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HOUSING AND ENVIRONMENTAL PLANNING

FOR

THE ELDERLY

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A PLAN B PAPER

Submitted to  
Michigan State University  
in partial fulfillment of the requirements  
for the degree of

MASTER OF URBAN PLANNING

School of Urban Planning and Landscape Architecture

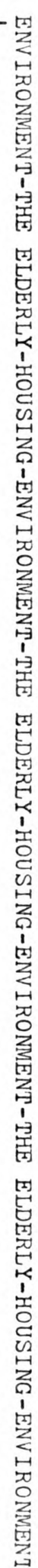
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# I. Relevance Between Coursework and Plan B Subject

The coursework includes:

ECO 413 Urban Economics

UMS 441 Health and Environmental Quality

UMS 447 Aging in Urban America

SOW 893 Social Gerontology

The contents of the coursework provide the Plan B Research paper with many aspects of elderly housing that include:

1. Economic aspects of certain community problems like housing, transportation, welfare and poverty.

2. Exploring the nature of human interaction with the various physical and social-cultural aspects of the environment as it relates to health.

3. Examining the housing and health needs of the elderly and the range of personal and community resources available to meet these needs. Focus on present social issues affecting the elderly and the impact of trends for the future.

4. Aging and years of later maturity, with respect to social and personal difficulties and opportunities. Aging process, retirement, living arrangements, and implications for social welfare.

The research paper will draw all of the knowledge obtained from the coursework as basis for improving and facilitating the way housing and environmental planning for the elderly is conceptualized and developed.

## II. Introduction

The purpose of this study--Housing and Environmental Planning for the Elderly is to understand human aging process, elderly needs and their life styles, and to provide the framework within which location, physical and social environment, and housing architectural design can relate to the physical, social, and psychological needs of housing and environmental planning for the elderly residents.

Although aging is continual, it is different for every individual. Demographically, however, aging is defined essentially in terms of chronological age, on the assumption that for large populations the aging process, functional age, and physiological age follow the chronological age closely.<sup>1</sup>

Demographically, there has been an increase, not only in the absolute size of the older population, but also in the proportion of elderly in the total population. In 1900, 3.1 million persons were age sixty-five or older, representing 4.1 percent of the population. By 1960, this number had grown to 16.7 million, and by 1977, 23.5 million. Proportionally, the elderly accounted for 9.2 percent of the population in 1960 and 10.9 percent in 1977. From 1900 to 1978, the elderly population rose almost 707 percent, the total population about 302 percent.<sup>2</sup>

Many elderly people are alone, but most of them are not institutionalized. Their life styles range from swinging single to isolated living death. Reality is somewhere in between. Results from a number of small surveys indicate that those in good





health prefer to live independently rather than with relatives.<sup>3</sup>  
However, family networks are important.

To improve the quality of environment for the elderly, policy makers, sponsors and designers of housing for the elderly must first comprehend the vital interrelationships between housing and services. The administrator, policy maker, developer, architect and certainly the potential resident differ in their views of how important housing is in the life of the elderly, and therefore the approach that should be taken in relation to it. Add to these issues the problem of urgency, the immediate need for more residential units, and we often find problems which defy solutions. In fact, the housing crisis for the older people has reached a critical stage that facilities we are setting in concrete today may have a deleterious effect upon the health and well-being of a major portion of our population in the category of elderly.

Since the time of the industrial revolution and the influx of population into the major urban areas, there has been a growing concern regarding the effect of an individual's living arrangements upon his health and well-being. Naturally, for the aging the predominant physical component of his living arrangements is his housing. There is no question that in general the most satisfactory environment, the type of housing most preferred by the majority of elderly people, is that which permits maximum independence. As the individual becomes less mobile, however, the independence may be directly dependent upon the proximity of

environmental support systems and the degree to which services can be delivered into the home. It has been amply demonstrated that failure to develop such service programs at federal, state and local levels can only lead to premature institutionalization, and with it vast increases in cost to both the individual and society. In short, to suggest that older people live in their own homes is not enough; without environmental support this system could not function at all.

Research in gerontology has documented the fact that many older people thrive in age -- congregate living facilities. We no longer question whether we should have housing for the elderly. What remains is how best to match those individuals who both desire and are suited to such living arrangements with this type of environment. And the major shortcomings in housing for the elderly are that we often fail to realize that our housing environment is made up of a wide variety of independent physical, social, and psychological components. What we are dealing with here is a complex network of interactions, and we cannot develop housing solutions around any particular aspect or component in isolation from other aspects. Housing alone does not make a home.

The process of aging, like many-faceted stone, must be viewed from many angles. It is a process of closing out life's options, as well as a process which attempts to avoid just such a closing out. The vital relationship between housing and the services we maintain affects the ability of the individual to keep these

options open and, in turn, maintain independence, well-being,  
and physical and mental health.



### III. Environment and the Elderly

#### A. Health

Research and experimentation have established that our physical and mental health is strongly influenced by situations above and beyond the direct effect of physical forces of chemical agents. It has been shown that illness can be an expression of man's inability to adapt in some way to his environment.

The quality of the housing environment is particularly important to the elderly in our society. They are the least able to adapt, to alter, or to leave it. Perhaps it is true that the best way to prevent a miserable old age is through wealth. Even money, however, cannot ensure full participation in life's activities and enjoyment of one's surroundings. The only way to maintain man at an optimum level during his old age is to improve the quality of his environment, regardless of his socio-economic condition.

Man is a social, thinking, sensitive animal, any consideration of his biological condition must take into account the fact that man's health, or lack of it, is strongly interrelated with the complex of his nature; in other words, that the condition of man's mind is often reflected in the disease of his body. Mortality rates, for example, have been found to be related to social class, occupation, and urban or rural residence. There are many remote variables which correlate with the death of an individual, and always far more than those that the pathologist



specifically identifies. An immediate, antecedent biochemical event to death is not necessarily more valid as an explanation than is a remote social event when one is considering the "whole man." Mental health has close relationships with the individual's physical health, education level, ability to communicate, his freedom to observe and to decide for himself. There is no absolute definition of good health. It is conditioned by highly individual needs and subjective reactions. To improve the quality of our health we need a great understanding of the relationships between physical, psychological and social environments.

There has, however, been an increased appreciation of the broader aspects of health as exemplified by the World Health Organization's definition of health as "...a state of maximum physical, mental, and social well-being, not merely the absence of disease or infirmity." This is a definition which we should keep uppermost in our minds if we are to restore or maintain the health of our elderly citizens. The distinction between illness and health is not as easy to make as that between life and death. Our life expectancy has been increasing steadily, but this is due primarily to the reduction of deaths during early infancy and childhood. The increase in life expectancy at birth bears little or no relationship to the actual health of our elderly population. The life expectancy of the elderly individual has increased very little. Medicated survival contributes primarily to the extenuation of life, but not to its quality.





It has been contended that in order for an individual to remain in good health, he must maintain an internal balance; illness is thus the result of multiple stresses which upset this balance. The concept of multiple cause of illness holds that most illnesses are due to a basic imbalance in the way a man adapts to multiple physical and emotional stresses coming from his external environment. The elderly are particularly susceptible to stresses around them because of their general lack of adaptability and often low economic status. Their health also relates directly to occupational, financial, residential, and family stresses. Some of the poor adjustment of older and disabled persons is caused by their inability to keep up and adjust to the speed of the rapid changes in their environment; as a result, they comprehend less and react more slowly. The older person, in attempting to modify his behavior in order to cope with his environment, often changes it in a negative direction.

Therefore, it is obvious that we are in need of developing life-long system of health maintenance. There is no greater life-long system possible than the housing or environment in we live. This system is particularly necessary for the elderly individual for whom it is harder to change his environment. Just as it is necessary for hospitals to evolve beyond the status of a repair shop, and the nursing home to be more than a holding place, so it is necessary for the retirement town, home for the aged, or housing for the elderly to improve the quality of the

relationship between older persons and their environment.

#### B. Life Space

If we are to improve this quality, we should view this relationship in terms of the individual's complete "life space." Life space is the total of a person's past, present and future experience. It is everything relevant to his general well-being. It is dynamic, personal, cumulative; a constantly changing sphere, which is the real determinant of the individual's biological, social and psychological age. Certain characteristics of the life space are common to age groups and transcend individual differences, and these might well be used as common denominators for design. The "effective life space" of an individual is that part of the world he is willing to accept as relevant and which should be viewed in terms of the individual's capacities, his scope of environmental contacts and his self-concepts.

Figure 1 has illustrated the difference between a typical life space for the young departmental director and the elderly person. The life space of the latter is smaller and contains fewer behavioral settings.

#### C. The Behavioral Setting

The behavioral setting (Figure 2) is the most important part of the older person's life space and its quality and variety influences his health and well-being. A setting, from Powell Lawton's<sup>4</sup> original concepts, such as housing projects for the elderly, should contain the following five elements;



they are the individual, the interpersonal relationships, the suprapersonal characteristics, the social norms, and the physical environments.

### 1. The Individual

The individual environment embraces the personality, skills, and physical capability of a person. It includes the personal context of the way in which an individual looks at and is involved with the world. In order to cope with the world, the older person develops a complex of action, orientation, feeling, and fantasy.

### 2. The Interpersonal Relationship

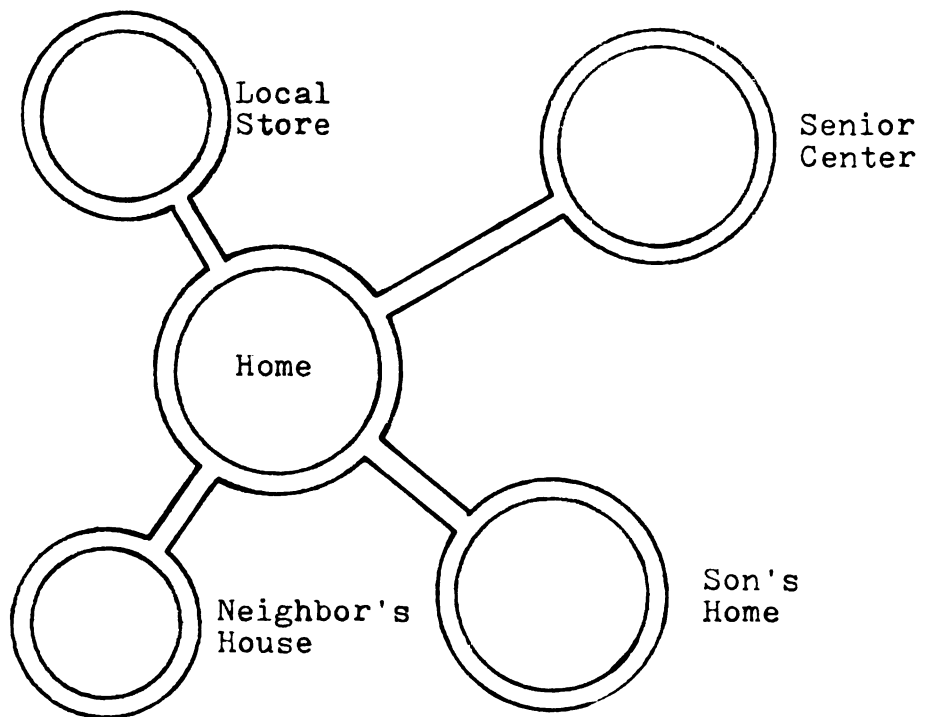
The interpersonal relationship is a result of the interaction between the older person and his family and friends. For example, it is very important in the case of the older woman living with her daughter and family.<sup>5</sup> The way the older person is allotted space in the house, partakes in the daily chores and tasks and is accorded a place in family discussions all influence the quality of interpersonal relationships.

### 3. The Suprapersonal Characteristics

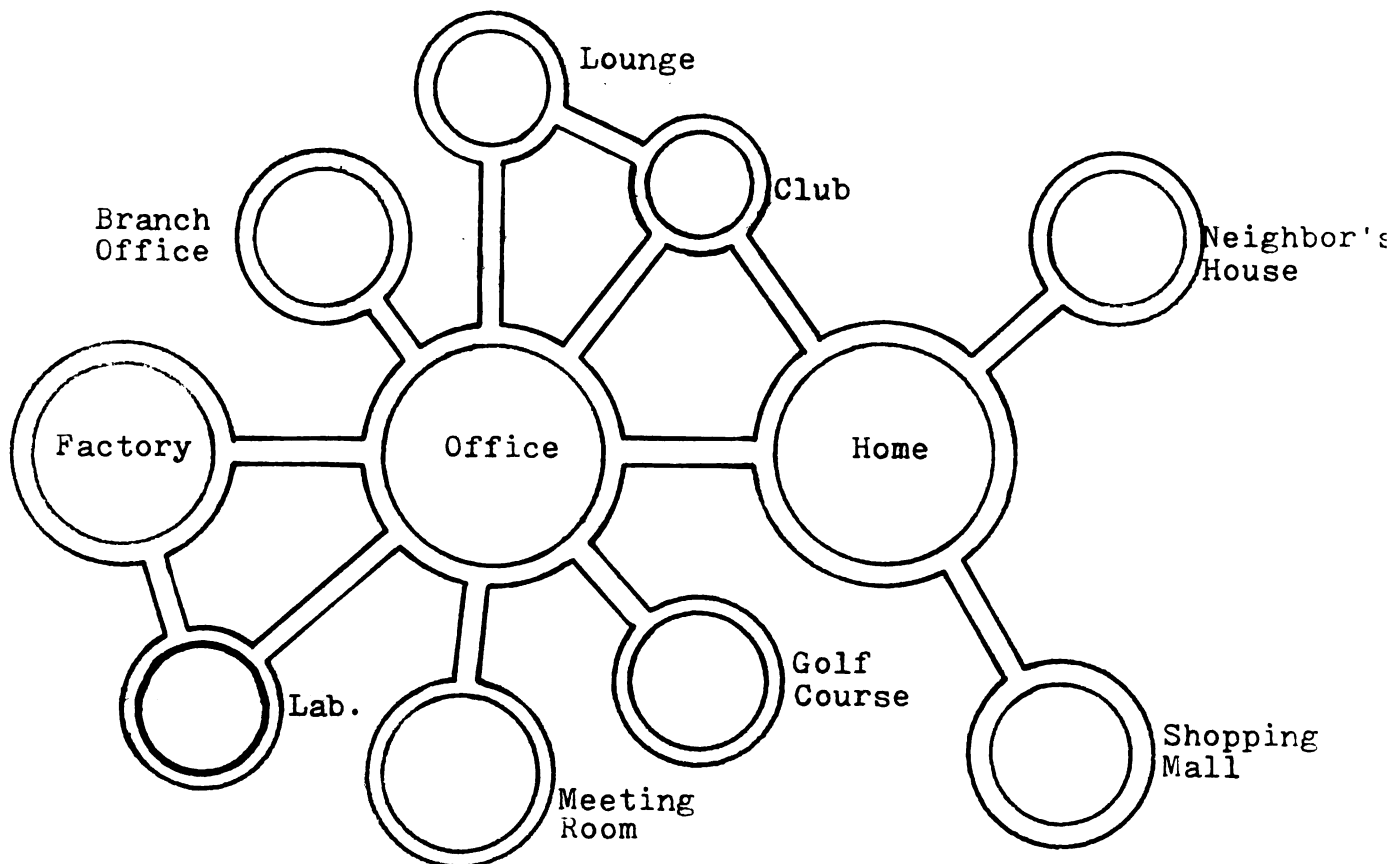
These involve the social characteristics of a particular situation. The atmosphere of a setting might change and along with it, the behavior pattern of the person. For example, an elderly couple may have lived in a particular neighborhood for many years and have felt comfortable with it. However, changes occur because of an influx of a different social group, which results in a different type of behavior in the streets, the



Figure 1: Life Space



(a) Retired Person



(b) Young Departmental Director

Source: M. Powell Lawton. Planning and Managing Housing for the Elderly. John Wiley & Sons, Inc., New York, New York, 1975.

1900-1901



1900-1901

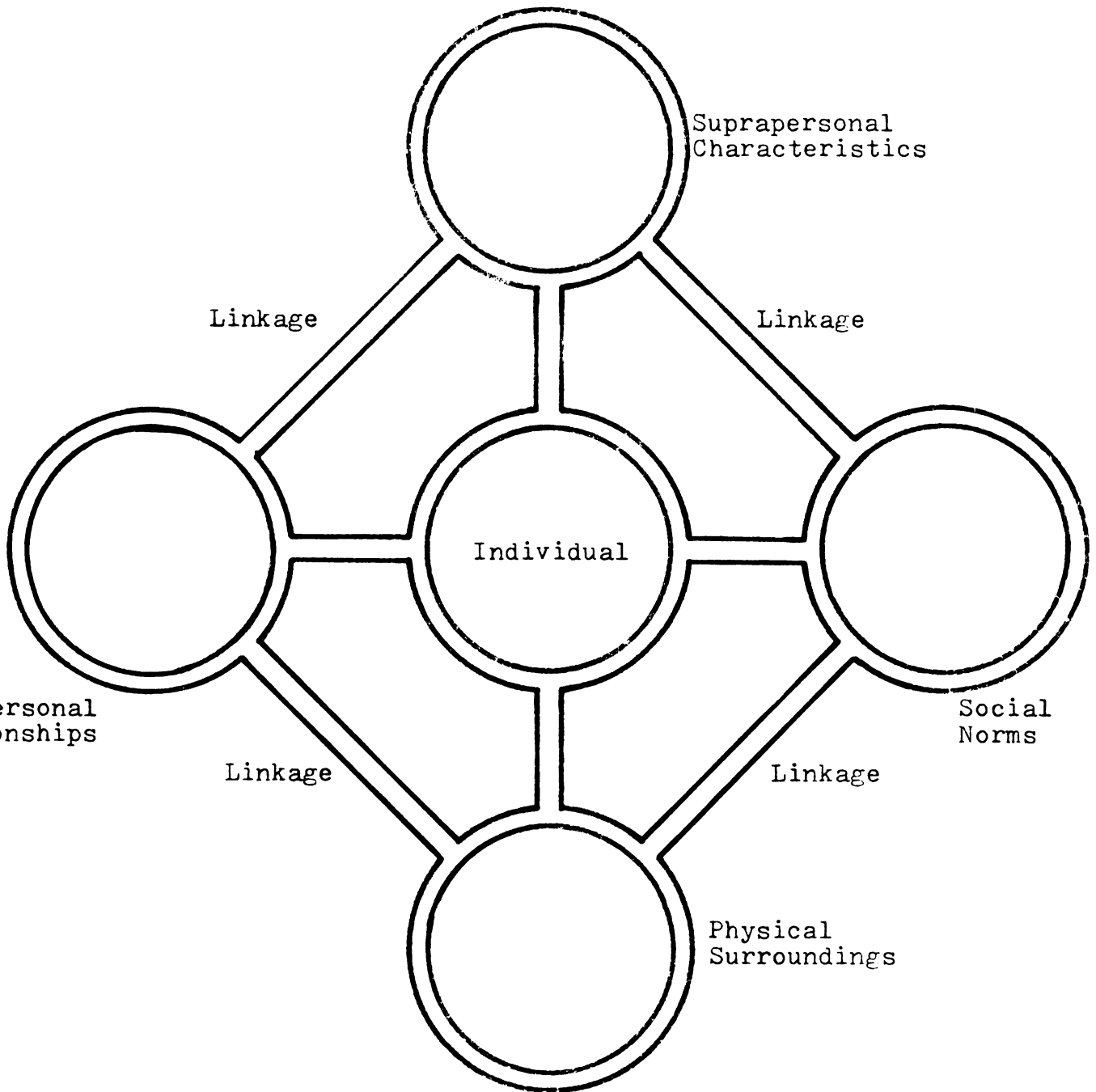


1900-1901

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Figure 2: Behavioral Setting



Source: M. Powell Lawton. Planning and Managing Housing for the Elderly. John Wiley & Sons, Inc., New York, New York, 1975.

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stores, and the local park. Consequently, the older couple begins to distrust the environment and starts to behave in a hyperdefensive and secretive way. The second example, related by Newcomer, is institutional.<sup>6</sup> It concerns the addition of people from a mental hospital to a nursing home for older people. As a result, the older people may start to regard themselves as less capable and expect less of themselves.

#### 4. Social Norms

Social norms govern how people behave. The standards of any society, whether it be in the home, school, government, or nation, are set, to a large extent, by the framework of social rules within which the society operates. Changes in behavioral norms and rules affect nearly all levels of society. In fact, the elderly have been most affected because they have had to re-adjust the most frequently.

#### 5. Physical Surroundings

The term encompass specific physical design features such as activity, location, room placement, and furniture arrangement -- that is micro-environment.

Friendships are often formed with those in physical proximity, when individuals are unable to move about because of illness or other constraints.

There are close links that micro-environment have to the push-and-pull factors emanating from macro-scale environments.

For instance, certain spaces in a building are important because of their function as a social meeting place. Tenants



with limited physical capability tend to sit in public places and watch the activities even more than those who are physically able. Entrance lobbies are particularly popular if congregating is allowed, and are much more heavily used than peripheral sitting rooms. When lobbies are small, activity spaces and outdoor hallways (which then become porches) replace them socially.

We have considered that all the five elements of a behavioral setting. Perhaps most important of all are the linkages which bind the other characteristics together and give them meaning.

The linkages can take many forms, but most often they are actually social and health services, or an information and referral service, an understanding and knowledgeable administrator, a means of transportation; all these play a vital role. And each link in the "environmental chain" is critical for the elderly. The younger person can adapt to otherwise circumvent a missing link. For the older person, this is not so.

There is no better example of this than look at public transportation for the elderly. There is a severe lack of transportation available to the older person and in many cases, where transportation is physically and economically available, it is not utilized because of the difficulty in comprehending the system.

Transportation for an older person could be transformed from a mere link to a behavioral setting in itself. The regular bridge players on a commuter train is an example of a link which has been transformed into a behavioral setting.

To conclude, the services we develop can play a major role in determining the quality of the older person's relation with his environment and the quality of his life space. They can only do so if we include linkages which permit the individual the independence to select, interrelate and change the elements of his environment.

#### IV. Needs of the Elderly for Coping with the Environment

In the context of housing, need focuses on those conditions within the environment which can maintain a level of adaptive capacity, enhance personal health, and maximize the potential which each individual has for a self-satisfying existence. What is implied here is emphasis on health rather than illness, adaptability rather than decrement, and individuality rather than conformity.

Four psycho-social needs seem to be the roots from which many individual action spring the need for cognitive order; the need for identity; the need for connectedness to a social system; and the need for a sense of being influential in one's environment.

Socio-psychological research had led to the suggestion that the human mind actively seeks order, balance, symmetry and consonance. The purpose of this apparently is that of achieving orientation to appropriate stimuli.

In part, seeking order involves the need for identity, a sense of how one is similar to certain other people, and how one differs from other identities.

The needs for cognitive order and identity also gives rise to the need to relate in some significant way to another person or group of people. This requires access to information about the environment, assurance that the environment is not hostile, and a sense of importance in the carrying out of activities. To be thus connected is to have a status, and often implies that one is guided in behavior by norms, which are the expectations of others.





The need for impact on the environment, is based on the fact that normal individuals need to feel that they can control their own destiny, to be independent, and on top of things. It opposes the anxiety of being entirely at the mercy of environment, other people or fate.

Research on such questions as risk-taking of older people has suggested the greater cautiousness often remarked on in the individual behavior of the elderly may be related to their reliance on external cues. Thus it is much more difficult for them to bring order to things.

It seems clear, too, from research that individuals sense a blurring of identity as they pass from work into retirement, and as they move from community living to an institution. Also noted is the negative view of old age, which the elderly attribute to themselves, reflecting the view which culture generally takes of old age: "dependent," and "useless." Since old age involves such a reformation of identity, the environment must be designed to assist the elderly towards a positive one.

On the subject of connectedness, research includes a dimension of morale or life-satisfaction, and has been tied to various measures of social activity. It means people who maintain social connectedness enjoy a greater sense of psychological well-being than people who do not.

Turning toward the need to affect one's environment, let us, for example, consider the helplessness we feel when caught



in a traffic jam. We can, therefore, imagine the plight of a relatively normal elderly individual who, for reasons of failing health, is institutionalized. It is a context over which he has very little control. We simply must design our service systems, and in particular our housing, so that the individual may project his personality on his environment.

It is unfortunate that culture has fixed on the negative aspects of growing old. Planning and design must maximize the positive. We must construct environments in which the older person has the opportunity to act in many ways, and in addition has the power to act on the opportunity. We must provide options -- options which are in the realm of possibility, interests, limitations in performance, and personal resources. Be it a nursing home or a senior service center, we must create the environment which will allow a person to realize his own goals, fulfill his needs for cognitive order, retain his identity, and connectedness to the social system.

## V. Development of Housing and Environmental Planning for the Elderly

In designing housing for the elderly, it is critical that their special needs and life style be kept in mind.<sup>8</sup> The right housing will provide many benefits and require little care. It will not only give shelter but also security, privacy, freedom and convenience. The environment should allow the person to express personal tastes and preference. Most important it should make older people feel good about themselves.

It has been found that the healthiest retirees are those who find activities in their social environment that help them triumph over handicaps, lift their morale, bring friends to them, and expand their feeling of well-being. To be home, it must provide a quality of home life.

### A. Housing Kinds

At the present time, generally there are four kinds of housing for the elderly categorized by lifestyle.<sup>9</sup>

#### 1. Type I - Independent Elderly Housing

This category would provide conventional housing facilities for self-sufficient residents who are completely independent. There would be no central dining room or other provision for special facilities or other provision for special facilities or services. However, a community center would be provided encompassing social functions as well as some minimal independent living supportive services.

#### 2. Type II - Independent Elderly/Family Mixed Housing

In this type of housing, facilities would be provided for independent elderly persons, designed so as to blend in with

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family housing and yet intended to function separately. The elderly residents living in this type of development could comprise the segment of the elderly population who has the means to own a car and the ability to drive it and who desires a high level of age integration.

### 3. Type III - Dependent Elderly Housing

This is housing for occupants who are more or less dependent upon congregate facilities. Congregate housing is neither a nursing home facility nor an institution. It should be defined as a housing development with supportive services being provided for persons who desire residential accommodations, but who require some measure of assistance in their everyday living activities. At a minimum, supportive services would include common dining facilities and housekeeping aid, personal health services.

### 4. Type IV - Independent/Dependent Mixed Housing

One portion of the housing would serve elderly people who need some congregate services, and the other portion would house self-sufficient elderly people.

## B. Site Selection

Sites for housing developments for the elderly can be analyzed at three levels of urban development; the community/region, the neighborhood, and the site.<sup>10</sup> These levels of urbanization are defined in more detail below:

(a) The community/region: This area can be defined as the service area, which will provide community services for the



residents of the development. This area could include, but not necessarily be limited to, the intended market area for the development.

(b) The neighborhood: This area can be defined as the immediate vicinity in which the site is located. It is defined by a characteristic land use and in some cases by a system of physical edges, that is, streets or highways.

(c) The site: This area can be defined as the land being considered for the proposed housing development and all its land use determinants, both natural and man-made.

These particular categories were designed to facilitate a logical methodology for the application of the criteria for site selection which have been developed.

#### 1. The community/Region

The community or region within which the site is located should include certain services which are directly related to the elderly. It must be kept in mind that, although facilities might be available now, they will come and go with the passage of time. The future evolution of all land use and services must be carefully considered.

The following factors are of special concern at the community/region scale:

(a) Major medical facilities must be available within a 20 minute driving radius of the site and these facilities should be connected to the site by a public transportation system. There should be ambulance service available





(b) Opportunities for community involvement should be available to the residents through existing facilities. Library, churches, historical societies, adult education programs are some examples of these kinds of opportunities.

(c) Existing family and friend relationships are an important consideration. In many communities neighborhoods evolve in which the elderly tend to be the majority of the residents. These neighborhoods should be considered during the site selection process.

(d) Future planning consideration should include the following land use and planning conditions:

(1) Zoning: There should be no expected zoning or building code restrictions which would hinder the sponsor from achieving his objectives.

(2) Transportation: There should be no highway or mass transport proposal which would require that special easements be provided in the future either through or adjacent to the site.

(c) Isolation: The site should not be located in an area which is separated physically from the social/commercial community by such barriers as highways, industry, railroads, etc.

(d) Pollution: The site should not be near extensive exposure to air, noise pollutions.

## 2. The Neighborhood

For purposes of clarification, the neighborhood has been organized into two subgroups. Each of the subgroups is defined

below:

(a) Urban neighborhoods: Usually, sites in these neighborhoods are located within old central business districts, older residential areas adjacent to central business districts, or as a part of urban renewal areas.

(b) Suburban neighborhoods: These are the newer residential areas of cities.

Sites located in urban neighborhoods should offer options for passive recreation in nearby parks. These passive facilities will complement the active urban spaces found in this type of area. Sites should be oriented toward the zone between commercial and residential development, thus providing the residents with the option to avoid the commercial area if they wish. Sites should not be located adjacent to industrial activities which cause environmental air, or noise pollution.

Suburban sites should be located in residential areas or along their edges. A desirable location would be in a residential area adjoining a commercial zone which offers shopping and professional services. Suburban shopping areas usually lack an adequate pedestrian access, and the fact the services are nearby is not sufficient to insure convenience for elderly residents. There should be a safe and convenient system of sidewalks and designated crosswalks that are well lighted and maintained to permit safe movement of residents to and from services. Another consideration is the relationship of the proposed building height to the heights of adjoining



housing developments. To protect the privacy of adjoining housing developments, and respect the character of existing developments, viewing angles from the proposed building should be considered.

### 3. The Site

The community/region and the neighborhood are crucial dimensions of concern that cannot be overlooked. The site itself is, however, the most basic unit of analysis.

Below is a list of categorical criteria that has been developed to meet the unique needs of the elderly.

(a) Public right of way frontage: Development image is an important concern. The site should be self-advertising, and it should have market visibility to traffic passing by.

(b) Configuration: The site configuration should permit proper site plan organization. Sites with simple, rectangular configurations are desirable.

(c) Site ecology: Soils and vegetation should be considered in regard to the impact of site development on the overall forest and wildlife ecology of the neighborhood and community/region.

(d) Density: The designated density of a development is a function of currently available financing programs that show the economic feasibility of a minimum number of units. Of equal importance, density is also a function of livability which is delineated through proper architectural and site development.



The first step of determining site density involves simple size comparisons between the site, the number of units being considered, the amount of outdoor common area, and the amount of parking and gross open space to be provided.

The second step is a site investigation to determine development potential such as site, shape, and topography.

By combining these two steps, a realistic optimum density ratio of dwelling units per site can be determined.

(e) Adjacent land use compatibility: Sites should not be developed in areas which are not compatible with residential character. There are two categories of concern in considering the impact of site development on the adjacent properties in the neighborhood, and the effect of various adjacent land uses on the site.

(1) Visual impact of site development: If single family residential land uses are on property adjacent to the proposed site, and if the proposed structures for housing the elderly are more than two stories high, the buildings should be set back from the common property line a minimum distance equal to the height of the highest component of the structure.

(2) Implications of adjacent land uses to the site: Certain adjacent land uses should render a site unacceptable; these include non-residential related; heavy strip commercial; heavy industry; scrap or sanitary land fill area; and automotive services.





#### 4. Conclusion

A logical and comprehensive approach to selecting appropriate sites involves a progression through community/region, neighborhood, and site levels. To look at the site alone is not enough and can result in an unsuitable environment for living. A more comprehensive approach to site selection is necessary to achieve an environment where elderly people can live in dignity.

#### C. Design

##### 1. Development Activity Components

Site activities, development wide non-residential activities, and dwelling unit activities are each discussed separately. Each has a matrix diagram which lists the activities vertically. Each activity is analyzed in terms of the functional and spatial characteristics listed at the top of the diagram and guidelines for facilities which house the activity are developed.

Each matrix diagram also has a weighting system that measures the importance of characteristics for each activity and how they compare to each other.

The weighting system expresses three levels of importance that assist us in decision making. This system also provides a method of choosing priorities.

It is recognized that occasionally consideration of a special program may require the accommodation of non-typical activities within a development which cannot be covered here. It is intended, however, that the both general information about design as well as the attitude toward the design of housing for the elderly will help our design in dealing with special activities.

(a) Site activities (Table 1): The organization of activities on the site involves the consideration of relevant performance characteristics.<sup>11</sup>

(b) Building activities (Table 2): Each housing development for the elderly will include an array on non-residential activities and concomitant facilities which are necessary to support the residential function and which enhance the lives of the occupants.<sup>12</sup> Non-residential activities and facilities are of two types: (1) Ancillary, the category of activities all of which will always be required. (2) Common, the category of activities of which the necessity will be determined individually for each development.

The activities of these two categories are analyzed in the diagram that lists vertically the activities to be analyzed, and across the top the functional and spatial characteristics to form the basis of analysis.

(c) Dwelling unit activities (Table 3): The dwelling unit is the common denominator of all residential developments for the elderly.<sup>13</sup> For elderly persons, more than for any other age group, it is essential that the dwelling unit be efficient and livable as well as provide both a physically and psychological stable base from which the activities of life can be conducted.

(d) Functional organization of activities: The various activities of most housing developments for the elderly will organize themselves into five site and building zones.<sup>14</sup> These zones give a comprehensive insight into how a housing development for the elderly should function as a whole entity.



Table 1 Site Activities

<u>ACTIVITIES</u>	<u>CHARACTERISTICS</u>				
	physical and visual accessibility	security	orientation	furnish and equipment	spatial characteristics vol., signage, etc.
site entry exit	1	1	1	3	1
arrival court	2	1	1	2	2
parking	1	1	1	2	2
service	2	2	1	2	2
recreation	1	1	1	2	1

Key

- 1--Critical: Must always be achieved.
- 2--Important: Should always be achieved unless some significant and outweighing benefit is gained.
- 3--Dependent: Should be achieved but not at the expense of other requirements and may be varied to achieve benefit elsewhere.

Source: The Michigan State Housing Development Authority, Lansing, Michigan.

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Table 2 Building Activities

<u>ACTIVITIES</u>	<u>CHARACTERISTICS</u>					
	physical and visual accessibility	security	orientation	furnish and equipment	spatial characteristics vol., signage, etc.	
building entry exit	1	1	3	2	2	
management	1	1	2	2	2	
laundry	1	1	1	1	2	
mail package delivery	1	1	3	2	3	
trash disposal	1	2	3	2	3	
building maintenance service	1	1	3	2	3	
central food	1	1	3	1	2	
health care	1	1	3	2	2	
social services	1	1	3	2	2	
supportive public services	2	2	1	2	1	
housekeeping assistance	1	2	3	2	2	
social and recreation	1	2	3	2	2	

Key

- 1--Critical
- 2--Important
- 3--Dependent

Source: The Michigan State Housing Development Authority, Lansing, Michigan.

(1) Neighborhood/development contact zone: This zone provides the interface between the development and the neighborhood within which it is located. This zone has two-way visual implications. It should be a visually recognizable place which can be easily picked out by the elderly residents. It should be a place to observe the comings and goings in the neighborhood and of fellow residents.

(2) Outdoor common zone: This area includes outdoor activities which are available to the elderly residents. It should be defined and separated from the neighborhood/development contact zone. It should be defensible and feel separate from the general public although, as with the building, it is sometimes a shared zone.

(3) Indoor/outdoor contact zone: This zone is the interface between the exterior environment and the interior of the buildings.

(4) Indoor communal activities zone: This is the most public zone of the interior in a development. It may be a series of zones with a range from places where certain activities or facilities shared by all residents are located and the general public is excluded to places where certain communal activities occur in conjunction with the general public. This zone should be identifiable and separate from the residential zone. It should feel safe and be defensible from the outside life world. This zone should become the focus of communal life in a development without becoming closed or demanding of communal participation where none is desired.





Table 3 Dwelling Unit Activities

<u>ACTIVITIES</u>	<u>CHARACTERISTICS</u>			
	physical and visual accessibility	orientation	furnish and equipment	spatial characteristics vol., signage, etc.
entry exit	1	3	2	2
food preparation	2	3	1	1
dining	2	3	1	2
living	1	1	1	2
sleeping dressing	1	1	1	2
personal hygiene	1	3	1	2
private outdoor	1	1	2	2
storage utility	3	3	2	3

Key

- 1--Critical
- 2--Important
- 3--Dependent

Source: The Michigan State Housing Development  
Authority, Lansing, Michigan.

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[illegible]

(5) The residential zone: This is the least public zone in a development. It is the home base, and miniature neighborhood for the residents. It should not be a single zone but rather a series of similar zones, each of sufficiently limited scale so that individuals can easily relate to them. Without breaking down the scale to somewhat, even 100 dwelling units can become overpowering. Each of these zones should be easily identifiable.

## 2. Development Design

The philosophic concept of recognizing and respecting the rights of the elderly to be masters of their own homes can be translated into design terms. The individual unit within a housing development together with the sum total of amenities and services should become a home to the occupant. The right to privacy and the right to decide on the extent of voluntary participation in communal activities are attributes of ordinary home life which should be achieved. The internal and external appearance have a bearing on the sense of home, and the problems of minimizing the image of the institutional environment should be overcome.

The development design discussion is in three parts:

### (a) Design determinants:

(1) Site types: In order to achieve design goals, the design of the building should spring from an understanding of, and sympathy with, its physical context.



Although housing developments for the elderly have been constructed on all kinds of sites and in many different settings, broad analysis indicates that sites can be divided into two general categories by the nature of the setting.<sup>15</sup> The first category can be classified as the external site; that is, the context of the site is so strong that the building and the development of the site should be shaped in response to the external pressures and characteristics within which it will exist.

The second category of site can be classified as internally influenced; that is, the sites are so situated that either by virtue of extreme site size, or the absence of surrounding development, they do not have strong external factors other than orientation and circulation influencing them. On such sites the problem is not one of finding a sympathetic fit for a development rather to create and establish a sense of place. That is, to fix the development in time and place so that a residential environment will exist. Many housing developments for the elderly built on internal sites have not recognized the need. These developments have been designed as large objects floating in space and the net result has been to create an institutional rather than a residential appearance.

(2) Building types: It is essential that we understand the potentials and limitations of the most common building configurations when they are used for housing for the elderly, especially because on one type can be regarded as the correct solution for all situations.<sup>16</sup>



\*High- and medium-rise apartment buildings. It cannot be said that high- and medium-rise buildings are the first choice of the elderly accustomed to living at ground level with easy access to the street. More often than not, the marketing success of a high-rise development can be attributed to the great housing needs of the elderly rather than to a desire to live in a high-rise residence. The elderly tend to worry about using the elevator, personal confusion arising from corridors and doors that look alike, or the distance required to shopping.

Nonetheless, a well-located high or medium-rise building can offer real compensation in terms of physical proximity to both on- and off-site facilities and services. This type of building insures good sheltered access to on-site facilities.

\*Low-rise apartment buildings: The two-story garden apartment is probably the most common form of multiple housing. It provides sufficient access to the outdoors and single family residential scale without the cost associated with single family housing. It has a high level of construction efficiency and offers great potential for achieving necessary development density.

\*The single story garden apartment building combines the benefits of the apartment building with some of those of the single family house. A central corridor could provide sheltered access to all dwelling unit doors leading to a private garden or semi-private outdoor space.

Because of the low development densities achieved with this type of building, it could prove uneconomical to build on costly urban land that is well located for the elderly. This type of building is probably not suitable for an entire development. Its potential use would be as one of the building types in an elderly development where independent elderly housing is mixed with family housing.

(b) Design expression: The delineation of any functional organization concept is strongly dependent on a harmonious expression of two design elements.<sup>17</sup>

(1) Building massing and character: The design of the building and the site development should be carried on as a single activity. Components of the site should be related to their counterparts within the building and these components should seek their needed spatial definition from the natural wrap of the building form. Conversely, the building form should be manipulated in response to the organizational structure of the site.

As a general rule, multi-story simple rectangular, square, or round building forms are undesirable because they are identified with hospitals and similar institutions. The basic framework of the design should develop from a recognition that massive scale is antithetical to a residential environment. The building scale should be broken down, by its massing and articulation, into components parts.

There is a pervasive public preference for low-rise housing, and for housing which relates directly to human scale. Stepping a



building up from grade in multi-story increments represents a reasonable compromise between human scale and the need for large building mass.

This method should not only be used to bring a building down to people, but it should also result in a building form which creates visual interests and aids the residents in making sense out of the environment.

(2) The landscape development: Not only must the component activity zones involve a strong and readable organization of activities and space, but their organization should also be supported and enriched by the landscape development.<sup>18</sup> Some typical landscape development elements, such as planting, grading, lighting, signing and outdoor furniture, should be integrated into a harmonious system which reinforces the overall spatial concept.

## VI. Summary and Conclusion

The development of housing and environmental planning for the elderly should begin with some understanding of what it means to grow older in the society. Aging is universal and normal, a process that begins at birth. To all persons, growing older means adaptation to changes in the structure and functions of the human body and changes in the social environment. Oftentimes, at the stage of retirement, an aged person is viewed as being obsolete and contributing little of value to the society. However, a large percentage of elderly people can lead active, productive lives and want to continue doing so as long as possible.

Aging means changing functional roles for the individual and changes in the social environment. The role of the worker with its accompanying role status is lost for the great majority of employed elderly persons at retirement. The society is for the most part refuses to honor the intrinsic values of old age.

Psychologically speaking, the results of this forced lessening of activity and retirement create in many individuals a passive, dependent manner. This is a result of the lack of opportunities provided for older people to establish their relevance in a society which prides itself on being young and independent. Negative attitudes about aging have created and perpetuated opinions damaging to the elderly. This generally accepted view of the process results in a forced segregation and alienation of the older person.

For all age groups "...housing is invested with the emotions of family living and independence of spirit and action. It encompasses friendship patterns and all of the dimensions of community life. It is an environment which one can take pride and find the resources needed to mold a meaningful way of life."<sup>19</sup>

The designer's responsibility rests in providing opportunities for elderly residents to adapt more comfortably and with more dignity to the aging and retirements process. Design can improve on sociability, ease of adjustment to a new environment, safety and comfort, or it can effectively defeat these concepts. The physical and social housing environment should be designed to support normal human activity without lessening independence or causing isolation of the elderly.

Housing the elderly is not only a physical undertaking. It is a social process, and those involved must have a sense of social inquiry. The physical design of the dwelling units, the overall housing development, and its relationship to the surrounding neighborhood or community should all be planned as a response to the facts and realities of aging.



FOOTNOTES

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