborhood; as a set of social relationships, there is little congruence geographically. Yet the two components are somehow crucially inter-dependent. He concluded that as the neighborhood remains a "highly salient phenomena" of the local environment, each "neighborhood schema" is unique to the physical environment and its resident.

As previously cited, numerous gerontological research efforts have delved into the sociological aspects of neighborhood; the use patterns associated with constricted home range; and "critical distance" aspects of household locational requirements for elderly housing. However, few have attempted to link the "cognitive image" of the neighborhood with the geographic and socio-physical characteristics of the small-town.

In the following research an effort was made to link these concepts together in defining the individual's neighborhood by asking each respondent the question: "When you think of the neighborhood area that surrounds your house what area do you use?" Only after identification was made by having each respondent draw a line representing the boundaries of his neighborhood, on a large-scale map, were questions asked of characteristics about it.

The neighborhood characteristic pool began as sixteen items that were a) thought to possibly have some importance to the well-being of older people, or b) of intrinsic interest on their own account, and c) relatively non-redundant. A factor-analytic procedure was later carried out on the responses of the total sample ($N = 50$) in order to group related items into scenario-type descriptions of neighborhood characteristics. This technique was utilized to 1) clearly define conceptual characteristics in terms of social, physical, geographical, etc., 2) provide a means of statistically weighting those characteristics that had particular relevance to the small-town resident, and 3) minimize the residual variance in the subsequent multiple regression analysis by reducing in effect the number of independent variables to be entered into the regression equation in concert with the small sample size (Cohen & Cohen, 1975).

Three factors with eigenvalues greater than 1.25 were totated to the varimax criterion. All items retained for the final factors and their factor loadings are shown in Table 2. The highest-loading items were used to represent each factor, and any given item was used only in the factor where it had the highest loading.

TABLE 2
 NEIGHBORHOOD CHARACTERISTICS^a
 AND THEIR FACTOR LOADINGS^b
 N = 50

	Factor 1	Factor 2	Factor 3
% homeowners/neighbors	0.1441	0.3465	-0.1818
<u>Quiet</u> vs. Noisy	0.3886	-0.0340	-0.0506
<u>Attractive</u> vs. unattractive	-0.1116	-0.2981	0.8270
<u>Friendly</u> vs. unfriendly people	0.6240	0.0337	0.2033
Poorly vs. <u>well kept up</u>	0.1867	-0.1817	0.3631
Dissimilar vs. <u>similar people</u>	0.0008	0.1670	0.6106
<u>Pleasant</u> vs. unpleasant	0.7529	0.0188	0.4241
<u>Stable</u> vs. unstable	0.4680	0.0510	0.5354
High vs. <u>low crime area</u>	0.5548	-0.1684	-0.1207
Poorly vs. <u>well-planned</u>	0.4536	-0.0192	0.3864
<u>Number</u> of services in neighborhood	0.0915	-0.7503	0.0989
<u>Subneighborhood</u> vs. whole-town neighborhood	-0.0232	0.8194	0.0626

^a Underlined dimensions indicate maximum scores.

^b Factor analysis accounted for approximately 50% of the variance in environmental items.

Factor scores for each individual were computed by weighting each standardized item score by its factor score coefficient and summing all items in each factor. Thus, the factors defined represent the best measurement of the abstract quality indicated by the item content (Lawton & Cohen, 1974). Because of the orthogonal manipulation, all factors were assumed to be essentially non-correlated

Factor 1) Neighborhood serenity, in the positive direction, describes the degree of pleasantness of the residential setting, supported by the presence of friendly neighbors; their remoteness to any crime or vandalism; and the absence of disruptive noise and activity. The descriptors "well-planned" and "stable" were also positively associated with these qualities.

Factor 2) Neighborhood association points to the degree to which the individual associates himself with his immediate environment. High association indicates that the individual's personal neighborhood consists of a specific area within the town. Thus, it also indicates the relative physical size (area) and with a single concentrated commercial/service district, as is found in most towns of similar size, neighborhood service richness tends to be favored by larger neighborhood areas. Smaller neighborhoods, therefore, are more likely to contain a smaller number of service facilities within their boundaries. They are also more likely to have a higher proportion of neighbors living in owned homes, suggesting a social delimiter of neighborhood association and size.

Factor 3) Neighborhood congruence consists of characteristics that contribute to its attractiveness. The existence of people similar in culture and values seems to positively affect the general upkeep of the vicinity, which in turn, supports its attractiveness. The descriptor "stable" was also positively associated with these

characteristics.

It should be noted here that as with the well-being data, the environmental data were entirely self-reported as the unavailability of block census materials, city records and other secondary data sources precluded more objective measures of neighborhood factors and are subject to the same limitations in interpretations. It is suggested here that for small-town studies, this may continue to be a problem unless 1) such information-poor communities are screened in advance, or 2) such detailed analysis is beyond the scope of the research objectives, or 3) such data collection from primary sources is included in or immediate to the objectives of the study.

The Interview. The pilot study described in this report was based on the collection of data from 50 elderly residents of Alma, Kansas. This sample, which was randomly selected from the city roles represents approximately 16% of the population 60 years and over in this town of 933 people. Alma is located in Waubensee county which is one of the counties in Kansas considered to be 100% rural by the United States Census Bureau (1970). It was because of the presence of its high proportion of elderly, together with its rural status, that Alma was selected for this case study of a small-town. The approximate location of the residence of each respondent is shown on a map of Alma in Figure 1 (see page).

The interview also included demographic and background information concerning the respondents' age, sex, marital status, family status, environmental background, proximate location to children, relatives and friends and household composition.

METHOD OF ANALYSIS

Several methods of statistical analysis were applied to the resulting data from this study. As mentioned previously, factor analysis was used to define three composite neighborhood characteristics--serenity, association and congruence. In addition, response distributions were examined, as well as, simple correlation coefficients.

As the purpose of this investigation suggests analysis of variance techniques, multiple regression analysis was utilized. This approach, as described by Lawton & Cohen (1974), allows for the removal of the effects of covariate independent variables prior to the consideration of the experimental variables (dimensions of neighborhood). That is, by introducing independent variables into the regression equation in a pre-determined order, any variance in the dependent variable accounted for by the experimental variable (the last variable to be entered) is in addition to and independent of any of the previously entered variables. It is because of these statistical controls on the attribution of unique variance to the experimental variable that such assignment is a stringent test of significance. Thus, the primary analysis of data was a search for associations that would prove to be statistically valid after accounting for the effects of the background and demographic variables used for control.

For the intentions of this study, statistical significance was assigned to relationships at the .05 level.

CHAPTER 4

FINDINGS

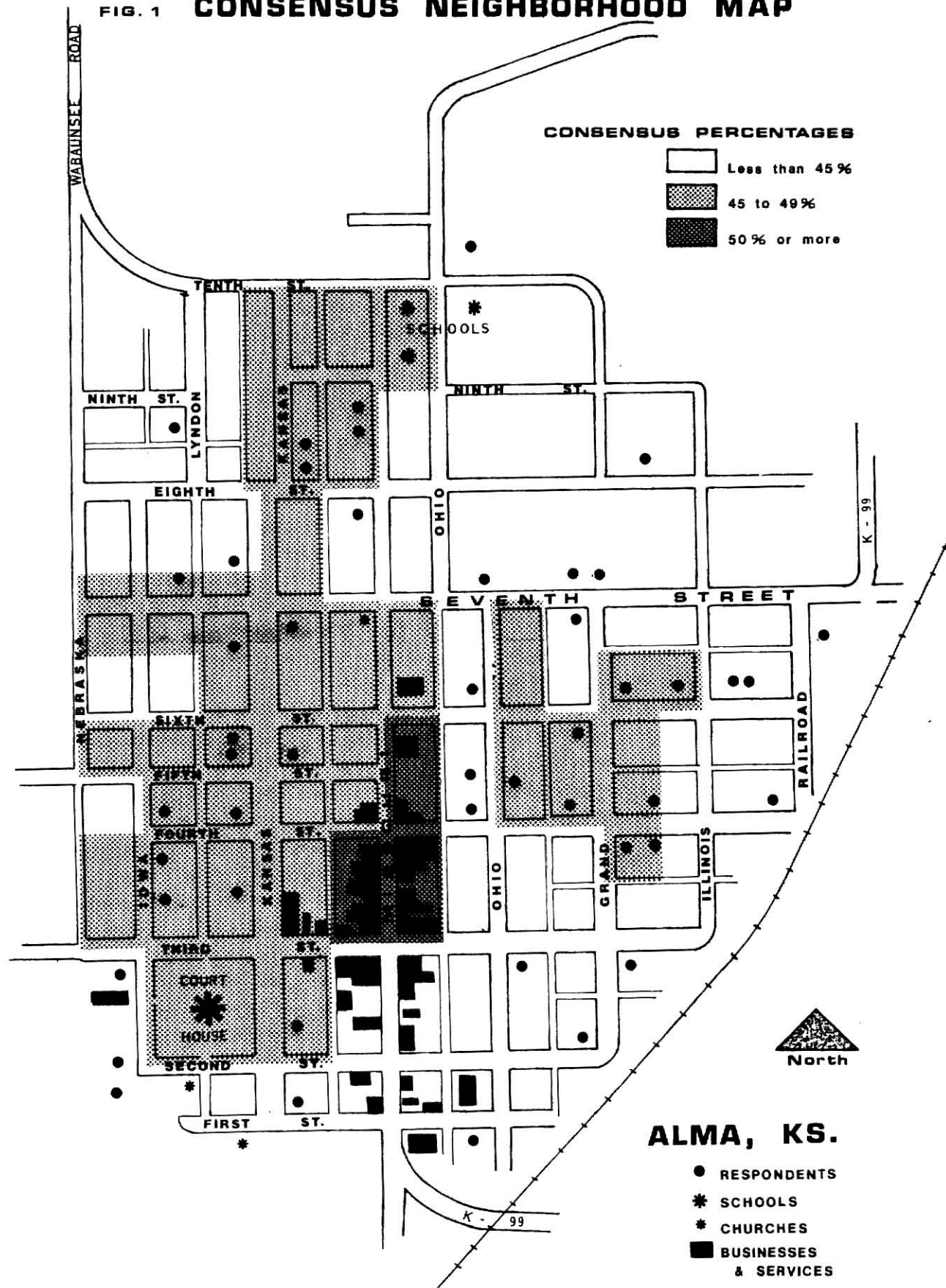
THE CONCEPT OF NEIGHBORHOOD IN THE SMALL TOWN

A primary objective of this study was to examine the relevance of the concept of neighborhood in a small-town environment. The method used to examine whether or not the respondents divided their town into neighborhoods was an exercise in cognitive mapping, as described by Regnier (1973, 1974), using large-scale street maps. After each respondent was oriented (with the active assistance of the interviewer) to his residence, major traffic arteries and landmarks, he was asked to show the boundaries of what he considered to be his neighborhood.¹ Among the subjects, only 26% defined "personal" neighborhoods, while the remainder described the whole town as their neighborhood. While this does not necessarily support the idea of neighborhood in the small town, by plotting and superimposing the maps of the 50 respondents a consensus neighborhood was defined (see fig. 1).

This consensus neighborhood area included an entire block in the downtown district within which, among others, were located the city hall, one of the two existing grocery stores (and from personal observations - the most popular one), the post office, the city's fire department, the Farm Bureau office, and the only

¹The reader should be reminded at this point that the differentiation of "whole-town" neighborhoods versus "sub"-neighborhoods was used as an index for the neighborhood factor -- association.

FIG. 1 **CONSENSUS NEIGHBORHOOD MAP**



bank, gas company, pharmacy, doctor's office and cafe in town. Over fifty percent of the sample included this neighborhood in their "maps", giving support to the idea of what Regnier has called the "functional neighborhood" in the small town. That is, a neighborhood defined by the physical location of proximate shopping/service facilities used by the resident.

It is suggested by Regnier (1974) that such spatial consensus not only represents where in the surrounding environment people go to receive goods and services, but, in effect, the dependency older people might have for those parts of the environment. This is certainly evident in the case of the small town where virtually no public transportation modes or, in some cases, even sidewalks exist and where services (if they exist at all) are primarily concentrated in a relatively small area. An interesting note for this sample is that the average number of services used, with moderate frequency, was 6.4 and, of these, an average of five were located within the individual's neighborhood. This, most certainly, points to a strong relationship, augmented by the lack of transportation access, between the small-town elderly person and the functional resource environment which, in this case, has been designated as the individual's neighborhood.

MEASURES OF WELL-BEING

Table 3 describes the items used for each index of well-being and the correlation coefficient between each item and its respective index. These correlations were generally strong suggesting some reliability in the indices.

TABLE 3

ITEM DESCRIPTIONS FOR INDICES OF WELL-BEING
AND ITEM - INDEX CORRELATIONS

NEIGHBORHOOD SATISFACTION

1. Rating of neighborhood from personal point of view. (0.75)**
2. Rating of neighborhood from outsiders' point of view. (0.85)**
3. Rating of neighborhood for retired couple thinking about moving in. (0.65)**

HOUSING SATISFACTION

4. Preference for single family dwelling type. (0.83)**
5. Satisfaction with present living quarters. (0.69)**

SATISFACTION WITH PRESENT LIVING ARRANGEMENT

6. Rating of present living arrangement. (0.83)**
7. Preference for maintaining present living arrangement. (0.68)**

MORALE

8. "I have a lot to be sad about". (0.70)**
9. "Life is hard for me much of the time". (0.59)**
10. "Little things bother me more this year". (0.68)**
11. "I sometimes worry so much that I can not sleep" (0.30)*
12. "I feel lonely much of the time". (0.61)**
13. "Things keep getting better as I grow older". (0.64)**

ACTIVITY

14. Number of club and organization memberships. (0.94)**
15. Degree of involvement with clubs and organizations. (0.91)**

FRIENDSHIP

16. Frequency of contacts with friends. (0.71)**
17. Satisfaction with frequency of peer contact. (0.36)**
18. Frequency of contacts with friends. (0.87)**

FAMILIAL CONTACT

19. Frequency of contacts with children. (0.48)**
 20. Satisfaction with contacts with children. (0.47)**
 21. Frequency of contacts with other relatives. (0.55)**
 22. Satisfaction with contacts with other relatives. (0.46)**
-

* $p < .05$, ** $p < .01$.

Ideally, one would wish to use indices with more items and, therefore, higher reliability. However, the items previously tested reliability (Lawton, 1972; Lawton & Cohen, 1974) argue for their usefulness. Another limitation is their dependence on the respondent's reports and recall as the survey approach and the type of sample used precluded any staff-ratings or use of archival data. Thus, these data must be interpreted in light of the limitations inherent in all self-reported survey data.

The intercorrelations among the indices of well-being (Table 4) suggest that the indices are independent of each other and are generally tapping separate dimensions, with only a few exceptions. The correlations between satisfaction with present living arrangement and both neighborhood satisfaction ($r = .37$) and housing satisfaction ($r = .40$) imply that these indices are related. This was predictable since those three indices, originating from Lawton and Cohen's (1974) index of housing satisfaction, were differentiated for the purposes of this particular study. In addition, the correlations between morale and both housing satisfaction ($r = .29$) and satisfaction with present living arrangement ($r = .33$), as well as, between friendship and activity participation ($r = .31$), although small in magnitude, imply that these dimensions of well-being are related in a minor way.

TABLE 4
CORRELATIONS AMONG INDICES
OF WELL-BEING
N = 50

	Neigh- borhood Satis- faction	Housing Satis- faction	Satis- faction w/ Present Living Arrangement	Morale	Activity Partici- pation	Friendship	Familial Contact
Housing satisfaction	0.14						
Satisfaction w/ pre- sent living arrangement	0.37**	0.40**					
Morale	0.16	0.29*	0.33*				
Activity participation	-0.09	0.09	0.13	0.13			
Friendship	0.11	0.21	0.15	0.12	0.31*		
Familial contact	-0.24	-0.09	-0.39**	0.16	0.12	0.05	
Health	0.06	0.49**	0.13	0.33*	0.22	0.19	0.02

* $p < .05$, ** $p < .01$.

Self-reported health, while used as an independent variable, is also shown in Table 4 as it related to the other indices. While it is recognized that loss of physical vigor in an activity-oriented society may have some direct detrimental effect on well-being, health is considered as a moderating variable (Adams, 1971).

DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE

In order to fully understand the implications of the findings to follow, it is important to look at demographic and background variables used as controlling factors in later statistical manipulations. A brief discussion of these is employed, therefore, to show some of their effects as independent variables as well as their use as general descriptors of the sample population.

Age. The mean sample age is 72.8 years, ranging from sixty to ninety years of age. The female segment was slightly older than the male with a mean age of 73.5 and 71.6 respectively. Within the sample there were several significant differences with regard to age. The older person was more likely to be widowed, ($x=14.8, p=.03$) and living alone, ($r = .52, p < .01$); and less likely to be working, ($r = .39, p < .01$) and , thus, living on a lower income, ($x = 32.4, p = .02$). The older segment was also less likely to have attended high school, ($x = 38.0, p = .004$); and more likely to have lived most of their childhood, ($r = .43, p < .01$), and early middle adulthood ($r = .48, p < .01$) either on a farm or in a small town. Their younger cohorts were more apt to have lived in a larger town or city, returning to a small town in their later years.

In defining their neighborhoods , the older respondents described them as stable, ($r = .37, p < .05$) and well-planned, ($r = .31, p < .05$) with neighbors whom

they felt had common ties with themselves, ($r = .32, p < .05$). They also reported fewer children living in their neighborhoods, ($r = .23, p < .05$). Age was also positively associated with neighborhood congruence, ($r = .32, p < .05$). The mean age for heads of households represented in the sample was 73.3 years.

Sex and Marital Status . The total sample consisted of nineteen (38%) men and thirty-one (62%) women. The female segment was more likely to be living alone with 61% having lost their marital partner and 7% having never married. On the other hand, 68.4% of the men were married and living with their spouses. In spite of these differences in marital status and sex, there were no significant differences found for any of the indices of well-being. Females did show a greater tendency to associate with the immediate neighborhood, ($r = .43, p < .01$), than did males and they were more likely to be aware of or concerned with instances of crime and vandalism with in their neighborhoods than the males, ($r = .26, p < .05$).

As mentioned before, a large proportion of the sample population were married (46%), while 44% were widowed--mostly older females (38%). Only 10% had never married.

Family Status. The average number of living children among the 80% who had such was 3.5 per parent respondent. The home bases of the larger families were more likely to have been on farms or in small towns. Those respondents who raised large families also reported more children living in their neighborhoods, ($r = .26, p < .05$) and were more likely to strongly associate with the immediate neighborhood than those with smaller families, ($r = .26, p < .05$). Only 6% of the respondents did not have any living relatives, other than children.

Fifteen percent of the respondents with living children had at least one living in their home, all of whom had at least one child living in Kansas. Of particular interest is a negative relationship found between the proximity of the closest child and neighborhood association, ($r = -.26, p < .05$). Those respondents with children living relatively close to their own home tended to either associate less with the immediate neighborhood, or describe an enlarged neighborhood that included their children's residence.

Only 4% of the respondents lived with relatives other than spouses and/or children and 18% did not have any other relatives living in the state. However, there was a general tendency for either a child or a relative to be living relatively close to every respondent. The location of the closest child outweighed all other personal variables in accounting for the variance in the degree of Familial Contact with a covariance of 18.6%.

Socio-economic Status. Employment status, educational experience and income level were all generally lower among older widowers. Only 14% of the heads of households represented in the sample were employed, of whom all were males. Generally, those households with employed heads consisted of two or more persons. Along with unemployment, of course, comes lower incomes -- 89% of those who indicated their annual gross income for 1975 reported income levels of less than \$10,000 with 43% under \$5,000. Only 8% expressed dissatisfaction with their level of income. Those respondents with higher incomes were more likely to describe their neighbors as dissimilar to themselves, ($r = .41, p < .01$) and the neighborhood itself as unattractive, ($r = .26, p < .05$).

Most of the respondents had had some high school level education with 32% having less. There was a strong negative relationship between the respondents' ages and the level of educational experience reflecting, perhaps, the improvements seen in rural educational systems during the early part of this century, especially for those living in small towns. Of particular interest were the negative descriptors of present neighbors and neighborhoods that were related to those with higher levels of educational experience (e.g., "unfriendly people", ($r = .26, p < .05$), "unpleasant", ($r = .35, p < .05$), "unstable", ($r = .30, p < .05$), and "poorly planned" ($r = .37, p < .01$). On the other hand, there were significantly positive associations between education level and measures of activity participation ($r = .31, p < .05$), and morale, ($r = .26, p < .05$). Higher income levels were also positively correlated with higher levels of morale, ($r = .45, p < .01$).

Housing Status. Of all the independent variables, homeownership was the highest predictor of satisfaction with present living arrangement with 5.9% covariance found between the two variables. Ninety-two percent of the respondents owned their own homes. The average number of residents for each household represented by this sample was 1.7 with 54% of the respondents living with at least one other person. As mentioned before, this living arrangement was more likely to be true for younger married males in the sample. These households were also more likely to have an employed head, ($r = .46, p < .01$). Those respondents living alone tended to feel that their neighborhood was more "unstable", ($r = .29, p < .05$). A positive relationship was also found between the number of residents in the household and morale -- the highest among independent variables with 26.2% covariance.

A negative association was found between morale and the length of residence. ($r = -.27, p < .05$). Ninety-two percent of the respondents had lived in their present home for more than 10 years, while 48% have maintained their present residence for over 30 years. The known ages of the residences, however, ranged from one year to well over one hundred years with 60% of the respondents living in homes over 45 years old and 25% residing in homes built before 1900.

Environmental History. Taking into account the environmental experiences of the respondents, we can control for some variance that may be attributable to the different environmental and living situations the respondent has been exposed to during his life. Although the specifics of each respondent's environmental history were not recorded, it is believed that such information as the sizes of towns and types of housing the individual has lived in may account for some of the variance normally not explained by other demographic variables. Table 5 shows the size of the towns and type of housing each respondent lived in during certain periods of his life.

Generally, this sample of rural elderly lived in either a small town or a rural area most of their lives and, on the whole, have had virtually no experiences with multi-family housing as illustrated above. However, the size of town the respondent lived in during the later part of his life was the strongest predictor of Friendship Participation or peer interaction. ($r = .40, p < .01$) For those who have lived most of their later adulthood in a small town or on a farm tend to be more involved with their peers. Another tendency, somewhat apparent from Table 5, is that between the first two stages of life, it was more likely that one would move from the farm

TABLE 5
PERCENT DISTRIBUTION
OF ENVIRONMENTAL EXPERIENCES
THROUGH THREE LIFE STAGES
N = 50

	Early Childhood & Adolescence (1-18 yrs.)	Early & Middle Adulthood (19-50 yrs.)	Later Adulthood (50 + yrs.)
Town Size:			
Farm	68	42	4
Small Town	30	40	94
Medium-size town	2	10	2
Suburbs of a city	0	8	0
=====			
Housing type:			
Single family dwelling	98	92	100
Small apartment building	2	6	0
Large apartment building	0	2	0

to a small town or, similarly, from a small town to a larger town or city, rather than to a less dense area. Of particular interest is an association found between environmental experience, in general, and neighborhood satisfaction. It appears that for those who lived in either large towns or multi-family dwellings, there is a tendency to be less satisfied, ($r = .31, p < .05$), with the small-town neighborhoods that they now live in. In particular, those respondents who had experienced more "urban" lifestyles and environments during their early and middle adulthood were more likely to describe their neighbors as "unfriendly", ($r = .31, p < .05$) and "dissimilar", ($r = .27, p < .05$) to themselves and their neighborhoods as "unpleasant" ($r = .27, p < .05$) and "unstable" ($r = .37, p < .01$). It should be pointed out that these findings should be considered with some reservations since only a small percentage of the sample have lived in housing other than single family dwellings or in larger towns and cities.

SIGNIFICANT RELATIONSHIPS BETWEEN INDICES OF WELL-BEING AND ENVIRONMENTAL VARIABLES

SIMPLE CORRELATIONS. In this section, simple correlations between the indices of well-being and environmental variables and their composite characteristics are discussed in order to show one-to-one relationships that appeared before the personal variables were controlled in the subsequent regression analysis. Table 6 shows the correlation coefficients between the indices and the individual environmental variables measured, while Table 7 shows similar statistics for the composite measures of neighborhood factors -serenity, association and congruence, and well-being. In this analysis, the strongest correlates of the environmental descriptors that define the neighborhood serenity factor - quiet, friendly, pleasant, low crime area, and

TABLE 6

SIMPLE CORRELATION COEFFICIENTS
BETWEEN INDICES OF WELL-BEING
AND INDIVIDUAL ENVIRONMENTAL
VARIABLES
N = 50

	Neigh- borhood Satis- faction	Housing Satis- faction	Satis- faction w/ Present Living Arrangement	Morale	Activity Partici- pation	Friendship	Familial Contact
Quiet vs. noisy	0.11	0.04	0.21	0.07	-0.05	-0.05	0.02
Friendly vs. unfriendly people	0.29*	-0.12	0.26	-0.14	0.09	0.13	-0.13
Pleasant vs. unpleasant	0.40**	0.17	0.46**	0.02	0.15	0.14	-0.26
High vs. low crime	0.08	0.03	0.18	-0.18	0.12	-0.04	-0.20
Poorly vs. well-planned	0.33	0.17	0.27	-0.03	-0.03	0.01	0.07
% neighbors/ homeowners	-0.08	-0.13	0.14	-0.02	-0.00	-0.20	-0.12
Number of services in neighborhood	0.11	0.25	0.32*	0.42**	0.13	0.26	-0.11
Sub-neighborhood vs. whole-town neighborhood	-0.01	-0.12	-0.21	-0.13	-0.16	-0.27	0.06
Attractive vs. unattractive	0.37**	0.07	0.08	0.02	-0.03	0.30*	-0.04
Poorly vs. well kept up	0.20	0.05	0.15	0.13	-0.01	0.11	0.04
Dissimilar vs. similar people	0.47**	-0.02	0.05	-0.15	-0.08	-0.02	-0.14
Stable vs. unstable	0.54**	0.24	0.31*	-0.05	0.17	0.16	-0.11

* $p < .05$, ** $p < .01$. Underlined dimensions indicate positive direction in score.

well-planned – were neighborhood satisfaction and satisfaction with present living arrangement. However, only the latter index was significantly related with the serenity factor itself, ($r = .43$, $p < .01$).

TABLE 7
SIMPLE CORRELATION COEFFICIENTS
BETWEEN INDICES OF WELL-BEING
AND NEIGHBORHOOD FACTORS
N = 50

	Neighborhood Serenity	Neighborhood Association	Neighborhood Congruence
Neighborhood satisfaction	0.25	-0.02	0.52**
Housing satisfaction	0.13	-0.18	0.07
Satisfaction w/ present living arrangement	0.43**	-0.19	0.13
Morale	0.01	-0.25	-0.05
Activity participation	0.19	-0.14	-0.02
Friendship	0.04	-0.32*	0.23
Familial contact	-0.17	0.10	-0.11

* $p < .05$, ** $p < .01$.

For the set of variables measuring the association between the individual and his neighborhood, positive relationships were found with measures of morale and present living arrangement satisfaction. Friendship was the only index of well-

being significantly related to the composite neighborhood association factor, ($r = .32, p < .05$).

Dimensions of neighborhood congruence - attractiveness, good upkeep, cultural and social similarity of neighbors, and stability were found to be associated strongly with neighborhood satisfaction and, to a lesser degree, with satisfaction with present living arrangement and friendship. The composite factor was found to be significantly correlated with neighborhood satisfaction, ($r = .52, p < .01$).

MULTIPLE REGRESSION ANALYSIS. As discussed previously, the objectives of this study suggest the use of statistical techniques that make it possible to examine the residual effects of environmental factors (independent variables) on each index of well-being (dependent variables) after considering the demographic and background characteristics of the resident sample. Regression analysis was performed and for every case, key personal variables were entered into the regression equation first. Following the personal variables, the environmental factors were entered into the equation, one at a time. The findings from this multiple regression analysis will be the subject of this section. Table 8 shows the statistical results of this analysis.

Personal (control) variables. The eighteen variables that make up this set included the demographic and background variables mentioned previously, plus a measure of the respondents' personal health. Generally, these variables accounted for substantial proportions of the total variance explained for each index of well-being. In all of the indices, they accounted for more of the variance than did the environmental variables. However, only for the indices of morale and activity

TABLE 8

PERCENTAGES OF VARIANCE IN WELL-BEING
ACCOUNTED FOR BY PERSONAL AND
ENVIRONMENTAL VARIABLES

N = 50

	Personal Variables	Neighborhood Factors		All Environ- mental Variables	Total Variance
		Serenity	Association		
Neighborhood satisfaction	44.8	16.9**	0.5	26.1**	43.5**
Housing satisfaction	49.6	----	4.4	4.0	8.4
Satisfaction w/ present living arrangement	25.0	16.4**	1.5	3.9	21.8*
Morale	60.0*	----	8.3*	2.9	11.2*
Activity participation	64.0**	29.6**	0.3	0.0	29.9**
Friendship	55.0	1.1	9.9**	1.1	12.1*
Familial contact	53.0	7.5*	0.1	0.9	8.5
					61.5*

* p < .05, ** p < .01.

participation were their contributions statistically significant. In the case of housing satisfaction, health, the last personal variable to be entered into the equation, was the only variable found to have a significant relationship--sharing 25.3% of its variance with the index as measured. The variance of the measure of the individual's satisfaction with his present living arrangement accounted for by personal variables was the lowest, with only 25% explained. Of particular interest is that not one single personal variable stood out as an important predictor of well-being in general, indicating that each index was measuring a unique aspect of well-being.

Environmental variables. This set of variables consisted of the three neighborhood characteristics defined by the factor analysis. With the effects of the personal variables partialled out, the relationships pointed out in the previous section between neighborhood characteristics and well-being were essentially the same: Neighborhood satisfaction scores were higher in neighborhoods highly rated in measures of congruence; the degree with which the individual associated with his immediate neighborhood was negatively related to the level of interaction he maintained with his friends; and, satisfaction with present living arrangements was significantly associated with neighborhood serenity.

In addition to these, however, the multiple regression analysis also showed a relationship between serenity and neighborhood satisfaction. Thus, two of the neighborhood factors studied were found to be primary predictors of neighborhood satisfaction -- serenity and congruence. The controlling of personal variables also affected the relationships between morale and neighborhood association; activity

participation and serenity; and, familial contact and neighborhood serenity.

It was found that morale was lower for people who tended to associate more with their immediate neighborhood, indicating a significant relationship between tendencies toward neighborhood-boundness and low levels of morale and, as mentioned before, peer interaction (friendship). Further analysis also showed that friendship scores did increase with the number of "best" friends reported by the respondent as being located within his neighborhood.

Activity participation was greater with those respondents living in neighborhoods scoring high in serenity. On the other hand, lower levels of familial contact were also associated with neighborhood serenity. None of the three factors measured related significantly to housing satisfaction.

To summarize the results of this regression analysis in a different way:

Neighborhood serenity was associated with greater activity participation, neighborhood and living arrangement satisfaction, and lower levels of familial contact;

Neighborhood association was negatively correlated with morale and friendship; and

Neighborhood congruence was found to have a positive relationship with neighborhood satisfaction.

Summary. Although the personal variables did explain greater proportions of the variance in the scores for each index of well-being, the variance accounted for by the environmental variables was statistically significant for all but the indices

of housing satisfaction and familial contact. This brings attention to the advantages of multiple regression analysis. Not only is it stringent in its test of significance for attributing unique variance to independent variables, but, by the same means, it has the analytical capabilities of uncovering relationships that are not, necessarily, detectable from simple correlational analysis.

The findings reported here have also supported the research hypothesis of this study which states that the well-being of the elderly individual is empirically related to the sociophysical characteristics of the residential environment or neighborhood. This is particularly demonstrated by the associations found between neighborhood satisfaction and two of the three composite neighborhood characteristics measured -- serenity and congruence.

CHAPTER 5

CONCLUSIONS

ADVANTAGES OF MULTIPLE REGRESSION ANALYSIS

Of particular interest to this study were the relationships found from the regression analysis that were not apparent from the simple correlational analysis (See Tables 6 & 7). Statistically, the prior consideration of the personal variables, through the use of the regression equation, had yet to account for significant proportions of the unique covariance between the dependent variable and experimental variable. Thus, when the neighborhood factors were finally entered into the regression equations, their correlations with the dependent variable had, in effect, increased in strength to levels of significance.

Thus, in addition to constituting a particularly stringent test of the significance of the final independent variables' contributions in explaining variances in the dependent variable, this method of analysis establishes a mechanism by which underlying relationships that transcend the partialing out of the effects of prior-entered variables. The implications of this analytical approach should be investigated further, particularly for use in studies examining the effects of the environment on behavior or affect.

DISCUSSION OF RESEARCH FINDINGS

This study demonstrates the importance of three neighborhood factors -- serenity, association and congruence -- to the general well-being of older people

in a small town setting. Although causal relationships cannot be assumed, the degrees of significance found in the results of a multiple regression analysis warrant their consideration as strong indications of environmental influence similar, in effect, to those found in urban studies.

Ratings of neighborhood characteristics in the neighborhood serenity factor suggest that small town elderly see the general pleasantness of the residential setting as an important criterion for neighborhood satisfaction and the overall satisfaction with their living arrangement. This factor also appeared to facilitate activity participation. These parallel findings from Regnier's (1973, 1974) neighborhood studies in urban settings, suggests that these characteristics are salient to both urban and rural elderly. To the older person, whether urban or rural, living in a "friendly" neighborhood can be just as important as the amount of contact he has with his neighbors and is likely to be a better predictor of neighborhood and living arrangement satisfaction. On the other hand, the sociability of neighbors is central to neighborhood interaction and the formation of helping networks -- a particularly crucial commodity for the independent elderly homeowner from which he can afford a sense of security.

Other aspects of neighborhood serenity may, however, have different connotations for urban and rural residents. Common concerns of urban elderly are safety and security. These concerns, to some degree, prompted the proliferation of age-segregated, highrise apartment projects for the elderly, with such features as secluded or protected sites, visitor call-in stations and electric door locks. Given the almost inherent tranquility of the small town, such

amenities are not necessary. Yet, in this case study, evidence was found that the residents were concerned about instances of vandalism and disruptive noise in their neighborhoods. Among their concerns was the fact that main thoroughfares often are the scenes for "drag racing" and other youthful celebration. Although these were described as only minor disturbances by most, they did appear to be causing some anxiety for the older residents and affecting neighborhood satisfaction scores. Thus, the well-being of older people in both settings is effected by such aspects as crime and noise, but to different degrees. It is more probable that small town residents can afford to be more freely integrated into the surrounding community where older people tend to watch out for each other.

The associations found between morale and levels of peer interaction (friendship), and the existence of resource and service facilities within the immediate neighborhood -- as represented by the neighborhood association factor -- are also in agreement with comparable findings from urban studies (Lawton & Kleban, 1971; Schooler, 1970; Regnier, 1974). The immediate neighborhood is just as important to the small-town older resident as it has been found to be for his urban cohort in terms of the degree to which he associates with it and depends on the services provided within it. This is especially true for older residents whose interests are local because of health-related limitations and/or the lack of transportation accesses that would allow greater mobility. This supports Lawton's docility hypothesis and Gelwicks' conceptualization of the constricting "home range" of older people.

The impact of neighborhood congruence was smaller than anticipated. Several urban studies reviewed earlier in this report showed strong evidence that age and cultural congruency with the neighborhood facilitate social contact and are related to higher morale. However, where such relationships have been found, explanations of the processes that mediate these relationships have been urban-oriented; e.g., anonymity and social overload (Milgram, 1970). Thus, although neighborhood congruence was associated with neighborhood satisfaction in this study, its influence in the small-town setting is largely latent. It is not surprising that urban elderly would place more importance on a more predictable and congruous setting than small town residents who are, for the most part, presently living in one.

In summary, the major conclusions from this investigation are seen to be two-fold. First, it was found that several associations exist between small-town neighborhood characteristics and the well-being of older residents. The data confirms the importance of the immediate neighborhood and its support systems in determining both the quality of the older resident's relation with his environment and the quality of his life space. For example, it was shown that the existence of and proximity to needed services and resources, as well as, the presence of friendly and compatible neighbors are principal physical and social environmental variables which make neighborhoods desirable to the older small-town resident. Thus, this study supports the notion that, ecologically, the neighborhood is a principal behavioral setting of the older resident's life space and its quality and well-being (Gelwicks & Newcomer, 1974).

Secondly, the relationships found in this case study are comparable to those previously described in other environmental research using urban elderly samples with some variations with respect to context and degree. Although this investigation lacks the comprehensiveness that would allow the comparison of urban and rural data, some inferences were made as to similarities and differences from the findings of parallel studies. Generally, the directions of those relationships identified as relevant to both urban and rural elderly were the same, however, it can not be known from this study alone, whether or not, they are of equal magnitude. For instance, there is common agreement among urban ecologists that crime is a strong determinant of an older person's sense of well-being. Likewise, neighborhood serenity was found to be associated with well-being in the small-town setting, however, the connotations of this environmental trait are obviously dependent on contextual considerations. Conditions that may be of minor consequence to the urban resident could be catastrophic to the small-town resident. Thus, it is suggested that considerations be given to setting-situational factors and other moderating variables when looking at relationships between the environment and well being.

LIMITATIONS

At least two limitations are apparent in this study. First, since this is a case study of a single small town, it is unknown whether the findings and their implications are applicable for other towns. Secondly, a more direct approach to measuring environmental characteristics may have produced more specific and usable results. Obtaining environmental data through the respondent, although

valuable in investigating the internal representations that older people have of the surrounding environment, said very little about the merits of specific environmental features and dimensions. Design implications can be deduced from the three neighborhood factors investigated in this study, however, they are, perhaps, more indicative of qualitative rather than definitive design decisions. It has also been suggested that more objective measures of small-town environments may be a problem since secondary data sources are relatively non-existent.

IMPLICATIONS FOR RESEARCH AND ACTION

Future Research Directions. One of the major objectives of this pilot study was to assess whether future investigations into the effects of neighborhood characteristics on the well-being of small-town elderly would be worthwhile. It is suggested by this author that more comprehensive studies are called for and should include the following objectives: 1) The identification of further social and physical factors of the small-town environment and their contributions to the well-being of older citizens; 2) The possible existence of differential responses to urban vs. rural neighborhood characteristics; 3) the differential effects of neighborhood characteristics among different age groups in both urban and rural settings; and 4) the identification of environmental support systems that are both needed and viable in rural neighborhoods.

As some evidence was cited as to the existence of differences between urban and rural residents and environmental factors, it is questionable whether we can apply urban standards and norms to rural people and their housing or neighborhood environments. There have been few studies that document the preferences for and

perceptions of environmental attributes by the rural aged for the purpose of understanding rural settings. Thus, there is an obvious need for research to discover whether there is an expressed desire for improvement, as well as, to find out what improvements can be aided by policy and/or immediate action. Such preliminary study is imperative, given the dispositions of self-dependence often attributed to rural peoples, before resulting programs will be accepted and used. This approach can be best illustrated by an apparent commitment of a majority of older rural people to living in single family dwellings. The implication here is that there is a need for research on the maintenance of rural housing among the elderly, as well as, on improvements that could be made within the home and including the neighborhood in order to aid the older person in remaining in independent housing.

Future Policy and Program Directions. As the evidence of urban-rural differences suggest, any housing policies or programs that claim to satisfy the needs of our older population require immediate qualification. Clearly, what is needed is a series of programs and policies reflecting common needs and those situation-specific needs of those groups of older people whose relations to the environment take on similar patterns. Our national housing policy for the elderly as exemplified by public housing and section 202 housing programs may have been produced with too little sensitivity to the special needs of small town and rural older people. In particular, the general encouragement of the urban-inspired high-rise housing could be a major disservice to those rural elderly who, forced by need, found themselves living several floors above the ground in "verticle" neighborhoods for the first time in their lives. Under these circumstances, the older person had to

adjust to the relocation and to a foreign housing style, possibly causing undue stress which leads one to question whether such facilities are necessary or desirable for meeting rural needs. The intent of this illustration is not to reject the idea of highrise apartments, but rather to point to the fact that urban inspired programs are not necessarily immediately applicable to rural and small town settings.'

Planning and Design Guidelines. The following are some tentative conclusions from this study presented in the form of planning and design directives. These are intended to provide guidelines, which may be substantiated or added to by further investigations, for sponsors, service planners, environmental designers and other decision makers to consider when proposing actions and designing housing and neighborhood environments for the small -town elderly. It should be noted here that some excellent guidelines for developing master plans for environmental programs, as well as, planning and design directives which may also be relevant to small town settings are offered in Gelwicks and Newcomer's Planning Housing Environments for the Elderly (1974).

1. Housing programs and projects should emphasize and reflect the importance of single family dwelling amenities to the small-town older person.

Because: Many small-town elderly residents are more satisfied with living in structures and neighborhoods that were designed and planned in the style, manner and setting "of their times".

Implementation examples:

- :: Utilize rehabilitation and conversion programs to meet housing needs.
- :: Establish a job program tied to the maintenance and renovation of rural housing for unemployed members of the community, including the elderly themselves.
- :: Develop housing guidelines and suggestions for the older person to use in adapting his or her home to meet individual needs for motility, safety and ease of maintenance.
- :: Provide or make available homemaker and home health services in helping the older person remain in his or her present residence.

2. Housing programs and projects should place a major emphasis on serving the population within its immediate neighborhood.

Because: Older people prefer to remain in familiar surroundings.

Supportive social and service networks and roles developed over the years by the individual can be maintained.

Implementation examples.

- :: Integrate housing for the elderly into existing, stable neighborhoods.
- :: Locate in high density elderly areas.

3. The operational and physical characteristics of the environment should maximize the possibilities of individual choice wherever possible.

Because: Independence and freedom of choice are very closely related to well-being; and

To provide for oneself rather than to be provided for is of primary importance to rural elderly.

Implementation examples:

- :: Provide a variety of types of living units.
- :: Allow the individual to select and adapt his living space to meet his particular needs and desires --i.e., type of housing, location of housing with regard to accessibility to services and friends.
- :: Provide for a wide range of accessible services, both on-site and in the neighborhood.
- :: Safety features and aids to orientation and mobility should be readily available.

4. The locational and physical characteristics of the neighborhood environment should encourage mobility.

Because: Neighborhood-boundaries is closely related to low levels of morale and peer interaction.

Implementation Examples:

- :: Consider potential sites or existing residential blocks for use as locations for specialized housing for the elderly that permit easy access to existing service facilities and points within the neighborhood.
- :: Monitor sidewalks, crosswalks and points of access and egress for needs of repair or improvement.
- :: Provide safety features and aids to orientation that are readily available but unobtrusive.
- :: Establish transportation networks for both intra- inter-community traveling which comply with elderly needs.

5. The physical surroundings should enhance the resident's ability to maintain and control his environmental territory within the neighborhood.

Because: Homeownership is closely related to satisfaction with living arrangement.

Not knowing what you control of the immediate environment can be very stressful.

Implementation examples:

- :: Identify, clarify and define boundaries of ownership and occupancy.
- :: Provide visual cues for ownership and responsibility through use of colors, plantings, ornamentation and other coding mechanisms.
- :: Allow residents to select the colors in painting their dwelling units.
- :: Provide for ownership of and resident responsibility for areas outside of, but adjacent to, the dwelling unit -- i.e., entrance ways, yards, parking, patios, garden plots, etc.

6. The housing sponser should make a continuum of critical social and health services for project residents readily available.

Because: Neighborhood service richness is associated with higher levels of morale and living arrangement satisfaction.

Implementation Examples:

- :: The choice of housing sites should be predicated upon proximity and accessibility to existing community social and service support systems.
- :: Form associations or affiliations with appropriate service providers in the neighborhood.
- :: Provide necessary on-site resources and services that are not or can not be provided by the community.

7. Avoid locating housing on uncontrolled "through" streets or in areas prone to attract delinquency.

Because: Neighborhood serenity is associated with greater neighborhood satisfaction and living arrangement satisfaction, as well as, activity participation; and

"Through" streets tend to become drag strips in small towns.

Implementation Examples:

- :: Locate housing in existing, stable residential neighborhoods.
- :: Use of "cul de sac" or "short block" street planning to avoid heavy traffic uses through residential areas.
- :: Avoid locating housing where youth "hangouts" will intrude on serenity and safety of elderly residents.

8. The older population should be involved in the planning and implementation of housing and service programs.

Because: The success of the project will be enhanced by the input from prospective user groups.

Community participation and involvement will lessen resistance to housing projects for the elderly.

Trends in current legislation are toward requiring user participation and many sources of funds already require such participation.

Implementation Examples:

- :: Survey a random sample of the older population in the community to be served in order to identify prevailing attitudes, expectations, preferences and environmental backgrounds to further define the prospective user group.
- :: Establish a community advisory committee to the project to help with the planning and design decisions and review schematics.
- :: After the project is in operation, establish resident's advisory committee to monitor the operation and maintenance of the project.

APPENDIX

Interview Schedule

A STUDY OF NEIGHBORHOOD ENVIRONMENTS

JAMES EDSON
Dept. of Architecture
Kansas State Univ.

Spring, 1976
No. _____
Date _____

INTERVIEWER: List all people now living in the dwelling unit by their relation to the HEAD. Indicate sexes, ages and the respondent. The respondent must be the head of household or spouse.

Residents	Sex		Age	R				
	M	P			1. Respondent's age	2. Head's age	3. Respondent's sex	4. Head's sex
a) Head of household	☐	☐		☐	☐	☐	☐	☐
b)	☐	☐		☐	☐	☐	☐	☐
c)	☐	☐		☐	☐	☐	☐	☐
d)	☐	☐		☐	☐	☐	☐	☐
5. Total no. of residents								

6. WHERE HAVE YOU LIVED MOST OF YOUR LIFE---a. when you were growing up (1-18yrs.)?
b. through early and middle adulthood?
c. during later adulthood (50+)?

- a. b. c.
☐ ☐ ☐ -farm
☐ ☐ ☐ -small town (less than 2,500)
☐ ☐ ☐ -medium-sized town (less than 50,000)
☐ ☐ ☐ -suburbs of a city (less than 500,000)
☐ ☐ ☐ -large metropolitan area

7. IN WHICH HAVE YOU LIVED MOST OF YOUR LIFE ---a.
b.
c.
☐ ☐ ☐ -single family dwelling
☐ ☐ ☐ -small apartment building (2-20)
☐ ☐ ☐ -large apartment bldg. (20+)

8. WHEN DID YOU MOVE INTO THE HOUSE YOU ARE LIVING IN NOW?

- ☐ -before 1945 ☐ 1971 ☐ 1975
☐ 1946-1955 ☐ 1972
☐ 1956-1965 ☐ 1973 ☐ 1976--
☐ 1966-1970 ☐ 1974 do not interview

9. WHEN WAS THE HOUSE YOU ARE LIVING IN NOW BUILT?

- ☐ before 1900 ☐ 1930-1939 ☐ 1970 or after
☐ 1900-1909 ☐ 1940-1949
☐ 1910-1919 ☐ 1950-1959
☐ 1920-1929 ☐ 1960-1969

10. DO YOU OWN THIS HOME, PAY RENT OR WHAT?

- ☐ own ☐ pay rent ☐ other _____

11. IF YOU COULD LIVE IN ANY TYPE OF HOUSING YOU PLEASED, WHAT KIND WOULD YOU LIVE IN?

- ☐ single family house ☐ townhouse ☐ apartment ☐ other _____

12. IS THE HEAD OF YOUR HOUSEHOLD:

- ☐ employed? ☐ unemployed? ☐ retired or disabled?

13. WHAT IS HEAD'S (YOUR) MAIN OCCUPATION? (If retired or unemployed, use former job)

- ☐ professional ☐ managerial ☐ skilled ☐ clerical ☐ unskilled ☐ farmer

HOW MANY (LIVING) CHILDREN DO YOU HAVE? _____

DO YOU HAVE ANY LIVING RELATIVES? ☐ yes ☐ no

OF YOUR THREE BEST FRIENDS, HOW MANY LIVE _____ IN YOUR NEIGHBORHOOD?
 _____ IN A FORMER NEIGHBORHOOD OF YOURS?

* OF YOUR CHILDREN (A), HOW MANY LIVE
 RELATIVES (B)

_____ IN YOUR HOME? _____ IN STATE?
 _____ IN YOUR NEIGHBORHOOD _____ OUT OF STATE?
 _____ IN TOWN

- No. _____
15. DURING AN AVERAGE MONTH, HOW OFTEN DO YOU VISIT (FREQUENCIES) d. several/month
to WITH: 15) any of your adult children a. never e. once/week
17. 16) any of your relatives b. 1.t. once/mo. f. several/week
17) any of your friends c. once/month g. daily
18. DO YOU FEEL THAT YOUR CONTACTS WITH YOUR CHILDREN ARE a) more often than desired,
to RELATIVES B) about right, or
20. (SATISFACTION) FRIENDS c) not often enough?

	FREQUENCIES: a. b. c. d. e. f. g.							SATISFACTION: a. b. c.		
CHILDREN	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
RELATIVES	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
FRIENDS	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

****Give Respondent Card A****

	Club or Organization	VI	SI	NVI
21. Here is a list of Clubs and Organizations that many people belong to. Please tell me which of these kinds of organizations you yourself belong to.	1) _____	☐	☐	☐
	2) _____	☐	☐	☐
	3) _____	☐	☐	☐
	4) _____	☐	☐	☐
	5) _____	☐	☐	☐
22. Would you say you are very involved, somewhat involved or not very involved with:	6) _____	☐	☐	☐
	7) _____	☐	☐	☐

INTERVIEWER: Show respondent neighborhood map and help him orient himself as to major streets, directions, location of his house, etc. Ask respondent to draw a line around what he considers to be his neighborhood using streets or alleys only as guides. Partial blocks may be used.

(Directions)**WHEN YOU THINK OF THE NEIGHBORHOOD AREA THAT SURROUNDS YOUR HOUSE -- WHAT AREA DO YOU USE?

23. OF THE PEOPLE YOU KNOW IN YOUR NEIGHBORHOOD, ABOUT WHAT PERCENTAGE OWN THEIR OWN HOMES? (not more than:
☐ 25% ☐ 50% ☐ 75% ☐ 100%
24. OF ALL THE PEOPLE IN YOUR NEIGHBORHOOD, ABOUT WHAT PERCENTAGE ARE 60 YEARS OF AGE OR OLDER? (at least:
☐ 10% ☐ 20% ☐ 30% ☐ 40% ☐ 50% ☐ over 50%
25. WHAT PERCENTAGE ARE 18 YEARS OF AGE OR YOUNGER? (at least:
☐ 10% ☐ 20% ☐ 30% ☐ 40% ☐ 50% ☐ over 50%
26. FROM YOUR OWN PERSONAL POINT OF VIEW, HOW WOULD YOU RATE YOUR NEIGHBORHOOD AS A PLACE TO LIVE?
☐ excellent ☐ good ☐ average ☐ below average ☐ poor
27. HOW DO YOU THINK PEOPLE FROM OUTSIDE OF THE NEIGHBORHOOD WOULD RATE IT?
☐ excellent ☐ good ☐ average ☐ below average ☐ poor
28. IF YOU COULD LIVE IN ANY SIZE OF TOWN OR CITY YOU PLEASED, WHERE WOULD YOU LIVE?
☐ farm ☐ small town ☐ medium-size town ☐ suburbs of a city ☐ large metro. area

INTERVIEWER: Ask respondent to answer next group of items (R SERIES) indicating their responses by checking the appropriate boxes.

JAMES EDSON
Dept. of Architecture
Kansas State Univ.

A STUDY OF
NEIGHBORHOOD
ENVIRONMENTS

Spring, 1976
No. _____

1. Here are some words and phrases which we would like you to use to describe your neighborhood as it seems to you. For example if you think the neighborhood is "noisy," please check the box right next to the word "noisy." If you think it is "quiet," please check the box right next to the word "quiet," and if you think it is somewhere in between, please put a check where you think it belongs.

NOISY	☐	☐	☐	☐	☐	QUIET
ATTRACTIVE	☐	☐	☐	☐	☐	UNATTRACTIVE
UNFRIENDLY PEOPLE	☐	☐	☐	☐	☐	FRIENDLY PEOPLE
POORLY KEPT UP	☐	☐	☐	☐	☐	WELL KEPT UP
PEOPLE SIMILAR TO ME	☐	☐	☐	☐	☐	PEOPLE DISSIMILAR TO ME
PLEASANT	☐	☐	☐	☐	☐	UNPLEASANT
STABLE	☐	☐	☐	☐	☐	UNSTABLE
LOW CRIME AREA	☐	☐	☐	☐	☐	HIGH CRIME AREA
WELL-PLANNED	☐	☐	☐	☐	☐	POORLY-PLANNED

**For the following items, please mark your response in the appropriate box.

2. WOULD YOU SAY THAT YOUR PRESENT LIVING ARRANGEMENT IS:

☐ very good ☐ good ☐ okay ☐ bad ☐ very bad

3. FOR A RETIRED COUPLE WHO ARE THINKING ABOUT MOVING INTO THIS NEIGHBORHOOD, HOW WOULD YOU RATE IT AS A PLACE FOR THEM TO LIVE?

☐ excellent ☐ good ☐ average ☐ below average ☐ poor

4. HOW OFTEN DID YOU VISIT A DOCTOR DURING THIS PAST YEAR?

☐ no visits ☐ once ☐ every other month (6)
☐ twice ☐ 7-11 times
☐ 3-5 times ☐ once a month (12) or more

5. HOW MUCH OF THE TIME DOES BAD HEALTH, SICKNESS OR PAIN STOP YOU FROM DOING THE THINGS YOU LIKE TO BE DOING?

☐ all of the time ☐ most of the time ☐ sometimes ☐ hardly ever ☐ never

6. WHICH OF THESE BEST DESCRIBE THE LEVEL OF YOUR FORMAL EDUCATIONAL EXPERIENCE?

- ☐ 8th grade or less
- ☐ attended high school, but did not graduate
- ☐ graduated from high school
- ☐ attended college, but did not graduate
- ☐ graduated from vocational or technical school
- ☐ graduated from college
- ☐ professional or graduate school Degree _____

7. WHICH GROUP BELOW WOULD INDICATE ABOUT WHAT THE TOTAL INCOME FOR YOU AND YOUR HOUSEHOLD WAS LAST YEAR--1975--before taxes?

- | | | |
|--|--|--|
| ☐ under \$1,000 | ☐ \$7,500-9,999 | ☐ \$30,000 and over |
| ☐ \$1,000-2,499 | ☐ \$10,000-14,999 | |
| ☐ \$2,500-4,999 | ☐ \$15,000-19,999 | |
| ☐ \$5,000-7,499 | ☐ \$20,000-29,999 | |

8. WHICH OF THESE STATEMENTS BEST REFLECT YOUR RELATIONSHIP WITH YOUR FRIENDS?

- ☐ I am very active with my friends -- via phone, mail and visits
- ☐ I frequently exchange visits with my friends near my home
- ☐ I am visited frequently and hear from friends regularly
- ☐ I am seldom visited by acquaintances
- ☐ I have no interest in my peers or former friends

9. WHICH OF THESE STATEMENTS BEST REFLECT YOUR RELATIONSHIP WITH YOUR RELATIVES?

- ☐ I have no living relatives
- ☐ I have no interest in or contact with any of my relatives
- ☐ I have little contact with my relatives
- ☐ I have frequent contact with my relatives
- ☐ I have a very close social and affectional relationship with my family

10. WHICH OF THESE BEST DESCRIBES YOUR PRESENT MARITAL STATUS?

- ☐ never married
- ☐ married
- ☐ separated
- ☐ divorced
- ☐ widowed

No. _____

10. Here are some statements about health, feelings and situations that may or may not be true for different people. Would you please read each statement on the list, and if you agree with it, check the box under "agree." If you do not agree with the statement, check the box under "disagree." If you are not sure one way or the other, check the box under "undecided." Please be sure to give an answer for every statement.

	<u>agree</u>	<u>disagree</u>	<u>undecided</u>
COMPARED TO OTHER PEOPLE MY AGE, I CONSIDER MY HEALTH TO BE VERY GOOD.	☐	☐	☐
I AM VERY SATISFIED WITH THE HOUSE I LIVE IN NOW.	☐	☐	☐
I HAVE A LOT TO BE SAD ABOUT	☐	☐	☐
LIFE IS HARD FOR ME MUCH OF THE TIME.	☐	☐	☐
LITTLE THINGS BOTHER ME MORE THIS YEAR.	☐	☐	☐
I LIVE VERY COMFORTABLY ON MY INCOME.	☐	☐	☐
I AM VERY SATISFIED LIVING IN THIS NEIGHBORHOOD.	☐	☐	☐
MY NEIGHBORHOOD IS CONSTANTLY IN A STATE OF CHANGE.	☐	☐	☐
I SOMETIMES WORRY SO MUCH THAT I CAN NOT SLEEP.	☐	☐	☐
BECAUSE OF MY HEALTH, I AM LIMITED IN MUCH OF MY ACTIVITY.	☐	☐	☐
I FEEL LONELY MUCH OF THE TIME.	☐	☐	☐
WITH THINGS THE WAY THEY ARE NOW, I WOULD LIKE TO MOVE.	☐	☐	☐
WHEN IT IS WARM, I GET OUT OF THE HOUSE AT LEAST ONCE A DAY.	☐	☐	☐
I HAVE AS MUCH PEP AS I HAD LAST YEAR.	☐	☐	☐
THINGS KEEP GETTING BETTER AS I GROW OLDER.	☐	☐	☐

THANK YOU.

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NEIGHBORHOOD CHARACTERISTICS AND THEIR EFFECTS ON
THE WELL-BEING OF ELDERLY RESIDENTS
IN A SMALL TOWN

by

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ABSTRACT

This thesis examines the relationship between the well-being of older people (N = 50) and the socio-physical characteristics of the neighborhood in a small Kansas town.

Previous environmental research has substantiated the importance of the local neighborhood and the elderly resident. However, little research has attempted to deal with small-town neighborhood settings. Less, still, has articulated the neighborhood cognition of older people with the geographic and socio-physical characteristics of the surrounding environment. This study matches neighborhood characteristics with neighborhood cognition to define the individual's personal neighborhood. The geographical neighborhood is defined by cognitive maps for each respondent, while neighborhood characteristics are defined by factor analysis from a pool of sixteen neighborhood-specific items as scenario-type factors. Relationships were then examined between three neighborhood factors -- serenity, association and congruence -- and seven indices of well-being: neighborhood satisfaction, housing satisfaction, satisfaction with present living arrangement, morale, activity participation, friendship and familial contact. Control was exercised, through the use of multiple regression analysis, on a variety of personal variables prior to the examination of environmental relationships to well-being.

It was found that neighborhood serenity was associated with greater activity

participation, greater neighborhood and living arrangement satisfaction , and lower levels of familial contact. The greater the degree with which the individual associated himself with the immediate neighborhood was related to lower morale and friendship scores. Neighborhood congruence was associated with greater neighborhood satisfaction. Planning and design recommendations are proposed from these findings.